ATTACHMENT B



14 Gabriel Drive Augusta, ME 04330

207.620.3800 PHON 207.621.8226 PM

www.fresolitions.com

January 4, 2019

Craig Rennie
Inland Wetland Supervisor
NH Department of Environmental Services
Water Division
29 Hazen Drive
P.O Box 29
Concord, NH 03302-0095

RE: Antrim Wind Energy, SEC Docket 2015-02

Dear Mr. Rennie,

Antrim Wind Energy is submitting a new Wetland Permit for temporary impacts associated with certain construction activities on the Antrim Wind project. Antrim Wind Energy, in coordination with Eversource, has identified two wetland areas (Wetland AN-31 and AN-32) that will need to be impacted by construction mats in order to provide for workspace and construction access to an existing electric transmission line for installation of a tap structure.

Based on an updated interconnection design, an additional 10,000 square feet of temporary wetland impacts has been identified. Temporary impacts proposed to Wetland AN-31 are approximately 9,896 square feet and to Wetland AN-32 are approximately 104 square feet. The temporary wetland impacts will result from placing construction mats to provide for work space and access for construction vehicles to install a tap which will connect with the existing 115kV Eversource Energy L-163 line.

Attached to this letter, you will find a new wetland permit application, including an application fee check to the State of New Hampshire for \$2,000 for the 10,000 square feet of proposed temporary wetland impacts.

Antrim Wind Energy is filing this permit application simultaneously with and as a part of a request to modify its Certificate with the SEC, as well as information being provided to the Army Corps as part of the federal permitting process.

Craig Rennie January 4, 2019 Page 2 of 2

Thank you for your guidance and attention. We hope this package satisfies the DES requirements for completeness. If you have any further questions, please let us know.

Sincerely,

Dana Valleau

cc: Jack Kenworthy

Pam Monroe, SEC Mike Hicks, ACOE

Enclosure



NEW HAMPSHIRE WETLANDS PERMIT APPLICATION FOR THE ANTRIM WIND PARK PROJECT IN ANTRIM, NEW HAMPSHIRE Submitted to:

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
AND
NEW HAMPSHIRE SITE EVALUATION COMMITTEE

Submitted by:

Antrim Wind Energy 155 Fleet St. Portsmouth, NH 03801-0065

Prepared by:

TRC

14 Gabriel Drive

Augusta, ME 04330

January 2019

NHDES-W-06-012



WETLANDS PERMIT APPLICATION

Water Division/ Wetlands Bureau Land Resources Management



Check the status of your application: www.des.nh.gov/onestop
RSA/Rule: RSA 482-A/ Env-Wt 100-900

KSA/Rule. KSA 462-A/ E117-W(100-900		_										
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Ammelmalne									Chi			
- Unit									Dan			
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1. REVIEW TIME: Indicate your Review	v Time be	low. 1	To de	termine	review ti	me, refer	to Guida	ance Docur	nent A	for instru	uctions.	
	linor or M	lajor I	mpac	t)			Expedite	d Review (I	/ linimu	ım Impad	t only)	
2. MITIGATION REQUIREMENT: If mitigation is required a Mitigation-Pre if Mitigation is Required, please refer to	the Deter	mine	if Miti	gation is	Require	ed Frequ				t Applicat	ion. To	determine
Mitigation Pre-Application Meetin ☑ N/A - Mitigation is not required		Month	·-	Day: _	_ Year							
3. PROJECT LOCATION: Separate wetland permit applications m	ust be sub	omitte	ed for	each m	unicipalit	y that we	etland im	pacts occur	within).		
ADDRESS: 354 Keene Road								TOWN	/CITY:	Antrim		
TAX MAP: 212	BLOCK:					LOT: 2	27, 27.1		U	NIT:		
USGS TOPO MAP WATERBODY NAME;						⋈ NA	STREAL	M WATERSH	IED SI	ZE:		⊠ NA
LOCATION COORDINATES (If known): N:	230,000	ft E:	890,	,000 ft			☐ Latitude/Longitude UTM ☐ State Plane			ine		
The Antrim Wind Energy Project wetland fill. The utility (Eversour transmission line has identified to for access and construction work permit as having permanent fill in	ce) will b he need (space.	oe in for ti Both	stalli he te 1 of t	ing the mpora hese w	Project ry insta etlands	t interco Illation s were i	onnecti of cons dentifie	on with a struction r ed in the o	n exis nats i rigina	ting ele n two w	ctric etland	areas
5. SHORELINE FRONTAGE:	iipuoto.	TOM	рога	yp.	2013 111	ii totai	10,000	square rec				
NA This does not have shoreline from the shore of the shore o	ontage	-		SHO	ORFLINE	E FRON	TAGE:					
Shoreline frontage is calculated by dete straight line drawn between the property	rmining th			of the d	stances	of the ac	ctual natu		le sho	reline fro	ntage an	nd a
6. RELATED NHDES LAND RESOUR Please indicate if any of the following per To determine if other Land Resources N	ermit appli	catio	ns are	e require	d and, if	required	i, the stat	tus of the a	plicat	ion.		
Permit Type		Реп		equired	Fi	le Numb	er	Permit App	licatio	on Status	3	
Alteration of Terrain Permit Per RSA 48 Individual Sewerage Disposal per RSA Subdivision Approval Per RSA 485-A Shoreland Permit Per RSA 483-B			YES YES	NO NO NO NO	151020 201504			APPRO APPRO APPRO APPRO APPRO	VED VED	PENI PENI PENI PENI	DING DING	
7. NATURAL HERITAGE BUREAU & See the Instructions & Required Attachr					ons to co	mplete a	a & b belo	ow.				
a. Natural Heritage Bureau File ID: b. Designated River the project is i date a copy of the application will N/A N/A	NHB <u>15</u> n ¼ miles as sent to	of:			anageme	; an ent Advis	d sory Com	<mark>mittee</mark> : Mor	nth: [Day: Ye	ear:	

8. APPLICANT INFORMATION (Desired permit holder)								
LAST NAME, FIRST NAME, M.I.:		ý						
TRUST / COMPANY NAME: Antrim Wind Energy, LLC	MA	AILING AD	DRESS: 155	Fleet Stre	eet			
TOWN/CITY: Portsmouth				STATE: NF	1	ZIP CODE: 03801-4050		
EMAIL or FAX: jack.kenworthy@waldengreenenerg	y.com	PHONE:	HONE: 603-570-4842					
ELECTRONIC COMMUNICATION: By initialing here: JK_, I he	ereby authorize N	IHDES to c	ommunicate	all matters rel	ative to t	this application electronically,		
9. PROPERTY OWNER INFORMATION (If different that	an applicant)							
LAST NAME, FIRST NAME, M.I.: See attached Exhibit 7.	LAST NAME, FIRST NAME, M.I.: See attached Exhibit 7.							
TRUST / COMPANY NAME: MAILING ADDRESS:								
TOWN/CITY:				STATE:		ZIP CODE:		
EMAIL or FAX;			PHONE:					
ELECTRONIC COMMUNICATION: By initialing here, electronically.	I hereby authoriz	e NHDES	to communic	ate all matters	s relative	to this application		
10. AUTHORIZED AGENT INFORMATION								
LAST NAME, FIRST NAME, M.I.: Valleau, Dana, B.			COMPANY NAME:TRC					
MAILING ADDRESS: 14 Gabriel Drive	=	15						
TOWN/CITY: Augusta	18			STATE: ME		ZIP CODE: 04330		
EMAIL or FAX: dvalleau@trcsolutions.com	PI	HONE: 20	7-215-458	2				
ELECTRONIC COMMUNICATION: By initialing here DV , I he	reby authorize N	HDES to co	ommunicate a	all matters rela	ative to t	his application electronically.		
11. PROPERTY OWNER SIGNATURE: See the Instructions & Required Attachments document for	or clarification o	f the belo	w statement	ls.				
By signing the application, I am certifying that:	a diamidation d	1110 0010	W Oldfornorn					
I authorize the applicant and/or agent indicated on upon request, supplemental information in support				ocessing of	this app	olication, and to furnish		
2. I have reviewed and submitted information & attach	ments outlined	in the Ins	structions ar	1.50	Attachr	nent document.		
 All abutters have been identified in accordance with I have read and provided the required information of 					ect type			
5. I have read and understand Env-Wt 302.03 and have								
 Any structure that I am proposing to repair/replace grandfathered per Env-Wt 101.47. 	was either prev	iously per	rmitted by th	e Wetlands	Bureau	or would be considered		
7. I have submitted a Request for Project Review (RP	R) Form (www.	.nh.gov/nl	ndhr/review)	to the NH S	State Hi	storic Preservation Officer		
(SHPO) at the NH Division of Historical Resources with the lead federal agency for NHPA 106 compliants.		presence	of historical	/ archeologic	cal reso	urces while coordinating		
8. I authorize NHDES and the municipal conservation		470			(144)			
9. I have reviewed the information being submitted and that to the best of my knowledge the information is true and accurate.								
10. I understand that the willful submission of falsified or misrepresented information to the New Hampshire Department of Environmental Services is a criminal act, which may result in legal action.								
11. I am aware that the work I am proposing may require additional state, local or federal permits which I am responsible for obtaining.								
 The mailing addresses I have provided are up to da forward returned mail. 	12. The mailing addresses I have provided are up to date and appropriate for receipt of NHDES correspondence. NHDES will not							
1.81	Jack Ker	nworthy			01/04	1 [/] 2019		
Property Owner Signature	Print name legit	_			Date			

MUNICIPAL SIGNATURES

12. CONSERVATION COMMISSION SIGNATURE							
The signature below certifies that the municipal conservation 1. Waives its right to intervene per RSA 482-A:11; 2. Believes that the application and submitted plans accurate 3. Has no objection to permitting the proposed work.		and:					
⇒	Print name legibly	Date					

DIRECTIONS FOR CONSERVATION COMMISSION

- 1. Expedited review ONLY requires that the conservation commission's signature is obtained in the space above.
- 2. Expedited review requires the Conservation Commission signature be obtained **prior** to the submittal of the original application to the Town/City Clerk for signature.
- 3. The Conservation Commission may refuse to sign. If the Conservation Commission does not sign this statement for any reason, the application is not eligible for expedited review and the application will be reviewed in the standard review time frame.

13. TOWN / CITY CLERK SIGNATURE								
As required by Chapter 482-A:3 (amended 2014), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.								
⇒ Detained to the second for the se								
Town/City Clerk Signature	Print name legibly	Town/City	Date					

DIRECTIONS FOR TOWN/CITY CLERK:

Per RSA 482-A:3.I

- 1. For applications where "Expedited Review" is checked on page 1, if the Conservation Commission signature is not present, NHDES will accept the permit application, but it will NOT receive the expedited review time.
- 2. IMMEDIATELY sign the original application form and four copies in the signature space provided above;
- 3. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
- 4. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board; and
- Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:

1. Submit the single, original permit application form bearing the signature of the Town/ City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery.

14. IMPACT AREA: For each jurisdictional area that will	be/has been impacted, provide square feet and	, if applicable, linear feet of impact
Permanent: impacts that will remain	after the project is complete.	
	p remain (and will be restored to pre-construction PERMANENT	reconditions) after the project is complete.
JURISDICTIONAL AREA	Sq. Ft. / Lin. Ft.	Sq. Ft. / Lin. Ft.
Forested wetland	☐ ATF	ATF
Scrub-shrub wetland	☐ ATF	10,000
Emergent wetland	☐ ATF	☐ ATF
Wet meadow	☐ ATF	□ ATF
Intermittent stream	☐ ATF	☐ ATF
Perennial Stream / River	/ ATF	/ ATF
Lake / Pond	/ ATF	/ ATF
Bank - Intermittent stream	/ ATF	/ ATF
Bank - Perennial stream / River	/ ATF	/ ATF
Bank - Lake / Pond	/ ATF	/ ATF
Tidal water	/ ATF	/ ATF
Salt marsh	☐ ATF	☐ ATF
Sand dune	ATF	☐ ATF
Prime wetland	ATF	☐ ATF
Prime wetland buffer	☐ ATF	☐ ATF
Undeveloped Tidal Buffer Zone (TBZ)	ATF	☐ ATF
Previously-developed upland in TBZ	☐ ATF	□ATF
Docking - Lake / Pond	☐ ATF	☐ ATF
Docking - River	ATF	ATF
Docking - Tidal Water	☐ ATF	☐ ATF
Vernal Pool	ATF	ATF
TOTAL		10,000
15. APPLICATION FEE: See the I	nstructions & Required Attachments document f	or further instruction
☐ Minimum Impact Fee: Flat fee ☑ Minor or Major Impact Fee: Ca	of \$ 200 Iculate using the below table below	
	_	q. ft. X \$0.20 = \$ 2,000
Tempora	ry (seasonal) docking structure:	
". 	Permanent docking structure:	
Proje	ects proposing shoreline structures (includin	
		Total = \$ 2,000.00
The Applica	ation Fee is the above calculated Total or \$200,	•
U 000		



VETLANDS PERMIT APPLICATION – ATTACHMENT A MINOR AND MAJOR - 20 QUESTIONS

Land Resources Management Wetlands Bureau

Check the Status of your application: www.des.nh.gov/onestop

RSA/ Rule: RSA 482-A, Env-Wt 100-900



<u>Env-Wt 302.04 Requirements for Application Evaluation</u> - For any major or minor project, the applicant shall demonstrate by plan and example that the following factors have been considered in the project's design in assessing the impact of the proposed project to areas and environments under the department's jurisdiction. Respond with statements demonstrating:

1. The need for the proposed impact.

Antrim Wind Energy LLC has previously permitted permanent dredge and fill impacts in these wetlands associated with the construction of a new wind farm and associated infrastructure, including electrical interconnection.

AWE, working in coordination with Eversource which has the final design and engineering responsibility for the interconnection, have identified the need for temporary wetland impacts to two wetland areas from construction mats to provide for construction workspace and access to install a tap to an existing electric transmission line to connect the Project to the grid. There is no available alternative location to place the necessary tap structures that have already been permitted, nor is there a viable construction alternative to using the construction mats.

2. That the alternative proposed by the applicant is the one with the least impact to wetlands or surface waters on site.

AWE has worked closely with Eversource to minimize the impacts from construction to wetlands and surface waters on site. All wetland impacts sought to be permitted in this application are temporary and there will be no long term impact to these wetlands as a result of the temporary impacts. Due to the location of the new Eversource substation, which is now under construction, and Eversource requirements for design and engineering to loop the 115 kV electric line in to the new substation, construction activity will be required to take place in the wetlands identified in this application in order to maintain a safe work environment and project schedule.

3. The type and classification of the wetlands involved.

Detailed narrative descriptions of all identified wetland features relevant to the Project are provided in the full Wetland Delineation Report, which is provided in Exhibit 5.

The 10,000 sq. ft. of proposed temporary impacts will result from the placement of construction mats in two scrub shrub wetlands in an existing cleared and maintained electric transmission right-of-way (Wetland AN-31 temporary impact proposed is 9,986 square feet and Wetland AN-32 temporary impact proposed is 104 square feet). Permanent impacts from fill have previously been permitted for both of these wetlands.

For detailed descriptions of these wetlands, please see the Wetland Delineation Report, Exhibit 5 of this Application, Table 4-1, pages 7-9.

4. The relationship of the proposed wetlands to be impacted relative to nearby wetlands and surface waters.

The locations of wetlands to be impacted by the temporary placement of construction mats relative to nearby wetlands and surface waters are illustrated in the map provided in Exhibit 3 and in Exhibit 5.

5. The rarity of the wetland, surface water, sand dunes, or tidal buffer zone area.

None of the wetlands or surface waters impacted by the Project are considered rare.

6. The surface area of the wetlands that will be impacted.

The temporary wetland impacts proposed as part of this application totals 10,000 square feet. .

- 7. The impact on plants, fish and wildlife including, but not limited to:
 - a. Rare, special concern species;
 - b. State and federally listed threatened and endangered species;
 - c. Species at the extremities of their ranges;
 - d. Migratory fish and wildlife;
 - e. Exemplary natural communities identified by the DRED-NHB; and
 - f. Vernal pools.

The two wetlands that will be subject of the temporary impact are also both permitted for permanent fill impacts. There are no rare, special concern species, state or federal-listed threatened and endangered species, species at the extremities of their ranges, migratory fish and wildlife, exemplary natural communities, or vernal pools associated with these wetlands.

8. The impact of the proposed project on public commerce, navigation and recreation.

There will be negligible impact from the temporary wetlands impacts on public commerce, navigation and recreation, if any. The construction mats will be entirely removed at the end of the construction period.

9. The extent to which a project interferes with the aesthetic interests of the general public. For example, where an applicant proposes the construction of a retaining wall on the bank of a lake, the applicant shall be required to indicate the type of material to be used and the effect of the construction of the wall on the view of other users of the lake.

The temporary wetlands impacts caused by the use of construction mats will not interfere with the aesthetic interests of the general public. The construction mats will be entirely removed at the end of the construction period.

10. The extent to which a project interferes with or obstructs public rights of passage or access. For example, where the applicant proposes to construct a dock in a narrow channel, the applicant shall be required to document the extent to which the dock would block or interfere with the passage through this area.

The Project is located entirely on private land and any land access is granted at the will of the landowners. There will be no interference with public rights of passage or access from the temporary use of construction mats.

11. The impact upon abutting owners pursuant to RSA 482-A:11, II. For example, if an applicant is proposing to rip-rap a stream, the applicant shall be required to document the effect of such work on upstream and downstream abutting properties.

No wetland impacts will occur within 20 feet of adjacent property boundaries. All abutting property owners will be notified of the proposed project in accordance with NHDES rules. Documentation of this notification is found in Exhibit 4.

12. The benefit of a project to the health, safety, and well being of the general public.

There will no impact to public health, safety and well-being from the use of the temporary construction mats. The temporary impacts being permitted are ancillary to the construction of a new wind farm, which is already permitted and which will bring significant public benefits by bringing pollution free electricity to New Hampshire for several decades.

13. The impact of a proposed project on quantity or quality of surface and ground water. For example, where an applicant proposes to fill wetlands the applicant shall be required to document the impact of the proposed fill on the amount of drainage entering the site versus the amount of drainage exiting the site and the difference in the quality of water entering and exiting the site.

Due to the lack of groundwater resources on the site, this project is not expected to have any direct or indirect impacts on groundwater drinking resources. The site does not have any aquifers and there are no source water protection and/or well head protection areas on or adjacent to the site. The closest public water supply well is 1.06 miles from the project development. The placement of temporary construction mats in these two wetlands will not require any groundwater withdrawals and thus will have no effect on groundwater supply.

14. The potential of a proposed project to cause or increase flooding, erosion, or sedimentation.

The temporary impacts associated with construction mats has a minimal potential to cause or increase flooding, erosion or sedimentation. The project is not located in a mapped floodplain. The project has been designed in conformance with standard best management practices for utility line construction work and stormwater management.

15. The extent to which a project that is located in surface waters reflects or redirects current or wave energy which might cause damage or hazards.

Since there are no large open bodies of water being impacted by the project, wave energy will not be affected. These temporary impacts are to wetland depressions that are not associated with surface waters with current or wave energy and will not cause damage or hazards.

16. The cumulative impact that would result if all parties owning or abutting a portion of the affected wetland or wetland complex were also permitted alterations to the wetland proportional to the extent of their property rights. For example, an applicant who owns only a portion of a wetland shall document the applicant's percentage of ownership of that wetland and the percentage of that ownership that would be impacted.

AWE has leased approximately 1,870 acres of private land on six parcels for the development of the Project. All wetlands that will be impacted by the Project are located entirely within these parcels.

17. The impact of the proposed project on the values and functions of the total wetland or wetland complex.

The primary function of wetlands on the project site is wildlife habitat. The very small area of impact inherently limits the amount of impact to this function. Due to these impacts being temporary, any impact will be of a limited duration. Additionally the narrow, linear nature of the temporary impacts further limits impact to this function.

18. The impact upon the value of the sites included in the latest published edition of the National Register of Natural Landmarks, or sites eligible for such publication.

There will be no impact to any sites included in the National Register from the temporary use of construction mats in these wetlands.

19. The impact upon the value of areas named in acts of congress or presidential proclamations as national rivers, national wilderness areas, national lakeshores, and such areas as may be established under federal, state, or municipal laws for similar and related purposes such as estuarine and marine sanctuaries.
No such areas have been identified within the Project area.
20. The degree to which a project redirects water from one watershed to another.
The Project has been designed to minimize the impacts to hydrology on the site and minimize the interruption of the natural flow. These temporary impacts are to wetland depressions that are not associated with surface water flow between watersheds and will not redirect flow to another watershed.
Additional comments

EXHIBIT 1 COPY OF APPLICATION CHECK

ANTRIM WIND ENERGY LLC

155 FLEET ST PORTSMOUTH, NH 03801-4050 **EASTERN BANK** BOSTON, MA 02110 53-179-113

1/4/2019

PAY TO THE ORDER OF_

Treasurer State of New Hampshire

\$**USD 2,000.00

_DOLLARS

1716

State of New Hampshire Treasury 25 Capitol Street, Room 121 Concord, NH 03301

МЕМО

Wetland Permit Application Fee

AUTHORIZED SIGNATURE

"OO1716" CO11301798C

1010125354

ANTRIM WIND ENERGY LLC

Treasurer State of New Hampshire

Wetlands Permit Application Fee

1/4/2019

USD 2,000.00

Eastern Checking

Wetland Permit Application Fee

USD 2,000.00

EXHIBIT 2 NEW HAMPSHIRE NATURAL HERITAGE BUREAU LETTERS



NEW HAMPSHIRE NATURAL HERITAGE BUREAU

DRED - DIVISION OF FORESTS & LANDS 172 PEMBROKE ROAD, CONCORD, NH 03301 (603) 271-2214

To: Dana Valleau, Environmental Specialist, TRC

From: Amy Lamb, Ecological Information Specialist, NHB

Date: June 26, 2015

Subject: Re: NHB15-1904, NHB10-0644: Antrim Wind Energy, LLC

This is a follow-up to NHB15-1904, which indicated the presence of an exemplary natural community, an Inland Atlantic white cedar swamp, and a state endangered plant, Canada shore quillwort (*Isoetes riparia var. canadensis*), close to the proposed project area. The report also indicated the presence of three wildlife species; please note that the Natural Heritage Bureau does not provide comments regarding wildlife, and that there must be consultation with the NH Fish and Game Department for all wildlife concerns.

In the NHB15-1904 review, we requested that the project area be surveyed for the occurrence of the rare species and natural community within the project area. After this initial recommendation, it came to my attention that community mapping had occurred throughout the project area, through consultation with Melissa Coppola under project number NHB10-0644. Based on the results of those surveys, NHB does not find it likely that the natural community and rare plant identified in NHB15-1904 would be found on the property. As such, NHB no longer recommends a survey for Canada shore quillwort or Inland Atlantic white cedar swamp in the project area.

We look forward to continued communication throughout the SEC process. Please send us any additional application materials as they become available, and include us in any future communications regarding the subject project.

EXHIBIT 3

AREA MAP

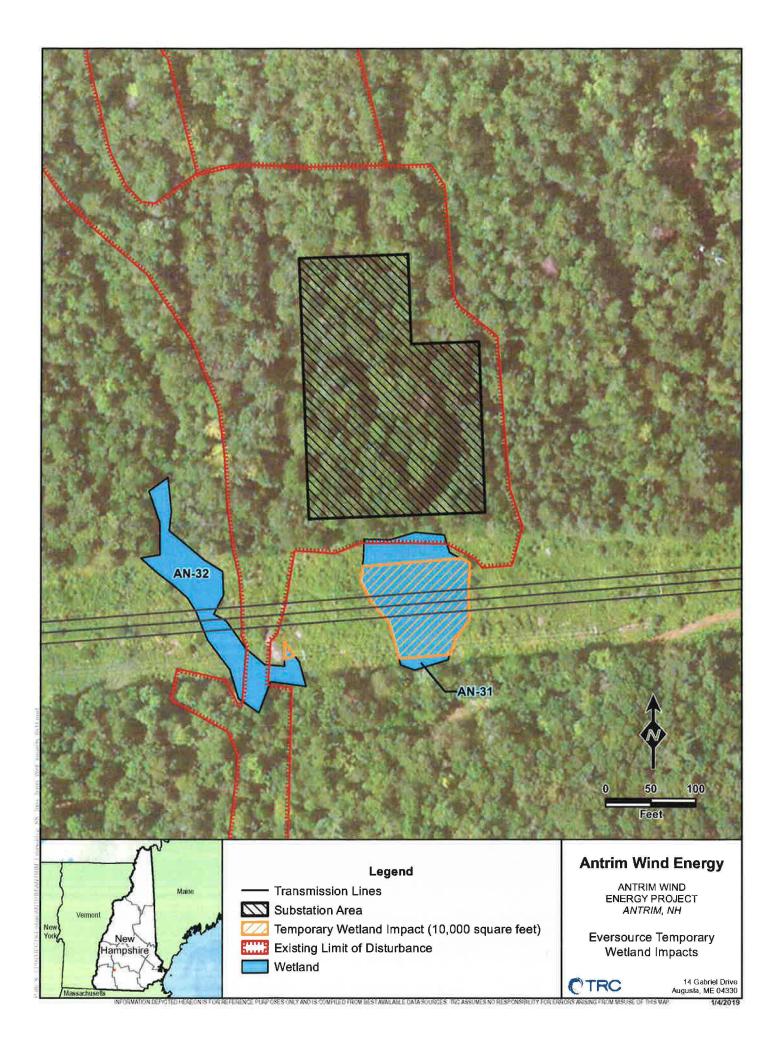
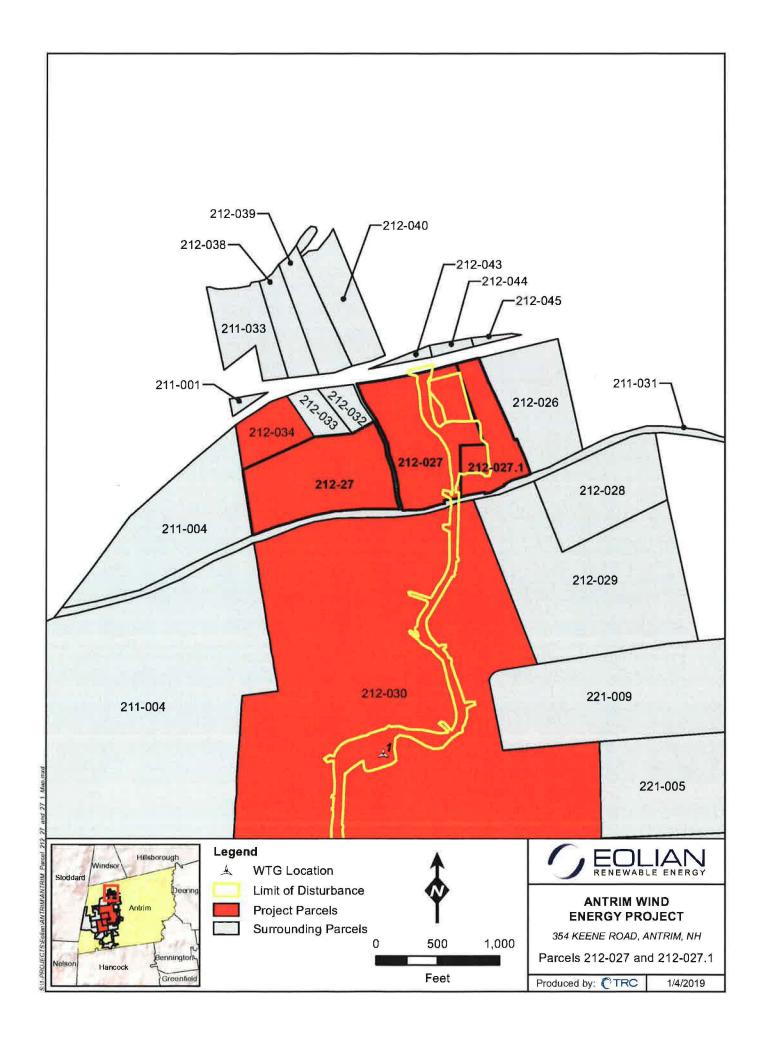


EXHIBIT 4

TAX MAP, ABUTTERS, and ABUTTER NOTIFICATION LETTER



Parcel Number	Property Address	Owner Name	Co-Owner Name	Owner Address	Owner Address 2	Owner City	Owner State	Owner Zip
211-004-000	KEENE ROAD	DRUAN ELLEN		25 NORTH HOLT HILL RD		ANTRIM	NH	03440
212-026-000	344 KEENE ROAD	COUTURIER MARCEL J	KUSNAROWIS PAULA J	344 KEENE RD		ANTRIM	NH	03440
212-031-000	HIGH RANGE ROAD	OWNER UNKNOWN						
212-032-000	362 KEENE ROAD	DUBE, STEVEN I & MANDIE L		362 KEENE RD		ANTRIM	NH	03440
212-033-000	KEENE ROAD	GAUTHIER RAYMOND C & SCOTT H		YORK RIVER TRUST	6 MANHATTAN DR	AMHERST	NH	03031
212-034-000	RUSSELL ROAD	OTT MICHAEL JAMES		PO BOX 160		ANTRIM	NH	03440

ABUTTER NOTIFICATION OF WETLANDS PERMIT APPLICATION

VIA CERTIFIED MAIL

January 4, 2019

RE: Wetlands Permit Application Amendment

Antrim Wind Energy LLC

155 Fleet Street

Portsmouth, NH 03801-4050

Tax Map-Lot #: 212-027, 212-027.1

Dear Sir or Madam:

This letter is to inform you that a permit application will be filed with the NH Department of Environmental Services for a wetlands permit associated with the above referenced project. Under state law RSA 482-A:3 I (d)(1), I am required to notify you about the application, which proposes work abutting your property.

Once it is filed, the permit application, including plans that show the proposed project will be available for viewing at the City or Town Clerk's Office in the town where the proposed project is located.

Sincerely,

John B. Ken orthy Executive Officer

Antrim Wind Energy LLC

155 Fleet Street

Portsmouth, NH 03801-4050

Phone: 603-570-4842

EXHIBIT 5 WETLAND REPORT

WETLAND DELINEATION REPORT

For Antrim Wind Energy Project Town of Antrim Hillsborough County, New Hampshire

Prepared for:

Antrim Wind Energy, LLC 155 Fleet Street Portsmouth, NH 03801



Prepared by:

TRC ENVIRONMENTAL CORPORATION
10 Maxwell Drive, Suite 200
Clifton Park, New York 12065

January 2012 Revised 2015

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1.0 INTRODUCTION

Antrim Wind Energy LLC (AWE) is proposing to construct the Antrim Wind Energy Project (Project) on Tuttle Hill and Willard Mountain in the Town of Antrim, Hillsborough Country, New Hampshire. The proposed Project is sited entirely on privately owned land that is leased by AWE. The proposed Antrim Wind Energy Project involves the construction of wind turbines, an electrical collection system and interconnection substation, new access road, and an operations and maintenance building. There will be no new electrical transmission lines, other than collector system lines, constructed as part of this Project. The total direct impact for the access roads, the turbine pads, and electrical collector system will be approximately 57.1 acres.

The proposed project is sited on the ridges of Tuttle Hill and Willard Mountain which are oriented east-northeast to west-southwest. The ridges are approximately parallel to NH Route 9, which is about ¾ of a mile to the north. Between the ridgeline and Route 9 is an existing transmission corridor containing both an 115kV transmission line and a 34.5kV distribution circuit; the proposed Project will interconnect with the existing 115kV line. See Attachment A, Figure 1, for a map of the Project area and Project elements.

TRC Environmental Corporation (TRC) was retained by AWE to identify and delineate jurisdictional wetlands and waterways within the project area to support the design, or layout, of the proposed facilities. TRC has prepared this wetland delineation report on behalf of AWE to support the submittal of a Joint Application for a Permit (a U.S. Army Corps of Engineers (ACOE) and New Hampshire State wetlands permit).

2.0 CURRENT AND HISTORIC LAND USES

2.1 Current Land Use

Most of the Town of Antrim is undeveloped, and a large proportion of the town's landscape is heavily wooded. Much of Antrim's forested areas are located in the Rural and Rural Conservation Zoning Districts of town; these two districts constitute over 70% of Antrim's total area. These woodlands are viewed by the town as a renewable resource and are logged on a regular basis. In addition to abundant woodland, there are also numerous conservation areas, hiking trails and water features (Town of Antrim 2011).

2.2 Historic Land Use

Historically, the area of the proposed Project was cleared for sheep farming; numerous stone walls still remain as a result of this historic activity. After the decline of sheep farming, the site was allowed to regenerate into a forested condition. Subsequently, timber harvesting has occurred in many areas on Tuttle Hill and Willard Mountain. Currently, the land in and around the area of proposed development consists of undeveloped forest land in various stages of maturity, ranging from recent clear cuts and early successional stands as a result of timber harvesting, to mature forested areas.

3.0 WETLAND DELINEATION METHODOLOGY

3.1 Siting Alternatives

The layout of wind turbines is a function of several siting factors that balance the location of each wind turbine and environmental compatibility. These factors include:

- · maximizing wind speed;
- minimizing tree clearing, wetland impacts, and the acquisition of land (the Project proposes to lease the land needed for the Project facilities);
- maintaining the current use of the land;
- connecting the turbines with an efficient and practical network of unpaved access roads for construction and maintenance of the turbines;
- co-locating electric cables with the access road corridor that connect the turbines to electric substation; and
- co-locating the electric transmission line that would connect the Project to the electric grid within existing infrastructure right-of-way.

These siting factors inherently create the need for a Project survey area that was sufficiently large enough to provide for an adequate area to identify cultural and natural resources and allow for the opportunity to evaluate siting alternatives that avoid and minimize impacts to any identified resources. After reviewing available topographic, soils mapping, and potential turbine locations for the Project area, TRC developed a survey area, which is depicted on Figure 1, found in Attachment A. With a survey corridor of 500 feet in width with a 250 foot radius around potential turbine locations, the survey area was approximately 462 acres.

To determine the potential for wetland impacts from construction of the Antrim Wind Energy Project, TRC assessed the survey area for the presence of federal and jurisdictional wetlands. A New Hampshire Certified Wetland Scientist from TRC conducted wetland delineations in August, September, November 2011, and October 2014 (refer to Attachment B for professional resume and qualifications). TRC also investigated hydrologic connectivity (drainage ditches, natural swales, intermittent and perennial streams outside the study corridor when necessary to verify "normal conditions" or "nexus" hydrologic determinations. The delineations were performed in accordance with the U.S. Army Corps of Engineers (USACE) wetland delineation criteria and methodology which is described in Section 3.2. The USACE data sheets have been compiled for this Wetland Delineation Report and presented in Attachment C.

This report presents the delineation methodology, wetland identification, and the results of the field wetland delineation, including descriptions of on-site hydrology, soils and vegetation (see Section 4.0). Mapping is provided in Attachment A, with Figure 2 presenting the wetland mapping.

3.2 Wetland Delineation Method

TRC wetland delineation crews surveyed proposed corridors using the Federal Routine Determination Method presented in the USACE Wetlands Delineation Manual (USACOE 1987), including clarifications and interpretations provided in the March 6, 1992 guidance memorandum (Williams 1992), USACOE and Environmental Protection Agency guidance on jurisdictional forms (USACOE 2007), and the Regional Supplements to Corps Delineation Manual (USACOE 2009).

The 1987 USACE manual and guidance memorandums emphasize a three-parameter approach to wetland boundary determination in the field. This approach involves the identification of: (i) evidence of wetland hydrology; (ii) presence of hydric soils; and (iii) predominance of hydrophytic vegetation as defined by the National Plant List Panel (Reed 1988). Positive indicators of all three parameters are normally present in wetlands and serve to distinguish between both upland and transitional plant communities. Identified wetlands were classified according to Cowardin et al. (1979).

After a wetland area was initially identified, an appropriate transect and plot location was established, generally perpendicular to the wetland/upland boundary, in order to document conditions within each plant community and firmly establish the wetland boundary using wetland indicators. USACE Wetland Determination data forms were completed for each representative wetland transect. These data forms are provided in Attachment C to this report. The wetland boundary was marked with sequentially numbered (alpha-numeric) pink flagging labeled with "Wetland Delineation". Once wetland flags were in place, the location of each flag was pinpointed using a hand-held Global Positioning Satellite (GPS) unit. These data were downloaded into a GIS system and then plotted on the project base map (a USGS geo-referenced map), which is provided in Attachment A, Figure 2. The results of the delineations are summarized in Section 4.0.

4.0 WETLAND DELINEATION RESULTS

A total of thirty eight (38) wetland areas were identified in the Project survey area. This report describes and maps those wetlands within and in relative proximity to the proposed roads, turbines, collector system, the proposed transmission right-of-way corridor, and other facility sites associated with the Project (see Figure 2 in Attachment A). The 38 wetlands are represented in Table 4.1 due to their occurrence in the proposed corridor and in close proximity to the proposed project corridors or facility sites. Of the 38 wetlands, twenty-four (24) are deciduous broad-leaf forested wetlands, three (3) are conifer dominated forested wetland, two (2) are mixed forested and scrub-shrub wetland, and five (5) are scrub-shrub wetlands. Three (3) of the delineated wetlands within the Project corridor consist of two or more wetland types, including three (3) streams with associated palustrine wetlands (2 intermittent and 1 perennial stream). The wetland associated with the perennial water-way consists of a mixed palustrine system. Table 4-1 provides a summary of the wetlands identified along the Project corridor, including their classification in accordance with Cowardin et al (1979).

Narrative descriptions of wetland hydrology, soils and vegetation observed within the Project study area are presented in the following sections. Tables 4-1, 4-2 and 4-3 summarize the wetlands delineated in this report, streams identified, and the soil series information we assembled for the Project area respectively.

4.1 Vegetation

Within the Project area, vegetative communities consist of forested upland and wetland communities. Forest stands include mostly mixed coniferous and deciduous forest, with a small portion of the Project area sustained as a managed transmission line ROW and another portion recently timber harvested on Willard Mountain.

The wetland communities crossed by the Project include and scrub-shrub wetlands typically found in the transmission line ROW and isolated forested wetlands. The scrub-shrub wetlands typically contain sapling red maple (*Acer rubrum*), maleberry (*Lyonia lingustrina*), red osier dogwood (*Cornus stolonifera*), arrowwood (*Viburnum dentatum*), meadowsweet (*Spiraea latifolia*), and steeplebush (*Spiraea tomentosa*). The forested wetlands typically contain red maple, yellow birch (*Betula alleghaniensis*), and green ash (*Fraxinus pennsylvanica*).

Upland tree species found throughout the Project area include red oak (*Quercus rubra*), American beech (*Fagus grandifolia*), sugar maple (*Acer saccharum*), white pine (*Pinus strobus*), red spruce (*Picea rubens*), balsam fir (*Abies balsama*), quaking aspen (*Populus tremuloides*), paper birch (*Betula papyrifera*), eastern hemlock (*Tsuga canadensis*) and others. Upland herbaceous species include wild sarsassparilla (*Aralia nudicaulis*), New York fern (*Thelypteris noveboracensis*), Solomon's-seal (*Polygonatum pubescens*), star flower (*Trientalis borealis*), hayscented fern (*Dennstaedtia punctilobula*) and Canada mayflower (*Maianthemum canadense*).

4.2 Hydrology

Streams within the Project area include an unnamed perennial and intermittent streams draining both to the north (Route 9) toward the North Branch River and to the southeast draining into Gregg Lake. Because the Project area is along a ridgeline and moderately well drained, we

observed very few perennial streams. Observations in the field generally suggest that rainfall and snow melt in the spring quickly run off the ridge to lower elevations, without collecting volumes that fill natural depressions or create natural ponds. Small forest wetland areas occur along skidder trails, confined pockets in the regional bedrock, saddle areas along the ridgeline, and in other areas of poorly drained soils that support wetland vegetation.

4.3 Soils

TRC reviewed the published soil survey of the Project area and conducted soil profile characterizations in the study corridor to confirm the presence of hydric soil indictors. Within the Project survey area, a total of 7 different soil types have been mapped by the Natural Resource Conservation Service (formerly the Soil Conservation Service) (USDA & NRCS 2009). Table 4-3 summarizes the soil series in the project area and indicates that most of the Project area soils are mapped with a slope of 3-35 percent. The soil type mapping has also been overlain on the Project location map (see Figure 3 in Attachment A). The mapped soil types range from excessively drained to well drained soils. Field surveys have resulted in delineating additional soil types that are poorly drained to very poorly drained soils and are hydric or wetland soils. Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil.

The wetlands flagged in the Project corridors generally exhibited the soil characteristics of a dark surface horizon (A horizon) overlying grayish (10YR 5/1) to grayish brown (10YR 4/1), sandy loam subsoils with common redoximorphic features. As described below, this is typical of the loamy till parent material sediments in which many of the soils in the region are formed. The upland soils within the forested uplands lacked a low chroma matrix and had typical matrix chromas ranging between 3 and 6. In wetlands, the hydric soil showed evidence of a seasonal high water table in the form of low chroma matrix and redoximorphic features, indicating that the soils experience anaerobic conditions from prolonged saturation thereby meeting the definition of a hydric soil in some instances. The upland and more transitional area soils have developed redoximorphic features common to somewhat poorly to moderately well drained soils but did not exhibit the required low chroma matrix and as a result were not classified as hydric soils. In addition, as a result of glacial till environment, the subsoil (B) and substratum (C) horizons of both hydric and non-hydric soils commonly contain layers of loose stony material on steeper slopes with loamy materials, which are not necessarily indicative of an aquic moisture regime or reducing conditions.

	Summary	Table 4-1 of Wetlands within	Project Area	
Figure 2 8.5" x 11" Sheet Number	Wetland ID	Wetland Types and Associations	Associated Wetland Impact	Cowardin Classification
4	AN1	Isolated forested wetland. Contains VP1	No direct impact	PFO1
4	AN2	Isolated forested wetland. Bat radar within wetland	0.005 acre/228 sq. ft. Access road.	PFO4
4	AN3	Isolated forested wetland	No direct impact	PFO1
4	AN4	Isolated forested wetland. Contains VP2	No direct impact	PFO1
4	AN5	Isolated forested wetland. Contains VP3	No direct impact	PFO1
4	AN6	Isolated forested wetland	No direct impact	PFO1
3	AN7	Isolated forested wetland straddling property line	No direct impact	PFO1
3, 4	AN8	Forested wetland draining southeast associated with intermittent stream AN9	0.001 acre/34 sq. ft. Access road.	PFO4
3	AN10	Isolated forested wetland within skidder trail	No direct impact	PFO1
1, 3	AN11	Isolated forested wetland with ephemeral inlet and outlet	No direct impact	PFO1
1	AN12	Isolated forested wetland within skidder trail	No direct impact	PFO1
1, 3	AN13	Isolated forested wetland along ATV trail	No direct impact	PFO1

	Summary	Table 4-1 of Wetlands within l	Project Area	
Figure 2 8.5" x 11" Sheet Number	Wetland ID	Wetland Types and Associations	Associated Wetland Impact	Cowardin Classification
1, 3	AN14	Isolated forested wetland within skidder trail	No direct impact	PFO1
1	AN15	Isolated forested wetland within skidder trail	No direct impact	PFO1
1	AN16	Very small isolated wetland along old skidder trail	No direct impact	PFO1
1	AN18	6 forested wetland areas draining north associated with perennial stream AN17	No direct impact	PFO1/4 & PSS1
1	AN20	Isolated scrub-shrub wetland within transmission ROW	No direct impact	PSS1
1	AN21	Isolated scrub-shrub wetland within transmission ROW	No direct impact	PSS1
1	AN22	Isolated forested wetland within skidder trail	0.004 acre/170 sq. ft. Access road.	PFO1
1 1	AN23	Isolated forested wetland within skidder trail	No direct impact	PFO1
4	AN24	Isolated forested wetland. Associated with VP 5. ATV trail within wetland.	No direct impact	PFO1
4	AN25	Isolated forested wetland. Associated with VP 4.	No direct impact	PFO4
5	AN26	Forested wetland draining to the northwest along property line	No direct impact	PFO1
5	AN27	Forested wetland draining to the southeast. Associated with intermittent stream AN28.	0.028 acre/ 1,218 sq. ft. Access Road	PFO1

Table 4-1 Summary of Wetlands within Project Area							
Figure 2 8.5" x 11" Sheet Number	Wetland ID	Wetland Types and Associations	Associated Wetland Impact	Cowardin Classification			
1	AN30	Isolated forested wetland with ephemeral inlet and outlet	0.02 acre/869 sq. ft. Substation	PFO1			
1	AN31	Isolated scrub-shrub wetland within transmission ROW	0.016 acre/708 sq. ft. Transmission tap structure and guys	PSS1			
1	AN32	Isolated scrub-shrub wetland within transmission ROW	0.032 acre/1,392 sq. ft. Access Road	PSS1			
1.	AN33	Isolated forested wetland within skidder trail	No direct impact	PFO1			
1	AN35	Isolated forested an scrub-shrub wetland located in ROW and to the North of the ROW	No direct impact	PFO1/PSS1			
4	AN36	Isolated forested wetland with peat soils	No direct impact	PFO1			
4	AN37	Isolated forested wetland adjacent to ATV trail	No direct impact	PFO1			
4	AN38	Isolated forested wetland with potential vernal pool	No direct impact	PFO1			
5	AN41	Isolated forested wetland.	0.06 acre/2,584 sq. ft. Turbine 9.	PFO1			
4	AN1000	Isolated forested wetland	0.022 acre/963 sq. ft. Turbine 4.	PFO1			
2	AN-LD 1	Isolated forested wetland.	No direct impact	PFO1			
2	AN-LD 2	Isolated forested and scrub-shrub wetland.	No direct impact	PFO/PSS1			
2	AN-LD 3	Isolated forested wetland	No direct impact	PFO1			
2	AN-LD 4	Isolated scrub-shrub wetland. Formerly borrow pit area.	0.02 acre/955 sq. ft. Temporary staging area.	PSS1			
TOTAL IMPACT			0.21 acre/9,121 sq. ft.				

4.4 Wetland Descriptions

The following narratives briefly characterize the delineated wetlands summarized in Table 4-1. Refer to Figure 2 for the location of these wetlands within the project study area and landscape in

Attachment A.

<u>Wetland ANI</u> is a deciduous mixed forest wetland dominated by red maple (*Acer rubrum*), and black spruce (*Picea mariana*). It is located within a pocket of ledge along the ridgeline of Tuttle Hill. This wetland also contains Vernal Pool 1.

<u>Wetland AN2</u> is a deciduous mixed forest wetland dominated by yellow birch (*Betula alleghaniensis*) and black spruce. It is located within a pocket of ledge along the ridgeline of Tuttle Hill.

<u>Wetlands AN3, AN4 and AN5</u> are deciduous forested wetlands dominated by red maple. They are located within pockets of ledge along the ridgeline of Tuttle Hill. Wetland AN4 contains Vernal Pool 2, and wetland AN5 contains Vernal Pool 3.

<u>Wetland AN6</u> is a deciduous forest wetland dominated by red maple. It is located within a pocket of ledge along the ridgeline between Tuttle Hill and Willard Mountain.

<u>Wetland AN7</u> is a very small deciduous forest wetland dominated by red maple. It is located along a stone wall within a pocket of ledge along the ridgeline between Tuttle Hill and Willard Mountain.

<u>Wetland AN8</u> is a deciduous forest wetland dominated by red maple and yellow birch. It is located within a swale draining from Wetland AN7 towards the southeast. An intermittent stream segment (Stream AN9) is located within this wetland. The stream flows between very large boulders; eventually the hydrology disappears as the slope increases along the southeast boundary of the wetland.

<u>Wetlands AN10, AN11 and AN12</u> are deciduous forest wetlands dominated by yellow birch and green ash (*Fraxinus pennsylvanica*). They are located in hillside seeps created by skidder activity.

<u>Wetland AN13</u> is a deciduous forest wetland dominated by red maple. It is located within a hillside seep created by skidder activity. An ATV access trail traverses the northwestern portion of this wetland.

<u>Wetlands AN14 and AN15</u> are deciduous forest wetlands dominated by yellow birch and green ash. They are located in hillside seeps created by skidder activity.

<u>Wetland AN16</u> is a very small deciduous forest wetland dominated by red maple. It is located within an old skidder trail to the north of the transmission ROW.

<u>Wetland AN18</u> is a wetland complex associated with perennial stream AN17. Six components of this wetland complex were individually identified as wetlands AN18a, b, c, d, e and f. Component AN18a is an area of scrub shrub within the existing transmission corridor; it is dominated by red osier dogwood (*Cornus stolonifera*), green ash, and black willow (*Salix nigra*). Wetlands AN18 b, c, d, e and f are deciduous mixed forested wetlands dominated by green ash, yellow birch, and red maple. Each of these wetlands has been impacted by logging activity.

<u>Wetlands AN20 and AN21</u> are deciduous scrub shrub wetlands dominated by red maple, meadowsweet (*Spiraea latifolia*), and steeplebush (*Spiraea tomentosa*). They are located within the existing transmission corridor.

<u>Wetlands AN22 and AN23</u> are deciduous forest wetlands dominated by red maple, yellow birch and green ash. They are located in hillside seeps created by skidder activity.

<u>Wetland AN24</u> is a deciduous forest wetland dominated by red maple and yellow birch. It is located within a depression on the ridgeline between Tuttle Hill and Willard Mountain. An ATV trail traverses the through the middle of this wetland, from north to south. This wetland also contains Vernal Pool 5.

<u>Wetland AN25</u> is an evergreen mixed forest wetland dominated by eastern hemlock (*Tsuga canadensis*) and yellow birch. It is located within a depression on the ridgeline between Tuttle Hill and Willard Mountain. This wetland contains Vernal Pool 4.

<u>Wetland AN26</u> is a deciduous forest wetland dominated by red maple and yellow birch. It is located within a depression on the ridgeline between Tuttle Hill and Willard Mountain. This wetland drains to the northwest.

<u>Wetland AN27</u> is a deciduous mixed forest wetland dominated by red maple, yellow birch, and black spruce. It is located within the saddle area at the northern base of Willard Mountain. The wetland drains to the southeast and feeds Intermittent Stream AN28 which drains to the southeast.

<u>Wetland AN30</u> is a very small deciduous forest wetland dominated by red maple. It receives ephemeral flow from wetland AN31 which is located upslope (and within the existing transmission corridor). This wetland has an ephemeral drainage that flows towards intermittent stream AN29 to the north.

<u>Wetlands AN31 and AN32</u> are deciduous scrub shrub wetlands dominated by red maple, meadowsweet and maleberry (*Lyonia lingustrina*). They are located within the existing transmission corridor. Wetland AN31 ephemerally drains to the north into Wetland AN30.

Wetland AN33 is a very small deciduous forest wetland dominated by red maple. It is located within a hillside seep created by skidder activity.

<u>Wetland AN35</u> is primarily a forested wetland dominated by red maple, but includes an area of scrub shrub. The scrub shrub component is located within the existing transmission corridor, on the southern portion of the wetland, and is dominated by winterberry (*Ilex verticillata*).

<u>Wetland AN36</u> is an isolated forested wetland dominated by red maple. This wetland contains organic soils. It is located in a saddle area and is near an ATV trail.

<u>Wetland AN37</u> is a small isolated deciduous forest wetland dominated by red maple. It has an ephemeral drainage that flows west across an ATV trail that is adjacent to the wetland.

<u>Wetland AN38</u> is an isolated deciduous forest wetland dominated by red maple, with a thick understory of winterberry shrubs. It has an ephemeral drainage that flows northwest through a steep boulder area. This wetland contains an area which has been identified as a potential vernal pool.

<u>Wetland AN41</u> is an isolated deciduous forest wetland dominated by red maple with a sparse understory of red maple and yellow birch saplings and a dense herbaceous layer dominated by cinnamon fern. This wetland is located at the base of a long bouldery slope.

<u>Wetland AN1000</u> is an isolated deciduous forest wetland dominated by red maple with an understory of winterberry shrubs and a patchy herbaceous layer of cinnamon fern and three-seeded sedge. This wetland is located in a concave area that drains to the east, and the soils are saturated to within 10-inches of the surface.

<u>Wetland AN-LD 1</u> is a deciduous forest wetland dominated by red maple (*Acer rubrum*). It is located within a depression on a terrace located above the North Branch River valley. Soils are saturated and are sandy with a cemented restrictive layer.

<u>Wetland AN-LD 2</u> is a deciduous forest wetland dominated by red maple with a lesser component of highbush blueberry and meadowsweet. It is located in a flat area on a terrace above the North Branch River valley. An old borrow pit is directly adjacent to the wetland boundary. Soils are saturated and are sandy.

<u>Wetland AN-LD 3</u> is deciduous forested wetland dominated by red maple. It is located within a depression on a terrace located above the North Branch River valley. Soils are saturated and are sandy. An intermittent stream channel (AN-LD-INT 1) carries surface water and disperses in this wetland area.

<u>Wetland AN-LD 4</u> is a deciduous scrub-shrub wetland dominated by speckled alder. It is located within an old borrow pit excavation on a terrace above the North Branch River valley. Soils are sandy, saturated and surface water was present at the time of survey.

4.5 Waterbody Descriptions

The following narratives briefly characterize the identified perennial and intermittent watercourses summarized in Table 4-2. Refer to Figure 2 in Attachment A for the location of these watercourses within the project study area.

Table 4-2 Summary of Streams within Project Area								
Figure 2 8.5" x 11" Sheet Number	Stream ID	Flow Regime	Associated Impact	Associated Wetland(s)				
2	AN9	Intermittent	No direct impact	AN8				
1	AN17	Perennial	74 linear feet, 4 foot wide channel	AN18a,b,c,d,e,f				
1.	AN19	Intermittent	No direct impact	Tributary to AN1				
4	AN28	Intermittent	No direct impact	AN27				

4	AN28a	Intermittent	No direct impact	
1	AN29	Intermittent	156 linear feet, 1 foot wide channel	
1	AN34	Intermittent	No direct impact	Flows into AN17
2	AN40	Intermittent	No direct impact	
2	AN-LD-INT 1	Intermittent	No direct impact	AN_LD 3
TOTAL IMPACT			230 linear ft./ 452 sq. ft.	0

<u>Stream AN9</u> is an intermittent stream with a sandy substrate. The average width of the stream is 2 feet and the bank height is less than one foot. There was approximately 1 inch of flowing water in the stream at the time of the wetland delineation survey (in late summer, 2011). The stream channel commences within wetland AN8 and disperses within the same wetland due to slopes and a bouldery landscape, which allows for subsurface flow.

<u>Stream AN17</u> is perennial stream with a gravel/cobble substrate. The average width of the stream is 4 feet and the bank height averages approximately one foot. There was approximately 5 inches of flowing water at the time of the delineation. The stream flows into the survey area from the south and then out to the north, flowing towards Route 9. Intermittent Streams AN19 and AN34 flow into this stream.

<u>Stream AN19</u> is an intermittent stream with a sandy substrate. The average width of the stream is approximately 1 foot and the bank height is less than one foot. There was approximately 1 inch of flowing water at the time of the delineation. The stream channel commences in a forested setting, within a seep on a slope, and flows into Stream AN17.

<u>Stream AN28</u> is an intermittent stream with a gravel/sand substrate. The average width of the stream is approximately 3 feet and the bank height is less than one a foot. There were approximately 4 inches of flowing water at the time of the delineation. The stream channel commences within wetland AN27 and flows to the southeast.

<u>Stream AN28a</u> is an intermittent stream with a gravel/cobble substrate. The average width of the stream is approximately 2 feet and the bank height averages approximately one foot. There were approximately 2 inches of flowing water at the time of the delineation. The stream channel commences within an upland area with steep slopes and disperses within the upland as it flows down slope. This dispersal is due to slopes and a bouldery landscape, which allows for subsurface flow.

<u>Stream AN29</u> is an intermittent stream with a gravel/cobble substrate. The average width of the stream is approximately one foot, and the bank height is less than one foot. There was no flowing water in the streambed at the time of the delineation. The stream channel commences within an upland area with steep slopes and disperses within the upland as it flows down slope. This dispersal is due to slopes and a bouldery landscape, which allows for subsurface flow.

<u>Stream AN34</u> is an intermittent stream with a gravel/cobble substrate. The average width of the stream is approximately 3 feet and the bank height is less than one foot. There were approximately 4 inches of flowing water at the time of the delineation. The stream channel commences in a forested setting within a seep on a slope and flows into Stream AN17.

Stream AN40 is an intermittent stream with a gravel/cobble substrate. The average width of the stream is 2 feet and the bank height averaged around a foot. There were approximately 2 inches of flowing water at the time of the delineation. The stream channel commences within an upland area with steep slopes and disperses within the upland downslope due to slopes and a bouldery landscape, which allows for subsurface flow.

<u>Stream AN-LD-INT 1</u> is an intermittent stream with a sandy substrate that originates in a logging trail upslope and south of the site. The average width of the stream is 1-2 feet and the bank height is less than one foot. The channel was dry at the time of the wetland delineation survey (in July 2012). The stream channel disperses within wetland AN-LD 3.

Table 4-3 Soil Description Summary									
Soil Names	Symbol	% Slopes	Hydrie (y/n)	Parent Material	Drainage Class				
Lyman-Tunbridge-Rock outcrop complex	161C	3-15	N	Lyman: Loamy Till Underlain by Schist Bedrock; Tunbridge: Loamy Till Underlain by Granite	Lyman: Somewhat Excessively Drained; Tunbridge: Well Drained				
Lyman-Tunbridge-Rock outcrop complex	161D	15-35	N	Lyman: Loamy Till Underlain by Schist Bedrock; Tunbridge: Loamy Till Underlain by Granite	Lyman: Somewhat Excessively Drained; Tunbridge: Well Drained				
Tunbridge-Lyman- Monadnock complex, stony	160B	3-8	N	Tunbridge: Loamy Till Underlain by Granite; Lyman: Loamy Till Underlain by Schist Bedrock; Monadnock: Loam Underlain by Sandy Till	Tunbridge: Well Drained; Lyman: Somewhat Excessively Drained; Monadnock: Well Drained				
Tunbridge-Lyman- Monadnock complex, stony	160C	8-15	N	Tunbridge: Loamy Till Underlain by Granite; Lyman: Loamy Till Underlain by Schist Bedrock; Monadnock: Loam Underlain by Sandy Till	Tunbridge: Well Drained; Lyman: Somewhat Excessively Drained; Monadnock: Well Drained				
Marlow stony loam	77C	8-15	N	Loamy Till	Well Drained				
Marlow stony loam	77D	15-35	N	Loamy Till	Well Drained				
Rock outcrop	399			Granite	Excessively Drained				
Colton Loamy Sand	22C	8-15	N	Sandy and Gavelly Outwash	Excessively Drained				

4.6 Natural Resource Conservation Service Soil Series Descriptions

The following are the abbreviated descriptions of each of the relevant soil types taken from the USDA (Natural Resource Conservation Service) Official Soil Series Descriptions Online Soils Database and the Soil Survey Geographic Database (SSURGO) for Hillsborough County, New Hampshire, Western Part (USDA & NRCS 2009). Additional information regarding relevant soil characteristics are also summarized in Table 4-3. Soils mapping of the Project area is in Attachment A, Figure 3.

Tunbridge-Lyman-Monadnock complex, stony

Tunbridge Series: These very moderately deep, well drained soils formed in loamy till of Wisconsin age derived mainly from micaceous schist, gneiss, and phyllite. They are on mountain side slopes, mountain tops, mountain ridges, hill tops, and hill slopes. Slope ranges from 0 to 75 percent. The A horizon is typically very friable dark brown sandy loam, with weak fine granular structure. The B horizon is typically reddish brown to yellowish brown silt loams.

It is friable with subangular blocky structure. Bedrock is usually encountered at 28 inches.

Lyman Series: These shallow, somewhat excessively drained soils formed thin mantle of till and frost fractured rock fragments derived principally from gray, greenish gray, or nearly black mica schist rocks with lesser amounts of phyllite, granite, and gneiss. They are found on rocky hills, mountains and high plateaus. Slopes range from 3 to 35 percent. Ap horizons are typically black and 6 inches or more thick. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam or silt loam in the fine-earth fraction. The E horizon generally is a reddish gray fine sandy loam, with very weak fine granular structure. The B horizon generally is a dark red to brown loam, with very weak fine granular structure. Bedrock is usually encountered at a depth of 18 inches.

Monadnock Series: These very deep, well drained soils formed in a loamy mantle underlain by acid, sandy till of Wisconsin age derived mainly from schist, granite, gneiss, and quartzite. They are on upland hills, plains, and mountain sideslopes. Slope ranges from 0-60 percent. The A horizon is typically very friable brown fine sandy loam. The E horizon generally is a light brownish gray sandy loam with a weak fine granular structure. The B horizon generally is reddish to yellowish brown, 5 to 23 inches deep, very friable with a weak fine granular structure. The C horizon consists of gravelly loamy sand extending to a depth of 65 inches.

Lyman-Tunbridge-Rock outcrop complex

Lyman Series: These shallow, somewhat excessively drained soils formed thin mantle of till and frost fractured rock fragments derived principally from gray, greenish gray, or nearly black mica schist rocks with lesser amounts of phyllite, granite, and gneiss. They are found on rocky hills, mountains and high plateaus. Slopes range from 3 to 35 percent. Ap horizons are typically black and 6 inches or more thick. Texture is sandy loam, fine sandy loam, very fine sandy loam, or silt loam in the fine-earth fraction. The E horizon generally is a reddish gray fine sandy loam, with very weak fine granular structure. The B horizon generally is a dark red to brown loam, with very weak fine granular structure. Bedrock is usually encountered at a depth of 18 inches.

Tunbridge Series: These very moderately deep, well drained soils formed in loamy till of Wisconsin age derived mainly from micaceous schist, gneiss, and phyllite. They are on mountain side slopes, mountain tops, mountain ridges, hill tops, and hill slopes. Slope ranges from 0 to 75 percent. The A horizon is typically very friable dark brown sandy loam, with weak fine granular structure. The B horizon is typically reddish brown to yellowish brown silt loams. It is friable with subangular blocky structure. Bedrock is usually encountered at 28 inches.

Marlow Series

These well drained soils formed in dense, loamy till derived mainly from mica schist, granite, and phyllite. They are found on drumlins and glaciated uplands. They are moderately deep to a densic contact and very deep to bedrock. Slope ranges from 0 to 60 percent. Typically, the A horizon is a friable very dark gray fine sandy loam with a moderate fine granular structure. Generally, the E horizon is gray fine sandy loam, with very friable consistence. The B horizon consists of a yellowish red to olive fine sandy loam with a weak fine granular structure. The C horizon is an olive gray fine sandy loam with moderate medium platy structure and is very firm.

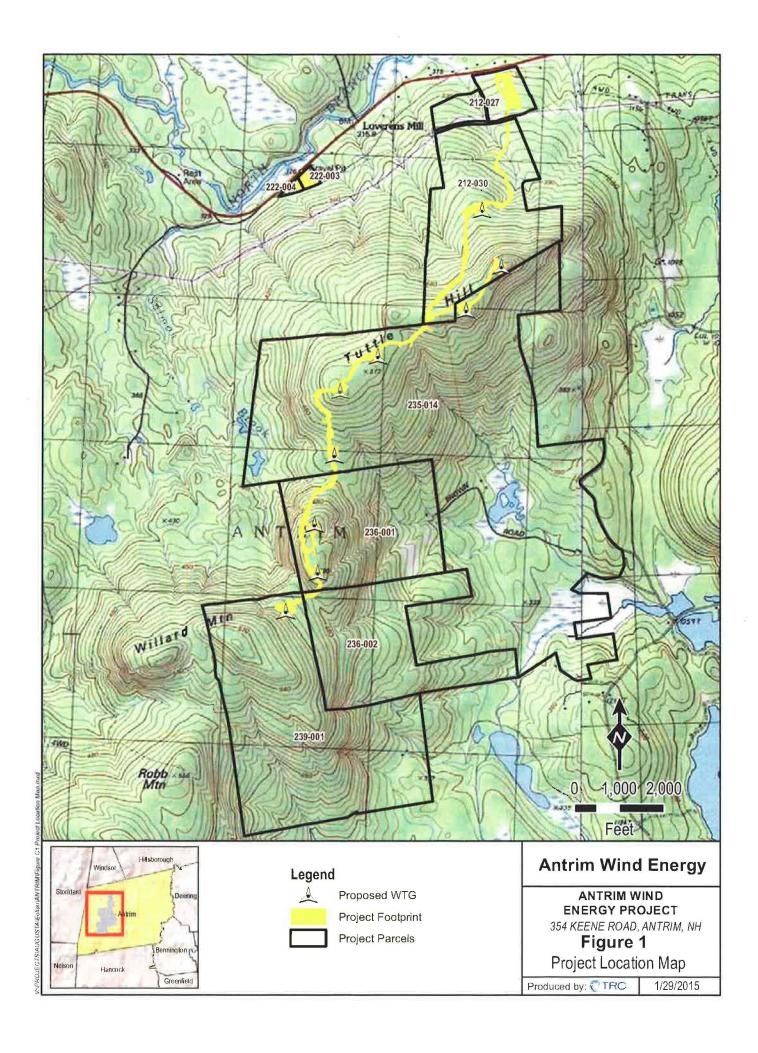
Colton Series

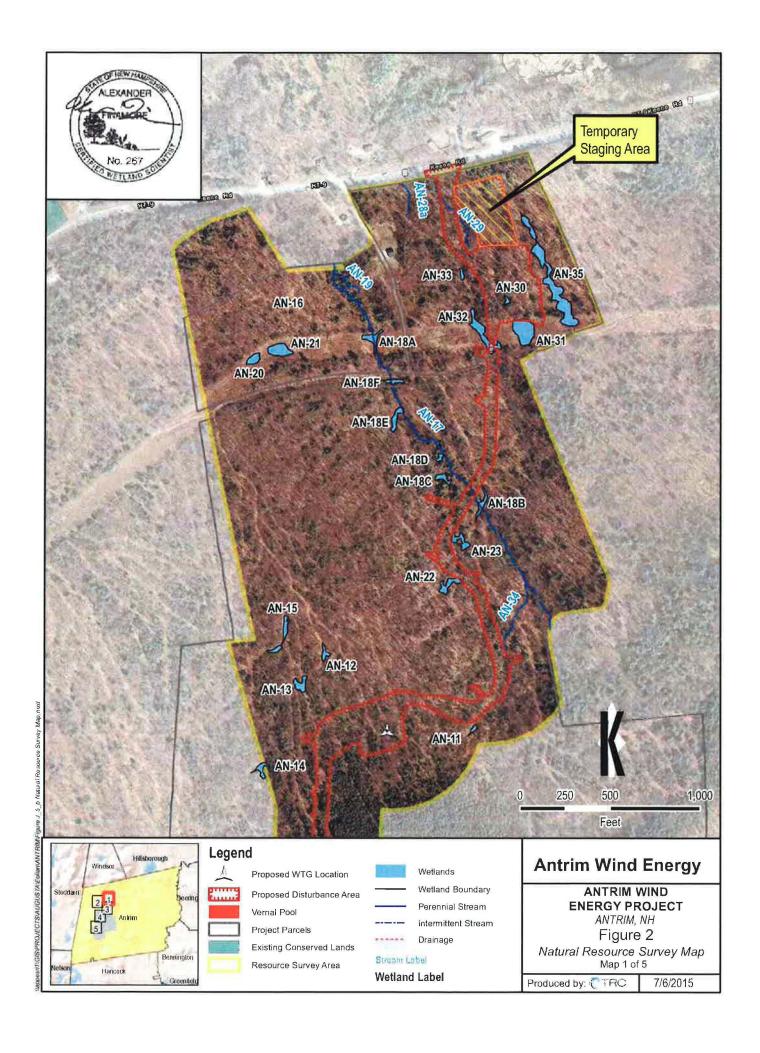
These excessively drained soils formed in sandy and gravelly glacial outwash derived mainly from granite till. They are found on outwash terraces, kames, and eskers. Slope ranges from 0 to 50 percent. The solum ranges from 18 to 36 inches in thickness. The content of rock fragments ranges from 10 to 55 percent in the solum and 35 to 70 percent in the C horizon. Some pedons have an A horizon that is dark reddish brown. The E horizon has gray to dark gray. The A and E horizons range from loamy coarse sand to find sandy loam. The B horizon is dark reddish brown to reddish yellow. It ranges from coarse sand to loamy sand. The C horizon is dark reddish gray to reddish yellow.

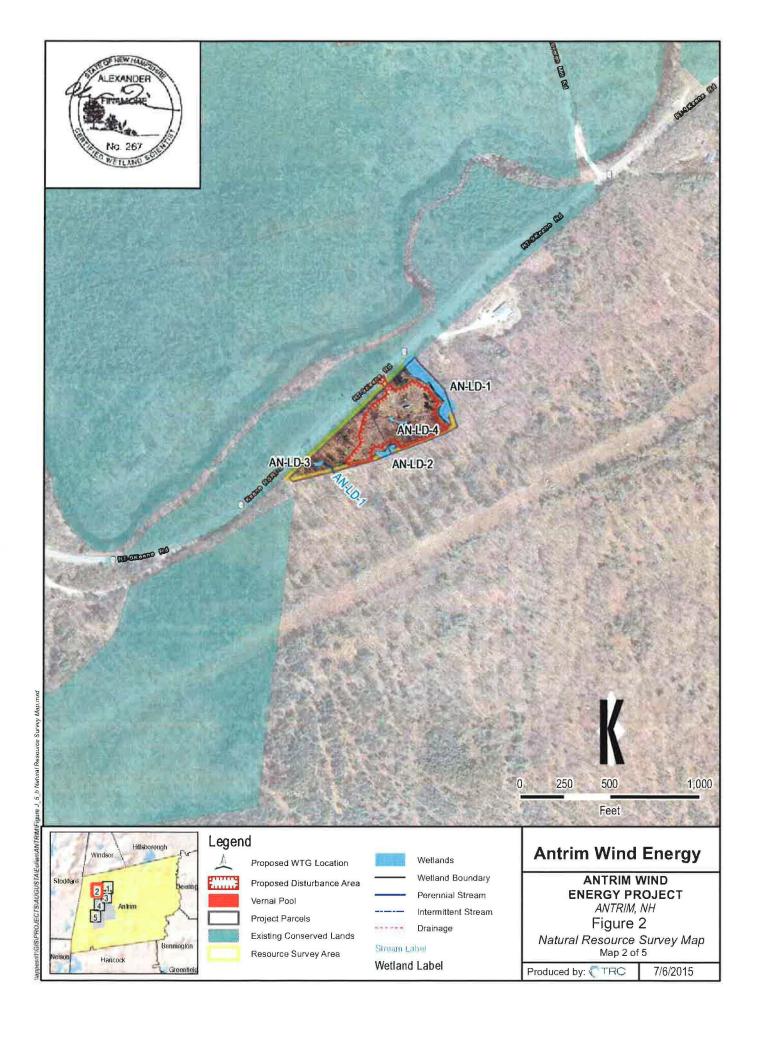
5.0 REFERENCES

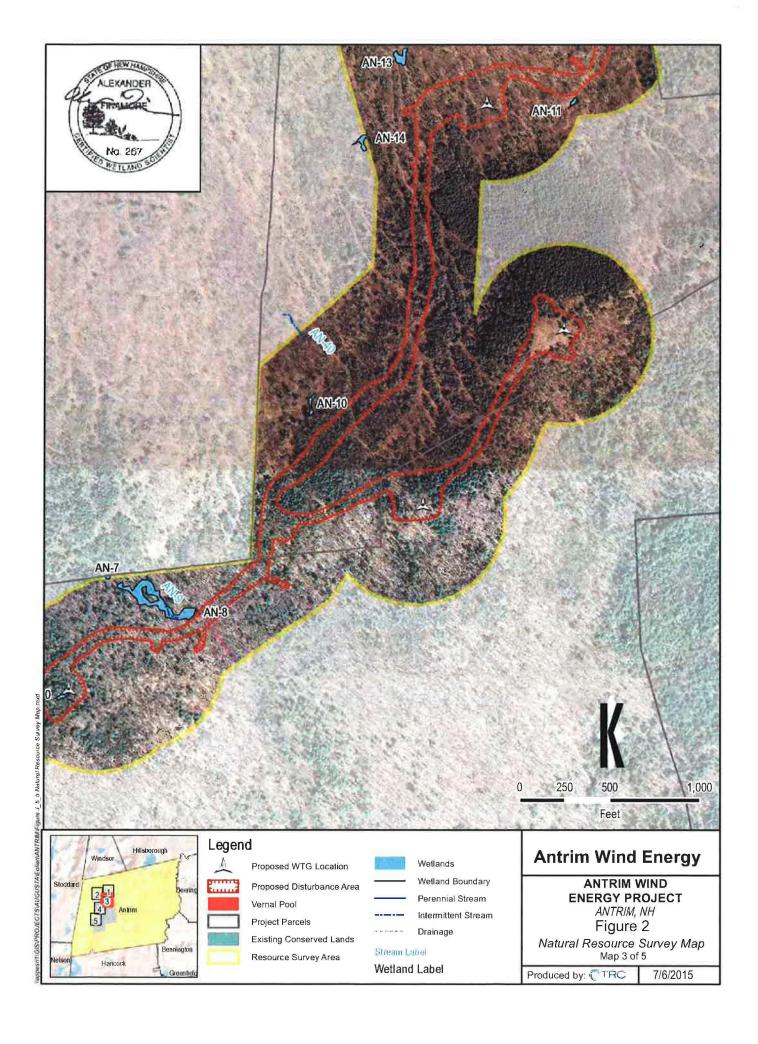
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- USACOE. 1987. Corps of Engineers Wetland Delineation Manual. Technical Report U-87-1. Waterways Experiment Station, Vicksburg, MS.
- USACOE. 2009. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region. Online: http://www.usace.army.mil/CECW/Documents/cecwo/reg/trel09-19.pdf. Site visited December 9, 2011.
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- USDA, NRCS. 2011. Web soil survey. Online: http://websoilsurvey.nrcs.usda.gov/app/. Site visited December 9, 2011.
- Williams, A.E. 1992. Memorandum: Clarification and Interpretation of the 1987 Manual. U.S. Army Corps of Engineers.

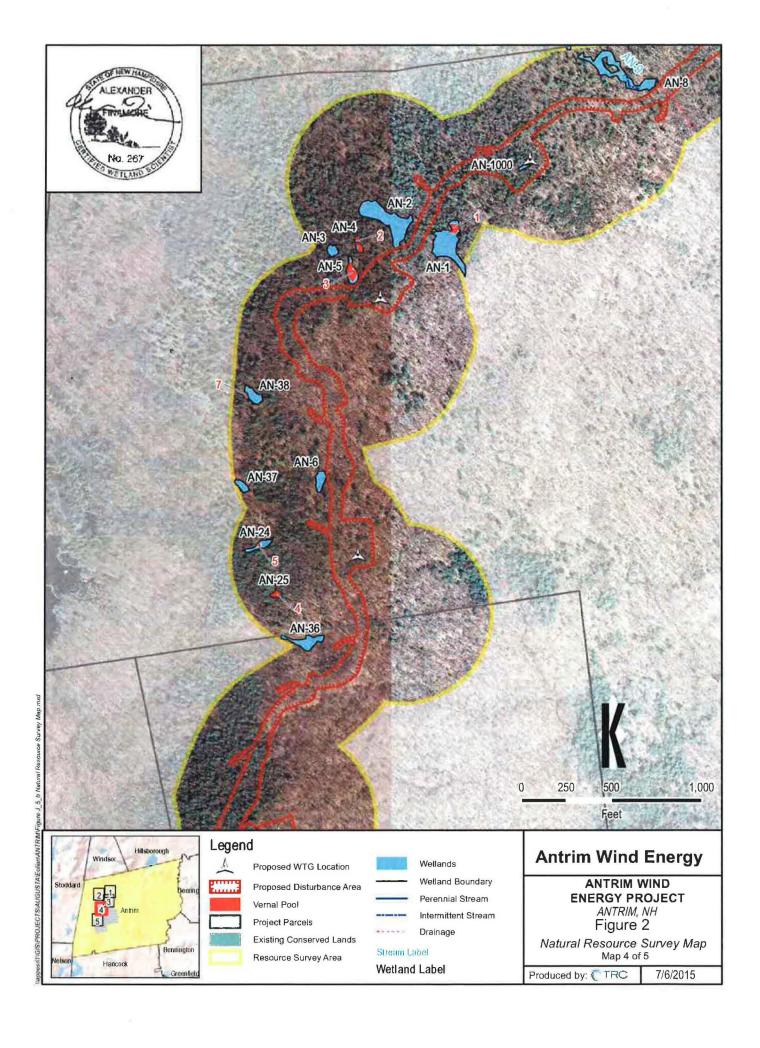
ATTACHMENT A PROJECT MAPPING

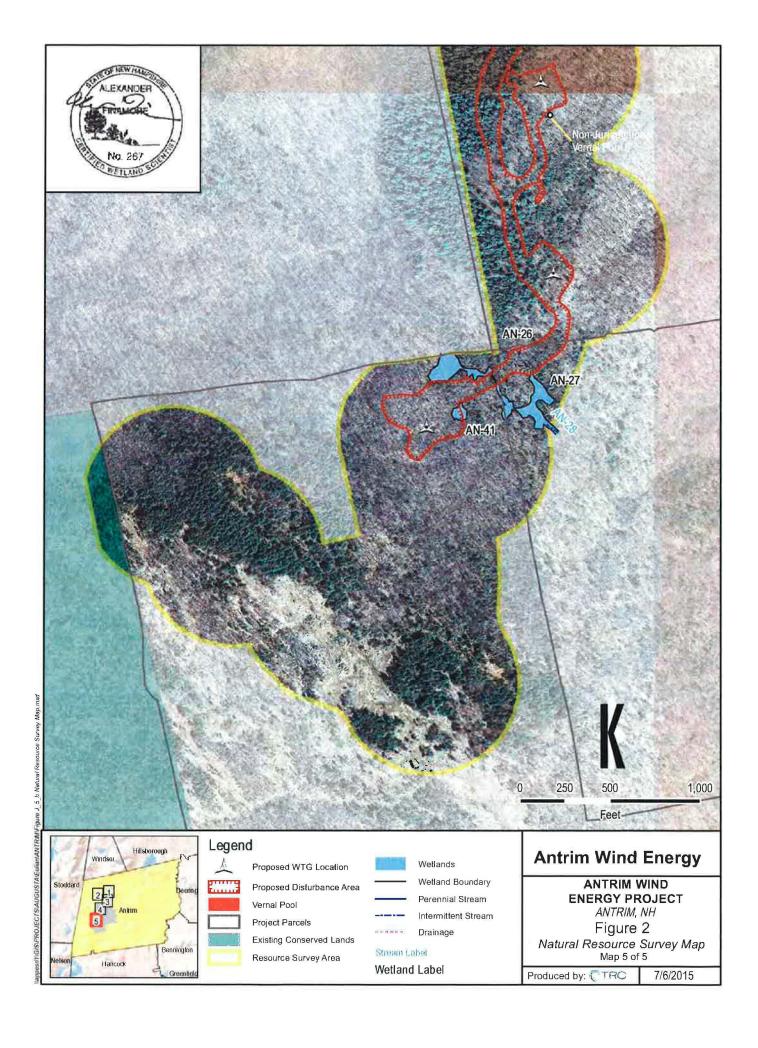


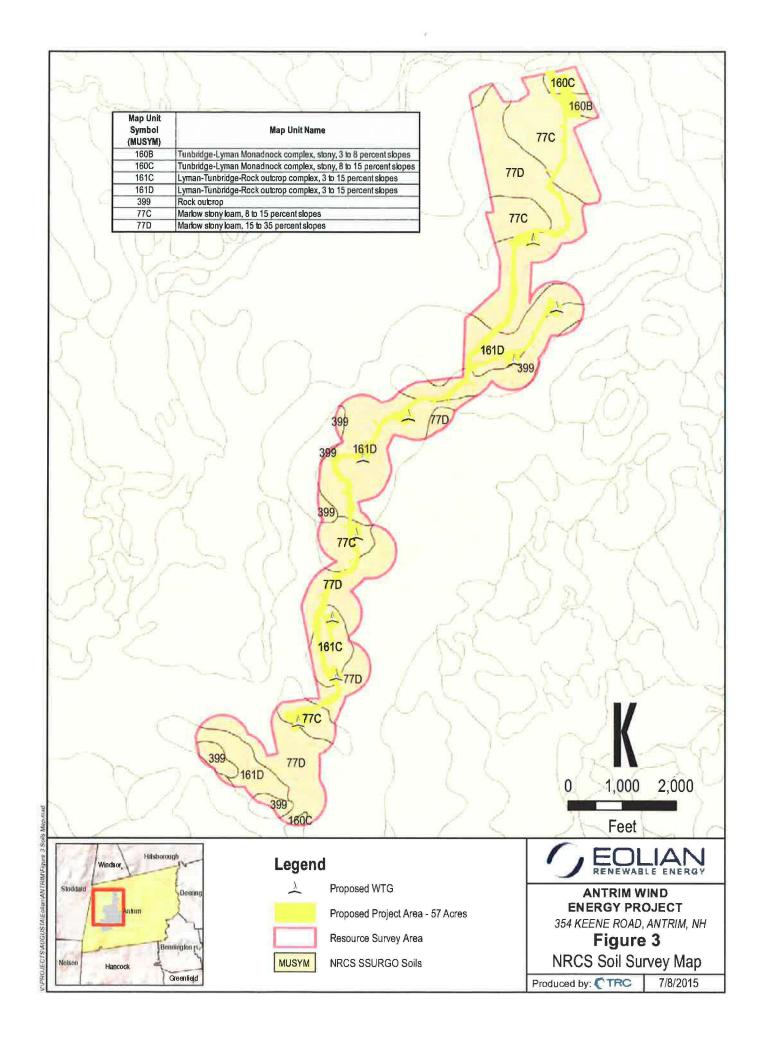












ATTACHMENT B PROFESSIONAL RESUME



ALEXANDER A. FINAMORE

EDUCATION

B.S., Environmental Science and Management, University of Rhode Island, 2004

AREAS OF EXPERTISE

Mr. Finamore has over 7 years experience encompassing

- · Federal, State, and Local Environmental Permitting
- Wetland Delineations and Reports
- Subsurface Wastewater Disposal Design
- Vernal Pool Identification and Assessment
- Land Survey
- Preliminary Environmental Site Assessments (PESS)

REPRESENTATIVE EXPERIENCE

Mr. Finamore has completed or managed numerous wetland delineations and vernal pool surveys throughout the northeastern U.S., ranging from single house lots to large linear projects. Mr. Finamore has also completed or managed the permitting process and/or the preparation of technical documents in accordance to State and Federal site location, wetlands, and subsurface wastewater disposal system regulations.

Reunion Energy, Grandpa's Knob Wind Farm, Natural Resource Mapping – VT Wetland Scientist, 2011 Mr. Finamore organized and directed field crews, performed wetland delineations along corridor of proposed 20 wind turbines and collector line, performed vernal pool surveys, attended site walk with client and pertinent state and federal regulators.

Eolian Wind, Antrim Wind Farm, Natural Resource Mapping – NH Wetland Scientist, 2011 Mr. Finamore performed wetland delineations along corridor of proposed 10 wind turbines and collector line, performed vernal pool surveys, attended site walk with client and pertinent state and federal regulators

VELCO, Lines 350 & 370, Natural Resource Mapping – VT Wetland Scientist, 2011 Mr. Finamore organized and directed field crews, performed wetland delineations, wetland function and values assessments, stream classifications, and natural community surveys along existing transmission line right-of-ways

National Grid, 015S, Turtle Sweeps – MA Ecologist, 2011 Mr. Finamore performed Turtle Sweeps for Wood Turtle and Eastern Box Turtle for line restoration work due to tornado damage

National Grid, S9, Natural Resource Mapping – MA Wetland Scientist, 2011 Mr. Finamore performed wetland delineations for reconductoring along the S9 line.

National Grid, Y151, Natural Resource Mapping – MA Wetland Scientist, 2011 Mr. Finamore performed wetland delineations for reconductoring along the A126 line.



Spectra Energy, Wetland Permitting – CT, MA, RI Wetland Scientist, 2011 Mr. Finamore performed local and state wetland permitting for installation of launcher and receiver barrels for pipeline segments throughout Algonquin's distribution system

MBCR, Natural Resource Mapping – Walpole, MA Wetland Scientist, 2010 Mr. Finamore delineated watersheds for culvert sizing using GIS and ground truthing.

Central Maine Power, Co., Natural Resource Mapping and State and Federal Permit Application – ME Wetland Scientist, 2009-Present Mr. Finamore performed wetland delineations along proposed transmission line corridors, performed vernal pool surveys, performed routine stormwater inspections, performed invasive species inventories, field located resources and setbacks for pre-construction, prepared GIS maps and data tables for associated NRPA, Site Location of Development, and Army Corps of Engineers permitting, provided survey assistance on structure location and conductor height over major river crossings.

First Wind & 3Phase, Land Survey – Lincoln, ME Survey Technician, 2010 Mr. Finamore performed structure layout for the collector and transmission line servicing 40 wind turbines.

NSTAR, Natural Resource Mapping – RI Wetland Scientist, 2010 Mr. Finamore performed wetland delineations along an existing transmission line.

Town of Morrisville, FERC Pre-application Document – Morrisville, VT Ecologist, 2010 Mr. Finamore collected existing condition information regarding geologic, soil, wetland, wildlife, botanical, and rare, threatened and endangered species pertinent to FERC relicensing from federal, state, and local agencies for four hydroelectric dams.

Bangor Hydro, Natural Resource Mapping and State and Federal Permit Application, Ellsworth – ME Wetland Scientist, 2009-2010 Mr. Finamore performed wetland delineations along proposed transmission line corridors, assessed potential access roads for viability, prepared GIS maps and data tables for associated NRPA, Site Location of Development, and Army Corps of Engineers permitting.

National Grid, A127, Natural Resource Mapping – MA Wetland Scientist, 2009 Mr. Finamore performed wetland delineations for reconductoring along the A126 line.

VELCO, PV-20, Natural Resource Mapping – VT Wetland Scientist, 2009 Mr. Finamore performed wetland delineations, wetland function and values assessments, stream classifications, and natural community surveys along existing transmission line right-of-ways.

L.L. Bean, Inc., Natural Resource Mapping and Permitting – Freeport, ME Wetland Scientist & Survey Technician, 2005-2008 Mr. Finamore performed wetland delineations, vernal pool surveys, topographic mapping, and prepared Natural



Resource Protection Act applications and assisted with Site Location of Development Act applications.

First Wind, Natural Resource Mapping – ME Wetland Scientist, 2006-2007 Mr. Finamore performed wetland delineations and vernal pool surveys for the First Wind Stetson Wind Farm and associated transmission line corridors.

Bangor Hydro Electric Company, Natural Resource Mapping – Bangor, ME Wetland Scientist, 2008 Mr. Finamore performed wetland delineations and vernal pool surveys for the rebuild of Line 64.

Maine Coast Heritage Trust, Natural Resource Inventory – Stonington, ME Wetland Scientist, 2009 Mr. Finamore performed a Natural Resource inventory of 11 properties managed by MCHT. Inventories included gathering of available GIS data, historical aerial photography, and historical accounts of land use, vegetative inventories, soil evaluations, and wildlife observations.

Zyacorp Cinemagic, Natural Resource Mapping, Environmental Permit Applications, Environmental Site Assessment and Topographic Mapping – Westbrook and Saco, ME Environmental Scientist & Survey Technician, 2005-2009 Mr. Finamore performed wetland delineations, vernal pool surveys, topographic mapping on commercial properties. Mr. Finamore prepared environmental permit applications under Maine's Natural Resource Protection Act and a Preliminary Environmental Assessment on the Saco property.

New England College, Environmental Permit Application – Henniker, NH Wetland Scientist, 2009 Mr. Finamore prepared environmental permit applications under New Hampshire's Fill and Dredge in Wetlands statute for the installation of an athletic field.

Bangor Retirement Community, Wetland Mitigation Design and Monitoring – Bangor, ME Wetland Scientist, 2007-2009 Mr. Finamore assisted with the design of a wetland creation area mitigating over an acre of wetland disturbance. Mr. Finamore performed annual monitoring of the mitigation area and submitted reports to the Maine Department of Environmental Protection.

Town of Wells, Salt Marsh Erosion Monitoring – Wells, ME Wetland Scientist, 2004 Mr. Finamore mapped erosional features within a coastal marsh and inventoried vegetation and wildlife

CERTIFICATIONS AND TRAINING

Certified Wetland Scientist, #267, NH Licensed Site Evaluator, #391, ME

AFFILIATIONS

Maine Association of Wetland Scientists – Member (Member since 2005) Maine Association of Site Evaluators – Member (Member since 2005)

ATTACHMENT C U.S. ARMY CORPS OF ENGINEERS WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Antrim Wind Project	City/Co	ounty: Antrim		Sampling Date: 10-A	lug-11
Applicant/Owner: Eolian Renewable Ene	ergy, LLC	State	e: NH	Sampling Point:	AN1 Wet
Investigator(s): AF JG	Sec	tion, Township, Range: S	. т.	R.	
andform (hillslope, terrace, etc.): +	lillside Local re	elief (concave, convex, no	ne): hummocky	/ Slope: (0.0 % / 0.0
Subregion (LRR or MLRA):	Lat.:	Long.	:	Datum	:
Soil Map Unit Name:			NWI classific	cation: PFO	
Are climatic/hydrologic conditions on	the cite typical for this time of year?	Yes No	If no, explain in	Pomarke)	
	or Hydrology significantly distu		Circumstances" p		No O
			Secretary and American Co., Secretary Co., Sec. 1971		
NA AND RECORD AND RECOGNIZATION AND A MAINTENANCE OF THE	, or Hydrology 📋 naturally problema ach site map showing sampli	The second secon	oplain any answe s. transects.	-	ures. etc.
Hydrophytic Vegetation Present?	Yes No No		,,		
A W 1 5 A A A A A A A A A A A A A A A A A A	Yes No	Is the Sampled Area	Yes No		
Wetland Hydrology Present?	Yes No	within a Wetland?	ie o No o		
Underland					
Hydrology					
Wetland Hydrology Indicators: Primary Indicators (minimum of one	required: check all that apply)		Secondary Indicator Surface Soil Cr	rs (minimum of 2 require	ed)
Surface Water (A1)	✓ Water-Stained Leaves (B9)		Drainage Patte		
✓ High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Line		
Saturation (A3)	Marl Deposits (B15)		Dry Season Wa	ater Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1))	Crayfish Burrov	ws (C8)	
Sediment Deposits (B2)	Oxidized Rhizospheres alon	g Living Roots (C3)	Saturation Visib	ble on Aerial Imagery (C	9)
Drift deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stre	essed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Ti	lled Soils (C6)	Geomorphic Po	18 5	
☐ Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquita	* *	
Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface	Other (Explain in Kemarks)		✓ Microtopograph✓ FAC-neutral Te		
Field Observations:					=
Surface Water Present? Yes O	No O Depth (inches):				
Water Table Present? Yes Yes	No Depth (inches):		James Dec	Yes No	
Saturation Present? (includes capillary fringe) Yes	No O Depth (inches):	Wetland Hydro	liogy Present?	res 🙂 No 🖰	
	ge, monitoring well, aerial photos, previ	ous inspections), if availa	ble:		
Remarks:					
	*0				

VEGETATIO	N - Use scientific	names or pr		_Sp	minant ecies?			mpling Po		N1 Wet	
Tree Stratum	(Plot size: 30'	ì	Absolute % Cover			Indicator Status	Dominance Test w	vorksheet:			
1 Acer rubrum			20	~	50.0%	FAC	Number of Dominan That are OBL, FACW			8	(A)
2. Picea mariana	a		20	~	50.0%	FACW-	Tride dre Obe, Friend	, or the			(,,)
 3.			0		0.0%	***************************************	Total Number of Do Species Across All Si			8	(B)
4			0		0.0%		Species Across Air Si	uata.		-	(0)
			0		0.0%		Percent of domina			100.00/	/ A / D\
			0		0.0%		That Are OBL, FA	CW, or FA	C: _	100.0%	(A/B)
7.			0		0.0%		Prevalence Index	worksheet	:		
			40	= Ta	tal Cove	er	Total % Cov	er of:	Multip	oly by:	
	Stratum (Plot size: 15'						OBL species	0	x 1 =	0	
1. Betula allegh	amount to be Cold Pro-		10	V	25.0%	FAC	FACW species	83	x 2 =	166	
2. Picea mariana			15	V	37.5%	FACW-	FAC species	30	x 3 =	90	
3. Vaccinium co	rymbosum		15	V	37.5%	FACW-	FACU species	0	x 4 =	0	
			0		0.0%	-	UPL species	0	x 5 =	0	
Q		-		H	0.0%		Column Totals:	113	(A)	256	(B)
				H	0.0%	-					-
			0	Ш	0.0%		Prevalence Ir	1 dex = B/A	<i>t</i> = (2.265	
Herb Stratum	(Plot size: 5')	40	= To	tal Cove	er	Hydrophytic Veget	tation Indi	cators:		
1.Carex intume	enene		15	V	45.5%	FACW+	Rapid Test fo		-	etation	
2.0smunda dni			10	4	30.3%	FACW	✓ Dominance T				
3. Coptis trifolia				V	24.2%	FACW	✓ Prevalence I	ndex is ≤3	.0 ¹		
4.			0		0.0%		Morphologica data in Rema	al Adaptati	ions ¹ (F	Provide supp	porting
5.			0		0.0%		Problematic				/nicla
6.			0		0.0%		Problematic	пушорнус	ic veget	acion (LX)	Pidility
7.			0		0.0%		¹ Indicators of hy				gy must
8.			0		0.0%		be present, unles				
9.			0		0.0%		Definitions of V	egetatio	n Strat	a:	
10.			0		0.0%		Tree - Woody plan	nts 3 in (7	7.6 cm)	or more in a	diamete
11,			0		0.0%		at breast height (E				Jamoto
2.			0		0.0%				co recess a		211
Woody Vine Str	atum (Plot size:)	33	= To	ital Cove	r	Sapling/shrub - W greater than 3.28			nan 3 in, Di	3H and
1			0		0.0%		Herb - All herbace				rdless (
2.			0		0.0%		size, and woody p	lants less	than 3.2	28 ft tall.	
3.			0		0.0%		Woody vine - All v	voody vine	s areata	er than 3.29	l ft in
4.			0		0.0%		height.	voody vine	o great	77 HIGH 0.20	e ic iii
7.5			0		tal Cove		I -				

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

Yes

No

Hydrophytic Vegetation Present?

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: AN1 Wet

	needed to document the indicator or confirm the a	absence of indicators.)
Depth Matrix (inches) Color (moist) %	Redox Features Color (moist) % Type 1 Loc2	Texture Remarks
0-10 10YR 2/1 100%	Color (maist) 70 Type - Ede	Muck
10 10 10 10 10 10 10 10 10 10 10 10 10 1		Pitter
		(-
		-
1= 0.0 / // - 0.0 / - 0.0		
TO ANALYSIS SEE AND ANALYSIS SEED AND ANALYSIS SEE SEED AND ANALYSIS SEED ANALYSIS SEED AND ANALYSIS SEED AND ANALYSIS SEED AND ANALYSIS SEED	ced Matrix, CS=Covered or Coated Sand Grains 2Loca	
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils: 3
Histosol (A1)	Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
✓ Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)
	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)
☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L)
	Depleted Dark Surface (F7)	Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Muck Mineral (S1)	Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Stripped Matrix (S6)		Red Parent Material (TF2)
Dark Surface (S7) (LRR R, MLRA 149B)		☐ Very Shallow Dark Surface (TF12)
		Other (Explain in Remarks)
Indicators of hydrophytic vegetation and wetlan	d hydrology must be present, unless disturbed or proble	ematic.
Restrictive Layer (if observed):		
Type: Ledge		
Depth (inches): 10		Hydric Soil Present? Yes No
Remarks:		
Terrario.		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Antrim Wind Project	City/Count	y: Antrim		Sampling Date: 10	-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC		State	: NH	Sampling Point:	AN1 Upland
nvestigator(s): AF JG	Section	, Township, Range: S.	T.	R.	
andform (hillslope, terrace, etc.): Hillside	Local relief	(concave, convex, no	ne): none	Slope:	5.0 % / 2.9°
Subregion (LRR or MLRA):	Lat.:	Long.:		Datu	m:
Soil Map Unit Name:			NWI classif	ication:	
Are climatic/hydrologic conditions on the site	typical for this time of year?	Yes No (- If no, explain in	Remarks.)	
Are Vegetation 🔲 , Soil 🗌 , or Hydr	ology significantly disturbed	? Are "Normal C	ircumstances" ;	present? Yes 💿	No O
Are Vegetation 🔲 , Soil 🗌 , or Hydi	ology naturally problematic?	(If needed, ex	plain any answ	ers in Remarks.)	
Summary of Findings - Attach si	te map showing sampling		5. (5)	-	itures, etc.
Hydrophytic Vegetation Present? Yes	No 💿				
Hydric Soil Present? Yes		the Sampled Area thin a Wetland?	Yes O No 🖲)	
Wetland Hydrology Present? Yes	No 💿	umi a Wetianu:			
Underland					
Hydrology					
Wetland Hydrology Indicators: Primary Indicators (minimum of one required	to check all that apply)	S		ors (minimum of 2 requ	ired)
Surface Water (A1)	Water-Stained Leaves (B9)		Surface Soil CDrainage Patt		
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lin		
Saturation (A3)	Marl Deposits (B15)	[Dry Season W	later Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	[Crayfish Burro	A	
Sediment Deposits (B2)	Oxidized Rhizospheres along Liv	ring Roots (C3)		ible on Aerial Imagery	(C9)
Drift deposits (B3) Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)			ressed Plants (D1)	
Iron Deposits (B5)	Recent Iron Reduction in Tilled !	Soils (C6)	Geomorphic PShallow Aquit		
☐ Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)Other (Explain in Remarks)	į		ohic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	Ţ	FAC-neutral T		
Field Observations:					
Surface Water Present? Yes O No ©	Depth (inches):	_			
Water Table Present? Yes O No •	Depth (inches):			- 0 - 0	
Saturation Present? (includes capillary fringe) Yes No •		Wetland Hydrol	ogy Present?	Yes O No 💿	
Describe Recorded Data (stream gauge, mor	itoring well, aerial photos, previous	inspections), if availal	ole:		
Remarks:					

vegetation - use scientific names of p	idillo		ominant pecies?		Sampling Point: AN1 Upland
Tree Stratum (Plot size: 30')	Absolute % Cover	Re		Indicator Status	
1. Fagus grandifolia	25	~	30.1%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2. Picea rubens	0.0	V	39.8%	FACU	
3. Acer rubrum	0.5	~	30.1%	FAC	Total Number of Dominant Species Across All Strata: 7 (B)
4.			0.0%		Species Actoss All Science, (b)
5	0		0.0%		Percent of dominant Species
6,	0		0.0%		That Are OBL, FACW, or FAC: 28.6% (A/B)
7	0		0.0%		Prevalence Index worksheet:
		= To	otal Cove	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15'					OBL species 0 x 1 = 0
1. Picea rubens	10	V	55.6%	FACU	FACW species 0 x 2 = 0
2. Fagus grandifolia		Ц	16.7%	FACU	FAC species 38 x 3 = 114
3. Vaccinium angustifolium	5	~	27.8%	FACU-	FACU species $91 \times 4 = 364$
4	0	Щ	0.0%		UPL species $0 \times 5 = 0$
5	0	Н	0.0%		
6	0	Ц	0.0%		Column Totals: 129 (A) 478 (B)
7.	0	Ш	0.0%		Prevalence Index = $B/A = 3.705$
Herb Stratum (Plot size: 5')	18	= To	otal Cove	er	Hydrophytic Vegetation Indicators:
1.Aralla nudicaulis	5		16.1%	FACU	Rapid Test for Hydrophytic Vegetation
2.Lycopodium obscurum	10	~	32.3%	FACU	Dominance Test is > 50%
3. Maianthemum canadense	2		9.7%	FAC-	Prevalence Index is ≤3.0 ¹
4. trillium spp.	2		9.7%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Trientalis borealis	40	~	32.3%	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
6.	0		0.0%		Froblematic Hydrophytic Vegetation (Explain)
7.	0	П	0.0%		¹ Indicators of hydric soil and wetland hydrology must
8.	0		0.0%		be present, unless disturbed or problematic.
9.	0		0.0%		Definitions of Vegetation Strata:
10.	0	Ħ	0.0%		T W
11.	0	П	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12.	0	П	0.0%	-	at breast noight (BB/I), regardless of height.
Woody Vine Stratum (Plot size:		= To	otal Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
	0		0.0%		Hade All backs are used to also be according
1					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2	0		0.0%		Size, and vices, plante loss than out with
3			-		Woody vine - All woody vines greater than 3,28 ft in
4	0	= To	0.0%	·	height.
					Hydrophytic Vegetation
					Present? Yes No No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: AN1 Upland

Profile Descri	ption: (Des	cribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth (inches)		Matrix		Redox Features		
(inches)	Color (m	20.00	%	Color (moist) % Type 1 Loc2	Texture	Remarks
0-6	10YR	3/2	100%		Loam	
6-7	2.5Y	5/3	100%		Fine Loamy Sand	
7-16	10YR	4/3	100%		Fine Sandy Loam	
16+	2.5Y	5/6	100%		Fine Sandy Loam	
					-	
¹ Type: C=Conc	entration. D=	-Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains 2Loca	ation: PL=Pore Lining. M=Matr	lx
Hydric Soil Ir				,	Indicators for Problem	
Histosol (A	1)			Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LR	
Histic Epipe	edon (A2)			MLRA 149B)	Coast Prairie Redox (WANTED STORY OF THE PROPERTY O
Black Histic				☐ Thin Dark Surface (S9) (LRR R, MLRA 149B) ☐ Loamy Mucky Mineral (F1) LRR K, L)		Peat (S3) (LRR K, L, R)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Dark Surface (S7) (L	RR K, L)
-	ayers (A5) Selow Dark St	urfaco (A	111	Depleted Matrix (F3)	Polyvalue Below Surf	NOT ANY TRANSPORTED TO CONTRACT
1-1	Surface (A12	AND RELEASED BY	11)	Redox Dark Surface (F6)	Thin Dark Surface (S	ENTINE DESCRIPTION H
-	k Mineral (S1			Depleted Dark Surface (F7)		ses (F12) (LRR K, L, R)
P-1	ed Matrix (S			Redox Depressions (F8)	The Anna Control of the Control of the	Soils (F19) (MLRA 149B) MLRA 144A, 145, 149B)
Sandy Red	ox (S5)				Red Parent Material (Della Control
Stripped M	latrix (S6)				Very Shallow Dark Su	
Dark Surfa	ce (S7) (LRR	R, MLRA	149B)		Other (Explain in Rer	narks)
³ Indicators of	hydrophytic v	vegetatio	n and wetla	nd hydrology must be present, unless disturbed or probl	ematic.	
Restrictive La	yer (if obse	rved):				
Type:						0 0
Depth (inch	es):				Hydric Soil Present?	Yes O No 🖲
Remarks:						



AN1 Wetland



AN1 Wetland



AN1 Upland

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Antrim Wind Project	at .	City/C	ounty: Antrim		Sampling Date: 10-Au	ıg-11
Applicant/Owner: Eolian Renew	able Energy, LLC		Sta	ite: NH	Sampling Point:	AN2 Wet
Investigator(s): AF JG		Sec	ction, Township, Range:	s. T.	R.	
Landform (hillslope, terrace, et	:c.): Ridgetop		relief (concave, convex, r			.0% / 0.0°
Subregion (LRR or MLRA):		Lat.:	Long	g.:	Datum:	
Soil Map Unit Name:	***			NWI classif	ication: PFO/PSS	
Are climatic/hydrologic conditi	ons on the site ty	pical for this time of year?	Yes No	(If no, explain in	Remarks.)	
	, or Hydrol		irbed? Are "Normal	Circumstances"		No O
Are Vegetation , Soil				explain any answ		
Summary of Findings						ıres, etc.
Hydrophytic Vegetation Prese	nt? Yes 💿	No O				900
Hydric Soil Present?	Yes 💿	No O	Is the Sampled Area within a Wetland?	Yes No)	
Wetland Hydrology Present?	Yes 💿	No O	within a wetland:			
Hydrology						
Wetland Hydrology Indicators				Secondary Indicato	ors (minimum of 2 require	1)
Primary Indicators (minimum	of one required;			Surface Soil C	COLORODO SONO	
☐ Surface Water (A1) ✓ High Water Table (A2)		✓ Water-Stained Leaves (B9))	Drainage Patt		
✓ High Water Table (A2) ✓ Saturation (A3)		Aquatic Fauna (B13)		Moss Trim Lin		
Water Marks (B1)		Marl Deposits (B15) Hydrogen Sulfide Odor (C1	13	Crayfish Burro	/ater Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres alor			ible on Aerial Imagery (C9	١
Drift deposits (B3)		Presence of Reduced Iron		— ·	ressed Plants (D1)	,
Algal Mat or Crust (B4)		Recent Iron Reduction in T		Geomorphic P		
Iron Deposits (B5)		Thin Muck Surface (C7)	(00)	Shallow Aquit		
Inundation Visible on Aerial I	magery (B7)	Other (Explain in Remarks))	Microtopograp	ohic Relief (D4)	
Sparsely Vegetated Concave	Surface (B8)	one (Expansis tentro)		FAC-neutral T	est (D5)	
Field Observations:		-		-		
	es O No 💿	Depth (inches):				
Water Table Present? Y	es 💿 No 🔾	Depth (inches):	9		w @ w O	
Saturation Present? (includes capillary fringe)	es No	Depth (inches):	0 Wetland Hyd	rology Present?	Yes • No O	
Describe Recorded Data (stream	ım gauge, monito	oring well, aerial photos, prev	vious inspections), if avai	lable:		
Remarks;						

Ahsolute		ecies?	Indicator	Dominance Test w	orksheet		I2 Wet	
			Status					
25	~	55.6%	FACW-				6	(A)
20	V	44.4%	FAC	1				
0		0.0%					6	(B)
0		0.0%						. ,
0		0.0%					100.0%	(A/B)
00		0.0%		That Are OBL, FA	CW, or FA	u:	100.070	(A/D)
0		0.0%		Prevalence Index	worksheet			
45	= To	otal Cove	er	Total % Cov	er of:	Multip	ly by:	
	()			OBL species	100	x 1 =	100	
	-			FACW species	55	x 2 =	110	
	Discours.			FAC species	30	x 3 =	90	
	~		FACW-		0	v 4 -	0	
					0		0	
		35-137-					200	(B)
0		0.0%		Column Totals:	100	(A)	300	(8)
0	Ш	0.0%		Prevalence In	dex = B/A	\ =	1.622	
30	= To	otal Cove	er				tation	
100	\checkmark	90.9%	OBL				CLACIOII	
5		4.5%	FACW					
5		4.5%	FACW					
0		0.0%						porting
0		0.0%					•	nlain)
0		0.0%		Froblematic	ilydiopilyc	ic reget	ואבו) ווטוזב	prairi
0		0.0%						gy must
0		0.0%		be present, unless	s disturbed	or prob	lematic.	
0		0.0%		Definitions of V	egetatio	n Strata	1 :	
0		0.0%		Troe Woody plan	ste 3 in /7	'6 cm)	or more in a	diameter
0		0.0%						Jiainelei
0		0.0%			,, 3			
110	= To	otal Cove	er				an 3 in. Di	3H and
0		0.0%		Herb - All herbace	oue (non-	woody) r	lants rona	rdless o
								uicaa U
					voody vine	s greate	r than 3,28	ft in
	_			neight.				
U	= 10	otal Cove	er					
				Hydrophytic Vegetation Present? Y	′es ⊙ I	lo O		
	% Cover 25 20 0 0 0 0 0 0 45 10 10 0 0 0 30 100 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Absolute % Cover Cc 25	Absolute % Cover 25	Absolute % Cover Cover Status 25	Absolute % Cover Cover Status 25	Absolute % Cover Status 25	Absolute No Cover Cover Status	Absolute National Cover Status Number of Dominant Species Numbe

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

-		
50	п	B

Sampling Point: AN2 Wet

Profile Descr Depth	ription: (Des	cribe to Matrix	the depth	needed to document the indicator or confirm the Redox Features	absence of indicators.)				
(inches)	Color (r		- %	Color (moist) % Type 1 Loc2	Texture	Remarks			
0-8	10YR	2/1	100%		Muck				
8-15	2.5Y	5/1	100%		Sand				
	-								
	7								
1 Type: C=Con	centration. D	=Depletio	on, RM=Red	uced Matrix, CS=Covered or Coated Sand Grains 2Loca	ation: PL=Pore Lining. M=M	latrix			
Hydric Soil 1	N 1000					ematic Hydric Soils : 3			
Histosol (A1)			Polyvalue Below Surface (S8) (LRR R,		(LRR K, L, MLRA 149B)			
✓ Histic Epij	pedon (A2)			MLRA 149B)		x (A16) (LRR K, L, R)			
Black Hist				Thin Dark Surface (S9) (LRR R, MLRA 149B)		or Peat (S3) (LRR K, L, R)			
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L)				Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)				
attending.	Layers (A5) Below Dark S	urfaco (A	CON	Depleted Matrix (F3)		urface (S8) (LRR K, L)			
			*11)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L)				
Thick Dark Surface (A12) Sandy Muck Mineral (S1) Redox Dark Surface (F6) Depleted Dark Surface (F7)				(CT)	Iron-Manganese Masses (F12) (LRR K, L, R)				
1	eyed Matrix (S			Redox Depressions (F8)	Piedmont Floodplain Solls (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Re	141-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	SIDE:			Red Parent Material (TF2)				
Stripped Matrix (S6)					Very Shallow Dark Surface (TF12)				
Dark Surf	ace (S7) (LRR	R, MLR	A 149B)		Other (Explain in I				
³ Indicators of	f hydrophytic	vegetatio	on and wetla	nd hydrology must be present, unless disturbed or probl	lematic.				
Restrictive L	ayer (if obse	erved):							
Type:					1	Θ Ο			
Depth (inc	hes):				Hydric Soil Present?	Yes No			
Remarks:									

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Investigator(s): AF JG Landform (hillslope, terrace, etc.): Ridgetop Section, Township, Range Local relief (concave, convex Subregion (LRR or MLRA): Lat.: Loc Soil Map Unit Name: Are climatic/hydrologic conditions on the site typical for this time of year? Yes No Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normalized in the site of year in the site of year in the site of year? Yes Are "Normalized in the site of year in the site of year in the site of year in the site of year? Yes Are "Normalized in the site of year in the year in th	ng.: Datum: NWI classification: (If no, explain in Remarks.) nal Circumstances" present? Yes No O d, explain any answers in Remarks.) Dons, transects, important features, etc.				
Landform (hillslope, terrace, etc.): Ridgetop Local relief (concave, convex Subregion (LRR or MLRA): Lat.: Local relief (concave, convex Lat.: Local Map Unit Name: Are climatic/hydrologic conditions on the site typical for this time of year? Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Norm Are Vegetation , Soil , or Hydrology naturally problematic? (If needed Summary of Findings - Attach site map showing sampling point location Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate report.)	none: Slope: 3.0 % / 1.7 ° Datum: NWI classification: (If no, explain in Remarks.) al Circumstances" present? Yes No one, transects, important features, etc.				
tubregion (LRR or MLRA): Lat.: Local Map Unit Name: Lat.: Lat.: Local Map Unit Name: Lat.: Local Map Unit Name: Local	NWI classification: (If no, explain in Remarks.) nal Circumstances" present? Yes No O d, explain any answers in Remarks.) ons, transects, important features, etc.				
ioil Map Unit Name: Are climatic/hydrologic conditions on the site typical for this time of year? Yes	NWI classification: (If no, explain in Remarks.) nal Circumstances" present? Yes No d, explain any answers in Remarks.) ons, transects, important features, etc.				
Are climatic/hydrologic conditions on the site typical for this time of year? Are Vegetation	(If no, explain in Remarks.) nal Circumstances" present? Yes No Od, explain any answers in Remarks.) ons, transects, important features, etc.				
are Vegetation , Soil , or Hydrology	nal Circumstances" present? Yes No				
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed Summary of Findings - Attach site map showing sampling point location Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate report.)	nal Circumstances" present? Yes No				
Summary of Findings - Attach site map showing sampling point location. Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate report.)	ons, transects, important features, etc.				
Summary of Findings - Attach site map showing sampling point location Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate report.)	ons, transects, important features, etc.				
Hydric Soil Present? Yes No Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a separate report.)	Yes O No O				
Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a separate report.)	Yes O No O				
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate report.)					
hydrology					
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of 2 required)				
Surface Water (A1) Water-Stained Leaves (B9)	Surface Soil Cracks (B6) Drainage Patterns (B10)				
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)				
Saturation (A3) Marl Deposits (B15)	Dry Season Water Table (C2)				
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)				
Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3)	s (C3) Saturation Visible on Aerial Imagery (C9)				
Drift deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)				
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)				
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	Microtopographic Relief (D4) FAC-neutral Test (D5)				
sparsely vegetated contains surface (bb)	E PAC-Heutian rest (D3)				
Field Observations: Surface Water Present? Yes No Depth (inches):	-				
Wetland Hy	ydrology Present? Yes O No 💿				
Saturation Present? (Includes capillary fringe) Yes No Depth (inches):					

1. Quercus rubra 2. Pinus strobus 3. 4. 5.		V	58.3%	Status FACU-	Number of Dominant Sp			91	
2. Pinus strobus 3. 4. 5.	25 0		30.0.70		I That are CIPI EACM or	EAC.		2	(A)
3. 4. 5. 6.	0		41.7%	FACU	That are OBL, FACW, or	FAC.			(A)
4. 5. 6.			0.0%	Trico	Total Number of Domina			7	(8)
5. 6.		П	0.0%		Species Across All Strata	:		7	(B)
6,	0	$\overline{\Box}$	0.0%		Percent of dominant	Species			
V	0		0.0%	-	That Are OBL, FACW,			28.6%	(A/B)
7	0		0.0%		Prevalence Index wor	kehooti			
7					Total % Cover of		Multiply	, by	
Sapling/Shrub Stratum (Plot size: 15')	60	= 10	otal Cove	er	OBL species	л. 0	x 1 =	у Бу.	-
1. Acer rubrum	10	V	18.2%	FAC		0		0	
2. Betula papyrifera	5		9.1%	FACU	FACW species		x 2 =	V:3977	-
3. Fagus grandifolia	10	V			FAC species	20	x 3 =	60	
4. Picea rubens	25				FACU species		x 4 =	420	-
5. Betula alleghaniensis	5				UPL species	0	x 5 =	0	
6.	0		0.0%		Column Totals:	125	(A)	480	(B)
7.	0		0.0%		Prevalence Index	- R/Δ	_	3.840	
	the state of the s	= To	otal Cove	r				210 10	
Herb Stratum (Plot size: 5'	33	-			Hydrophytic Vegetation				
1. Vaccinium angustifolium	5	V	50.0%	FACU-	Rapid Test for Hy		-	tation	
2. Trientalis borealis	5	V	50.0%	FAC	Dominance Test				
3.	0		0,0%		Prevalence Index				
4.	0		0.0%		Morphological Addata in Remarks				porting
5.	0		0.0%		Problematic Hyd			-	nlain)
6.	0		0.0%		Problematic riyu	горпуск	. vegeta	uon (Ex	ріаті
7.	0		0.0%		1 Indicators of hydric	soil an	d wetlar	d hydrola	gy mus
8.	0	П	0.0%		be present, unless dis	sturbed	or probl	ematic.	
9.	0		0.0%		Definitions of Vege	tation	Strata	S	
10.	0	П	0,0%		T W t ()-	0:- /7	C \		J
11.	0	П	0.0%		Tree - Woody plants, at breast height (DBH				Jiamete
12.	0	П	0.0%		at broadt Holghi (DD)	// rogur	0,000 0,	girt.	
Woody Vine Stratum (Plot size:	-	= To	otal Cove	:r	Sapling/shrub - Wood greater than 3.28 ft (1			an 3 in. Di	BH and
1.	0	[0.0%		Herb - All herbaceous	(non-w	ondy) nl	ants rens	ardlaee
2.	0		0.0%		size, and woody plant				iluless i
3.	0	П	0.0%						
4.	0	П	0.0%	471	Woody vine - All wood height.	dy vines	greater	than 3.28	ft in
4	-	_	otal Cove		neight.				
					Hydrophytic Vegetation Present? Yes	O N	o		

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

	A 1071		the depth	needed to document the indicator or confirm the	absence of indicators.)				
Depth (inches)	Color (m	Matrix	%	Redox Features Color (moist) % Type 1 Loc²	Texture Remarks				
0-4	10YR	3/2	100%	Color (maist) 70 Type 1 Euc-	Loam				
4-12	10YR	4/6	100%		Fine Sandy Loam				
12-16	10YR	5/8	100%		Fine Sandy Loam				
1	10.								
N									
					*1				
1 Type: C=Conc	entration. D=	:Depletio	n RM=Red	uced Matrix, CS=Covered or Coated Sand Grains 2Loc	ration: PL=Pore Lining M=Matrix				
Hydric Soil I				and the state of t	Indicators for Problematic Hydric Soils: 3				
Histosol (A				Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)				
Histic Epip	HANDSON MESSELVEN			MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)				
Black Histi	TARREST AND THE			Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)				
	Sulfide (A4) ayers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)				
	Below Dark Su	ırface (A	11)	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)				
Control of the second	Surface (A12		578.5	Redox Dark Surface (F6)	☐ Thin Dark Surface (S9) (LRR K, L) ☐ Iron-Manganese Masses (F12) (LRR K, L, R)				
Sandy Muc	k Mineral (S1)		Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 149B)				
	yed Matrix (S	4)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Redox (S5)					Red Parent Material (TF2)				
Stripped M	ce (S7) (LRR	R MIRA	149R)		Very Shallow Dark Surface (TF12)				
	100 100 10		100		Uther (Explain in Remarks)				
			1 and wella	nd hydrology must be present, unless disturbed or prob	olemauc.				
Restrictive La Type:	yer (IT obse	rvea):							
Depth (inch	es):				Hydric Soil Present? Yes No 💿				
Remarks:	,-								
ixemarks,									



AN2 Wetland



AN2 Wetland



AN2 Wetland



AN2 Upland

Project/Site: Antrim Wind Project	Cit	y/County: Antrim	Sai	mpling Date: 10-Aug-11
Applicant/Owner: Eolian Renewable E	inergy, LLC	Stat	te: NH Sa	impling Point: AN3 Wet
Investigator(s): AF JG		Section, Township, Range: 5	s. T.	R.
Landform (hillslope, terrace, etc.):	Ridgetop Loc	cal relief (concave, convex, n		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA):	Lat.:	Long		Datum:
Soil Map Unit Name:	*******		NWI classificati	
	nu ška piša švotigai šauškia šima pšavani	yes ● No ○	-	
	on the site typical for this time of year:		(If no, explain in Rer	
Are Vegetation , Soil ,	, or Hydrology significantly d		Circumstances" prese	ant? les 🔾 NO 🔾
Are Vegetation, Soil	, or Hydrology L naturally prob		xplain any answers i	
Summary of Findings - At	ttach site map showing san	npling point location	s, transects, in	iportant features, etc.
Hydrophytic Vegetation Present?	Yes No			
Hydric Soil Present?	Yes No	Is the Sampled Area within a Wetland?	Yes No	
Wetland Hydrology Present?	Yes No			
Hydrology				
Hydrology				
Wetland Hydrology Indicators:		2	Secondary Indicators (r	ninimum of 2 required)
Primary Indicators (minimum of on			Surface Soil Cracks	
Surface Water (A1)	✓ Water-Stained Leaves	(B9)	Drainage Patterns	
☐ High Water Table (A2) ✓ Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)		☐ Moss Trim Lines (I	
Water Marks (B1)	Hydrogen Sulfide Odor	r (C1)	Crayfish Burrows (
Sediment Deposits (B2)		along Living Roots (C3)	T	on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced I		Stunted or Stresse	25 N. 151 E.1
Algal Mat or Crust (B4)	Recent Iron Reduction	* 22	Geomorphic Position	
Iron Deposits (B5)	Thin Muck Surface (C7	")	Shallow Aquitard (D3)
Inundation Visible on Aerial Imager	ry (B7) Other (Explain in Rema	arks)	✓ Microtopographic I	
Sparsely Vegetated Concave Surfac	te (B8)		FAC-neutral Test (D5)
Field Observations:				
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No O Depth (inches):			0 0
Saturation Present? Yes	No O Depth (inches):	Wetland Hydro	ology Present?	res ● No O
(includes capillary tringe)	auge, monitoring well, aerial photos, p		ablo	
Describe Recorded Data (stream go	auge, monitoring wen, aenai priotos, p	previous irispections), ii avaik	ible.	
Remarks:				
			5.	

Tree Stratum (Plot size: 30') 1. Acer rubrum 2.	% Cover	111111111	ver	Status	HI LANGE CONTRACTOR
	20		100 00/	EAC	Number of Dominant Species
4 ,		V		FAC	That are OBL, FACW, or FAC: 5 (A)
	0		0.0%		Total Number of Dominant
	0	Н	0.0%		Species Across All Strata: 5 (B)
	0	Н	0.0%		Percent of dominant Species
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
			0.0%		
	0	Ш	0.0%		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15'	20	= To	otal Cove	r	Total % Cover of: Multiply by: OBL species 20 x 1 = 20
, Picea mariana	15	V	37.5%	FACW-	FACW species 50 x 2 = 100
Acer rubrum	5		12.5%	FAC	
Vaccinium corymbosum	20	V	50.0%	FACW-	The species and a
(a)	0		0.0%		racu species x 4 =
D.	0		0.0%		UPL species $0 \times 5 = 0$
),	0		0.0%		Column Totals: 95 (A) 195 (B)
7	0		0.0%		Prevalence Index = B/A = 2.053
		= To	tal Cove	r	7,10,000 2,120,100
Herb Stratum (Plot size: 5')	(1,0)				Hydrophytic Vegetation Indicators:
1.Osmunda cinnamomea	15	V	42.9%	FACW	Rapid Test for Hydrophytic Vegetation
2. Carex stricta	20	~	57.1%	OBL	✓ Dominance Test is > 50%
3.	0		0.0%		✓ Prevalence Index is ≤3.0 ¹
4.	0		0.0%		Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
5.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
6.	0		0.0%	V-	Problematic nyurophytic vegetation (Explain)
7.	0		0.0%		1 Indicators of hydric soil and wetland hydrology mus
8.	0		0.0%		be present, unless disturbed or problematic.
9.	0	П	0.0%		Definitions of Vegetation Strata:
10.	0	H	0.0%	-	
4					Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2.			0.0%		at breast neight (DBH), regardless of neight.
	35	— = То	0.0% otal Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.,
Woody Vine Stratum (Plot size:)	0		0.00/		
1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall.
	0		0.0%		, , , , , , , , , , , , , , , , , , , ,
3				_	Woody vine - All woody vines greater than 3.28 ft in
4	0	ш	0.0%		height.
	0	= To	otal Cove	Г	
					Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN3 Wet

77			needed to document the indicator or confirm th	he absence of indicators.)	
Depth (inches)	Matr Color (moist)		Redox Features Color (moist) % Type 1 Loc²	Texture Remarks	
0-5	10YR 3/2			Sandy Loam	
5-10	2.5Y 4/2	2		Loamy Sand	
10+	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Tedge	
101					
				_	
			(4)		
¹ Type: C=Conc	entration. D=Depl	etion. RM=Redu	uced Matrix, CS=Covered or Coated Sand Grains ² Lo	ocation: PL=Pore Lining. M=Matrix	
Hydric Soil I	ndicators:			Indicators for Problematic Hydric Soils: 3	
Histosol (A			Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Histic Epip			MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Court Profes Pades (ALC) (LDD K. L. D)	
Black Histi			Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
The second of the second	Sulfide (A4) Layers (A5)		Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)	
-	ayers (A3) Below Dark Surface	- (Δ11)	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)	
	Surface (A12)	(/12.4)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L)	
F-1	ck Mineral (S1)		Depleted Dark Surface (F7)	☐ Iron-Manganese Masses (F12) (LRR K, L, R) ☐ Piedmont Floodplain Solls (F19) (MLRA 149B)	
Sandy Gley	yed Matrix (S4)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
Sandy Red	lox (S5)			Red Parent Material (TF2)	
Stripped M				Very Shallow Dark Surface (TF12)	- 1
Dark Surfa	ice (S7) (LRR R, M	LRA 149B)		Other (Explain in Remarks)	
³ Indicators of	hydrophytic vegeta	ation and wetla	nd hydrology must be present, unless disturbed or pro	oblematic.	
Restrictive La	yer (if observed):			
Type: led	lge			Hydric Soil Present? Yes No	
Depth (Inch	nes): 10		149	Hydric Soil Present? Yes No	
Remarks:					
					- 1
					- 1
				¥	

Project/Site: Antrim Wind Project	City/County: Antrim	Sampling Date: 10-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC		State: NH Sampling Point: AN3 Upland
Investigator(s): AF JG	Section, Township,	, Range: S. T. R.
Landform (hillslope, terrace, etc.): Ridgetop		convex, none): none Slope: 3.0 % / 1.7
Subregion (LRR or MLRA):	Lat.;	Long.: Datum:
Soil Map Unit Name:		NWI classification:
	voical for this time of year? Yes No	
Are climatic/hydrologic conditions on the site t Are Vegetation 🏻 , Soil 🔲 , or Hydro	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	O (If no, explain in Remarks.) "Normal Circumstances" present? Yes No
		resima di cambancas present.
Are Vegetation 🔲 , Soil 🔲 , or Hydro		needed, explain any answers in Remarks.)
		ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No	J A
Hydric Soil Present? Yes	No Is the Sample within a Wetl	
Wetland Hydrology Present? Yes	No 💿	
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required	check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2) Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)	Moss Trim Lines (B16) Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C	
Drift deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	☐ Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No	Depth (inches):	
Water Table Present? Yes No •	Depth (inches):	
Saturation Present? (includes capillary fringe) Yes No •	Depth (inches):	land Hydrology Present? Yes O No 💿
Describe Recorded Data (stream gauge, moni	coring well, aerial photos, previous inspections	s), if available:
Daniel de la constant		
Remarks:		

		_S	ominant pecies?		Sampling Point: AN3 Upland
Free Stratum (Plot size: 30')	Absolute % Cover		el.Strat. over	Indicator Status	Dominance Test worksheet:
Picea rubens	66	V	66.7%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Pinus strobus		V	33,3%	FACU	That are obe, thew, of the
3.	0	П	0.0%		Total Number of Dominant Species Across All Strata: 5 (B)
	0		0.0%		Species Across All Strata: 5 (B)
j	_		0.0%		Percent of dominant Species
). 	-		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
	0		0.0%		Prevalence Index worksheet:
	99	= T	otal Cove	r	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15'					OBL species 0 x 1 = 0
. Picea rubens	10	V	100.0%	FACU	FACW species 0 x 2 = 0
.,	0		0.0%		FAC species 0 x 3 = 0
8	0	Ш	0.0%		145 460
	0		0.0%		PACO SPECIES X 4 =
j	0		0.0%		UPL species x 5 =
	0		0.0%		Column Totals: 115 (A) 460 (B)
	0		0.0%		Prevalence Index = B/A = 4.000
Herb Stratum (Plot size: 5')	10	= T (otal Cove	r	Hydrophytic Vegetation Indicators:
1. Quercus rubra	3	V	50,0%	FACU-	Rapid Test for Hydrophytic Vegetation
2.Vaccinium angusttfolium	3	V	50.0%	FACU-	Dominance Test is > 50%
3.	0	П	0.0%		Prevalence Index is ≤3.0 ¹
4.	0	$\overline{\Box}$	0.0%	-	Morphological Adaptations ¹ (Provide supporting
5	0	П	0.0%		data in Remarks or on a separate sheet)
6.	0	$\overline{\Box}$	0.0%	1	Problematic Hydrophytic Vegetation ¹ (Explain)
7.	0	H	0.0%	-	¹ Indicators of hydric soil and wetland hydrology must
8.	0		0.0%		be present, unless disturbed or problematic.
9.					Definitions of Vegetation Strata:
0.	0		0.0%		
1.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
2.	0		0.0%		at breast height (DBH), regardless of height.
۷.	0	L	0.0%	-	Sapling/shrub - Woody plants less than 3 in. DBH and
Voody Vine Stratum (Plot size:)	6	= Te	otal Cove	r	greater than 3.28 ft (1m) tall
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2	0		0.0%		size, and woody plants less than 3.28 ft tall.
3.	0		0.0%		M(
	0		0.0%		Woody vine - All woody vines greater than 3,28 ft in height.
		- T	otal Cove		
					Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN3 Upland

Profile Descri	ption: (Des	cribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth (inches)		Matrix	- 01	Redox Features		
0-3	Color (n		1000/	Color (moist) % Type 1 Loc²	Texture	Remarks
		3/2	100%		Loam	
3-5	2.5Y	5/1	100%		Sand	
5-12	10YR	4/4	100%		Loamy Sand	Ladra el
12+						bedrock
-						
			-			
-						
-						
.,		=Depletio	n. RM=Rec	luced Matrix, CS=Covered or Coated Sand Grains ² Loca	ation: PL=Pore Lining. M=M	atrix
Hydric Soil In					Indicators for Proble	ematic Hydric Soils: 3
Histosol (A	C. SHEET			Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A10) ((LRR K, L, MLRA 149B)
☐ Histic Epipe	The second second			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redo	x (A16) (LRR K, L, R)
	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	CONTRACTOR AND	or Peat (S3) (LRR K, L, R)
Stratified L	40.00			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	(A-12) 191 1-2
The same of the same	elow Dark S	urface (A	11)	Depleted Matrix (F3)		urface (S8) (LRR K, L)
☐ Thick Dark	Surface (A1	2)	- C	Redox Dark Surface (F6)	Thin Dark Surface	(S9) (LRR K, L) lasses (F12) (LRR K, L, R)
Sandy Muc	k Mineral (S	1)		Depleted Dark Surface (F7)		in Soils (F19) (MLRA 149B)
Sandy Gley	red Matrix (S	(4)		Redox Depressions (F8)) (MLRA 144A, 145, 149B)
Sandy Red	ox (S5)				Red Parent Materia	
Stripped Ma					Very Shallow Dark	Surface (TF12)
	ce (S7) (LRR				Other (Explain in F	Remarks)
³ Indicators of I	hydrophytic	vegetatio	n and wetl	and hydrology must be present, unless disturbed or problem	ernatic.	
Restrictive La	yer (if obse	erved):				
Type: bed	drock					
Depth (inche	es): 12				Hydric Soil Present?	Yes O No 💿
Remarks:						
						4
						1



AN3 Wetland



AN3 Upland

Project/Site: Antrim Wind Project City/	County: Antrim Sampling Date: 10-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC	State: NH Sampling Point: AN4 Wet
Investigator(s): AF JG Se	ection, Township, Range: S. T. R.
.andform (hillslope, terrace, etc.): Ridgetop Local	relief (concave, convex, none): hummocky Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): Lat.:	Long.: Datum:
Soil Map Unit Name:	NWI classification: PFO
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🗌 significantly dist	urbed? Are "Normal Circumstances" present? Yes No
Are Vegetation 🔲 , Soil 🔲 , or Hydrology 🔲 naturally probler	natic? (If needed, explain any answers in Remarks.)
Summary of Findings - Attach site map showing samp	ling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	Willing Westalia.
Hydrology	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (86)
Usurface Water (A1) Water-Stained Leaves (B9 ☐ High Water Table (A2) ☐ Aquatic Fauna (B13)	Drainage Patterns (B10) Moss Trim Lines (B16)
✓ Saturation (A3) Marl Deposits (B15)	Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C	
Sediment Deposits (B2) Oxidized Rhizospheres ald	
Drift deposits (B3)	(C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in	
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remark Sparsely Vegetated Concave Surface (B8)	Microtopographic Relief (D4) FAC-neutral Test (D5)
Sparsely vegetated Concave Surface (bo)	FAC-neutral rest (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? (includes expillent friend) Yes No Depth (inches):	Wetland Hydrology Present? Yes No O
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	
sphagum carpet	

Absolute		ecies?		
% Cover		el.Strat.	Indicator Status	200
50	V	100.0%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: (A)
0		0.0%		
		0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
				Species Across All Strata: 4 (B)
	П			Percent of dominant Species
				That Are OBL, FACW, or FAC: 100.0% (A/B)
	H			B
	ч			Prevalence Index worksheet:
50	= Tc	otal Cove	r	Total % Cover of: Multiply by:
15	V	33.3%	FAC	OBL species 0 x 1 = 0
-			520,000,000	FACW species $35 \times 2 = 70$
	П			FAC species 65 x 3 = 195
				FACU species $0 \times 4 = 0$
	H		-	UPL species $0 \times 5 = 0$
				Column Totals: 100 (A) 265 (B)
	\exists			Column localist
	Ш			Prevalence Index = $B/A = 2.650$
45	= To	otal Cove	r	Hydrophytic Vegetation Indicators:
5	V	100.0%	FACW	Rapid Test for Hydrophytic Vegetation
		0.0%		✓ Dominance Test is > 50%
	П			Prevalence Index is ≤3.0 ¹
_	H	1105000000		Morphological Adaptations 1 (Provide supporting
				data in Remarks or on a separate sheet)
	H	received.		Problematic Hydrophytic Vegetation ¹ (Explain)
	H		-	1 Total Contains of English and contained English and South
				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
0		0.0%		
0		0.0%		Definitions of Vegetation Strata:
0	Ш	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
0		0.0%		at breast height (DBH), regardless of height.
0		0.0%		Sapling/shrub - Woody plants less than 3 in, DBH and
5	= To	otal Cove	r	greater than 3,28 ft (1m) tall.
0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
	П			size, and woody plants less than 3,28 ft tall.
				Woody vine - All woody vines greater than 3.28 ft in
	ب			neight.
0 0 0 0		0.0% 0.0% 0.0% 0.0% otal Cove	r	size, and w
				Hydrophytic Vegetation Present? Yes No
	0 0 0 0 50 50 15 30 0 0 0 0 0 0 45 5 0 0 0 0 0 0 0 0 0 0 0	0	0	0

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN4 Wet

Depth				needed to document the indicator or confirm the	absence of indicators.)	- 1
(inches)		Matrix		Redox Features		- 1
0-6	Color (m	3/2	100%	Color (moist) % Type 1 Loc²	Texture Remarks	
6-10	2.5Y	4/1	100%		Fine Sandy Loam	
-	2.31	4/1	100%		Bedrock	
10+						
	-					
-					-	
			_			
			_			
¹ Type: C=Cond	centration. D=	-Depletio	n. RM=Rec	luced Matrix, CS=Covered or Coated Sand Grains 2Loca	ation: PL=Pore Lining. M=Matrix	
Hydric Soil I	indicators:				Indicators for Problematic Hydric Soils: 3	
Histosol (Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)	- 1
	pedon (A2)			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)	- 1
Black Hist	5 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	- 1
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)	- 1
	Layers (A5)	udana IA	***	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)	- 1
7	Below Dark St k Surface (A12		11)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L)	- 1
-	ck Mineral (S1			Depleted Dark Surface (F7)	Iron-Manganese Masses (F12) (LRR K, L, R)	- 1
	yed Matrix (S	N. Control		Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLRA 149B)	- 1
Sandy Red		.,			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	- 1
	Matrix (S6)				Red Parent Material (TF2)	- 1
	ace (S7) (LRR	R, MLRA	149B)		✓ Very Shallow Dark Surface (TF12)✓ Other (Explain in Remarks)	- 1
3 _{Indicators of}	hydronhytic y	renetatio	n and wat!	and hydrology must be present, unless disturbed or probl		- 1
Restrictive La			II dild Weti	and figurology must be present, timess distarted or problem	emat.,	
Type: be	3.0	iveu j.				- 1
Depth (Incl					Hydric Soil Present? Yes No	- 1
	16). 10					-
Remarks:						
						- 1
						- 1
						- 1

Project/Site: Antrim Wind Project		City/County: Antrim		Sampling Date: 10-Aug-11
Applicant/Owner: Eolian Renewable En	ergy, LLC	Sta	ate: NH	Sampling Point: AN4 Upland
Investigator(s): AF JG		Section, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.):	Ridgetop	Local relief (concave, convex,		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA):	Lat.:	Lon	a.:	Datum:
Soil Map Unit Name:			NWI classif	and the second s
		year? Yes No		
Are climatic/hydrologic conditions on			(If no, explain in	
Are Vegetation, Soil	, or Hydrology significant	tly disturbed? Are "Norma	Circumstances"	present? Yes 🙂 NO 🔾
Are Vegetation , Soil .	, or Hydrology naturally p	problematic? (If needed,	explain any answ	ers in Remarks.)
Summary of Findings - Att		sampling point location	ns, transects,	, important features, etc.
Hydrophytic Vegetation Present?	Yes No 💿	- W W W W		
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area within a Wetland?	Yes O No 🖲)
Wetland Hydrology Present?	Yes O No 💿			
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of one	e required; check all that apply)		Surface Soil C	
Surface Water (A1)	Water-Stained Lea	aves (B9)	☐ Drainage Patt	
High Water Table (A2)	Aquatic Fauna (B1		Moss Trim Lin	es (B16)
Saturation (A3)	Marl Deposits (B1)	5)	Dry Season W	later Table (C2)
Water Marks (B1)	Hydrogen Sulfide		Crayfish Burro	
Sediment Deposits (B2)		neres along Living Roots (C3)		ible on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4)	Presence of Redu			ressed Plants (D1)
Iron Deposits (B5)	Thin Muck Surface	ction in Tilled Soils (C6)	Geomorphic F Shallow Aquit	
Inundation Visible on Aerial Imagery	The state of the s			phic Relief (D4)
Sparsely Vegetated Concave Surface	Other (Explain in	Kemarks)	FAC-neutral T	
Field Observations:				
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No Depth (inches):			
Saturation Present? (includes expilled friend) Yes	No Depth (inches):	Wetland Hyd	Irology Present?	Yes ○ No •
(includes capillary fringe) Describe Recorded Data (stream gau		or provious inspections) if ava	ilahla:	
Describe Recorded Data (stream gat	age, momtoring well, aerial prioc	os, previous inspections), ii ave	illable.	
				-
Remarks:				

			ninant cies?		Sampling Point: AN4 Upland
Tree Stratum (Plot size: 30'	Absolute % Cover			Indicator Status	Dominance Test worksheet:
1. Quercus rubra	30	V	37.5%	FACU-	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2. Pinus strobus			31.3%	FACU	Hat die Obe, Fren, of Fre.
3. Picea rubens	-		31.3%	FACU	Total Number of Dominant Species Across All Strata; 7 (B)
1.			0.0%		Species Across All Strata: 7 (B)
5			0.0%		Percent of dominant Species
5	0		0.0%	-	That Are OBL, FACW, or FAC: 14.3% (A/B)
7.	0		0.0%		Prevalence Index worksheet:
	80	= Tota	al Cove	r	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')			5 20	2.00	OBL species 0 x 1 = 0
. Betula papyrifera		Section 1	10.0%	FACU	FACW species 0 x 2 = 0
2. Picea rubens	15		30.0%	FACU	FAC species 5 x 3 = 15
Vaccinium angustifolium		777	50.0%	FACU-	FACU species 135 x 4 = 540
. Fagus grandifolia	5	<u> </u>	10.0%	FACU	70
5.		Ц.	0.0%		orL species x 3 =
	0	Ц_	0.0%		Column Totals: 140 (A) 555 (B)
·	0	Щ_	0.0%		Prevalence Index = B/A = 3.964
Herb Stratum (Plot size: 5'	50	= Tota	al Cove	r	Hydrophytic Vegetation Indicators:
1.Lycopodium obscurum	5	V	50.0%	FACU	Rapid Test for Hydrophytic Vegetation
2. Abies balsamea	5	V	50.0%	FAC	Dominance Test is > 50%
3.			0.0%		Prevalence Index is ≤3.0 ¹
Λ	0	H	0.0%		Morphological Adaptations ¹ (Provide supporting
5	0	П	0.0%		data in Remarks or on a separate sheet)
6.	0	Η-	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
7.			0.0%	-	¹ Indicators of hydric soil and wetland hydrology must
8.	0	H	0.0%		be present, unless disturbed or problematic.
9.		Η-	0.0%		Definitions of Vegetation Strata:
10.	- 0	=			
11.		H-	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
12.	0	H-	0.0%		at breast height (DBH), regardless of height.
		Ч-	0.0%		Sapling/shrub - Woody plants less than 3 in, DBH and
Woody Vine Stratum (Plot size:	10	= Tota	al Cove	Г	greater than 3.28 ft (1m) tall
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.
3	0		0.0%	-	Woody ving. All woody vings greater than 2.29 ft in
4.	0		0.0%		Woody vine - All woody vines greater than 3,28 ft in height.
	0	= Tota	al Cove	r	
					Hydrophytic Vegetation Present? Yes No No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

0-3 1 3-4 2 4-12 1 12+	Matrix Color (moist) 0YR 3/2 2.5Y 5/1 0YR 4/6	% 100% 100% 100%	Redox Features Color (moist) % Type 1 Loc²	Texture Remarks Loam Fine Sand Sandy Loam Ledge
0-3 1 3-4 2 4-12 1 12+	0YR 3/2 2.5Y 5/1	100% 100%	Coloi (illuist) 30 Type 1 Ecc-	Loam Fine Sand Sandy Loam
3-4 2 4-12 10 12+	2.5Y 5/1	100%		Fine Sand Sandy Loam
4-12 11				Sandy Loam
12+	4/6	100%		(100000000 V 0000010000
Type: C=Concentra				
Type: C-Concentre	ation D-Depletic	n DM-Dadu	ced Matrix, CS=Covered or Coated Sand Grains 2Locat	Hone DL - Doro Lining M-Matrix
Hydric Soil Indica		m. Kri=Kedu	Lea matrix, C3—Cuyered or Cuated Salid Glatins *LOCal	
Histosol (A1)	uWI 3.		Polyvalue Below Surface (S8) (LRR R,	Indicators for Problematic Hydric Soils: 3
Histic Epipedon	(A2)		MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histic (A3	III I CONTRACTOR		Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
Hydrogen Sulfic	de (A4)		Loamy Mucky Mineral (F1) LRR K, L)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) ☐ Dark Surface (S7) (LRR K, L)
Stratified Layer	s (A5)		Loamy Gleyed Matrix (F2)	Polyvalue Below Surface (S8) (LRR K, L)
	Dark Surface (A	11)	Depleted Matrix (F3)	Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surf			Redox Dark Surface (F6)	Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Muck Mir	6-12-15-15-15-15-15-15-15-15-15-15-15-15-15-		Depleted Dark Surface (F7) Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed M	200000000000000000000000000000000000000		Redux Depressions (Fo)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S	-			Red Parent Material (TF2)
Stripped Matrix Dark Surface (S	(56) 57) (LRR R, MLRA	140R\		Very Shallow Dark Surface (TF12)
				Other (Explain in Remarks)
Indicators of hydro	ophytic vegetatio	n and wetlan	d hydrology must be present, unless disturbed or proble	ematic.
Restrictive Layer	(if observed):			
Type: <u>Ledge</u>				Hydric Soil Present? Yes O No 💿
Depth (inches):	12			nyuric son Presence 1es O No S



AN4 Wetland



AN4 Upland

Project/Site: Antrim Wind Project		City/C	ounty: Antrim		Sampling Date: 10-Aug-11
Applicant/Owner: Eolian Renewable	Energy, LLC		Sta	ate: NH	Sampling Point: AN5 Wet
Investigator(s): AF JG		Sec	ction, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.):	Ridgetop		elief (concave, convex, i	200	(v Slope: 0.0 % / 0.0
Subregion (LRR or MLRA):		Lat.:	Lon		Datum:
Soil Map Unit Name:					ication: PFO
			Yes No		
Are climatic/hydrologic conditions	-			(If no, explain in	
Are Vegetation, Soil	, or Hydrol	ogy 🔲 significantly distu	irbed? Are "Norma	l Circumstances" p	present? Yes S NO C
Are Vegetation , Soil	, or Hydrol	ogy 🗌 naturally problem	atic? (If needed,	explain any answ	ers in Remarks.)
Summary of Findings - A	ttach site	map showing sampl	ling point location	ns, transects,	, important features, etc.
Hydrophytic Vegetation Present?	Yes 💿	No O			
Hydric Soil Present?	Yes 💿	No O	Is the Sampled Area within a Wetland?	Yes No)
Wetland Hydrology Present?	Yes 💿	No O			
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of o	one required;	check all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)		✓ Water-Stained Leaves (B9))	Drainage Patt	
☐ High Water Table (A2) ✓ Saturation (A3)		Aquatic Fauna (B13)		Moss Trim Lin	
✓ Saturation (A3) Water Marks (B1)		Marl Deposits (B15)	13	Crayfish Burro	/ater Table (C2)
Sediment Deposits (B2)		Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor	•		sible on Aerial Imagery (C9)
Drift deposits (B3)		Presence of Reduced Iron			ressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction in T		Geomorphic P	
Iron Deposits (B5)		Thin Muck Surface (C7)	()	Shallow Aquit	ard (D3)
Inundation Visible on Aerial Image	ery (B7)	Other (Explain in Remarks))	✓ Microtopograp	phic Relief (D4)
Sparsely Vegetated Concave Surfa	ace (B8)			✓ FAC-neutral T	est (D5)
Field Observations:				_	
Surface Water Present? Yes	○ No •	Depth (inches):			
Water Table Present? Yes	O No 💿	Depth (inches):			
Saturation Present? (includes capillany frings) Yes	● No ○	Depth (inches):	Wetland Hyd	Irology Present?	Yes No
(includes capillary fringe) Describe Recorded Data (stream of				: - - <u>-</u>	
Describe Recorded Data (stream t	Jauge, monic	ornig well, aeriai priocos, prev	ilious ilispections), il ava	illable.	
Remarks:					
Sphagum carpet					

Tree Stratum (Plot size: 30'	Absolute % Cover	R	pecies? el.Strat. over	Indicator Status	Dominance Test wo	rksheet:	10.40.40		
1 1	15	V			Number of Dominant			4	(4)
2.	0		0.0%	TAC	That are OBL, FACW,	OI FAC.			(A)
			0.0%		Total Number of Dom				5-1
3	0		0.0%		Species Across All Stra	ata:		4	(B)
4	0		0.0%		Percent of dominar	nt Species	S		
5	0	П	0.0%		That Are OBL, FAC			100.0%	(A/B)
6	0	Н	0.0%		Prevalence Index w				
7.					Total % Cove			u bu	
Sapling/Shrub Stratum (Plot size: 15')	15	= 10	otal Cove	er		0	Multiple x 1 =		
1. Vaccinium corymbosum	25	~	62.5%	FACW-	OBL species			0	1
2. Picea mariana	5		12.5%	FACW-	FACW species	96	x 2 =	192	
3. Spiraea latifolia	10	~	25.0%	FAC+	FAC species	25	x 3 =	75	
4.	0		0.0%		FACU species	0	x 4 =	0	-
5.			0.0%		UPL species	0	x 5 =	0	
6.	0		0.0%	-	Column Totals:	121	(A)	267	(B)
7	0		0.0%		Prevalence Inc	lov – D/A		2.207	
		= T	otal Cove	r			_	2.207	-
Herb Stratum (Plot size: 5'	10		omi core		Hydrophytic Vegeta				
1. Scirpus cyperinus	66	V	100.0%	FACW+	Rapid Test for			tation	
2.	0		0.0%		✓ Dominance Te				
3.	0		0.0%		✔ Prevalence Inc	tex is ≤3.	.0 ¹		
4.	0		0.0%		Morphological				orting
5.	0		0.0%		data in Remar			150	
6.	0		0.0%		Problematic H	ydrophyti	ic Vegeta	ition ' (Exp	plain)
7.	0	П	0.0%		¹ Indicators of hyd	ric soil ar	nd wetlar	nd hvdrolo	av musi
8.	0	H	0.0%		be present, unless	disturbed	l or probl	lematic.	31
9.	0	H	0.0%		Definitions of Ve	getatio	n Strata	:	
10.		H	0.0%	-					
11.	00	H			Tree - Woody plant				fiamete
12.	0	H	0.0%		at breast height (DE	on), rega	idless of	neignt.	
	66	= To	otal Cove	r	Sapling/shrub - Wo greater than 3,28 ft			an 3 in. DE	3H and
Woody Vine Stratum (Plot size:	-		The contract of						
1	0		0.0%		Herb - All herbaceo size, and woody pla	us (non-v	woody) p than 3 วง	lants, rega R ft tall	rdless (
2.	0		0.0%	-	Jize, and woody pie		alan 5,20	on tall.	
3	0		0.0%		Woody vine - All wo	ody vine	s greater	than 3,28	ft in
4.	0		0.0%		height.				
	0	= T	otal Cove	er					
					Hydrophytic Vegetation				
Remarks: (Include photo numbers here or on a separate s	heet.)				Present? Ye	s • N	 		

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN5 Wet

Table 1 (March 1)	needed to document the indicator or confirm the	absence of indicators.)
Depth Matrix	Redox Features	Tanking Demonstra
(inches) Color (moist) %	Color (moist) % Type 1 Loc2	Texture Remarks
0-27 10YR 2/1		Peaty Muck bedrock
27+		Dear OCK
		-
¹ Type: C=Concentration. D=Depletion. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains 2Loca	ation: PL=Pore Lining, M=Matrix
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils: 3
✓ Histosol (A1)	Polyvalue Below Surface (S8) (LRR R,	
Histic Epipedon (A2)	MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histic (A3)	Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) LRR K, L)	Dark Surface (S7) (LRR K, L)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Muck Mineral (S1)	Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)		Red Parent Material (TF2)
Stripped Matrix (S6)		Very Shallow Dark Surface (TF12)
☐ Dark Surface (S7) (LRR R, MLRA 149B)		Other (Explain in Remarks)
3 Indicators of hydrophytic vegetation and wet-	and hydrology must be present, unless disturbed or probl	
	ma nyurology must be present, unless disturbed or probi	
Restrictive Layer (if observed):		
Type: Bedrock		Hydric Soil Present? Yes No
Depth (inches): 27		nyunc son Fresche: 160 ©
Remarks:		
P		

Project/Site: Antrim Wind Project	City/County: Antrim	Sampling Date: 10-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC		State: NH Sampling Point: AN5 Upland
Investigator(s): AF JG	Section, Township, I	Range: S. T. R.
Landform (hillslope, terrace, etc.): Ridgetop	Local relief (concave, co	onvex, none): hummocky Slope: 5.0 % / 2.9 °
Subregion (LRR or MLRA):	Lat.:	Long.: Datum:
Soil Map Unit Name:		NWI classification:
Are climatic/hydrologic conditions on the site t	ypical for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation 🔲 , Soil 🗌 , or Hydro		"Normal Circumstances" present? Yes No
Are Vegetation 🔲 , Soil 🔲 , or Hydro		needed, explain any answers in Remarks.)
		cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No 💿	
Hydric Soil Present? Yes	No (Is the Sampled	
Wetland Hydrology Present?	No • within a Wetlan	nd?
Remarks: (Explain alternative procedures her	e or in a conseste report \	
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required;	check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2) Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)	☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	The second secon
Drift deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No •	Depth (inches):	
Water Table Present? Yes No •	Depth (inches):	and Hydrology Present? Yes O No 💿
Saturation Present? (includes capillary fringe) Yes No No	Depth (inches):	and Hydrology Present? Yes O No •
	oring well, aerial photos, previous inspections)	, if available:
Remarks:		

1. Pices nibers 2. Pinus strobus 3.	Tree Stratum (Plot size: 30')	Absolute % Cover	Re	ecies? el.Strat. over	Indicator Status	Dominance Test wo	rksheet:			
2 Pinus strobus 50	A								1	/A\
3.		-				That are OBL, FACW, 0	or FAC:			(A)
4.					TACO				9	
Degree						Species Across All Stra	ta:		6	(B)
0	5					Percent of dominan	t Species	:		
Sapling/Shrub Stratum (Plot size: 15') 83 = Total Cover 1	o,		H	1.000 A STATE					16.7%	(A/B)
Sapling/Shrub Stratum (Plot size: 15')	7		H	-						
Sapling/Shrub Stratum (Plot size: 15') 1. Vaccinium corymbosum 5	15-								n Loss	
1. Vacchlum corymbosum 2.	Sapling/Shrub Stratum (Plot size: 15'	83	= To	otal Cove	er					
2.	1. Vaccinium corymbosum	5	1	100.0%	FACW-	T				
0						FACW species		x 2 =		
4. 0	3	0				FAC species	0	x 3 =	0	
Double	1	0		I HAIPOUR		FACU species	94	x 4 =	376	
3	T	0				UPL species	0	x 5 =	0	
7.	6.	- 0	П			Column Totals:	99	(A)	386	(B)
Herb Stratum (Plot size: 5¹) 1. Gaultheria procumbens 2. Vaccinium angustifolium 3.	7		H					573 (57		
Herb Stratum (Plot size: 5'	·		_			Prevalence Inde	ex = B/A	=	3.899	
1. Gautheria procumbens 2. Vaccinium angustifolium 3. Quercus rubra 4. 0 0 0.0% 4. 0 0.0% 5. 0 0.0% 6. 0 0.0% 7. 0 0.0% 8. 0 0.0% 8. 0 0.0% 10. 0 0.0% 11. 0 0.0% 11. 0 0.0% 12. 0 0.0% 12. 0 0.0% 13. 0 0.0% 14. 0 0.0% 15. 0 0.0% 16. 0 0.0% 17. 0 0 0.0% 18. 0 0.0% 19. 0 0.0% 10. 0 0.0% 11. 0 0.0% 11. 0 0.0% 11. 0 0.0% 12. 0 0.0% 11. 0 0.0% 12. 0 0.0% 13. 0 0.0% 14. 0 0.0% 15. 0 0.0% 16. 0 0.0% 17. 0 0.0% 18. 0 0.0% 18. 0 0.0% 19. 0 0.0% 10. 0 0.0% 11. 0 0.0% 12. 0 0.0% 13. 0 0.0% 14. 0 0.0% 14. 0 0.0% 15. 0 0.0% 16. 0 0.0% 17. 1 Indicators of hydric soil and wetland hydrology me persent, unless disturbed or problematic. 15. 0 0.0% 16. 0 0.0% 17. Indicators of hydric soil and wetland hydrology me persent, unless disturbed or problematic. 16. 0 0.0% 18. 0 0.0% 19. 1 Indicators of hydric soil and wetland hydrology me persent, unless disturbed or problematic. 16. 0 0.0% 19. 1 Indicators of hydric soil and wetland hydrology me persent, unless disturbed or problematic. 18. 0 0.0% 19. 1 Indicators of hydric soil and wetland hydrology me persent, unless disturbed or problematic. 19. 0 0.0% 10.0% 11. Indicators of hydric soil and wetland hydrology me persent, unless disturbed or problematic. 19. 0 0.0% 10.0% 10.0% 11. Indicators of hydric soil and wetland hydrology me persent, unless disturbed or problematic. 10. 0 0.0% 10. 0 0.0% 11. Indicators of hydric soil and wetland hydrology me persent, unless disturbed or problematic. 10. 0 0.0% 10. 0 0.0% 11. 0 0.0% 12. 0 0.0% 13. 0 0.0% 14. 0 0.0% 14. 0 0.0% 15. 0 0.0% 16. 0 0.0% 16. 0 0.0% 17. 0 0.0% 18. 0 0.0% 19. 0 0.0% 19. 0 0.0% 19. 0 0.0% 19. 0 0.0% 19. 0 0.0% 19. 0 0.0% 19. 0 0.0% 19. 0 0.0% 19.	Herb Stratum (Plot size: 5'	5	= To	otal Cove	er	Hydrophytic Vegetat	ion Indic	ators:		
2. Vaccinium angustifolium 5	1 Gaultharia progumbons	2	1	27 20/	EACH	Rapid Test for I	lydrophy	tic Vege	tation	
3						Dominance Tes	t is > 50	0/0		
4. 0 □ 0.0% Morphological Adaptations ¹ (Provide supportidata in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ¹ (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ¹ (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ¹ (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ¹ (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ¹ (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ¹ (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ¹ (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ¹ (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ² (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ² (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ² (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ² (Explain 1 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ² (Explain 2 at in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation ? Indicators of hydric soil and wetland hydrology me problematic Hydrophytic Vegetation ? Indicators of hydric soil and wetland hydrology me problematic Hydrophytic Vegetation ? Indicators of hydric soil and wetland hydrology me problematic Hydrophytic Vegetation ? Indicators of hydric soil and wetland hydrology me problematic Hydrophytic Vegetation ? Indicators of hydric soil and wetland hydrology me problematic Hydrophytic Vegetation ? Indicators of hydric soil and wetland hydrology me problematic Hydrophytic Vegetation ? Indicators of hydrology me problematic Hydrophytic Vegetation ? Indicators of hydrology me problematic Hydrolo	3 0					Prevalence Ind	ex is ≤3.	0 1		
data in Remarks or on a separate sheet) 5.		, , , , , , , , , , , , , , , , , , , ,			FACU-	Morphological A	Adaptatio	ons ¹ (Pr	ovide supp	orting
6. 7. 0 0.0% 8. 0 0.0% 9. 10. 10. 11. 0 0.0% 11. 0 0.0% 11. 12. 12. 13. 14. 15. 16. 17. 18. 18. 18. 19. 19. 10. 10. 10. 10. 10. 10. 11. 12. 10. 10. 11. 12. 11. 12. 11. 12. 13. 14. 15. 16. 17. 18. 18. 18. 19. 19. 19. 19. 10. 10. 10. 10. 10. 11. 12. 10. 10. 11. 12. 10. 11. 12. 11. 12. 11. 12. 13. 14. 15. 16. 17. 18. 18. 18. 19. 19. 19. 19. 19. 19. 11. 19. 10. 10. 10.0% 11. 10. 11. 12. 10. 10.0% 11. 12. 11. 12. 13. 14. 15. 16. 17. 18. 18. 18. 19. 19. 19. 19. 19. 11. 11. 19. 10. 10.0% 10.0% 11. 11. 12. 10. 10.0% 11. 12. 11. 12. 13. 14. 15. 16. 17. 18. 18. 19. 19. 19. 19. 11. 11. 11. 12. 10. 10.0% 11. 12. 11. 12. 13. 14. 15. 16. 17. 18. 18. 19. 19. 19. 19. 11. 11. 11. 12. 12. 13. 14. 15. 16. 17. 18. 18. 19. 19. 19. 19. 11. 11. 11. 11. 12. 12. 13. 14. 15. 16. 17. 16. 17. 16. 17. 16. 17. 16. 11. 17. 16. 17. 16. 17. 16. 11. 17. 16. 17. 16. 17. 16. 11. 17. 16. 17. 16. 17. 16. 11. 17. 16. 10. 17. 11. 10. 10.0% 11. 11. 17. 16. 10. 11. 17. 10. 10.0% 10.0% 10.0% 10.0% 11. 11. 17. 10. 10.0% 10.0										_
7. 8. 0 0.0% 9. 1 Indicators of hydric soil and wetland hydrology metals be present, unless disturbed or problematic. Definitions of Vegetation Strata: Tree - Woody plants, 3 in. (7.6 cm) or more in diam at breast height (DBH), regardless of height. 12. Woody Vine Stratum (Plot size:) 1 = Total Cover 1 = Total Cover 1 = Total Cover Hydrophytic Vegetation Present? Yes No ● No ●		_			-	Problematic Hy	drophyti	c Vegeta	tion 1 (Exp	lain)
Be present, unless disturbed or problematic. 9.			Ц	112322						
O. O.0% 9. O.0% 10. O.0% 11. O.0% 12. O.0% Woody Vine Stratum (Plot size:) 1. O.0% 2. O.0% 3. O.0% 3. O.0% 4. O.0% 1.		0		0.0%						y musi
10. 11. 12. Woody Vine Stratum (Plot size:) 1. 2. 3. 4. Do 0.0% 11 = Total Cover 11 = Total Cover 11 = Total Cover 11 = Total Cover 12. 3. 4. Do 0.0% 13. 4. Do 0.0% 14. Do 0.0% 15. Do 0.0% 16. Do 0.0% 17. Do 0.0% 18. Do 0.0% 19. Do 0.0% 10. Do 0.0		0	Ш	0.0%		***************************************			0.0000000000000000000000000000000000000	
11. 0 0.0% at breast height (DBH), regardless of height. Woody Vine Stratum (Plot size:) 1 = Total Cover		0	Ш	0.0%		Definitions of Veg	getation	Strata	:	
11. 12. Woody Vine Stratum (Plot size: 11 = Total Cover 11 = Total Cover 11 = Total Cover 12. 0 0.0% 13. 0 0.0% 14. 15. 16. 17. 18. 19. 19. 19. 10. 10.0% 10.0% 11. 10. 10.0% 11. 11.		0		0.0%		Tree - Woody plants	, 3 in. (7	.6 cm) or	r more in d	iamete
Woody Vine Stratum (Plot size: 1.		0		0.0%		at breast height (DB	H), regai	dless of	height.	
Woody Vine Stratum (Plot size:) 11 = Total Cover greater than 3.28 ft (1m) tall Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No •	12	0		0.0%		Carlina/abanh 18/aa	بنجاجا جاريان	a taran da	2:- DD	11
1. 0 0.0% 2. 0 0.0% 3. 0 0.0% 4. 0 0.0% Total Cover Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No •	Woody Vine Stratum (Plot size:	11	= To	otal Cove	er				an 3 in, DB	H and
2. 0 0.0% 3. 0 0.0% 4. 0 0.0% Total Cover size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No •		0		0.0%		Herb - All herbaceou	ıs (non-v	voodv) ni	lants, renai	dless
3. 4. O 0.0% O = Total Cover Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No •										
4. 0 0.0% height. Hydrophytic Vegetation Present? Yes No •			П	rational contains						
0 = Total Cover Hydrophytic Vegetation Present? Yes No No O							ody vines	s greater	than 3.28	ft in
Hydrophytic Vegetation Present? Yes ○ No •	4,	_				neight.				
Vegetation Present? Yes No No No No No No No No		- 0	= To	otal Cove	er.					
Vegetation Present? Yes No No No No No No No No										
Vegetation Present? Yes No No No No No No No No										
Present? Yes O No O										
							ON	lo 💿		
Parada (Fadada da Antara Cara Cara Cara Cara Cara Cara Cara						l resents				
The state of the s		1 2 -				1		- 4		
temarks: (Include photo numbers here or on a separate sheet.)	Remarks: (Include photo numbers here or on a separate s	neet.)								

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS,

Sampling Point: AN5 Upland

pamy Sand andy Loam
pamy Sand
andy Loam
=Pore Lining, M=Matrlx
licators for Problematic Hydric Soils: 3
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S7) (LRR K, L)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
ober (explain in remarks)
ic Soil Present? Yes O No 💿



AN5 Upland



AN5 Wetland

Project/Site: Antrim Wind Project		City/County: Antrim		Sampling Date: 10-Aug-11
Applicant/Owner: Eolian Renewable	Energy, LLC	*	State: NH	Sampling Point: AN6 Wet
Investigator(s): AF JG		Section, Township, Ran	ge: S. T.	R.
Landform (hillslope, terrace, etc.):	Hillside	Local relief (concave, conve	ex, none): flat	Slope: 0.0 % / 0.0°
Subregion (LRR or MLRA):		Lat,:	Long.:	Datum:
Soil Map Unit Name:			NWI classif	fication: PFO
Are climatic/hydrologic conditions Are Vegetation , Soil Are Vegetation , Soil Summary of Findings - A	, or Hydrology siq	gnificantly disturbed? Are "No	(If no, explain in mal Circumstances" ped, explain any answ-	present? Yes No No cers in Remarks.)
Hydrophytic Vegetation Present?	Yes No	July Sampling Politic Todat		,po
	Yes No	Is the Sampled Are	ea	
Hydric Soil Present?	Yes O No	within a Wetland?	Yes No)
Wetland Hydrology Present?	TES SO NO C			
Hydrology				
Hydrology				
Wetland Hydrology Indicators:		1.)		ors (minimum of 2 required)
Primary Indicators (minimum of o			Surface Soil C	38. 10
Surface Water (A1)		tained Leaves (B9)	☐ Drainage Patt	
☐ High Water Table (A2) ✓ Saturation (A3)		Fauna (B13) posits (B15)	Moss Trim Lir	vater Table (C2)
Water Marks (B1)		n Sulfide Odor (C1)	Crayfish Burro	
Sediment Deposits (B2)		Rhizospheres along Living Roots (C3)		sible on Aerial Imagery (C9)
Drift deposits (B3)		of Reduced Iron (C4)		ressed Plants (D1)
Algal Mat or Crust (B4)	[7]	ron Reduction in Tilled Soils (C6)	✓ Geomorphic F	Position (D2)
Iron Deposits (B5)	Thin Muc	ck Surface (C7)	Shallow Aquit	ard (D3)
Inundation Visible on Aerial Image	Other (E	xplain in Remarks)		phic Relief (D4)
Sparsely Vegetated Concave Surfa	ice (B8)		✓ FAC-neutral T	est (D5)
Field Observations:				
Surface Water Present? Yes	O No O Depth	(inches):		
Water Table Present? Yes	No Depth	(inches):		
Saturation Present? (Includes capillant frings) Yes		Wetland	Hydrology Present?	Yes No
(includes capillary fringe)		(inches): 0		
Describe Recorded Data (stream of	jauge, monitoring well, aei	rial photos, previous inspections), if	available:	
Remarks:				
sphagum carpet		5.		

	Absolute		pecies? el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')	% Cover		over	Status	Number of Dominant Species
1. Acer rubrum	25	V	50.0%	FAC	That are OBL, FACW, or FAC: 6 (A)
2. Betula alleghaniensis	25	V	50.0%	FAC	Tabal Ni saban a Chamirant
3.	0		0.0%		Total Number of Dominant Species Across All Strata: 6 (B)
4	0		0.0%		
5.			0.0%		Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)
3			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7.	0		0.0%		Prevalence Index worksheet:
	50	= To	otal Cove	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15'					OBL species 15 x 1 = 15
		V		FACW-	FACW species 111 x 2 = 222
2. Acer rubrum	10		18.2%	FAC	FAC species 80 x 3 = 240
3. Picea mariana	25	~	45,5%	FACW-	FACU species $0 \times 4 = 0$
			0.0%		racu species X 4 =
5.	.0		0.0%		UPL species x 5 =
5	0		0.0%		Column Totals: 206 (A) 477 (B)
7.	0		0.0%		Prevalence Index = $B/A = 2.316$
Herb Stratum (Plot size: 5'	55	= To	otal Cove	er	Hydrophytic Vegetation Indicators:
					Rapid Test for Hydrophytic Vegetation
1 .Irls versicolor	15	Ц	14,9%	OBL	✓ Dominance Test is > 50%
2. Coptis trifolia	33	V	32.7%	FACW	✓ Prevalence Index is ≤3.0 ¹
3. Cornus canadensis	20		19.8%	FAC-	Morphological Adaptations ¹ (Provide supporting
4. Osmunda cinnamomea	33	V	32.7%	FACW	data in Remarks or on a separate sheet)
5	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
6.	0		0.0%		We do not not reconstruct the control of the contro
7.	0		0.0%		Indicators of hydric soil and wetland hydrology must
8.	0		0.0%		be present, unless disturbed or problematic.
9.	0		0.0%		Definitions of Vegetation Strata:
10.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11.	0		0.0%		at breast height (DBH), regardless of height.
12.	0		0.0%		
Woody Vine Stratum (Plot size:)	101	= To	otal Cove	er	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3,28 ft (1m) tall.
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.
	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4.	0		0.0%		height:
	0	= To	otal Cove	r	
				•	
					Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

	iption: (Des	cribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth (inches)		Matrix	- 0/-	Redox Features	Taskuna	Domanuko
0-4	Color (n 10YR	3/2	% 100%	Color (moist) % Type 1 Loc ²	Texture Loam	Remarks
4-8						
	2.5Y	4/1	100%		Sandy Loam	
8-9	2.5Y	6/1	100%		Loamy Sand	Bedrock
9+						
¹ Type: C=Cond	entration. D=	=Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains 2Loca	ation: PI =Pore Lining, M=M	atrix
Hydric Soil I		p. 2510		,		ematic Hydric Soils : ³
Histosol (A				Polyvalue Below Surface (S8) (LRR R,		Ematic Hydric Soils : (LRR K, L, MLRA 149B)
Histic Epip	edon (A2)			MLRA 149B)	_	x (A16) (LRR K, L, R)
Black Histi	c (A3)			Thin Dark Surface (S9) (LRR R, MLRA 149B)		or Peat (S3) (LRR K, L, R)
	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	Dark Surface (S7)	
1	Layers (A5)			Loamy Gleyed Matrix (F2) Depleted Matrix (F3)		urface (S8) (LRR K, L)
7	Below Dark St		11)	Redox Dark Surface (F6)	Thin Dark Surface	(S9) (LRR K, L)
1	Surface (A12			Depleted Dark Surface (F7)	Iron-Manganese M	lasses (F12) (LRR K, L, R)
	ck Mineral (S1			Redox Depressions (F8)	The second of th	in Soils (F19) (MLRA 149B)
Sandy Ge	yed Matrix (S	4)		U The State of Manager State of Control of State of Control of State of Sta	A service contract of the service of) (MLRA 144A, 145, 149B)
Stripped M	- IA				Red Parent Materia	
	ice (S7) (LRR	R, MLRA	149B)		Very Shallow Dark	· · · · · · · · · · · · · · · · · · ·
				nd hydrology must be present, unless disturbed or probl	Other (Explain in F	kemarks)
			ii and weda	ind hydrology must be present, unless disturbed or probl	emauc.	
Restrictive La Type: be	Delicini Aecil II is is in	rved):				
Depth (inch					Hydric Soil Present?	Yes No
	ies): 9					
Remarks:						

Project/Site: Antrim Wind Project		City/County: Antrim		Sampling Date: 10-Aug-11
Applicant/Owner: Eolian Renewable Energ	gy, LLC	Sta	nte: NH	Sampling Point: AN6 Upland
Investigator(s): AF JG		Section, Township, Range:	S. T.	R.
Landform (hillslope, terrace, etc.): Hil	llside	Local relief (concave, convex,		Slope: 8.0 % / 4.6
Subregion (LRR or MLRA):	Lat.:	Lon	a.:	Datum:
Soil Map Unit Name:		20.1	NWI classif	8.1. SMARKS P
		Par? Yes No		
Are climatic/hydrologic conditions on the Are Vegetation . , Soil . , o			(If no, explain in	
			l Circumstances" p	resent? 165 NO 0
			explain any answ	200
Summary of Findings - Atta		ampling point location	ns, transects,	important features, etc.
	∕es No 💿			
THE PART OF THE PROPERTY OF THE PART OF TH	∕es O No 🖲	Is the Sampled Area within a Wetland?	Yes O No 🖲)
Wetland Hydrology Present?	res O No 💿			
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicato	ors (minimum of 2 required)
Primary Indicators (minimum of one re	equired; check all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)	Water-Stained Leav		Drainage Patte	
High Water Table (A2)	Aquatic Fauna (B13		Moss Trim Lin	- 20
Saturation (A3)	Marl Deposits (B15		\Box	/ater Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide C		Crayfish Burro	2 2
Drift deposits (B3)	Presence of Reduc	eres along Living Roots (C3)	7-1	ible on Aerial Imagery (C9) ressed Plants (D1)
Algal Mat or Crust (B4)		tion in Tilled Soils (C6)	Geomorphic P	
☐ Iron Deposits (B5)	Thin Muck Surface	, ,	Shallow Aquita	
☐ Inundation Visible on Aerial Imagery (B			Microtopograp	ohic Relief (D4)
Sparsely Vegetated Concave Surface (B		5900000000000 3	FAC-neutral T	est (D5)
Field Observations:				
	No Depth (inches):			
Water Table Present? Yes	No Depth (inches):			
Saturation Present?		Wetland Hyd	rology Present?	Yes O No 💿
Tiricipoes capillary triride)			- Lanks Loca	
Describe Recorded Data (stream gauge	e, monitoring well, aerial photo	s, previous inspections), if ava	ilable:	
Remarks:				

The state of the s	Absolute	_Sp	minant ecies? el.Strat.	Indicator	Dominance Test worksheet:			
Tree Stratum (Plot size: 30'	% Cover		ver	Status	Number of Dominant Species			
1 Quercus rubra	45	V	56.3%	FACU-		A)		
2. Acer rubrum	25	~	31.3%	FAC	Total Missilves of Danielson			
3. Tsuga canadensis	10		12.5%	FACU	Total Number of Dominant Species Across All Strata: 7 (B)		
4	0		0.0%					
5	0		0.0%		Percent of dominant Species That Are OBL FACW or FAC: 28.6% (A/B)		
3	0		0.0%		That Are OBL, FACW, or FAC: 28.6%	7,0)		
7	0		0.0%		Prevalence Index worksheet:			
Sapling/Shrub Stratum (Plot size: 15')	80	= To	tal Cove	er .	Total % Cover of: Multiply by:			
			HISTORIAN CONTRACT	Santa Francis	OBL species $0 \times 1 = 0$			
1. Fagus grandifolia	8	V	61.5%	FACU	FACW species $0 \times 2 = 0$			
2. Picea rubens	5	~	38.5%	FACU	FAC species 30 x 3 = 90			
3.	0		0.0%		FACU species $73 \times 4 = 292$			
t:	0		0.0%		E 20			
5	0	Ц	0.0%		UPL Species X 5 =	(n)		
5 <u> </u>	0	Ш	0.0%		Column Totals: 108 (A) 407	(B)		
7	0	Щ	0.0%		Prevalence Index = B/A = 3.769			
Herb Stratum (Plot size: 5'	13	= To	tal Cove	er	Hydrophytic Vegetation Indicators:			
1.Trientalis borealis	5	V	33.3%	FAC	Rapid Test for Hydrophytic Vegetation			
2 Madash desistas		~	33.3%	UPL	Dominance Test is > 50%			
2 14 11 11 11 11 11	2	~	20.0%		Prevalence Index is ≤3.0 1			
4. Aralia nudicaulis				FACU-	Morphological Adaptations ¹ (Provide supporting			
5.	2		13.3%	FACU	data in Remarks or on a separate sheet)			
6.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Expla			
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology r	nuck		
8.			0.0%		be present, unless disturbed or problematic.	IUSL		
9.	0		0.0%		Definitions of Vegetation Strata:			
10.	0	H	0.0%	-	- Commence of Feguration Strate.			
11.			0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in dian	ıeter		
12.			0.0%		at breast height (DBH), regardless of height.			
2.	0	Ш,	0.0%	-	Sapling/shrub - Woody plants less than 3 in. DBH	and		
Woody Vine Stratum (Plot size:	15	= To	tal Cove	er	greater than 3,28 ft (1m) tall			
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardle	ss c		
2	0		0.0%		size, and woody plants less than 3.28 ft tall.			
3.	0		0.0%		Woody vine - All woody vines greater than 3,28 ft in	n		
4.	0		0.0%		height.			
	0	= To	tal Cove	er				
	ROL							
					Hydrophytic Vegetation			
					Present? Yes No •			
					i i cociic.			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN6 Upland

100 000			the depth	needed to document the indicator or confirm the	absence of indicators.)
Depth (inches)	Color (m	Matrix ioist)	- %	Redox Features Color (moist) % Type 1 Loc²	Texture Remarks
0-4	10YR	3/2	100%		Loam
4-6	2.5Y	5/1	100%		Sandy Loam
6-15	10YR	4/6	100%		Sandy Loam
0 15	1011	1/0	10070		Sundy Eddin
I Type: C=Conc	entration. D=	Depletio	n. RM=Rec	uced Matrix, CS=Covered or Coated Sand Grains ² Loc	ation: PL=Pore Lining, M=Matrix
Hydric Soil I	- NO. O			*	Indicators for Problematic Hydric Soils: 3
Histosol (A	1)			Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epip	edon (A2)			MLRA 1498)	Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic				Thin Dark Surface (S9) (LRR R, MLRA 149B)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
1-1	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)
100000000000000000000000000000000000000	ayers (A5)		41.40	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)
A CONTRACTOR OF THE PARTY OF TH	Below Dark Su	1	11)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L)
4	Surface (A12			Depleted Dark Surface (F7)	Iron-Manganese Masses (F12) (LRR K, L, R)
	k Mineral (S1 yed Matrix (S	2.11		Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLRA 1498)
Sandy Red	Charles and the Control of the Contr	1)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Stripped M	4 10				Red Parent Material (TF2)
	ce (S7) (LRR	R, MLRA	149B)		
3 _{Indicators of}	hydrophytic y	<i>e</i> netatín	n and wetla	nd hydrology must be present, unless disturbed or prob	# 10 M 1 M 2 M 2 M 2 M 2 M 2 M 2 M 2 M 2 M 2
			II dito Well	ing frydrology must be present, offices disturbed of prob	le la
Restrictive La Type:	yer (IT obse	rvea):			
Depth (inch	ac).				Hydric Soil Present? Yes O No •
Remarks:	co).				1 200 00



AN6 Wetland



AN6 Upland

Project/Site: Antrim Wind Project	City/Co	ounty: Antrim	Sampling Date: 11-Aug-11
Applicant/Owner: Eolian Renewable	Energy, LLC	State: NH	Sampling Point: AN7 Wet
Investigator(s): AF JG	Sec	tion, Township, Range: S.	T. R.
Landform (hillslope, terrace, etc.):	Ridgetop Local re	elief (concave, convex, none): hui	mmocky Slope : 0.0 % / 0.0
Subregion (LRR or MLRA):	Lat.:	Long.:	Datum:
Soil Map Unit Name:		NWI	classification: PFO
Are climatic/hydrologic conditions	on the site typical for this time of year?	Yes No (If no, exp	olain in Remarks.)
Are Vegetation $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$, or Hydrology 🔲 significantly distur	bed? Are "Normal Circumsta	nces" present? Yes 🌘 No 🔾
Are Vegetation 🔲 , Soil 🗌	, or Hydrology 🔲 naturally problems	atic? (If needed, explain any	answers in Remarks.)
Summary of Findings - A	ttach site map showing sampli	ng point locations, trans	ects, important features, etc.
Hydrophytic Vegetation Present?	Yes No		
Hydric Soil Present?	Yes No	Is the Sampled Area within a Wetland?	No O
Wetland Hydrology Present?	Yes No	Willia Welling.	
Hydrology			
Wetland Hydrology Indicators:	one required; check all that apply)	A PROPERTY OF	Indicators (minimum of 2 required)
Surface Water (A1)	Water-Stained Leaves (B9)	r	e Soil Cracks (B6) ge Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Frim Lines (B16)
Saturation (A3)	Marl Deposits (B15)		eason Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfis	sh Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres alon	g Living Roots (C3)	tion Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (- 1/	d or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Ti		orphic Position (D2)
☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Image	Thin Muck Surface (C7)		w Aquitard (D3) opographic Relief (D4)
Sparsely Vegetated Concave Surfa	Other (Explain in Kemarks)		eutral Test (D5)
Field Observations:			
Surface Water Present? Yes	, , , , , , , , , , , , , , , , , , , ,		
Water Table Present? Yes	No Depth (inches):	Wetland Hydrology Pres	ent? Yes No
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):	wettallu nyulology Fles	ent: 165 O NO O
	gauge, monitoring well, aerial photos, previ	ous inspections), if available:	
Remarks:			
JS Army Corps of Engineers		Northcentral a	nd Northeast Region - Interim Version

100.0% FAC 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0%	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A) Total Number of Dominant Species Across All Strata: 4 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by:			
0.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 33.1% FACW-	Total Number of Dominant Species Across All Strata: Percent of dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet:			
0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 33.1% FACW-	Species Across All Strata: 4 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B) Prevalence Index worksheet:			
0.0% 0.0% 0.0% 0.0% tal Cover	Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B) Prevalence Index worksheet:			
0.0% 0.0% 0.0% tal Cover	That Are OBL, FACW, or FAC: 75.0% (A/B) Prevalence Index worksheet:			
0.0% 0.0% tal Cover 33.1% FACW-	That Are OBL, FACW, or FAC: 75.0% (A/B) Prevalence Index worksheet:			
0.0% tal Cover 33.1% FACW-				
tal Cover 33.1% FACW-				
33.1% FACW-				
	OBL species $0 \times 1 = 0$			
16.6% FAC				
	70 100			
6.6% FAC+	FAC species $60 \times 3 = 180$			
43.7%	FACU species $0 \times 4 = 0$			
0.0%	UPL species $0 \times 5 = 0$			
The state of the s	Column Totals: 176 (A) 412 (B)			
	Prevalence Index = B/A = 2.341			
an cover	Hydrophytic Vegetation Indicators:			
100.0% FACW	Rapid Test for Hydrophytic Vegetation			
0.0%	✓ Dominance Test is > 50%			
0.0%	Prevalence Index is ≤3.0 ¹			
0.0%	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)			
0.0%	Problematic Hydrophytic Vegetation ¹ (Explain)			
0.0%	Problematic Hydrophytic Vegetation - (Explain)			
LUCKSON CONTRACT	1 Indicators of hydric soil and wetland hydrology must			
	be present, unless disturbed or problematic.			
	Definitions of Vegetation Strata:			
	T W I - I - I - O : - (7.0 -) : - I' (-			
	Tree - Woody plants, 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.			
	at broadt morgini (PBT)// regardless of morgini			
	Sapling/shrub - Woody plants less than 3 in. DBH at greater than 3,28 ft (1m) tall.			
0.0%	Herb - All herbaceous (non-woody) plants, regardless of			
	size, and woody plants less than 3.28 ft tall.			
30 Sept. 10	W			
1923030	Woody vine - All woody vines greater than 3.28 ft in height.			
	_ noight.			
	0.0% 0.0% 0.0%			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

-			
	~	B	

Sampling Point: AN7 Wet

10	0-6 10YR 6-7 2.5Y 7-9 2.5Y 9+ Type: C=Concentration. D=D Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) ✓ Depleted Below Dark Surf Thick Dark Surface (A12)	3/2 100% 5/1 100% 4/2 100%	uced Matrix, CS=Covered or Coated Sand Grains 2Loca Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Loam Fine Loamy Sand Very Fine Sandy Loam bedrock stion: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils: 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining, M=Matrix ydric Soil Indicators: ydric Soil Indicators: Histosoi (A1)	Type: C=Concentration. D=D Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	5/1 100% 4/2 100%	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Fine Loamy Sand Very Fine Sandy Loam bedrock ation: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils: 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
ype: C=Concentration, D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining, M=Matrix ydric Sail Indicators: Histosol (A1)	Type: C=Concentration. D=D Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	4/2 100%	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Very Fine Sandy Loam bedrock stion: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils: 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ydric Soil Indicators: Histosol (A1)	Type: C=Concentration. D=D Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)		Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	bedrock stion: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix ydric Soil Indicators: Indicators for Problematic Hydric Soils: ³ Histosoi (A1)	Type: C=Concentration. D=D Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	epletion. RM=Redu	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ydric Soil Indicators: Histosol (A1)	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	epletion. RM=Redu	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ydric Soil Indicators: Histosol (A1)	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	epletion. RM=Redi	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ydric Soil Indicators: Histosol (A1)	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	epletion. RM=Redi	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ydric Soil Indicators: Histosol (A1)	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	epletion. RM=Redi	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ydric Soil Indicators: Histosol (A1)	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratifled Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	epletion. RM=Reda	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ydric Soil Indicators: Histosol (A1)	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratifled Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	epletion. RM=Redi	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ydric Soil Indicators: Histosol (A1)	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratifled Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	repletion, RM=Redu	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ydric Soil Indicators: Histosol (A1)	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratifled Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	epletion. RM=Red	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ydric Soil Indicators: Histosol (A1)	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratifled Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	epletion. RM=Redi	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
ydric Soil Indicators: Histosol (A1)	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratifled Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)	opedon in Trees	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils: 3 2 cm Muck (A10) (LRR K, L, MLRA 1498)	
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (S9) (LRR R, MLRA 149B) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR K, L) Depleted Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Black Histic (A3) Thin Dark Surface (S9) (LRR K, L, R) Dark Surface (S7) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Dark Surface (S7) (LRR K, L) Dark Surface (S7) (LRR K, L) Diark Surface (S7) (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 (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: bedrock	Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)		MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Depleted Dark Surface (F7) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L, R) Depleted Dark Surface (F8) Redox Depressions (F8) Coast Prairie Redox (A16) (LRR K, L, R) Dark Surface (S7) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Dark Surface (S7) (LRR K, L) Thin Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) To Dark Surface (S9) (LRR K,	Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)		☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)		
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) Stripped Matrix (S6) Dark Surface (S7) Stripped Matrix (S6) Depleted Dark Surface (TF12) Stripped Matrix (S6) Dark Surface (S7) Stripped Matrix (S6) Dark Surface (S8) Stripped Matrix (S6) Dark Surface (S7) Stripped Matri	Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)		The state of the s		
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Depleted Dark Surface (F8) Stripped Matrix (S6) Depleted Dark Surface (F8) Redox Depressions (F8) Depleted Dark Surface (F9) Redox Depressions (F8) Depleted Dark Surface (F1) Redox Depressions (F8) Redox Dep	Stratified Layers (A5) Depleted Below Dark Surf Thick Dark Surface (A12)			The state of the s	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Depleted Dark Surface (F7) Redox Depressions (F8) 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 144B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: bedrock	Depleted Below Dark Surf Thick Dark Surface (A12)				
Thick Dark Surface (A12) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Redox Depressions (F8) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	Thick Dark Surface (A12)	(A44)		Polyvalue Below Surface (S8) (LRR K, L)	
Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Depleted Dark Surface (F7) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: bedrock			The second of th		
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: bedrock			Depleted Dark Surface (F7)		
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: bedrock Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Lindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	Sandy Gleyed Matrix (S4)		Redox Depressions (F8)		
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Instrictive Layer (if observed): Type: bedrock	Sandy Redox (S5)				
Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	Stripped Matrix (S6)				
Type: bedrock	Dark Surface (S7) (LRR R	, MLRA 149B)		ALMONE AND TOO THE SURVEY MADE MADE MADE AND ADDRESS COMMON MADE AND ADDRESS OF THE ADDRESS OF T	
Type: bedrock	Indicators of hydrophytic veg	getation and wetla	nd hydrology must be present, unless disturbed or proble	ematic.	
Historia Call Buseauth May (A) No.	estrictive Layer (if observ	red):			
Hydric Soil Present? Vec (*) No (*)	Type: bedrock				
Depth (inches): 9	Depth (inches): 9			Hydric Soil Present? Yes • No	

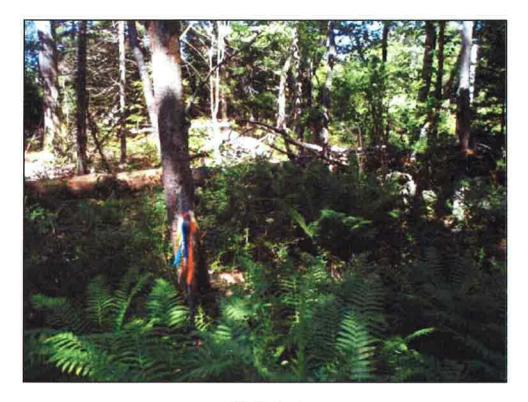
Project/Site: Antrim Wind Project City/Con	unty: Antrim Sampling Date: 11-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC	State: NH Sampling Point: AN7 Upland
nvestigator(s): AF JG Sect	ion, Township, Range: S. T. R.
andform (hillslope, terrace, etc.): Ridgetop Local re	clief (concave, convex, none): concave Slope: 12.5 % / 7.1 °
Subregion (LRR or MLRA):	Long.: Datum:
Soil Map Unit Name:	NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation . , Soil . , or Hydrology . significantly disturb	
Are Vegetation , Soil , or Hydrology naturally problema	The Herman encompanies prosent.
Summary of Findings - Attach site map showing sampli	,
Hydrophytic Vegetation Present? Yes No No	, point to a control of the contr
Hydric Soil Present? Yes No No	Is the Sampled Area within a Wetland?
Wetland Hydrology Present? Yes No •	within a Wetland? Yes O NO O
Hydrology	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B15)	☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2) Oxidized Rhizospheres along	
Drift deposits (B3)	
Algal Mat or Crust (B4)	led Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-neutral Test (D5)
Field Observations:	
Surface Water Present? Yes O No O Depth (inches);	
Water Table Present? Yes No Depth (inches):	
Saturation Present? (includes expillant frings) Yes No Depth (inches):	Wetland Hydrology Present? Yes O No 🗨
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previo	ous inspections), if available:
, , , , , , , , , , , , , , , , , , ,	,, , , , , , , , , , , , , , , , , , , ,
Remarks:	
	1

·	Dominant Species?				Sampling Point: AN7 Upland		
Tree Stratum (Plot size: 30'	Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:		
1 Betula papyrifera		~	20.5%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)		
2. Quercus rubra	22	~	45.2%	FACU-	That are obe, FACH, of FACE		
3. Acer rubrum	25	~	34.2%	FAC	Total Number of Dominant		
4.		\Box	0.0%		Species Across All Strata: 6 (B)		
5.			0.0%		Percent of dominant Species		
6	0		0.0%		That Are OBL, FACW, or FAC: 16.7% (A/B)		
7	0		0.0%		Prevalence Index worksheet:		
		= To	tal Cove	r	Total % Cover of: Multiply by:		
Sapling/Shrub Stratum (Plot size: 15'					OBL species 0 x 1 = 0		
1 Fagus grandifolia	33	~	76.7%	FACU	FACW species 0 x 2 = 0		
2. Picea rubens	10	~	23.3%	FACU	FAC species 25 x 3 = 75		
3,			0.0%		FACU species 121 x 4 = 484		
4.		Ц	0.0%		raco species		
5.	0	Ц	0.0%		UPL species x 3 =		
ô	0		0.0%		Column Totals: 151 (A) 584 (B)		
7.	0	Ш	0.0%		Prevalence Index = B/A = 3.868		
Herb Stratum (Plot size: 5')	43	= Ta	tal Cove	r	Hydrophytic Vegetation Indicators:		
1. Vaccinium angustifolium	25	V	71.4%	FACU-	Rapid Test for Hydrophytic Vegetation		
2.Lycopodium obscurum	5		14.3%	FACU	Dominance Test is > 50%		
3. Polygonatum pubescens	5		14,3%	UPL	Prevalence Index is ≤3.0 ¹		
4.	0		0.0%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)		
6	0		0.0%				
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must		
8.	0		0.0%		be present, unless disturbed or problematic.		
9.	0		0.0%		Definitions of Vegetation Strata:		
10.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter		
11	0		0.0%		at breast height (DBH), regardless of height.		
12.	0		0.0%		Sapling/shrub - Woody plants less than 3 in, DBH and		
Woody Vine Stratum (Plot size:)	35	= To	tal Cove	er .	greater than 3.28 ft (1m) tall		
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of		
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.		
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in		
4.	0		0.0%		height.		
	0 = Total Cover		r				
					Hydrophytic Vegetation		
					Present? Yes No •		

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN7 Upland

			needed to document the indicator or confirm	the absence of indicators.)	
Depth (inches)	Ma Color (moi	atrix ist) %	Redox Features Color (moist) % Type 1 Lo	² Texture	Remarks
0-2		3/2	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Loam	
2-4	2.5YR	5/1		Fine Loamy Sand	
4-9	10YR	4/4		Fine Sandy Loam	
9+					bedrock
					-i
1 Times C-Cone	controller D-D	anlation DM -Day	lugad Matrix, CC, Cayared as Costed Cond Cosing	Lastina Di Dan Lista M	Bantuis
Hydric Soil In		еріецоп, кім=ке	duced Matrix, CS=Covered or Coated Sand Grains		
Histosol (A			Polyvalue Below Surface (S8) (LRR R,		plematic Hydric Soils: 3
Histic Epipe			MLRA 149B)) (LRR K, L, MLRA 149B)
Black Histic	Description (Section 6)		Thin Dark Surface (S9) (LRR R, MLRA 1498) —	dox (A16) (LRR K, L, R) t or Peat (S3) (LRR K, L, R)
Hydrogen :	Sulfide (A4)		Loamy Mucky Mineral (F1) LRR K, L)	Dark Surface (S	CHICAGO CONTRACTOR CON
Stratified L	ayers (A5)		Loamy Gleyed Matrix (F2)	The Attendance and	Surface (S8) (LRR K, L)
	Below Dark Surfa	ace (A11)	Depleted Matrix (F3) Redox Dark Surface (F6)		e (S9) (LRR K, L)
-	Surface (A12)		Depleted Dark Surface (F7)	Iron-Manganese	Masses (F12) (LRR K, L, R)
1-1	k Mineral (S1)		Redox Depressions (F8)	Piedmont Floodp	olain Soils (F19) (MLRA 149B)
Sandy Gley Sandy Red	yed Matrix (S4)			The second section of the second seco	A6) (MLRA 144A, 145, 149B)
Stripped M				Red Parent Mate	
	ce (S7) (LRR R,	MLRA 149B)		Other (Explain in	rk Surface (TF12)
³ Indicators of	hydrophytic vec	etation and wetl	and hydrology must be present, unless disturbed or p	A 3	, itematics)
Restrictive La					
Type: bed	.20	,.			
Depth (inch				Hydric Soil Present?	Yes O No 💿
Remarks:					
					_
61					8



AN7 Wetland



AN7 Upland

Project/Site: Antrim Wind Project	City/C	ounty: Antrim		Sampling Date: 11	l-Aug-11	
Applicant/Owner: Eolian Renewable Energy, L	LC	Sta	te: NH	Sampling Point:	AN8 Wet	
Investigator(s): AF JG	Sec	ction, Township, Range:	s. T.	R.		
andform (hillslope, terrace, etc.): Terrac	e Local r	relief (concave, convex, r	ione): flat	Slope:	5.0 % / 2	.9°
Subregion (LRR or MLRA):	Lat.:	Long	j.:	Date	ım:	
oil Map Unit Name:			NWI classif	ication: PFO		
	rdrology significantly disturdrology naturally problem	atic? (If needed,	(If no, explain in Circumstances" explain any answ ns, transects	oresent? Yes •		•
Hydrophytic Vegetation Present? Yes						
Hydric Soil Present? Yes	No ○	Is the Sampled Area within a Wetland?	Yes No)		
Wetland Hydrology Present? Yes	● No ○					
Hydrology Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of 2 requ	uired)	
Primary Indicators (minimum of one requi	red; check all that apply)		Surface Soil C	racks (B6)		
Surface Water (A1)	✓ Water-Stained Leaves (B9)		✔ Drainage Patt			
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lin	10 10		
Saturation (A3) Water Marks (B1)	Marl Deposits (B15) Hydrogen Sulfide Odor (C1	V	Crayfish Burro	/ater Table (C2)		
Sediment Deposits (B2)	Oxidized Rhizospheres alor	100		sible on Aerial Imagery	(C9)	
Drift deposits (B3)	Presence of Reduced Iron		ermon.	ressed Plants (D1)	(0)	
Algal Mat or Crust (B4)	Recent Iron Reduction in T		✓ Geomorphic F	Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquit			
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks))	✓ Microtopograp ✓ FAC-neutral T	ohic Relief (D4) Test (D5)		
Field Observations:						
Surface Water Present? Yes O No						
Water Table Present? Yes No	Depth (inches):	Watland Hudi	rology Present?	Yes No)	
Saturation Present? (includes capillary fringe) Yes No	O Depth (inches):	0	lology Flesent!	165 0 110 0		
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, prev	ious inspections), if avai	lable:			

	FACW- FAC+ FACU FAC	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of dominant Species That Are OBL, FACW, or FAC: Total % Cover of: Multiply by: OBL species O FACW species 91 X 2 = 182 FAC species 63 X 3 = 189 FACU species 3 X 4 = 12 UPL species O Column Totals: 157 (A) 383 (B) Prevalence Index = B/A = 2.439 Hydrophytic Vegetation Indicators:		
50.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 23.8% 47.6% 14.3% 0.0% 0.0% 0.0% 5.5% 3.3%	FACW- FAC+ FACU FAC	That are OBL, FACW, or FAC: 5 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 91 x 2 = 182 FAC species 63 x 3 = 189 FACU species 3 x 4 = 12 UPL species 0 x 5 = 0 Column Totals: 157 (A) 383 (B) Prevalence Index = B/A = 2.439		
50.0% 0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 23.8% 47.6% 14.3% 0.0% 0.0% 0.0% 5.5% 3.3%	FACW- FAC+ FACU FAC	Total Number of Dominant Species Across All Strata: Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0		
0.0% 0.0% 0.0% 0.0% tal Cover 23.8% 47.6% 14.3% 0.0% 0.0% 0.0% 5.5% 3.3%	FACW- FAC+ FACU FAC	Species Across All Strata: 5 (B) Percent of dominant Species 100.0% (A/B) Prevalence Index worksheet:		
0.0% 0.0% tal Cover 23.8% 47.6% 14.3% 0.0% 0.0% 0.0% 5.5% 3.3%	FACW- FAC+ FACU FAC	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 91 x 2 = 182 FAC species 63 x 3 = 189 FACU species 3 x 4 = 12 UPL species 0 x 5 = 0 Column Totals: 157 (A) 383 (B) Prevalence Index = B/A = 2.439		
0.0% 0.0% tal Cover 23.8% 47.6% 14.3% 0.0% 0.0% 0.0% tal Cover 82.4% 5.5% 3.3%	FACW- FAC+ FACU FAC	That Are OBL, FACW, or FAC: 100.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 91 x 2 = 182 FAC species 63 x 3 = 189 FACU species 3 x 4 = 12 UPL species 0 x 5 = 0 Column Totals: 157 (A) 383 (B) Prevalence Index = B/A = 2.439		
0.0% tal Cover 23.8% 47.6% 14.3% 0.0% 0.0% 0.0% tal Cover 82.4% 5.5% 3.3%	FACW- FAC+ FACU FAC	Prevalence Index worksheet: Total % Cover of:		
23.8% 47.6% 14.3% 0.0% 0.0% 0.0% 5.5% 3.3%	FACW- FAC+ FACU FAC	Total % Cover of: Multiply by: OBL species $0 \times 1 = 0$ FACW species $91 \times 2 = 182$ FAC species $63 \times 3 = 189$ FACU species $3 \times 4 = 12$ UPL species $0 \times 5 = 0$ Column Totals: $157 \times (A) \times 383 \times (B)$ Prevalence Index = B/A = 2.439		
23.8% 47.6% 14.3% 14.3% 0.0% 0.0% 0.0% tal Cover 82.4% 5.5% 3.3%	FACW- FAC+ FACU FAC	OBL species 0 x 1 = 0 FACW species 91 x 2 = 182 FAC species 63 x 3 = 189 FACU species 3 x 4 = 12 UPL species 0 x 5 = 0 Column Totals: 157 (A) 383 (B) Prevalence Index = B/A = 2.439		
47.6% 14.3% 14.3% 0.0% 0.0% tal Cover 82.4% 5.5% 3.3%	FAC+ FACU FAC	FACW species 91 x 2 = 182 FAC species 63 x 3 = 189 FACU species 3 x 4 = 12 UPL species 0 x 5 = 0 Column Totals: 157 (A) 383 (B) Prevalence Index = B/A = 2.439		
47.6% 14.3% 14.3% 0.0% 0.0% tal Cover 82.4% 5.5% 3.3%	FAC+ FACU FAC	FAC species 63 x 3 = 189 FACU species 3 x 4 = 12 UPL species 0 x 5 = 0 Column Totals: 157 (A) 383 (B) Prevalence Index = B/A = 2.439		
14.3% 0.0% 0.0% 0.0% tal Cover 82.4% 5.5% 3.3%	FACU FAC	FACU species 3 x 4 = 12 UPL species 0 x 5 = 0 column Totals: 157 (A) 383 (B) Prevalence Index = B/A = 2.439		
14.3% 0.0% 0.0% 0.0% tal Cover 82.4% 5.5% 3.3%	FAC	FACU species 3 x 4 = 12 UPL species 0 x 5 = 0 Column Totals: 157 (A) 383 (B) Prevalence Index = B/A = 2.439		
0.0% 0.0% 0.0% tal Cover 82.4% 5.5% 3.3%		UPL species 0 x 5 = 0 column Totals: 157 (A) 383 (B) Prevalence Index = $B/A = 2.439$		
0.0% 0.0% tal Cover 82.4% 5.5% 3.3%		Column Totals: 157 (A) 383 (B) Prevalence Index = B/A = 2.439		
0.0% tal Cover 82.4% 5.5% 3.3%		Prevalence Index = B/A = 2.439		
82.4% 5.5% 3.3%		2 //		
82.4% 5.5% 3.3%		Hydrophytic Vegetation Indicators:		
5.5% 3.3%	FACW			
5.5% 3.3%		Rapid Test for Hydrophytic Vegetation		
3.3%	FACW	✓ Dominance Test is > 50%		
	FACW	✓ Prevalence Index is ≤3.0 1		
	FACW+	Morphological Adaptations 1 (Provide supporting		
5.5%	171011	data in Remarks or on a separate sheet)		
0.0%	-	Problematic Hydrophytic Vegetation 1 (Explain)		
0.0%		¹ Indicators of hydric soil and wetland hydrology must		
0.0%	_	be present, unless disturbed or problematic.		
0.0%	-	Definitions of Vegetation Strata:		
		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter		
		at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH ar		
	-			
tal Cover	•	greater than 3.28 ft (1m) tall		
0.0%		Herb - All herbaceous (non-woody) plants, regardless o		
0.0%		size, and woody plants less than 3.28 ft tall.		
0.0%		Woody vine - All woody vines greater than 3.28 ft in		
0.0%		height.		
tal Cover				
	0.0% 0.0% 0.0% 0.0%	0.0% 0.0% tal Cover 0.0% 0.0%		

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN8 Wet

Profile Descr Depth	iption: (Des	cribe to Matrix	the depth	needed to doc	ment the in Redox Fe		onfirm the	absence of indicators.)	
(inches)	Color (r		- %	Color (moi		The Control of the last of the	Loc2	Texture Remarks	
0-8	2.5YR	2/1	100%					Loam	
8-10	2.5Y	5/1	100%					Fine Sand	
10-20	2.5Y	4/2	95%	2.5Y	6/1 5%	D	М	Sandy Loam	
10 20	2.31	1/2	3370	2.51	0/1 570		121	Salidy Loan	
								·	
		-							
		-							
		=Depletio	n. RM=Redu	ced Matrix, CS=	Covered or Co	ated Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=Matrix	
Hydric Soil 1								Indicators for Problematic Hydric Soils:	3
Histosol (Polyvalu MLRA 14	e Below Surfac	ce (S8) (LRR F	₹,	2 cm Muck (A10) (LRR K, L, MLRA 149B)	
W-1	oedon (A2)				k Surface (S9)	(IRRR MIR	2Δ 149R)	Coast Prairie Redox (A16) (LRR K, L, R)	
Black Hist	ic (A3) Sulfide (A4)				lucky Mineral	With the con-	5	5 cm Mucky Peat or Peat (S3) (LRR K, L, F	R)
	Layers (A5)				ileyed Matrix (,	Dark Surface (S7) (LRR K, L)	
✓ Depleted		urfaco (A	111		Matrix (F3)	D.TT.R.I.		Polyvalue Below Surface (S8) (LRR K, L)	
prompt and the second	k Surface (A1		11)	2-114	ark Surface (F	6)		Thin Dark Surface (S9) (LRR K, L)	
	ck Mineral (S	100		Depleted	Dark Surface	(F7)		Iron-Manganese Masses (F12) (LRR K, L,	
	yed Matrix (S	33		Redox D	epressions (F8	1)		Piedmont Floodplain Soils (F19) (MLRA 14	
Sandy Re		5560						Mesic Spodic (TA6) (MLRA 144A, 145, 149	98)
	Matrix (S6)							☐ Red Parent Material (TF2) ☐ Very Shallow Dark Surface (TF12)	
Dark Surfa	ace (S7) (LRR	R, MLRA	(149B)					Other (Explain in Remarks)	
3Indicators of	hydrophytic	venetatio	n and watlar	nd hydrology mu	et ha nracant	unless distur	ned or probl	Vic. 18	
			iii and wettar	ia nyarology ma	st be present,	uniess distuit	sed of proble	ierrauc.	
Restrictive L	ayer (if obse	erved):							
Type:								Hydric Soil Present? Yes No	
Depth (incl	nes):							Tryanto don 1 tadone. 160 O 160 O	
Remarks:									

Project/Site: Antrim Wind Project	City/	County: Antrim		Sampling Date: 11-	Aug-11
Applicant/Owner: Eolian Renewable I	Energy, LLC	Sta	te: NH	Sampling Point:	AN8 Upland
Investigator(s): AF JG	s	ection, Township, Range:	s. T.	R.	
Landform (hillslope, terrace, etc.):	Terrace Loca	l relief (concave, convex, r	none): none	Slope:	7.0 % / 4.0°
Subregion (LRR or MLRA):	Lat.:	Long	j.:	Datu	m:
Soil Map Unit Name:	,		NWI classif	fication:	
Are climatic/hydrologic conditions	on the site typical for this time of year?	Yes No	(If no, explain in	n Remarks.)	
Are Vegetation, Soil	, or Hydrology significantly dis	turbed? Are "Normal	Circumstances"		No O
Are Vegetation , Soil	, or Hydrology naturally proble		explain any answ	• 5000 (0.000 0.000 0.000 0.000	
- 10 M	ttach site map showing sam	And the second s			tures, etc.
Hydrophytic Vegetation Present?	Yes No 💿			30.000	
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area	Yes O No G	6)	
Wetland Hydrology Present?	Yes No	within a Wetland?	ies O NO O		
Hydrology	¥				
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of 2 requi	red)
Primary Indicators (minimum of or	ne required; check all that apply)		Surface Soil C	Cracks (B6)	
Surface Water (A1)	Water-Stained Leaves (B	9)	Drainage Patt		
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lir	•	
Saturation (A3) Water Marks (B1)	Marl Deposits (B15)	- 1		Vater Table (C2)	
Sediment Deposits (B2)	Hydrogen Sulfide Odor (Crayfish Burro		(0)
Drift deposits (B3)	Oxidized Rhizospheres a Presence of Reduced Iro			sible on Aerial Imagery (ressed Plants (D1)	(9)
Algal Mat or Crust (B4)	Recent Iron Reduction in		Geomorphic F		
☐ Iron Deposits (B5)	Thin Muck Surface (C7)	Tilled Solis (Co)	Shallow Aquit	a e	
☐ Inundation Visible on Aerial Image		(5)		phic Relief (D4)	
Sparsely Vegetated Concave Surface		a,	FAC-neutral T	est (D5)	
Field Observations:					
Surface Water Present? Yes	No Depth (inches):				
Water Table Present? Yes	No Depth (inches):				
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):	Wetland Hydi	rology Present?	Yes O No 💿	
(includes capillary tringe)	auge, monitoring well, aerial photos, pro	evious inspections), if avai	lable:		
Remarks:					

			ominant secies?		Sampling Point: AN8 Upland				
Tree Stratum (Plot size: 30')	Absolute % Cover		el.Strat. over	Indicator Status					
1. Quercus rubra	25	~	28.4%	FACU-	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)				
2. Pinus strobus	33	~	37.5%	FACU					
3. Betula papyrifera	10		11.4%	FACU	Total Number of Dominant Species Across All Strata: 6 (B)				
4. Acer rubrum	20	~	22.7%	FAC	Species Across All States.				
5.	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 16.7% (A/				
6.	0		0.0%						
7	0		0.0%		Prevalence Index worksheet:				
Sapling/Shrub Stratum (Plot size: 15')	88	= To	otal Cove	r	Total % Cover of: Multiply by:				
	40	V	00.00/	51011	OBL species 0 x 1 = 0				
1 Fagus grandifolia	40	V	80.0%	FACU	FACW species $0 \times 2 = 0$				
2. Picea rubens	10		20.0%	FACU	FAC species 20 x 3 = 60				
3.	0	Н	0.0%		FACU species 119 x 4 = 476				
4	0		0.0%		UPL species 26 x 5 = 130				
5.	0		0.0%		Column Totals: 165 (A) 666 (B)				
3.		믬	0.0%	-	Coyamii Tocurst				
7	0	ш	0.0%		Prevalence Index = B/A = 4.036				
Herb Stratum (Plot size: 5')	50	= To	otal Cove	r	Hydrophytic Vegetation Indicators:				
1 .Aralla nudicaulis	1		3.7%	FACU	Rapid Test for Hydrophytic Vegetation Dominance Test is > 50%				
2. Medeola virginiana	1		3.7%	UPL					
3 Dahmanahum aubassana	25	V	92.6%	UPL	Prevalence Index is ≤3.0 ¹				
4.	0		0.0%	OFL	Morphological Adaptations ¹ (Provide supporting				
5	0		0.0%		data in Remarks or on a separate sheet)				
6.	0		0.0%		Problematic Hydrophytic Vegetation 1 (Explain)				
7.	0	П	0.0%		¹ Indicators of hydric soil and wetland hydrology must				
8.	0	П	0.0%		be present, unless disturbed or problematic.				
9.	0	П	0.0%		Definitions of Vegetation Strata: Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and				
10.	0		0.0%	-					
11.	0	H	0.0%						
12.	0	H	0.0%						
	general property	– T	otal Cove						
Woody Vine Stratum (Plot size:		_ ,,	Mai Cove	•	greater than 3,28 ft (1m) tall				
1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of				
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.				
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in				
4.	0		0.0%		height.				
	0	= To	otal Cove	r					
	0	= To	otal Cove	r	Hydrophytic				
					Vegetation Present? Yes No No				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN8 Upland

50.00	ription: (Des	cribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth (inches)	Color (n	Matrix noist)	0/0	Redox Features Color (moist) % Type 1 Loc²	Texture	Remarks
0-4	10YR	3/2	100%		Loam	
4-6	2.5Y	5/1	100%		Loamy Sand	
6-8	10YR	4/4	100%		Very Fine Sandy Loam	
8+						Bedrock
	-					
¹ Type: C=Cor	centration. D=	=Depletio	n. RM=Rec	uced Matrix, CS=Covered or Coated Sand Grains ² Local	ation: PL=Pore Lining, M=M	fatrix
Hydric Soil	Indicators:				Indicators for Probl	ematic Hydric Soils: 3
Histosol (to the second			Polyvalue Below Surface (S8) (LRR R,		(LRR K, L, MLRA 1498)
	pedon (A2)			MLRA 1498) Thin Dark Surface (S9) (LRR R, MLRA 149B)		ox (A16) (LRR K, L, R)
Black His				Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat	or Peat (S3) (LRR K, L, R)
177	Sulfide (A4) Layers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	(LRR K, L)
r l	Below Dark S	urfaca (A	ETA.	Depleted Matrix (F3)		Surface (S8) (LRR K, L)
	rk Surface (A1.		,	Redox Dark Surface (F6)	Thin Dark Surface	
-	uck Mineral (S:			Depleted Dark Surface (F7)	The second secon	Masses (F12) (LRR K, L, R)
	eyed Matrix (S	85		Redox Depressions (F8)	— Laurence - Au	ein Soils (F19) (MLRA 149B)
Sandy Re	22 62	50			Red Parent Materi	5) (MLRA 144A, 145, 149B)
Stripped	Matrix (S6)				Very Shallow Dark	i (1)
Dark Surf	face (S7) (LRR	R, MLRA	149B)		Other (Explain in I	0 0
³ Indicators o	f hydrophytic	vegetatio	n and wetla	nd hydrology must be present, unless disturbed or probl		
Restrictive L	ayer (if obse	erved):				
Type: B	edrock					
Depth (inc	thes): 8				Hydric Soil Present?	Yes O No 💿
Remarks:				***		
				Ji.		



AN8 Upland



AN8 Wetland



AN8 Wetland

Project/Site: Antrim Wind Project	City	/County: Antrim	Sampling Date: 11-Aug-11
Applicant/Owner: Eolian Renewable	Energy, LLC	State: NH	Sampling Point: AN10 Wet
Investigator(s): AF JG		Section, Township, Range: S.	T. R.
Landform (hillslope, terrace, etc.):	Hillside Loc a	ol relief (concave, convex, none): non	ne Slope : 10.0 % / 5.7 °
Subregion (LRR or MLRA):	Lat.:	Long.:	Datum:
Soil Map Unit Name:		NWI	classification: PFO
Are climatic/hydrologic conditions	on the site typical for this time of year?	Yes ● No ○ (If no, exp	olain in Remarks.)
Are Vegetation 🔲 , Soil 🗌	, or Hydrology 🔲 significantly dis	sturbed? Are "Normal Circumsta	nces" present? Yes 🍳 No 🔾
Are Vegetation, Soil	, or Hydrology 🔲 naturally proble	ematic? (If needed, explain any	answers in Remarks.)
Summary of Findings - A	ttach site map showing sam	pling point locations, trans	ects, important features, etc.
Hydrophytic Vegetation Present?	Yes No		
Hydric Soil Present?	Yes No	Is the Sampled Area within a Wetland?	No O
Wetland Hydrology Present?	Yes No		
Hydrology			
Wetland Hydrology Indicators:		Secondary	Indicators (minimum of 2 required)
Primary Indicators (minimum of c	one required; check all that apply)	Surfac	e Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (ge Patterns (B10)
☐ High Water Table (A2) ✓ Saturation (A3)	Aquatic Fauna (B13)		Frim Lines (B16)
Water Marks (B1)	✓ Marl Deposits (B15)✓ Hydrogen Sulfide Odor		eason Water Table (C2) sh Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres		tion Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced In		d or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction i	n Tilled Soils (C6)	orphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		w Aquitard (D3)
Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfa	Under (Explain in Kemai	na)	opographic Relief (D4) eutral Test (D5)
Field Observations:	2 0		
Surface Water Present? Yes		1	
Water Table Present? Yes		Wetland Hydrology Pres	ent? Yes • No O
Saturation Present? (includes capillary fringe) Yes	No O Depth (inches):	wettans nyerology ries	
(includes capillary trilige)	gauge, monitoring well, aerial photos, pi	revious inspections), if available:	

Status .0%	Number of Dominant Species That are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 6 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 5 x 1 = 5 FACW species 88 x 2 = 176 FAC species 30 x 3 = 90 FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 Column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
.0% FACW .0% .0% .0% .0% .0% .0% .0% .0% .0% .0%	Total Number of Dominant Species Across All Strata: Percent of dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 5 x 1 = 5 FACW species 88 x 2 = 176 FAC species 30 x 3 = 90 FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 Column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
0% 0% 0% 0% 0% Cover .9% FACU .1% FAC 0% 0% 0% Cover .3% FACW .3% FACW 4% OBL	Species Across All Strata: 6 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B) Prevalence Index worksheet:						
0% 0% 0% 0% Cover	Percent of dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 5 x 1 = 5 FACW species 88 x 2 = 176 FAC species 30 x 3 = 90 FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 Column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
0% 0% 0% 0% 0% 0% 0% 0%	That Are OBL, FACW, or FAC: 83.3% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 5 x 1 = 5 FACW species 88 x 2 = 176 FAC species 30 x 3 = 90 FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 Column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
0% 0% Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 5 x 1 = 5 FACW species 88 x 2 = 176 FAC species 30 x 3 = 90 FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 Column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
.9% FACU .1% FAC .0% .0% .0% .0% .0% .0% .0% .0% .0% .0%	Total % Cover of: Multiply by: OBL species 5 x 1 = 5 FACW species 88 x 2 = 176 FAC species 30 x 3 = 90 FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 Column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
.9% FACU .1% FAC .0% .0% .0% .0% .0% .0% Cover3% FACW3% FACW .4% OBL	Total % Cover of: Multiply by: OBL species 5 x 1 = 5 FACW species 88 x 2 = 176 FAC species 30 x 3 = 90 FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 Column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
.9% FACU .1% FAC .0% .0% .0% .0% .0% .0% .3% FACW .3% FACW .4% OBL	OBL species 5 x 1 = 5 FACW species 88 x 2 = 176 FAC species 30 x 3 = 90 FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 Column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
.1% FAC .0% .0% .0% .0% .0% .0% .3% FACW .3% FACW .4% OBL .0%	FACW species 88 x 2 = 176 FAC species 30 x 3 = 90 FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 Column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
0%	FAC species 30 x 3 = 90 FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 Column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
.3% FACW .3% FACW .0%	FACU species 50 x 4 = 200 UPL species 0 x 5 = 0 column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
.0% .0%	UPL species 0 x 5 = 0 column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
.3% FACW .3% FACW 4% OBL	column Totals: 173 (A) 471 (B) Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
.3% FACW3% FACW 4% OBL	Prevalence Index = B/A = 2.723 Hydrophytic Vegetation Indicators:						
3% FACW 3% FACW 4% OBL	Hydrophytic Vegetation Indicators:						
.3% FACW .3% FACW 4% OBL	Hydrophytic Vegetation Indicators:						
.3% FACW .3% FACW 4% OBL							
.3% FACW .4% OBL .0%							
.4% OBL	Rapid Test for Hydrophytic Vegetation						
.0%	✓ Dominance Test is > 50%						
	Prevalence Index is ≤3.0 ¹						
	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)						
.0%							
.0%	Problematic hydrophytic vegetation (Explain)						
0 0.0% 0 0.0% 1 Indicators of hydric soil							
.0%	be present, unless disturbed or problematic.						
.0%	Definitions of Vegetation Strata:						
	To We declare 2 in 17 Care and in the contract						
	 Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 						
	_						
	Sapling/shrub - Woody plants less than 3 in. DBH and						
COVCI	greater than 3.28 ft (1m) tall						
.0%	Herb - All herbaceous (non-woody) plants, regardless of						
.0%	size, and woody plants less than 3.28 ft tall.						
.0%	Woody vine - All woody vines greater than 3.28 ft in						
.0%	height.						
Cover							
	0% 0% 0% 0% Cover 0% 0%						

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN10 Wet

Profile Descr	ription: (Des	cribe to	the depth	needed to	locument	the indica	ator or c	onfirm the a	absence of indicators.)				
Depth (inches)	· calaure	Matrix	- 0/	- Colon (dox Featu							
0-6	Color (r	-	1000/	Color (moist)	%	Type 1	Loc2	Texture	Ker	narks		
	10YR	3/2	100%						Sandy Loam				
6-10	2.5Y	4/2	90%	10YR	5/8	10%	С	М	Fine Sandy Loam	bouldery			
10+									_	bourtery			
						-			-	_			
						-	_						
										_			
¹ Type: C=Cond	centration. D	=Depletio	n, RM=Rec	luced Matrix,	CS=Covere	ed or Coate	d Sand G	rains ² Loca	tion: PL=Pore Lining. M=	-Matrix			
Hydric Soil I	Indicators:								Indicators for Pro	olematic Hydr	ic Soils: 3		
Histosol (A1)					w Surface (S	58) (LRR	R,	2 cm Muck (A10				
	pedon (A2)				A 149B)	ace (S9) (L	nn n Mi	DA 140B)	Coast Prairie Re				
Black Hist	STATE OF THE PARTY			WEST WAR		Mineral (F1)	100001-000		5 cm Mucky Pea	Harris Committee of the	ATTAC CONTRACTOR		
	Sulfide (A4)			-	MAN THE PARTY OF THE	Matrix (F2)	HALL CARREST CO. CO.	,	Dark Surface (S	7) (LRR K, L)			
family	Layers (A5)	urfuna (A)			eted Matri	Control Control			Polyvalue Below	Surface (S8) (L	RR K, L)		
property and the second	Below Dark S k Surface (A1		11)		x Dark Su	1000 1100			Thin Dark Surfa		591Z/A - HO - HO - HO - HO		
and the second						Surface (F7)		☐ Iron-Manganese	시간 로마스테 프라스, '하다'	THE PROPERTY OF THE PARTY OF TH		
	Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4)				x Depress	ions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)				
	Sandy Gleyed Matrix (S4) Sandy Redox (S5)								Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)				
	Matrix (S6)								☐ Ked Parent Mate	1.2	2)		
☐ Dark Surfa	ace (S7) (LRR	R, MLRA	149B)						Other (Explain i	-	۷)		
³ Indicators of	f hydrophytic	venetation	and wetla	and hydrology	must he n	resent unl	ess distur	hed or proble	8 (8)	r Kellidika)			
			rana iraan	,a.o.og,				200 O. p. 00.0					
Type: bo		erveo):											
Depth (inch									Hydric Soil Present?	Yes 💿	No O		
	iles). 10	-/-											
Remarks:													

Project/Site: Antrim Wind Project		City/County: Antrim	Sampling Date: 11-Aug-11
Applicant/Owner: Eolian Renewable Energy	, LLC	Sta	ate: NH Sampling Point: AN10 Upland
Investigator(s): AF JG		Section, Township, Range:	
Landform (hillslope, terrace, etc.): Hills	iide	Local relief (concave, convex,	
Subregion (LRR or MLRA):	Lat.:	Lon	
Soil Map Unit Name:			NWI classification:
Are climatic/hydrologic conditions on the	e site typical for this time of w	ear? Yes • No O	(If no, explain in Remarks.)
	—		al Circumstances" present? Yes No
			present.
			explain any answers in Remarks.) ns, transects, important features, etc.
	s ○ No ●		,
	s No •	Is the Sampled Area	Yes ○ No ●
V-	s No 💿	within a Wetland?	res U NO G
Wetland Hydrology Present? Remarks: (Explain alternative procedu			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one rec	quired; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leav	ves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13		Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15	i)	Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide C	Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizosphe	eres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduc		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)		tion in Tilled Soils (C6)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7	Thin Muck Surface		Shallow Aquitard (D3) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8	. Calci (Explainting	Remarks)	FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes	No Depth (inches):		*
A STATE OF THE STA	No Depth (inches):		
Saturation Present?	Depth (inches):	Wetland Hyd	drology Present? Yes O No 💿
(includes capillary fringe) Describe Recorded Data (stream gauge,	monitoring well aerial photo	s previous inspections) if ava	ilahle:
Joseph Recorded Data (Stream gaage)	monitoring went dental priore	s, previous inspections,, ii ava	
Remarks:			

	Dominant Species?				Sampling Point: AN10 Upland					
Tree Stratum (Plot size: 30')	Absolute % Cover	Re		Indicator Status	AND THE PROPERTY IN IN SECURE AND INC.					
1. Tsuga canadensis	40	V	42.1%	FACU	Number of Dominant That are OBL, FACW			2	(A)	
2. Betula papyrifera	25	V	26.3%	FACU						
3. Fraxinus pennsylvanica	15		15.8%	FACW	Total Number of Dor Species Across All St			6	(B)	
1. Picea rubens	15		15.8%	FACU					X-2	
5	0		0.0%		Percent of domina			33.3%	(A/B	
5	. 0		0.0%		That Are OBL, FAG	LW, or FA	C:	55.570	(A) D	
7.	0		0.0%		Prevalence Index v	vorksheet	t:			
Sapling/Shrub Stratum (Plot size: 15'	95	= To	otal Cove	er	Total % Cov	er of: 0	Multiply	by:	-	
Acer rubrum	50	V	76.9%	FAC	FACW species	15	x 2 =	30		
2. Picea rubens	15	V	23.1%	FACU		70		210		
3	0		0.0%		FAC species	155	x 3 =	620		
1.	0		0.0%		FACU species	0	x 4 =	0		
5.			0.0%		UPL species		x 5 =	15.65	6	
5	0		0.0%		Column Totals:	240	(A)	860	(B)	
7	0		0.0%		Prevalence In	dex = B/a	A =	3.583		
Herb Stratum (Plot size: 5'		= To	otal Cove	er	Hydrophytic Veget					
1. Trientalis borealis	20	V	25.0%	FAC	Rapid Test for			ation		
2. Aralia nudicaulis	50	V	62.5%	FACU	Dominance To					
3. Dryopteris intermedia	10		12.5%	FACU	Prevalence Ir				77-7	
4.	0		0.0%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)					
5,	0		0.0%		Problematic H		dain)			
6,	0		0.0%		Indicators of hydric soil and wetland hydrology represent, unless disturbed or problematic.					
7.	0		0.0%							
8.	0		0.0%							
9.	0		0.0%		Definitions of Vegetation Strata:					
0.	. 0		0.0%		Tree - Woody plan	ts, 3 in. (1	7.6 cm) or	more in d	iamete	
12	0		0.0%		at breast height (D					
2.	0		0.0%		Sapling/shrub - Wo	ody plan	te loce the	n 3 in DE	DDLLand	
Woody Vine Stratum (Plot size:)	80	= To	otal Cove	er	greater than 3.28 f			III 3 III, DE	n anu	
1,	0		0.0%		Herb - All herbace					
2.	0		0.0%		size, and woody pl	ants less	than 3.28	ft tall.		
3,	0		0.0%		Woody vine - All w	oodv vine	s areater	than 3.28	ft in	
4	0		0.0%		height.	,	3			
	0	= To	tal Cove	er						
					Hydrophytic Vegetation Present? Y	es O 1	No 💿			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Depth	ription: (Des	cribe to Matrix	the depth	needed to document the indicator or confirm to Redox Features	he absence of indicato	rs.)
(inches)	Color (r	noist)	0/0	Color (moist) % Type ! Loc	² Texture	Remarks
0-5	10YR	3/2	100%		Loam	
5-7	2.5Y	5/1	100%		Fine Loamy Sand	
7-13	10YR	4/3	100%		Very Fine Loamy Sa	and
13+						bouldery
		-				
	-				_	
			-			
						-
¹ Type: C=Con	centration. D	=Depletio	n. RM=Rec	luced Matrix, CS=Covered or Coated Sand Grains 2	Location: PL=Pore Lining	, M=Matrix
Hydric Soil	Indicators:				Indicators for I	Problematic Hydric Soils: 3
Histosol (Polyvalue Below Surface (S8) (LRR R,		(A10) (LRR K, L, MLRA 149B)
	pedon (A2)			MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B	Canal Davida	Redox (A16) (LRR K, L, R)
Black His				Loamy Mucky Mineral (F1) LRR K, L)		Peat or Peat (S3) (LRR K, L, R)
PT I STATE OF THE	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Dark Surface	e (S7) (LRR K, L)
0	Layers (A5) Below Dark S			Depleted Matrix (F3)	Polyvalue Be	elow Surface (S8) (LRR K, L)
F Francisco	k Surface (A1		11)	Redox Dark Surface (F6)	Thin Dark St	urface (S9) (LRR K, L)
F-1000 - 20 1001	ick Mineral (S	.07		Depleted Dark Surface (F7)		nese Masses (F12) (LRR K, L, R)
The same of the same	eyed Matrix (S			Redox Depressions (F8)	The same of the sa	oodplain Soils (F19) (MLRA 149B)
Sandy Re						c (TA6) (MLRA 144A, 145, 1498)
	Matrix (S6)					Material (TF2) v Dark Surface (TF12)
☐ Dark Surf	ace (S7) (LRF	R, MLRA	149B)			nin In Remarks)
³ Indicators o	f hydrophytic	vegetatio	n and wetla	and hydrology must be present, unless disturbed or p	2 5	iii iii Keinarks)
Restrictive L				,		
Type: be						
Depth (inc					Hydric Soil Prese	ent? Yes O No 💿
Remarks:	,, 13					



AN10 Upland



AN10 Wetland

Project/Site: Antrim Wind Project		City/County: Antrim		Sampling Date: 12-Aug-11		
Applicant/Owner: Eolian Renewable E	nergy, LLC	Sta	ate: NH	Sampling Point: AN11 Wet		
Investigator(s): AF JG		Section, Township, Range:	s. T.	R.		
Landform (hillslope, terrace, etc.):	Hillside	Local relief (concave, convex,		Slope: 7.0 % / 4.0°		
Subregion (LRR or MLRA):	Lat.:	Lon	g.:	Datum:		
Soil Map Unit Name:			NWI classifi	cation: PSS		
Are climatic/hydrologic conditions of	un the site tunical for this time of	vear? Yes No	(If no, explain in			
Are Vegetation , Soil ,		,	(Ir no, explain in Circumstances" p	·		
_ ,			V (2005-20-20-00-00-00-00-00-00-00-00-00-00-00-			
Are Vegetation , Soil Summary of Findings - At			explain any answe	•		
Hydrophytic Vegetation Present?	Yes No O	zampinia ponic location	,	portaine realtaines, etti		
Hydric Soil Present?	Yes No	Is the Sampled Area	Yes No			
Wetland Hydrology Present?	Yes No	within a Wetland?	ies 🙂 No 🖰			
Remarks: (Explain alternative pro	60 COSE-35 GOODS	RO- • N				
Hydrology						
Wetland Hydrology Indicators:			Canadau Tadias			
Primary Indicators (minimum of or	ne required: check all that apply)		Surface Soil Cr	rs (minimum of 2 required)		
Surface Water (A1)	Water-Stained Le	aves (R9)	✓ Drainage Patte			
High Water Table (A2)	Aquatic Fauna (B	, ,	Moss Trim Line			
Saturation (A3)	Marl Deposits (B1	.5)	Dry Season W	ater Table (C2)		
Water Marks (B1)	Hydrogen Sulfide	Odor (C1)	Crayfish Burro	ws (C8)		
Sediment Deposits (B2)	Oxidized Rhizospi	heres along Living Roots (C3)	Saturation Visi	ble on Aerial Imagery (C9)		
Drift deposits (B3)	Presence of Redu			tunted or Stressed Plants (D1)		
☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5)	FF	action in Tilled Soils (C6)	Geomorphic Po			
Inundation Visible on Aerial Imager	Thin Muck Surfac	200	Shallow Aquita Microtopograp	A A		
Sparsely Vegetated Concave Surface	Onle (exhibit it	Remarks)	FAC-neutral Te			
Field Observations:			_			
Surface Water Present? Yes	No Depth (inches):					
Water Table Present? Yes						
Saturation Present? (includes appillant frings) Yes		Wetland Hyd	rology Present?	Yes No		
(includes capillary fringe)						
Describe Recorded Data (stream ga	auge, monitoring well, aerial phot	os, previous inspections), if avai	ilable;			
Remarks:						

VEGETATION - Use scientific names of p		_Spe	ninant cies?		Sampling Point: AN11 Wet		
Tree Stratum (Plot size: 30'	Absolute % Cover			Indicator Status	The proposed section of the polymer		
1,		П	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)		
	0		0.0%		That are obt., Thew, of the.		
	0		0.0%		Total Number of Dominant Species Across All Strata: 5 (B)		
v	0		0.0%		Species Across All Strata: 5 (B)		
* 	0	Ħ.	0.0%		Percent of dominant Species		
0)-	0	Ħ.	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
	0	П	0.0%		Prevalence Index worksheet:		
		- Tot	al Cove		Total % Cover of: Multiply by:		
Sapling/Shrub Stratum (Plot size: 15')	- 0	= 101	ai cove		OBL species 25 x 1 = 25		
. Spiraea tomentosa	15	✓	75.0%	FACW	7-2- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-		
. Betula alleghaniensis	5	✓	25.0%	FAC			
	0		0.0%		ind species		
	0		0.0%		FACU species $0 \times 4 = 0$		
	0		0.0%		UPL species $0 \times 5 = 0$		
			0.0%		Column Totals: 93 (A) 166 (B)		
	0		0.0%		Prevalence Index = B/A = 1.785		
(8) - 1 - 5)	20	= Tot	al Cove	r	Hydrophytic Vegetation Indicators:		
lerb Stratum (Plot size: 5'	1000				Rapid Test for Hydrophytic Vegetation		
1. Onoclea sensibilis	20	V	27.4%	FACW	✓ Dominance Test is > 50%		
2.Scirpus cyperinus	20	~	27.4%	FACW+	✓ Prevalence Index is ≤3.0 ¹		
3. Carex crinita	25	V	34.2%	OBL			
4. Osmunda cinnamomea	5		6.8%	FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5. Calamagrostis canadensis	3		4.1%	FACW+	Problematic Hydrophytic Vegetation ¹ (Explain)		
6.	0		0.0%				
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology mus		
8.	0		0.0%		be present, unless disturbed or problematic.		
9.	0		0.0%		Definitions of Vegetation Strata:		
0.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diamet		
1.	0		0.0%		at breast height (DBH), regardless of height.		
2.	0		0.0%				
	73	= Tot	al Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall		
Woody Vine Stratum (Plot size:)	1//5/2				greater than 3.20 ft (fin) tail		
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless		
2	0		0.0%		size, and woody plants less than 3.28 ft tall.		
3	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in		
1	0		0.0%		height.		
	0	= Tot	al Cove	г			
					Hydrophytic		
					Vegetation Present? Yes No		
					Tresence		
temarks: (Include photo numbers here or on a separate	sheet.)						

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS,

Sampling Point: AN11 Wet

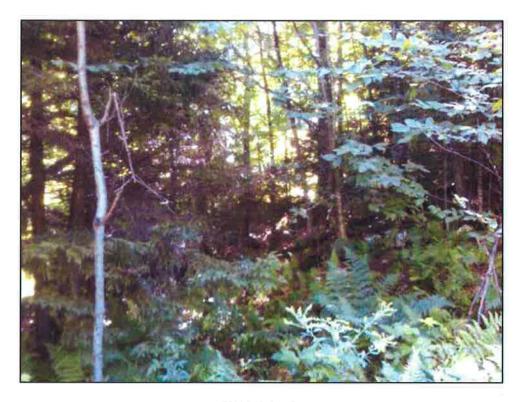
0-6 10YR 3/2 100% 6-7 2.5Y 4/1 100%	Redox Features Color (moist) % Type 1 Loc² 10YR 4/6 10% C 10YR 4/6 10% C Deleted Matrix, CS=Covered or Coated Sand Grains 2Locany Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Fine Sandy Loam Fine Sandy Loam Fine Sandy Loam rocky Location: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils: 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
1 Type: C=Concentration. D=Depletion. RM=Reduced 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 Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hy Restrictive Layer (if observed): Type: rocks Depth (inches): 9	d Matrix, CS=Covered or Coated Sand Grains ² Lo Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	Fine Sandy Loam Fine Sandy Loam Fine Sandy Loam Focky Location: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils: 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
1 Type: C=Concentration. D=Depletion. RM=Reduced 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 Muck Mineral (S1) ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hy Restrictive Layer (if observed): Type: rocks Depth (inches): 9	d Matrix, CS=Covered or Coated Sand Grains 2Ld Polyvalue Below Surface (S8) (LRR R, MLRA 1498) Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	Fine Sandy Loam rocky Location: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils: 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
1 Type: C=Concentration. D=Depletion. RM=Reduced 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 Muck Mineral (S1) ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hy Restrictive Layer (if observed): Type: rocks Depth (inches): 9	d Matrix, CS=Covered or Coated Sand Grains 2Ld Polyvalue Below Surface (S8) (LRR R, MLRA 1498) Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	Fine Sandy Loam rocky Location: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils: 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
¹ Type: C=Concentration. D=Depletion. RM=Reduced Hydric Soil Indicators:	d Matrix, CS=Covered or Coated Sand Grains 2Ld Polyvalue Below Surface (S8) (LRR R, MLRA 1498) Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	Indicators for Problematic Hydric Soils: Indicators for Problematic Hydric Soils: 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
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Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) ✓ Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) ³Indicators of hydrophytic vegetation and wetland hy Restrictive Layer (if observed): Type: rocks Depth (inches): 9	MLRA 1498) Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) **Indicators of hydrophytic vegetation and wetland hydrophytic vegetation and hydro	Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Solls (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) *Indicators of hydrophytic vegetation and wetland hydrophytic vegetation and hydrophy	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Solls (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) **Indicators of hydrophytic vegetation and wetland hydrophytic vegetation and hydrophytic vegetation and hydrophytic vegetation and hydrophytic vegetation and hydrophytic vegetation hydrophytic vegetation and hydrophytic vegetation and hydrophytic vegetation hydrophytic vegetatio	Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Solls (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hy Restrictive Layer (if observed): Type: rocks Depth (inches): 9	Redox Dark Surface (F6) Depleted Dark Surface (F7)	☐ Thin Dark Surface (S9) (LRR K, L) ☐ Iron-Manganese Masses (F12) (LRR K, L, R) ☐ Piedmont Floodplain Solls (F19) (MLRA 149B) ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B) ☐ Red Parent Material (TF2)
Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hy Restrictive Layer (if observed): Type: rocks Depth (inches): 9	Depleted Dark Surface (F7)	☐ Iron-Manganese Masses (F12) (LRR K, L, R) ☐ Piedmont Floodplain Soils (F19) (MLRA 149B) ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B) ☐ Red Parent Material (TF2)
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hydrophytic vegetation and hydrophytic vegetation		Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hydrophytic vegetation and hydrophyt	Redox Depressions (F8)	Red Parent Material (TF2)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hy Restrictive Layer (if observed): Type: rocks Depth (inches): 9		
Dark Surface (S7) (LRR R, MLRA 149B) ³ Indicators of hydrophytic vegetation and wetland hydrophytic vegetation and hydrophytic veg		
³ Indicators of hydrophytic vegetation and wetland hydrophytic vegetation and hydr		☐ Very Shallow Dark Surface (TF12)
Restrictive Layer (if observed): Type: rocks Depth (inches): 9		Other (Explain in Remarks)
Type: rocks Depth (inches): 9	hydrology must be present, unless disturbed or pro	oblematic.
Depth (inches): 9		
		Hudda Call Duranuta Van (A. Na (
Remarks:		Hydric Soil Present? Yes No

Applicant/Owner: Eolian Ren Investigator(s): AF JG Landform (hillslope, terrace, Subregion (LRR or MLRA): Soil Map Unit Name: Are climatic/hydrologic cone Are Vegetation , Soi Are Vegetation , Soi Summary of Finding Hydrophytic Vegetation Pre Hydric Soil Present? Wetland Hydrology Present Remarks: (Explain alterna	etc.): Hillside ditions on the site to grade and grade	Local relief Lat.: ppical for this time of year? logy significantly disturbed naturally problematic	n, Township, Range: f (concave, convex, r Long Yes No	none): flat	Datur fication:	AN11 Up 20.0 % / 11.3 m:
Landform (hillslope, terrace, Subregion (LRR or MLRA): Soil Map Unit Name: Are climatic/hydrologic cond Are Vegetation , Soi Are Vegetation , Soi Summary of Finding Hydrophytic Vegetation Pre Hydric Soil Present?	ditions on the site to the sit	Local relief Lat.: ppical for this time of year? logy significantly disturbed naturally problematic	f (concave, convex, r	none): flat g.: NWI classif	Slope: Z Datur Tication:	
Subregion (LRR or MLRA): Soil Map Unit Name: Are climatic/hydrologic cond Are Vegetation , Soi Are Vegetation , Soi Summary of Finding Hydrophytic Vegetation Pre Hydric Soil Present?	ditions on the site to the sit	Lat.: upical for this time of year? logy significantly disturbed logy naturally problematic	Lone Yes ● No ○	g.: NWI classif	Datur fication:	
Soil Map Unit Name: Are climatic/hydrologic cond Are Vegetation , Soi Are Vegetation , Soi Summary of Finding Hydrophytic Vegetation Pre Hydric Soil Present?	, or Hydro , or Hydro s - Attach site	ypical for this time of year? logy significantly disturbed logy naturally problematic	Yes [●] No [○]	NWI classif	Datur fication:	
Soil Map Unit Name: Are climatic/hydrologic cond Are Vegetation , Soi Are Vegetation , Soi Summary of Finding Hydrophytic Vegetation Pre Hydric Soil Present?	, or Hydro , or Hydro s - Attach site	ypical for this time of year? logy significantly disturbed logy naturally problematic	Yes [●] No [○]	NWI classif	ication:	
Are climatic/hydrologic cond Are Vegetation , Soi Are Vegetation , Soi Summary of Finding Hydrophytic Vegetation Pre Hydric Soil Present? Wetland Hydrology Present	, or Hydro , or Hydro s - Attach site	logy asignificantly disturbed		(If no, explain in	Remarks.)	
Are Vegetation , Soi Are Vegetation , Soi Summary of Finding Hydrophytic Vegetation Pre Hydric Soil Present? Wetland Hydrology Present	, or Hydro , or Hydro s - Attach site	logy asignificantly disturbed		(II no, explain in		
Are Vegetation , Soi Summary of Finding Hydrophytic Vegetation Pre Hydric Soil Present? Wetland Hydrology Present	, or Hydro	logy aturally problematic	ur Are Norma	Ci	(No O
Summary of Finding Hydrophytic Vegetation Pre Hydric Soil Present? Wetland Hydrology Present	s - Attach site				present.	NO O
Hydrophytic Vegetation Pre Hydric Soil Present? Wetland Hydrology Present		man showing sampling	•	explain any answ		
Hydric Soil Present? Wetland Hydrology Present	sent? Yes		point location	is, transects,	, important fea	tures, etc.
Wetland Hydrology Present		No •				
	Yes O	NO 🤝	the Sampled Area ithin a Wetland?	Yes O No 🖲)	
Remarks: (Explain alterna	? Yes	No				
Hydrology						
Wetland Hydrology Indicat				Secondary Indicato	ors (minimum of 2 requi	ired)
Primary Indicators (minimu	ım of one required;	check all that apply)		Surface Soil C	racks (B6)	
Surface Water (A1)		Water-Stained Leaves (B9)		Drainage Patt		
High Water Table (A2) Saturation (A3)		Aquatic Fauna (B13)		Moss Trim Lin		
Water Marks (B1)		Marl Deposits (B15) Hydrogen Sulfide Odor (C1)		Crayfish Burro	/ater Table (C2)	
Sediment Deposits (B2)		Oxidized Rhizospheres along Liv	ving Roots (C3)		sible on Aerial Imagery ((C9)
Drift deposits (B3)		Presence of Reduced Iron (C4)	T		ressed Plants (D1)	,00)
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled		Geomorphic P		
Iron Deposits (B5)		Thin Muck Surface (C7)		Shallow Aquit	ard (D3)	
Inundation Visible on Aeria	al Imagery (B7)	Other (Explain in Remarks)		Microtopograp	phic Relief (D4)	
Sparsely Vegetated Concar	ve Surface (B8)			FAC-neutral T	est (D5)	
Field Observations:						
Surface Water Present?	Yes O No 💿	Depth (inches):				
Water Table Present?	Yes O No 💿	Depth (inches):			0 0	
Saturation Present? (includes capillary fringe)	Yes O No 💿	Depth (inches):	Wetland Hyd	rology Present?	Yes O No 💿	
·	ream gauge, monit	oring well, aerial photos, previous	inspections), if avai	lable:		
Remarks:						

VEGETATION - Use scientific names of p			ominant secies?		Sampling Point: AN11 Up		
Tree Stratum (Plot size: 30'	Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:		
1. Fagus grandifolia	20	V	22.2%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)		
2. Acer saccharum	60	V	66.7%	FACU-	Hide the ODE, FACW, OF FAC.		
Quercus rubra	10		11.1%	FACU-	Total Number of Dominant		
1.		П	0.0%	17100	Species Across All Strata: 7 (B)		
·		П	0.0%	-	Percent of dominant Species		
	0	П	0.0%		That Are OBL, FACW, or FAC: 14.3% (A/B)		
•	0	П	0.0%		Prevalence Index worksheet:		
	_				Total % Cover of: Multiply by:		
Sapling/Shrub Stratum (Plot size: 15')	90	= 10	otal Cove	r	OBL species 0 x 1 = 0		
. Quercus rubra	20	V	23.5%	FACU-			
Picea rubens		~	23.5%	FACU	7,0		
. Betula alleghaniensis			17.6%	FAC	FAC species $\frac{18}{160} \times 3 = \frac{54}{160}$		
Acer saccharum	10		11.8%	FACU-	FACU species $\frac{160}{100}$ x 4 = $\frac{640}{100}$		
. Ostrya virginiana	20	V	23.5%	FACU-	UPL species $\frac{10}{x}$ x 5 = $\frac{50}{x}$		
•		П	0.0%		Column Totals: 188 (A) 744 (B)		
1	0	$\bar{\Box}$	0.0%		Prevalence Index = $B/A = 3.957$		
		= To	tal Cove	r			
Herb Stratum (Plot size: 5'	03				Hydrophytic Vegetation Indicators:		
1.Dennstaedtia punctilobula	10	V	76.9%	UPL	Rapid Test for Hydrophytic Vegetation		
2. Trientalis borealis	3	V	23.1%	FAC	☐ Dominance Test is > 50%		
3.	0		0.0%		Prevalence Index is ≤3.0 ¹		
4.	0	П	0.0%	. , ,	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5.	0		0.0%		1 —		
6.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)		
7.	0	П	0.0%		¹ Indicators of hydric soil and wetland hydrology must		
8.	0		0.0%		be present, unless disturbed or problematic.		
9.	0	Н	0.0%		Definitions of Vegetation Strata:		
0.	0	H	0.0%				
1.	_	H	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter		
2.		H			at breast height (DBH), regardless of height.		
2.	0	띡	0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and		
Noody Vine Stratum (Plot size:)	13	= 10	tal Cove	r	greater than 3.28 ft (1m) tall		
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of		
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.		
3.	0	$\overline{\Box}$	0.0%				
4	0	$\overline{\Box}$	0.0%		Woody vine - All woody vines greater than 3.28 ft in height.		
		. To	tal Cove		neight.		
	0	= 10	IMI COVE	r			
					Hydrophytic		
					Vegetation		
					Present? Yes No		
temarks: (Include photo numbers here or on a separate s	sheet.)						

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Profile Descri	iption: (Des	cribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth	100	Matrix	-	Redox Features		
(inches)	Color (n	noist)	%	Color (moist) % Type Loc ²	Texture	Remarks
0-4	10YR	3/2	100%		Loam	
4-5	2.5Y	4/1	100%		Fine Sandy Loam	
5-9	10YR	4/3	100%		Very Fine Sandy Loam	
9-15	10YR	4/6	100%	Symmetric annual management of the state of the 10 and 10 annual	Very Fine Sandy Loam	
	jako - skomini (skomo-u-s) a su ma (s			percentage of the second percentage of the second s		
	-					
¹ Type: C=Conc	entration. D=	=Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains ² Lo	cation: PL=Pore Lining. M=Ma	trix
Hydric Soil I	ndicators:				Indicators for Proble	matic Hydric Soils: 3
Histosol (A	2			Polyvalue Below Surface (S8) (LRR R,		.RR K, L, MLRA 149B)
Histic Epip				MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)		(A16) (LRR K, L, R)
Black Histic (A3) Hydrogen Sulfide (A4)				Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or	Peat (S3) (LRR K, L, R)
	ayers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)
FTI-ST ST	Below Dark Si	urface (A	11)	Depleted Matrix (F3)		rface (S8) (LRR K, L)
The same of the same of	Surface (A1.		11/	Redox Dark Surface (F6)	Thin Dark Surface (
	ck Mineral (S:	1300		Depleted Dark Surface (F7)		usses (F12) (LRR K, L, R)
per la company de la company d	yed Matrix (S			Redox Depressions (F8)	THE RESERVE THE PROPERTY OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO	Solls (F19) (MLRA 149B) (MLRA 144A, 145, 149B)
Sandy Red	lox (S5)				Red Parent Material	31 100 10 10
Stripped M	latrix (S6)				Very Shallow Dark	1 11
☐ Dark Surfa	ice (S7) (LRR	R, MLRA	149B)		Other (Explain in Re	emarks)
³ Indicators of	hydrophytic	vegetatio	n and wetla	nd hydrology must be present, unless disturbed or prol	blematic.	
Restrictive La	yer (if obse	rved):				
Type: Box	ulders					
Depth (Inch	es): 15+				Hydric Soil Present?	Yes O No 💿
Remarks:						
rtomario.						
				27		



AN11 Upland



AN11 Wetland

Project/Site: Antrim Wind Project		City/County: Antrim		Sampling Date: 12-Aug-11
Applicant/Owner: Eolian Renewable En	nergy, LLC	SI	ate: NH	Sampling Point: an12 wetland
Investigator(s): AF JG		Section, Township, Range	: S. T.	R.
Landform (hillslope, terrace, etc.):	Hillside	Local relief (concave, convex,		Slope: 5.0 % / 2.9°
Subregion (LRR or MLRA):	Lat.:	Loi	ng.:	Datum:
Soil Map Unit Name:				fication: PSS
Are climatic/hydrologic conditions on	n the site typical for this time of	vear? Yes No	(If no, explain in	Remarks.)
		,	al Circumstances"	W (a) N (
Summary of Findings - Att		• • • • • • • • • • • • • • • • • • • •	, explain any answ ns. transects	
Hydrophytic Vegetation Present?	Yes No O		,	,p.,
Hydric Soil Present?	Yes No	Is the Sampled Area	Yes No	
Wetland Hydrology Present?	Yes No	within a Wetland?	165 © 140 C	,
Hydrology				
Hydrology				
Wetland Hydrology Indicators: Primary Indicators (minimum of one	e required: check all that apply'			ors (minimum of 2 required)
Surface Water (A1)	Water-Stained Li		Surface Soil C Drainage Patt	
High Water Table (A2)	Aquatic Fauna (E		Moss Trim Lir	
Saturation (A3)	Marl Deposits (B	15)		later Table (C2)
Water Marks (B1)	Hydrogen Sulfide	e Odor (C1)	Crayfish Burro	ows (C8)
Sediment Deposits (B2)	Oxidized Rhizosp	oheres along Living Roots (C3)	Saturation Vis	sible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Red	uced Iron (C4)		ressed Plants (D1)
Algal Mat or Crust (B4)		uction in Tilled Soils (C6)	Geomorphic F	
Iron Deposits (B5)	Thin Muck Surfa		Shallow Aquit	
Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface	C other (Explain)	n Remarks)	✓ FAC-neutral T	phic Relief (D4)
sparsely vegetated concave surface	(66)		FAC-fieutiai i	est (D3)
Field Observations:			_	
Surface Water Present? Yes O	No Depth (inches)	:		
Water Table Present? Yes O	No Depth (inches)			
Saturation Present? (includes capillary fringe) Yes Yes	No O Depth (inches)		drology Present?	Yes No
Describe Recorded Data (stream gat	uge, monitoring well, aerial pho	otos, previous inspections), if av	aílable:	
Remarks:				

VEGETATION - Use scientific names of p			ominant ecies?		Sampling Point: an12 wetland			
Tree Stratum (Plot size:	Absolute % Cover	Re		Indicator Status				
1.	0	П	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)			
2			0.0%		That die Obl., FACW, OF FAC.			
			0.0%		Total Number of Dominant			
	-	H	0.0%		Species Across All Strata: 5 (B)			
	0		0.0%		Percent of dominant Species			
5.		Н	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)			
)	0		0.0%		Boundary Volumentalists			
		= Total Cover			Prevalence Index worksheet: Total % Cover of: Multiply by:			
Sapling/Shrub Stratum (Plot size: 15')	0	= Tc	ital Cove	r	OBL species 15 x 1 = 15			
. Spiraea alba	25	✓	33.3%	FACW+				
. Spiraea tomentosa	50	V	66.7%	FACW				
	0		0.0%		The specific			
	0		0.0%		FACU species $0 \times 4 = 0$			
· ·	0		0.0%		UPL species $0 \times 5 = 0$			
	0		0.0%		Column Totals: 140 (A) 265 (B)			
	0		0.0%		Prevalence Index = B/A = 1.893			
lerb Stratum (Plot size: 5'	75	= To	tal Cove	r	Hydrophytic Vegetation Indicators:			
1. Carex crinita	15	V	23.1%	OBL	Rapid Test for Hydrophytic Vegetation			
2. Onoclea sensibilis	25	V	38.5%	FACW	✓ Dominance Test is > 50%			
3 Seimus augeriaus	-		7.7%	FACW+	Prevalence Index is ≤3.0 ¹			
4. Rubus hispidus	20	~	30.8%	FACW	Morphological Adaptations ¹ (Provide supporting			
5.	0		0.0%	IACW	data in Remarks or on a separate sheet)			
6.		H	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)			
7.	0	H	124/14/14	-	¹ Indicators of hydric soil and wetland hydrology must			
8.	0	H	0.0%		be present, unless disturbed or problematic.			
9.	0		0.0%		Definitions of Vegetation Strata:			
0.			0.0%		Deministration of tegeration strates			
		H	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter			
1	0		0.0%		at breast height (DBH), regardless of height.			
2.	0	Щ	0.0%	-	Sapling/shrub - Woody plants less than 3 in, DBH and			
Voody Vine Stratum (Plot size:	65	= To	tal Cove	r	greater than 3.28 ft (1m) tall			
	0	Ц	0.0%		Herb - All herbaceous (non-woody) plants, regardless of			
2.	0	Ш	0.0%		size, and woody plants less than 3.28 ft tall.			
3	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in			
	0		0.0%		height.			
	0	= To	tal Cove	r				
					Hydrophytic Vegetation Present? Yes No			
emarks: (Include photo numbers here or on a separate s	sheet.)				,			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Profile Descri		cribe to Matrix	the depth	needed to d		t the indic dox Featu		onfirm the a	absence of indicators.)	
(inches)	Color (n	noist)	%	Color (1	noist)	%	Type I	Loc2	Texture	Remarks
0-3	10YR	3/2	100%						Loam	
3-12	2.5Y	4/2	95%	10YR	4/6	5%	С	PL	Fine Sandy Loam	
12-16	2.5Y	4/1	95%	10YR	4/6	5%	С	М	Fine Sandy Loam	
								-		
						-	-			
-										
2.5		=Depletio	n. RM=Red	uced Matrix, (CS=Cover	ed or Coat	ed Sand Gr	ains ² Locat	tion: PL=Pore Lining, M=Matrix	
Hydric Soil I				□ Delta	unius Polei	u Curfo co	/CO\ /! DD !		Indicators for Problematic	
Histosol (A					149B)	w Surface	(S8) (LRR I	ζ,	2 cm Muck (A10) (LRR K,	
Black Histi						CONTRACTOR OF	LRR R, MLI		Coast Prairie Redox (A16) 5 cm Mucky Peat or Peat	Treatment of the control of the cont
Hydrogen	Sulfide (A4)			-	The state of the s	TARREST ST. CO.) LRR K, L)	Dark Surface (S7) (LRR K	ENGRE (BELIEVE INDENIED OF
prompt .	ayers (A5)				The same of the	Matrix (F2)		Polyvalue Below Surface (
✓ Depleted B			11)	-	eted Matri	x (F3) irface (F6)			Thin Dark Surface (S9) (L	RR K, L)
	Surface (A1			-		Surface (F			Iron-Manganese Masses (
P	k Mineral (S	Olo.				sions (F8)	* 7		Piedmont Floodplain Soils	
Sandy Red	yed Matrix (S	4)							Mesic Spodic (TA6) (MLRA	2 March 11 K = 132
Stripped M									Red Parent Material (TF2)	
	ce (S7) (LRR	R, MLRA	149B)						Very Shallow Dark SurfaceOther (Explain in Remarks	100
³ Indicators of	hydrophytic	vegetatio	n and wetla	nd hydrology	must be p	oresent, ur	nless distur	bed or proble		,
Restrictive La	yer (if obse	erved):								
Type:									Undring Call December 14.	@ w- O
Depth (inch	es):			175					Hydric Soil Present? Yes	● No ○
Remarks:										
										l

Applicant/Owner: Eolian Renev investigator(s): AF JG .andform (hillslope, terrace, e	vable Energy, LLC			
.andform (hillslope, terrace, e			Sta	ate: NH Sampling Point: an12 upland
		Sec	tion, Township, Range:	S. T. R.
	tc.): Hillside	Local r	elief (concave, convex, ı	none): flat Slope: 5.0 % / 2.9
Subregion (LRR or MLRA):		Lat.:	Long	
Soil Map Unit Name:				NWI classification:
-			Yes No	
Are climatic/hydrologic condit			4.4	(If no, explain in Remarks.)
Are Vegetation, Soil				on carristances present.
Are Vegetation, Soil	* · · · · ·			explain any answers in Remarks.)
Summary of Findings			ing point location	ns, transects, important features, etc.
Hydrophytic Vegetation Prese		No 💿		
Hydric Soil Present?	Yes O	No 🍥	Is the Sampled Area within a Wetland?	Yes O No 💿
Wetland Hydrology Present?	Yes O	No 💿		
Hydrology				
Wetland Hydrology Indicator	·o*			Secondary Indicators (minimum of 2 required)
		shook all that panks		Secondary trialcators (minimum or 2 required)
Primary Indicators (minimum	I OI OILC I CQUII CU,	Check all that apply)		Surface Soil Cracks (B6)
Primary Indicators (minimum Surface Water (A1)	Tor one required,			Surface Soil Cracks (B6) Drainage Patterns (B10)
	To one required,	Water-Stained Leaves (B9) Aquatic Fauna (B13)		
Surface Water (A1)	Tot one required,	Water-Stained Leaves (B9)		Drainage Patterns (B10)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	TOT ONE TEQUIPER,	Water-Stained Leaves (B9) Aquatic Fauna (B13)		Drainage Patterns (B10) Moss Trim Lines (B16)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	To one required,	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor) ng Living Roots (C3)	Drainage Patterns (B10) Moss Trim Lines (B16) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3)	To one required,	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron) ng Living Roots (C3) (C4)	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)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4)	To one required,	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in T) ng Living Roots (C3) (C4)	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)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in T Thin Muck Surface (C7)) ng Living Roots (C3) (C4) illed Soils (C6)	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)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4)	Imagery (B7)	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in T) ng Living Roots (C3) (C4) illed Soils (C6)	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)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave	Imagery (B7)	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in T Thin Muck Surface (C7)) ng Living Roots (C3) (C4) illed Soils (C6)	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)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave	Imagery (B7)	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in T Thin Muck Surface (C7)) ng Living Roots (C3) (C4) illed Soils (C6)	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)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present?	Imagery (B7) Surface (B8) Yes No	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in T Thin Muck Surface (C7) Other (Explain in Remarks)) ng Living Roots (C3) (C4) illed Soils (C6)	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)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present? Water Table Present?	Imagery (B7) Surface (B8) Yes No	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in T Thin Muck Surface (C7) Other (Explain in Remarks)) ng Living Roots (C3) (C4) illed Soils (C6)	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)

	Absolute		ecies?	Indicator	Dominance Test v			•	
Tree Stratum (Plot size: 30'	% Cover			Status					
1. Quercus rubra	15	V	60.0%	FACU-	Number of Dominar That are OBL, FACV			1	(A)
2. Tsuga canadensis	10	~	40.0%	FACU					
3.			0.0%		Total Number of Do Species Across All S			6	(B)
1.	0		0.0%		Species Across Air S	allata.			(0)
5.			0.0%		Percent of domin			4.6.70/	/ - /= \
5.	0		0.0%		That Are OBL, FA	CW, or FA	C:	16.7%	(A/B)
7.	0		0.0%		Prevalence Index	worksheet	:		
	25	= To	otal Cove	r	Total % Cover of: Multiply by:				
Sapling/Shrub Stratum (Plot size: 15'	23	- 10	JEHI COVC		OBL species	0	x 1 =		-
1. Acer pensylvanicum	20	V	44.4%	FACU	FACW species	0	x 2 =		
2. Betula alleghaniensis	10	V	22.2%	FAC		10			
3. Acer saccharum	15	V	33.3%	FACU-	FAC species	77.4	x 3 =	252	
	0		0.0%		FACU species	88	x 4 =		-
5.			0.0%		UPL species	90	x 5 =	450	-
6.			0.0%		Column Totals:	188	(A)	832	(B)
7.	0		0.0%		Provalence In	ndov – B/	\ -	4.426	
	45	= To	otal Cove	er	Trevalance index Byrt			1.120	
Herb Stratum (Plot size: 5'	- 15				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation				
1.Dennstaedtia punctilobula	90	V	76.3%	UPL			. –	etation	
2. Solidago canadensis	10		8.5%	FACU	Dominance 1				
3. Rubus alumnus	10		8.5%	FACU-	Prevalence I	ndex is ≤3	.0 1		
4. Dryopteris intermedia	5		4.2%	FACU	Morphologic				orting
5. Aralia nudicaulis	3		2.5%	FACU	data in Rema			-	
6.	0		0.0%	17100	Problematic	Hydrophyt	ic Veget	ation * (Exp	olain)
7.			0.0%		¹ Indicators of hydric soil and wetland hydrology mus			av must	
8.	0		0.0%		be present, unles				
9.	0	H	0.0%		Definitions of V	egetatio/	n Strata	a:	
10.			0.0%			-			
11.	0				Tree - Woody plan				liamete
12.	0	H	0.0%		at breast height (C	эвн), rega	raiess o	r neight.	
12.	0		0.0%		Sapling/shrub - W	oody plan	ts less th	nan 3 in. DE	3H and
Woody Vine Stratum (Plot size:	118	= To	otal Cove	er	greater than 3.28				
1.	0	\Box	0.0%		Herb - All herbace	ous (non-	woody) r	alante rona	rdlace d
2.	0		0.0%		size, and woody p				uless (
	0		0.0%						
2	U		0.076		Woody vine - All v	woody vine	s greate	r than 3.28	ft in
3	0		0.00/-		Later Later		3		
3. 4.	0		0.0%		height.		3		

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an12 upland

Profile Descri	ption: (Des	cribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	П
Depth (inches)		Matrix	0/	Redox Features	Texture Remarks	
0-4	Color (m		%	Color (moist) % Type 1 Loc2	Texture Remarks	-
		3/2				-9.
4-5	2.5Y	5/1	100%		Fine Sandy Loam	
5-12	10YR	4/3	100%		Fine Sandy Loam	_
X						
						-
						-
						-
						=
		=Depletion	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains 2Loca		_
Hydric Soil In				Delandra Below Surface (CO) (LDD D	Indicators for Problematic Hydric Soils: 3	
Histosol (A				Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Black Histic	DOSSIGNAS ON ES			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)	
p	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
Stratified L				Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L)	
Depleted B	elow Dark St	urface (A)	11)	Depleted Matrix (F3)	Thin Dark Surface (S9) (LRR K, L)	
Thick Dark	Surface (A12	2)		Redox Dark Surface (F6)	Iron-Manganese Masses (F12) (LRR K, L, R)	
Sandy Muc	k Mineral (S1	1)		Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 149B)	
Sandy Gley	ed Matrix (S	4)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
Sandy Red					Red Parent Material (TF2)	
Stripped M	2000 0 0000000				☐ Very Shallow Dark Surface (TF12)	
	ce (S7) (LRR		293		Other (Explain in Remarks)	
³ Indicators of	hydrophytic v	vegetation	and wetla	nd hydrology must be present, unless disturbed or proble	ematic.	_
Restrictive La	yer (if obse	erved):				
Туре:						
Depth (inch	es):				Hydric Soil Present? Yes No	
Remarks:						
					*	



AN12 Upland



AN12 Wetland

Project/Site: Antrim Wind Project		City/Co	ounty: Antrim		Sampling Date: 12-Aug-11
Applicant/Owner: Eolian Renewable E	nergy, LLC		Sta	ite: NH	Sampling Point: an13 wetland
Investigator(s): AF JG		Sec	tion, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.):	Footslope		elief (concave, convex, r		Slope: 3.0 % / 1.7°
Subregion (LRR or MLRA):	,	Lat.:	Long		Datum:
Soil Map Unit Name:		MOLI	Long		ication: PSS
Are climatic/hydrologic conditions of	n the site ty	pical for this time of year?	Yes 💿 No 🔾	(If no, explain in	
Are Vegetation, Soil	, or Hydrold	ogy 🔲 significantly distu	rbed? Are "Normal	Circumstances" p	present? Yes No
Are Vegetation , Soil	, or Hydrold	ogy 🔲 naturally problem	atic? (If needed,	explain any answ	ers in Remarks.)
Summary of Findings - At	tach site	map showing sampl	ing point location	ns, transects,	important features, etc.
Hydrophytic Vegetation Present?	Yes 💿	No O			
Hydric Soil Present?	Yes 💿	No O	Is the Sampled Area within a Wetland?	Yes No)
Wetland Hydrology Present?	Yes 💿	No O	Within a Woulder		
Hydrology			_		
Wetland Hydrology Indicators:		1 1 11 11 1 1 1 1 1 1		Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of on	e required;			Surface Soil C	
Surface Water (A1)		Water-Stained Leaves (B9)		Drainage Patt	
☐ High Water Table (A2) ✓ Saturation (A3)		Aquatic Fauna (B13) Marl Deposits (B15)		Moss Trim Lin	
Water Marks (B1)		Hydrogen Sulfide Odor (C1	١	Crayfish Burro	ater Table (C2)
Sediment Deposits (B2)		Oxidized Rhizospheres alon		r - 1	ible on Aerial Imagery (C9)
Drift deposits (B3)		Presence of Reduced Iron (_	essed Plants (D1)
☐ Algal Mat or Crust (B4)		Recent Iron Reduction in T	• *************************************	Geomorphic P	osition (D2)
Iron Deposits (B5)		☐ Thin Muck Surface (C7)		Shallow Aquita	ard (D3)
Inundation Visible on Aerial Imager		Other (Explain in Remarks)			phic Relief (D4)
Sparsely Vegetated Concave Surfac	e (B8)			FAC-neutral To	est (D5)
Field Observations:					
Surface Water Present? Yes	No 💿	Depth (inches):			
Water Table Present? Yes	No 💿	Depth (inches):			
Saturation Present? (includes confilment frings) Yes	No O	Depth (inches):	Wetland Hyd	rology Present?	Yes No
(includes capillary fringe) Describe Recorded Data (stream ga		ring well, aerial photos, previ	ious inspections), if avai	lable:	
2 2 2 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	age, meme	mg trong condition process, provi	is as inspections, it area	id Die,	
Remarks:					
					i

	Absolute	_Species? Rel.Strat.	Indicator		mpling Poi		15 Wetlan	
Tree Stratum (Plot size:	% Cover		Status	102 V 10 10 10 10 10 10 10 10 10 10 10 10 10				
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 3			(A)	
2.	0	0.0%		1				
3.	0	0.0%		Total Number of Dominant Species Across All Strata: 3 ((B)	
4	0	0.0%		Species / lei ses / lii/ se				(-)
5.	0	0.0%		Percent of dominant Species That Are OBL FACW, or FAC: 100.0%			(A /D)	
6	0	0.0%		That Are OBL, FA	CW, or FAC	-	100.070	(A/B)
7.	0	0.0%		Prevalence Index	worksheet:			
	0	= Total Cove	er	Total % Cov	er of:	Multip	ly by:	
Sapling/Shrub Stratum (Plot size: 15'				OBL species	53	x 1 =	53	
1. Spiraea tomentosa	66	72,5%	FACW	FACW species	107	x 2 =	214	
2. Acer rubrum	10	11.0%	FAC	FAC species	10	x 3 =	30	
3. Spiraea alba	15	16.5%	FACW+		0	x 4 =	0	
1.	0	0.0%		FACU species	0		0	
5	0	0.0%		UPL species		x 5 =		-
6	0	0.0%		Column Totals:	170	(A)	297	(B)
7,	0	0.0%		Prevalence In	idex = B/A	=	1.747	
Herb Stratum (Plot size: 5')		= Total Cove	er	Hydrophytic Veget				
1 , Carex lurida	8	10.1%	OBL	Rapid Test fo		7-1	tation	
2.Onoclea sensibilis	5	6.3%	FACW	✓ Dominance T				
3. Eupatorium perfoliatum	3	3.8%	FACW+	✓ Prevalence In		-		
4. Rubus hispidus	15	19.0%	FACW	Morphologica				porting
5.Carex crinita	25	✓ 31.6%	OBL	data in Rema		SCHOOL SCHOOL SCHOOL	proposition of the state of the	2.7.2
6. Scirpus cyperinus	3	3.8%	FACW+	Problematic I	Hydrophyti	c vegeta	ation ' (Ex	plain)
7. Carex trisperma	20	✓ 25.3%	OBL	¹ Indicators of hy	dric soil an	d wetla	nd hvdrolo	av must
8.	0	0.0%	- ODE	be present, unless				
9.	0	0.0%		Definitions of V	egetation	Strata	1:	
10.	0	0.0%						
11.	0	0.0%		Tree - Woody plan at breast height (D	its, 3 in. (7 IRH) regai	o (mo d.	r more in (f beiabt	diamete
12.	0	0.0%		at broast neight (E	/ы 1), 10gai	uicos o	noight.	
Woody Vine Stratum (Plot size:		= Total Cove	er	Sapling/shrub - Wagreater than 3.28 to			an 3 in. Di	BH and
	0	0.000					řesta esta	and Consess of
1	0	0.0%		Herb - All herbace size, and woody p				iraiess d
2.	0	0.0%	_	bizo, una necaj p	icinio ioco i		o ir tuii.	
3.	0	0.0%		Woody vine - All w	voody vines	s greate	r than 3,28	ft in
4	0	0.0%		height.				
	0	= Total Cove) P					

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

	iption: (Des	cribe to	the depth	needed to d	ocument	the indica	ator or co	onfirm the a	absence of indicators.)			
Depth (inches)	Color (n	Matrix	%	Color (ox Featu %	res Type 1	Loc2	Texture	Don	marks	
0-5	10YR	3/2	100%	Coloi (i	iloistj	70	Type .	LUC	Loam	Kon	ildi K3	
5-6	2.5Y	4/1	100%			-			Fine Sandy Loam			
6-16			90%	10YR	F/0	10%		M				
6-16	2.5Y	4/2	90%	TUYK	5/8	10%	С	M	Fine Sandy Loam			
					_							
						11	,					
1 Type: C=Cond	entration. D	=Depletio	n. RM=Red	uced Matrix. (S=Covere	ed or Coate	d Sand Gr	ains ² Loca	tion: PL=Pore Lining, M=M	atrix		
Hydric Soil I		pe							Indicators for Proble		ic Soile : 3	
Histosol (A				Poly	alue Belov	v Surface (S8) (LRR I	R,	2 cm Muck (A10)			
Histic Epip	edon (A2)			2-3	1498)				Coast Prairie Redo			
Black Histi	c (A3)					ce (S9) (L			5 cm Mucky Peat of	The second second		
	Sulfide (A4)			-	340 340 0000000000000000000000000000000	Mineral (F1) Matrix (F2))	Dark Surface (S7)			
rest.	ayers (A5)			greening	eted Matrix				Polyvalue Below Surface (S8) (LRR K, L)			
	Below Dark S Surface (A1	and the same	11)	-	x Dark Su	Market St.			Thin Dark Surface (S9) (LRR K, L)			
The second section	ck Mineral (S:			(gradients)		Surface (F7)		Iron-Manganese Masses (F12) (LRR K, L, R)			
	yed Matrix (S	-0.00		Redo	x Depress	ions (F8)			Piedmont Floodplain Solls (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sandy Rec	,	,							Red Parent Material (TF2)			
	Stripped Matrix (S6)					Very Shallow Dark Surface (TF12)						
Dark Surfa	ice (S7) (LRR	R, MLRA	149B)						Other (Explain in F		-/	
³ Indicators of	hydrophytic	vegetatio	n and wetla	and hydrology	must be p	resent, unl	ess disturl	bed or proble				
Restrictive La		70										
Type: bo		,.								_	_	
Depth (inch									Hydric Soil Present?	Yes 💿	No O	
Remarks:												
T.G.T.G.T.												

Project/Site: Antrim Wind Project	City/County:	Antrim	Sampling Date: 12-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC		State: NH	Sampling Point: an13 upland
Investigator(s): AF JG	Section, Toy	vnship, Range: S.	T. R.
Landform (hillslope, terrace, etc.): Footslope		ncave, convex, none): flat	COMMITTED TO THE CONTROL OF THE CONT
Subregion (LRR or MLRA):	Lat.:	Long.:	Datum:
20 2	Latin		classification:
Soil Map Unit Name:			Classification:
Are climatic/hydrologic conditions on the site	typical for this time of year? Yes	No (If no, exp	plain in Remarks.)
Are Vegetation , Soil , or Hyd	ology significantly disturbed?	Are "Normal Circumsta	nces" present? Yes 🌘 No 🔾
Are Vegetation 🔲 , Soil 🗌 , or Hyd	ology naturally problematic?	(If needed, explain any	answers in Remarks.)
Summary of Findings - Attach si	te map showing sampling po	int locations, trans	sects, important features, etc.
Hydrophytic Vegetation Present? Yes	No		
Hydric Soil Present? Yes		Sampled Area a Wetland? Yes	No 💿
Wetland Hydrology Present? Yes	No •	a wetland:	
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	1; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	Surface Draina Moss 7	Indicators (minimum of 2 required) e Soil Cracks (B6) ige Patterns (B10) Trim Lines (B16) eason Water Table (C2) sh Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along Living R		tion Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (C4)		d or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils	(C6) Geom	orphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallo	w Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)		opographic Relief (D4) eutral Test (D5)
Field Observations: Surface Water Present? Yes No) B-W-C-L-S		
Commence of the commence of th	NO. LEGISLANIA CONTRACTOR DES		
Water Table Present? Yes No	Depth (inches):	Wetland Hydrology Pres	ent? Yes O No 💿
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	Wedanu nydrology Fres	ent: 1c3 O NO O
Describe Recorded Data (stream gauge, mor	itoring well, aerial photos, previous insp	ections), if available:	

		ecies?		Sampling Point: an13 upland
Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:
				Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
_		- Televisian Control	-	That die Obl., FACW, of FAC.
			17400	Total Number of Dominant
	\Box			Species Across All Strata: 6 (B)
2				Percent of dominant Species
0	П			That Are OBL, FACW, or FAC: 16.7% (A/B)
0	П	1000000		Prevalence Index worksheet:
	= To		r	Total % Cover of: Multiply by:
		tui cove	•	OBL species 0 x 1 = 0
33	~	32.0%	FACU	FACW species 20 x 2 = 40
10		9.7%	FACU	FAC species 0 x 3 = 0
50	~	48.5%	FACU-	102
10		9.7%	FACU	E 25
0		0.0%		UPL Species X 3 =
0		0.0%		Column Totals: 218 (A) 837 (B)
0		0.0%		Prevalence Index = $B/A = 3.839$
103	= To	tal Cove	r	Hydrophytic Vegetation Indicators:
75	V	75.0%	FACU	Rapid Test for Hydrophytic Vegetation
20	V	20.0%	FACW	Dominance Test is > 50%
5		5.0%	UPL	Prevalence Index is ≤3.0 ¹
0		0.0%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
0		0.0%		- Problematic Hydrophytic Yegetation (Explain)
0		0.0%		1 Indicators of hydric soil and wetland hydrology must
0		0.0%		be present, unless disturbed or problematic.
0		0.0%		Definitions of Vegetation Strata:
0	П	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
0		0.0%		at breast height (DBH), regardless of height.
0		0.0%		
100	= To	tal Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
HTM.	П			size, and woody plants less than 3.28 ft tall.
promptoments.	П	110411-000		
-	П	- Committee		Woody vine - All woody vines greater than 3.28 ft in height.
-	- T-			neight.
	- 10	cove		
				Hydrophytic Vegetation Present? Yes No No
	10 5 0 0 0 0 0 0 15 33 10 50 10 0 0 0 103 75 20 5 0 0 0 0 0 0 0 0 0 0 0 0 0	10	10	10

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Profile Descr	iption: (Des	cribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth		Matrix	_	Redox Features		
(inches)	Color (r	noist)	%	Color (moist) % Type 1 Loc²	Texture	Remarks
0-6	10YR	3/2	100%		Loam	
6-7	2.5Y	5/1	100%		Fine Loamy Sand	
7-17	10YR	4/3	100%		Fine Sandy Loam	
			-			
		-				
1 Times C. Con		Danishis	n DM Dad	and Mahibu CC Coursed to Control Cond Conde	Mary N. Book Halos M. Makely	
		-pepiedo	п, ки=кеа	uced Matrix, CS=Covered or Coated Sand Grains 2Loca		2
Hydric Soil I Histosol (A				Polyvalue Below Surface (S8) (LRR R,	Indicators for Problematic H	
	oedon (A2)			MLRA 149B)	2 cm Muck (A10) (LRR K, L,	MLRA 149B)
Black Hist	nearly was every			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (L	
	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S	CRANCE CHARLES TO SEE
	Layers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L	
	Below Dark S	urface (A	11)	Depleted Matrix (F3)	Polyvalue Below Surface (S8	en menggo cermina
	k Surface (A1	The Sales of the	era f	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRI	AND THE RESERVE AND ADDRESS OF THE PARTY OF
Sandy Mu	ck Mineral (S	1)		Depleted Dark Surface (F7)	☐ Iron-Manganese Masses (F1☐ Piedmont Floodplain Soils (F	45 F2 N N N N L L L L L L L L L L L L L L L
Sandy Gle	yed Matrix (S	(4)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 1	
Sandy Red	dox (S5)				Red Parent Material (TF2)	144, 143, 1430)
Stripped N	Matrix (S6)				Very Shallow Dark Surface (TF12\
Dark Surfa	ace (S7) (LRR	R, MLRA	149B)		Other (Explain in Remarks)	
3Indicators of	hvdrophytic	vegetatio	n and wetla	nd hydrology must be present, unless disturbed or probl		
Restrictive L						
Type:	ayer (III ODSe	rved):				
Depth (incl	hoc).				Hydric Soil Present? Yes	O No ⊙
	ies);					
Remarks:						



AN13 Upland



AN13 Wetland

Investigator(s): AF JG Section, Township, Range: S. T. R.	Project/Site: Antrim Wind Project	City/Coun	ty: Antrim	San	pling Date: 16-Aug-11
Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): filat Slope: 10,0 % / 5,7 % Subregion (LRR or HLRA): Lat: Long: Datum: Datum: NWI classification: PSS Not climatic (hydrologic conditions on the site typical for this time of year? Yes	Applicant/Owner: Eolian Renewable Energy, LLC		State:	NH Sar	npling Point: an14 wetland
Soli Map Unit Name: Soli Map Unit Name:	Investigator(s): AF JG	Section	n, Township, Range: S.	т.	R.
NWI classification: PSS	andform (hillslope, terrace, etc.): Hillside	Local relie	f (concave, convex, none): flat	Slope: 10.0 % / 5.7°
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No	Subregion (LRR or MLRA):	Lat.:	Long.:		Datum:
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No	Soil Map Unit Name:			NWI classification	on: PSS
Are "Normal Circumstances" present? Yes No No No No No No No N		typical for this time of year?	Yes No O	no ovelsie in Dom	arke \
The Vegetation			(21)		
Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Solution No Soliton No No S					
Hydrophytic Vegetation Present? Yes No No State Sampled Area within a Wetland? Yes No No State Soli Cracks (B6) Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Mater Marks (B1) Water Marks (B1) Drainage Patterns (B10) Water Marks (B1) Water Marks (B2) Orditeded Rhizospheres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Trin Deposits (B2) Trin Muck Surface (C7) Tron Deposits (B5) Trin Muck Surface (C7) Tron Deposits (B5) Trin Muck Surface (C7) Tron Deposits (B5) Depth (inches): Surface Water Present? Yes No Depth (inches): Depth (inc				•	·
Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a separate report.) Isolated PSS within skidder trail Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of 2 required) Surface Water (A1) High Water Table (A2) High Water Table (A2) Water Marks (B1) Day Secondary Indicators (minimum of 2 required) Water Marks (B1) Day Secondary Indicators (Minimum of 2 required) Water Marks (B1) Day Secondary Indicators (Minimum of 2 required) Water Marks (B1) Day Secondary Indicators (Minimum of 2 required) Water Marks (B1)			g point locations, t	ransects, im	portant features, etc.
Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a separate report.) Isolated PSS within skidder trail Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of 2 required) Surface Soli Cracks (B6) Surface Soli Cracks (B6) Primary Indicators (minimum of 2 required) Water-Stained Leaves (B9) Indicators (minimum of 2 required) Surface Soli Cracks (B6) Primary Indicators (minimum of 2 required) Water-Stained Leaves (B9) Indicators (minimum of 2 required) Primary Indicators (minimum of 2 required) Surface Soli Cracks (B6) Darianage Patterns (B10) Indicators (minimum of 2 required) Primary Indicators (minimum of 2 required) Darianage Patterns (B10) Darianage Patterns (B10) Darianage Patterns (B10) Day Season Water Table (C2) Carylish Burrows (C3) Surface Mater Table (C2) Oxidized Rhizospheres along Living Roots (C3) Surface Water Narks (B1) Presence of Reduced Iron (C4) Surface Water Narks (B1) Iron Deposits (B3) Presence of Reduced Iron (C4) Stallow Aquitard (D3) Iron Deposits (B5) Iron Deposits (B1) Wetland Hydrology Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Dept			the Consoled Sees		
Remarks: (Explain alternative procedures here or in a separate report.) Isolated PSS within skidder trail Hydrology	The Company of the State of the	W		es 💿 No 🔾	
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3) Saturation (A3) 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) Sparsely Vegetated Concave Surface (B8) Fed Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Oxidized Rhizospheres? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Depth (includes capillary fringe)	Wetland Hydrology Present? Yes	No O			
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Marl Deposits (B15) Dry Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3) Setimation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Pesent? Yes No Depth (inches): Saturation Yes exon dary Indicators (minimum of 2 required) Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Cepth (inches): Oxidized Rhizospheres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-neutral Test (D5)	Hydrology				
Primary Indicators (minimum of one required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16) Pry Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3) Seturation Visible on Aerial Imagery (C9) Trin Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Yes No Depth (inches): Oxidized Rhizospheres along Living Roots (C3) Drif deposits (B3) Drif Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Stunted or Stressed Pla			Sac	andany Indicators (m	inimum of 2 mauired)
Surface Water (A1)		l; check all that apply)	Sed		
✓ Saturation (A3) Marl Deposits (B15) Dry Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) TAC-neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Output (inches): Depth (inches): Output (inches): Depth (inches): Output (inches): Depth (inches): Output (inches):	Surface Water (A1)	Water-Stained Leaves (B9)			
Water Marks (B1)				Moss Trim Lines (B	16)
Sediment Deposits (B2) □ Drift deposits (B3) □ Presence of Reduced Iron (C4) □ Algal Mat or Crust (B4) □ Iron Deposits (B5) □ Inundation Visible on Aerial Imagery (B7) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):		Marl Deposits (B15)		Dry Season Water 1	able (C2)
Drift deposits (B3)	CI				
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Depth (inches): Saturation Present? Yes No Depth (inches):					
Iron Deposits (B5)		— · · ·			
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Microtopographic Relief (D4) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Other (Explain in Remarks) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5) ☐ Water Table Present? Yes ☐ No ☐ Depth (inches): ☐ Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ Wetland Hydrology Present? Yes ☐ No ☐ Other (Explain in Remarks) ☐ Wetland Hydrology Present? Yes ☐ No ☐ Other (Explain in Remarks) ☐			1 Solis (C6)		
Sparsely Vegetated Concave Surface (B8) FAC-neutral Test (D5) Field Observations: Surface Water Present? Yes ○ No ○ Depth (inches): Water Table Present? Yes ○ No ○ Depth (inches): Saturation Present? Yes ○ No ○ Depth (inches): Depth (inches): Saturation Present? Yes ○ No ○ Depth (inches): Depth (inches): O Wetland Hydrology Present? Yes ○ No ○				AND	
Surface Water Present? Water Table Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): O Wetland Hydrology Present? Yes No Depth (inches): O		outer (explain in remains)	•		
Surface Water Present? Water Table Present? Yes No Depth (inches): Depth (inches): Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): O Wetland Hydrology Present? Yes No Depth (inches): O	F 1101				
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): O Wetland Hydrology Present? Yes No Depth (inches):		Depth (inches):			
Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0 Wetland Hydrology Present? Yes No C		, , , , , , , , , , , , , , , , , , , ,			
(includes capillary tringe)	0 1 1 0 10		Wetland Hydrolog	y Present? Ye	es No
	(includes capillary fringe)				
	Remarks:				
Remarks:	sphagnum 25% cover				

			minant ecies?		Sampling Point: an14 wetland
Tree Stratum (Plot size:)	Absolute % Cover	Re	l.Strat.	Indicator Status	
1.	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)
2.	0		0.0%		
3.			0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
4.			0.0%		Species Across Air Strata.
5.			0.0%		Percent of dominant Species
6		\Box	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7.	0	\Box	0.0%	-	Prevalence Index worksheet:
				-	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15'	0	= 10	ital Cover		OBL species 15 x 1 = 15
1. Spiraea tomentosa	20	V	57.1%	FACW	
2. Acer rubrum	40	V	28.6%	FAC	FACW species 88 x 2 = 176
3. Fraxinus pennsylvanica		П	14.3%	FACW	FAC species 18 x 3 = 54
4.	-	$\overline{\Box}$	0.0%		FACU species $0 \times 4 = 0$
5		$\overline{\Box}$	0.0%		UPL species $0 \times 5 = 0$
6.		П	0.0%	-	Column Totals: 121 (A) 245 (B)
7		\exists	0.0%		2.035
<i>I</i>	-	Ц,			Prevalence Index = B/A = 2.025
Herb Stratum (Plot size: 5'	35	= To	tal Cover		Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1. Onoclea sensibilis	40	V	46.5%	FACW	✓ Dominance Test is > 50%
2.0smunda cinnamomea	10		11.6%	FACW	
3. Eupatoriadelphus maculatus	8		9.3%	FACW	Prevalence Index is ≤3.0 ¹
4. Scirpus cyperinus	5		5.8%	FACW+	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Carex lurida	15	~	17.4%	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
6.Rubus klaeus	8		9.3%	FAC-	Problematic Hydrophytic Vegetation - (Explain)
7	0	\Box	0.0%		¹ Indicators of hydric soil and wetland hydrology must
8.	0	Н	0.0%		be present, unless disturbed or problematic.
9.			0.0%		Definitions of Vegetation Strata:
10.		H			
11.		H	0.0%	-	Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
At the second se			0.0%		at breast height (DBH), regardless of height.
12.	0	Ш	0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	86	= To	otal Cover		greater than 3.28 ft (1m) tall
1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.
3.	_ 0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4.	0		0.0%		height.
	0	= To	tal Cover		
					Hydrophytic Vegetation Present? Yes No

VEGETATION - Use scientific names of plants

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an14 wetland

	ription: (Des	scribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth (inches)	- Colon (Matrix	- 0/	Redox Features		Damada
0-8	Color (1	3/2	% 100%	Color (moist) % Type 1 Loc ²	Texture	Remarks
				·	Sandy Loam	
8-11	2.5Y	5/1	100%		Sandy Loam	
,						
¹ Type: C=Con	centration. D	=Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains 2Loc	ation: PL=Pore Lining. M=M	atrix
Hydric Soil 1	Indicators:				Indicators for Proble	ematic Hydric Soils: 3
Histosol (Polyvalue Below Surface (S8) (LRR R,		(LRR K, L, MLRA 149B)
Histic Epip	pedon (A2)			MLRA 149B)		x (A16) (LRR K, L, R)
Black Hist				☐ Thin Dark Surface (S9) (LRR R, MLRA 149B) ☐ Loamy Mucky Mineral (F1) LRR K, L)		or Peat (S3) (LRR K, L, R)
STATE OF THE PARTY	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	(LRR K, L)
1	Layers (A5) Below Dark S	urfara (A	DIN	Depleted Matrix (F3)		urface (S8) (LRR K, L)
1-1	k Surface (A1		11)	Redox Dark Surface (F6)	Thin Dark Surface	
And the second	ick Mineral (S			Depleted Dark Surface (F7)		lasses (F12) (LRR K, L, R)
(Table 1)	eyed Matrix (S	coe.ii		Redox Depressions (F8)		in Soils (F19) (MLRA 149B)
Sandy Red	EDOSCO CONTRACTOR OF SEC.	.,) (MLRA 144A, 145, 149B)
	Matrix (S6)				Red Parent Materi Very Shallow Dark	8 18
Dark Surfa	ace (S7) (LRF	R R, MLRA	149B)		Other (Explain in I	
³ Indicators of	f hydronhytic	venetation	and wetla	nd hydrology must be present, unless disturbed or probl		certo kaj
				in a right order of producting arrivable determined of producting		
Restrictive Li		ervea):				
Depth (ind	15.51				Hydric Soil Present?	Yes No
	nes): 11					
Remarks:						
						10 10
						*

Project/Site: Antrim Wind Project	City/C	ounty: Antrim		Sampling Date: 16-Aug-11
Applicant/Owner: Eolian Renewable Energy, L	LC	Sta	ite: NH	Sampling Point: AN14 Upland
Investigator(s): AF JG	Sec	ction, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Hillside		elief (concave, convex, i		Slope: 10.0 % / 5.7°
Subregion (LRR or MLRA):	Lat.:	Lon	en action	Datum:
Soil Map Unit Name:	- Lucii	2011	NWI classif	
		Yes No		
Are climatic/hydrologic conditions on the si			(If no, explain in	w. (a) w. (
Are Vegetation, Soil, or Hy	drology significantly distu	rbed? Are "Norma	Circumstances"	present? Yes S NO C
Are Vegetation , Soil , or Hy	drology 🗌 naturally problem	atic? (If needed,	explain any answ	ers in Remarks.)
Summary of Findings - Attach	site map showing sampl	ing point location	ns, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes	O No 🖲			
Hydric Soil Present? Yes	O No 💿	Is the Sampled Area within a Wetland?	Yes O No 🖲)
Wetland Hydrology Present? Yes	O No 💿			
-				
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicato	ors (minimum of 2 required)
Primary Indicators (minimum of one requi	red; check all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	1	Drainage Patte	The state of the s
High Water Table (A2) Saturation (A3)	Aquatic Fauna (B13)		Moss Trim Lin	
Water Marks (B1)	☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1		Crayfish Burro	ater Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres alor			ible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron	Statement Industrial Property of the Control of the		ressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in T	No. 2013-1	Geomorphic P	, ,
Iron Deposits (B5)	Thin Muck Surface (C7)	75 W X S V X C Z	Shallow Aquita	ard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks))	Microtopograp	ohic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral T	est (D5)
Field Observations:				
Surface Water Present? Yes No	Depth (inches):			
Water Table Present? Yes O No				
Saturation Present? Yes No	O	Wetland Hyd	rology Present?	Yes O No 💿
(includes capillary fringe)				
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, prev	ious inspections), if avai	lable:	
Remarks:				

			ecies?		To			
Tree Stratum (Plot size: 30'	Absolute % Cover		el.Strat. over	Indicator Status	Dominance Test worksheet:			
1 Picea rubens	20	V	50.0%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)			
2. Populus tremula		V	50,0%	FACU	That are obt., FACW, or FAC.			
,			0.0%		Total Number of Dominant			
4			0.0%		Species Across Ail Strata: 4 (B)			
		\exists	0.0%		Percent of dominant Species			
,	Ď.		0.0%		That Are OBL, FACW, or FAC: 25.0% (A/B)			
); ;	0	H	0.0%		Prevalence Index worksheet:			
			otal Cove		Total % Cover of: Multiply by:			
Sapling/Shrub Stratum (Plot size: 15 ^t)	40	= 16	otal Cove	r	OBL species 0 x 1 = 0			
, Acer pensylvanicum	40	V	83.3%	FACU				
Acer saccharum	8		16.7%	FACU-				
J	0		0.0%		02 272			
	0		0.0%		FACU species $93 \times 4 = 372$			
j	370		0.0%		UPL species x 5 =0			
			0.0%		Column Totals: 123 (A) 462 (B)			
			0.0%		Prevalence Index = B/A = 3.756			
	48	= To	otal Cove	r				
lerb Stratum (Plot size: 5'				7.1	Hydrophytic Vegetation Indicators:			
1. Thelypteris noveboracensis	25	V	71.4%	FAC	Rapid Test for Hydrophytic Vegetation			
2. Aralia nudicaulis	5		14.3%	FACU	☐ Dominance Test is > 50%			
3. Trientalis borealis	5		14.3%	FAC	Prevalence Index is ≤3.0 ¹			
4	0		0.0%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)			
6.	0		0.0%		Problematic Hydrophytic regetation (Explain)			
7,	0		0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
8.	0		0.0%					
9.	0	$\overline{\Box}$	0.0%		Definitions of Vegetation Strata:			
0.	0	\Box	0.0%	- 11	T 1N			
1,	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
2.	0		0.0%		The state of the			
		= Te	otal Cove		Sapling/shrub - Woody plants less than 3 in. DBH and			
Woody Vine Stratum (Plot size:			Juli Cove		greater than 3.28 ft (1m) tall			
1,	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of			
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.			
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in			
4.	0		0.0%		height.			
	0	= To	otal Cove	r				
					Hydrophytic Vegetation Present? Yes No			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN14 Upland

			the depth	needed to docum		onfirm the	absence of indicators.)	
Depth (inches)	Color (n	Matrix	%	Color (moist)	Redox Features % Type	Loc2	Texture	Pou	marks
0-5	10YR	3/2	100%	Color (moist)	уб түрс	Loc		Kei	iliai ks
, 12							Sandy Loam		
5-10	2.5Y	5/3	100%				Loamy Sand		
	-		-				-		
¹ Type: C=Cond	centration. D=	Depletio	n. RM=Rec	duced Matrix, CS=Co	vered or Coated Sand G	rains ² Loca	ition: PL=Pore Lining. M	=Matrix	
Hydric Soil I	ndicators:						Indicators for Pro	blematic Hydr	ic Soils: 3
Histosol (A1)				elow Surface (S8) (LRR	R,		0) (LRR K, L, ML	
Histic Epip	edon (A2)			MLRA 149B	ALC: NO TO THE REAL PROPERTY.	D.A. 4.40D\		edox (A16) (LRR	
Black Histi				ANALY VESCOUNTS	Surface (S9) (LRR R, ML		A DOMESTICAL PROPERTY OF THE PARTY OF THE PA	at or Peat (S3) (
	Sulfide (A4)				ky Mineral (F1) LRR K, L	.)	Dark Surface (5	HEAD OF THE PARTY	
	Layers (A5)				red Matrix (F2)		The first of the state of the	v Surface (S8) (L	LRR K, L)
The second second	Below Dark St		11)	Depleted M	Surface (F6)		Thin Dark Surfa	ice (S9) (LRR K,	, L)
	s Surface (A12	100					Iron-Manganes	e Masses (F12) ((LRR K, L, R)
F 1	ck Mineral (S1	Sec.			Depleted Dark Surface (F7) Redox Depressions (F8)			plain Solls (F19)	(MLRA 149B)
	yed Matrix (S	4)		Redox Depi	essions (Fo)		Mesic Spodic (7	A6) (MLRA 144A	A, 145, 149B)
Sandy Rec							Red Parent Mat	erial (TF2)	
	1atrix (S6)						☐ Very Shallow D	ark Surface (TF1	.2)
Dark Surfa	ice (S7) (LRR	R, MLRA	1498)				Other (Explain	in Remarks)	
³ Indicators of	hydrophytic v	egetatio	n and wetla	and hydrology must l	oe present, unless distur	bed or proble	ematic.		
Restrictive La	ver (if obse	rved):							
Type:									
Depth (inch	nes):						Hydric Soil Present	? Yes 🔾	No 💿
	,00,1								
Remarks:									



AN14 Wetland



AN14 Upland

Project/Site: Antrim Wind Project		City/County: Antrim	Sam	pling Date: 16-Aug-11
Applicant/Owner: Eolian Renewable E	nergy, LLC	Sta	ite: NH San	pling Point: an15 wetland
Investigator(s): AF JG		Section, Township, Range:		R.
Landform (hillslope, terrace, etc.):	Hillside	Local relief (concave, convex,		Slope: 8.0 % / 4.6°
Subregion (LRR or MLRA):	Lat.:	Lon	600 400000 1000000 4000	Datum:
	Lat.	LON	NWI classificatio	
Soil Map Unit Name:			NWI Classificatio	n: PSS
Are climatic/hydrologic conditions of	n the site typical for this time of ye	ear? Yes No	(If no, explain in Rema	
Are Vegetation , Soil	, or Hydrology Significant	ly disturbed? Are "Norma	Circumstances" preser	nt? Yes • No O
Are Vegetation , Soil	, or Hydrology 🔲 naturally p	roblematic? (If needed,	explain any answers in	Remarks.)
Summary of Findings - At	tach site map showing s	ampling point location	ns, transects, imp	oortant features, etc.
Hydrophytic Vegetation Present?	Yes No			
Hydric Soil Present?	Yes No	Is the Sampled Area within a Wetland?	Yes No	
Wetland Hydrology Present?	Yes No	Within a Wetlands	100 % 110 %	
Hudrologu.				
Hydrology				
Wetland Hydrology Indicators:	T. J. J. B.T. T. T.		Secondary Indicators (mi	nimum of 2 required)
Primary Indicators (minimum of or			Surface Soil Cracks (
✓ Surface Water (A1)✓ High Water Table (A2)	Water-Stained Leav		Drainage Patterns (E	_ =
Saturation (A3)	☐ Aquatic Fauna (B13☐ Marl Deposits (B15☐		Moss Trim Lines (B1 Dry Season Water T	
Water Marks (B1)	Hydrogen Sulfide C		Crayfish Burrows (Cl	1 1
Sediment Deposits (B2)		eres along Living Roots (C3)		Aerial Imagery (C9)
☐ Drift deposits (B3)	Presence of Reduc		Stunted or Stressed	
Algal Mat or Crust (B4)		tion in Tilled Soils (C6)	Geomorphic Position	(D2)
Iron Deposits (B5)	Thin Muck Surface	(C7)	Shallow Aquitard (D3	3)
Inundation Visible on Aerial Imager	Other (Explain III K	temarks)	Microtopographic Re	
Sparsely Vegetated Concave Surface	e (B8)		✓ FAC-neutral Test (D!	5)
Field Observations:			==	
Surface Water Present? Yes	No O Depth (inches):			
Water Table Present? Yes	No O Depth (inches):	5		0 0
Saturation Present? (Includes capillary friend) Yes	No O Depth (inches):	Wetland Hyd	rology Present? Ye	s O No O
(includes capillary fringe) Describe Recorded Data (stream ga	100000000000000000000000000000000000000		lablo:	
Describe Recorded Data (stream go	iuge, monitoring wen, aenai photo	s, previous inspections), ii avai	iable,	
Remarks;				
2				

	olants		minant ecies?		Sampling Point: an15 wetland
Tree Stratum (Plot size:	Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:
4				Status	Number of Dominant Species
1			0.0%	-	That are OBL, FACW, or FAC: 3 (A)
2.	0	H	0.0%	-	Total Number of Dominant
3.	0		0.0%		Species Across All Strata: 3 (B)
4.	0		0.0%		Percent of dominant Species
5	0	H	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
6	0	Н	0.0%		Burnel and Parkers and Control of the Control of th
7					Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15'	0	= 10	otal Cove	r	OBL species 28 x 1 = 28
1. Spiraea tomentosa	66	~	81.5%	FACW	
2. Acer rubrum	10		12.3%	FAC	
3. Fraxinus pennsylvanica	5		6.2%	FACW	o o
4.	0		0.0%		PACU SPECIES X 4 =
5			0.0%		UPL species $0 \times 5 = 0$
6	0		0.0%		Column Totals: 142 (A) 266 (B)
7	0		0.0%		Prevalence Index = B/A = 1.873
Herb Stratum (Plot size: 5'		= To	tal Cove	r	Hydrophytic Vegetation Indicators:
1. Carex lurida	20	V	32.8%	OBL	Rapid Test for Hydrophytic Vegetation
2. Eupatoriadelphus dubius	5		8.2%	FACW	✓ Dominance Test is > 50%
3. Scirpus cyperinus	3	П	4.9%	FACW+	✓ Prevalence Index is ≤3.0 ¹
4. Onoclea sensibilis	25	~	41.0%	FACW	Morphological Adaptations ¹ (Provide supporting
5.Carex crinita	8		13.1%	OBL	data in Remarks or on a separate sheet)
6.	0		0.0%		Problematic Hydrophytic Vegetation 1 (Explain)
7.	0	П	0.0%		1 Indicators of hydric soil and wetland hydrology must
8.	0	\Box	0.0%		be present, unless disturbed or problematic.
9,	0		0.0%		Definitions of Vegetation Strata:
10.		П	0.0%	* y	T
11	0	П	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12.	0		0.0%		
		= To	otal Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)			ABI 0010		greater than 3,28 ft (1m) tall
1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2	0		0.0%		size, and woody plants less than 3.28 ft tall.
3	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4.	0		0.0%		height.
	0	= To	tal Cove	r	
	0	= To	0.0%	r	Woody vine - All woody vines greater than 3.28 ft i height. Hydrophytic
					Vegetation Yes No No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Profile Description: (Describe to the do Depth Matrix		nt the indicator Redox Features	or confirm t	he absence of indicators.)	
(inches) Color (moist) %			pe 1 Loc	² Texture	Remarks
0-8 10YR 3/2 100°				Loam	
8-12 2.5Y 4/1 90%	10YR 4/6	10%	с м	Sandy Loam	
			2. 7.		
		_			
¹ Type: C=Concentration. D=Depletion. RM:	=Reduced Matrix, CS=Cov	ered or Coated Sa	nd Grains 2	Location: PL=Pore Lining. M=Matrix	
Hydric Soil Indicators:	a			Indicators for Problemat	ic Hydric Soils : 3
Histosol (A1)		low Surface (S8) (LRR R,	2 cm Muck (A10) (LRR	
Histic Epipedon (A2)	MLRA 1498)	irface (S9) (LRR R	MIRA 149R	Coast Benirio Bodoy (A1	
Black Histic (A3)	The same and a second	y Mineral (F1) LRR	(2)	5 cm Mucky Peat or Pea	et (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Stratified Layers (A5)	The state of the s	d Matrix (F2)	, -,	Dark Surface (S7) (LRR	
✓ Depleted Below Dark Surface (A11)	Depleted Ma	trix (F3)		Polyvalue Below Surface	William State State -
☐ Thick Dark Surface (A12)	Redox Dark	Surface (F6)		☐ Thin Dark Surface (S9) ☐ Iron-Manganese Masses	27 Sept. 20 (20 pt)
Sandy Muck Mineral (S1)		rk Surface (F7)		Piedmont Floodplain So	
Sandy Gleyed Matrix (S4)	Redox Depre	essions (F8)		Mesic Spodic (TA6) (ML	
Sandy Redox (S5)				Red Parent Material (TF	(20) (1) (5)
Stripped Matrix (S6)				Very Shallow Dark Surfa	ace (TF12)
Dark Surface (S7) (LRR R, MLRA 1498)				Other (Explain in Remar	rks)
³ Indicators of hydrophytic vegetation and	wetland hydrology must b	e present, unless o	listurbed or p	roblematic.	
Restrictive Layer (if observed):					
Type: Refusal				Hydric Soil Present? Yo	es No
Depth (inches): 12				nyunc son Present?	es © NO O
Remarks:					
		-			

Project/Site: Antrim Wind Project	City/Co	ounty: Antrim		Sampling Date: 16-Aug-11	
Applicant/Owner: Eolian Renewable Energy,	LLC	Sta	ate: NH	Sampling Point: an15 upla	nd
Investigator(s): AF JG	Sec	tion, Township, Range:	s. T.	R.	
Landform (hillslope, terrace, etc.): Hillsi	de Local r e	elief (concave, convex,	none): flat	Slope: 8.0 % /	4.6 °
Subregion (LRR or MLRA):	Lat.:	Lon	ıg.:	Datum:	
Soil Map Unit Name:			NWI classif	fication:	
Are climatic/hydrologic conditions on the	site typical for this time of year?	Yes No	(If no, explain in	n Remarks.)	
Are Vegetation 🔲 , Soil 🗌 , or I	Hydrology 🗌 significantly distur	bed? Are "Norma	l Circumstances"	present? Yes • No O	
Are Vegetation , Soil , or I	Hydrology 🔲 naturally problema	atic? (If needed.	explain any answ	ers in Remarks.)	
Summary of Findings - Attach	site map showing sampli				c.
Hydrophytic Vegetation Present? Yes	; ○ No ⑨				
Hydric Soil Present? Yes	; ○ No	Is the Sampled Area within a Wetland?	Yes O No 🖲)	
Wetland Hydrology Present? Yes	; ○ No	within a wetland:			
Hydrology					
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of 2 required)	
Primary Indicators (minimum of one req	uired; check all that apply)		Surface Soil C		
Surface Water (A1)	Water-Stained Leaves (B9)		Drainage Patt	terns (B10)	
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lin	5. (5.)	
Saturation (A3) Water Marks (B1)	Marl Deposits (B15)			Vater Table (C2)	
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along		Crayfish Burro	sible on Aerial Imagery (C9)	
Drift deposits (B3)	Presence of Reduced Iron (C===	ressed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Til	f	Geomorphic F	cents intention freedomistic to Colonia	
Iron Deposits (B5)	☐ Thin Muck Surface (C7)		Shallow Aquit	ard (D3)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)			phic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)			FAC-neutral T	est (D5)	
Field Observations:					
	Depth (inches):				
	Depth (inches):	Motland Hed	Irology Present?	Yes O No 💿	
Saturation Present? Yes No.	Depth (inches):	wetianti nyo	irology Present?	ies C NO C	
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, previo	ous inspections), if ava	ilable:		
Remarks;					

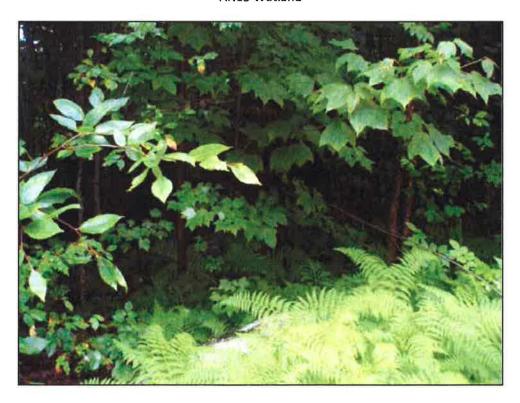
		ecies?		Sampling Point: an15 upland				
Absolute % Cover		l.Strat. ver	Indicator Status	Dominance Test worksheet:				
			300000000000000000000000000000000000000	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)				
				That are OBL, FACW, or FAC: 1 (A)				
			23.3.00	Total Number of Dominant				
-	\exists		IAC	Species Across All Strata: 4 (B)				
	H			Percent of dominant Species				
	H			That Are OBL, FACW, or FAC: 25.0% (A/B)				
	H.			Prevalence Index worksheet:				
-				Total % Cover of: Multiply by:				
60	= 10	itai Cove	r	OBL species 0 x 1 = 0				
50	V	83.3%	FACU					
5		8.3%	FACU					
5		8.3%	FACU	113 440				
0		0.0%		FACU species $\frac{112}{4}$ x 4 = $\frac{448}{5}$				
0		0.0%		UPL species x 5 =5				
0		0.0%		Column Totals: 128 (A) 498 (B)				
0		0.0%		Prevalence Index = B/A = 3.891				
60 :	= To	tal Cove	r	Hydrophytic Vegetation Indicators:				
Arrang				Rapid Test for Hydrophytic Vegetation				
_ 1_		12.5%	FACU	Dominance Test is > 50%				
1		12.5%	FACU-	Prevalence Index is ≤3.0 ¹				
5	V	62.5%	FAC-					
_ 1		12.5%	UPL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)				
0		0.0%						
0		0.0%						
0		0.0%		¹ Indicators of hydric soil and wetland hydrology must				
0		0.0%		be present, unless disturbed or problematic.				
0		0.0%		Definitions of Vegetation Strata:				
0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter				
0		0.0%		at breast height (DBH), regardless of height.				
0		0.0%						
8	= Ta	tal Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall				
				greater than 3.20 ft (1111) tall				
0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of				
0		0.0%		size, and woody plants less than 3.28 ft tall.				
0		0.0%		Woody vine - All woody vines greater than 3.28 ft in				
0		0.0%		height.				
0 :	= To	tal Cove	r					
				Hydrophytic Vegetation Present? Yes No No				
	50 5 5 0 0 0 0 0 60 1 1 5 1 0 0 0 0 0 0 0 0 0 0 0 0 0	25	25	25				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

			the depth	needed to document the indicator or confirm the	e absence of indicators.)
Depth (inches)	Color (n	Matrix	0/0	Redox Features Color (moist) % Type 1 Loc²	Texture Remarks
0-8	10YR	3/2	100%	coor (muse) 70 Type 2 Loc	Loam
8-16	10YR	4/3	100%		Fine Sandy Loam
	2011	,, ,	10070		Title Sandy Louin
					-
/					
1 Type: C-Con		Danlatia	n DM Dad	used Metaly, CC, Covered on Control Could Coving. 31 of	antina N. Dove Listen M. Mately
Hydric Soil 1		Depletio	п. км=кеа	uced Matrix, CS=Covered or Coated Sand Grains 2Lo	
Histosol (Polyvalue Below Surface (S8) (LRR R,	Indicators for Problematic Hydric Soils: 3
	pedon (A2)			MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Hist	Service Control			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
Hydrogen	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L)
Stratified	Layers (A5)			Loamy Gleyed Matrix (F2)	Polyvalue Below Surface (S8) (LRR K, L)
-	Below Dark Si		11)	Depleted Matrix (F3)	☐ Thin Dark Surface (S9) (LRR K, L)
Thick Dar	k Surface (A1	2)		Redox Dark Surface (F6)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mu	ick Mineral (S	1)		Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 149B)
	eyed Matrix (S	4)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Re					Red Parent Material (TF2)
	Matrix (S6)				☐ Very Shallow Dark Surface (TF12)
	face (S7) (LRR				Other (Explain in Remarks)
³ Indicators of	f hydrophytic i	egetatio/	n and wetla	nd hydrology must be present, unless disturbed or prol	blematic.
Restrictive L	ayer (if obse	rved):			
Type: Re	efusal				Madeir Call Danners Was Co. No. O
Depth (inc	hes): 16		_		Hydric Soil Present? Yes No No
Remarks:					



AN15 Wetland



AN15 Upland

Project/Site: Antrim Wind Project	City/County: Antrim	Sampling Date: 16-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC	Sta	ate: NH Sampling Point: an16 wetland
Investigator(s): AF JG	Section, Township, Range:	S. T. R.
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex,	none): flat
Subregion (LRR or MLRA):	Lat.: Lon	g.: Datum:
Goil Map Unit Name:		NWI classification: PEM
Are climatic/hydrologic conditions on the site typic	al for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology		Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed,	explain any answers in Remarks.)
	· · · · · · · · · · · · · · · · · · ·	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	• 0	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?	Yes No
Wetland Hydrology Present? Yes N	o O	
Undeden		
Hydrology		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che	ack all that apply)	Secondary Indicators (minimum of 2 required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6) Drainage Patterns (B10)
✓ High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)
✓ Saturation (A3)	Marl Deposits (B15)	Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No •	Depth (inches):	
Water Table Present? Yes No	Depth (inches): 0	
Saturation Present? (includes assillant friese) Yes No	Depth (inches): 0 Wetland Hyd	rology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitorin	b open (memos).	ilable:
Describe Necolded Data (Stream gaage, monitorn	ig weil, deliai photos, previous inspections,, ii ava	
Remarks:		

Tree Stratum (Plot size:)	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 55 x 1 = 55 FACW species 58 x 2 = 116 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 UPL species 100.0% Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is > 50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Próvide supporting data in Remarks or on a separate sheet)
1.	That are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of dominant Species That Are OBL, FACW, or FAC: Total % Cover of: Multiply by: OBL species 55 x 1 = 55 FACW species 58 x 2 = 116 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Pominance Test is > 50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. 0	Total Number of Dominant Species Across All Strata: 4 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 55 X 1 = 55 FACW species 58 X 2 = 116 FAC species 0 X 3 = 0 FACU species 0 X 4 = 0 UPL species 0 X 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Prevalence Test is > 50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Próvide supporting data in Remarks or on a separate sheet)
3. 0	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 55 X 1 = 55 FACW species 58 X 2 = 116 FAC species 0 X 4 = 0 UPL species 0 X 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Prominance Test is > 50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 55 x 1 = 55 FACW species 58 x 2 = 116 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Prevalence Index is ≤ 3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. 0 0 0.0% 6. 0 0.0% 7. 0 0.0% 7. 0 0.0% 8apling/Shrub Stratum (Plot size: 15') 0 = Total Cover 1. Spiraea alba 15 50.0% FACW+ 2. Spiraea tomentosa 15 50.0% FACW+ 3. 0 0.0% 6. 0 0.0% 6. 0 0.0% 6. 0 0.0% 6. 0 0.0% 7. 0 0.0% 8. 0 0.0% 9 24.1% FACW+ 9 60.2% OBL	That Are OBL, FACW, or FAC: 100.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 55 x 1 = 55 FACW species 58 x 2 = 116 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Prevalence Index is ≤ 3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. 0	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 55 x 1 = 55 FACW species 58 x 2 = 116 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Prevalence Index is ≤ 3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
7.	Total % Cover of: Multiply by: OBL species 55 x 1 = 55 FACW species 58 x 2 = 116 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Sapling/Shrub Stratum (Plot size: 15') = Total Cover 1. Spiraea alba 15 50.0% FACW+ 2. Spiraea tomentosa 15 50.0% FACW+ 3. 0 0.0% 4. 0 0.0% 5. 0 0.0% 6. 0 0.0% 7. 0 0.0% 1. Carex crinita 50 60.2% OBL 2. Scirpus cyperinus 5 6.0% FACW+ 3. Scirpus atrovirens 5 6.0% OBL 4. Onoclea sensibilis 20 24.1% FACW 5. Impatiens capensis 3 3.6% FACW 6. 0 0.0% 7. 0 0.0% 8. 0 0.0%	Total % Cover of: Multiply by: OBL species 55 x 1 = 55 FACW species 58 x 2 = 116 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Sapling/Shrub Stratum Plot size: 15" 1. Spiraea alba 15	OBL species 55 x 1 = 55 FACW species 58 x 2 = 116 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Próvide supporting data in Remarks or on a separate sheet)
1. Spiraea aiba 2. Spiraea tomentosa 15	FACW species 58 x 2 = 116 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Próvide supporting data in Remarks or on a separate sheet)
2. Spiraea tomentosa 3. 0 0.0% FACW 4. 0 0.0% 5. 0 0.0% 6. 0 0.0% 7. 0 0.0% Herb Stratum (Plot size: 5') 1. Carex crinita 50 € 60.2% OBL 2. Scirpus cyperinus 3. Scirpus atrovirens 5 6.0% FACW+ 3. Scirpus atrovirens 5 6.0% OBL 4. Onoclea sensibilis 5. Impatiens capensis 6. 0 0.0% 7. 0 0.0% 8. 0 0.0%	FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Próvide supporting data in Remarks or on a separate sheet)
4. 0 0.0% 4. 0 0.0% 5. 0 0.0% 6. 0 0.0% 7. 0 0.0% Herb Stratum (Plot size: 5') 30 = Total Cover 1. Carex crinita 50 € 60.2% OBL 2. Scirpus cyperinus 5 6.0% FACW+ 3. Scirpus atrovirens 5 6.0% OBL 4. Onoclea sensibilis 20 € 24.1% FACW 5. Impatiens capensis 3 3.6% FACW 6. 0 0.0% 7. 0 0.0% 8. 0 0.0%	FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is > 50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Próvide supporting data in Remarks or on a separate sheet)
5. 0 0.0% 6. 0 0.0% 7. 0 0.0% Herb Stratum (Plot size: 5') 1. Carex crinita 50 € 60.2% OBL 2. Scirpus cyperinus 5 6.0% FACW+ 3. Scirpus atrovirens 5 6.0% OBL 4. Onoclea sensibilis 20 € 24.1% FACW 5. Impatiens capensis 3 3.6% FACW 6. 0 0.0% 7. 0 0.0% 8. 0 0.0%	UPL species 0 x 5 = 0 Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is > 50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. 0 0.0% 7. 0 0.0% Herb Stratum (Plot size: 5') 30 = Total Cover 1. Carex crinita 50 € 60.2% OBL 2. Scirpus cyperinus 5 6.0% FACW+ 3. Scirpus atrovirens 5 6.0% OBL 4. Onoclea sensibilis 20 € 24.1% FACW 5. Impatiens capensis 3 3.6% FACW 6. 0 0.0% 7. 0 0.0% 8. 0 0.0%	Column Totals: 113 (A) 171 (B) Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is > 50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Próvide supporting data in Remarks or on a separate sheet)
7. 0 0 0.0% Herb Stratum (Plot size: 5') 30 = Total Cover 1. Carex crinita 50 € 60.2% OBL 2. Scirpus cyperinus 5 6.0% FACW+ 3. Scirpus atrovirens 5 6.0% OBL 4. Onoclea sensibilis 20 € 24.1% FACW 5. Impatiens capensis 3 3.6% FACW 6. 0 0.0% 7. 0 0.0% 8. 0 0.0%	Prevalence Index = B/A = 1.513 Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is > 50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5') 1. Carex crinita 2. Scirpus cyperinus 3. Scirpus atrovirens 4. Onoclea sensibilis 20	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is > 50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. Carex crinita 50	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is > 50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Scirpus cyperinus 5 6.0% FACW+ 3. Scirpus atrovirens 5 6.0% OBL 4. Onoclea sensibilis 20 24.1% FACW 5. Impatiens capensis 3 3.6% FACW 6. 0 0.0% 7. 0 0.0% 8. 0 0.0%	 ✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0 ¹ ✓ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Scirpus cyperinus 5 6.0% FACW+ 3. Scirpus atrovirens 5 6.0% OBL 4. Onoclea sensibilis 20 2.4.1% FACW 5. Impatiens capensis 3 3.6% FACW 6. 0 0.0% 7. 0 0.0% 8. 0 0.0% - -	 ✓ Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. Scirpus atrovirens 5 6.0% OBL 4. Onoclea sensibilis 20 ✓ 24.1% FACW 5. Impatiens capensis 3 3.6% FACW 6. 0 0.0% 7. 8. 0 0.0% -	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4.0noclea sensibilis 20	data in Remarks or on a separate sheet)
5.Impatiens capensis 3 3.6% FACW 6. 0 0.0% 7. 0 0.0% 8. 0 0.0%	
6. 0 0.0% 7. 0 0.0% 8. 0 0.0%	Ducklament's Understant's Variation 1 (Fundais)
7. 0 0.0% 8. 0 0.0%	Problematic Hydrophytic Vegetation ¹ (Explain)
8. 0 0.0%	1 Indicators of hydric soil and wetland hydrology must
The state of the s	be present, unless disturbed or problematic.
	Definitions of Vegetation Strata:
10	
	Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12.	at breast neight (DDF), regardless of height.
83 = Total Cover	Sapling/shrub - Woody plants less than 3 in, DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:	
	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3,28 ft tall.
2.	size, and woody plants less than 5,20 it tall.
	Woody vine - All woody vines greater than 3.28 ft in
4. 0 0.0% r 0 = Total Cover	height.
	Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an16 wetland

			the depth	needed to	locument	the indic	ator or co	onfirm the a	absence of indicators.)		
Depth (inches)		Matrix	0/0	Color (dox Featu %		Loc2	Texture	Remarks	
0-7	Color (n	3/2	100%	Color (illoist)	70	Type 1	LUC-	Loam	remarks	
4 Y		705.5EV-1.		10)(D	4/6	F0/			1900 N. (1900 Person)		
7-16	2.5Y	4/2	95%	10YR	4/6	5%	С	М	Fine Sandy Loam		
V											
			-								
								-			
-			-							-	
				-	_	-					
1=	F	B 14	D14 D		00.0		16-16		Process of the second second		
		=Debietioi	i. KM=Kec	iucea Matrix,	c>=cover	eu or coate	eu Sand Gr	ains 4Loca	tion: PL=Pore Lining. M=Matri		
Hydric Soil I Histosol (Poly	value Rolo	w Surface ('SR) (I DD I	R	Indicators for Problema		
	nedon (A2)				A 149B)	., Juliace (COO, (LINK)	-1	2 cm Muck (A10) (LRI		
Black Hist	The state of the s			Thin	Dark Surf	ace (S9) (I	LRR R, MLI	RA 149B)	Coast Prairie Redox (A	STORAGE TO CONTRACT OF THE	
Hydrogen	Sulfide (A4)				ALC: VI JAN COLO	Mineral (F1)	Dark Surface (S7) (LR	INVESTMENT OF THE PROPERTY OF	
Stratified	Layers (A5)				and the state of t	Matrix (F2))		Polyvalue Below Surfa	The second secon	
	Below Dark Si		11)		eted Matri	rface (F6)			Thin Dark Surface (S9) (LRR K, L)		
p-1	k Surface (A1:			-		Surface (F	7)		Iron-Manganese Masses (F12) (LRR K, L, R)		
	ck Mineral (S)	8		1	x Depress	Company of the contract of			Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sandy Gie	eyed Matrix (S	4)			•				Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
	Matrix (S6)								Red Parent Material ((A)	
	ace (S7) (LRR	R, MLRA	149B)						✓ Very Shallow Dark Sui✓ Other (Explain in Rem	(A) (B)	
³ Indicators of	hydrophytic y	vegetation	and wetla	and hydrology	must he r	resent. un	less distur	hed or proble		idi K3)	
Restrictive L				,,,							
Type:	ayer (II ODSe	iveu).									
Depth (incl	hes):								Hydric Soil Present?	Yes No	
Remarks:	100)1										
Kemarks.											

Project/Site: Antrim Wind Project		City/County: Antrim		Sampling Date: 16-Aug-11
Applicant/Owner: Eolian Renewable Ener	rgy, LLC	St	ate:	Sampling Point: an16 upland
Investigator(s): AF JG		Section, Township, Range	s. T.	R,
Landform (hillslope, terrace, etc.): Hi	illside	Local relief (concave, convex,		Slope: 10.0 % / 5.7°
Subregion (LRR or MLRA):	Lat.:		ng.:	Datum:
	Laci	EUI	NWI classif	
Soil Map Unit Name:			MANT CISSIN	ilication:
Are climatic/hydrologic conditions on t	the site typical for this time of ye	ear? Yes No	(If no, explain in	
Are Vegetation , Soil ,	or Hydrology significant	ly disturbed? Are "Norma	al Circumstances"	present? Yes No
Are Vegetation 🗌 , Soil 🗌 ,	or Hydrology 🔲 naturally p	roblematic? (If needed	explain any answ	ers in Remarks.)
Summary of Findings - Atta	ch site map showing s	ampling point locatio	ns, transects	, important features, etc.
Hydrophytic Vegetation Present?	Yes No 💿			
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area within a Wetland?	Yes O No 🖲)
Wetland Hydrology Present?	Yes O No 💿	Within a Wetlands		
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of one r	required; check all that apply)		Surface Soil C	cracks (B6)
Surface Water (A1)	Water-Stained Leav	ves (B9)	Drainage Patt	erns (B10)
☐ High Water Table (A2)	Aquatic Fauna (B13	5	Moss Trim Lin	nes (B16)
Saturation (A3)	Marl Deposits (B15	27.		/ater Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide C		Crayfish Burro	
Drift deposits (B3)		eres along Living Roots (C3)		sible on Aerial Imagery (C9) ressed Plants (D1)
Algal Mat or Crust (B4)	Presence of Reduc	tion in Tilled Soils (C6)	Geomorphic F	
Iron Deposits (B5)	Thin Muck Surface		Shallow Aquit	
Inundation Visible on Aerial Imagery (I		7		phic Relief (D4)
Sparsely Vegetated Concave Surface (I			FAC-neutral T	est (D5)
Field Observations:				
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No Depth (inches):			
Saturation Present? Yes	No Depth (inches):	Wetland Hy	drology Present?	Yes O No 💿
Describe Recorded Data (stream gaug	ge, monitoring well, aerial photo	os, previous inspections), if ava	ailable:	
D o pera vise i				
Remarks:				

		ecies?			
Absolute % Cover		d.Strat. over	Indicator Status	Dominance Test worksheet:	
20	V	66.7%	FACU		(A)
10	V	33.3%	FACU		
0		0.0%			(B)
0		0.0%		Species Neross Air Sciatal	(5)
0		0.0%		Percent of dominant Species	/
		0.0%		That Are OBL, FACW, or FAC:	(A/B)
0		0.0%		Prevalence Index worksheet:	
30	= To	tal Cove	r	Total % Cover of: Multiply by:	
5.0				OBL species 0 x 1 = 0	
10		19.6%	FACU		
33	V	64.7%	FACU		
5	\Box	9.8%	FAC	100 434	
3		5.9%	FACU	on Ann	
0		0.0%		UPL species x 5 = 400	
0		0.0%		Column Totals: 191 (A) 839	(B)
0		0.0%		Prevalence Index = B/A = 4.393	
	= To	tal Cove	r		
				(T)	
10		9.1%	FACU-		
80	V	72.7%	UPL	Venue .	
5		4.5%	FACU-	The state of the s	
15		13.6%	FACU	Morphological Adaptations - (Provide suppor	rting
0		0.0%			in
0		0.0%		Problematic Hydrophytic Vegetation (Expla	,
-	П	0.0%	-	¹ Indicators of hydric soil and wetland hydrology	must
	\Box			be present, unless disturbed or problematic.	
-	П			Definitions of Vegetation Strata:	
177.00	П	100000000000000000000000000000000000000			50
-					meter
	H			at breast height (bbit), regardless of height.	
-	_ T		-	Sapling/shrub - Woody plants less than 3 in. DBH	and
	= 10		r		
		2752452255		Herb - All herbaceous (non-woody) plants, regard	less of
	H	5037-0000-2-2-2-2		size, and woody plants less than 5,20 it tall.	
	Ц	110000000000		Woody vine - All woody vines greater than 3.28 ft	ín
0		0.0%		height.	
0 :	= To	tal Cove	r		
				Hydrophytic Vegetation	
				Present? Yes No •	
				i reactici	
	10 0 0 0 0 0 0 0 30 10 33 5 3 0 0 0 51 10 80 5 15 0 0 0 0 0 0 10 10 10 10 10	10	10	10	10

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

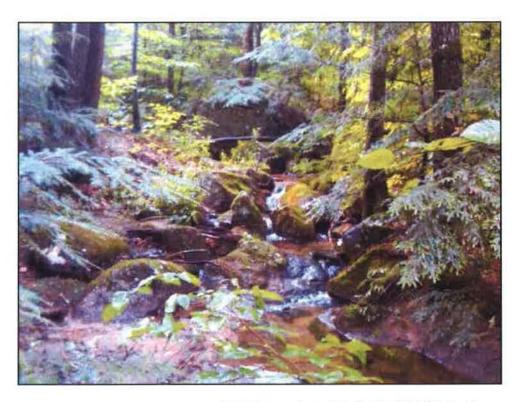
Depth	M	latrix	ne aepth	needed to document the indicator or confirm the Redox Features	ausence of indicators.)	
(inches)	Color (me	oist)	%	Color (moist) % Type 1 Loc2	Texture	Remarks
0-4	10YR	3/2	100%		Loam	
4-6	10YR	5/8	100%		Fine Sandy Loam	
					H	
ype: C=Cond	centration, D=[Depletion	, RM=Red	uced Matrix, CS=Covered or Coated Sand Grains ² Loc	ation: PL=Pore Lining. M=M	latrix
ydric Soil I					Indicators for Probl	ematic Hydric Soils: 3
Histosol (/				Polyvalue Below Surface (S8) (LRR R, MLRA 149B)		(LRR K, L, MLRA 149B)
-	edon (A2)			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redo	x (A16) (LRR K, L, R)
Black Histi	c (A3) Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)		or Peat (S3) (LRR K, L, R)
The same of the same	Layers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	(LRR K, L)
Toron consumor	Below Dark Sur	face (A1	1)	Depleted Matrix (F3)		urface (S8) (LRR K, L)
	Surface (A12)	0.0	+/	Redox Dark Surface (F6)	Thin Dark Surface	
The same of the same of	ck Mineral (S1)			Depleted Dark Surface (F7)		Masses (F12) (LRR K, L, R)
The second second	yed Matrix (S4)			Redox Depressions (F8)	<u> </u>	in Soils (F19) (MLRA 149B)
Sandy Rec	N) 67	6				(MLRA 144A, 145, 149B)
-	fatrix (S6)				Red Parent Materi	D 151
7	ace (S7) (LRR F	R, MLRA	149B)			E 98
			and wetla	nd hydrology must be present, unless disturbed or prob	6 40	
	iyer (if obser one refusal	ved):				
Depth (inch					Hydric Soil Present?	Yes O No 💿
emarks:						



AN16 Wetland



AN16 Wetland



AN17 Stream (associated with AN18 Wetland)

Project/Site: Antrim Wind Project		City/Co	unty: Antrim		Sampling Date: 16-Aug-11
Applicant/Owner: Eolian Renewable	Energy, LLC		Sta	ite: NH	Sampling Point: an18a wetland
Investigator(s): AF JG		Sect	ion, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.):	Gulch or Gu		lief (concave, convex, n		Slope: 12.0 % / 6.8°
Subregion (LRR or MLRA):		Lat.:	Long		Datum:
	*	Latin	Long	-	ication: PSS
Soil Map Unit Name:					
Are climatic/hydrologic conditions	on the site ty	pical for this time of year?	Yes No	(If no, explain in	
Are Vegetation, Soil	, or Hydrold	ogy 🔲 significantly disturt	oed? Are "Normal	Circumstances" p	resent? Yes • No
Are Vegetation , Soil	, or Hydrold	ogy naturally problema	tic? (If needed,	explain any answe	ers in Remarks.)
Summary of Findings - A	ttach site	map showing sampli	ng point location	ıs, transects,	important features, etc.
Hydrophytic Vegetation Present?	Yes 💿	No O			
Hydric Soil Present?	Yes	No O	Is the Sampled Area within a Wetland?	Yes No	
Wetland Hydrology Present?	Yes	No O			
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of o	ne required;	check all that apply)		Surface Soil Cr	
Surface Water (A1)		Water-Stained Leaves (B9)		Drainage Patte	erns (B10)
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Line	es (B16)
Saturation (A3)		Marl Deposits (B15)		Dry Season W	ater Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Crayfish Burro	, ,
Sediment Deposits (B2)		Oxidized Rhizospheres along			ible on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4)		Presence of Reduced Iron (C			essed Plants (D1)
Iron Deposits (B5)		Recent Iron Reduction in Till	led Soils (C6)	Geomorphic P Shallow Aquita	
Inundation Visible on Aerial Image	ery (B7)	☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)			ohic Relief (D4)
Sparsely Vegetated Concave Surfa		Under (Explain in Remarks)		▼ FAC-neutral Te	
Field Observable					
Field Observations: Surface Water Present? Yes	O No O	Depth (inches):			
Water Table Present? Yes		Depth (inches): 7			
Saturation Present? (includes applitude friends) Yes			Wetland Hyd	rology Present?	Yes No
(includes capillary tringe)		Depth (inches): 0			
Describe Recorded Data (stream g	auge, monito	oring well, aerial photos, previo	ous inspections), if avai	lable:	
Remarks:					

		_Sp	ominant secies?		Sampling Point: an18a wetland
Tree Stratum (Plot size:	Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:
			0.0%	Status	Number of Dominant Species
~	1780		0.0%		That are OBL, FACW, or FAC: 4 (A)
		П	0,0%		Total Number of Dominant
3. 4.			0.0%		Species Across All Strata: 4 (B)
		Н	0.0%		Percent of dominant Species
5.	0	П	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7	0	П	0.0%		Prevalence Index worksheet:
		- T	otal Cove		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')			Mai Cove	•	OBL species 20 x 1 = 20
1. Salix nigra	10	~	76.9%	FACW+	FACW species 79 x 2 = 158
2. Fraxinus pennsylvanica	0		0.0%	FACW	FAC species $0 \times 3 = 0$
3. Cornus stolonifera	3	V	23.1%	FACW+	The species
4.	0		0.0%		A 4 -
5	0		0.0%		UPL Species X 3 =
5	0	Ш	0.0%		Column Totals: 99 (A) 178 (B)
7	0		0.0%		Prevalence Index = B/A = 1.798
Herb Stratum (Plot size: 5'	13	= To	tal Cove	r	Hydrophytic Vegetation Indicators:
1 . Eupatoriadelphus dubius	0		0.0%	FACW	Rapid Test for Hydrophytic Vegetation
2.Onoclea sensibilis	2.7	V	38.4%	FACW	✓ Dominance Test is > 50%
3. Scirpus cyperinus	Q		9.3%	FACW+	Prevalence Index is ≤3.0 ¹
4. Carex crinita	10		11.6%	OBL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.0smunda cinnamomea	25	V	29.1%	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
6.Carex lurida	10		11.6%	OBL	
7,	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
8.	0		0.0%		be present, unless disturbed or problematic.
9.	0		0.0%		Definitions of Vegetation Strata:
0.	_ 0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
12	0		0.0%		at breast height (DBH), regardless of height.
2.	0		0.0%		Carlia-Jahanh Mandundari Inna Man 2 in DDH and
Woody Vine Stratum (Plot size:)	86	= To	tal Cove	r	Sapling/shrub - Woody plants less than 3 in, DBH and greater than 3,28 ft (1m) tall
1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4.	0		0.0%		height.
· · · · · · · · · · · · · · · · · · ·	0	= To	tal Cove	r	
					Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an18a wetland

Depth	N	1atrix		needed to document the indicator or confirm the Redox Features		
(inches)	Color (m	oist)	%	Color (moist) % Type 1 Loc ²	Texture	Remarks
0-10	10YR	3/2	100%		Sandy Loam	
10-20	2.5Y	4/1	100%		gravelly sand	alluvial soils
-						
	-					
		Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains ² Loc		NAC 400, 1077970 100
Hydric Soil				Debarto Below Cod = (CC) (ISS S	Indicators for P	roblematic Hydric Soils: 3
Histosol ((A1) pedon (A2)			Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A	A10) (LRR K, L, MLRA 149B)
Black His				Thin Dark Surface (S9) (LRR R, MLRA 149B)	COLUMN TO THE PARTY OF THE PART	Redox (A16) (LRR K, L, R)
-	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	- Colored to State of	Peat or Peat (S3) (LRR K, L, R)
	Layers (A5)			Loamy Gleyed Matrix (F2)		(S7) (LRR K, L)
	Below Dark Su	fare (A	11)	Depleted Matrix (F3)		ow Surface (S8) (LRR K, L)
	rk Surface (A12		11)	Redox Dark Surface (F6)		rface (S9) (LRR K, L)
The second second	uck Mineral (S1)			Depleted Dark Surface (F7)		ese Masses (F12) (LRR K, L, R)
	eyed Matrix (S4			Redox Depressions (F8)	The second of the second of the second	odplain Soils (F19) (MLRA 149B)
Sandy Re		,				(TA6) (MLRA 144A, 145, 149B)
	Matrix (S6)				Red Parent M	
	face (S7) (LRR	R, MLRA	149B)			Dark Surface (TF12) n in Remarks)
			n and wetla	nd hydrology must be present, unless disturbed or prob	lematic.	
	ayer (if obser	ved):				
Type: Depth (inc	thes):				Hydric Soil Preser	nt? Yes No
Remarks:						

Applicant/Owner: Eolian Renewable Investigator(s): AF JG		City/Ci	ounty: Antrim		Sampling Date: 16-Aug-11
Investigator(s): AF 1G	Energy, LLC		Sta	ite: NH	Sampling Point: an18a upland
investigator(s). AFJO		Sec	tion, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.):	Hillside		elief (concave, convex, ı		Slope: 20.0 % / 11.3°
Subregion (LRR or MLRA):		Lat.:	Long	g.:	Datum:
Soil Map Unit Name:				NWI classif	ication:
Are climatic/hydrologic conditions	on the site tyr	pical for this time of year?	Yes No	(If no, explain in	Remarks.)
Are Vegetation, Soil	, or Hydrolo		rbed? Are "Norma	l Circumstances" p	V
Are Vegetation, Soil	, or Hydrolo			explain any answ	
					, important features, etc.
Hydrophytic Vegetation Present?	Yes O	No 💿			
Hydric Soil Present?	Yes 🔾	No 💿	Is the Sampled Area within a Wetland?	Yes O No 🖲)
Wetland Hydrology Present?	Yes 🔾	No 💿	within a wettanti		
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of o	ne required; c	check all that apply)		Surface Soil C	
Surface Water (A1)		Water-Stained Leaves (B9)		Drainage Patte	
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lin	
Saturation (A3)		Marl Deposits (B15)	.		ater Table (C2)
		Hydrogen Sulfide Odor (C1	5	Crayfish Burro	ows (C8)
Water Marks (B1)				Saturation Vic	ible on Agrial Imagen, (CO)
		Oxidized Rhizospheres alor			ible on Aerial Imagery (C9) ressed Plants (D1)
Water Marks (B1) Sediment Deposits (B2)		Presence of Reduced Iron Recent Iron Reduction in T	(C4)		ressed Plants (D1)
Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Presence of Reduced Iron	(C4)	Stunted or Str	ressed Plants (D1) Position (D2)
Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image		Presence of Reduced Iron Recent Iron Reduction in T	(C4) illed Soils (C6)	Stunted or Str Geomorphic P Shallow Aquita Microtopograp	ressed Plants (D1) rosition (D2) ard (D3) ohic Relief (D4)
Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Presence of Reduced Iron (Recent Iron Reduction in T Thin Muck Surface (C7)	(C4) illed Soils (C6)	Stunted or Str Geomorphic P Shallow Aquita	ressed Plants (D1) rosition (D2) ard (D3) ohic Relief (D4)
Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfa	ice (B8)	Presence of Reduced Iron (Recent Iron Reduction in T Thin Muck Surface (C7)	(C4) illed Soils (C6)	Stunted or Str Geomorphic P Shallow Aquita Microtopograp	ressed Plants (D1) rosition (D2) ard (D3) ohic Relief (D4)
Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfa Field Observations: Surface Water Present? Yes	nce (B8) ○ No ●	Presence of Reduced Iron (Recent Iron Reduction in T Thin Muck Surface (C7)	(C4) illed Soils (C6)	Stunted or Str Geomorphic P Shallow Aquita Microtopograp	ressed Plants (D1) rosition (D2) ard (D3) ohic Relief (D4)
Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfa Field Observations: Surface Water Present? Yes Water Table Present?	nce (B8) ○ No ●	Presence of Reduced Iron (Recent Iron Reduction in T Thin Muck Surface (C7) Other (Explain in Remarks)	(C4) illed Soils (C6)	Stunted or Str Geomorphic P Shallow Aquita Microtopograp FAC-neutral To	ressed Plants (D1) ressition (D2) ard (D3) obic Relief (D4) est (D5)
Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfa Field Observations: Surface Water Present? Yes	No O No O	Presence of Reduced Iron (Recent Iron Reduction in T Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	(C4) illed Soils (C6)	Stunted or Str Geomorphic P Shallow Aquita Microtopograp	ressed Plants (D1) rosition (D2) ard (D3) ohic Relief (D4)

			pecies?		Sampling Point: an18a upland
Tree Stratum (Plot size:	Absolute % Cover			Indicator Status	Dominance Test worksheet:
Do 20031 20040400			0.0%	o tu tu b	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2		H	0.0%		That are OBL, FACW, or FAC: 1 (A)
3.	0	H	0.0%		Total Number of Dominant
					Species Across All Strata: 2 (B)
			0.0%		Percent of dominant Species
j	221		0.0%		That Are OBL, FACW, or FAC: 50.0% (A/B)
		Н	0.0%		
			0.0%		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0	= To	otal Cove	Г	Total % Cover of: Multiply by:
	0		0.0%		OBL species 0 x 1 = 0
2.		П	0.0%		FACW species $50 \times 2 = 100$
	0		0.0%		FAC species $0 \times 3 = 0$
No.	0	$\overline{\Box}$	0.0%		FACU species $8 \times 4 = 32$
	0		0.0%		UPL species $50 \times 5 = 250$
			0.0%		Column Totals: 108 (A) 382 (B)
	0		ST. 27/02/2017		
•	_		0.0%		Prevalence Index = B/A = 3.537
Herb Stratum (Plot size: 5'	0	= 10	otal Cove	r	Hydrophytic Vegetation Indicators:
1. Phalaris arundinacea	50	V	46.3%	FACW+	Rapid Test for Hydrophytic Vegetation
2. Dennstaedtla punctilobula	50	V	46.3%	UPL	Dominance Test is > 50%
3 Colidana canadancis	0		7.4%	FACU	Prevalence Index is ≤3.0 1
Λ		H	0.0%	PACO	☐ Morphological Adaptations ¹ (Provide supporting
5.	0		0.0%		data in Remarks or on a separate sheet)
6					Problematic Hydrophytic Vegetation ¹ (Explain)
7.			0.0%		¹ Indicators of hydric soil and wetland hydrology must
8.	0		0.0%	-	be present, unless disturbed or problematic.
9.	. 0	Н	0.0%		Definitions of Vegetation Strata:
*** ***		H	0.0%		Definitions of Vegetation Strata.
0.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
1.		Ц	0.0%	-	at breast height (DBH), regardless of height.
2.	0		0.0%	-	Sapling/shrub - Woody plants less than 3 in. DBH and
Noody Vine Stratum (Plot size:)	108	= To	otal Cove	r	greater than 3.28 ft (1m) tall
<u></u>	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless o
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.
3	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4	0		0.0%		height.
	0	= To	otal Cove	г	
	0	= To	otal Cove	г	
					Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an18a upland

			the depth	needed to document the indicator or confirm the	e absence of indicators.)	
Depth (inches)	Color (m	Aatrix	- %	Redox Features Color (moist) % Type 1 Loc²	Texture Remarks	
0-10	10YR	3/2	100%	Color (moist) 70 Type 1 Loc-	Sandy Loam	
10-20	10YR	4/4	100%		Sandy Loam	-
10 20	10114	1/ 1	10070		Sandy Edain	-
	-		_			-
						-
						-
						_
¹ Type: C=Con	centration, D=I	Depletio	n. RM=Rec	uced Matrix, CS=Covered or Coated Sand Grains ² Lo	ocation: PL=Pore Lining, M=Matrix	=
Hydric Soil I					Indicators for Problematic Hydric Soils: 3	
Histosol (A1)			Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Histic Epip	pedon (A2)			MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)	
Black Hist	ic (A3)			Thin Dark Surface (S9) (LRR R, MLRA 149B)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	Dark Surface (S7) (LRR K, L)	
The state of the s	Layers (A5)			Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)	
1	Below Dark Su	Personal S	11)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L)	
-	k Surface (A12	7		Depleted Dark Surface (F7)	Iron-Manganese Masses (F12) (LRR K, L, R)	
	ick Mineral (S1)			Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLRA 149B)	
Sandy Re	eyed Matrix (S4)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
	uox (55) Matrix (S6)				Red Parent Material (TF2)	
	ace (S7) (LRR I	R, MLRA	149B)		☐ Very Shallow Dark Surface (TF12) ☐ Other (Spatial in Remarks)	
				and hydrology must be present, unless disturbed or prol	Uther (Explain in Remarks)	
A			n and welk	ind hydrology must be present, unless disturbed or prof	Diemauc.	-
Restrictive Li	ayer (if obser	ved}:				
Type: Depth (incl	hac):				Hydric Soil Present? Yes O No •	
	nes).					
Remarks:						



AN18a Wetland



AN18a Upland

Project/Site: Antrim Wind Project	City/County: Antrim	Sampling Date: 17-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC		State: NH Sampling Point: an18b wetland
Investigator(s): AF JG	Section, Township, Rang	je: S. T. R.
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, conve	
Subregion (LRR or MLRA):	Lat.: L	ong.: Datum:
Soil Map Unit Name:	Lucii.	NWI classification: PSS
	ical for this time of year? Yes No	
Are climatic/hydrologic conditions on the site typ		(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrolog	gy significantly disturbed? Are "Norr	mal Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrolo	gy naturally problematic? (If neede	d, explain any answers in Remarks.)
Summary of Findings - Attach site	map showing sampling point locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No O	
Hydric Soil Present? Yes Yes	No Street Sampled Area within a Wetland?	a Yes ● No ○
Wetland Hydrology Present? Yes	No O	
Hydrology		
Wetland Hydrology Indicators:	Level - B.O. a see 3.5	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; c Surface Water (A1)		Surface Soil Cracks (B6)
High Water Table (A2)	✓ Water-Stained Leaves (B9)☐ Aquatic Fauna (B13)	✓ Drainage Patterns (B10) Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	✓ Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	Shallow Aquitard (D3) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes No No	Depth (inches):	
Water Table Present? Yes O No 💿	Depth (inches):	
Saturation Present?	Depth (inches): 0	ydrology Present? Yes No
(includes capillary fringe) Yes No	p ()-	vailable:
(includes capillary fringe) Yes No	ring well, aerial photos, previous inspections), if a	vailable:
(includes capillary fringe) Yes NO	p ()-	vailable:

US Army Corps of Engineers

Northcentral and Northeast Region - Interim Version

VEGETATION - Use scientific names of p		ominant ecies?		Sampling Point: an18b wetland			
Tree Stratum (Plot size:)	Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:		
1.	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)		
2.	0		0.0%		That are obe, FACIV, of FACI.		
3.	0		0.0%		Total Number of Dominant Species Across All Strata: 4 (B)		
1	_	П	0.0%		Species Across All Strata: 4 (B)		
_	0		0.0%		Percent of dominant Species		
^		П	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
7.	0	П	0.0%		Prevalence Index worksheet:		
	_	_ T	otal Cove		Total % Cover of: Multiply by:		
Sapling/Shrub Stratum (Plot size: 15')	0	= 10	otal Cove	er .	OBL species 35 x 1 = 35		
Spiraea tomentosa	33	~	68,8%	FACW			
2. Fraxinus pennsylvanica	15	V	31.3%	FACW	FACW species 148 x 2 = 296		
3.	0		0.0%		FAC species 0 x 3 = 0		
4.	0		0.0%		FACU species $0 \times 4 = 0$		
5.	0		0.0%		UPL species $0 \times 5 = 0$		
6.			0.0%		Column Totals: 183 (A) 331 (B)		
7.	0	П	0.0%		Prevalence Index = B/A = 1.809		
**	-	- To	otal Cove		Prevalence index = B/A = 1.005		
Herb Stratum (Plot size: 5'	48	- 10	MAI COVE	:I	Hydrophytic Vegetation Indicators:		
1. Onoclea sensibilis	20		14.8%	FACW	Rapid Test for Hydrophytic Vegetation		
2. Osmunda cinnamomea	5		3.7%	FACW	✓ Dominance Test is > 50%		
3 Carrow belongerens	15	П	11.1%	OBL	Prevalence Index is ≤3.0 ¹		
A Casesy hydda	20	$\overline{\Box}$	14.8%	OBL	Morphological Adaptations 1 (Provide supporting		
5 Bulbus blooddus	FO	V	37.0%	FACW	data in Remarks or on a separate sheet)		
6. Aster umbellatus	25	V	18.5%	FACW	Problematic Hydrophytic Vegetation 1 (Explain)		
7.	0	13.4	0.0%	TACW	1 Indicators of hydric soil and wetland hydrology must		
8.	0		0.0%		be present, unless disturbed or problematic.		
9.					Definitions of Vegetation Strata:		
10.		H	0.0%				
11.			0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter		
12.	0	H	0.0%	-	at breast height (DBH), regardless of height.		
12.	0	Ц	0.0%	-	Sapling/shrub - Woody plants less than 3 in, DBH and		
Woody Vine Stratum (Plot size:	135	= To	otal Cove	er	greater than 3.28 ft (1m) tall		
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of		
2.	0	П	0.0%		size, and woody plants less than 3.28 ft tall.		
3.	0		0.0%				
	0	H	0.0%		Woody vine - All woody vines greater than 3.28 ft in		
4					height.		
	0	= To	otal Cove	er			
					Hydrophytic Vegetation		
					Present? Yes No		

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

l	ption: (Des		the depth	needed to d	ocument	the indica	ator or c	onfirm the a	absence of indicators.)		
Depth (inches)	Color (r	Matrix	- %	Color (dox Featu %		Log	Taurium	Remarks	
0-9	10YR		70	Color (a	iloistj	70	Туре	Loc ²	Texture	Remarks	
		3/2					-		Fine Sandy Loam		
9-13	2.5Y	4/2	85%	10YR	5/8	15%	С	М	Fine Sandy Loam		
				-							
		_									
-											
						-					
¹ Type: C=Conc	entration. D	=Depletio	n. RM=Red	uced Matrix, (S=Covere	ed or Coate	d Sand G	rains ² Loca	tion: PL=Pore Lining. M=Mat	rix	
Hydric Soil Ir				95					Indicators for Problem		
Histosol (A	1)					w Surface (S8) (LRR	R,		RR K, L, MLRA 149B)	
Histic Epipe	edon (A2)			Parents.	(149B)	Page 1	BB 5 11	D 4 4 100°	Coast Prairie Redox		
Black Histin	c (A3)			g		ace (S9) (L				Peat (S3) (LRR K, L, R)	
The state of the s	Sulfide (A4)			F		Mineral (F1)		.)	Dark Surface (S7) (I		
	ayers (A5)			2000		Matrix (F2)				face (S8) (LRR K, L)	
**************************************	Below Dark S		11)	FTTT3	ted Matri	rface (F6)			Thin Dark Surface (5	59) (LRR K, L)	
	Surface (A1	100		Parties and Partie		Surface (F7	n		Iron-Manganese Ma	sses (F12) (LRR K, L, R)	
100000000000000000000000000000000000000	k Mineral (S	25		gaining !	x Depress)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
Section Control of the Control of th	ed Matrix (9	54)		nead	A Depiess	nons (10)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Red									Red Parent Material (TF2)		
Stripped M		D MIDA	1400)						Very Shallow Dark Surface (TF12)		
	ce (57) (LRR								Other (Explain in Re	marks)	
³ Indicators of	hydrophytic	vegetatio	n and wetla	nd hydrology	must be p	resent, unl	ess distur	bed or proble	ematic.		
Restrictive La	yer (if obse	erved):									
Type: sto	ny refuse								900 ACT AND SECRET STRONG IN SEC. SEC. SEC. SEC. SEC. SEC. SEC. SEC.	0 0	
Depth (inch	es): 13								Hydric Soil Present?	Yes No	
Remarks:								72			

Project/Site: Antrim Wind Project	City/C	County: Antrim		Sampling Date: 17-Aug-11
Applicant/Owner: Eolian Renewable Energy,	LLC	Sta	ate: NH	Sampling Point: an18b upland
Investigator(s): AF JG	Se	ction, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Hillsid	le Local :	relief (concave, convex,	none): undulatir	ng Slope : 3.0 % / 1.7
Subregion (LRR or MLRA):	Lat.:	Lon	g.:	Datum:
Soil Map Unit Name:			NWI classi	fication:
Are climatic/hydrologic conditions on the	cito tunical for this time of year?	Yes No	(If no, explain in	a Romanko)
	lydrology significantly distu		Circumstances"	
	lydrology naturally problem		,	presents
Summary of Findings - Attach			explain any answ ns. transects	
Hydrophytic Vegetation Present? Yes		The second secon	,	,portante raziar co, erc.
Hydric Soil Present? Yes		Is the Sampled Area	Yes O No G	
Wetland Hydrology Present? Yes	0 0	within a Wetland?	163 0 110 0	
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicat	ors (minimum of 2 required)
Primary Indicators (minimum of one requ			Surface Soil C	
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13))	☐ Drainage Patt ☐ Moss Trim Lir	
Saturation (A3)	Marl Deposits (B15)			Vater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1	1)	Crayfish Burro	
Sediment Deposits (B2)	Oxidized Rhizospheres alor			sible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron	(C4)	Stunted or St	ressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in T	Tilled Soils (C6)	Geomorphic I	Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquit	
☐ Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		phic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral 7	Fest (D5)
Field Observations:	0			
	Depth (inches):			
Water Table Present? Yes O No	Depth (inches):			Yes O No •
Saturation Present? (includes capillary fringe) Yes O No	Depth (inches):	Wetland Hyd	rology Present?	Yes ○ No •
Describe Recorded Data (stream gauge, r	nonitoring well, aerial photos, prev	vious inspections), if ava	ilable:	
Remarks:				

Free Stratum (Plot size: 30'	Absolute % Cover	R	pecies? el.Strat. over	Indicator Status	Dominance Test worksheet:				
		V			Number of Dominant Species That are OBL, FACW, or FAC: 2 (A				
Fagus grandifolia Tsuga canadensis	25	V			That are OBL, FACW, or FAC: 2 (A				
Ables balsamea	10		16.7%		Total Number of Dominant				
			0.0%	FACU-	Species Across All Strata: 6 (B)				
•			0.0%	TACO-	Percent of dominant Species				
5.	0		0.0%		That Are OBL, FACW, or FAC: 33.3% (A				
	0		0.0%		Prevalence Index worksheet:				
		_ T	otal Cov		Total % Cover of: Multiply by:				
Sapling/Shrub Stratum (Plot size: 15'	60	- 11	DIAI COVI	er .	OBL species 0 x 1 = 0				
. Betula alleghaniensis	25	V	45.5%	FAC	FACW species $0 \times 2 = 0$				
Acer saccharum	25	~	45.5%	FACU-	205				
. Pinus strobus	5		9.1%	FACU	113 453				
*	0		0.0%		FACU SPECIES 25				
w	0		0.0%		UPL Species x 5 =				
	0		0.0%		Column Totals: 213 (A) 762 (
	0		0.0%		Prevalence Index = B/A = 3.577				
Herb Stratum (Plot size: 5')	55 = Total Cover Hydrophytic Vegetation Indicators:								
1.Aralia nudicaulis	33	~	33.7%	FACU	Rapid Test for Hydrophytic Vegetation				
2. Thelypteris noveboracensis	60	~	61.2%		Dominance Test is > 50%				
3.Polygonatum pubescens	Prevalence Index is ≤3.0 1								
4.	Morphological Adaptations 1 (Provide support								
5,			0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)				
6.	0		0.0%		Problematic Tryurophtytic Vegetation (Explain)				
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology m				
8.	0		0.0%		be present, unless disturbed or problematic.				
9.	0		0.0%		Definitions of Vegetation Strata:				
0.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diame				
1.	0		0.0%		at breast height (DBH), regardless of height.				
2.	0		0.0%						
Voody Vine Stratum (Plot size:)	98	= To	otal Cove	er	Sapling/shrub - Woody plants less than 3 in. DBH at greater than 3.28 ft (1m) tall				
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardles				
)	0		0.0%		size, and woody plants less than 3,28 ft tall.				
3.	0		0.0%		N/				
1	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in height.				
<u></u>	0	= T	otal Cov	er					
					Hydrophytic Vegetation Present? Yes No •				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Profile Desci	ription: (Describe	to the depth n	eeded to document the indicator or confirm the	absence of indicators.)	
Depth	Matr		Redox Features		
(inches)	Color (moist		Color (moist) % Type 1 Loc2	Texture Remarks	
0-7	10YR 3/			Loam	
7-14	10YR 4/	3 100%		Fine Sandy Loam	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
1 Type: C=Con	centration. D=Depl	etion. RM≈Reduc	ed Matrix, CS=Covered or Coated Sand Grains 2Loc	ration: PI =Pore Lining, M=Matrix	
Hydric Soil 1			,		
Histosol (Polyvalue Below Surface (S8) (LRR R,	Indicators for Problematic Hydric Soils: 3	
	pedon (A2)		MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Black Hist	A CONTRACTOR OF THE PARTY OF TH		☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)	
	Sulfide (A4)		Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
The state of the s	Layers (A5)		Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)	
Depleted	Below Dark Surface	(A11)	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)	
Thick Dar	k Surface (A12)		Redox Dark Surface (F6)	☐ Thin Dark Surface (S9) (LRR K, L) ☐ Iron-Manganese Masses (F12) (LRR K, L, R)	
Sandy Mu	ick Mineral (S1)		Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MRRA 1498	
Sandy Gle	eyed Matrix (S4)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
Sandy Re	dox (S5)			Red Parent Material (TF2)	,
Stripped I	Matrix (S6)			Very Shallow Dark Surface (TF12)	
Dark Surf	ace (S7) (LRR R, M	LRA 149B)		Other (Explain in Remarks)	
³ Indicators of	f hydrophytic veaet	ation and wetlan	hydrology must be present, unless disturbed or prob	STATE AND STORESTORY ARE STATE CONTROL AND ACCOUNTS AND A	
			- · · · · · · · · · · · · · · · · · · ·		
Type: Bo	ayer (if observed):			
				Hydric Soil Present? Yes O No •	
Depth (inc	nes): 14				
Remarks:					



AN18b Upland



AN18b Wetland



AN18 Wetland

Project/Site: Antrim Wind Project		City/County: Antrim	Sampling Date: 17-Aug-11
Applicant/Owner: Eolian Renewable Energy	y, LLC	Sta	te: NH Sampling Point: AN18c wetland
Investigator(s): AF JG		Section, Township, Range:	S. T. R.
Landform (hillslope, terrace, etc.): Hills	side	Local relief (concave, convex, r	
Subregion (LRR or MLRA):	Lat.:	Long	g.: Datum:
Soil Map Unit Name:			NWI classification: PSS/PEM
Are climatic/hydrologic conditions on the	e site typical for this time of v	ear? Yes No	(If no, explain in Remarks.)
			Circumstances" present? Yes No
		200	explain any answers in Remarks.)
		,	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Ye	es No		
Hydric Soil Present? Ye	es No	Is the Sampled Area within a Wetland?	Yes No
	es No	within a wetlands	
Remarks: (Explain alternative procedu	res here or in a separate repo	rt.)	
Hydrology Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one re-	quired; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Lea	ves (B9)	✓ Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B1		Moss Trim Lines (B16)
✓ Saturation (A3)	Marl Deposits (B15	5)	Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide (Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizosph	eres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduc	red Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduc	tion in Tilled Soils (C6)	✓ Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B8	Other (Explain in F	Remarks)	Microtopographic Relief (D4) ✓ FAC-neutral Test (D5)
Sparsely vegetated concave surface (bo	o)		FAC-Heutral Test (D3)
Field Observations:	. 0		
Daniele Water Probance	No Depth (inches):	-	
THE TOTAL OF THE SECRETARY STATES OF THE SECRETARY SECRE	No Depth (inches):	Watland Hyd	rology Present? Yes No
Saturation Present? (includes capillary fringe) Yes	No O Depth (inches):	0	lology Present: 165 O NO O
Describe Recorded Data (stream gauge, Remarks:	, monitoring well, aerial photo	os, previous inspections), if avai	lable:

	lants	_Spe	ninant cies?		Sampling Point: AN18c wetland
Tree Stratum (Plot size:	Absolute % Cover			Indicator Status	Dominance Test worksheet:
		\Box	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)
`		П	0.0%		That are OBL, FACW, or FAC:
		П	0.0%		Total Number of Dominant
}. -	0		0.0%		Species Across All Strata: 4 (B)
		H	0.0%		Percent of dominant Species
	0	1	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
5.	0		0.0%		D
7.				-	Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15'	0	= Tota	al Cove	r	Total % Cover of: Multiply by: OBL species 36 x 1 = 36
. Acer rubrum	5	V	50.0%	FAC	
Praxinus pennsylvanica	5	V	50.0%	FACW	
	0		0.0%		The species
,	•		0.0%		FACU species $0 \times 4 = 0$
	0		0.0%		UPL species $0 \times 5 = 0$
	0		0.0%		Column Totals: 99 (A) 167 (B)
7.	0		0.0%		Prevalence Index = B/A = 1.687
	10	= Tota	al Cove	r	113,413,63
Herb Stratum (Plot size: 5'	- Ret				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1.Carex crinita	25	V	28.1%	OBL	✓ Domínance Test is > 50%
2. Phalaris arundinacea	33	V	37.1%	FACW+	✓ Prevalence Index is ≤3.0 ¹
3. Onoclea sensibilis	15		16.9%	FACW	
4. Carex lurida	8		9.0%	OBL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Scirpus cyperinus	5		5.6%	FACW+	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Carex trisperma	3		3.4%	OBL	(
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
8.	0		0.0%		be present, unless disturbed or problematic.
9.	0		0.0%		Definitions of Vegetation Strata:
0.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
1.	0		0.0%		at breast height (DBH), regardless of height.
2.	0		0.0%		
	89	= Tota	al Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:					grouter than 5.25 it (iii) tail.
1	0	Ш_	0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0	Ш	0.0%		size, and woody plants less than 3.28 ft tall.
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4.	0		0.0%		height
	0	= Tota	al Cove	r	
					Hydrophytic Vegetation
					Present? Yes No
temarks: (Include photo numbers here or on a separate s	sneet.)				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN18c wetland

	tion: (Desc	cribe to t	he depth	needed to	locument	the indica	tor or co	nfirm the	absence of indicators.)	
Depth (inches)	Color (m	Matrix	- %	Color (dox Featur %	es Type 1	Loc2	Texture	Remarks
0-6	10YR	3/2	100%	COIOI	illuist)	70	Type x	LUC-	Fine Sandy Loam	Remarks
6-14			90%	10/0	4/4	100/				
b-14	2.5Y	4/1	90%	10YR	4/4	10%	С	М	Fine Sandy Loam	
					_					
					_					
					_					
			-		-					
-							-	-		
	-	_		-						
									_	
¹ Type: C=Concer	ntration. D=	Depletion	. RM=Rec	luced Matrix,	CS=Covere	ed or Coated	Sand Gr	ains ² Loca	ation: PL=Pore Lining, M=Matrix	
Hydric Soil Ind									Indicators for Problemat	ic Hydric Soils: 3
Histosol (A1)					value Belov A 149B)	v Surface (S	8) (LRR R	ι,	2 cm Muck (A10) (LRR I	K, L, MLRA 149B)
Histic Epiped	The second second			-		ice (S9) (LI	RR R. MLR	(A 149B)	Coast Prairie Redox (A1	6) (LRR K, L, R)
Black Histic (Hydrogen St	2 4 4					4ineral (F1)			5 cm Mucky Peat or Pea	it (S3) (LRR K, L, R)
Stratified Lay				-		Matrix (F2)			Dark Surface (S7) (LRR	III SELECTION IN CONTRACT OF THE CONTRACT OF T
✓ Depleted Be	- 78	rface (A1	1)	Depl	eted Matrix	(F3)			Polyvalue Below Surface	EVENTRE SECTION OF IT
☐ Thick Dark S				Rede	x Dark Sur	rface (F6)			Thin Dark Surface (S9) Iron-Manganese Masses	Call to No. of Control
Sandy Muck	Mineral (S1)		Limb.		Surface (F7))		Piedmont Floodplain Sol	
Sandy Gleye	d Matrix (Se	4)		Red	x Depressi	ions (F8)			Mesic Spodic (TA6) (ML	
Sandy Redox	x (S5)								Red Parent Material (TF	
Stripped Mat									Very Shallow Dark Surfa	ice (TF12)
Dark Surface	e (S7) (LRR	R, MLRA	149B)						Other (Explain in Remar	rks)
³ Indicators of hy	ydrophytic v	regetation	and wetle	and hydrology	must be p	resent, unle	ess disturt	ed or probl	lematic.	
Restrictive Laye	er (if obse	rved):								
Type: Boul	ders									
Depth (inches	s): 14								Hydric Soil Present? Ye	es No
Remarks:										
										(

Project/Site: Antrim Wind Project	City/County:	Antrim		Sampling Date: 17-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC		State:	NH	Sampling Point: AN18c upland
Investigator(s): AF JG	Section T	ownship, Range: S.	T.	R.
Landform (hillslope, terrace, etc.): Hillside		concave, convex, none		Slope: 5.0 % / 2.9 °
Subregion (LRR or MLRA):	Lat.:	Long.:	r. convex	Datum:
Soil Map Unit Name:	NAC.	Long	NWI classifi	
	Ve	es No O		
Are climatic/hydrologic conditions on the site typic	The same of year.	(2)	no, explain in	w @ w O
Are Vegetation , Soil , or Hydrology	y significantly disturbed?	Are "Normal Circ	cumstances" p	resent? Tes No
Are Vegetation , Soil , or Hydrolog	y naturally problematic?	(If needed, expl	ain any answe	rs in Remarks.)
Summary of Findings - Attach site n		point locations,	transects,	important features, etc.
	0 •	- 6		
	withi	e Sampled Area in a Wetland? Y	'es 🔾 No 🖲	
Wetland Hydrology Present? Yes N	0 •			
Hydrology				
Wetland Hydrology Indicators:		Sec	ondary Indicato	rs (minimum of 2 required)
Primary Indicators (minimum of one required; ch	eck all that apply)		Surface Soil Cr	acks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		Drainage Patte	
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Line	
Saturation (A3) Water Marks (B1)	Marl Deposits (B15)		Dry Season Wa	
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	a Deets (C2)	Crayfish Burro	ble on Aerial Imagery (C9)
Drift deposits (B3)	Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)	g ROOLS (CG)	1	essed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soi	ils (C6)	Geomorphic Po	, ,
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquita	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		Microtopograp	
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Te	est (D5)
Field Observations:	_			
Surface Water Present? Yes No •	Depth (inches):			
Water Table Present? Yes No •	Depth (inches):			
Saturation Present? (Includes expillent frings) Yes No No	Depth (inches):	Wetland Hydrolog	gy Present?	Yes O No 💿
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring)		enoctions) if available		
Describe Recorded Data (stream gauge, monitorii	ig well, aeliai photos, previous ilis	spections), ii available	Ξ,	
4				
Remarks:				

			ominant pecies?		Sampling Point: AN18c upland
Tree Stratum (Plot size: 30'	Absolute % Cover		el.Strat. over	Indicator Status	
1. Acer rubrum	15	V	33.3%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2. Betula alleghaniensis		V	22.2%	FAC	That are obe, there, of the
3. Picea rubens	1.0	V	22.2%	FACU	Total Number of Dominant Species Across All Strata: 8 (B)
4. Tsuga canadensis		V	22.2%	FACU	Species Across Ali Strata: 8 (B)
			0.0%		Percent of dominant Species
	-	\Box	0.0%		That Are OBL, FACW, or FAC: 25.0% (A/B)
6	0	П	0.0%		Prevalence Index worksheet:
7		= To	otal Cove	r	Total % Cover of: Multiply by:
	20	V	44 407	FACIL	OBL species 0 x 1 = 0
1. Acer pensylvanicum	20	~	44.4%	FACU	FACW species 0 x 2 = 0
2. Quercus rubra			22.2%	FACU-	FAC species 25 x 3 = 75
3. Fagus grandifolia			11.1%	FACU	FACU species 78 x 4 = 312
1. Betula papyrifera		V	22.2%	FACU	UPL species 50 x 5 = 250
5			0.0%		
3,		Ц	0.0%		Column Totals: 153 (A) 637 (B)
7	0		0.0%		Prevalence Index = B/A = 4.163
Herb Stratum (Plot size: 5')	45	= To	otal Cove	r	Hydrophytic Vegetation Indicators:
1. Dennstaedtia punctilobula	50	V	79.4%	UPL	Rapid Test for Hydrophytic Vegetation
2. Solidago canadensis	8		12.7%	FACU	Dominance Test is > 50%
3. Rubus alumnus	5		7.9%	FACU-	Prevalence Index is ≤3.0 ¹
4.	0		0.0%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
6.	0		0.0%		Problematic nyurophytic vegetation (Explain)
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
8.	0	\Box	0.0%		be present, unless disturbed or problematic.
9.	0		0.0%	-	Definitions of Vegetation Strata:
10.	0		0.0%		
11.	0	\Box	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12.	0	H	0.0%		at bleast fleight (DDI1), regardless of fleight.
12.	-				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	63	= 10	otal Cove	r	greater than 3.28 ft (1m) tall
1,	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2	0		0.0%		size, and woody plants less than 3.28 ft tall.
3.	0	Ц	0.0%		Woody vine - All woody vines greater than 3.28 ft in
4.	0	Ш	0.0%		height.
	0	= T	otal Cove	r	
	0	= T	otal Cove	r	Hydrophytic
					Vegetation Present? Yes No No

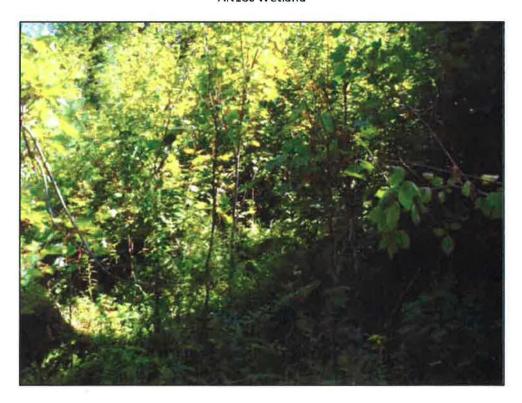
^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN18c upland

Profile Descripe	ription: (Des	scribe to Matrix	the depth	needed to document the indicator or confirm the a	absence of indicators.)	
(inches)	Color (r		%	Color (moist) % Type 1 Loc2	Texture	Remarks
0-6	10YR	3/2	100%		Fine Sandy Loam	
6-10	2.5Y	5/1	100%		Fine Sandy Loam	
10-14	10YR	4/3	100%		Fine Sandy Loam	
10-14	TOTA	7/3	10076		Fille Salidy Loain	
	-					
	4-		-			
			-			
1- 00						
Type: C=Con Hydric Soil 1		=Depletio	n. KM=Red	uced Matrix, CS=Covered or Coated Sand Grains ² Loca		3
Hydric Soil 1				Polyvalue Below Surface (S8) (LRR R,	Indicators for Problemati	
	pedon (A2)			MLRA 1498)	2 cm Muck (A10) (LRR k	
Black Hist				☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16	A Company of the Comp
	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Pea	With Contract to the Contract of
_	Layers (A5)			Loamy Gleyed Matrix (F2)	 □ Dark Surface (S7) (LRR □ Polyvalue Below Surface 	CONTRACTOR
Depleted	Below Dark S	iurface (A	11)	Depleted Matrix (F3)	Thin Dark Surface (S9)	
Thick Dar	k Surface (A1	.2)		Redox Dark Surface (F6)	☐ Iron-Manganese Masses	
Sandy Mu	ick Mineral (S	1)		Depleted Dark Surface (F7)	Piedmont Floodplain Soil	
Sandy Gle	eyed Matrix (S	54)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLI	
Sandy Re					Red Parent Material (TF2	
	Matrix (S6)		0.000		Very Shallow Dark Surfa	ce (TF12)
Dark Surf	ace (S7) (LRF	R R, MLRA	(149B)		Other (Explain in Remark	ks)
³ Indicators of	f hydrophytic	vegetatio	n and wetla	and hydrology must be present, unless disturbed or proble	ematic.	
Restrictive L	ayer (if obs	erved):				
Type: Bo	oulders					0 0
Depth (inc	hes): 14				Hydric Soil Present? Ye	s O No ®
41						



AN18c Wetland



AN18c Upland

Project/Site: Antrim Wind Project	City/Co	ounty: Antrim		Sampling Date: 17-Aug-11
Applicant/Owner: Eolian Renewable Energy, L	rc	Sta	ite: NH	Sampling Point: AN18d wetland
Investigator(s): AF JG	Ser	ction, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Hillside	e Local r	elief (concave, convex, ı	none): concave	Slope: 5.0 % / 2.9
Subregion (LRR or MLRA):	Lat.:	Lon	g.:	Datum:
Soil Map Unit Name:			NWI classif	ication:
	ita tumiani day thia tima ad yany?	Yes ● No ○	(Té no avulnim in	Damarka)
Are climatic/hydrologic conditions on the si			(If no, explain in	w (a) w. (
	ydrology	- 0.00 200	Circumstances" p	
	ydrology		explain any answ	
Summary of Findings - Attach		ing point location	ns, transects,	, important features, etc.
Hydrophytic Vegetation Present? Yes				
Hydric Soil Present? Yes		Is the Sampled Area within a Wetland?	Yes No	1
Wetland Hydrology Present? Yes	No			
Hydrology				
Wetland Hydrology Indicators:				ors (minimum of 2 required)
Primary Indicators (minimum of one requi			Surface Soil C	• •
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9)☐ Aquatic Fauna (B13))	✓ Drainage Patt	
Saturation (A3)	Marl Deposits (B15)			ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1	1)	Crayfish Burro	
Sediment Deposits (B2)	Oxidized Rhizospheres alor	15	Saturation Vis	ible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron	(C4)	Stunted or Str	ressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in T	Filled Soils (C6)	✓ Geomorphic P	Position (D2)
☐ Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquit	
☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks))	✓ Microtopograp ✓ FAC-neutral T	ohic Relief (D4)
Sparsely vegetated concave surface (bo)			FAC-fieddal 1	est (D3)
Field Observations:	0			
Surface Water Present? Yes No				
Water Table Present? Yes O No	Depth (inches):	Motland Und	rology Present?	Yes No
Saturation Present? (includes capillary fringe) Yes No	O Depth (inches):	0	rology Present?	ies C No C
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, prev	rious inspections), if ava	ilable:	
Remarks:				
Noniur No.				

			ecies?		1				
Tree Stratum (Plot size:	Absolute % Cover		l.Strat. ver	Indicator Status	Dominance Test worksheet:				
A.			0.0%	Julus	Number of Dominant Species				
n			0.0%		That are OBL, FACW, or FAC: 3 (A)				
		Н	0.0%		Total Number of Dominant				
4	^	H			Species Across All Strata: 3 (B)				
4		П	0.0%		Percent of dominant Species				
5 6	0	Η.	0.0%	-	That Are OBL, FACW, or FAC: 100.0% (A/B)				
6		Н,	0.0%						
7,		L.	0.0%		Prevalence Index worksheet:				
Sapling/Shrub Stratum (Plot size: 15'	0	= To	tal Cove	r	Total % Cover of: Multiply by:				
1. Fraxinus pennsylvanica	15	V	60.0%	FACW	OBL species 0 x 1 = 0				
2. Betula alleghaniensis	10	V	40.0%	FAC	FACW species 113 x 2 = 226				
Business influences	0		0.0%		FAC species 10 x 3 = 30				
4.	0		0.0%		FACU species $0 \times 4 = 0$				
5.	0		0.0%		UPL species x 5 = 0				
3.	0		0.0%		Column Totals: 123 (A) 256 (B)				
7.	0	П	0.0%		Prevalence Index = B/A = 2.081				
		- To	tal Cove						
Herb Stratum (Plot size: 5')	25	- 10	MI COVE		Hydrophytic Vegetation Indicators:				
1 Onoclea sensibilis	80	V	81.6%	FACW	Rapid Test for Hydrophytic Vegetation				
2. Eupatoriadelphus dubius	5		5.1%	FACW	✓ Dominance Test is > 50%				
3. Fraxinus pennsylvanica		$\overline{\Box}$	3.1%	FACW	Prevalence Index is ≤3.0 ¹				
4. Osmunda cinnamomea	10	\Box	10.2%	FACW	Morphological Adaptations ¹ (Provide supporting				
5.	0		0.0%		data in Remarks or on a separate sheet)				
6	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)				
7.	0	П	0.0%		¹ Indicators of hydric soil and wetland hydrology must				
8.	0	П	0.0%		be present, unless disturbed or problematic.				
9.	0		0.0%		Definitions of Vegetation Strata:				
10.	0	П	0.0%						
11	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
12.	0		0.0%		at breast neight (DD11), regardess of height.				
		- To	tal Cove		Sapling/shrub - Woody plants less than 3 in. DBH and				
Woody Vine Stratum (Plot size:)	90	- 10	tai Covei		greater than 3.28 ft (1m) tall				
1,	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of				
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.				
3.	0		0.0%		Woody vine. All woody vines greater than 2.39 ft in				
4.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in height.				
	0	= To	tal Cove						
		= 10	tai Covei	r					
					Hydrophytic Vegetation Present? Yes No				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN18d wetland

Profile Descri	iption: (Des	cribe to Matrix	the depth	needed to o		t the indic dox Featu		onfirm the a	bsence of indicators.)		
(inches)	Color (r		%	Color (%	Type 1	Loc2	Texture	Rem	narks
0-7	10YR	3/2	100%						Fine Sandy Loam		
7-11	2,5Y	4/2	90%	10YR	5/8	10%	С	М	Fine Sandy Loam		
									Company of courts of Court Cou		
			-	7							
						-	+				
				-		1	4		-		
					_						
¹ Type: C=Cond	centration. D	=Depletio	n. RM=Rec	duced Matrix,	CS=Cover	ed or Coate	ed Sand Gr	ains ² Locat	tion: PL=Pore Lining, M=Matr	rix	
Hydric Soil I									Indicators for Problem	natic Hydri	c Soils : 3
Histosol (A					alue Belo A 149B)	w Surface ((S8) (LRR I	₹,	2 cm Muck (A10) (LF	RR K, L, MLF	RA 149B)
Histic Epip Black Histi	edon (A2)			-		ace (S9) (I	RR R, MLI	RA 149B)	Coast Prairie Redox ((A16) (LRR	K, L, R)
	Sulfide (A4)			-		Mineral (F1	10000		5 cm Mucky Peat or		RR K, L, R)
FT	Layers (A5)			☐ Loan	y Gleyed	Matrix (F2)	1		Dark Surface (S7) (L		00 K 13
	Below Dark S	urface (A	11)	Depl	eted Matri	x (F3)			Polyvalue Below Surf Thin Dark Surface (S		
Thick Dark	k Surface (A1	2)		F		rface (F6)			Iron-Manganese Mas		
Sandy Muc	ck Mineral (S	1)		F 10 10 10		Surface (F	7)		Piedmont Floodplain		
	yed Matrix (S	54)		LI Redo	x Depress	sions (F8)			Mesic Spodic (TA6) (
Sandy Rec									Red Parent Material	(TF2)	
	fatrix (S6) ace (S7) (LRR	D MIDA	1408\						Very Shallow Dark Si		2)
									Other (Explain in Rer	marks)	
³ Indicators of			n and wetl	and hydrology	must be p	oresent, un	less distur	bed or proble	ematic.		
Restrictive La	yer (if obse	erved):									
Type:	nac).							-	Hydric Soil Present?	Yes 💿	No O
Depth (inch	ies):										
Remarks:											

Applicant/Owner: Eolian Renewable		City/Cour	nty: Antrim		Sampling Date: 17-Aug-11
	a Energy, LLC		Sta	ite: NH	Sampling Point: an18d upland
Investigator(s): AF JG		Section	on, Township, Range:	S. T.	R.
Landform (hillslope, terrace, etc.)	: Hillside	Local relie	ef (concave, convex, r	none): convex	Slope : 8.0 % / 4.6 °
Subregion (LRR or MLRA):		Lat.:	Long	g.:	Datum:
Soil Map Unit Name:			-	NWI classif	ication:
Are climatic/hydrologic condition	s on the site typ	ical for this time of year?	Yes No	(If no, explain in	Remarks.)
Are Vegetation, Soil	, or Hydrolo	gy 🔲 significantly disturbe	ed? Are "Normal	Circumstances" p	present? Yes No
Are Vegetation, Soil	, or Hydrolo	gy 🔲 naturally problemati	c? (If needed,	explain any answ	ers in Remarks.)
Summary of Findings - /	Attach site	map showing samplin	1.00		, important features, etc.
Hydrophytic Vegetation Present?	Yes O	No 💿			
Hydric Soil Present?	Yes 🔾		s the Sampled Area vithin a Wetland?	Yes O No 🖲)
Wetland Hydrology Present?	Yes 🔾	No 💿	THE THE TAX COLUMN		
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of	one required; o	:heck all that apply)		Surface Soil C	Cracks (B6)
Surface Water (A1)		Water-Stained Leaves (B9)		Drainage Patt	
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lin	
Saturation (A3) Water Marks (B1)		Marl Deposits (B15) Hydrogen Sulfide Odor (C1)		Crayfish Burro	/ater Table (C2)
Sediment Deposits (B2)		Oxidized Rhizospheres along I	Livina Roots (C3)		sible on Aerial Imagery (C9)
Drift deposits (B3)		Presence of Reduced Iron (C4			ressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction in Tille	d Soils (C6)	Geomorphic F	Position (D2)
Iron Deposits (B5)		☐ Thin Muck Surface (C7)		Shallow Aquit	
Inundation Visible on Aerial Imag	-	Other (Explain in Remarks)			phic Relief (D4)
Sparsely Vegetated Concave Sur	race (B8)			FAC-neutral T	est (D5)
	0 0				
Field Observations:	O No 💿	Depth (inches):			
Surface Water Present? Yes					
		Depth (inches):	W-Al 111		Vac O No O
Surface Water Present? Yes	O No •	Depth (inches): Depth (inches):	Wetland Hyd	rology Present?	Yes O No •

	lants		minant ecies?		Sampling Point: an18d upland			
Tree Stratum (Plot size: 30'	Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:			
1. Tsuga canadensis	33	~	43.4%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)			
A	10		13.2%	FACU	That are OBL, FACW, or FAC: 2 (A)			
2. Populus tremula 3. Fraxinus pennsylvanica		~	43.4%	FACW	Total Number of Dominant			
			0.0%	IACIV	Species Across All Strata: 6 (B)			
4 5			0.0%	15000	Percent of dominant Species			
6.	0	П	0.0%		That Are OBL, FACW, or FAC: 33.3% (A/B)			
7.	0	П	0.0%		Prevalence Index worksheet:			
	-	- To	tal Cove		Total % Cover of: Multiply by:			
Sapling/Shrub Stratum (Plot size: 15'	70	- 10	itai Cuve	ir.	OBL species $0 \times 1 = 0$			
1. Acer rubrum	25	1	33.3%	FAC	FACW species 33 x 2 = 66			
2. Fagus grandifolia	15	V	20.0%	FACU				
3. Pinus strobus	25	~	33.3%	FACU	The species			
4. Betula papyrifera	10		13.3%	FACU	TACO SPECIES X 4 -			
5.	.0		0.0%		url species x 3 =			
6	0		0.0%		Column Totals: 194 (A) 705 (B)			
7.	0		0.0%		Prevalence Index = B/A = 3.634			
Herb Stratum (Plot size: 5'	75	= To	tal Cove	r	Hydrophytic Vegetation Indicators:			
1 6.84	8		18.6%	FACU	Rapid Test for Hydrophytic Vegetation			
2. Rubus alumnus	5	Н	11.6%	FACU-	☐ Dominance Test is > 50%			
3. Dennstaedtia punctilobula	25	V	58.1%	UPL	Prevalence Index is ≤3.0 ¹			
1 Triontalia bassalla	-		11.6%	FAC	Morphological Adaptations 1 (Provide supporting			
E.		H	0.0%	FAC	data in Remarks or on a separate sheet)			
6		H	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)			
7				-	¹ Indicators of hydric soil and wetland hydrology must			
8.		H	0.0%		be present, unless disturbed or problematic.			
9.	0	H	0.0%		Definitions of Vegetation Strata:			
10.	-	H	0.0%					
11.	0	H	10000	-	Tree - Woody plants, 3 in. (7.6 cm) or more in diameter			
12.		H	0.0%		at breast height (DBH), regardless of height.			
12.	0	ш			Sapling/shrub - Woody plants less than 3 in, DBH and			
Woody Vine Stratum (Plot size:)	43	= To	tal Cove	er	greater than 3.28 ft (1m) tall			
1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of			
2	0		0.0%		size, and woody plants less than 3.28 ft tall.			
3	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in			
4	0		0.0%		height.			
	0	= To	tal Cove	r				
					Hydrophytic			
					Vegetation Present? Yes No			

VEGETATION - Use scientific names of plants

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)	
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type I Loc² Texture Rema 0-6 10YR 3/2 100% Loam	arks
6-10 2.5Y 5/1 100% Fine Loamy Sand	
10-16 10YR 4/3 100% Fine Sandy Loam	
Trans Constitution D. Darling DM. Baland Matrix CC. Constitution Conference on the Property of the M. Matrix	
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators :	a.u. 3
Historia (A1)	
MLRA 149B)	100
Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Coast Prairie Redox (A16) (LRR K, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRI	
Hydrogen Sulfide (A4)	ik ik, L, ik)
Stratified Layers (A5) Dehardus Relaw Surface (S9) (LDB)	R K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)	
Thick Dark Surface (A12) Redox Dark Surface (F6) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LR	RR K, L, R)
Piedmont Floodplain Soils (F19) (N	MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A,	145, 149B)
Sandy Redox (S5) Red Parent Material (TF2) Stripped Matrix (S6)	
Dark Surface (ST) (LDD D. MLDA 140D)	
Under (Explain in Remarks) 3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
Restrictive Layer (if observed): Type: Boulders	
Type: Bourders	No 💿
Poeth (inches): 16 Hydric Soil Present? Yes	
Depth (males): To	
Remarks:	
Depth (meles). 40	
Remarks:	



AN18d Upland



AN18d Wetland

Applicant/Owner: Eolian Renew Investigator(s): AF JG			County: Antrim	Sampling Date: 17-Aug-11
Investigator(s): AF JG	wable Energy, LLC		Sta	ate: NH Sampling Point: AN18e Wetland
		Se	ction, Township, Range:	S. T. R.
Landform (hillslope, terrace, e	etc.): Hillside		relief (concave, convex, r	
Subregion (LRR or MLRA):		Lat.:	Long	* - * · · · ·
		Lati	Long	NWI classification: PFO
Soil Map Unit Name:			0 0	
Are climatic/hydrologic condit	tions on the site ty	pical for this time of year?	Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil	, or Hydrol	ogy significantly distu	irbed? Are "Normal	l Circumstances" present? Yes No
Are Vegetation, Soil	, or Hydrol	ogy 🗌 naturally problem	natic? (If needed,	explain any answers in Remarks.)
Summary of Findings	s - Attach site	map showing samp	ling point location	ns, transects, important features, etc.
Hydrophytic Vegetation Prese	ent? Yes 🖲	No O	6.8	
Hydric Soil Present?	Yes 💿	No O	Is the Sampled Area within a Wetland?	Yes No
Wetland Hydrology Present?	Yes	No O	Within a Westalia:	
Hydrology				
Wetland Hydrology Indicator		15 X 80 DE CE DE		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum	n of one required;	check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)		✓ Water-Stained Leaves (B9))	✓ Drainage Patterns (B10)
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lines (B16)
☐ High Water Table (A2) ✓ Saturation (A3)		Marl Deposits (B15)	0	Dry Season Water Table (C2)
☐ High Water Table (A2) ✓ Saturation (A3) ☐ Water Marks (B1)		Marl Deposits (B15) Hydrogen Sulfide Odor (C		Dry Season Water Table (C2) Crayfish Burrows (C8)
☐ High Water Table (A2) ✓ Saturation (A3)		Marl Deposits (B15) Hydrogen Sulfide Odor (C: Oxidized Rhizospheres alo	ng Living Roots (C3)	Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
☐ High Water Table (A2) ✓ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2)		Marl Deposits (B15) Hydrogen Sulfide Odor (C: Oxidized Rhizospheres alo Presence of Reduced Iron	ng Living Roots (C3) (C4)	Dry Season Water Table (C2) Crayfish Burrows (C8)
High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3)		Marl Deposits (B15) Hydrogen Sulfide Odor (C: Oxidized Rhizospheres alo	ng Living Roots (C3) (C4)	Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4)	Imagery (B7)	Marl Deposits (B15) Hydrogen Sulfide Odor (C: Oxidized Rhizospheres alo Presence of Reduced Iron Recent Iron Reduction in 1	ng Living Roots (C3) (C4) Tilled Soils (C6)	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)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Marl Deposits (B15) Hydrogen Sulfide Odor (C: Oxidized Rhizospheres alo Presence of Reduced Iron Recent Iron Reduction in Thin Muck Surface (C7)	ng Living Roots (C3) (C4) Tilled Soils (C6)	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)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave	e Surface (B8)	Marl Deposits (B15) Hydrogen Sulfide Odor (C: Oxidized Rhizospheres alo Presence of Reduced Iron Recent Iron Reduction in Thin Muck Surface (C7)	ng Living Roots (C3) (C4) Tilled Soils (C6)	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)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave		Marl Deposits (B15) Hydrogen Sulfide Odor (C: Oxidized Rhizospheres alo Presence of Reduced Iron Recent Iron Reduction in Thin Muck Surface (C7)	ng Living Roots (C3) (C4) Tilled Soils (C6)	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)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present?	e Surface (B8)	Marl Deposits (B15) Hydrogen Sulfide Odor (C: Oxidized Rhizospheres alo Presence of Reduced Iron Recent Iron Reduction in Thin Muck Surface (C7) Other (Explain in Remarks	ng Living Roots (C3) (C4) Tilled Soils (C6)	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)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present?	Yes No •	Marl Deposits (B15) Hydrogen Sulfide Odor (C: Oxidized Rhizospheres alo Presence of Reduced Iron Recent Iron Reduction in Thin Muck Surface (C7) Other (Explain in Remarks Depth (inches): Depth (inches):	ng Living Roots (C3) (C4) Tilled Soils (C6)	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)

	Dominal Species				Sampling Point: AN18e Wetland			
Tree Stratum (Plot size: 30'	Absolute % Cover			Indicator Status	Dominance Test worksheet:			
1 Fraxinus pennsylvanica	15	~	30.0%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)			
2. Acer rubrum	20	V	40.0%	FAC	That are obt, thew, or the.			
3. Betula alleghaniensis	15	V	30.0%	FAC	Total Number of Dominant Species Across All Strata: 6 (B)			
4.	0		0.0%		Species Across All Strata: 6 (B)			
5.	0		0.0%		Percent of dominant Species			
6	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)			
7,	0		0.0%		Prevalence Index worksheet:			
	50	= To	otal Cove	r	Total % Cover of: Multiply by:			
Sapling/Shrub Stratum (Plot size: 15'		i mai			OBL species $0 \times 1 = 0$			
1. Betula alleghaniensis	50	V	100.0%	FAC	FACW species 136 x 2 = 272			
2.	0		0.0%		FAC species 85 x 3 = 255			
3,	0	Ц	0.0%		FACU species $0 \times 4 = 0$			
4	0		0.0%		PACO SPECIES A 4 =			
5	0		0.0%		UPL species X 5 =			
5	0		0.0%		Column Totals: 221 (A) 527 (B)			
7.	0		0.0%		Prevalence Index = $B/A = 2.385$			
Herb Stratum (Plot size: 5')	50	= To	otal Cove	r	Hydrophytic Vegetation Indicators:			
1.Osmunda cinnamomea	33	V	27.3%	FACW	Rapid Test for Hydrophytic Vegetation			
2.Onoclea sensibilis	33	V	27.3%	FACW	✓ Dominance Test is > 50%			
3. Eupatoriadelphus dubius	20		16.5%	FACW	Prevalence Index is ≤3.0 1			
4. Impatiens capensis	20		16.5%	FACW	Morphological Adaptations ¹ (Provide supporting			
5 Contin telfolio	15		12.4%	FACW	data in Remarks or on a separate sheet)			
6.	0	Ħ	0.0%	TACIT	Problematic Hydrophytic Vegetation 1 (Explain)			
7.	0	H	0.0%		¹ Indicators of hydric soil and wetland hydrology must			
8.	0		0.0%		be present, unless disturbed or problematic.			
9.	0		0.0%		Definitions of Vegetation Strata:			
0.			0.0%		-			
1.			0.0%		Tree - Woody plants, 3 in. (7,6 cm) or more in diameter			
2.	0	=			at breast height (DBH), regardless of height.			
Σ.		0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and				
Woody Vine Stratum (Plot size:	121	= To	otal Cove	r	greater than 3.28 ft (1m) tall			
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of			
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.			
3	0		0.0%		Manda di dina All di			
4.	0		0.0%		Woody vine - All woody vines greater than 3,28 ft in height.			
Marian III		= Total Cov		r	Thought.			
	-	- "	Juli Cove	r.				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN18e Wetland

ox Features % Type 1 Loc² Texture Remarks
Muck
25% C M mucky sand
Sandy Loam
or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix
Indicators for Problematic Hydric Soils: 3
Curt == (CO) (LDD D
2 Cm Muck (A10) (LRR K, L, MLRA 149B)
ce (S9) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
ineral (F1) LRR K, L) Dark Surface (S7) (LRR K, L)
Polyacilus Relaw Surface (S9) (LDD K. L)
(F3) Thin Dark Surface (S9) (LDR K L)
Tron-Manganese Masses (F12) (LRP K 1 R)
Diadment Floodolain Soils (F10) (MLPA 140R)
ons (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
esent, unless disturbed or problematic.
escrit, unless disturbed or problematic.
esent, unless disturbed of problemate.
escrit, unless distanced of problemate.
Hydric Soil Present? Yes No

Project/Site: Antrim Wind Project		City/Co	ounty: Antrim		Sampling Date: 17-Aug-11
Applicant/Owner: Eolian Renewable I	Energy, LLC		Sta	ite: NH	Sampling Point: AN18e upland
Investigator(s): AF JG		Sec	tion, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.):	Hillside		elief (concave, convex, r		Slope: 15.0 % / 8.5°
Subregion (LRR or MLRA):		Lat.:	Long	g.:	Datum:
Soil Map Unit Name:				NWI classif	
Are climatic/hydrologic conditions	on the site tv	nical for this time of year?	Yes ● No ○	(If no, explain in	Remarks)
Are Vegetation , Soil	or Hydrold,			Circumstances"	V (A) N (
Are Vegetation , Soil	, or Hydrold	F=3		explain any answe	
Summary of Findings - A					
Hydrophytic Vegetation Present?	Yes O	No 💿			
			Is the Sampled Area	Yes O No 🖲	
Hydric Soil Present?		No 💿	within a Wetland?	res U No G	,
Wetland Hydrology Present? Remarks: (Explain alternative pro		50000 900			
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of o	ne required;	check all that apply)		Surface Soil C	
Surface Water (A1)		Water-Stained Leaves (B9)		Drainage Patt	
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lin	es (B16)
Saturation (A3)		Marl Deposits (B15)		Dry Season W	ater Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C1))	Crayfish Burro	
Sediment Deposits (B2)		Oxidized Rhizospheres alon			ible on Aerial Imagery (C9)
Drift deposits (B3) Algal Mat or Crust (B4)		Presence of Reduced Iron (Geomorphic P	ressed Plants (D1)
Iron Deposits (B5)		Recent Iron Reduction in Ti	illed Soils (C6)	Shallow Aquit	The second
Inundation Visible on Aerial Image	ery (B7)	☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)			phic Relief (D4)
Sparsely Vegetated Concave Surfa		Other (Explain in Remarks)		FAC-neutral T	
Field Observations:	_				
Surface Water Present? Yes	O No 💿	Depth (inches):			
Water Table Present? Yes	○ No ●	Depth (inches):			
Saturation Present? (includes assillant friend) Yes	and the same		Wetland Hyd	rology Present?	Yes O No 💿
(includes capillary fringe)	1.500	Depth (inches):		9.11	
Describe Recorded Data (stream g	auge, monito	ring well, aerial photos, previ	ous inspections), if avai	ilable:	
Remarks:					

		_Sp	minant ecies?		Sampling Point: AN18e upland				
Tree Stratum (Plot size: 30'	Absolute % Cover		l.Strat. ver	Indicator Status					
1. Fagus grandifolia	33	V	43.4%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)				
2. Tsuga canadensis	22	V	43.4%	FACU					
3. Betula papyrifera			13.2%	FACU	Total Number of Dominant Species Across All Strata: 7 (B)				
4.			0.0%		Species Across All Strata.				
5.	-	П	0.0%		Percent of dominant Species				
C	0		0.0%		That Are OBL, FACW, or FAC: 28.6% (A/B)				
o. 7.	0	П	0.0%	-	Prevalence Index worksheet:				
Sapling/Shrub Stratum (Plot size: 15')		= To	tal Cove	r	Total % Cover of: Multiply by:				
	40	V	F2 204	FACIL	OBL species 0 x 1 = 0				
Fagus grandifolia Acer pensylvanicum	40	V	53.3%	FACU	FACW species 0 x 2 = 0				
AND THE CONTRACT OF THE CONTRA	20	-	26.7%	FACU	FAC species 30 x 3 = 90				
3. Betula alleghaniensis	15	~	20.0%	FAC	FACU species $141 \times 4 = 564$				
4		H	0.0%		UPL species $0 \times 5 = 0$				
5		닐	0.0%						
<u>6</u>	0	Ц,	0.0%		Column Totals: 1/1 (A) 654 (B)				
7	0	Ш	0.0%		Prevalence Index = B/A = 3.825				
Herb Stratum (Plot size: 5'	75	= To	tal Cove	r	Hydrophytic Vegetation Indicators:				
1. Thelypteris noveboracensis	15	V	75.0%	FAC	Rapid Test for Hydrophytic Vegetation				
2. Quercus rubra	5	V	25.0%	FACU-	Dominance Test is > 50%				
3.	0		0.0%	-	Prevalence Index is ≤3.0 ¹				
4	0	\Box	0.0%		Morphological Adaptations ¹ (Provide supporting				
5.	0	\Box	0.0%		data in Remarks or on a separate sheet)				
6	0	П	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain				
7.	0	П	0.0%		¹ Indicators of hydric soil and wetland hydrology must				
8.	0		0.0%		be present, unless disturbed or problematic.				
9.	0	H	0.0%		Definitions of Vegetation Strata:				
10.		H							
11.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter				
12.			0.0%		at breast height (DBH), regardless of height.				
12.	0	Ш	0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and				
Woody Vine Stratum (Plot size:	20	= To	tal Cove	r	greater than 3.28 ft (1m) tall				
1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of				
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.				
3.	0		0.0%		Woody vine - All woody vines greater than 3,28 ft in				
4.	0		0.0%		height.				
	0	= Total Cover		r					
					Hydrophytic Vegetation Present? Yes No				
Remarks: (Include photo numbers here or on a separate s	sheet.)								

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

0-5 10YR 3/2 100% Loam	(inches) Color (moist) % Color (moist) % Type 1 Loc² Texture Remarks 0-5 10YR 3/2 100% Loam Loam 5-7 2.5Y 4/8 100% Fine Sand	3
5-7. 2.5Y 4/8 100% Fine Sand Fine Sandy Loam Fine Sandy	S-7 2.5Y 4/8 100% Fine Sand	
pre: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Jocation: PL=Pore Lining. M=Matrix* **Indicators for Problematic Hydric Solis: 3* **Indicators for Problematic Hydric Solis: 4* **Indicators for Problematic Hydric Solis: 5* **Indicators for Problematic Hydric Solis: 5* **Indicators for Problematic Hydric S		
pre: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2-Location: PL=Pore Lining, M=Matrix pdric Soil Indicators: Histosoid (A1)	7-16 10YR 4/3 100% Fine Sandy Loarn	
pe: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location: PL=Pore Lining. M=Matrix rdric Soil Indicators: Indicators for Problematic Hydric Soils : *3 Histoso (A1)		
Histic Soil Indicators: Histosoi (A1) Histic Epipedion (A2) Histic Epipedion (A2) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of Problematic Hydric Soils: 3 Loamy Muck (A10) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A17) Depleted Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) Depleted Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Mickie Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No **Personation of Polymore No. 10 **Person		
Histic Soil Indicators: Histosoi (A1) Histic Epipedion (A2) Histic Epipedion (A2) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of Problematic Hydric Soils: 3 Loamy Muck (A10) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A17) Depleted Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) Depleted Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Mickie Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No **Personation of Polymore No. 10 **Person		
Histic Soil Indicators: Histosoi (A1) Histic Epipedion (A2) Histic Epipedion (A2) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of Problematic Hydric Soils: 3 Loamy Muck (A10) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A17) Depleted Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) Depleted Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Mickie Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No **Personation of Polymore No. 10 **Person		
Histic Soil Indicators: Histosoi (A1) Histic Epipedion (A2) Histic Epipedion (A2) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of Problematic Hydric Soils: 3 Loamy Muck (A10) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A17) Depleted Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) Depleted Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Mickie Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No **Personation of Polymore No. 10 **Person		
Histic Soil Indicators: Histosoi (A1) Histic Epipedion (A2) Histic Epipedion (A2) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of Problematic Hydric Soils: 3 Loamy Muck (A10) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A17) Depleted Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) Depleted Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Mickie Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No **Personation of Polymore No. 10 **Person		
Histic Soil Indicators: Histosoi (A1) Histic Epipedion (A2) Histic Epipedion (A2) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of Problematic Hydric Soils: 3 Loamy Muck (A10) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A17) Depleted Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) Depleted Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Mickie Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No **Personation of Polymore No. 10 **Person		
Histic Soil Indicators: Histosoi (A1) Histic Epipedion (A2) Histic Epipedion (A2) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of Problematic Hydric Soils: 3 Loamy Muck (A10) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A17) Depleted Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) Depleted Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Mickie Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No **Personation of Polymore No. 10 **Person		
Histic Soil Indicators: Histosoi (A1) Histic Epipedion (A2) Histic Epipedion (A2) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of Problematic Hydric Soils: 3 Loamy Muck (A10) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A17) Depleted Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) Depleted Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Mickie Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No **Personation of Polymore No. 10 **Person		
Histic Soil Indicators: Histosoi (A1) Histic Epipedion (A2) Histic Epipedion (A2) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of Problematic Hydric Soils: 3 Loamy Muck (A10) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A17) Depleted Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) Depleted Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Mickie Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No **Personation of Polymore No. 10 **Person		
Histic Soil Indicators: Histosoi (A1) Histic Epipedion (A2) Histic Epipedion (A2) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Histic Epipedion (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of Problematic Hydric Soils: 3 Loamy Muck (A10) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A16) (LRR K, L, R) Dark Surface (A17) Depleted Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) Depleted Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Mesic Spoid: (TA6) (MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Mickie Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No **Personation of Polymore No. 10 **Person		
Histosol (A1)	ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix	
Histocs (A1)	Indicators for Problematic Hyuric Sol	ls: 3
Histic Epipedon (A2) Black Histic (A3) Black Histic (A1) Black His	Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 14)	
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Redox Depressions (F8) Depleted Matrix (S6) Dark Surface (S7) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Inn-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Inn-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Inn-Marks Surface (S9) (LRR K, L) Hydric Soil Present? Yes No Inn-Marks (S6) Hydric Soil Present? No Inn-Marks (S6) Inn-Manganese Masses (F12) (LRR K, L) Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Inn-Manganese Masses (F12) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Inn-Manganese Masses (F12) (LRR K, L) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) No Inn-Manganese Masses (F12) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Th	Histic Epipedon (A2) Coast Prairie Redox (A16) (LRR K, L, I	
Stratified Layers (A5) Depleted Matrix (F2) Depleted Below Dark Surface (S7) (LRR K, L) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Sandy Redox (S5) Sandy Redox Depressions (F8) Redox Depressions (F8) Depleted Dark Surface (F7) Pledmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (F7) Pledmont Floodplain Soils (F19) (MLRA 149B) Red Parent Material (TF2) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L) Tron-Manganese Masses (F12) (LRR K, L, R) Pledmont Floodplain Soils (F19) (MLRA 149B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No According to the According	Loamy Mucky Mineral (F1) LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K,	, L, R)
Depleted Below Dark Surface (S8) (LRR K, L) Depleted Below Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S6)	Combified Laurer (AE) Loamy Gleved Matrix (F2) Dark Surface (S7) (LRR K, L)	
Thick Dark Surface (S1)	Depleted Below Dark Surface (A11) Depleted Matrix (F3) Depleted Matrix (F3)	L)
Sandy Muck Mineral (S1) Depleted Dark Surface (F7) Pron-Paraganese Masses (F12) (LRK K, E, K) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 1448) (HLRA 1448) Sandy Redox (S5) Red Parent Material (TF2) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No Analysis (S1) Present	Third Dark Surface (A12) Redox Dark Surface (F6) Third Dark Surface (S9) (LRR K, L)	
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No No No No No No No No	Sparty Muck Micrord (C1) Depleted Dark Surface (F7)	THE PARTY OF THE P
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No enarchs: Modosol	Redox Depressions (F8)	1000000
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Boulders Depth (inches): 16 Image: Boulders Boulders Depth (inches): 16 Image: Boulders Bould	Special Red ov (CE)	, 149B)
Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Boulders Depth (inches): 16 Hydric Soil Present? Yes No Anarks: Modosol	Stringed Matrix (CC)	
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrology must be present. Indicator	Dark Currings (CZ) / LDD D. MLDA 140D)	
strictive Layer (if observed): Type: Boulders Depth (inches): 16 marks: idosol		
Type: Boulders Depth (inches): 16 marks: adosol		
emarks: edosol	Type: Boulders	
odosol (Depth (inches): 16 Hydric Soil Present? Yes O No	•
	emarks:	
	odosol	
		9



AN18e Wetland



AN18e Upland

City/County: Antrim Sampling Date: 17-Aug-11					
Sampling Point: AN18f wetland					
T. R.					
convex Slope : 5.0 % / 2.9 °					
Datum:					
IWI classification: PFO					
explain in Remarks.)					
nstances" present? Yes No					
any answers in Remarks.)					
ansects, important features, etc.					
● No ○					
dary Indicators (minimum of 2 required)					
urface Soil Cracks (B6)					
rainage Patterns (B10) oss Trim Lines (B16)					
ry Season Water Table (C2)					
rayfish Burrows (C8)					
aturation Visible on Aerial Imagery (C9)					
cunted or Stressed Plants (D1)					
eomorphic Position (D2)					
nallow Aquitard (D3)					
icrotopographic Relief (D4)					
AC-neutral Test (D5)					
Present? Yes No					

VEGETATION - Use scientific names of p	Absolute	_Spe	ninant cies? Strat.	Indicator	Sampling Point: AN18f wetland Dominance Test worksheet:			
Tree Stratum (Plot size: 30')	% Cover			Status	Number of Dominant Species			
Betula alleghaniensis	33	V	1.00.0%	FAC		(A)		
2.	0		0.0%		T (W			
3.	0		0.0%		Total Number of Dominant Species Across All Strata: 5	(B)		
1	_ 0		0.0%					
5.	0		0.0%		Percent of dominant Species That Are ORL FACW or FAC: 100.0%	(A/B)		
5	0		0.0%		That Are OBL, FACW, or FAC:	A, D)		
7.	0		0.0%		Prevalence Index worksheet:			
Sapling/Shrub Stratum (Plot size: 15')	33	= Tota	al Cove	r	Total % Cover of: Multiply by:			
A PROPERTY AND ADDRESS.		(a)			OBL species 0 x 1 = 0			
1. Betula alleghaniensis	1000		55.6%	FAC	FACW species 43 x 2 = 86			
2. Acer rubrum	10		22.2%	FAC	FAC species 68 x 3 = 204			
3. Fraxinus pennsylvanica	10	V	22.2%	FACW	FACU species $0 \times 4 = 0$			
		H-	0.0%		UPL species $0 \times 5 = 0$			
5.			0.0%		Column Totals: 111 (A) 290	(B)		
j	0		0.0%		Column lotals: 111 (A) 230	(0)		
7.	0	Ш_	0.0%		Prevalence Index = B/A = 2.613			
Herb Stratum (Plot size: 5')	45	= Tota	al Cove	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation				
1.Onoclea sensibilis	33	V	00.0% FA	FACW	✓ Dominance Test is > 50%			
2.	00		0.0%		✓ Prevalence Index is ≤3.0 ¹			
3,	0	\Box _	0.0%		Morphological Adaptations ¹ (Provide support	tina		
4,	0		0.0%		data in Remarks or on a separate sheet)	ing		
5.	0	\Box	0.0%		Problematic Hydrophytic Vegetation ¹ (Explai	n)		
6.	0		0.0%					
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology be present, unless disturbed or problematic.	nust		
8.	0		0.0%					
9.	0		0.0%		Definitions of Vegetation Strata:			
0.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in dian	neter		
1.	0		0.0%		at breast height (DBH), regardless of height.			
2.	0		0.0%		Sapling/shrub - Woody plants less than 3 in. DBH	and		
Woody Vine Stratum (Plot size:)	33	= Tota	al Cove	r	greater than 3.28 ft (1m) tall	and		
1,	0		0.0%		Herb - All herbaceous (non-woody) plants, regardle	ess of		
2.,	0		0.0%		size, and woody plants less than 3.28 ft tall.			
3.	0		0.0%		Woody vine - All woody vines greater than 3,28 ft i	n		
4.	0		0.0%		height.			
	0	= Tota	al Cove	r	1			

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

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Ju		ı

Sampling Point: AN18f wetland

Profile Desc Depth	ription: (Des	cribe to Matrix	the dept	h nee	ded to		t the indic dox Featu		onfirm the	absence of indicators.)	
(inches)	Color (r		- %	1750	Color (%	Type 1	Loc2	Texture	Remarks
0-8	10YR	3/2	100%							Sandy Loam	
8-16	2.5Y	5/2	80%		10YR	4/6	20%	С	М	Gravelly Sand	
	-										
	-			-			-		-		
	-		-	-							
	-	-	4	-		-	-				
				_		_					
¹ Type: C=Cor	centration. D	=Depletio	on. RM=Re	duced	Matrix,	CS=Cover	ed or Coat	ed Sand Gr	ains · ²Loc	cation: PL=Pore Lining, M=Mate	rix
Hydric Soil	Indicators:				_					Indicators for Problem	natic Hydric Soils: 3
Histosol						value Belo A 149B)	w Surface	(S8) (LRR F	₹,	2 cm Muck (A10) (LF	
P	ipedon (A2)						face (S9) (LRR R. MIF	RA 149B)	Coast Prairie Redox ((A16) (LRR K, L, R)
Black His	tic (A3) n Sulfide (A4)						Mineral (F1	mechan .		5 cm Mucky Peat or	Peat (S3) (LRR K, L, R)
	Layers (A5)						Matrix (F2	M. Carlotte and Ca		Dark Surface (S7) (L	
proved	Below Dark S	urface (A	11)		Dep	leted Matr	ix (F3)			Polyvalue Below Surf	
	rk Surface (A1				(urface (F6)			Thin Dark Surface (S	sses (F12) (LRR K, L, R)
Sandy Mi	uck Mineral (S	1)			-		Surface (F	7)			Soils (F19) (MLRA 149B)
Sandy Gi	eyed Matrix (S	54)			Red	ox Depres	sions (F8)				(MLRA 144A, 145, 149B)
	edox (S5)									Red Parent Material	
	Matrix (S6)									☐ Very Shallow Dark Si	urface (TF12)
	face (S7) (LRF									Other (Explain in Rer	marks)
³ Indicators o	f hydrophytic	vegetatio	n and wet	land h	ydrology	must be	present, ur	nless disturi	oed or prob	lematic.	
Restrictive I	ayer (if obse	erved):									
Type:				_							·
Depth (inc	ches):									Hydric Soil Present?	Yes No
Remarks:											
Alluvial Soils											

Project/Site: Antrim Wind Project		City/C	County: Antrim		Sampling Date: 17-Aug-11
Applicant/Owner: Eolian Renewable B	Energy, LLC		Sta	ate: NH	Sampling Point: AN18f Upland
Investigator(s): AF JG		Se	ction, Township, Range:	S. T.	R.
Landform (hillslope, terrace, etc.):	Toeslope	Local	relief (concave, convex, i	none): convex	Slope: 10.0 % / 5.7°
Subregion (LRR or MLRA):		Lat.:	Lon	Water Hunes	Datum:
		LOC.	Long	9 NWI classif	
Soil Map Unit Name:				NWI Classii	ication:
Are climatic/hydrologic conditions	-		Yes 💿 No 🔾	(If no, explain in	
Are Vegetation , Soil	, or Hydrol	ogy significantly dist	urbed? Are "Norma	Circumstances"	present? Yes No
Are Vegetation 🗌 , Soil 🗌	, or Hydrol	ogy 🗌 naturally problen	natic? (If needed,	explain any answ	ers in Remarks.)
Summary of Findings - At	tach site	map showing samp	ling point location	ns, transects,	, important features, etc.
Hydrophytic Vegetation Present?	Yes 🔾	No •			
Hydric Soil Present?	Yes 🔾	No	Is the Sampled Area within a Wetland?	Yes O No 🖲)
Wetland Hydrology Present?	Yes O	No 💿	Within a Wetlanus		
					+
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicato	ors (minimum of 2 required)
Primary Indicators (minimum of or	ne required;	check all that apply)		Surface Soil C	
Surface Water (A1)		☐ Water-Stained Leaves (B9)	☐ Drainage Patt	erns (B10)
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lin	es (B16)
Saturation (A3)		Marl Deposits (B15)		Dry Season W	later Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C		Crayfish Burro	
Sediment Deposits (B2)		Oxidized Rhizospheres alo			ible on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4)		Presence of Reduced Iron			ressed Plants (D1)
Iron Deposits (B5)		Recent Iron Reduction in	Tilled Soils (C6)	Geomorphic P Shallow Aquit	
Inundation Visible on Aerial Image	rv (B7)	Thin Muck Surface (C7)			ohic Relief (D4)
Sparsely Vegetated Concave Surface		Other (Explain in Remarks	5)	FAC-neutral T	
Field Observations:	-				
Surface Water Present? Yes	No 💿	Depth (inches):			
Water Table Present? Yes	No 💿	Depth (inches):			
Saturation Present? (includes capillary frings) Yes	No 💿	Depth (inches):	Wetland Hyd	rology Present?	Yes O No 💿
(includes capillary tringe)	.05.0000	THE SALE SECTION OF THE PARTY O		9-64-	
Describe Recorded Data (stream ga	auge, monito	oring well, aerial photos, prev	vious inspections), if avai	liable:	
Remarks:					
6.4					

US Army Corps of Engineers

Northcentral and Northeast Region - Interim Version

	Absolute		pecies? el.Strat.	Indicator	Dominance Test worksheet:					
Tree Stratum (Plot size: 30'	% Cover		over	Status	Number of Dominant Species					
1. Acer rubrum	40	V	the second second	1 2000	That are OBL, FACW, or FAC: 3 (A)					
2. Fraxinus pennsylvanica	40	V		FACW	Total Number of Dominant					
3.	0		0.0%		Species Across All Strata: 6 (B)					
4	0	L	0.0%							
5,	0	L	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)					
6	0	L	0.0%		mat Are ODE, TACW, OF TAC.					
7	0		0.0%		Prevalence Index worksheet:					
Sapling/Shrub Stratum (Plot size: 15')	80	= T	otal Cove	er	Total % Cover of: Multiply by: OBL species 0 x 1 = 0					
1. Ostrya virginiana	25	V	31.3%	FACU-	FACW species 40 x 2 = 80					
2. Pinus strobus	10		12.5%	FACU	70 240					
3. Betula alleghaniensis	10		12.5%	FAC	70 200					
4. Fagus grandifolla	15		18.8%	FACU	FACO SPECIES E 25					
5. Acer pensylvanicum	20	V	25.0%	FACU	UPL species x 5 =					
6.	0		0.0%		Column Totals: 185 (A) 595 (B)					
7	0	9	0.0%		Prevalence Index = $B/A = 3.216$					
Herb Stratum (Plot size: 5'		= T	otal Cove	er	Hydrophytic Vegetation Indicators:					
1. Maianthemum canadense	20	V	80.0%	FAC-	Rapid Test for Hydrophytic Vegetation					
2. Polygonatum pubescens	-	V	20.0%	UPL	Dominance Test is > 50%					
3.	0		0.0%		Prevalence Index is ≤3.0 1					
4,			0.0%		Morphological Adaptations ¹ (Provide supportin data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)					
5.			0.0%							
6.	0		0.0%		Troblemate Hydrophytic regetation (Explain)					
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must					
8.	0		0.0%		be present, unless disturbed or problematic.					
9.	0		0.0%		Definitions of Vegetation Strata:					
10.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diamete					
11.	0		0.0%		at breast height (DBH), regardless of height.					
12.	0		0.0%							
Woody Vine Stratum (Plot size:)	25	= T	otal Cove	ar	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall					
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless					
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.					
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in					
4	0		0.0%		height.					
	0	= T	otal Cove	er						
					Hydrophytic Vegetation Present? Yes No					

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN18f Upland

E N V. 200 CONTRACTOR DOS SOCIOLOS	epth needed to document the indicator or confirm the	absence of indicators.)
	Redox Features Color (moist) % Type 1 Loc2	Texture Remarks
0-8 10YR 3/2 100	%	Fine Sandy Loam
8-14 10YR 3/4 100	%	Fine Sandy Loam
	=Reduced Matrix, CS=Covered or Coated Sand Grains ² Loca	
Hydric Soil Indicators:	Polywalius Relow Surface (SS) (LRR R	Indicators for Problematic Hydric Soils: 3
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Restrictive Layer (if observed):		
Type: Boulders		
Depth (inches): 14		Hydric Soil Present? Yes No No
Remarks:		



AN18f Wetland



AN18f Upland



AN18f Wetland

Project/Site: Antrim Wind Project	City/Co	unty: Antrim		Sampling Date: 16-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC		Sta	ite: NH	Sampling Point: an20 wetland
nvestigator(s): AF JG	Sed	tion, Township, Range:	s. T.	R.
.andform (hillslope, terrace, etc.): Toeslope	Local re	elief (concave, convex, i	none): concave	Slope: 3.0 % / 1.7°
Subregion (LRR or MLRA):	Lat.:	Long	g.;	Datum:
Soil Map Unit Name:		- = = =	-	fication: PEM
Are climatic/hydrologic conditions on the site	typical for this time of year?	Yes No	(If no, explain in	
Are Vegetation, Soil, or Hydr			Circumstances"	
Are Vegetation . , Soil . , or Hydr			explain any answ	or o
Summary of Findings - Attach sit	-			•
Hydrophytic Vegetation Present? Yes Yes				,
Hydric Soil Present? Yes Yes		Is the Sampled Area	Yes No)
Wetland Hydrology Present? Yes	No O	within a Wetland?	ies © ito ©	
Hydrology				
Wetland Hydrology Indicators:			Casa-dan, Tadinak	(-ini
Primary Indicators (minimum of one required	l; check all that apply)		Surface Soil C	ors (minimum of 2 required)
Surface Water (A1)	Water-Stained Leaves (B9)		Drainage Patt	
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lir	nes (B16)
Saturation (A3)	Marl Deposits (B15)			/ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burn	
Sediment Deposits (B2) Drift deposits (B3)	Oxidized Rhizospheres along			sible on Aerial Imagery (C9) ressed Plants (D1)
Algal Mat or Crust (B4)	 Presence of Reduced Iron (Recent Iron Reduction in Til 		Geomorphic F	
☐ Iron Deposits (B5)	Thin Muck Surface (C7)	ned dond (ed)	Shallow Aquit	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		Microtopogra	phic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			✓ FAC-neutral T	est (D5)
Field Observations:				
Surface Water Present? Yes No •	Depth (inches):			
Water Table Present? Yes No C	Depth (inches): 2			
Saturation Present? Yes No O	Depth (inches): 0		rology Present?	Yes No
Describe Recorded Data (stream gauge, mon Remarks:	itoring well, aerial photos, previo	ous inspections), if avai	lable:	
	9			

	_Sp	ecles? .		Sampling Point: an20 wetland
				Domínance Test worksheet:
0			Status	Number of Dominant Species
				That are OBL, FACW, or FAC: 2 (A)
	Н			Total Number of Dominant
	Н			Species Across All Strata: 2 (B)
	H			Percent of dominant Species
	H.			That Are OBL, FACW, or FAC: 100.0% (A/B)
	П			Prevalence Index worksheet:
	- To			Total % Cover of: Multiply by:
	- 10	COVE		OBL species 10 x 1 = 10
		0.0%		FACW species 103 x 2 = 206
0		0.0%		FAC species 0 x 3 = 0
0		0.0%		rac species x 5
		0.0%		racu species x 4 =
_ 0		0.0%		UPL Species x 5 =
0		0.0%		Column Totals: 113 (A) 216 (B)
0		0.0%		Prevalence Index = B/A = 1.912
0	= To	tal Cover	r	Hydrophytic Vegetation Indicators:
45	V	39.8%	FACW	Rapid Test for Hydrophytic Vegetation
10		8.8%	FACW	✓ Dominance Test is > 50%
33	V	29.2%	FACW	Prevalence Index is ≤3.0 ¹
10		8.8%	OBL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
15		13.3%	FACW+	Problematic Hydrophytic Vegetation ¹ (Explain)
0		0.0%		Problematic Hydrophydd Sogetation (Explain)
0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
0		0.0%		be present, unless disturbed or problematic.
0		0.0%		Definitions of Vegetation Strata:
0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
0		0.0%		at breast height (DBH), regardless of height.
0		0.0%		
113	= To	tal Cover		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
	$\overline{\Box}$	100.000 0.00		size, and woody plants less than 3.28 ft tall.
		0.0%		Washington Allers devices are booking a constitution of the consti
0	П	0.0%		Woody vine - All woody vines greater than 3.28 ft in height.
	- To			noight.
	- 10	tai Cover		
				Hydrophytic Vegetation
e sheet.)				
	% Cover 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Absolute % Cover Co	% Cover Cover 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 10 8.8% 15 13.3% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% <tr< td=""><td> Absolute % Cover Rel.Strat. Cover Status </td></tr<>	Absolute % Cover Rel.Strat. Cover Status

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an20 wetland

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)												
Depth (inches)								Tastuna	Dan	marks	- 1	
0-8			100%	Color (moist)	%	Type	Loc ²	Texture Loam	Ker	тагкѕ	
4	10YR	3/2		10100			-					
8-11	2.5Y	4/2	95%	10YR	4/6	5%	С	М	Sandy Loam			
							-	-				
			-		_			-				
			_	-	_				-			
			_	-	-			-				
					-							
¹ Type: C=Cor	ncentration. D	=Depletio	n. RM=Rec	luced Matrix,	CS=Cover	ed or Coate	ed Sand G	rains ² Loca	ation: PL=Pore Lining. M=M	atrix		
Hydric Soil	Indicators:								Indicators for Proble	ematic Hydr	ic Soils: 3	
Histosol ((A1)					w Surface ((S8) (LRR	R,	2 cm Muck (A10)			
Histic Epi	ipedon (A2)			-	A 149B)	nen (CO) //	DD D MI	DA 140D)	Coast Prairie Redo			- 1
Black His				-		ace (S9) (I Mineral (F1		2	5 cm Mucky Peat of	or Peat (S3) (LRR K, L, R)	- 1
-	n Sulfide (A4)			_	and the second	Matrix (F2)		.)	Dark Surface (S7)		- 1	
	Layers (A5)		141		eted Matri	- Alberta Comme			Polyvalue Below Surface (S8) (LRR K, L)			- 1
	Below Dark S rk Surface (A1		11)	F-100		rface (F6)			Thin Dark Surface (S9) (LRR K, L)			
	uck Mineral (S			process of		Surface (F.	7)		Iron-Manganese Masses (F12) (LRR K, L, R)			
	eyed Matrix (S	200		Red	ox Depress	ions (F8)			Piedmont Floodplain Solls (F19) (MLRA 149B)			- 1
	edox (S5)	.,							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			- 1
	Matrix (S6)								Red Parent Material (TF2) Very Shallow Dark Surface (TF12)			- 1
Dark Surf	face (S7) (LRR	R, MLRA	149B)						Other (Explain in F		.2)	
3Indicators o	of hydrophytic	vegetatio	and weti	and hydrology	must be r	oresent, un	less distur	bed or proble		(Cindrica)		
					, , , , , , , , , , , , , , , , , , , ,							
Type: be	ayer (if obse	arveu):										- 1
Depth (inc			- mr - r - r						Hydric Soil Present?	Yes 💿	No O	- 1
	iles). II											
Remarks:												
												- 1
												- 1
												- 1
												- 1

Project/Site: Antrim Wind Project	City/Cour	nty: Antrim		Sampling Date: 16-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC		Sta	te: NH	Sampling Point: an20 upland
Investigator(s): AF JG	Section	on, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Hillside		ef (concave, convex, n		Slope: 15.0 % / 8.5°
Subregion (LRR or MLRA):	Lat.:	Long	12:	Datum:
Soil Map Unit Name:		_5.1.5	NWI classifi	
Are climatic/hydrologic conditions on the site ty	pical for this time of year?	Yes No	(If no, explain in	Remarks.)
Are Vegetation , Soil , or Hydro			Circumstances" p	
Are Vegetation , Soil , or Hydro				
Summary of Findings - Attach site	The state of the s	Ç	explain any answe s. transects.	
Hydrophytic Vegetation Present? Yes	No 💿	g pome location		mportant readar co, cee
Hydric Soil Present? Yes	No (e)	s the Sampled Area	Yes O No 💿	
w ()	No •	vithin a Wetland?	Yes ∪ No 🏵	
Remarks: (Explain alternative procedures her				
Hydrology Westland Hydrology Indicators:			Canaday Indinate	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required;	check all that apply)			rs (minimum of 2 required)
Surface Water (A1)	Water-Stained Leaves (B9)		Surface Soil Cr Drainage Patte	
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Line	
Saturation (A3)	Marl Deposits (B15)			ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burro	ws (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along I	iving Roots (C3)	Saturation Visi	ble on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (C4	+)	Stunted or Str	essed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tille	d Soils (C6)	Geomorphic Po	20 2/8
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquita	125 2
☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)		Microtopograp	
Sparsely regetated concave surface (56)			FAC-neutral Te	est (D5)
Field Observations:				
Surface Water Present? Yes No •	Depth (inches):			
Water Table Present? Yes No •	Depth (inches):	Madand Had	ology Present?	Yes O No •
Saturation Present? (includes capillary fringe) Yes No •	Depth (inches):	wetianu nyur	ology Present?	res O NO O
Describe Recorded Data (stream gauge, monit	oring well, aerial photos, previou	s inspections), if avail	lable:	
Remarks:				
Remarks.				

	lants	Dominant _Species?		Sampling Point: an20 upland			
Tree Stratum (Plot size:	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:			
· · · · · · · · · · · · · · · · · · ·		0.0%	Status	Number of Dominant Species That are OBL FACW or FAC: 0 (A)			
1,2,2,	and the same party and the same	0.0%		That are OBL, FACW, or FAC: 0 (A)			
2.	0	0.0%		Total Number of Dominant			
3	0	0.0%		Species Across All Strata: 2 (B)			
4. 5.	0	0.0%		Percent of dominant Species			
6	0	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)			
6	0	0.0%	11-11-11	Prevalence Index worksheet:			
7,		= Total Cov	.	Total % Cover of: Multiply by:			
Sapling/Shrub Stratum (Plot size: 15')	U	- TOTAL COV		OBL species $0 \times 1 = 0$			
1. Rhus copallinum	25	100.0%	NI	FACW species $0 \times 2 = 0$			
2.	0	0.0%					
3	0	0.0%		10 40			
4.	0	0.0%		OF A7E			
5	0	0.0%		UPL species x 3 =			
6		0.0%		Column Totals: 105 (A) 515 (B)			
7.	0	0.0%		Prevalence Index = $B/A = 4.905$			
Herb Stratum (Plot size: 5')	25	= Total Cov	er	Hydrophytic Vegetation Indicators:			
1 . Dennstaedtia punctilobula	95	90.5%	UPL	Rapid Test for Hydrophytic Vegetation			
2. Rubus alumnus	10	9.5%	FACU-	Dominance Test is > 50%			
3.	0	0.0%		Prevalence Index is ≤3.0 ¹			
4	0	0.0%		Morphological Adaptations ¹ (Provide supporting			
5.	0	0.0%	-	data in Remarks or on a separate sheet)			
6.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)			
7.	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must			
8.	0	0.0%		be present, unless disturbed or problematic.			
9.	0	0.0%		Definitions of Vegetation Strata:			
10.	0	0.0%					
11.	0	0.0%		Tree - Woody plants, 3 in. (7,6 cm) or more in diameter at breast height (DBH), regardless of height.			
12.	0	0.0%		at breast neight (DBH), regardless of height.			
12.	_			Sapling/shrub - Woody plants less than 3 in. DBH and			
Woody Vine Stratum (Plot size:	105	= Total Cov	er	greater than 3,28 ft (1m) tall			
1,	0	0.0%		Herb - All herbaceous (non-woody) plants, regardless of			
2.	0	0.0%		size, and woody plants less than 3.28 ft tall.			
3.	0	0.0%		Mandersian All woods wines greater than 2.29 ft in			
4.	0	0.0%		Woody vine - All woody vines greater than 3,28 ft in height.			
	0	= Total Cov	or				
	U	= 10tal COV	er .				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an20 upland

Profile Descri	ption: (Desc	ribe to 1	the depti	needed to document	t the indicator or confirm the a	bsence of indicators.)	
Depth		latrix	_		dox Features		
(inches)	Color (mo	3/2	100%	Color (moist)	% Type 1 Loc2	Texture Fine Sandy Loam	Remarks
5-10	10YR	4/4	100%				
						Fine Sandy Loam	
10-18	10YR	5/8	100%			Fine Sandy Loam	
*							
				-			
¹ Type: C=Cond	entration. D=I	Depletion	n. RM=Re	luced Matrix, CS=Covere	red or Coated Sand Grains 2Locat	tion: PL=Pore Lining, M=Ma	atrix
Hydric Soil I							matic Hydric Soils: 3
Histosol (A	11)				w Surface (S8) (LRR R,	2 cm Muck (A10) (L	
Histic Epip	edon (A2)			MLRA 149B)	6 (CO) (LDD D MLDA 140D)		(A16) (LRR K, L, R)
Black Histi					face (S9) (LRR R, MLRA 149B) Mineral (F1) LRR K, L)	The second secon	r Peat (S3) (LRR K, L, R)
	Sulfide (A4)			Loamy Gleyed I	The state of the s	Dark Surface (S7) ((LRR K, L)
	ayers (A5)	door / 1 1	48	Depleted Matrix		Polyvalue Below Su	rrface (S8) (LRR K, L)
	Below Dark Sur Surface (A12)		1)	Redox Dark Sur	A STATE OF THE STA	Thin Dark Surface (
-	k Mineral (S1)			Depleted Dark			asses (F12) (LRR K, L, R)
	yed Matrix (S4			Redox Depressi	sions (F8)	The second section of the second section is a second section of the second section of the second section secti	n Soils (F19) (MLRA 149B)
Sandy Rec		,					(MLRA 144A, 145, 149B)
Stripped M						Red Parent Material Very Shallow Dark	A
Dark Surfa	ce (S7) (LRR I	R, MLRA	149B)			Other (Explain in Re	
³ Indicators of	hydrophytic ve	egetation	and wet	and hydrology must be p	present, unless disturbed or proble	9 3	
Restrictive La	200000 000						
Type:							2
Depth (inch	es):					Hydric Soil Present?	Yes O No 💿
Remarks:							
, and the same of							



AN20 Wetland



AN20 Upland

Applicant/Owner: Eolian Renewable Energy, LLC Investigator(s): AF JG Landform (hillslope, terrace, etc.): Toeslope		
Landform (hillslope, terrace, etc.): Toeslope	St	ate: NH Sampling Point: an21 wetland
10 V W W	Section, Township, Range	: S. T. R.
Cubusaian (LDD au MLDA):	Local relief (concave, convex,	none): concave Slope: 3.0 % / 1.7
Subregion (LRR or MLRA):	Lat.: Lor	ng.: Datum:
Soil Map Unit Name:		NWI classification: PEM
	this time of year? Yes No	2 September 11- Programme (1) is supplemented in the control of th
Are climatic/hydrologic conditions on the site typical for	in and or year.	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology		al Circumstances" present? Yes V No
Are Vegetation , Soil , or Hydrology		, explain any answers in Remarks.)
Summary of Findings - Attach site map	showing sampling point locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No O		
Hydric Soil Present? Yes No No	Is the Sampled Area within a Wetland?	Yes No
Wetland Hydrology Present? Yes No		
Hydrology		
Wetland Hydrology Indicators:		Consider a Tradication (which was a 2 area land)
Primary Indicators (minimum of one required; check al	I that apply)	Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6)
Times, Transaction (times, and the required) and an		
Surface Water (A1)		Drainage Patterns (B10)
==	ater-Stained Leaves (B9) uatic Fauna (B13)	☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16)
✓ High Water Table (A2) Aq Aq	ater-Stained Leaves (89) uatic Fauna (B13) url Deposits (B15)	
 ✓ High Water Table (A2) ✓ Saturation (A3) ✓ Ma 	uatic Fauna (B13)	Moss Trim Lines (B16)
✔ High Water Table (A2) Aq ✔ Saturation (A3) Ma Water Marks (B1) Hy Sediment Deposits (B2) Ox	uatic Fauna (B13) rf Deposits (B15)	Moss Trim Lines (B16) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
✓ High Water Table (A2) ☐ Aq ✓ Saturation (A3) ☐ Ma ☐ Water Marks (B1) ☐ Hy ☐ Sediment Deposits (B2) ☐ Ox ☐ Drift deposits (B3) ☐ Pre	uatic Fauna (B13) Irl Deposits (B15) drogen Sulfide Odor (C1) idized Rhizospheres along Living Roots (C3) esence of Reduced Iron (C4)	Moss Trim Lines (B16) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
✓ High Water Table (A2) Aq ✓ Saturation (A3) Ma Water Marks (B1) Hy ○ Sediment Deposits (B2) Ox ○ Drift deposits (B3) Pre Algal Mat or Crust (B4) Re	uatic Fauna (B13) Irl Deposits (B15) drogen Sulfide Odor (C1) idized Rhizospheres along Living Roots (C3) esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils (C6)	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)
✓ High Water Table (A2) Aq ✓ Saturation (A3) Ma Water Marks (B1) Hy ○ Sediment Deposits (B2) Ox ○ Drift deposits (B3) Pre Algal Mat or Crust (B4) Re □ Iron Deposits (B5) Th	uatic Fauna (B13) Ind Deposits (B15) drogen Sulfide Odor (C1) idized Rhizospheres along Living Roots (C3) esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils (C6) in Muck Surface (C7)	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)
✓ High Water Table (A2) Aq ✓ Saturation (A3) Ma Water Marks (B1) Hy ○ Sediment Deposits (B2) Ox ○ Drift deposits (B3) Pre Algal Mat or Crust (B4) Re □ Iron Deposits (B5) Th	uatic Fauna (B13) Irl Deposits (B15) drogen Sulfide Odor (C1) idized Rhizospheres along Living Roots (C3) esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils (C6)	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)
✓ High Water Table (A2) Aq ✓ Saturation (A3) Ma Water Marks (B1) Hy Sediment Deposits (B2) Ox Drift deposits (B3) Pre Algal Mat or Crust (B4) Re Iron Deposits (B5) Th Inundation Visible on Aerial Imagery (B7) Otl Sparsely Vegetated Concave Surface (B8)	uatic Fauna (B13) Ind Deposits (B15) drogen Sulfide Odor (C1) idized Rhizospheres along Living Roots (C3) esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils (C6) in Muck Surface (C7)	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)
✓ High Water Table (A2) ☐ Aq ✓ Saturation (A3) ☐ Ma ☐ Water Marks (B1) ☐ Hy ☐ Sediment Deposits (B2) ☐ Ox ☐ Drift deposits (B3) ☐ Pre ☐ Algal Mat or Crust (B4) ☐ Re ☐ Iron Deposits (B5) ☐ Th ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other ☐ Sparsely Vegetated Concave Surface (B8) Field Observations:	uatic Fauna (B13) Irl Deposits (B15) drogen Sulfide Odor (C1) idized Rhizospheres along Living Roots (C3) esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils (C6) in Muck Surface (C7) her (Explain in Remarks)	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)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Aq	uatic Fauna (B13) Irl Deposits (B15) drogen Sulfide Odor (C1) idized Rhizospheres along Living Roots (C3) esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils (C6) in Muck Surface (C7) her (Explain in Remarks)	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)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No □ No	uatic Fauna (B13) Int Deposits (B15) drogen Sulfide Odor (C1) idized Rhizospheres along Living Roots (C3) esence of Reduced Iron (C4) cent Iron Reduction in Tilled Soils (C6) in Muck Surface (C7) her (Explain in Remarks) Depth (inches):	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)

Absolute	R		Indicator	Dominance Test worksheet:
% Cover	C	over	Status	Number of Dominant Species
0		0.0%		That are OBL, FACW, or FAC: 5 (A)
0		0.0%		Total Number of Dominant
0		0.0%		Species Across All Strata: 5 (B)
0		0.0%		
0		0.0%	_	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
0		0.0%		That are obt., Facty, of Fac.
0		0.0%		Prevalence Index worksheet:
0	= T	otal Cove	er	Total % Cover of: Multiply by: OBL species 75 x 1 = 75
5	V	33.3%	FACW	
5	V	33.3%	FAC	
5	~	33,3%	FACW+	FAC species $5 \times 3 = 15$
		0.0%		FACU species $0 \times 4 = 0$
0				UPL species $0 \times 5 = 0$
0				Column Totals: 124 (A) 178 (B)
0	П			Prevalence Index = B/A = 1.435
	_ T			Prevalence Index = B/A = 1.435
15	= 10	otal Cove	er	Hydrophytic Vegetation Indicators:
5		4.6%	FACW	Rapid Test for Hydrophytic Vegetation
		10000000	The second secon	✓ Dominance Test is > 50%
	П	Section 1		Prevalence Index is ≤3.0 ¹
	1	_		Morphological Adaptations ¹ (Provide supporting
		-		data in Remarks or on a separate sheet)
	-			Problematic Hydrophytic Vegetation ¹ (Explain)
			ODL	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
- productions		200 00 000		
				Tree - Woody plants, 3 in. (7,6 cm) or more in diameter
		-	1	at breast height (DBH), regardless of height.
				Sapling/shrub - Woody plants less than 3 in, DBH and
109	= T	otal Cove	er	greater than 3,28 ft (1m) tall.,
0		0.0%		Herb - All herbaceous (non-woody) plants, regardless o
0	Ц	0.0%		size, and woody plants less than 3.28 ft tall.
0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
0		0.0%		height.
0	= T	otal Cove	er	
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 15 5 8 1 50 20 25 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 5	0

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an21 wetland

Profile Descr	iption: (Des	cribe to	the depth	needed to d	locument	the indic	ator or co	onfirm the a	absence of indicators.)		
Depth (inches)	The second second	Matrix	- 0/	Colon (dox Featu		Lanz	Taxtura	Day	ulca
	Color (n		9/0	Color (noist)	%	Type	Loc2	Texture	Ker	narks
0-9	10YR	3/2	100%	-					Loam		
9-14	2.5Y	4/2	95%	10YR	4/6	5%	С	М	Fine Sandy Loam		
								,			
								_			

			-								
								-			
			-	-				-			-
1 Times C. Com	nantastian D	Danletia	» DM Da	dupped Materia	C Carran	ad au Canta	-d Cd C-	nina 31 aan	stion. Di Dovo Lining M. M.	ndrafi.e	
		=Depletio	п. км=ке	duced Matrix, I	LS=Covere	ed or Coate	ed Sand Gr	ains ²Loca	ation: PL=Pore Lining. M=M		2
Hydric Soil I Histosol (A				Polya	ralue Belov	w Surface ('S9\ (I DD I		Indicators for Proble		
-	pedon (A2)				A 149B)	W Surface ((30) (LKK I	ν,	2 cm Muck (A10) (Contract of the Contract of	and the state of t
Black Hist				Thin	Dark Surfa	ace (S9) (I	LRR R, MLI	RA 149B)	Coast Prairie Redo		
Hydrogen	Sulfide (A4)					Mineral (F1)	5 cm Mucky Peat of Dark Surface (S7)		LRR N, L, N)
provide	Layers (A5)				The same of the same	Matrix (F2))		Polyvalue Below Si		RR K, L)
	Below Dark S	Samuel and States	11)		eted Matrix ox Dark Su				Thin Dark Surface		
	k Surface (A1			-		Surface (F)	7)		Iron-Manganese M	asses (F12) ((LRR K, L, R)
100000000000000000000000000000000000000	ck Mineral (S	- T- C			x Depress		,		Piedmont Floodpla		THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW
Sandy Re	eyed Matrix (S)							Mesic Spodic (TA6	11.30.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	A, 145, 149B)
	Matrix (S6)								Red Parent Materia		2)
	ace (S7) (LRR	R, MLRA	149B)						✓ Very Shallow Dark Other (Explain in F		.2)
3 Indicators of	hvdronhvtic	vegetatio	n and wetl	and hydrology	must be n	resent un	less distur	ned or proble		ierriar kay	
2 00	200-201		ir dila weti	ana nyarology	тазсье р	nesenc, an	icaa diatan	oca or probit	- Induc.		
Restrictive La Type: bo	The same of the sa	ervea):									
Depth (incl									Hydric Soil Present?	Yes 💿	No O
	163). 17			-							
Remarks:											
									*		

Project/Site: Antrim Wind Project		City/County: Antrim		Sampling Date: 16-Aug-11
Applicant/Owner: Eolian Renewable Ene	ergy, LLC	St	ate: NH	Sampling Point: an21 upland
Investigator(s): AF JG		Section, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): -	Hillside	Local relief (concave, convex,		Slope: 18.0 % / 10.2 °
Subregion (LRR or MLRA):	Lat,;	Lon	q.:	Datum:
Soil Map Unit Name:	- A-		NWI classif	ication:
	A(r1A - A - 1 - 1 6 - AL1 - A1	vear? Yes No		
Are climatic/hydrologic conditions on		,	(If no, explain in	w @ w O
			l Circumstances" p	present? Tes C NO C
			explain any answe	
Summary of Findings - Atta		sampling point location	ns, transects,	important features, etc.
	Yes No	To the Complet Aven		
Hydric Soil Present?	Yes No 💿	Is the Sampled Area within a Wetland?	Yes O No 🖲)
Wetland Hydrology Present?	Yes No 💿			
Hydrology				
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicato	ors (minimum of 2 required)
Primary Indicators (minimum of one			Surface Soil C	
Surface Water (A1) High Water Table (A2)	Water-Stained Le	. ,	Drainage Patt	
Saturation (A3)	☐ Aquatic Fauna (B☐ Marl Deposits (B)		Moss Trim Lin	ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide		Crayfish Burro	
Sediment Deposits (B2)		pheres along Living Roots (C3)		ible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Red			ressed Plants (D1)
Algal Mat or Crust (B4)		uction in Tilled Soils (C6)	Geomorphic P	WC 25
☐ Iron Deposits (B5)	Thin Muck Surface	AND AND THE PARTY OF THE PARTY	Shallow Aquita	ard (D3)
Inundation Visible on Aerial Imagery	(B7) Other (Explain in	Remarks)	Microtopograp	phic Relief (D4)
Sparsely Vegetated Concave Surface		,	FAC-neutral T	est (D5)
Field Observations:			_	
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No Depth (inches):			
Saturation Present?	1	Wetland Hyd	lrology Present?	Yes O No 🖲
(includes capillary milige)			: - - -	-
Describe Recorded Data (stream gau	ige, monitoring well, aerial pho	itos, previous inspections), ir ava	liable;	
Remarks:				

Absolute		ecies? I.Strat.	Indicator	Dominance Test v	vorksheet:			
% Cover	Co	ver	Status	Number of Dominar	nt Species			
0		0.0%					1	(A)
0	Ц	0.0%		Total Number of Do	minant			
0	Ц	0.0%		Contraction of the Contract Co			6	(B)
0	Ц	0.0%		B				
0	Ц	(8.3,8.3,8.					16.7%	(A/B)
	Ш			That file Obe, 17	ici, 61 1710			
0		0.0%						
0	= To	tal Cove	er					
5	~	20.0%	FAC		-		_	
-	100000			FACW species	4	x 2 =		
-	-			FAC species	8	x 3 =		-
	-	A-17 - 112-		FACU species	28	x 4 =	112	_
	percentage			UPL species	95	x 5 =	475	
The second second			TACO	Column Totals:	131	(A)	611	(B)
0	П		-		. D/4		1 CC1	
	- To			Prevalence II	ndex = B/A	=	4.004	
25	- 10	MI COVE	31	C-1				
95	\checkmark	89.6%	UPL			-	etation	
3		2.8%	FAC	(
8		7.5%	FACU			-7		
0		0.0%		Morphologic	al Adaptati	ons ^l (P	rovide sup	porting
0		0.0%						nlain)
. 0		0.0%		Problematic	пушторнуш	c vegeti	10011 (EX	piami
0		0.0%						gy must
0		0.0%		be present, unles	s disturbed	or prob	lematic.	
0		0.0%		Definitions of V	egetation	Strata	a:	
0		0.0%		Tree Woody play	nte 3 in /7	6 cm) c	or more in	diameter
		0.0%						ulainetei
0		0.0%						
106	= To	tal Cove	er				ian 3 in, D	BH and
		121200			. ,			
-		7/100						ardless o
-	Ξ.			Size, and woody p	nama 1633 i	iidii 0,2	o it tall.	
					woody vine:	s greate	r than 3,28	3 ft in
-				height.				
0	= To	tal Cove	er					
				Hydrophytic Vegetation Present?	∕es ○ N	lo		
	% Cover 0 0 0 0 0 0 0 0 0 0 0 0 5 5 5 5 0 0 0 25 95 3 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	% Cover Co 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	% Cover Cover 0	% Cover Cover Status 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 5 ✓ 20.0% FACU 5 ✓ 20.0% FACU 5 ✓ 20.0% FACU 5 ✓ 20.0% FACU 0 0.0% O 0 0.0% O 0 0.0% O 0 <	Cover Cover Status	Number of Dominant Species That are OBL, FACW, or FAC:	% Cover Cover Status 0 0.0% 0.0% 0 0.0% Total Number of Dominant Species That are OBL, FACW, or FAC: 0 0.0% Percent of dominant Species That Are OBL, FACW, or FAC: 0 0.0% Percent of dominant Species That Are OBL, FACW, or FAC: 0 0.0% Prevalence Index worksheet: 5 ✓ 20.0% FACU 0 0.0% FACU 0 0.0% FACU 0 0.0% FACU 95 ✓ 89.6% UPL 3 2.8% FAC 8 7.5% FACU 0 0.0% Dominant Species 1 TACU TOTAL Cover 9 Prevalence Index worksheet: Total Number of Dominant Species 1 T	Number of Dominant Species That are OBL, FACW, or FAC: 1

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an21 upland

Profile Descr	iption: (Descr	ibe to the	depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth		atrix _		Redox Features		
(inches)	Color (mo		%	Color (moist) % Type 1 Loc²	Texture	Remarks
0-4	10YR		00%		Fine Sandy Loam	
4-9	10YR	4/6 1	00%		Fine Sandy Loam	
	-					
			_			
¹ Type: C=Cond	centration. D=D	epletion. F	RM=Red	uced Matrix, CS=Covered or Coated Sand Grains 2Loca	ation: PL=Pore Lining. M=M	atrix
Hydric Soil I					Indicators for Proble	ematic Hydric Soils: 3
Histosol (A				Polyvalue Below Surface (S8) (LRR R, MLRA 149B)		(LRR K, L, MLRA 1498)
	pedon (A2)			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redo	x (A16) (LRR K, L, R)
Black Histi	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat of	or Peat (S3) (LRR K, L, R)
	Layers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	
	Below Dark Surf	ace (A11)		Depleted Matrix (F3)		urface (S8) (LRR K, L)
	k Surface (A12)			Redox Dark Surface (F6)	Thin Dark Surface	79 5. 2
The second second	ck Mineral (S1)			Depleted Dark Surface (F7)		lasses (F12) (LRR K, L, R) in Solls (F19) (MLRA 149B)
Sandy Gle	yed Matrix (S4)			Redox Depressions (F8)) (MLRA 144A, 145, 149B)
Sandy Red	dox (S5)				Red Parent Materia	
Stripped M	fatrix (S6)				☐ Very Shallow Dark	
Dark Surfa	ace (S7) (LRR R	, MLRA 14	9B)		Other (Explain in F	
³ Indicators of	hydrophytic ve	getation ar	nd wetla	nd hydrology must be present, unless disturbed or probl	ematic.	
Restrictive La	yer (if observ	red):				
Type:						
Depth (inch	nes):				Hydric Soil Present?	Yes O No 💿
Remarks:						
11011,011						



AN21 Wetland



AN21 Upland

Section, Township, Range: S. T. R.	Project/Site: Antrim Wind Project		City/	County: Antrim		Sampling Date: 17-Aug-11
Landform (hillslope, terrace, etc.): Hillside	Applicant/Owner: Eolian Renewable	Energy, LLC		Sta	ite: NH	Sampling Point: an22 wetland
Landform (hillslope, terrace, etc.): Hillside Lat: Lang: Datums Datums Subregion (LRR or MLRA): Lat: Lang: MUXI classification PSS Are climatic/hydrologic conditions or 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, ell hydrology Present? Yes ® No Lath Sampled Area within a Wetland Hydrology Present? Yes ® No Lath Sampled Area within a Wetland Hydrology Present? Yes ® No	Investigator(s): AF JG		Se	ection, Township, Range:	s. T.	R.
Subregion (IRR or HLRA): Lat: Long: Datum:	Landform (hillslope, terrace, etc.):	Hillside			1 20 20 20 20 20 20 20 20 20 20 20 20 20	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation					e umb	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ® No O (If no, explain in Remarks.) Are Vegetation			LOL.	Lon		
Are Vegetation				0 0	NWI CIASSIT	ication: PSS
Are Vegetation	Are climatic/hydrologic conditions	on the site typic	cal for this time of year?	Yes No	(If no, explain in	
Summary of Findings - Attach site map showing sampling point locations, transects, important features, ell Hydrophytic Vegetation Present? Yes No Sol Sol Sol Sol Sol Sol Sol Sol Sol So	Are Vegetation , Soil	, or Hydrolog	y 🗌 significantly dist	urbed? Are "Norma	l Circumstances" p	present? Yes • No ·
Hydrophytic Vegetation Present? Yes No Solution No Southern end of Wetland Hydrology Present? Yes No Solution No Southern end of Wetland Hydrology Present? Yes No Solution No Southern end of Wetland Hydrology Indicators: Primary Indicators (Minimum of one required; check all that apply) Surface Soil Cracks (B6) Drainage Patterns (B10) Drainage P	Are Vegetation . , Soil	, or Hydrolog	y 🗌 naturally problem	matic? (If needed,	explain any answ	ers in Remarks.)
Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a separate report.) Isolated PSS with moose wallow on southern end of wetland. Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Aquatic Faune (B13) Aquatic Faune (B13) Solided PSS with mose wallow on southern end of wetland. Wetland Hydrology Indicators (minimum of one required) Field Observations: Surface Water (A1) Again Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Spansely Vegetated Concave Surface (B8) Vege No Depth (Inches): Surface Water (A1) Again Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Spansely Vegetated Concave Surface (B8) Depth (Inches): Surface Water (A1) Surface Water (A1) Moss Trim Lines (B16) Depth (Inches): Surface Water (A1) Depth (Inches): Surf	Summary of Findings - A	ttach site n	nap showing samp	ling point location	ns, transects,	, important features, etc.
Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a separate report.) Isolated PSS with moose wallow on southern end of wetland. Hydrology Wetland Hydrology Indicators: Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Marl Deposits (B15) Wetland Hydrology Struction (A3) Hydrogen Suffice Odor (C1) Saturation (A3) Hydrogen Suffice Odor (C1) Sediment Deposits (B2) Oxidized Rhydrogen Suffice Odor (C1) Sediment Deposits (B3) Presence of Reduced Iron (C4) Spansely Vegetated Concave Surface (B8) Fill Iron Deposits (B1) Iron Deposits (B1) Depth (Inches): Saturation Present? Yes No Depth (Inches): Saturation Present? Yes No Depth (Inches): Depth (Inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Hydrophytic Vegetation Present?	Yes N	lo O			
## Remarks: (Explain alternative procedures here or in a separate report.) Isolated PSS with moose wallow on southern end of wetland. Wetland Hydrology Indicators:	Hydric Soil Present?	Yes N	lo O		Yes No)
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of 2 required) Surface Water (A1) High Water Table (A2) Water Marks (B1) Water Marks (B1) Drift deposits (B2) Drift deposits (B2) Drift deposits (B3) Prisesence of Reduced Iron (C4) Saturation (Visible on Aerial Imagery (B7) Indicator (B4) High Water (B5) Drift deposits (B3) Primary Indicators (minimum of 2 required) Primary Indicators (minimum of 2 required) Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10) Dry Season Water Table (A2) Dry Season Water Table (C2) Caryfish Burrows (C8) Sediment Deposits (B2) Dry Season Water Table (C2) Drift deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Agal Mat or Crust (B4) Recent Iron Reduction in Tilled Solls (C6) Geomorphic Position (D2) Inon Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Hindradton Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Present?	Yes N	lo O	Tricking Woodana.		
Primary Indicators (minimum of one required; check all that apply) Surface Soil Cracks (86) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16) Dry Season Water Table (C2) Water Marks (B1) Water Marks (B1) Dry Season Water Table (C2) Crayfish Burrows (C8) Sediment Deposits (B2) Drift deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface (C7) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Marks (B1) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Hydrology					
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water Apple (A2) Aquatic Fauna (B13) Moss Trim Lines (B16) Dry Season Water Table (C2) Crayfish Burrows (C8) Sediment Deposits (B1) Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquatard (D3) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): No Depth (inches): Depth (inches): Depth (inches): No Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Indicators:				Secondary Indicate	ors (minimum of 2 required)
High Water Table (A2) Aquatic Fauna (B13) Marl Deposits (B15) Dry Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Drift deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Jiron Deposits (B5) Thin Muck Surface (C7) Jinundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table (A2) Aquatic Fauna (B13) Marl Deposits (B15) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-neutral Test (D5) Field Observations: Surface Water Present? Wetland Hydrology Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): O Wetland Hydrology Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Primary Indicators (minimum of c	ne required; ch	eck all that apply)			
Water Marks (B1)	Surface Water (A1)	F	✔ Water-Stained Leaves (B9	9)	☐ Drainage Patt	erns (B10)
Water Marks (B1)		[Aquatic Fauna (B13)		Moss Trim Lin	nes (B16)
Sediment Deposits (B2)		ĺ	Marl Deposits (B15)			
Drift deposits (B3)		Į				
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Obeyth (inches): Obeyth (in		Į				
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Shallow Aquitard (D3) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Microtopographic Relief (D4) ☐ Sparsely Vegetated Concave Surface (B8) ☐ FAC-neutral Test (D5) ☐ FAC-neutral Test (D5) ☐ FAC-neutral Test (D5) ☐ FAC-neutral Test (D5) ☐ Depth (inches): ☐ Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): ☐ Depth (inches): ☐ Depth (inches): ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ No ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ Other (Explain		Į.			==-	
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Microtopographic Relief (D4) ☐ Sparsely Vegetated Concave Surface (B8) ☐ FAC-neutral Test (D5) ☐ F		ı.		Tilled Solls (C6)		
Field Observations: Surface Water Present? Water Table Present? Saturation Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		≥ry (B7) [c)		
Surface Water Present? Water Table Present? Yes No Depth (inches): Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): O Depth (inches): Depth (inches): O D D D D D D D D D D D D	Sparsely Vegetated Concave Surfa	ice (B8)	Other (Explain in Remark.	3)		
Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): O Wetland Hydrology Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Field Observations:					
Saturation Present? Yes No Depth (inches): 0 Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		O No	Depth (inches):			
Saturation Present? Yes No Depth (inches): 0 Wetland Hydrology Present? Yes No Depth (inches): 0 Vescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table Present? Yes	○ No	Depth (inches):			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Vac	● No ○	201 12.74 MIRROR 1000 -		rology Present?	Yes No
	(Includes capillary Itilide)	NO.SEA.		vious inspections) if ava	ilahle [.]	
Remarks:	Describe Necoraca Data (stream)	laage, momen	ng wen, dental photos, pre	rious inspections,, ii uvu	nable.	
Remarks:						
	Remarks:					

Status 0% 0% 0% 0% 0% 0% 0% Cover 8% FACW .1% FAC .4% FACW .7% FAC 0% 0% 0% Cover	Number of Dominant Species That are OBL, FACW, or FAC: 4 Total Number of Dominant Species Across All Strata: 4 B) Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 8 X 1 = 8 FACW species 55 X 2 = 110 FAC species 36 X 3 = 108 FACU species 0 X 4 = 0 UPL species 0 X 5 = 0 Column Totals: 99 (A) 226 (B)
0% 0% 0% 0% 0% 0% Cover .8% FACW .1% FAC .4% FACW .7% FAC	Total Number of Dominant Species Across All Strata: 4 B) Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 8 x 1 = 8 FACW species 55 x 2 = 110 FAC species 36 x 3 = 108 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
0% 0% 0% 0% Cover .8% FACW .1% FAC .4% FACW .7% FAC 0% 0%	Species Across All Strata: 4 (B) Percent of dominant Species 100.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 8
0% 0% 0% 0% Cover	Percent of dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 8 x 1 = 8 FACW species 55 x 2 = 110 FAC species 36 x 3 = 108 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
0% 0% 0% Cover .8% FACW .1% FAC .4% FACW .7% FAC 0% 0%	That Are OBL, FACW, or FAC: 100.0% (A/B Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 8 x 1 = 8 FACW species 55 x 2 = 110 FAC species 36 x 3 = 108 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
0% 0% Cover .8% FACW .1% FAC .4% FACW .7% FAC 0% 0%	That Are OBL, FACW, or FAC: 100.0% (A/B Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 8 x 1 = 8 FACW species 55 x 2 = 110 FAC species 36 x 3 = 108 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
0% Cover .8% FACW .1% FAC .4% FACW .7% FAC 0% 0%	Total % Cover of: Multiply by: OBL species 8 x 1 = 8 FACW species 55 x 2 = 110 FAC species 36 x 3 = 108 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
.8% FACW .1% FAC .4% FACW .7% FAC 0% 0%	Total % Cover of: Multiply by: OBL species 8 x 1 = 8 FACW species 55 x 2 = 110 FAC species 36 x 3 = 108 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
.8% FACW .1% FAC .4% FACW .7% FAC 0% 0%	OBL species 8 x 1 = 8 FACW species 55 x 2 = 110 FAC species 36 x 3 = 108 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
.1% FAC .4% FACW .7% FAC 0% 0%	FACW species 55 x 2 = 110 FAC species 36 x 3 = 108 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
.1% FAC .4% FACW .7% FAC 0% 0%	FAC species 36 x 3 = 108 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
.4% FACW .7% FAC 0% 0%	FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
.7% FAC 0% 0% 0%	UPL species $0 \times 5 = 0$
0% 0% 0%	UPL species x 5 =
0% 0%	Column Totals: 99 (A) 226 (B
0%	
	D
Lover	Prevalence Index = B/A = 2.283
	Hydrophytic Vegetation Indicators:
.0% FACW	Rapid Test for Hydrophytic Vegetation
.4% FACW	✓ Dominance Test is > 50%
HONO STREET	Prevalence Index is ≤3.0 ¹
	Morphological Adaptations ¹ (Provide supporting
	data in Remarks or on a separate sheet)
10000	Problematic Hydrophytic Vegetation ¹ (Explain)
	Indicators of hydric soil and wetland hydrology must
	be present, unless disturbed or problematic.
	Definitions of Vegetation Strata:
	- Section of the sect
	Tree - Woody plants, 3 in, (7.6 cm) or more in diamet
The state of the s	at breast height (DBH), regardless of height.
	Sapling/shrub - Woody plants less than 3 in, DBH and
Cover	greater than 3.28 ft (1m) tall
	Herb - All herbaceous (non-woody) plants, regardless
0%	size, and woody plants less than 3.28 ft tall.
0%	Woody vine - All woody vines greater than 3.28 ft in
0%	height,
Cover	
	5.7% OBL .9% FAC .0% .0% .0% .0% .0% .0% .0% .0% .0% .0%

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an22 wetland

Profile Description: (Describe to the depth	needed to document th	ne indicator or co	nfirm the ab	bsence of indicators.)	
Depth Matrix		x Features			
(inches) Color (moist) %	Color (moist)	% Type 1	Loc ²	Texture Remark	KS
0-8 10YR 3/2 100%				Loam	
8-15 2.5Y 4/2 90%	10YR 5/8	10% C	М	Fine Sandy Loam	
			-		
¹ Type: C=Concentration. D=Depletion. RM=Red	uced Matrix, CS=Covered	or Coated Sand Gra	ains ² Locati	ion: PL=Pore Lining, M=Matrix	
Hydric Soil Indicators:				Indicators for Problematic Hydric S	nils · 3
Histosol (A1)	Polyvalue Below S	Surface (S8) (LRR R	.,	2 cm Muck (A10) (LRR K, L, MLRA 1	
Histic Epipedon (A2)	MLRA 1498)			Coast Prairie Redox (A16) (LRR K, L	
Black Histic (A3)		(S9) (LRR R, MLR		5 cm Mucky Peat or Peat (S3) (LRR	
Hydrogen Sulfide (A4)		neral (F1) LRR K, L)		Dark Surface (S7) (LRR K, L)	14 44 1.9
Stratified Layers (A5)	Loamy Gleyed Ma			Polyvalue Below Surface (S8) (LRR	K, L)
✓ Depleted Below Dark Surface (A11)	Depleted Matrix (I Redox Dark Surfa	No. of Contract of		Thin Dark Surface (S9) (LRR K, L)	
Thick Dark Surface (A12)	Depleted Dark Sur	The second secon		☐ Iron-Manganese Masses (F12) (LRR	K, L, R)
Sandy Muck Mineral (S1)	Redox Depression			Piedmont Floodplain Soils (F19) (ML	
Sandy Gleyed Matrix (S4)				Mesic Spodic (TA6) (MLRA 144A, 14	15, 1498)
Sandy Redox (S5)				Red Parent Material (TF2)	
☐ Stripped Matrix (S6) ☐ Dark Surface (S7) (LRR R, MLRA 149B)				☐ Very Shallow Dark Surface (TF12)	
				Uther (Explain in Remarks)	
³ Indicators of hydrophytic vegetation and wetle	nd hydrology must be pre-	sent, unless disturb	ed or problen	matic.	
Restrictive Layer (if observed):					
Type: stony				Hydric Soil Present? Yes N	0 0
Depth (inches): 15				Hydric Soil Present? Yes 🥯 N	o
Remarks:					

Project/Site: Antrim Wind Project	City/County: Antrim Sampling Date: 17-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC	State: NH Sampling Point: AN22 Upland
Investigator(s): AF JG	Section, Township, Range: S. T. R.
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): flat Slope: 12.0 % / 6.8°
Subregion (LRR or MLRA):	Lat.: Long.: Datum:
Soil Map Unit Name:	NWI classification:
Are climatic/hydrologic conditions on the site typical for	this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology	significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology	naturally problematic? (If needed, explain any answers in Remarks.)
Summary of Findings - Attach site map	showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No	
Hydric Soil Present? Yes No 💿	Is the Sampled Area within a Wetland?
Wetland Hydrology Present? Yes No 💿	
Hydrology	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a	Secondary Indicators (minimum of 2 required) Il that apply) Surface Soil Cracks (B6)
	ater-Stained Leaves (B9) Drainage Patterns (B10)
	quatic Fauna (B13) Moss Trim Lines (B16)
	arl Deposits (B15) Dry Season Water Table (C2)
	rdrogen Sulfide Odor (C1) Crayfish Burrows (C8)
	kidized Rhizospheres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9) esence of Reduced Iron (C4) Stunted or Stressed Plants (D1)
	esence of Reduced Iron (C4) Stunted or Stressed Plants (D1) exert Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)
	nin Muck Surface (C7) Shallow Aquitard (D3)
Townships Visible on Assist Transport (DZ)	ther (Explain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes No No	
	Depth (inches):
	Depth (inches): Wetland Hydrology Present? Yes No No
(includes capillary fringe) Yes O No O	Depth (inches):
Describe Recorded Data (stream gauge, monitoring we	ell, aerial photos, previous inspections), if available:
Remarks:	

			ominant oecies?		Sampling Point: AN22 Upland
Tree Stratum (Plot size: 30')	Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:
1 Tsuga canadensis	20	~	33.3%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2. Betula papyrifera	10		16.7%	FACU	
3. Fagus grandifolia	20	~	33.3%	FACU	Total Number of Dominant Species Across All Strata: 6 (B)
Acer rubrum	10		16.7%	FAC	Species Acious Air Strate.
5.	0		0.0%		Percent of dominant Species
3.	0		0.0%		That Are OBL, FACW, or FAC: 16.7% (A/B)
7.			0.0%		Prevalence Index worksheet:
		= To	otal Cove	r	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')					OBL species 0 x 1 = 0
. Betula alleghaniensis	25	V	50.0%	FAC	FACW species 0 x 2 = 0
2. Acer pensylvanicum	15	~	30.0%	FACU	FAC species 45 x 3 = 135
3. Fagus grandifolia	10	V	20.0%	FACU	00 200
	0		0.0%		CC 320
5,	0		0.0%		url species X 3 =
5	0		0.0%		Column Totals: 201 (A) 825 (B)
7.	0		0.0%		Prevalence Index = $B/A = 4.104$
Herb Stratum (Plot size: 5'		= To	otal Cove	r	Hydrophytic Vegetation Indicators:
1. Trientalis borealis	10		11.0%	FAC	Rapid Test for Hydrophytic Vegetation
2. Dennstaedtia punctilobula	66	1	72.5%	UPL	Dominance Test is > 50%
3.Aralla nudicaulis	15		16.5%	FACU	Prevalence Index is ≤3.0 1
4.	0		0.0%	7.50,444	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.	0		0.0%		Card and the Committee of the Committee
6.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
7.	0		0.0%		1 Indicators of hydric soil and wetland hydrology must
8.	0	H	0.0%		be present, unless disturbed or problematic.
9.			0.0%		Definitions of Vegetation Strata:
0.			0.0%		
1.	0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
2.	0		0.0%		at breast height (DBH), regardless of height.
2.	0	L-i	0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)		= To	otal Cove	r	greater than 3.28 ft (1m) tall.,
1			0.0%	-1	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2		H	0.0%		dizo, una woody planta load than 0.20 K tall.
3.	0	Н	0.0%		Woody vine - All woody vines greater than 3,28 ft in
4	0		0.0%	-	height.
	0	= To	otal Cove	r	
					Hydrophytic Vegetation Present? Yes No No

VEGETATION - Use scientific names of plants

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN22 Upland

			the dept	h needed to document the indicator or confin	m the	absence of indicators.)	
Depth (inches)	Color (m	Matrix loist)	%	Redox Features Color (moist) % Type 1 1	Loc2	Texture	Remarks
0-9	10YR	3/2	100%			Loam	
9-13	2.5Y	5/3	100%			Very Fine Sandy Loam	
3.15			10070			rely rine sanay count	
			-				
	-						
						-	
	-						
	-						
	-						
					-		
		Depletion	n. RM=Re	educed Matrix, CS=Covered or Coated Sand Grains	² Loca		
Hydric Soil						Indicators for Proble	ematic Hydric Soils: 3
Histosol (The second secon			Polyvalue Below Surface (S8) (LRR R, MLRA 149B)		2 cm Muck (A10) ((LRR K, L, MLRA 149B)
-	pedon (A2)			☐ Thin Dark Surface (S9) (LRR R, MLRA 14	49B)	Coast Prairie Redo	x (A16) (LRR K, L, R)
Black Hist	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)			or Peat (S3) (LRR K, L, R)
(-1	Layers (A5)			Loamy Gleyed Matrix (F2)		Dark Surface (S7)	State 100 Section 100
r	Below Dark St.	ırface (A	11)	Depleted Matrix (F3)			urface (S8) (LRR K, L)
	rk Surface (A12			Redox Dark Surface (F6)		Thin Dark Surface	
	ick Mineral (S1			Depleted Dark Surface (F7)			lasses (F12) (LRR K, L, R) in Soils (F19) (MLRA 149B)
Sandy Gle	eyed Matrix (S	4)		Redox Depressions (F8)) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)					Red Parent Materia	
Stripped	Matrix (S6)					☐ Very Shallow Dark	
Dark Surf	face (S7) (LRR	R, MLRA	149B)			Other (Explain in F	Charles Co- Nello Marie
³ Indicators of	f hydrophytic v	egetation	n and wet	tland hydrology must be present, unless disturbed o	or probl	ematic.	
Restrictive L	ayer (if obse	rved):					
Type: bo							
Depth (inc						Hydric Soil Present?	Yes O No 💿
Remarks:							
Kemarks.							



AN22 Wetland



AN22 Upland

Project/Site: Antrim Wind Project		City/County:	Antrim		Sampling Date: 17-Aug-11
Applicant/Owner: Eolian Renewable B	inergy, LLC		State:	: NH	Sampling Point: AN23 Wetland
Investigator(s): AF JG		Section, To	ownship, Range: S.	T.	R.
Landform (hillslope, terrace, etc.):	Hillside	Local relief (c	oncave, convex, nor	ne): concave	Slope: 12.0 % / 6.8°
Subregion (LRR or MLRA):		Lat.:	Long.:		Datum:
Soil Map Unit Name:				NWI classifi	ication: PFO/PSS
	on Alon oldo Arminol Enva		s ⊙ No ○ /r		
Are climatic/hydrologic conditions of Are Vegetation , Soil	, or Hydrology	significantly disturbed?	(2	If no, explain in	
				ircumstances" p	a cacife.
Are Vegetation , Soil ,	, or Hydrology	naturally problematic?			ers in Remarks.)
Summary of Findings - At	1.40	snowing sampling p	oint locations,	, transects,	important features, etc.
Hydrophytic Vegetation Present?	Yes No	To a fe	Samulad Assa		
Hydric Soil Present?	Yes No		e Sampled Area n a Wetland?	Yes No	
Wetland Hydrology Present?	Yes No				
Hydrology		ε			
Hydrology					
Wetland Hydrology Indicators:	i JbiII	Al-AL-X	Si		rs (minimum of 2 required)
Primary Indicators (minimum of or Surface Water (A1)				Surface Soil Cr	* *
High Water Table (A2)		ter-Stained Leaves (B9) latic Fauna (B13)	Ĺ	Drainage PatteMoss Trim Line	
Saturation (A3)		Deposits (B15)			ater Table (C2)
Water Marks (B1)	1	rogen Sulfide Odor (C1)		Crayfish Burro	
Sediment Deposits (B2)	Oxid	dized Rhizospheres along Living	Roots (C3)	Saturation Visi	ble on Aerial Imagery (C9)
Drift deposits (B3)	Pres	sence of Reduced Iron (C4)			essed Plants (D1)
☐ Algal Mat or Crust (B4)☐ Iron Deposits (B5)		ent Iron Reduction in Tilled Soil	ls (C6)	Geomorphic Po	
Inundation Visible on Aerial Image	(07)	Muck Surface (C7)	!- [7	Shallow Aquita Microtopograp	
Sparsely Vegetated Concave Surface	Out	er (Explain in Remarks)		✓ FAC-neutral Te	
Field Observations: Surface Water Present? Yes	No O De	epth (inches):			
61 11 8 10		epth (inches):	Wetland Hydrol	ogy Present?	Yes No
(includes capillary fringe) Yes	2000000	epth (inches): 0	0	54X &	
Describe Recorded Data (stream g	auge, monitoring well,	, aerial photos, previous ins	spections), if availab	ole:	
Remarks:					

		_Sp	ominant oecies?		Sampling Point: AN23 Wetland
Tree Stratum (Plot size: 30'	Absolute % Cover		el.Strat. over	Indicator Status	Dominance Test worksheet:
1 Fraxinus pennsylvanica	33	V	40.7%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)
2. Acer rubrum	33	V	40.7%	FAC	That are obt, then, or the
3. Betula alleghaniensis	15		18.5%	FAC	Total Number of Dominant Species Across All Strata: 5 (B)
4.	0		0.0%		Species Across Ali Strata:
5	0		0.0%		Percent of dominant Species
6.	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7.	0		0.0%		Prevalence Index worksheet:
	81	= To	otal Cove	г	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')					OBL species 5 x 1 = 5
1. Fraxinus pennsylvanica	8	V	28.6%	FACW	FACW species 139 x 2 = 278
2. Spiraea tomentosa	15	V	53.6%	FACW	FAC species 56 x 3 = 168
3. Pinus strobus	5		17.9%	FACU	FACU species $\frac{5}{}$ x 4 = $\frac{20}{}$
4	0		0.0%		UPL species $0 \times 5 = 0$
5.	0	Ц	0.0%		
6	0		0.0%		Column Totals: 205 (A) 4/1 (B)
7.	0		0.0%		Prevalence Index = $B/A = 2.298$
Herb Stratum (Plot size: 5')	28	= T	otal Cove	r	Hydrophytic Vegetation Indicators:
1.Onoclea sensibilis	75	V	78.1%	FACW	Rapid Test for Hydrophytic Vegetation
2. Osmunda cinnamomea	8		8.3%	FACW	✓ Dominance Test is > 50%
3. Equisetum arvense	8		8.3%	FAC	✓ Prevalence Index is ≤3.0 ¹
4. Carex lurida	5		5.2%	OBL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
6.	0		0.0%		
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
8.	0		0.0%		be present, unless disturbed or problematic.
9.	0		0.0%		Definitions of Vegetation Strata:
10.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11.	0		0.0%		at breast height (DBH), regardless of height.
12.	0		0.0%		
Woody Vine Stratum (Plot size:	96	= T	otal Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0	П	0.0%		size, and woody plants less than 3.28 ft tall.
3.	0	П	0.0%	-	
4.	0		0.0%		Woody vine - All woody vines greater than 3,28 ft in height.
7		_ T	otal Cove		noight.
		= 11	Stal COVE	:r	
					Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN23 Wetland

Profile Desc	ription: (Des	cribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth		Matrix	4	Redox Features	4	
(inches)	Color (m		%	Color (moist) % Type 1 Loc2	Texture	Remarks
0-7	10YR	3/2	100%		Loam	
7-15	2.5Y	4/1	100%		Sandy Loam	
Date for different factors and the second			-			
***************************************	-					
					-	
-						
¹ Type: C=Cor	ncentration. D=	Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains 2Local	ation: PL=Pore Lining, M=Matr	rix
Hydric Soil	Indicators:				Indicators for Problem	atic Hydric Soils: 3
Histosol	(A1)			Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LR	
Histic Ep	ipedon (A2)			MLRA 149B)	Coast Prairie Redox (
Black His	tic (A3)			☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)		Peat (S3) (LRR K, L, R)
	n Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	Dark Surface (S7) (L	
£	Layers (A5)			Loamy Gleyed Matrix (F2)	Polyvalue Below Surf	
✓ Depleted	Below Dark St	ırface (A	11)	Depleted Matrix (F3)	Thin Dark Surface (S	9) (LRR K, L)
Thick Da	rk Surface (A12	2)		Redox Dark Surface (F6) Depleted Dark Surface (F7)	Iron-Manganese Mas	ses (F12) (LRR K, L, R)
Sandy M	uck Mineral (S)	.)		Redox Depressions (F8)		Soils (F19) (MLRA 149B)
	eyed Matrix (S	4)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)				Red Parent Material ((TF2)
	Matrix (S6)				☐ Very Shallow Dark Su	urface (TF12)
Dark Sur	face (S7) (LRR	R, MLRA	(149B)		Other (Explain in Rer	narks)
³ Indicators of	of hydrophytic v	egetatio/	n and wetla	and hydrology must be present, unless disturbed or problem	lematic.	
Restrictive I	ayer (if obse	rved):				
Type: 5						
Depth (inc	7,000,000				Hydric Soil Present?	Yes ● No ○
Remarks:						

Project/Site: Antrim Wind Project	City/Co	ounty: Antrim		Sampling Date: 17-Aug-11
Applicant/Owner: Eolian Renewable Energy	y, LLC	Sta	ite: NH	Sampling Point: an 23 upland
Investigator(s): AF JG	Sec	tion, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Hills		elief (concave, convex,		Slope: 15.0 % / 8.5°
Subregion (LRR or MLRA):	Lat.:	Lon	q.:	Datum:
Soil Map Unit Name:			NWI classi	
M - (*)		Yes No		_
Are climatic/hydrologic conditions on the			(If no, explain in	
	r Hydrology		Circumstances"	product.
	Hydrology i naturally problema	•	explain any answ	
Summary of Findings - Attac		ing point location	is, transects	, important features, etc.
	es O No O	Is the Sampled Area		
,	es O No O	within a Wetland?	Yes O No G)
Wetland Hydrology Present?	es O No O			
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicat	ors (minimum of 2 required)
Primary Indicators (minimum of one rec		ica —	Surface Soil C	
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)		Drainage Patt Moss Trim Lir	3305500 3430500 34
Saturation (A3)	Marl Deposits (B15)			Vater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1))	Crayfish Burro	
Sediment Deposits (B2)	Oxidized Rhizospheres alon			sible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (ressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Ti	lled Soils (C6)	Geomorphic I	Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquit	ard (D3)
Inundation Visible on Aerial Imagery (B7	United (Explain in Kentarks)			phic Relief (D4)
Sparsely Vegetated Concave Surface (B8	3)		FAC-neutral 1	Fest (D5)
Field Observations:				
Surface Water Present? Yes O	No O Depth (inches):			
Water Table Present? Yes O	No Depth (inches):			0 0
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):	Wetland Hyd	rology Present?	Yes O No 🖲
Describe Recorded Data (stream gauge,	, monitoring well, aerial photos, previ	ous inspections), if ava	ilable:	
Remarks:				

VEGETATION - Use scientific names of p	iaiits	Dominant Species?			Sampling Point: an23 upland				
Tree Stratum (Plot size: 30')	Absolute % Cover	Re		Indicator Status					
1. Quercus rubra	25	V	29.4%	FACU-	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)				
2. Fagus grandifolia	20	V	29.4%	FACU	That sie obe, then, or the				
3. Betula alleghaniensis		V	29.4%	FAC	Total Number of Dominant Species Across All Strata: 6 (B)				
4. Tsuga canadensis	1000		11.8%	FACU	Species Across All Strata. (b)				
5.			0.0%		Percent of dominant Species				
6.			0.0%		That Are OBL, FACW, or FAC: 33.3% (A/B)				
7.	0		0.0%		Prevalence Index worksheet:				
Sapling/Shrub Stratum (Plot size: 15')		= Ta	otal Cove	r	Total % Cover of: Multiply by:				
1. Acer rubrum	20	V	50.0%	FAC	OBL species 0 x 1 = 0				
0		V	25.0%	FACU	FACW species 0 x 2 = 0				
2 - 1	-		12.5%	FACU	FAC species 50 x 3 = 150				
A Annual Company of the Company of t			12.5%	FACU-	FACU species $113 \times 4 = 452$				
Control Contro			0.0%	1ACO-	UPL species $\frac{3}{3}$ x 5 = $\frac{15}{3}$				
5	0		0.0%		Column Totals: 166 (A) 617 (B)				
6	0		0.0%						
7.		_			Prevalence Index = B/A = 3.717				
Herb Stratum (Plot size: 5')	40	= 10	otal Cove	r	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation				
1.Aralia nudicaulis	33	V	80.5%	FACU	Dominance Test is > 50%				
2. Trientalis borealis	5		12.2%	FAC	Prevalence Index is ≤3.0 ¹				
3. Polygonatum pubescens	3		7.3%	UPL					
4.	0		0.0%		Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)				
5.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)				
6	0		0.0%						
7.	0		0.0%		Indicators of hydric soil and wetland hydrology me				
8.	0		0.0%		be present, unless disturbed or problematic.				
9.	0		0.0%		Definitions of Vegetation Strata:				
10.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter				
11.	0		0.0%		at breast height (DBH), regardless of height.				
12.	0		0.0%		0 5 // 1 W 1 1 1 1 1 0 5 5511 1				
Woody Vine Stratum (Plot size:	41	= To	otal Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.				
	0	П	0.0%		Herb - All herbaceous (non-woody) plants, regardless of				
1. 2.	0		0.0%		size, and woody plants less than 3.28 ft tall.				
3.	0	П	0.0%	77					
4.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in height.				
4,	500	= To	otal Cove	r	neight.				
					Hydrophytic				
					Vegetation Present? Yes No No				
Remarks: (Include photo numbers here or on a separate s	sheet.)								

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an23 upland

Profile Description: (Describe t	o the depth needed to	document the indicator or confirm	the absence of indicators.)			
Depth Matrix		Redox Features				
(inches) Color (moist)		(moist) % Type I Lo				
0-9 10YR 3/2	100%		Loam			
9-12 10YR 4/3	100%		Fine Sandy Loam			
¹ Type: C=Concentration. D=Deplet	ion. RM=Reduced Matrix	c, CS=Covered or Coated Sand Grains	² Location: PL=Pore Lining, M=Matrix			
Hydric Soil Indicators:			Indicators for Problematic Hydric Soils: 3			
Histosol (A1)		lyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 1498)			
Histic Epipedon (A2)		RA 149B)	Coact Prairie Redox (A16) (IRR V I R)			
Black Histic (A3)		in Dark Surface (S9) (LRR R, MLRA 1498	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
Hydrogen Sulfide (A4)		amy Mucky Mineral (F1) LRR K, L)	Dark Surface (S7) (LRR K, L)			
Stratified Layers (A5)		amy Gleyed Matrix (F2)	Polyvalue Below Surface (S8) (LRR K, L)			
Depleted Below Dark Surface (MII)	pleted Matrix (F3)	Thin Dark Surface (S9) (LRR K, L)			
Thick Dark Surface (A12)		dox Dark Surface (F6) epleted Dark Surface (F7)	Iron-Manganese Masses (F12) (LRR K, L, R)			
Sandy Muck Mineral (S1)		dox Depressions (F8)	Pledmont Floodplain Soils (F19) (MLRA 1498)			
Sandy Gleyed Matrix (S4)	LJ KE	dox Depressions (Fe)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sandy Redox (S5)			Red Parent Material (TF2)			
Stripped Matrix (S6)			Very Shallow Dark Surface (TF12)			
Dark Surface (S7) (LRR R, MLF	RA 149B)		Other (Explain in Remarks)			
³ Indicators of hydrophytic vegetat	ion and wetland hydrolo	gy must be present, unless disturbed or p	problematic.			
Restrictive Layer (if observed):						
Type: Boulders						
Depth (inches): 12			Hydric Soil Present? Yes O No 💿			
Remarks:						
Remarks:						



AN23 Upland



AN23 Wetland

Project/Site: Antrim Wind Project	City/County: Antrim	Sampling Date: 18-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC	Sta	te: NH Sampling Point: AN24 wetland
Investigator(s): AF JG	Section, Township, Range:	S. T. R.
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex,	
Subregion (LRR or MLRA):	Lat.: Long	
Soil Map Unit Name:		NWI classification: PFO
	al for this time of year? Yes No	
Are climatic/hydrologic conditions on the site typica		(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology		of carried present.
Are Vegetation , Soil , or Hydrology		explain any answers in Remarks.)
		ns, transects, important features, etc.
	0	
	Is the Sampled Area within a Wetland?	Yes ● No ○
Wetland Hydrology Present? Yes No	0	
Hydrology		
Hydrology		
Wetland Hydrology Indicators:	als all Abab areals X	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; che		Surface Soil Cracks (B6)
✓ Surface Water (A1) High Water Table (A2)	✓ Water-Stained Leaves (B9) Aquatic Fauna (B13)	✓ Drainage Patterns (B10) Moss Trim Lines (B16)
✓ Saturation (A3)	Marl Deposits (B15)	Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	✓ Geomorphic Position (D2)
☐ Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	✓ Microtopographic Relief (D4)✓ FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No	Depth (inches): 2	
Water Table Present? Yes O No •	Depth (inches):	
Saturation Present? (Includes capillant frings) Yes No	Depth (inches): 0 Wetland Hyd	rology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	2 0 0 1 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ilable:
Remarks:		
Sphagnum 50% cover.		
l		

	ants		minant ecies?		Sampling Point: AN24 wetland
Tree Stratum (Plot size: 30')	Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:
1. Acer rubrum	33	V	76.7%	FAC	Number of Dominant Species That are OBL FACW, or FAC: 6 (A)
0 - 1 - 1 - 1 - 1	10	V	23.3%	FAC	That are OBL, FACW, or FAC: 6 (A)
2. Betula alleghaniensis 3.			0.0%	FAC	Total Number of Dominant
4		П	0.0%		Species Across All Strata: 6 (B)
4. E	0		0.0%	-	Percent of dominant Species
5.	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
6	0	П	0.0%		Prevalence Index worksheet:
7.		- To	tal Cove		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15'	43	_ 10	tai cove	•	OBL species $0 \times 1 = 0$
1. Hamamelis virginiana	10	~	66.7%	FAC-	FACW species $35 \times 2 = 70$
2. Betula alleghaniensis	5	V	33.3%	FAC	
3.			0.0%		na species
4.	0		0.0%		PACU Species X 4 =
5.	0		0.0%		UPL species x 5 =
6	0		0.0%		Column Totals: 93 (A) 244 (B)
7.	0		0.0%		Prevalence Index = B/A = 2.624
Herb Stratum (Plot size: 5'		= To	tal Cove	г	Hydrophytic Vegetation Indicators:
	20	. 0	74 404	F1011	Rapid Test for Hydrophytic Vegetation
1. Osmunda cinnamomea	25	V	71.4%	FACW	✓ Dominance Test is > 50%
2. Rubus hispidus	10	V	28.6%	FACW	✓ Prevalence Index is ≤3.0 ¹
3.		Η,	0.0%		Morphological Adaptations ¹ (Provide supporting
4.	0		0.0%		data in Remarks or on a separate sheet)
5.			0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
6.	-	Ц	0.0%	-	1
7.	0		0.0%	-	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8.		Ц	0.0%		Definitions of Vegetation Strata:
9.		H.	0.0%		Definitions of Vegetation Strata.
10.		Ц	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11.	0	Н	0.0%		at breast height (DBH), regardless of height.
12.	0	LI,	0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:	35	= To	tal Cove	r	greater than 3.28 ft (1m) tall
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4.	0		0.0%		height.
	0	= To	tal Cove	r	
					Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN24 wetland

Depth		Matrix		needed to document the indicator or confirm the Redox Features		
(inches)	Color (r		%	Color (moist) % Type 1 Loc ²	Texture	Remarks sapric
0-8	10YR	2/1	100%		Muck	
8-12	10YR	2/1	100%		Very Fine Sandy Loam	
	-					
	-					
Type: C=Cor Hydric Soil		=Depletio	n. RM=Rec	luced Matrix, CS=Covered or Coated Sand Grains ² Loc		
Histosol				Polyvalue Below Surface (S8) (LRR R,		elematic Hydric Soils: 3
✓ Histic Epi				MLRA 149B)	The second secon) (LRR K, L, MLRA 149B)
Black His				☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)		lox (A16) (LRR K, L, R)
	n Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)		t or Peat (S3) (LRR K, L, R)
	Layers (A5)			Loamy Gieyed Matrix (F2)	Dark Surface (S7	
	Below Dark S	Surface (A	11)	Depleted Matrix (F3)		Surface (S8) (LRR K, L)
-	rk Surface (A1			Redox Dark Surface (F6)		e (S9) (LRR K, L)
	uck Mineral (S			Depleted Dark Surface (F7)	_	Masses (F12) (LRR K, L, R)
	eyed Matrix (S			Redox Depressions (F8)		lain Soils (F19) (MLRA 149B)
	edox (S5)	,				A6) (MLRA 144A, 145, 149B)
	Matrix (S6)				Red Parent Mate	
	face (S7) (LRF	R R, MLRA	A 149B)			rk Surface (TF12)
³ Indicators o	of hydrophytic	vegetatio	n and wetla	and hydrology must be present, unless disturbed or probi		remarks
Restrictive l	ayer (if obs	erved):				
Type: R	efusal					
Depth (inc	ches): 12				Hydric Soil Present?	Yes No
Remarks:						
						4

Project/Site: Antrim Wind Project	City/Co	ounty: Antrim		Sampling Date: 18-Aug-11
Applicant/Owner: Eolian Renewable Energy, LL	С	Sta	te: NH	Sampling Point: AN24 Upland
Investigator(s): AF JG	Sec	tion, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Hillside		elief (concave, convex, n		
Subregion (LRR or MLRA):	Lat.:	Long	ja	Datum:
Soil Map Unit Name:			NWI classifi	cation:
Are climatic/hydrologic conditions on the sit	te typical for this time of year?	Yes No	(If no, explain in	Remarks.)
	drology significantly distu	rbed? Are "Normal	Circumstances" p	
Are Vegetation , Soil , or Hy	drology anaturally problem		explain any answe	
Summary of Findings - Attach		,		
Hydrophytic Vegetation Present? Yes				
Hydric Soil Present? Yes		Is the Sampled Area	Yes O No 💿	
Wetland Hydrology Present? Yes		within a Wetland?	100 0 110 0	
Lhyduo logy				
Hydrology				
Wetland Hydrology Indicators:				rs (minimum of 2 required)
Primary Indicators (minimum of one requirement of Surface Water (A1)			☐ Surface Soil Cr☐ Drainage Patte	4
High Water Table (A2)	Water-Stained Leaves (B9)☐ Aquatic Fauna (B13)		Moss Trim Line	
Saturation (A3)	Marl Deposits (815)			ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burro	
Sediment Deposits (B2)	Oxidized Rhizospheres alor		Saturation Visi	ble on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron	(C4)	Stunted or Str	essed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in T	illed Soils (C6)	Geomorphic Po	
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquita	
☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)		Microtopograp FAC-neutral Te	
Field Observations:		-		
Surface Water Present? Yes No				
Water Table Present? Yes O No	Depth (inches):			Yes O No •
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	Wetland Hydi	rology Present?	res O NO O
Describe Recorded Data (stream gauge, m Remarks:	onitoring well, aerial photos, prev	ious inspections), if avai	lable:	

	ants		minant ecies?		Sampling Point: AN24 Upland
(2)	Absolute	Re	l.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30'	% Cover	Co	ver	Status	Number of Dominant Species
1. Picea rubens	10		16.7%	FACU	That are OBL, FACW, or FAC: 2 (A)
2. Tsuga canadensis	25	V	41.7%	FACU	Total Number of Dominant
3. Betula papyrifera	10		16.7%	FACU	Species Across All Strata: 8 (B)
4. Quercus rubra	15	V	25.0%	FACU-	
5			0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)
6	0		0.0%		Indicate Obl., Factor, of Fac.
7	0	\Box	0.0%		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15')	60	= To	tal Cove	er	Total % Cover of: Multiply by: OBL species 0 x 1 = 0
1. Fagus grandifolla	5	V	20.0%	FACU	0 2
2. Picea rubens	5	V	20.0%	FACU	The species and the second
3. Hamamelis virginiana	5	~	20.0%	FAC-	The species A 3 - and
4. Viburnum lentago		V	40.0%	FAC	FACU species $84 \times 4 = 336$
5,			0.0%		UPL species $\frac{5}{x}$ x 5 = $\frac{25}{x}$
6.	The second second		0.0%		Column Totals: 107 (A) 415 (B)
7	0		0.0%		Prevalence Index = B/A = 3.879
	25	- To	tal Cove		
Herb Stratum (Plot size: 5')		cana			Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1 ,Aralla nudicaulis	8	V	36.4%	FACU	Dominance Test is > 50%
2.Lycopodium obscurum	3		13.6%	FACU	Prevalence Index is ≤3.0 ¹
3. Pteridium aquilinum	3		13.6%	FACU	
4. Polygonatum pubescens	5	V	22.7%	UPL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Trientalis borealis	3		13.6%	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
6.	0		0.0%		
7.	•		0.0%		¹ Indicators of hydric soil and wetland hydrology must
8.	0		0.0%		be present, unless disturbed or problematic.
9.	0		0.0%		Definitions of Vegetation Strata:
10.	0		0.0%		7.0
11.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12.	0		0.0%		at bleast neight (DOLL), regulations of height.
12.					Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)		= 10	otal Cove	ar	greater than 3,28 ft (1m) tall
1,			0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2			0.0%		size, and woody plants less than 3.28 ft tall.
3	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4.	0	П	0.0%		height.
	0	= To	tal Cove	3F	1
			S.		
					Hydrophytic
					Vegetation
					Present? Yes No •

VEGETATION - Use scientific names of plants

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN24 Upland

Profile Desc	ription: (Des	cribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth (inches)		Matrix		Redox Features	-	
0-4	Color (n		100%	Color (moist) % Type 1 Loc²	Texture	Remarks
	10YR	3/2	100%		Loam	
4-8	10YR	4/3	100%		Fine Sandy Loam	
8-10	10YR	5/8	100%		Fine Sandy Loam	
			-			
	-		-			
-						
	-					
¹ Type: C=Cor	ncentration. D	=Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains 2Loc	ation: PL=Pore Lining. M=Matrix	<
Hydric Soil					Indicators for Problema	ntic Hydric Soils: 3
Histosol				Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A10) (LRF	
	ipedon (A2)			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A	116) (LRR K, L, R)
Black His				Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or P	
	n Sulfide (A4) Layers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LR	
	Below Dark S	urface (A	11)	Depleted Matrix (F3)	Polyvalue Below Surfa	FR 6-71 M - 71 M - 71
p	rk Surface (A1			Redox Dark Surface (F6)	Thin Dark Surface (S9	1 (1)
c=x	uck Mineral (S	658		Depleted Dark Surface (F7)	Iron-Manganese Mass	es (F12) (LRR K, L, R) oils (F19) (MLRA 1498)
	eyed Matrix (S	35		Redox Depressions (F8)		OIIS (F19) (MLKA 1498) ILRA 144A, 145, 1498)
Sandy Re	edox (S5)				Red Parent Material (1	
Stripped	Matrix (S6)				Very Shallow Dark Sur	(5)
Dark Sur	face (S7) (LRR	R, MLRA	149B)		Other (Explain in Rem	
³ Indicators of	f hydrophytic	vegetatio	n and wetla	nd hydrology must be present, unless disturbed or probl	lematic.	
Restrictive I	ayer (if obse	rved):				
Type: R						
Depth (inc					Hydric Soil Present?	Yes O No 💿
Remarks:						
110111011						
					N.	



AN24 Wetland



AN24 Upland



AN24 Wetland

Applicant/Owner: Eolian Rene		ty/County: Antrim Sampling Date: 18-Aug-11
	ewable Energy, LLC	State: NH Sampling Point: AN25 Wetland
Investigator(s): AF JG		Section, Township, Range: S. T. R.
andform (hillslope, terrace,	etc.): Terrace Le	ocal relief (concave, convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA):	Lat.:	Long.: Datum:
Goil Map Unit Name:		NWI classification: PFO
Are climatic/hydrologic cond	itions on the site typical for this time of yea	r? 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 pro	blematic? (If needed, explain any answers in Remarks.)
		mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Pres	sent? Yes No	
Hydric Soil Present?	Yes No	Is the Sampled Area within a Wetland?
Wetland Hydrology Present	Yes No	Within a Weetand:
Hydrology		
Wetland Hydrology Indicate	MO!	Consider Indicators (as Service of 2 required)
	m of one required; check all that apply)	Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6)
✓ Surface Water (A1)	✓ Water-Stained Leave	
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry Season Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Od	
Drift deposits (B3)	Presence of Reduced	s along Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction	
Iron Deposits (B5)	Thin Muck Surface (C	
Inundation Visible on Aeria	Other (Explain in Ker	
Sparsely Vegetated Concav	e Surface (B8)	FAC-neutral Test (D5)
	0 0	
Field Observations:	Yes No Depth (inches):	
Surface Water Present?		6
Surface Water Present? Water Table Present?	Yes No Depth (inches):	
Surface Water Present? Water Table Present?	· · · · · · · · · · · · · · · · · · ·	0 Wetland Hydrology Present? Yes ● No ○

	_Species?		Sampling Point: AN25 Wetland
Absolute	Rel.Strat.		Dominance Test worksheet:
In the second			Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)
		FAC	That are OBL, FACW, or FAC: 5 (A)
-			Total Number of Dominant
		-	Species Across All Strata: 5 (B)
and the same of th	C7		Percent of dominant Species
0		-	That Are OBL, FACW, or FAC: 100.0% (A/B)
0	0.0%		Prevalence Index worksheet:
50	= Total Cove	r	Total % Cover of: Multiply by: OBL species 5 x 1 = 5
3	100.0%	FACW+	FACW species 21 x 2 = 42
0	0.0%		
0	0.0%		na species
0	0.0%		FACU species $0 \times 4 = 0$
0	0.0%		UPL species
0	0.0%		Column Totals: 76 (A) 197 (B)
0	0.0%		Prevalence Index = B/A = 2.592
-		r	Hydrophytic Vegetation Indicators:
5	21.7%	OBL	Rapid Test for Hydrophytic Vegetation
-			✓ Dominance Test is > 50%
		-	✓ Prevalence Index is ≤3.0 ¹
			☐ Morphological Adaptations ¹ (Provide supporting
-		FACVVT	data in Remarks or on a separate sheet)
0.5			Problematic Hydrophytic Vegetation ¹ (Explain)
		-	¹ Indicators of hydric soil and wetland hydrology must
1			be present, unless disturbed or problematic.
		-	Definitions of Vegetation Strata:
Section 19 Automatic	The second secon		beiminons of vegetation strata.
-			Tree - Woody plants, 3 in, (7.6 cm) or more in diameter
-			at breast height (DBH), regardless of height.
0	0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and
23	= Total Cove	r	greater than 3.28 ft (1m) tall
0	0.0%		Herb - All herbaceous (non-woody) plants, regardless o
0	0.0%		size, and woody plants less than 3.28 ft tall.
0	0.0%	-	Woody vine - All woody vines greater than 3.28 ft in
0	0.0%		height.
0		r	
			Hydrophytic Vegetation
	% Cover 50 0 0 0 0 0 0 0 50 3 0 0 0 0 0 0 0 0	% Cover Cover 50 ✓ 100.0% 0 0.0% 0 <td>% Cover Cover Status 50 ✓ 100.0% FAC 0 0.0% 0.0% 0.0% 0 0.0% 0.0% 0.0% 0 0.0% 0.0% 0.0% 50 = Total Cover FACW+ 0 0.0% 0.0% 0.0% 0 0.0% 0.</td>	% Cover Cover Status 50 ✓ 100.0% FAC 0 0.0% 0.0% 0.0% 0 0.0% 0.0% 0.0% 0 0.0% 0.0% 0.0% 50 = Total Cover FACW+ 0 0.0% 0.0% 0.0% 0 0.0% 0.

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN25 Wetland

hes) ´	Color (n	noist)	%	Color (dox Featu %	Туре	1 Loc2	Texture	Re	marks	
8	10YR	2/1	-			V	.,,-		Muck			
.6	2.5Y	5/1	70%	10YR	5/6	25%	С	М	Fine Loamy Sand			
	2.51	3/1	7070						Tille Eddilly Salid			
		-		2.5Y	6/1	5%	D	М	-	-		
				_								
-	-			-		_						
			-		-		-	-				
- +						-	-			_		
								_	-			
				_								
=Conce	entration. D=	=Depletio	n. RM=Red	uced Matrix,	CS=Cover	ed or Coate	d Sand G	rains ² Loca	ation: PL=Pore Lining. N	1=Matrix		
Soil Inc	dicators:								Indicators for Pr	oblematic Hvd	ric Soils : 3	
osol (A1	1)			Poly	value Belo	w Surface (S8) (LRR	R,				
c Epipe	edon (A2)				A 149B)		22.2		2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)			
k Histic	(A3)					ace (S9) (L				eat or Peat (S3)		
	Sulfide (A4)			(married and married and marri		Mineral (F1		_)		(S7) (LRR K, L)	, ,,,	
tified La	ayers (A5)					Matrix (F2)				w Surface (S8) (LRR K, L)	
leted Be	elow Dark Si	urface (A	11)		eted Matri				☐ Thin Dark Surface (S9) (LRR K, L)			
Thick Dark Surface (A12) Redox Dark Surface					15			se Masses (F12)				
k Dark S	Surace (A1	-1	Sandy Muck Mineral (S1)				59		Piedmont Floodplain Soils (F19) (MLRA 149B)			
					eted Dark	and the second s	,		Piedmont Floo	dplain Soils (F19) (MLRA 149B)	
dy Muck		1)				sions (F8)	,			dplain Soils (F19 TA6) (MLRA 144		
dy Muck dy Gleye dy Redo	k Mineral (S: ed Matrix (S ox (S5)	1)				and the second s	,			TA6) (MLRA 144		
dy Muck dy Gleye dy Redo oped Ma	k Mineral (S: ed Matrix (S ox (S5) atrix (S6)	1)				and the second s	,		Mesic Spodic (Red Parent Ma	TA6) (MLRA 144	IA, 145, 149B)	
dy Muck dy Gleye dy Redo oped Ma c Surface	k Mineral (S. ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR	1) (4) (R, MLRA		Redo	ox Depress	sions (F8)			Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 aterial (TF2) Dark Surface (TF	IA, 145, 149B)	
dy Muck dy Gleye dy Redo pped Ma k Surface	k Mineral (S. ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR	1) (4) (R, MLRA		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 aterial (TF2) Dark Surface (TF	IA, 145, 149B)	
dy Muck dy Gleye dy Redo pped Ma k Surface tors of h	k Mineral (S) ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 aterial (TF2) Dark Surface (TF	IA, 145, 149B)	
dy Muck dy Gleye dy Redo pped Ma k Surface tors of h	k Mineral (S. ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
y Muck y Gleye y Redo ped Ma Surfact ors of h	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
y Muck y Gleye y Redo ped Ma Surface ars of hi ve Lay (inche	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
ly Muck ly Gleye ly Redo ped Ma Surfact ors of h ve Lay	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
y Muck y Gleye y Redo ped Ma Surfact ors of h ve Lay	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
y Muck y Gleye y Redo ped Ma Surfact ors of h ve Lay (inche	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
ly Muck ly Gleye ly Redo ped Ma Surface ors of he we Lay	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
dy Muck dy Gleye dy Redo oped Ma c Surfact ors of h ive Lay :	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
dy Muck dy Gleye dy Redo oped Ma c Surface ors of h ive Lay :	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Redo	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
ly Muck ly Gleye ly Redo ped Ma Surfact ors of h ve Lay	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		Reda	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
ly Muck ly Gleye ly Redo ped Ma Surfact ors of h ve Lay	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	n and wetla	Reda	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
ly Muck ly Gleye ly Redo ped Ma Surface ors of he we Lay	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	n and wetla	Reda	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
dy Muck dy Gleye dy Redo oped Ma c Surface ors of h ive Lay :	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	n and wetla	Reda	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
dy Muck dy Gleye dy Redo pped Ma k Surface tors of h	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	n and wetla	Reda	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
dy Muck dy Gleye dy Redo oped Ma k Surface cors of h ive Lay :	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	n and wetla	Reda	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
dy Muck dy Gleye dy Redo oped Ma c Surfact ors of h ive Lay :	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	n and wetla	Reda	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
dy Muck dy Gleye dy Redo pped Ma Surface ors of he ive Lay	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	n and wetla	Reda	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	
dy Muck dy Gleye dy Redo oped Ma c Surface ors of h ive Lay	k Mineral (S: ed Matrix (S ox (S5) atrix (S6) ce (S7) (LRR nydrophytic (if obse	1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	n and wetla	Reda	ox Depress	sions (F8)		rbed or proble	Mesic Spodic (Red Parent Ma Very Shallow I Other (Explain	TA6) (MLRA 144 sterial (TF2) Dark Surface (TF in Remarks)	1A, 145, 149B)	

Project/Site: Antrim Wind Project	City/Co	unty: Antrim		Sampling Date: 18-Aug-11
Applicant/Owner: Eolian Renewable Energy	, LLC	Sta	te: NH	Sampling Point: AN25 upland
Investigator(s): AF JG	Sect	ion, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Und		lief (concave, convex, n		Slope: 20.0 % / 11.3°
Subregion (LRR or MLRA):	Lat.:	Long	J.:	Datum:
Soil Map Unit Name:			NWI classif	ication:
Are climatic/hydrologic conditions on the	e site typical for this time of year?	Yes No	(If no, explain in	Remarks.)
Are Vegetation , Soil , or	Hydrology significantly distur	bed? Are "Normal	Circumstances" p	present? Yes No
Are Vegetation, Soil, or	Hydrology naturally problema	tic? (If needed, e	explain any answe	ers in Remarks.)
Summary of Findings - Attack	h site map showing sampli	ng point location	s, transects,	important features, etc.
Hydrophytic Vegetation Present? Ye	s ○ No •			
Hydric Soil Present? Ye	s ○ No •	Is the Sampled Area within a Wetland?	Yes O No 💿)
Wetland Hydrology Present? Ye	es O No 💿			
Hydrology				-
Wetland Hydrology Indicators:			Secondary Indicato	ors (minimum of 2 required)
Primary Indicators (minimum of one rec	quired; check all that apply)		Surface Soil Co	
Surface Water (A1)	Water-Stained Leaves (B9)		☐ Drainage Patte	erns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lin	
Saturation (A3)	Marl Deposits (B15)			ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burro	20 A
Sediment Deposits (B2) Drift deposits (B3)	Oxidized Rhizospheres along			ible on Aerial Imagery (C9) ressed Plants (D1)
Algal Mat or Crust (B4)	Presence of Reduced Iron (Recent Iron Reduction in Til	1.76	Geomorphic P	CONTRACTOR IN COMMERCIAL PROPERTY.
☐ Iron Deposits (B5)	Thin Muck Surface (C7)	ied 30lis (CO)	Shallow Aquita	
☐ Inundation Visible on Aerial Imagery (B7				phic Relief (D4)
Sparsely Vegetated Concave Surface (B8			FAC-neutral To	est (D5)
Water Table Present? Yes O	No Depth (inches): Depth (inches):	Wetland Hydr	rology Present?	Yes ○ No •
(includes capillary fringe) Yes O	No Depth (inches):			
Describe Recorded Data (stream gauge, Remarks:	, monitoring well, aerial photos, previo	ous inspections), if avail	able:	

VEGETATION - Use scientific names of pl	ants		minant ecies?		Sampling Point: AN25 upland
Tree Stratum (Plot size: 30'	Absolute % Cover	Re		Indicator Status	Dominance Test worksheet:
1. Picea rubens	15		14.2%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: (A)
2. Tsuga canadensis	25	V	23.6%	FACU	
3. Quercus rubra		V	62.3%	FACU-	Total Number of Dominant Species Across All Strata: 7 (B)
4.	721		0.0%		Species Across All Strata. (b)
5,			0.0%		Percent of dominant Species
6.	0		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7.	0		0.0%	-	Prevalence Index worksheet:
		= To	tal Cove	er	Total % Cover of: Multiply by:
			12.00		OBL species 0 x 1 = 0
1. Picea rubens		~	33.3%		FACW species 0 x 2 = 0
2. Fagus grandifolia		~	50.0%		FAC species 15 x 3 = 45
Tsuga canadensis		님	16.7%	FACU	FACU species 216 x 4 = 864
4.	0		0.0%		UPL species $10 \times 5 = 50$
5	0	Щ	0.0%		UPL Species X 3 =
6	0	Ш	0.0%		Column Totals: 241 (A) 959 (B)
7.	0		0.0%		Prevalence Index = $B/A = 3.979$
Herb Stratum (Plot size: 5'		= To	tal Cove	er	Hydrophytic Vegetation Indicators:
1 , Maianthemum canadense	10		9.5%	FAC-	Rapid Test for Hydrophytic Vegetation
2. Pteridium aquilinum	50	V	47.6%	FACU	☐ Dominance Test is > 50%
3. Medeola virginlana	E		4.8%	UPL	☐ Prevalence Index is ≤3.0 ¹
4. Gaultheria procumbens	10	V	14.3%	FACU	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
5. Polygonatum pubescens	-	П	4.8%	UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
6 Comus grandonele	-		4.8%	FAC-	Problematic hydrophytic vegetation - (Explain)
7	-	V	14.3%		¹ Indicators of hydric soil and wetland hydrology must
0			0.0%	TACO	be present, unless disturbed or problematic.
0	1/4/	H	0.0%		Definitions of Vegetation Strata:
10.	0	H	0.0%		
11.	-				Tree - Woody plants, 3 in. (7,6 cm) or more in diameter
12.		H	0.0%		at breast height (DBH), regardless of height.
12.	0	Ц.	0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum ' (Plot size:	105	= To	tal Cove	er	greater than 3.28 ft (1m) tall
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2	0		0.0%		size, and woody plants less than 3.28 ft tall.
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4,	0		0.0%		height.
	0	= To	tal Cove	er	
	0	= To	tal Cove	er	Hydrophytic Vegetation
Remarks: (Include photo numbers here or on a separate s	heet.)				Present? Yes No •
* ,.					

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

-			1
	•	п	1

Sampling Point: AN25 upland

Profile Descri	ption: (Des	cribe to	the depti	needed to document the indicator or confirm the	absence of indicators.)	
Depth		Matrix	-	Redox Features		
(inches)	Color (n		%	Color (moist) % Type 1 Loc2	Texture	Remarks
0-5	10YR	2/1	100%		Loam	
5-6	2.5Y	5/1	100%		Fine Loarny Sand	
6-16	5YR	4/4	100%		Sandy Loam	
2017-08						
1 Type: C=Conc	entration D	- Denletio	n RM=Re	duced Matrix, CS=Covered or Coated Sand Grains ² Loca	ation: PI =Pore Lining M=Matrix	
Hydric Soil I		Depicuo		-Education and additional and an education and an educati	Indicators for Problematic F	huduia Saila . 3
Histosol (A				Polyvalue Below Surface (S8) (LRR R,		
Histic Epip	edon (A2)			MLRA 149B)	2 cm Muck (A10) (LRR K, L Coast Prairie Redox (A16) (A Company of the Comp
Black Histi	c (A3)			☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	5 cm Mucky Peat or Peat (9	
	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K,	
	ayers (A5)			Depleted Matrix (F3)	Polyvalue Below Surface (S	8) (LRR K, L)
	Below Dark Si Surface (A1)		11)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LF	
	ck Mineral (S			Depleted Dark Surface (F7)	Iron-Manganese Masses (F	and the second s
	yed Matrix (S			Redox Depressions (F8)	Piedmont Floodplain Solls (
Sandy Red					Mesic Spodic (TA6) (MLRA Red Parent Material (TF2)	144A, 145, 149B)
Stripped M	latrix (S6)				Very Shallow Dark Surface	(TF12)
☐ Dark Surfa	ice (S7) (LRR	R, MLRA	149B)		Other (Explain in Remarks)	
³ Indicators of	hydrophytic	vegetatio	n and wet	and hydrology must be present, unless disturbed or proble	ematic.	
Restrictive La	yer (if obse	erved):				
Туре:						0 0
Depth (inch	ies);				Hydric Soil Present? Yes	O No ®
Remarks:						
Spodosol						



AN25 Wetland



AN25 Upland

Project/Site: Antrim Wind Project		City/Co	ounty: Antrim		Sampling Date: 18-Aug-11
Applicant/Owner: Eolian Renewable	Energy, LLC		Sta	ate: NH	Sampling Point: AN26 Wetland
Investigator(s): AF JG		Sec	tion, Township, Range:	S. T.	R.
Landform (hillslope, terrace, etc.):	Valley botto		elief (concave, convex, a		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA):	,	Lat.:	Lon	g.;	Datum:
Soil Map Unit Name:				NWI classif	ication: PFO
			Yes No		
Are climatic/hydrologic conditions	71-2 - 27 - 27			(If no, explain in	· · · · · ·
Are Vegetation . , Soil .	, or Hydrol			l Circumstances" p	Western.
Are Vegetation . , Soil .	, or Hydrol		,,	explain any answ	
Summary of Findings - A			ing point location	ns, transects,	important reatures, etc.
Hydrophytic Vegetation Present?	Yes 🖲	No O	Is the Sampled Area		
Hydric Soil Present?	Yes 💿	No O	within a Wetland?	Yes No)
Wetland Hydrology Present?	Yes 💿	No O			
Hydrology					
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of o	ne required;			Surface Soil C	
Surface Water (A1)		✓ Water-Stained Leaves (B9)		Drainage Patt	
☐ High Water Table (A2) ✓ Saturation (A3)		Aquatic Fauna (B13) Marl Deposits (B15)		Moss Trim Lin	es (B16) later Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C1	١	Crayfish Burro	
Sediment Deposits (B2)		Oxidized Rhizospheres alon	•		ible on Aerial Imagery (C9)
Drift deposits (B3)		Presence of Reduced Iron (essed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction in T	t	Geomorphic P	osition (D2)
Iron Deposits (B5)		Thin Muck Surface (C7)		Shallow Aquit	ard (D3)
Inundation Visible on Aerial Image	ry (B7)	Other (Explain in Remarks)			ohic Relief (D4)
Sparsely Vegetated Concave Surfa	ce (B8)			✓ FAC-neutral T	est (D5)
Field Observations:					
Surface Water Present? Yes	No O	Depth (inches):	2		
Water Table Present? Yes	○ No •	Depth (inches):			
Saturation Present? (includes capillary fringe) Yes	No O	Depth (inches):	Wetland Hyd	rology Present?	Yes No
Describe Recorded Data (stream g	auge, monito	oring well, aerial photos, previ	ious inspections), if avai	ilable:	
Remarks:					

Absolute	S	ominant pecies? el.Strat.	Indicator	Sampling Point: AN26 Wetland Dominance Test worksheet:
			Status	Number of Dominant Species
20	V	57.1%	FAC	That are OBL, FACW, or FAC: 7 (A)
15	V	42.9%	FAC	Table 100 Control
0		0.0%		Total Number of Dominant Species Across All Strata: 7 (B)
		0.0%		
0		0.0%		Percent of dominant Species That Are OBL FACW, or FAC: 100.0% (A/B)
0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
0		0.0%		Prevalence Index worksheet:
	= T	otal Cove	er	Total % Cover of: Multiply by:
5	1	25 0%	EACW/	OBL species 3 x 1 = 3
				FACW species 48 x 2 = 96
	0			FAC species 60 x 3 = 180
		50m27/m 1	FACVV-	FACU species $0 \times 4 = 0$
				UPL species $0 \times 5 = 0$
0				Column Totals: 111 (A) 279 (B)
0				
				Prevalence Index = B/A = 2.514
20	= 10	otal Cove	er	Hydrophytic Vegetation Indicators:
8		14.3%	FACW	Rapid Test for Hydrophytic Vegetation
	V	26.8%	FAC	✓ Dominance Test is > 50%
(2)		5.4%	OBL	✓ Prevalence Index is ≤3.0 ¹
20	~	35.7%	FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
			FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
			112-113-131	Problematic Hydrophytic Vegetation * (Explain)
	П			¹ Indicators of hydric soil and wetland hydrology must
0	\Box			be present, unless disturbed or problematic.
0				Definitions of Vegetation Strata:
0	\Box	0.0%		Tree Weeds alone 2 in 17.5 am) as a serie discussion
		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
0		0.0%		
56	= To	otal Cove	er	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.,
0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
7.70	П			size, and woody plants less than 3.28 ft tall.
0		0.0%		Mondaying Allamadaying a second to the action of the control of th
0		1211 (1711)		Woody vine - All woody vines greater than 3,28 ft in height.
	- Ta		ır	no-grea
				Hydrophytic Vegetation Present? Yes No
	% Cover 20 15 0 0 0 0 0 0 35 5 10 5 0 0 0 0 20 8 15 3 20 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Absolute % Cover C. 20	Absolute % Cover 20	Absolute % Cover

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN26 Wetland

0-8	Color (moist) 10YR 2/1 2.5Y 6/1	%		Texture	Remarks
		100%	Color (moist) % Type 1 Loc²		sapric
ora	2.51 0/1				
		100%		Loamy Sand	
-					the second second
e: C=Concent	tration N=Denle	ation RM=Redu	iced Matrix, CS=Covered or Coated Sand Grains ² Loca	tion: PL =Pore Lining M=M	atriv
ric Soil Indic		don. KM-Kedu	ced Platrix, CS=COVERED of Codeta Salid Grains -Local		ematic Hydric Soils: 3
Histosol (A1)			Polyvalue Below Surface (S8) (LRR R,		LRR K, L, MLRA 149B)
Histic Epipedo			MLRA 1498) Thin Dark Surface (SQ) (LDD D. MLDA 1408)	The same and the s	x (A16) (LRR K, L, R)
Black Histic (A			Thin Dark Surface (S9) (LRR R, MLRA 149B)		r Peat (S3) (LRR K, L, R)
Hydrogen Sulf			Loamy Mucky Mineral (F1) LRR K, L)	Dark Surface (57)	
Stratified Laye	7,000,000,000		Loamy Gleyed Matrix (F2)		urface (S8) (LRR K, L)
SURVERING SQUARE CONTRACTOR	ow Dark Surface	(A11)	Depleted Matrix (F3) Redox Dark Surface (F6)	Thin Dark Surface	
Thick Dark Sur	ırface (A12)				asses (F12) (LRR K, L, R)
Sandy Muck M	Mineral (S1)		Depleted Dark Surface (F7)	Piedmont Floodpla	in Soils (F19) (MLRA 149B)
Sandy Gleyed			Redox Depressions (F8)	Mesic Spodic (TA6	(MLRA 144A, 145, 149B)
Sandy Redox (Red Parent Materia	ni (TF2)
Stripped Matri				Very Shallow Dark	Surface (TF12)
	(S7) (LRR R, ML			Other (Explain in F	emarks)
			nd hydrology must be present, unless disturbed or proble	ematic,	
trictive Layer Type: stony	r (if observed)	15			
				Hydric Soil Present?	Yes No
Depth (inches): emarks:				Hydric Soil Present?	Yes No

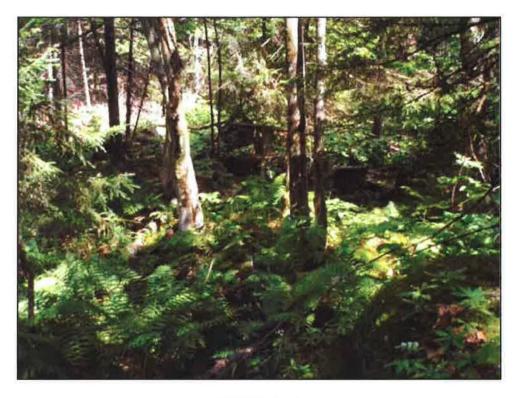
Project/Site: Antrim Wind Project		City/County: Antrim		Sampling Date: 18-Aug-11
Applicant/Owner: Eolian Renewable En	ergy, LLC	Sta	ate: NH	Sampling Point: AN26 upland
Investigator(s): AF JG		Section, Township, Range:	s. T.	R.
	Toeslope	Local relief (concave, convex,		Slope: 15.0 % / 8.5°
Subregion (LRR or MLRA):	L	at.: Lon	a.:	Datum:
Soil Map Unit Name:	-		NWI classif	1.9 00.200
		of year? Yes No		
Are climatic/hydrologic conditions on		or year.	(If no, explain in	V (a) N- (
Are Vegetation, Soil	, or Hydrology Signif	icantly disturbed? Are "Norma	l Circumstances" p	present? Yes VO
Are Vegetation , Soil	, or Hydrology 🔲 natura	ally problematic? (If needed,	explain any answe	ers in Remarks.)
Summary of Findings - Att		ng sampling point location	ns, transects,	important features, etc.
Hydrophytic Vegetation Present?	Yes O No 💿			
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area within a Wetland?	Yes O No 🖲)
Wetland Hydrology Present?	Yes O No 💿			
Hydrology				
Wetland Hydrology Indicators:	required, about all that any	also)		ors (minimum of 2 required)
Primary Indicators (minimum of one			Surface Soil C	
Surface Water (A1) High Water Table (A2)	☐ Water-Staine ☐ Aquatic Faun	d Leaves (B9)	Drainage Patte	
Saturation (A3)	Marl Deposits			ater Table (C2)
Water Marks (B1)		lfide Odor (C1)	Crayfish Burro	
Sediment Deposits (B2)	(===)	cospheres along Living Roots (C3)		ible on Aerial Imagery (C9)
☐ Drift deposits (B3)	Presence of I	Reduced Iron (C4)	Stunted or Str	ressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron f	Reduction in Tilled Soils (C6)	Geomorphic P	Position (D2)
☐ Iron Deposits (B5)	Thin Muck Su	urface (C7)	Shallow Aquita	
Inundation Visible on Aerial Imagery	Carci (Explai	in in Remarks)		phic Relief (D4)
Sparsely Vegetated Concave Surface	(B8)		FAC-neutral T	est (D5)
Field Observations:				
Surface Water Present? Yes	No Depth (inch	nes):		
Water Table Present? Yes	No Depth (inch	nes):		0 0
Saturation Present? Yes	No Depth (inch		rology Present?	Yes ○ No •
(includes capillary fringe) Describe Recorded Data (stream gate)			ilable:	
Remarks:				1

= Tc	16.7% 16.7% 16.7% 16.7% 16.7% 11.1% 0.0% 0.0% 0.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0%	FACU FACU FACU FACU FACU FACU FACU FACU	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: O Total Number of Dominant Species Across All Strata: 4 (B) Percent of dominant Species That Are OBL, FACW, or FAC: O.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species O X 1 = 0 FACW species O X 2 = 0 FAC species 14
= To	55.6% 16.7% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	FACU FACU FAC FAC	That are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (B) Percent of dominant Species That Are OBL, FACW, or FAC: O.0% Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 14 x 3 = 42 FACU species 143 x 4 = 572
= Tc	55.6% 16.7% 11.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	FACU FACU FAC	Total Number of Dominant Species Across All Strata: 4 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 14 x 3 = 42 FACU species 143 x 4 = 572
	11.1% 0.0% 0.0% 0.0% tal Cover 23.3% 76.7% 0.0% 0.0%	FACU	Percent of dominant Species That Are OBL, FACW, or FAC: O.0% Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species Ox1 = O FACW species Vx2 = O FAC species 14 x3 = 42 FACU species 143 x4 = 572
	0.0% 0.0% 0.0% stal Cover 23.3% 76.7% 0.0% 0.0%	FACU	Percent of dominant Species That Are OBL, FACW, or FAC: O.0% Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species Ox1 = O FACW species Ox2 = O FAC species 14 x 3 = 42 FACU species 143 x 4 = 572
	0.0% 0.0% stal Cover 23.3% 76.7% 0.0% 0.0% 0.0%	FACU	That Are OBL, FACW, or FAC: 0.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 14 x 3 = 42 FACU species 143 x 4 = 572
	0.0% tal Cover 23.3% 76.7% 0.0% 0.0% 0.0%	FACU	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 14 x 3 = 42 FACU species 143 x 4 = 572
	23.3% 76.7% 0.0% 0.0% 0.0%	FACU	Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 14 x 3 = 42 FACU species 143 x 4 = 572
	23.3% 76.7% 0.0% 0.0% 0.0%	FACU	OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 14 x 3 = 42 FACU species 143 x 4 = 572
	23.3% 76.7% 0.0% 0.0% 0.0%	FACU	FACW species $0 \times 2 = 0$ FAC species $14 \times 3 = 42$ FACU species $143 \times 4 = 572$
	76.7% 0.0% 0.0% 0.0% 0.0%		FAC species 14 x 3 = 42 FACU species 143 x 4 = 572
	0.0% 0.0% 0.0% 0.0%	FACU	FAC species $ \begin{array}{cccccccccccccccccccccccccccccccccccc$
	0.0% 0.0% 0.0%		FACU species 143 x 4 = 572
	0.0%		5 25
	0.0%		TUPL Species X 3 =
= To			
= To	0.00%		Column Totals: 162 (A) 639 (B)
= To	0.070		Prevalence Index = $B/A = 3.944$
	tal Cove	•	Hydrophytic Vegetation Indicators:
~	69.0%	FACU	Rapid Test for Hydrophytic Vegetation
	10.3%	FAC-	Dominance Test is > 50%
	3.4%	FAC	Prevalence Index is ≤3.0 ¹
	17.2%	UPL	Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
	0.0%		(,
	0.0%		¹ Indicators of hydric soil and wetland hydrology mus
	0.0%		be present, unless disturbed or problematic.
	0.0%		Definitions of Vegetation Strata:
	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diamete
	0.0%		at breast height (DBH), regardless of height.
	0.0%		
= To	tal Cove		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
	0.0%		Herb - All herbaceous (non-woody) plants, regardless
	0.0%	-	size, and woody plants less than 3.28 ft tall.
	0.0%		Woody vine All woody vines greater than 2.39 ft in
	0.0%		Woody vine - All woody vines greater than 3,28 ft in height.
- T			
		17.2% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	17.2% UPL 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN26 upland

Depth		icribe to Matrix	tne deptn	needed to document the indicator or confirm the Redox Features	absence of Indicators.)	
(inches)	Color (n	noist)	%	Color (moist) % Type 1 Loc ²	Texture	Remarks
0-5	10YR	3/2	100%		Loam	
5-16	10YR	4/6	100%		Fine Sandy Loam	
	-					
			-			
			* > 4			
¹ Type: C=Con	centration. D:	=Depletic	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains ² Loc	cation: PL=Pore Lining, M=M	atrix
Hydric Soil		2 aprocio				ematic Hydric Soils: 3
Histosol (Polyvalue Below Surface (S8) (LRR R, MLRA 1498)		LRR K, L, MLRA 149B)
	pedon (A2)			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redo	x (A16) (LRR K, L, R)
Black Hist				Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat of	or Peat (S3) (LRR K, L, R)
1 1	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	(LRR K, L)
1-1	Layers (A5)		12.24	Depleted Matrix (F3)	Polyvalue Below Si	urface (S8) (LRR K, L)
1-1	Below Dark S		11)	Redox Dark Surface (F6)	Thin Dark Surface	(S9) (LRR K, L)
-	k Surface (A1			Depleted Dark Surface (F7)	☐ Iron-Manganese M	asses (F12) (LRR K, L, R)
1-1	ick Mineral (S	100		Redox Depressions (F8)	Piedmont Floodpla	in Soils (F19) (MLRA 149B)
	eyed Matrix (S	i4)		Tedox Sepressions (10)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Re					Red Parent Materia	al (TF2)
	Matrix (S6)				Very Shallow Dark	Surface (TF12)
	ace (S7) (LRR				Other (Explain in R	demarks)
Restrictive L			n and wetla	nd hydrology must be present, unless disturbed or prob	ematic.	
Type:	ayer (II obse	si veu j.				
Depth (inc	hes):				Hydric Soil Present?	Yes O No 💿
Remarks:						



AN26 Wetland



AN26 Upland

Project/Site: Antrim Wind Project		City/County: Antrim	Sampling Date: 18-Aug-11
Applicant/Owner: Eolian Renewable	Energy, LLC		State: NH Sampling Point: AN27 wetland
Investigator(s): AF JG		Section, Township, Ran	ge: S. T. R.
Landform (hillslope, terrace, etc.):	Saddle	Local relief (concave, conve	ex, none): undulating Slope: 8.0 % / 4.6 °
Subregion (LRR or MLRA):		Lat.:	Long.: Datum:
Soil Map Unit Name:			NWI classification: PFO
Are climatic/hydrologic conditions	on the site tv	pical for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil	, or Hydrol		rmal Circumstances" present? Yes No
Are Vegetation, Soil	, or Hydrol	r	led, explain any answers in Remarks.)
sur- at reals attached			tions, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes 💿	No O	
Hydric Soil Present?	Yes 💿	No Is the Sampled Are within a Wetland?	
Wetland Hydrology Present?	Yes 💿	No O	
Underland	2.		
Hydrology			
Wetland Hydrology Indicators: Primary Indicators (minimum of	one required:	check all that apply)	Secondary Indicators (minimum of 2 required)
Surface Water (A1)	one required,	✓ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6) ✓ Drainage Patterns (B10)
✓ High Water Table (A2)		Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)		Marl Deposits (B15)	Dry Season Water Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)		Oxidized Rhizospheres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)		Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)		Recent Iron Reduction in Tilled Soils (C6)	✓ Geomorphic Position (D2)☐ Shallow Aquitard (D3)
Inundation Visible on Aerial Imag	erv (B7)	☐ Thin Muck Surface (C7)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surf		Other (Explain in Remarks)	FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes	O No 💿	Depth (inches):	
Water Table Present? Yes	● No ○	Depth (inches): 1	
Saturation Present? Yes (includes capillary fringe)	● No ○	Depth (inches): 0	Hydrology Present? Yes No
	gauge, monit	oring well, aerial photos, previous inspections), if	available:
Remarks:			

1			_Sp	minant ecies?		Sampling Point: AN27 wetland	
1. Pices marlana 2. Acer rubrum 3. Betula alleghaniensis 4.	Tree Stratum (Plot size: 30'					Dominance Test worksheet:	
2. Acer rubrum So	1 Dices mariana		· personal ·				A)
3. Betula alleghanlensis 10	2		and the same of	STATE OF THE PARTY		Indicate Obl., FACW, of FAC:	1)
1	3		n				
Definitions of Vegetation Percent of dominant Species That Are OBL, FACW, or FAC; 100.0%			П	-	1,10	Species Across All Strata:	3)
0		and the same	i i			Percent of dominant Species	
Prevalence Index worksheet: Total % Cover of: Multiply by: Total % Cover of: Total % Cover of: Multiply by: Total % Cover of: Multiply by: Total % Cover of: Total % Covero	5	0		The state of the s		That Are OBL, FACW, or FAC: 100.0%	A/B)
Sapling/Shrub Stratum (Plot size: 15' 110						Prevalence Index worksheet	
Declula alleghaniensis Septing/Shrub Stratum Plot size: 15' Septing Stratum			= To				
1. Betula alleghaniensis 2. Picea mariana 5	Sapling/Shrub Stratum (Plot size: 15')	110	- 10	cai cove	•		
	1. Betula alleghaniensis	5	V	50.0%	FAC		
1.		5	V	50.0%	FACW-		
0 0.0% 0.0%		and the same of th		0.0%		The species	
0	4.	0		0.0%		PACO Species	
Column Totals: 170 (A) 403 Total Cover	5.	0		0.0%		UPL species X 3 =	
Prevalence Index = B/A = 2.382	5	0		0.0%		Column Totals: 170 (A) 405	(B)
Herb Stratum (Plot size: 5') 10	7.	0		0.0%		Prevalence Index = $B/A = 2.382$	
1.0smunda cinnamomea 50			= To	tal Cove	r		
2.	1 Osmunda cinnamomea	50	V	100.0%	FACW		
3.	· AUGUSTONIA TOWN PROTOCOLOGIC				111011	✓ Dominance Test is > 50%	
4. 0 0.0% Morphological Adaptations ¹ (Provide suppo data in Remarks or on a separate sheet) 5. 0 0.0% 6. 0 0.0% 7. 0 0.0% 8. 0 0.0% 9. 0 0.0% 1 Indicators of hydric soil and wetland hydrology be present, unless disturbed or problematic. 9. 0 0.0% 10. 0 0.0% 11. 0 0.0% 12. 0 0.0% 12. 0 0.0% 13. 0 0.0% 14. 0 0.0% 15. 0 0.0% 15. 0 0.0% 16. 0 0.0% 17. Indicators of hydric soil and wetland hydrology be present, unless disturbed or problematic. 18. 0 0.0% 19. 0 0.0% 10. 0 0.0% 10. 0 0.0% 11. 0 0.0% 12. 0 0.0% 13. 0 0.0% 14. 0 0.0% 15. 0 0.0% 16. 0 0.0% 17. 0 0.0% 18. 0 0.0% 19. 0 0.0% 10. 0 0.0% 10. 0 0.0% 11. 0 0.0% 12. 0 0.0% 13. 0 0.0% 14. 0 0.0% 15. 0 0.0% 16. 0 0.0% 17. 0 0.0% 18. 0 0.0% 19. 0 0.0% 10. 0 0.0% 10. 0 0.0% 10. 0 0.0% 10. 0 0.0% 11. 0 0.0% 12. 0 0.0% 13. 0 0.0% 14. 0 0.0% 15. 0 0.0% 16. 0 0.0% 17. 0 0.0% 18. 0 0.0% 19. 0 0.0% 10. 0 0.0%	- L		n	II ACTOR		Prevalence Index is ≤3.0 ¹	
5.			П	LI-BE-BIRDE		Morphological Adaptations ¹ (Provide support	ng
6.	,		П				
7. 0 0.0% 1 Indicators of hydric soil and wetland hydrology be present, unless disturbed or problematic. 9. 0 0.0% Definitions of Vegetation Strata: 10. 0 0.0% Tree - Woody plants, 3 in. (7.6 cm) or more in dia at breast height (DBH), regardless of height. 12. 0 0.0% Sapling/shrub - Woody plants less than 3 in. DBF greater than 3.28 ft (1m) tall 1. 0 0.0% Herb - All herbaceous (non-woody) plants, regard size, and woody plants less than 3.28 ft tall. 2. 0 0.0% Woody vine - All woody vines greater than 3.28 ft 3. 0 0.0% Woody vine - All woody vines greater than 3.28 ft		1103	П			Problematic Hydrophytic Vegetation * (Explain	1)
8. 0 0.0% 9. 0 0.0% 10. 0 0.0% 11. 0 0.0% 12. 0 0.0% 12. 0 0.0% 13. 0 0.0% 14. 0 0.0% 150 = Total Cover 150 0.0% 160 0.0% 170 0.0% 180 0.0% 190 0.0	7		П		-	¹ Indicators of hydric soil and wetland hydrology n	ıust
9.							
Tree - Woody plants, 3 in. (7.6 cm) or more in dia at breast height (DBH), regardless of height. 12. 13. 14. 15. 15. 16. 17. 17. 18. 18. 19. 19. 19. 10. 10. 10. 10. 10	0		П			Definitions of Vegetation Strata:	
11. 0 0.0% at breast height (DBH), regardless of height. 12. 50 = Total Cover Woody Vine Stratum (Plot size:) 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 1. 0 0.0% 2. 0 0.0% 3. 0 0.0% 4. Woody vine - All woody vines greater than 3.28 ft tall. 4. Woody vine - All woody vines greater than 3.28 ft tall.	10	-	П			T 144 1 1 1 1 1 1	
12. ## Woody Vine Stratum (Plot size: 1. 0 0.0% 50 = Total Cover 1. 0 0.0% Herb - All herbaceous (non-woody) plants, regard size, and woody plants less than 3.28 ft tall. 2. 0 0.0% Woody vine - All woody vines greater than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft	1 1		П				eter
Sapling/shrub - Woody plants less than 3 in. DBF greater than 3.28 ft (1m) tall 1. 0 0.0% Herb - All herbaceous (non-woody) plants, regard size, and woody plants less than 3.28 ft tall. 2. 0 0.0% Woody vine - All woody vines greater than 3.28 ft						at state the state of the state	
1. 0 0.0% Herb - All herbaceous (non-woody) plants, regard size, and woody plants less than 3.28 ft tall. 2. 0 0.0% 3. 0 0.0% Woody vine - All woody vines greater than 3.28 ft			= To	Long-to-	r	Sapling/shrub - Woody plants less than 3 in. DBH a greater than 3.28 ft (1m) tall	ınd
 2.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardle	88 C
3. Woody vine - All woody vines greater than 3,28 ft		-			*		00 0
Woody vines vines greater than 5.20 to		_	П				
A Delong		0					1
7.	7.	_	- To		_	Thought.	
0 = Total Cover Hydrophytic Vegetation Present? Yes • No •	2.	0		0.0%	r	Woody vine - All woody vines greater than 3,28 height. Hydrophytic	ft in

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN27 wetland

Profile Desc Depth		ribe to the Iatrix	depth n	eeded to document the indicator or confirm Redox Features	n the at	sence of indicato	ors.)
(inches)	Color (m		%		OC2	Texture	Remarks
0-36	10YR	2/1				Mucky Peat	nemic
		-					
-					_	-	
			-		-		
¹ Type: C=Cor	ncentration. D=I	Depletion. R	RM=Reduc	ed Matrix, CS=Covered or Coated Sand Grains	² Locati	on: PL=Pore Lining	. M=Matrix
Hydric Soil						Indicators for	Problematic Hydric Soils: 3
✓ Histosoi ((A1)			Polyvalue Below Surface (S8) (LRR R,			(A10) (LRR K, L, MLRA 149B)
Histic Epi	ipedon (A2)			MLRA 149B)			e Redox (A16) (LRR K, L, R)
☐ Black His	tic (A3)			☐ Thin Dark Surface (S9) (LRR R, MLRA 149	9B)		Peat or Peat (S3) (LRR K, L, R)
Hydroger	n Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)			e (S7) (LRR K, L)
Stratified	Layers (A5)			Loamy Gleyed Matrix (F2)			elow Surface (S8) (LRR K, L)
Depleted	Below Dark Su	rface (A11)		Depleted Matrix (F3)			
Thick Da	rk Surface (A12)		Redox Dark Surface (F6)		-	urface (S9) (LRR K, L)
	uck Mineral (S1)			Depleted Dark Surface (F7)			nese Masses (F12) (LRR K, L, R)
	eyed Matrix (S4			Redox Depressions (F8)			oodplain Soils (F19) (MLRA 149B)
	edox (S5)	,					c (TA6) (MLRA 144A, 145, 149B)
	Matrix (S6)						Material (TF2)
	face (S7) (LRR I	MIDA 14	OR)				w Dark Surface (TF12)
							ain in Remarks)
³ Indicators o	f hydrophytic v	egetation ar	nd wetland	I hydrology must be present, unless disturbed or	r problen	natic.	
Restrictive L	ayer (if obser	ved):					
Type:						the detailed on the pro-	
Depth (inc	thes):					Hydric Soil Prese	ent? Yes • No O
Remarks:							

Project/Site: Antrim Wind Project	City/C	ounty: Antrim		Sampling Date: 18-Aug-11
Applicant/Owner: Eolian Renewable Energy, LL	С	Sta	te: NH	Sampling Point: AN27 upland
Investigator(s): AF JG	Sec	tion, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Hillside		elief (concave, convex, n		Slope: 20.0 % / 11.3 °
Subregion (LRR or MLRA):	Lat.:	Long	j.:	Datum:
Soil Map Unit Name:			NWI classif	ication:
Are climatic/hydrologic conditions on the sit	re typical for this time of year?	Yes No	(If no, explain in	Remarks.)
	drology significantly distu	rbed? Are "Normal	Circumstances" p	V (A) N- (
	drology		explain any answe	
Summary of Findings - Attach s			150	
Hydrophytic Vegetation Present? Yes				•
Hydric Soil Present? Yes	○ No	Is the Sampled Area within a Wetland?	Yes O No 🖲)
Wetland Hydrology Present? Yes	○ No •	within a wellanus		
Hudrology				
Hydrology				
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements)	and: chack all that anniv)			ors (minimum of 2 required)
Surface Water (A1)	Water-Stained Leaves (B9)		Surface Soil Co	
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lin	
Saturation (A3)	Marl Deposits (B15)			/ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burro	
Sediment Deposits (B2)	Oxidized Rhizospheres alor		Saturation Vis	ible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron	(C4)	Stunted or Str	ressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in T	illed Soils (C6)	Geomorphic P	osition (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquita	ard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	i e	Micròtopograp	ohic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral T	est (D5)
Field Observations:				
Surface Water Present? Yes No				
Water Table Present? Yes No	Depth (inches):	W-MIIII		Yes O No •
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	wetiand Hydi	rology Present?	re o No o
Describe Recorded Data (stream gauge, m Remarks:	onitoring well, aerial photos, prev	lous inspections), if avai	lable:	

	ants	777	minant ecies?		Sampling Point: AN27 upland
Tree Stratum (Plot size: 30')	Absolute % Cover	Re	Strat.	Indicator	Dominance Test worksheet:
		_	ver	Status	Number of Dominant Species
1. Fagus grandifolia		V	28.6%	FACU	That are OBL, FACW, or FAC: 1 (A)
2. Quercus rubra	15	V	21.4%	FACU-	Total Number of Dominant
3. Betula papyrifera 4. Picea rubens		V	21.4%	FACU	Species Across All Strata: 7 (B)
			0.0%	FACU	Percent of dominant Species
		H	0.0%		That Are OBL, FACW, or FAC: 14.3% (A/B)
6 7.	0	H	0.0%		Purcual and a Vanders was also be acts
					Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15'	70	= 10	tal Cove	r	OBL species 0 x 1 = 0
1. Fagus grandifolia	20	V	80.0%	FACU	
2. Betula papyrtfera	-	V	20.0%	FACU	
3.			0.0%		or 200
4.	0		0.0%		FACU species 95 x 4 = 380
5.			0.0%		UPL species x 5 =
6	0		0.0%		Column Totals: 97 (A) 386 (B)
7.			0.0%		Prevalence Index = B/A = 3.979
This is the	25	= To	tal Cove	· r	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: 5')	-				Rapid Test for Hydrophytic Vegetation
1. Acer rubrum	2	V	100.0%	FAC	Dominance Test is > 50%
2.	0		0.0%		Prevalence Index is ≤3.0 ¹
3,	0		0.0%		
4.	0		0.0%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
6.	0		0.0%		La riociamate ripropriyate regenerating (carpitant)
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
8.	0		0.0%		be present, unless disturbed or problematic.
9.	0		0.0%		Definitions of Vegetation Strata:
10.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11,	0	П	0.0%		at breast height (DBH), regardless of height.
12.	0	\Box	0.0%		
H		= To	tal Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)					greater than 5.26 it (1111) tall
1,	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4	0		0.0%		height.
	0	= To	tal Cove	er	
					Hydrophytic Vegetation Present? Yes No No

VEGETATION - Use scientific names of plants

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN27 upland

			the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth (inches)	Color (n	Matrix noist)	%	Redox Features Color (moist) % Type 1 Loc2	Texture Remarks	s
0-4	10YR	3/2	100%	color (melacy // Type = 200	Loam	
4-6	10YR	4/3	100%		Fine Sandy Loam	
6-11	10YR	5/6	100%		Fine Sandy Loam	
	1011	3/0	10070		Tine Suitey Louin	
			-			
		=Depletio	n. RM=Redu	iced Matrix, CS=Covered or Coated Sand Grains ² Loca	2001/230000 DV 200 DV 2002/22 SP 2020 0 2020	
Hydric Soil I				Polyvalue Below Surface (S8) (LRR R,	Indicators for Problematic Hydric So	
	pedon (A2)			MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 14	
Black Hist				Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L,	*
Hydrogen	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K☐ Dark Surface (S7) (LRR K, L)	(, L, R)
Stratified	Layers (A5)			Loamy Gleyed Matrix (F2)	Polyvalue Below Surface (S8) (LRR K	D
	Below Dark S		11)	Depleted Matrix (F3)	☐ Thin Dark Surface (S9) (LRR K, L)	<i>y</i> - <i>y</i>
	k Surface (A1			Redox Dark Surface (F6) Depleted Dark Surface (F7)	☐ Iron-Manganese Masses (F12) (LRR I	K, L, R)
	ıck Mineral (S.			Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLF	RA 149B)
	eyed Matrix (S	4)		☐ Redox Depressions (10)	Mesic Spodic (TA6) (MLRA 144A, 145	5, 149B)
Sandy Re					Red Parent Material (TF2)	
	Matrix (S6) ace (S7) (LRR	P MIDA	140R)		☐ Very Shallow Dark Surface (TF12)	
	2. 6.3				Other (Explain in Remarks)	
			n and wetla	nd hydrology must be present, unless disturbed or proble	ematic.	
Restrictive L		erved):				
Type: st	2000				Hydric Soil Present? Yes O No	. •
Depth (inc	nes): 11				100	
Remarks:						



AN27 Upland



AN27 Wetland



AN27 Wetland



AN27 Wetland



AN27 Wetland



AN27 Upland

Project/Site: Antrim Wind Project	City/County: Antrim	Sampling Date: 22-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC	5	State: NH Sampling Point: AN30 wetland
Investigator(s): AF JG	Section, Township, Range	e: S. T. R.
Landform (hillslope, terrace, etc.): Footslope	Local relief (concave, convex	0
Subregion (LRR or MLRA):	Lat.: Lo	ong.: Datum:
Soil Map Unit Name:		NWI classification: PFO
Are climatic/hydrologic conditions on the site ty	pical for this time of year? Yes No	
Are Vegetation . , Soil . , or Hydrold		(If no, explain in Remarks.) nal Circumstances" present? Yes No
		nur on dams drock prosent.
Are Vegetation , Soil , or Hydrolo		d, explain any answers in Remarks.)
		ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No O	
	No Is the Sampled Area within a Wetland?	Yes No
Wetland Hydrology Present? Yes O	No O	
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required;	check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	✓ Water-Stained Leaves (B9)	✓ Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Drift deposits (B3)	Oxidized Rhizospheres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No No	Depth (inches):	
Water Table Present? Yes No •	Depth (inches):	
Saturation Present?		lydrology Present? Yes No
(includes capillary minge)	oring well, aerial photos, previous inspections), if a	vailable:
Describe Necorded Data (stream gaage, monite	wing wein, dental photos, previous inspections,, if a	valiable.
Remarks:		

0.0% 0.0%	Indicator Status	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)
0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	Status	That are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (B) Percent of dominant Species
0.0% 0.0% 0.0% 0.0% 0.0%		Total Number of Dominant Species Across All Strata: Percent of dominant Species
0.0% 0.0% 0.0% 0.0% 0.0%		Species Across All Strata: 4 (B) Percent of dominant Species
0.0% 0.0% 0.0% 0.0%		Percent of dominant Species
0.0% 0.0% 0.0%		
0.0%		
0.0%		macric obe, men, armer
otal Cove		Prevalence Index worksheet:
	•	Total % Cover of: Multiply by: OBL species 0 x 1 = 0
50.0%	FAC	
50.0%	FACW	
0.0%		FAC species 10 x 3 = 30
0.0%		FACU species $0 \times 4 = 0$
0.0%		UPL species $\frac{25}{x}$ x 5 = $\frac{125}{x}$
1		Column Totals: 70 (A) 225 (B)
1		December 1 december 12 214
		Prevalence Index = B/A = 3.214
otal Cover		Hydrophytic Vegetation Indicators:
50.0%	FACW	Rapid Test for Hydrophytic Vegetation
		☑ Dominance Test is > 50%
		Prevalence Index is ≤3.0 ¹
December 1		Morphological Adaptations ¹ (Provide supporting
1000000	-	data in Remarks or on a separate sheet)
		Problematic Hydrophytic Vegetation ¹ (Explain)
		1 Yardisantons of budgie sail and weekland budgeless much
The state of the s		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		
0.0%		Definitions of Vegetation Strata:
0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
0.0%		at breast height (DBH), regardless of height.
0.0%		Carling/about Mandy plants land than 2 in DBH and
otal Cover	-	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
0.0%		Herb - All herbaceous (non-woody) plants, regardless of
0.0%		size, and woody plants less than 3.28 ft tall.
1		
		Woody vine - All woody vines greater than 3.28 ft in height.
		Thoight.
otal Covei		
		Hydrophytic Vegetation Present? Yes • No
	0.0% 0.0% 0.0% 0.0% 0.0% 50.0% 0.0% 0.0%	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 50.0% FACW 50.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0

VEGETATION - Use scientific names of plants

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN30 wetland

Profile Description: (Describe to the depth	needed to document the indicator or confirm the	absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type 1 Loc²	Texture Remarks
0-8 10YR 3/2 100%		Loam
8-16 2.5Y 5/1 100%		Loamy Sand
17		
	uced Matrix, CS=Covered or Coated Sand Grains 2Loca	
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils: 3
Histosol (A1) Histic Epipedon (A2)	Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histic (A3)	Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)
✓ Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)
☐ Thick Dark Surface (A12)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L)
Sandy Muck Mineral (S1)	Depleted Dark Surface (F7)	Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)		Red Parent Material (TF2)
Stripped Matrix (S6)		☐ Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B)		Other (Explain in Remarks)
³ Indicators of hydrophytic vegetation and wetla	nd hydrology must be present, unless disturbed or proble	
Restrictive Layer (if observed):		
Type:		
Depth (inches):		Hydric Soil Present? Yes No
Remarks:		v .
		4

Project/Site: Antrim Wind Project			City/County: Antrim		Sampling Date: 22-Aug-11	
Applicant/Owner: Eolian Renewable E	inergy, LLC		S	tate: NH	Sampling Point: AN30 upland	
Investigator(s): AF JG			Section, Township, Range	: S. T.	R.	
Landform (hillslope, terrace, etc.):	Footslope		Local relief (concave, convex,	market and a second	Slope: 3.0 % / 1.7	
Subregion (LRR or MLRA):		Lat.:	Lo	ng.:	Datum:	
Soil Map Unit Name:				NWI classi		
			yes No			
Are climatic/hydrologic conditions o	-			(If no, explain i		
Are Vegetation , Soil ,	, or Hydrol			al Circumstances"	present? 165 0 NO 0	
Are Vegetation, Soil	, or Hydrol	ogy naturally p	roblematic? (If needed	l, explain any answ	ers in Remarks.)	
Summary of Findings - At	ttach site	map showing s	ampling point location	ons, transects	, important features, etc.	
Hydrophytic Vegetation Present?	Yes O	No 💿				
Hydric Soil Present?	Yes 🔾	No 💿	Is the Sampled Area within a Wetland?	Yes O No G	•	
Wetland Hydrology Present?	Yes 🔾	No 💿				
Hydrology						
Wetland Hydrology Indicators:	no roquirod:	shock all that apply)			tors (minimum of 2 required)	
Primary Indicators (minimum of or Surface Water (A1)	ie requireu,			Surface Soil (
High Water Table (A2)		Water-Stained Leav	, ,	Drainage Pat Moss Trim Li		
Saturation (A3)		Mari Deposits (B15)			Nater Table (C2)	
Water Marks (B1)		Hydrogen Sulfide O		Crayfish Burrows (C8)		
Sediment Deposits (B2)			eres along Living Roots (C3)		sible on Aerial Imagery (C9)	
Drift deposits (B3)		Presence of Reduce	ed Iron (C4)	Stunted or SI	tressed Plants (D1)	
Algal Mat or Crust (B4)		Recent Iron Reduct	tion in Tilled Soils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)	2001	Thin Muck Surface	(C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Image	ACCES ACCES AND	Other (Explain in Re	emarks)		aphic Relief (D4)	
Sparsely Vegetated Concave Surface	Le (DO)			FAC-neutral	rest (US)	
Field Observations:						
Surface Water Present? Yes		Depth (inches):				
Water Table Present? Yes	No 💿	Depth (inches):			Yes ○ No •	
Saturation Present?	No 💿	Depth (inches):	Wetland Hy	drology Present?	Yes O No 💿	
(includes capillary fringe) Describe Recorded Data (stream qu			s, previous inspections), if av	ailable:		
3	3 /	J. 11. 17. 11. 11. 11. 11. 11. 11. 11. 11	, ,			
Remarks:						

US Army Corps of Engineers

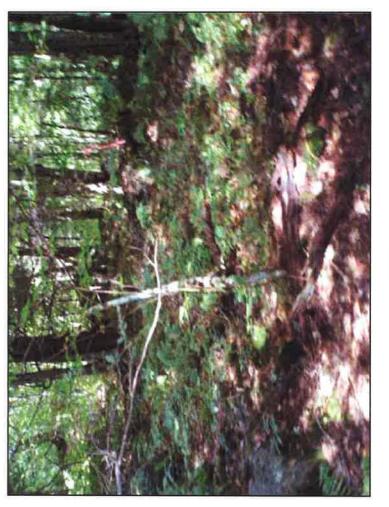
Northcentral and Northeast Region - Interim Version

	g(1700	Dominant _Species?		Sampling Point: AN30 upland
Tree Stratum (Plot size: 30')	Absolute % Cover		Indicator Status	III—GOODALANDA COORAGOOSE, D. GGGOOD BARKA AND ROOM COORAGO - GOODA
1. Tsuga canadensis	25	√ 31.3%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2. Quercus rubra		18.8%		That are obt, thew, of the.
3. Acer saccharum		✓ 31.3%		Total Number of Dominant Species Across All Strata: 8 (B)
4. Betula alleghaniensis	17.44	18.8%		Species Across All Strata: 8 (B)
5.		0.0%	1100	Percent of dominant Species
5.	0	0.0%		That Are OBL, FACW, or FAC: 12.5% (A/B)
7	0	0.0%		Prevalence Index worksheet;
		= Total Cove	·	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')	- 00		-1	OBL species 0 x 1 = 0
1 Fagus grandifolia	10	40.0%	FACU	FACW species 0 x 2 = 0
2. Pinus strobus	5_	20.0%	FACU	20
3. Quercus rubra	. 5	20.0%	FACU-	100 426
1. Acer pensylvanicum	5	20.0%	FACU	racu species X 4 =
5.	0	0.0%		UPL species $0 \times 5 = 0$
5.		0.0%		Column Totals: 139 (A) 526 (B)
7.		0,0%	7)	Prevalence Index = B/A = 3.784
Herb Stratum (Plot size: 5'		= Total Cov	er	Hydrophytic Vegetation Indicators:
1 M-J	10	29,4%	FAC-	Rapid Test for Hydrophytic Vegetation
2 Aralia nudicaulie	15	√ 44.1%		Dominance Test is > 50%
3 Tayan conodencia	2	8.8%	FACU	Prevalence Index is ≤3.0 ¹
	1	2.9%	FACU	Morphological Adaptations ¹ (Provide supporting
4.Lycopodium obscurum 5.Trientalis borealis		per clovery		data in Remarks or on a separate sheet)
6.		14.7%	FAC	Problematic Hydrophytic Vegetation 1 (Explain)
7.	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must
		0.0%		be present, unless disturbed or problematic.
8.	0	0.0%	<u> </u>	Definitions of Vegetation Strata:
9.	0	0.0%		Definitions of Vegetation Strata.
0.	0	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
1.	0	0.0%		at breast height (DBH), regardless of height.
2.	0	0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:	34	= Total Cove	er	greater than 3,28 ft (1m) tall
1	0	0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0	0.0%		size, and woody plants less than 3.28 ft tall.
3.	0	0.0%		Woody vine - All woody vines greater than 3,28 ft in
4.	0	0.0%		height.
	0	= Total Cov	er	
				Hydrophytic
				Vegetation Present? Yes No No

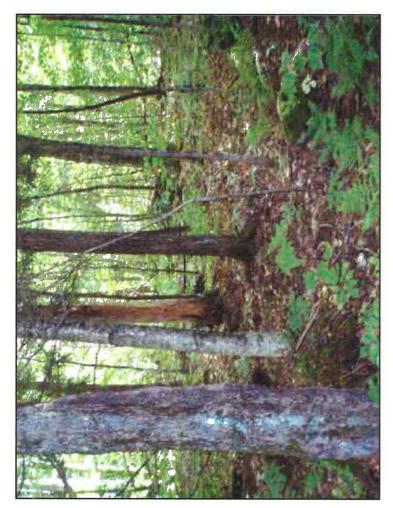
^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN30 upland

sence of indicators.)			
Texture Remarks			
Loam			
Loamy Sand			
——————————————————————————————————————			
n: PL=Pore Lining, M=Matrix			
Indicators for Problematic Hydric Soils: 3			
2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)			
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
Dark Surface (57) (LRR K, L)			
Polyvalue Below Surface (S8) (LRR K, L)			
Thin Dark Surface (S9) (LRR K, L)			
Iron-Manganese Masses (F12) (LRR K, L, R)			
Piedmont Floodplain Soils (F19) (MLRA 1498)			
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Red Parent Material (TF2)			
☐ Very Shallow Dark Surface (TF12)			
Other (Explain in Remarks)			
atic.			
Hydric Soil Present? Yes O No •			
nyuric soli Present: Yes O NO G			



AN30 Wetland



AN30 Upland

Project/Site: Antrim Wind Project		City/County: Antri	m	Sampling Date: 22-Aug-11
Applicant/Owner: Eolian Renewable E	Energy, LLC		State: NH	Sampling Point: AN31 Wetland
Investigator(s): AF JG		Section, Townsh	hip, Range: S. T.	R.
Landform (hillslope, terrace, etc.):	Terrace	Local relief (concav	re, convex, none): flat	Slope: 2.0 % / 1.1 °
Subregion (LRR or MLRA):		Lat.:	Long.:	Datum:
Soil Map Unit Name:				ification: PSS
Are climatic/hydrologic conditions	on the site typical for this	s time of year? Yes Yes	No (If no, explain in	n Remarks.)
Are Vegetation, Soil		o time or year.	Are "Normal Circumstances"	V (A) N
Are Vegetation, Soil			(If needed, explain any answ	
		• • • • • • • • • • • • • • • • • • • •		s, important features, etc.
Hydrophytic Vegetation Present?	Yes No O		Section 1975 Control of the Control	
Hydric Soil Present?	Yes No	Is the Sam within a W)
Wetland Hydrology Present?	Yes No	WILLING W	etianur	
11				
Hydrology				
Wetland Hydrology Indicators:	all	LX		tors (minimum of 2 required)
Primary Indicators (minimum of o			Surface Soil	
Surface Water (A1) High Water Table (A2)	()	-Stained Leaves (B9) c Fauna (B13)	☐ Drainage Pat ☐ Moss Trim Li	3
Saturation (A3)	-	eposits (B15)		Water Table (C2)
Water Marks (B1)		gen Sulfide Odor (C1)	Crayfish Burn	
Sediment Deposits (B2)		ed Rhizospheres along Living Roots		isible on Aerial Imagery (C9)
Drift deposits (B3)		ice of Reduced Iron (C4)		tressed Plants (D1)
Algal Mat or Crust (B4)	Recent	t Iron Reduction in Tilled Soils (C6)	Geomorphic	Position (D2)
Iron Deposits (B5)		luck Surface (C7)	Shallow Aqui	
Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfa	Outci ((Explain in Remarks)	☐ Microtopogra ✓ FAC-neutral	aphic Relief (D4) Test (D5)
Field Observations:				
Surface Water Present? Yes	550055	h (inches):		
Water Table Present? Yes	No Depti	h (inches):	Vetland Hydrology Present?	Yes No
Saturation Present? (includes capillary fringe) Yes	No O Depti	h (inches): 2	retiand Hydrology Presents	res o No o
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous inspecti	ons), if available:	
Remarks:				

VEGETATION - Use scientific names of pl		Dominant _Species?		34	mpling Pol	int: A	N31 Wetlan	u	
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test w	orksheet:				
1.	0	0.0%		Number of Dominant That are OBL, FACW			4	(A)	
2.	0	0.0%		That are obe, men	, 01 17101			0.7	
3.	0	0.0%		Total Number of Dor Species Across All St			4	(B)	
4.	0	0.0%		Species Across All Sc	rata.		10	(6)	
5.	0	0.0%		Percent of domina	and the second second		100 00/	(4 (5)	
6.		0.0%		That Are OBL, FAC	CW, or FAC	C: _	100.0%	(A/B)	
7.	0	0.0%		Prevalence Index v	worksheet:				
Sapling/Shrub Stratum (Plot size: 15')	0 :	= Total Cove	er	Total % Cov			ply by:		
1. Acer rubrum	10	✔ 25.0%	FAC	OBL species	18	x 1 :			
O TANAMA MARKANIA MAR	_	12.5%	A STATE OF THE PARTY OF THE PAR	FACW species	88	x 2 :		-1	
2. Lyonia ligustrina 3. Spiraea alba	25	€ 62.5%		FAC species	10	x 3 :	30		
4	^	0.0%	THOUSE.	FACU species	15	x 4 =	60		
5.	-	0.0%	+ 3	UPL species	0	x 5 =	0		
5.	0	0.0%		Column Totals:	131	(A)	284	(B)	
7	0	0.0%		Prevalence In	dov = D/A	_	2.168		
		= Total Cove	er		-	_	2.100		
Herb Stratum (Plot size: 5'	10	- 100010010		Hydrophytic Veget					
1. Scirpus cyperinus	8	8.8%	FACW+	Rapid Test for Hydrophytic Vegetation					
2. Onoclea sensibilis	25	27.5 %	FACW	✓ Dominance Test is > 50%					
3. Carex crinita	5	5.5%	OBL		✓ Prevalence Index is ≤3.0 ¹				
4. Carex lurida	5	5.5%	OBL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)					
5. Scirpus atrovirens	8	8.8%	OBL	Problematic I	Problematic Hydrophytic Vegetation				
6. Solidago canadensis	15	16.5%	FACU						
7.Rubus hispidus	25	√ 27.5%	FACW	1 Indicators of hy be present, unless				gy must	
8.	0	0.0%							
9.	0	0.0%		Definitions of V	egetatior	n Strat	a:		
10.	0	0.0%		Tree - Woody plan	its, 3 in. (7	.6 cm)	or more in o	diameter	
11	0	0.0%		at breast height (D					
12,	0	0.0%		Sapling/shrub - W	nody nlant	e lace	than 3 in Di	hae HS	
Woody Vine Stratum (Plot size:	91 :	= Total Cove	er	greater than 3.28 f			iliali 3 III. Di	ori and	
1.	0	0.0%		Herb - All herbace					
2.	0	0.0%		size, and woody p	lants less t	than 3.	28 ft tall.		
3.	0	0.0%		Woody vine - All w	oody vine:	s great	er than 3.28	ft in	
4.	0	0.0%		height.					
	0 :	= Total Cove	er						
		= Total Cove	er	Hydrophytic Vegetation Present? Y	es 🔍 N	lo O			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN31 Wetland

Profile Description: (Describe to the depth	needed to document	the indicator or co	nfirm the a	absence of indicators.)		
Depth Matrix (inches) Color (moist) %		dox Features		-	The second secon	
	Color (moist)	% Type 1	Loc2	Texture	Remarks	
0-8 10YR 3/2				Loam		
8-16 2.5Y 4/1 90%	10YR 5/8	10% C	М	Fine Sandy Loam		
power and the second se						
				-		
¹ Type: C=Concentration. D=Depletion. RM=Rec	luced Matrix, CS=Covere	ed or Coated Sand Gra	ins ² Loca	ition: PL=Pore Lining. M=Ma	trix	
Hydric Soil Indicators:				Indicators for Proble	matic Hydric Soils : 3	
Histosol (A1)		w Surface (S8) (LRR R	r		.RR K, L, MLRA 149B)	
Histic Epipedon (A2)	MLRA 149B)			A THE SAME OF THE	(A16) (LRR K, L, R)	
Black Histic (A3)		ace (S9) (LRR R, MLR	4 149B)		Peat (S3) (LRR K, L, R)	
Hydrogen Sulfide (A4)		Mineral (F1) LRR K, L)		Dark Surface (S7) (N 10 10 10 10 10 10 10 10 10 10 10 10 10	
Stratified Layers (A5)	Loamy Gleyed Depleted Matrix	(2)		Polyvalue Below Su	rface (S8) (LRR K, L)	
Depleted Below Dark Surface (A11)	Redox Dark Su	11 (0)		Thin Dark Surface (S9) (LRR K, L)	
Thick Dark Surface (A12)	Depleted Dark			Iron-Manganese Ma	asses (F12) (LRR K, L, R)	
Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Depress	35 757		Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sandy Redox (S5)		5 5		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Stripped Matrix (S6)				Red Parent Material		
Dark Surface (S7) (LRR R, MLRA 149B)				☐ Very Shallow Dark S		
³ Indicators of hydrophytic vegetation and wetle	and broductors arrest to a	wasank walana diakwak		Other (Explain in Re	emarks)	
	ina nyarology must be p	resent, unless disturb	ed or proble	emauc.		
Restrictive Layer (if observed):						
Type:				Hydric Soil Present?	Yes No	
Depth (inches):				Tryanc Son Fresche:	18 0 100	
Remarks:						

Project/Site: Antrim Wind Project	City/Coun	ty: Antrim		Sampling Date: 22-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC		Sta	ate: NH	Sampling Point: AN31 Upland
Investigator(s): AF JG	Section	n, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Undulatin	g Local relie	f (concave, convex,	none): undulatin	g Slope : 5.0 % / 2.9 °
Subregion (LRR or MLRA):	Lat.:	Lon	g.:	Datum:
Soil Map Unit Name:			NWI classif	fication:
Are climatic/hydrologic conditions on the site	tunical for this time of year?	Yes No	(If no, explain in	Pompulse)
Are Vegetation . , Soil . , or Hydr			Circumstances"	
				or obtaine.
Are Vegetation 🔲 , Soil 📙 , or Hydr Summary of Findings - Attach sit		,	explain any answ	
Hydrophytic Vegetation Present? Yes	No 💿	, po	,	,po
Hydric Soil Present? Yes	No (e)	the Sampled Area	Yes O No @)
Wetland Hydrology Present? Yes	No •	ithin a Wetland?	165 0 110 0	
Remarks: (Explain alternative procedures he Transmission line maintained ROW	re or in a separate report.)			
Transmission line maintained ROW				
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of one required	; check all that apply)		Surface Soil C	
Surface Water (A1)	Water-Stained Leaves (B9)		Drainage Patt	
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lin	
Saturation (A3)	Marl Deposits (B15)		Dry Season W	later Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burro	ows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along L	iving Roots (C3)	Saturation Vis	sible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (C4))	Stunted or St	ressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled	Soils (C6)	Geomorphic F	Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquit	ard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		Microtopogra	phic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral T	Test (D5)
Field Observations:				
Surface Water Present? Yes No •	Depth (inches):			
Water Table Present? Yes O No •	Depth (inches):			
Saturation Present? (includes expilled friend) Yes No No	Depth (inches):	Wetland Hyd	Irology Present?	Yes O No 💿
(includes capillary fringe) Describe Recorded Data (stream gauge, mon		inspections) if ava	ilablo:	
Describe Recorded Data (stream gauge, mon	itoring well, aeriai priotos, previous	s inspections), ii ava	пане.	
Remarks:				

VEGETATION - Use scientific names of plants						Sampling Point:	AN31 Upland
Tree Stratum	(Plot size:)	Absolute % Cover		Indicator Status	Dominance Test worksheet:	
110000000	As seed as a second		,0 4010.		0000	Number of Daminant Cassins	

		_Sp	ecies?		4
62.1	Absolute	Re	Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:	% Cover	Co	ver	Status	
1	0		0.0%		Number of Dominant Species
					That are OBL, FACW, or FAC: 1 (A)
2.	0		0.0%		
3.			0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
4		E			Species Across All Strata: 4 (B)
4		Щ,	0.0%		
5	0		0.0%		Percent of dominant Species
		\Box	0.0%		That Are OBL, FACW, or FAC: 25.0% (A/B)
3.00 - 0.01		H			
7.	0	Ш,	0.0%		Prevalence Index worksheet:
	0	= To	tal Cove	г	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')					OBL species 0 x 1 = 0
1. Populus tremula	10	V	47.6%	FACU	· — —
					FACW species 38 x 2 = 76
2. Prunus serotina	3	Ш.	14.3%	FACU	FAC species 0 x 3 = 0
3. Acer saccharum	5	~	23.8%	FACU-	
4. Quercus rubra	3	П	14,3%	FACU-	FACU species $86 \times 4 = 344$
				17100	UPL species $0 \times 5 = 0$
5		Ш.	0.0%		
6	0		0.0%		Column Totals: 124 (A) 420 (B)
7			0.0%		Denveloper Today DVA 3 307
1.					Prevalence Index = B/A = 3.387
Herb Stratum (Plot size: 5')	21	= To	tal Cove	r	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot Size: 3					
1. Rubus alumnus	15	\Box	14.6%	FACU-	Rapid Test for Hydrophytic Vegetation
2 15 V					Dominance Test is > 50%
2. Solidago canadensis	50	V	48.5%	FACU	Prevalence Index is ≤3.0 ¹
3.Onoclea sensibilis	33	~	32.0%	FACW	Water transfer to the contract of the contract
4. Spiraea alba	5		4.9%	FACW+	Morphological Adaptations ¹ (Provide supporting
				IACMI	data in Remarks or on a separate sheet)
5.	0	ш	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
6.	0		0.0%		
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
		Н.			be present, unless disturbed or problematic.
8.	0	\square	0.0%		
9.	0	\Box	0.0%		Definitions of Vegetation Strata:
10.					
W 2000	0	Ц.	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11,	0		0.0%	1940 375 1176 1786	at breast height (DBH), regardless of height.
12.	0	\Box	0.0%		
· 			100000		Sapling/shrub - Woody plants less than 3 in. DBH and
Wands Was Charles (District	103	= To	tal Cove	r	greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:					
1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2	0	П	0.0%		size, and woody plants less than 3.28 ft tall.
		\Box	1833.8 1882		
3	0	Ш	0.0%		Woody vine - All woody vines greater than 3.28 ft in
4.	0		0.0%		height.
	0	_ +.	A-1 C		
	0	= 10	tal Cove	r	
					Hydrophytic
					Vegetation Present? Yes No No
					Present? Yes O No O
					<u> </u>
Remarks: (Include photo numbers here or on a separate s	heet.)				

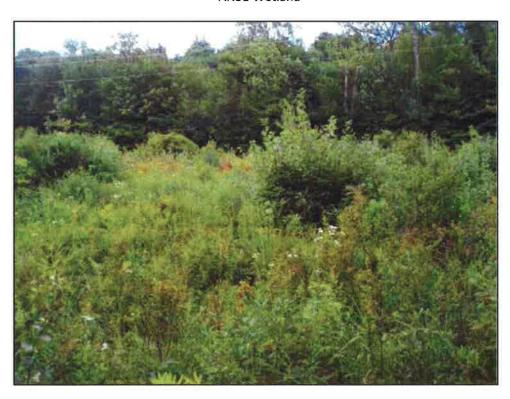
^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN31 Upland

Profile Desc	ription: (Des	scribe to	the depth :	needed to document the indicator or confirm the	absence of indicators.)	
Depth (inches)	Color (r	Matrix noist)	0/0	Redox Features Color (moist) % Type 1 Loc²	Texture Remarks	
0-7	10YR	3/2	100%		Loam	
7-12	10YR	4/3	100%		Sandy Loam	
12-16	2.5Y	5/1	100%		Medium Sand	
16-24	10YR	4/6	100%		Sandy Loam	
	-		-	10-300 - 30-00)		
			-			
	-					-
		-				
		_				
2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		-				
1 Type, C=Con	centration D	-Denletic	n DM-Dadu	ced Matrix, CS=Covered or Coated Sand Grains ² Loc	eation: DI - Dora Lining M-Matrix	
Hydric Soil 1		- Depiedo	III. KM-Redu	-Loc	Indicators for Problematic Hydric Soils: 3	
Histosol (Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Histic Epi	pedon (A2)			MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)	
Black Hist				Thin Dark Surface (S9) (LRR R, MLRA 149B)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)	
The second second	Layers (A5) Below Dark S	urfaca /A	110	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)	
The second second second	k Surface (A1	PERSONAL PROPERTY.	111)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L)	
	ick Mineral (S			Depleted Dark Surface (F7)	Iron-Manganese Masses (F12) (LRR K, L, R)	
The second second	eyed Matrix (S			Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
Sandy Re	dox (S5)				Red Parent Material (TF2)	
	Matrix (S6)				Very Shallow Dark Surface (TF12)	
	ace (S7) (LRR				Other (Explain in Remarks)	
³ Indicators of	f hydrophytic	vegetatio	n and wetlan	d hydrology must be present, unless disturbed or prob	lematic.	
Restrictive L	ayer (if obse	erved):				
Type:					Hydric Soil Present? Yes No •	
Depth (inc	nes):				toyant about 100 or 110 or	
Remarks:						
	9.					



AN31 Wetland



AN31 Upland



AN31 Wetland

Project/Site: Antrim Wind Project	City/Cou	unty: Antrim		Sampling Date: 22-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC		Sta	ite: NH	Sampling Point: AN32 wetland
Investigator(s): AF JG	Secti	ion, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Footslope	Local rel	lief (concave, convex, ı	none): flat	Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA):	Lat.:	Lon	g.:	Datum:
Soil Map Unit Name:			-	fication: PSS
Are climatic/hydrologic conditions on the site	tunical for this time of year?	Yes No	(If no, explain in	Pomarke \
Are Vegetation $oxedsymbol{\square}$, Soil $oxedsymbol{\square}$, or Hydi			Circumstances"	w @ w O
				p. dadire.
	rology	(,	explain any answ	
Summary of Findings - Attach si		ng point location	is, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes	1	*		
Hydric Soil Present? Yes •		Is the Sampled Area within a Wetland?	Yes No	
Wetland Hydrology Present? Yes 🖲	No O			
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of 2 required)
Primary Indicators (minimum of one require	d; check all that apply)		Surface Soil C	Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		✓ Drainage Patt	
☐ High Water Table (A2) ✓ Saturation (A3)	Aquatic Fauna (B13)		Moss Trim Lir	
Saturation (A3) Water Marks (B1)	Marl Deposits (B15) Hydrogen Sulfide Odor (C1)		Crayfish Burro	Vater Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres along	Living Roots (C3)	[-]	sible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (C			ressed Plants (D1)
☐ Algal Mat or Crust (B4)	Recent Iron Reduction in Till		Geomorphic I	Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquit	tard (D3)
Inundation Visible on Aerial Imagery (87)	Other (Explain in Remarks)			phic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			✓ FAC-neutral 7	Fest (D5)
Field Observations:			_	
Surface Water Present? Yes O No G	Depth (inches):			
Water Table Present? Yes O No @	Depth (inches):			0
Saturation Present? Yes No C	Depth (inches): 2		rology Present?	Yes ● No ○
Describe Recorded Data (stream gauge, mor	itoring well, aerial photos, previo	ous inspections), if ava	ilable:	
Remarks:	-			_

	Absolute	S	ominant pecies? el.Strat.	Indicator	Sampling Point: AN32 wetland Dominance Test worksheet:
Tree Stratum (Plot size:	% Cover	C	over	Status	Number of Dominant Species
<u></u>	0		0.0%	-	That are OBL, FACW, or FAC: 3 (A)
2.			0.0%		Total Number of Dominant
3,	0		0.0%		Species Across All Strata: 4 (B)
	0		0.0%		
Ď.,	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)
i			0.0%		That are OBL, FACW, or FAC:
7.	0		0.0%		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15'	0	= T	otal Cove	r	Total % Cover of: Multiply by:
Company of the control of the contro					OBL species 12 x 1 = 12
. Spiraea alba	50	~	83.3%	FACW+	FACW species 108 x 2 = 216
Acer rubrum	10		16.7%	FAC	FAC species 10 x 3 = 30
	0		0.0%	-	FACU species $25 \times 4 = 100$
	0	Ц	0.0%		UPL species $0 \times 5 = 0$
5	0		0.0%		.== .== .==
5	0		0.0%		Column Totals: 155 (A) 358 (B)
	0		0.0%		Prevalence Index = $B/A = 2.310$
Herb Stratum (Plot size: 5')	60	= To	otal Cove	r	Hydrophytic Vegetation Indicators:
1. Carex crinita	12		12.6%	OBL	Rapid Test for Hydrophytic Vegetation
2. Onoclea sensibilis	33	V	34.7%	FACW	✓ Dominance Test is > 50%
3. Carex Intumescens	25	V	26.3%	FACW+	V Prevalence Index is ≤3.0 ¹
4. Rubus hispidus	0		0.0%	FACW	Morphological Adaptations ¹ (Provide supporting
5. Solidago canadensis	25	~	26.3%	FACU	data in Remarks or on a separate sheet)
6.	0		0.0%	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
7.	0		0.0%	-	¹ Indicators of hydric soil and wetland hydrology must
8.			2,444		be present, unless disturbed or problematic.
9.	0		0.0%		Definitions of Vegetation Strata:
0.	0		0.0%		
1.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
2.	0		0.0%		at breast height (DBH), regardless of height.
Ζ.	0		0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	95	= To	otal Cove	r	greater than 3.28 ft (1m) tall
1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
4.	0		0.0%		height.
	0	= To	otal Cove	r	
	0	= T	0.0%	r	Woody vine - All woody vines greater than 3,28 ft in height. Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN32 wetland

Profile Desc Depth	ription: (Des	cribe to Matrix	the depth	needed to d		t the indic		onfirm the	absence of indicators.)	
(inches)	Color (n		- º/o	Color (n		%	Type 1	Loc2	Texture	Remarks
0-18	10YR	3/2	100%						Loam	
18-24	2.5Y	4/2	95%	10YR	5/8	5%	С	M	Sandy Loam	
				-		-				
			-		-					
						-	_			
	_				_	-				
				-		-				
			-							
								_		
¹ Type: C=Con	centration. D	=Depletio	n. RM=Redi	uced Matrix, C	S=Cover	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining, M=Matr	ix
Hydric Soil									Indicators for Problem	atic Hydric Soils: 3
Histosol (alue Belo	w Surface ((S8) (LRR I	٦,	2 cm Muck (A10) (LR	
	pedon (A2)					ace (S9) (I	RR R, ML	RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
Black His	oc (A3) Sulfide (A4)					Mineral (F1			_	Peat (S3) (LRR K, L, R)
	Layers (A5)			Loam	y Gleyed	Matrix (F2)	1		Dark Surface (S7) (LI	
✓ Depleted		urface (A	11)	Deple	eted Matri	ix (F 3)			Polyvalue Below Surface (C)	
	k Surface (A1					ırface (F6)			☐ Thin Dark Surface (St	9) (LRR K, L) ses (F12) (LRR K, L, R)
Sandy Mu	ıck Mineral (S	1)				Surface (F.	7)			Soils (F19) (MLRA 149B)
	eyed Matrix (S	(4)		☐ Redo	x Depres	sions (F8)				MLRA 144A, 145, 149B)
Sandy Re									Red Parent Material (TF2)
	Matrix (S6)	D MIDA	1400\						Very Shallow Dark Su	ırface (TF12)
	ace (S7) (LRR	-							Other (Explain in Ren	narks)
³ Indicators o	f hydrophytic	vegetatio	n and wetla	nd hydrology	must be	present, un	less distur	bed or probl	lematic.	
Restrictive L	ayer (if obse	erved):								
Type:									Hydric Soil Present?	Yes No
Depth (inc	hes):								Hydric Son Frescht:	IES © NO C
Remarks:										

Project/Site: Antrim Wind Project	City/County: Antrim Sampling Date: 22-Aug-11
Applicant/Owner: Eolian Renewable Energy, LLC	State: NH Sampling Point: AN32 upland
Investigator(s): AF JG	Section, Township, Range: S. T. R.
Landform (hillslope, terrace, etc.): Undulating	Local relief (concave, convex, none): undulating Slope: 8.0 % / 4.
Subregion (LRR or MLRA): Lat.:	Long.: Datum:
Soil Map Unit Name:	NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of y	year? Yes No (If no, explain in Remarks.)
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🗌 significan	atly disturbed? Are "Normal Circumstances" present? Yes • No O
Are Vegetation . , Soil . , or Hydrology . naturally	problematic? (If needed, explain any answers in Remarks.)
	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No	
Hydric Soil Present? Yes No No	Is the Sampled Area within a Wetland?
Wetland Hydrology Present? Yes No No	Within a Wethands
Hydrology	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea	
High Water Table (A2) Aquatic Fauna (B:	13) Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B1	
Water Marks (B1) Hydrogen Sulfide	
	heres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
III THE STATE OF T	iction in Tilled Soils (C6) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	
☐ Inundation Visible on Aerial Imagery (87) ☐ Other (Explain in	
Sparsely Vegetated Concave Surface (B8)	FAC-neutral Test (D5)
Field Observations:	
Surface Water Present? Yes O No O Depth (inches):	
Water Table Present? Yes O No O Depth (inches):	W () N ()
Saturation Present? (includes capillary fringe) Yes No No Depth (inches):	Wetland Hydrology Present? Yes ○ No •
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if available:
Remarks:	

Cor	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.76.9% 7.7% 7.7% 0.0% 0.0%	NI FACU FACU	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 3 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 10 x 1 = 10 FACW species 33 x 2 = 66 FAC species 15 x 3 = 45 FACU species 73 x 4 = 292 UPL species 0 x 5 = 0
- Tot	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.7 0.0% 0.0%	NI FACU FACU	That are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of dominant Species That Are OBL, FACW, or FAC: Total % Cover of: Multiply by: OBL species 10
y	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.76.9% 7.7% 7.7% 0.0% 0.0%	NI FACU FACU	Total Number of Dominant Species Across All Strata: Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 10 x 1 = 10 FACW species 33 x 2 = 66 FAC species 15 x 3 = 45 FACU species 73 x 4 = 292 UPL species 0 x 5 = 0
y	0.0% 0.0% 0.0% 0.0% 0.0% tal Cover 76.9% 7.7% 7.7% 0.0% 0.0%	NI FACU FACU	Species Across All Strata: 3 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet:
y	0.0% 0.0% 0.0% 0.0% tal Cover 76.9% 7.7% 7.7% 0.0% 0.0%	NI FACU FACU	Percent of dominant Species 33.3% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 10 x 1 = 10 FACW species 33 x 2 = 66 FAC species 15 x 3 = 45 FACU species 73 x 4 = 292 UPL species 0 x 5 = 0
y	0.0% 0.0% 0.0% tal Cover 76.9% 7.7% 7.7% 0.0% 0.0%	NI FACU FACU	That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 10 x 1 = 10 FACW species 33 x 2 = 66 FAC species 15 x 3 = 45 FACU species 73 x 4 = 292 UPL species 0 x 5 = 0
y	0.0% 0.0% tal Cover 76.9% 7.7% 7.7% 0.0% 0.0%	NI FACU FACU	That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 10 x 1 = 10 FACW species 33 x 2 = 66 FAC species 15 x 3 = 45 FACU species 73 x 4 = 292 UPL species 0 x 5 = 0
y	0.0% tal Cover 76.9% 7.7% 7.7% 0.0% 0.0%	NI FACU FACU	Total % Cover of: Multiply by: OBL species 10 x 1 = 10 FACW species 33 x 2 = 66 FAC species 15 x 3 = 45 FACU species 73 x 4 = 292 UPL species 0 x 5 = 0
y	76.9% 7.7% 7.7% 7.7% 0.0% 0.0%	NI FACU FACU	Total % Cover of: Multiply by: OBL species 10 x 1 = 10 FACW species 33 x 2 = 66 FAC species 15 x 3 = 45 FACU species 73 x 4 = 292 UPL species 0 x 5 = 0
y	76.9% 7.7% 7.7% 7.7% 0.0% 0.0%	NI FACU FACU	OBL species 10 x 1 = 10 FACW species 33 x 2 = 66 FAC species 15 x 3 = 45 FACU species 73 x 4 = 292 UPL species 0 x 5 = 0
	7.7% 7.7% 7.7% 0.0% 0.0%	FACU FACU	FACW species 33 x 2 = 66 FAC species 15 x 3 = 45 FACU species 73 x 4 = 292 UPL species 0 x 5 = 0
= Tot	7.7% 7.7% 0.0% 0.0% 0.0%	FACU	FAC species 15 x 3 = 45 FACU species 73 x 4 = 292 UPL species 0 x 5 = 0
= Tol	7.7% 0.0% 0.0% 0.0%		FACU species $73 \times 4 = 292$ UPL species $0 \times 5 = 0$
= Tot	0.0% 0.0% 0.0%	FAC	UPL species $0 \times 5 = 0$
O O	0.0%		UPL species x 3 =
Tot	0.0%		1
Tot			Column Totals: 131 (A) 413 (B)
= To			Prevalence Index = B/A = 3.153
	tal Cover		Hydrophytic Vegetation Indicators:
			Rapid Test for Hydrophytic Vegetation
L.	17.2%	FACU	Dominance Test is > 50%
Ц	8.6%	FAC-	Prevalence Index is ≤3.0 ¹
Ц	8.6%	FACU-	Morphological Adaptations ¹ (Provide supporting
V	28.4%	FACU	data in Remarks or on a separate sheet)
~	28.4%	FACW+	Problematic Hydrophytic Vegetation ¹ (Explain)
Ш	8.6%	OBL	
	0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Ш	0.0%		
Ц.	0.0%		Definitions of Vegetation Strata:
Ш	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
Ш	0.0%		at breast height (DBH), regardless of height.
	0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and
= To	tal Cover	•	greater than 3.28 ft (1m) tall
	0.0%		Herb - All herbaceous (non-woody) plants, regardless o
	22200		size, and woody plants less than 3.28 ft tall.
П			
П			Woody vine - All woody vines greater than 3,28 ft in height.
- To			neight
	- To	28.4% 8.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	28.4% FACW+ 8.6% OBL 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN32 upland

Profile Description: (Describe to the Depth Matrix	depth needed to document the indicator or confirm the Redox Features	absence of indicators.)
(inches) Color (moist)	% Color (moist) % Type 1 Loc2	Texture Remarks
0-8 10YR 3/3 10	00%	Loam
8-13 10YR 4/3 10	00%	Sandy Loam
		-
.,	M=Reduced Matrix, CS=Covered or Coated Sand Grains ² Local	1.7
ydric Soil Indicators:	Delivery Bulletin and Control of	Indicators for Problematic Hydric Soils: 3
Histosol (A1)	Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) Black Histic (A3)	Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L)
Sandy Muck Mineral (S1)	Depleted Dark Surface (F7)	Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)		Red Parent Material (TF2)
Stripped Matrix (S6)		Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149	9B)	Other (Explain in Remarks)
Indicators of hydrophytic vegetation ar	nd wetland hydrology must be present, unless disturbed or probl	
estrictive Layer (if observed):		
Type:		
Depth (inches):		Hydric Soil Present? Yes O No •
emarks:		
emarks.		



AN32 Upland



AN32 Wetland

Project/Site: Antrim Wind Project	City/	County: Antrim	Sampling Date: 22-Aug-11
Applicant/Owner: Eolian Renewable I	Energy, LLC	State: NH	Sampling Point: AN33 Wetland
Investigator(s): AF JG	s	ection, Township, Range: S.	T. R.
Landform (hillslope, terrace, etc.):	Footslope Local	relief (concave, convex, none):	flat Slope : 3.0 % / 1.7
Subregion (LRR or MLRA):	Lat.:	Long.:	Datum:
Soil Map Unit Name:		N	WI classification: PSS
Are climatic/hydrologic conditions	on the site typical for this time of year?	Yes No (If no.	explain in Remarks.)
Are Vegetation , Soil	, or Hydrology a significantly dist		W (a) N ()
Are Vegetation, Soil	, or Hydrology naturally proble		any answers in Remarks.)
			insects, important features, etc.
Hydrophytic Vegetation Present?	Yes No	Jing point rodations, tra	
	Yes O No O	Is the Sampled Area	● No ○
Hydric Soil Present? Wetland Hydrology Present?	Yes O No O	within a Wetland?	● NO ○
Hydrology			
Wetland Hydrology Indicators: Primary Indicators (minimum of o	one required; check all that apply)		lary Indicators (minimum of 2 required)
Surface Water (A1)			rface Soil Cracks (B6) ainage Patterns (B10)
High Water Table (A2)	✓ Water-Stained Leaves (B☐ Aquatic Fauna (B13)	,	oss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)		y Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (6	1-1	ayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres al	,	turation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iro	n (C4)	unted or Stressed Plants (D1)
Algal Mat or Crust (84)	Recent Iron Reduction in		eomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		allow Aquitard (D3)
Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfa	Conc. (explain in Kemer		crotopographic Relief (D4) C-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes	No Depth (inches):		
Water Table Present? Yes	No O Depth (inches):		6 0
Saturation Present? Vingludge emillant friend Yes	No O Depth (inches):	Wetland Hydrology F	Present? Yes No
Describe Recorded Data (stream g	gauge, monitoring well, aerial photos, pre	evious inspections), if available:	
Remarks:			

	Absolute	Re		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Co	over	Status	Number of Dominant Species
			0.0%		That are OBL, FACW, or FAC: 4 (A)
2.	0	Ц	0.0%		Total Number of Dominant
3.			0.0%		Species Across All Strata: 5 (B)
	0		0.0%		
	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)
),	0		0.0%		That Are OBL, FACW, OF FAC.
	0		0.0%		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15')	. 0	= To	otal Cove	r	Total % Cover of: Multiply by: OBL species 36 x 1 = 36
. Cornus stolonifera	5	1	50.0%	FACW+	
Viburnum dentatum	5	V	50.0%	FAC	I I I I I I I I I I I I I I I I I I I
	0		0.0%		TAC Species A 3 - 423
	0		0.0%		FACU species $33 \times 4 = 132$
			0.0%		UPL species $0 \times 5 = 0$
	0		0.0%		Column Totals: 144 (A) 323 (B)
	0		0.0%		Prevalence Index = $B/A = 2.243$
Herb Stratum (Plot size: 5')		= To	otal Cove	er	Hydrophytic Vegetation Indicators:
1.Onoclea sensibilis	40	V	29.9%	FACW	Rapid Test for Hydrophytic Vegetation
2.Solidago canadensis	33	V	24.6%	FACU	✓ Dominance Test is > 50%
3. Carex crinita	-	V		OBL	✓ Prevalence Index is ≤3.0 ¹
	33		24.6%	10000000	Morphological Adaptations 1 (Provide supporting
4. Rubus hispidus	25		18.7%	FACW	data in Remarks or on a separate sheet)
5. Osmunda regalis	3		2.2%	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
6.			0.0%		1 7 - 12 - 4 6
7.	0		0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8.	0		0.0%		Definitions of Vegetation Strata:
9.	0		0.0%		Definitions of Vegetation Strata.
0.	0	\exists	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
1	0	Ц	0.0%		at breast height (DBH), regardless of height.
2.	0		0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and
Voody Vine Stratum (Plot size:	134	= To	otal Cove	er	greater than 3.28 ft (1m) tall
	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.
3.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in
	0		0.0%		height.
	0	= To	otal Cove	er	
1.		= To	0.0%	er	Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN33 Wetland

Profile Descr	iption: (Des	cribe to	the depth	needed to	document	the indic	ator or co	onfirm the a	absence of indicators.)		
Depth (inches)		Matrix	04	18		dox Featu				_	
	Color (m		%	Color	(moist)	%	Type 1	Loc2	Texture	Ren	narks
0-14	10YR	3/2	100%						Loam		
14-20	2.5Y	5/2	90%	2.5Y	5/1	10%	D	М	Sand		
			-								
			,		-		_		-		
					-		-		-		
¹ Type: C=Cond	centration. D=	Depletio	n, RM=Red	duced Matrix,	CS=Covere	ed or Coate	d Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=M	atrix	
Hydric Soil I	ndicators:			S W					Indicators for Proble	matic Hydr	ic Soils : 3
Histosol (A1)					w Surface (S8) (LRR I	R,	2 cm Muck (A10) (
Histic Epip	pedon (A2)			prompt of	(A 149B)				Coast Prairie Redo		
Black Histi	ic (A3)					ace (S9) (L	70-		5 cm Mucky Peat of	The second second	100
The state of the s	Sulfide (A4)					Mineral (F1))	Dark Surface (S7)		
	Layers (A5)			F	Always and the second	Matrix (F2)			Polyvalue Below Si	A COLUMN TO SERVICE AND A SERV	.RR K, L)
The second second	Below Dark Su		11)	-	leted Matri				Thin Dark Surface	All the The states be granted	122 July 102
Thick Dark	k Surface (A12	2)		-	ox Dark Su		n		Iron-Manganese M	asses (F12) ((LRR K, L, R)
Sandy Mu	ck Mineral (S1)		posses	ox Depress	Surface (F7)		Piedmont Floodpla	in Soils (F19)	(MLRA 149B)
	yed Matrix (S	4)		Rec	ox Depress	ROUS (FO)			Mesic Spodic (TA6	(MLRA 144/	A, 145, 149B)
Sandy Red									Red Parent Materia	ıl (TF2)	Control Control Control
	latrix (S6)								Very Shallow Dark	Surface (TF1	.2)
Dark Surfa	ice (S7) (LRR	R, MLRA	149B)						Other (Explain in F	emarks)	
³ Indicators of	hydrophytic v	regetation	n and wetl	and hydrolog	y must be p	oresent, unl	ess distur	bed or proble	ematic.		
Restrictive La	ver (if obse	rved):									
Type:											
Depth (inch	nes):								Hydric Soil Present?	Yes 💿	No O
									L		
Remarks:			-								
									14		

Project/Site: Antrim Wind Project	City/C	ounty: Antrim		Sampling Date: 22-Aug-11	
Applicant/Owner: Eolian Renewable Energy, LI	.c	Sta	ate: NH	Sampling Point: AN33 Upland	
Investigator(s): AF JG	Sec	ction, Township, Range:	s. T.	R.	
Landform (hillslope, terrace, etc.): Hillside		relief (concave, convex, n		Slope: 5.0 % / 2.9°	
Subregion (LRR or MLRA):	Lat.:	Long	g.:	Datum:	
	Lucii	EUNE	NWI classif		
Soil Map Unit Name:		Yes No			
Are climatic/hydrologic conditions on the si	te typical for this time of year?	Yes ♥ No ∪	(If no, explain in		
Are Vegetation 🔲 , Soil 🔲 , or Hy	drology significantly distu	rbed? Are "Normal	Circumstances"	present? Yes • No O	
Are Vegetation \square , Soil \square , or Hy	drology 🔲 naturally problem	atic? (If needed,	explain any answ	ers in Remarks.)	
Summary of Findings - Attach	ite map showing sampl	ling point location	ıs, transects	, important features, etc.	
Hydrophytic Vegetation Present? Yes		W 150	7.72 °		
Hydric Soil Present? Yes		Is the Sampled Area within a Wetland?	Yes O No 💿		
Wetland Hydrology Present? Yes	○ No O	636,044,000			
Hydrology					
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	rod: chock all that apply)			ors (minimum of 2 required)	
Surface Water (A1)		·	Surface Soil C Drainage Patt		
High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)	,	Moss Trim Lin		
Saturation (A3)	Marl Deposits (B15)			Vater Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1	1)	Crayfish Burro	ows (C8)	
Sediment Deposits (B2)	Oxidized Rhizospheres alor	ng Living Roots (C3)	Saturation Vis	sible on Aerial Imagery (C9)	
Drift deposits (B3)	Presence of Reduced Iron	(C4)	Stunted or Str	ressed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction in T	Filled Soils (C6)	Geomorphic P		
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquit		
☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks))	FAC-neutral T	phic Relief (D4)	
Sparsely vegetated concave surface (bb)			FAC-lieutidi i	est (D3)	
Field Observations: Surface Water Present? Yes No					
Water Table Present? Yes No	Depth (inches):	Wotland Hyd	rology Present?	Yes O No •	
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	Wettand Hyd	Tology Present:	Tes © No ©	
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, prev	ious inspections), if avai	ilable:		
Remarks:					

	Absolute	-	ecies?	Indicator	Dominance Test w	nrksheet:			
Tree Stratum (Plot size: 30'	% Cover			Status	Number of Dominant				
1. Fagus grandifolia	10	V	33.3%	FACU	That are OBL, FACW			0	(A)
2. Acer saccharum	10	~	33.3%	FACU-					
3. Tsuga canadensis	10	V	33.3%	FACU	Total Number of Dor Species Across All St			6	(B)
4.	0		0.0%		J Species Heres				(-)
5.	0		0.0%		Percent of domina			0.0%	(A/B)
6	0		0.0%		That Are OBL, FAC	CW, or FA	C:	0.070	(A/D)
7.	0		0.0%		Prevalence Index v	worksheet			
	30	= To	tal Cove	r	Total % Cov	er of:	Multiple	y by:	
Sapling/Shrub Stratum (Plot size: 15'					OBL species	0	x 1 =	0	
1. Fagus grandifolia	25	~	41.7%	FACU	FACW species	10	x 2 =	20	
2. Populus tremula	15	~	25.0%	FACU	FAC species	3	x 3 =	9	
3. Pinus strobus	5		8.3%	FACU		80	x 4 =	320	
4. Fraxinus pennsylvanica	10		16.7%	FACW	FACU species	75		375	-
5. Quercus rubra	5		8.3%	FACU-	UPL species		x 5 =		
6.	0		0.0%		Column Totals:	168	(A)	724	(B)
7	0		0.0%		Prevalence In	dex = B/A	(=	4.310	
Herb Stratum (Plot size: 5'	60	= To	tal Cove	er	Hydrophytic Veget	ation Indi	cators:		
	75	~	96.2%	UPL	Rapid Test for	r Hydroph	ytic Vege	tation	
1 .Dennstaedtia punctilobula 2 .Maianthemum canadense	3				☐ Dominance T	est is > 50	10/0		
3.			3.8%	FAC-	Prevalence In	dex is ≤3	.0 1		
	0		0.0%	-	Morphologica	l Adaptati	ons ^L (Pr	ovide supp	orting
4 5 .	0		0.0%	-	data in Rema	rks or on a	separat	e sheet)	
	0		0.0%		Problematic I	łydrophyt	ic Vegeta	tion ¹ (Exp	olain)
6.	0		0.0%		1- "			- 1 1 - 1 - 1 - 1 -	
7.	0		0.0%		¹ Indicators of hy be present, unless	arıc son aı disturbed	na wetiai I or probl	ia nyarolo: ematic.	gy must
8.	0		0.0%		200 21 - 200				
9.	0		0.0%		Definitions of V	egetatio	Julata	•	
10.	0		0.0%		Tree - Woody plan	its, 3 in. (7	'.6 cm) o	r more in d	liameter
11.	0	\square	0.0%		at breast height (D	BH), rega	rdless of	height.	
12.	0	\sqcup	0.0%		Sapling/shrub - We	nody nlani	s less th	an 3 in DE	RH and
Woody Vine Stratum (Plot size:	78	= To	tal Cove	er	greater than 3.28 f			un o m. o.	or r and
1.	0		0.0%		Herb - All herbace	ous (non-	woody) p	lants, rega	rdless o
	0		0.0%		size, and woody p	lants less	than 3.28	3 ft tall.	
	0		0.0%		Mandy vine All v	oody vina	o aroator	than 2 20	ft in
	0		0.0%			oody vine	s greater	111011 3,20	II III
т,	0	= To	tal Cove	r					
2. 3. 4.	0		0.0%	er		lants less	tha	an 3.28	an 3.28 ft tall.
					Hydrophytic Vegetation Present? Y	es O I	√ 0		

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN33 Upland

Profile Descr	iption: (Desc	ribe to t	he depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth (inches)		latrix		Redox Features	T.,,	Barrante
	Color (me		%	Color (moist) % Type 1 Loc²	Texture	Remarks
0-8	10YR	3/3	100%		Loam	
8-15	2.5Y	5/3	100%		Loamy Sand	
						-
1 Type: C=Cond	rentration D=I	Denletion	. RM=Rec	uced Matrix, CS=Covered or Coated Sand Grains 2Loca	ation: PI =Pore Lining M=Ma	atrix
Hydric Soil I						
Histosol (A				Polyvalue Below Surface (S8) (LRR R,		matic Hydric Soils: 3
	pedon (A2)			MLRA 149B)		LRR K, L, MLRA 149B)
Black Histi	ARTHUR THE PARTY OF THE PARTY O			Thin Dark Surface (S9) (LRR R, MLRA 149B)	The state of the s	(A16) (LRR K, L, R)
-	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)		r Peat (S3) (LRR K, L, R)
Stratified I	Layers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	rface (S8) (LRR K, L)
Depleted I	Below Dark Sur	rface (A1	1)	Depleted Matrix (F3)	Thin Dark Surface	Special state of the state of t
Thick Dark	Surface (A12))		Redox Dark Surface (F6)		asses (F12) (LRR K, L, R)
Sandy Mu	ck Mineral (S1))		Depleted Dark Surface (F7)	The state of the second control of the state of the	n Soils (F19) (MLRA 149B)
Sandy Gle	yed Matrix (S4)		Redox Depressions (F8)		(MLRA 144A, 145, 149B)
Sandy Red	dox (S5)				Red Parent Materia	
Stripped N	Matrix (S6)				Very Shallow Dark	
Dark Surfa	ace (S7) (LRR F	R, MLRA	149B)		Other (Explain in R	
3Indicators of	hydrophytic ve	egetation	and wetla	nd hydrology must be present, unless disturbed or probl	ematic.	
Restrictive La						
Type: Bo	16) 16)	vou j.				
Depth (inch					Hydric Soil Present?	Yes O No 💿
	ics), 13					
Remarks:						



AN33 Wetland



AN33 Upland



AN33 Wetland



AN33 Wetland

Project/Site: Antrim Wind Project	City/C	ounty: Antrim		Sampling Date: 26	5-Sep-11
Applicant/Owner: Eolian Renewable En	ergy, LLC	State	: NH	Sampling Point:	AN35 wetland
Investigator(s): AF JG	Se	ction, Township, Range: S.	T.	R.	
Landform (hillslope, terrace, etc.): F	Footslope Local I	relief (concave, convex, nor	ne): flat	Slope:	5.0 % / 2.9°
Subregion (LRR or MLRA):	Lat.:	Long.:		Datu	um:
Soil Map Unit Name:				ication: PFO/PSS	3
	the site busies! for this time of your	Yes No	-	-	
Are climatic/hydrologic conditions on Are Vegetation	, or Hydrology Significantly distu		If no, explain in	w 6	No O
			ircumstances" p		110
	, or Hydrology			ers in Remarks.)	
Summary of Findings - Att	ach site map showing samp	ing point locations	, transects,	important rea	atures, etc.
Hydrophytic Vegetation Present?	Yes No No	To the Complet Aven			
Hydric Soil Present?	Yes No No	Is the Sampled Area within a Wetland?	Yes No		
Wetland Hydrology Present?	Yes No				
Hydrology					
Wetland Hydrology Indicators:		S	Secondary Indicato	ors (minimum of 2 req	uired)
Primary Indicators (minimum of one	required; check all that apply)		Surface Soil Co		
Surface Water (A1)	✓ Water-Stained Leaves (B9))	✓ Drainage Patte		
✓ High Water Table (A2) ✓ Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)	[[Moss Trim Line	es (B16) ater Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C:	1)	Crayfish Burro		
Sediment Deposits (B2)	✓ Oxidized Rhizospheres alo	· ·	_ ·	ible on Aerial Imagery	(C9)
Drift deposits (B3)	Presence of Reduced Iron	(C4)	Stunted or Str	essed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction in T	Filled Solls (C6)	Geomorphic P	osition (D2)	
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquita		
☐ Inundation Visible on Aerial Imagery ☐ Sparsely Vegetated Concave Surface	Other (Exhiam in Kemarks		✓ Microtopograp ✓ FAC-neutral To	ohic Relief (D4)	
Sparsely vegetated Concave Surface	(00)	C	Y FAC-neutral 16	est (D5)	
Field Observations:					
Surface Water Present? Yes O	No Depth (inches):				
Water Table Present? Yes •	No Depth (inches):	2		Yes No	,
Saturation Present? (includes capillary fringe) Yes	No O Depth (inches):	0 Wetland Hydrol	logy Present?	Yes 🕓 No C	,
	uge, monitoring well, aerial photos, prev	vious inspections), if availal	ble:		

	_Spec			Sampling Point: AN35 wetland
			Indicator Status	May be through a thought the control of the control
		27.3%		Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)
- N	_		FAC	That are obe, then, or the
			FACW	Total Number of Dominant Species Across All Strata: 6 (B)
0		0.0%		Species Across Air Strata.
0		0.0%		Percent of dominant Species
		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
0		0.0%		Prevalence Index worksheet:
55	= Tota	l Cove	r	Total % Cover of: Multiply by:
				OBL species $0 \times 1 = 0$
				FACW species 115 x 2 = 230
			FACW+	FAC species 30 x 3 = 90
-			-	FACU species 0 x 4 = 0
				UPL species $0 \times 5 = 0$
				Column Totals: 145 (A) 320 (B)
				Column localor (A)
	-		- 1	Prevalence Index = B/A = 2.207
30	= Tota	l Cove	r	Hydrophytic Vegetation Indicators:
50	V 5	83 30%	FACW	Rapid Test for Hydrophytic Vegetation
	p		-	✓ Dominance Test is > 50%
	_		men	Prevalence Index is ≤3.0 ¹
				Morphological Adaptations (Provide supporting
_				data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
-				Problematic Hydrophytic Vegetation - (Explain)
				¹ Indicators of hydric soil and wetland hydrology must
0		0.0%		be present, unless disturbed or problematic.
0		0.0%		Definitions of Vegetation Strata:
0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
0		0.0%		at breast height (DBH), regardless of height.
0		0.0%		
60	= Tota	l Cove	r	Sapling/shrub - Woody plants less than 3 in, DBH and greater than 3.28 ft (1m) tall
	Control of the Contro			g.outer trials of the control of the
0	protein and	0.0%		Herb - All herbaceous (non-woody) plants, regardless of
0	-	The State of the S		size, and woody plants less than 3,28 ft tall.
_		1002		Woody vine - All woody vines greater than 3.28 ft in
		2000		height.
0	= Tota	l Cove	r	
				1
	% Cover 15 15 25 0 0 0 0 0 555 20 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Absolute % Cover Cover 15	Absolute % Cover 15	Absolute % Cover Rel.Strat. Cover Status 15

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: AN35 wetland

	iption: (De		the depth	needed to				onfirm the	absence of indicators.)		
Depth (inches)	Color (Matrix moist)	%	Color (dox Featu %	res Type	Loc2	Texture	Don	narks
0-8	10YR	3/2	100%	Coloi (moist	70	Турс	LUC-	Loam	Ken	ilai KS
8-14			N-074 94 A-00	100/0	Ale	E0/	_				
10/19/100	2.5Y	4/2	95%	10YR	4/6	5%	С	М	Fine Sandy Loam	Bedrock	
14+											
	-										
					-		-				
¹ Type: C=Cond	centration. D	=Depletio	n. RM=Rec	luced Matrix,	CS=Covere	ed or Coate	d Sand Gr	ains ² Loca	ation: PL=Pore Lining, M=Ma	atrix	
Hydric Soil I	ndicators:								Indicators for Proble	matic Hydri	ic Soils : 3
Histosol (A1)	1.5				w Surface (S8) (LRR	R,	2 cm Muck (A10) (
2-4	oedon (A2)				A 149B)	nen (CO) //	DD D MI	DA 140P)	Coast Prairie Redox		
Black Hist						ace (S9) (L Mineral (F1)	erner ee		5 cm Mucky Peat o	ABOUT THE PARTY OF	100 Jan 19 19 19 19 19 19 19 19 19 19 19 19 19
	Sulfide (A4)	6		F-3		Matrix (F2)		,	Dark Surface (S7)	(LRR K, L)	
remain and the second	Layers (A5)			E-3	eted Matri	THE STATE OF THE S			Polyvalue Below Su	ırface (S8) (L	RR K, L)
	Below Dark S k Surface (A:		11)	-	ox Dark Su	The second second			Thin Dark Surface	(S9) (LRR K,	L)
	ck Mineral (S					Surface (F7	7)		Iron-Manganese M		NATIONAL PROPERTY.
	yed Matrix (595		100000	ox Depress				Piedmont Floodplai		
Sandy Red		31)							Mesic Spodic (TA6)		, 145, 1498)
	Matrix (S6)								Red Parent Materia		
	ace (S7) (LRI	R R, MLRA	149B)						Very Shallow Dark		2)
³ Indicators of			200	and budgalage	must be n	rosoot unl	oog distur	had an mahl	Other (Explain in R	emarks)	
N 124 13	200.00		i and welk	ша пуагоюду	must be p	resent, uni	ess aistur	bea or probl	emauc.		
Restrictive La	ayer (if obs	erved):									
Type:	Samuel Notes						_		Hydric Soil Present?	Yes 💿	No O
Depth (inch	nes):								Injurie don Presents	16 9	140 🔾
Remarks:											

Project/Site: Antrim Wind Project	City/County: Antrin	n	Sampling Date: 26-Sep-11
Applicant/Owner: Eolian Renewable Energy, LLC	-	State: NH	Sampling Point: an35 upland
Investigator(s): AF JG	Section, Townsh	ip, Range: S. T.	R.
Landform (hillslope, terrace, etc.): Footslope	and the second s	e, convex, none): flat	Slope: 5.0 % / 2.9°
Subregion (LRR or MLRA):	Lat.:	Long.:	Datum:
Soil Map Unit Name:		NWI classifi	
2 N - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	for this time of year? Yes •	0	
Are climatic/hydrologic conditions on the site typical (To this time of your.	(21 Ho) explain in	w- @ w- O
Are Vegetation , Soil , or Hydrology	significantly disturbed?	re "Normal Circumstances" p	present? Yes © NO O
Are Vegetation, Soil, or Hydrology		If needed, explain any answe	
Summary of Findings - Attach site ma		locations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes No	and the second s		
Hydric Soil Present? Yes No	within a we		
Wetland Hydrology Present? Yes No	•)		
Hydrology			
			4
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check	all that apply)		ors (minimum of 2 required)
	Water-Stained Leaves (B9)	Surface Soil Co	
	Aquatic Fauna (B13)	Moss Trim Lin	
Saturation (A3)	Marl Deposits (B15)	Dry Season W	ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burro	ws (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots	(C3) Saturation Visi	ible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (C4)		essed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic P	. ,
Town dation Wallala on April Transport (D7)	Thin Muck Surface (C7)	Shallow Aquita	2 2
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	FAC-neutral To	ohic Relief (D4)
spansary ragicalization contacts solving (50)		TAC ficación (s	Cat (03)
Field Observations: Surface Water Present? Yes No No			
	Depth (inches):		
Water Table Present? Yes No •	Depth (inches):	etland Hydrology Present?	Yes ○ No ●
Saturation Present? Yes No No	Depth (inches):	etialia riyarology i resent.	
Describe Recorded Data (stream gauge, monitoring v	well, aerial photos, previous inspectio	ons), if available:	
Remarks:	•		

er Co	46.5% 46.5% 28.2% 11.3% 14.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	FACU FACU FACU FACU FACU FACU FACU FACU	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 7 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 28.6% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 10 x 2 = 20
= To	28.2% 11.3% 14.1% 0.0% 0.0% 0.0% 0.0% 040 00.0% 00.0%	FACU FACU- FACU-	That are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 7 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 28.6% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0
= Te	11.3% 14.1% 0.0% 0.0% 0.0% 0.0% 60.0% 40.0% 0.0%	FACU FACU-	Species Across All Strata: 7 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 28.6% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0
V	14.1% 0.0% 0.0% 0.0% otal Cove 60.0% 40.0% 0.0%	FACU-	Species Across All Strata: 7 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 28.6% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0
V	0.0% 0.0% 0.0% otal Covel 60.0% 40.0%	FACU	Percent of dominant Species That Are OBL, FACW, or FAC: 28.6% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0
V	0.0% 0.0% otal Cover 60.0% 40.0% 0.0%	FACU	That Are OBL, FACW, or FAC: 28.6% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0
V	0.0% otal Cover 60.0% 40.0% 0.0%	FACU	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0
V	60.0% 40.0% 0.0%	FACU	Total % Cover of: Multiply by: OBL species 0 x 1 = 0
V	60.0% 40.0% 0.0%	FACU	OBL species 0 x 1 = 0
V	60.0% 40.0% 0.0%	FACU	OBL species 0 x 1 = 0
	40.0% 0.0%	The Calaborate	FACW species 10 x 2 = 20
	0.0%	FACW	
			FAC species 15 x 3 = 45
	0.0%		FACU species $111 \times 4 = 444$
			UPL species $10 \times 5 = 50$
	0.0%		Column Totals: 146 (A) 559 (B)
	0.0%		Column locals.
	0.0%		Prevalence Index = $B/A = 3.829$
= To	otal Cove		Hydrophytic Vegetation Indicators:
V	30.0%	FAC	Rapid Test for Hydrophytic Vegetation
V	50.0%	FACU	Dominance Test is > 50%
V	20.0%	UPL	Prevalence Index is ≤3.0 ¹
	0.0%		Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
	0.0%		Problematic Hydrophytic Vegetation (Explain)
	0.0%		¹ Indicators of hydric soil and wetland hydrology must
	0.0%		be present, unless disturbed or problematic.
	0.0%		Definitions of Vegetation Strata:
	0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diamete
	0.0%		at breast height (DBH), regardless of height.
	0.0%		
= To	otal Cove		Sapling/shrub - Woody plants less than 3 in, DBH and greater than 3.28 ft (1m) tall
			Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
			size, and woody plants less than 5.20 it tall.
			Woody vine - All woody vines greater than 3.28 ft in
			height.
= T	otal Cove	r	
	▼ ▼ ▼ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	 ✓ 50.0% ✓ 20.0% 0.0% 	50.0% FACU 20.0% UPL 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an35 upland

Profile Descri	ption: (Des	ribe to	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth		Matrix	gara.	Redox Features		
(inches)	Color (m		%	Color (moist) % Type 1 Loc ²	Texture	Remarks
0-6	10YR	3/2	100%		Loam	
6-11	10YR	4/6	100%		Fine Sandy Loam	
11-16	10YR	4/4	100%		Fine Sandy Loam	
					-	
			_			
¹ Type: C=Conc	entration. D=	Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains ² Local	ation: PL=Pore Lining. M=Matrix	
Hydric Soil In					Indicators for Problemati	c Hydric Soils : 3
Histosol (A				Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A10) (LRR I	(, L, MLRA 149B)
Histic Epipe Black Histic	-2 Children Children			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A1	6) (LRR K, L, R)
	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Pea	
	ayers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR	1.00.10402
	lelow Dark Su	ırface (A:	11)	Depleted Matrix (F3)	Polyvalue Below Surface	A.M. (2011) P. (2011) P. (2011) P. (2012) P. (
Thick Dark	Surface (A12	2)		Redox Dark Surface (F6)	Thin Dark Surface (S9) Iron-Manganese Masses	SANTAS CERCISES
Sandy Muc	k Mineral (S1)		Depleted Dark Surface (F7)	Piedmont Floodplain Sol	Manager and Contract
Sandy Gley	ved Matrix (S	4)		Redox Depressions (F8)	Mesic Spodic (TA6) (ML	
Sandy Red					Red Parent Material (TF.	
Stripped M	010000100 100000000				Very Shallow Dark Surfa	ce (TF12)
	ce (S7) (LRR		-		Other (Explain in Remar	ks)
³ Indicators of	hydrophytic v	regetation	n and wetla	and hydrology must be present, unless disturbed or probl	ematic.	
Restrictive La	yer (if obse	rved):				
Type:						0 0
Depth (inch	es):				Hydric Soil Present? Ye	s ○ No •
Remarks:						



AN35 Wetland

Applicant/Owner: Eolian Renew	abla Facess, II.C		
investigator(s): AF JG	able Energy, LLC		State: NH Sampling Point: an36 wetland
		Section, Township, Ra	inge: S. T. R.
andform (hillslope, terrace, e	tc.): Saddle	Local relief (concave, con	vex, none): flat Slope: 0.0 % / 0.0
Subregion (LRR or MLRA):		Lat.:	Long.: Datum:
Soil Map Unit Name:			NWI classification: PFO
Are climatic/hydrologic condi	iona on the site t	voical for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation . , Soil	ons on the site to	ypress for this time of year.	ormal Circumstances" present? Yes No
			offine of definition project.
	, or Hydro		eded, explain any answers in Remarks.)
			ntions, transects, important features, etc.
Hydrophytic Vegetation Pres	ent? Yes Yes	No Sampled A	irea O O
Hydric Soil Present?		within a Wetland	
Wetland Hydrology Present?	Yes	No O	
Hydrology			
Wetland Hydrology Indicator			Secondary Indicators (minimum of 2 required)
Wetland Hydrology Indicator Primary Indicators (minimun			Surface Soil Cracks (B6)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1)		✓ Water-Stained Leaves (B9)	Surface Soil Cracks (B6) Drainage Patterns (B10)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2)			Surface Soil Cracks (B6)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2)		✓ Water-Stained Leaves (B9) — Aquatic Fauna (B13)	Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		✓ Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15)	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)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3)		 ✓ Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) ✓ Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) 	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)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4)		Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) ✓ Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	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)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	of one required;	✓ Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) ✓ Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	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)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4)	of one required;	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) ✓ Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	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)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave	of one required;	✓ Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) ✓ Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	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)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave	of one required;	✓ Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) ✓ Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	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)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present?	of one required; Imagery (B7) Surface (B8)	✓ Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) ✓ Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks)	Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) ✓ FAC-neutral Test (D5)
Wetland Hydrology Indicator Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present?	Imagery (B7) Surface (B8)	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) ✓ Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches):	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)

	Absolute		ecies?	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30'	% Cover		ver	Status	Number of Dominant Species
. Acer rubrum	20	~	100.0%	FAC	That are OBL, FACW, or FAC: 5 (A)
	0		0.0%		TALK TO A POST OF THE PARTY OF
	0		0.0%		Total Number of Dominant Species Across All Strata: 5 (B)
4	0		0.0%		
5.	0		0.0%		Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)
5	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
•	0		0.0%		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15')	20	= To	otal Cove	er	Total % Cover of: Multiply by:
Acer rubrum	20	1	34.5%	FAC	OBL species 3 x 1 = 3
To the same of the	20	V	34.5%	FAC	FACW species 23 x 2 = 46
Programme and the second secon			13.8%	FACW	FAC species 85 x 3 = 255
A MARINE THE PROPERTY OF THE P		H	17.2%	FAC	FACU species $0 \times 4 = 0$
	_		0.0%	FAC	UPL species $0 \times 5 = 0$
	-				Column Totals: 111 (A) 304 (B)
	0		0.0%		COVERNIT FORMATO
. P		_			Prevalence Index = $B/A = 2.739$
Herb Stratum (Plot size: 5'	58	= 10	otal Cove	er	Hydrophytic Vegetation Indicators:
1. Betula alleghaniensis	15	V	45.5%	FAC	Rapid Test for Hydrophytic Vegetation
2.Osmunda regalis	3		9.1%	OBL	✓ Dominance Test is > 50%
3.0smunda cinnamomea	15	V	45.5%	FACW	✓ Prevalence Index is ≤3.0 ¹
4.	0		0.0%	men	Morphological Adaptations ¹ (Provide supporting
5.	0		0.0%		data in Remarks or on a separate sheet)
6.	0	H	0.0%		Problematic Hydrophytic Vegetation 1 (Explain)
7.	0	H	0.0%		1 Indicators of hydric soil and wetland hydrology must
8.	0	H	0.0%		be present, unless disturbed or problematic.
9.	0		0.0%		Definitions of Vegetation Strata:
0.	0	H	0.0%		
1.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
2.	0		0.0%		at breast reight (bbit), regardless of neight.
	33	= To	otal Cove	er	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)	0		0.00/		Hash All hashacasia (ann wead) alasta sanadlasa
1	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
<u></u>	0	H	0.0%		
3.	0	H	0.0%		Woody vine - All woody vines greater than 3,28 ft in
4		_			height.
	0	= To	otal Cove	er	
	0	= To	otal Cove	er	Hydrophytic Vegetation Present? Yes No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

450	8.1
-	No II
34	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Sampling Point: an36 wetland

Profile Descri	iption: (Desc	ribe to t	the depth	needed to document the indicator or confirm the	absence of indicators.)	
Depth (inches)		Matrix		Redox Features		
	Color (m		%	Color (moist) % Type 1 Loc2	Texture	Remarks
0-22	10YR	2/1	100%		Peat	
22+	2.5Y	5/1	100%		Gravelly Sand	
-						
4 1999 -			AND SAID TO			
		Depletion	ı. RM=Rec	duced Matrix, CS=Covered or Coated Sand Grains ² Loca		
Hydric Soil I					Indicators for Problemat	ic Hydric Soils : 3
Histosol (A				Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A10) (LRR I	
- The second sec	oedon (A2)			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A1	6) (LRR K, L, R)
Black Histi				Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Pea	t (S3) (LRR K, L, R)
	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR	K, L)
	Layers (A5) Below Dark Su	ulana /A 1		Depleted Matrix (F3)	Polyvalue Below Surface	(S8) (LRR K, L)
	k Surface (A12	Contract of the	.1)	Redox Dark Surface (F6)	Thin Dark Surface (S9)	
	ck Mineral (S1			Depleted Dark Surface (F7)	Iron-Manganese Masses	
-	yed Matrix (S4	9		Redox Depressions (F8)	Piedmont Floodplain Sol	
Sandy Red					Mesic Spodic (TA6) (ML	
	fatrix (S6)			£-	Red Parent Material (TF	
	ace (S7) (LRR I	R. MIRA	149B)		Very Shallow Dark Surfa	
	100 000				Other (Explain in Remar	ks)
"Indicators of	hydrophytic v	egetation	and wetl	and hydrology must be present, unless disturbed or proble	ematic,	
Restrictive La	ayer (if obser	rved):				
Type:						8 O
Depth (inch	nes):				Hydric Soil Present? Yo	s O No O
Remarks:						

, or Hydro , or Hydro , or Hydro - Attach site ent? Yes Yes Yes ve procedures her	Loca Lat.: ypical for this time of year? llogy significantly dis	rection, Township, Range: I relief (concave, convex, reconvex) Long Yes No No Contact Are "Norma amatic? (If needed,	none): convex g.: NWI classi (If no, explain in Il Circumstances" explain any answ ns, transects Yes \(\) No \(\)	R. Slope: 15 Datum: ification: n Remarks.) present? Yes vers in Remarks.) s, important feature	No Oures, etc.
or Hydro or	Loca Lat.: Applical for this time of year? Allogy significantly discology naturally problet E map showing sam No No No No The or in a separate report.)	Yes No Are "Norma ematic? (If needed, pling point location	none): convex g.: NWI classi (If no, explain in Il Circumstances" explain any answ ns, transects Yes \(\) No \(\)	Slope: 15 Datum: ification: n Remarks.) present? Yes vers in Remarks.) s, important feat	No Oures, etc.
or Hydro or	Lat.: Applical for this time of year? Alogy significantly disploy naturally proble Period map showing sam No No No No No Te or in a separate report.)	Yes No No naturbed? Are "Norma ematic? (If needed, pling point location	g.: NWI classi (If no, explain in a control of the control of th	present? Yes overs in Remarks.) s, important feature.	No Oures, etc.
, or Hydro , or Hydro , or Hydro - Attach site ent? Yes Yes Yes ve procedures her	rypical for this time of year? slogy significantly dis slogy naturally proble e map showing sam No No No No re or in a separate report.)	Yes No No number Norma Parameter (If needed, pling point location Is the Sampled Area	NWI classi (If no, explain in in it Circumstances" explain any answins, transects Yes No	ification: n Remarks.) present? Yes vers in Remarks.) s, important feat	No Oures, etc.
, or Hydro , or Hydro , or Hydro - Attach site ent? Yes Yes Yes ve procedures her	significantly disploys significantly disploys naturally proble e map showing sam No No No No re or in a separate report.)	Yes No No number Norma Parameter (If needed, pling point location Is the Sampled Area	NWI classi (If no, explain in in it Circumstances" explain any answins, transects Yes No	n Remarks.) present? Yes vers in Remarks.) s, important feat	ures, etc.
, or Hydro , or Hydro , or Hydro - Attach site ent? Yes Yes Yes ve procedures her	significantly disploys significantly disploys naturally proble e map showing sam No No No No re or in a separate report.)	ematic? (If needed, pling point location Is the Sampled Area	explain any answins, transects Yes No	present? Yes overs in Remarks.) s, important feat	ures, etc.
, or Hydro , or Hydro , or Hydro - Attach site ent? Yes Yes Yes ve procedures her	significantly disploys significantly disploys naturally proble e map showing sam No No No No re or in a separate report.)	ematic? (If needed, pling point location Is the Sampled Area	explain any answins, transects Yes No	present? Yes overs in Remarks.) s, important feat	ures, etc.
, or Hydro - Attach site ent? Yes Yes Yes ve procedures her	e map showing sam No No No No No Tre or in a separate report.)	ematic? (If needed, pling point location Is the Sampled Area	explain any answins, transects Yes No	vers in Remarks.)	
- Attach site ent? Yes O Yes O Yes O Ye procedures her	e map showing sam No No No re or in a separate report.)	pling point location	Yes O No	s, important feat	12
ent? Yes O Yes O Yes O Ye procedures her	No	Is the Sampled Area	Yes O No G		12
Yes Yes O	No No re or in a separate report.)				d)
Yes O	No er or in a separate report.)	within a Wetland?			d)
e procedures her	re or in a separate report.)		Secondary Indicat	tors (minimum of 2 require	d)
	; check all that apply)		Secondary Indicat	tors (minimum of 2 require	d)
	; check all that apply)		Secondary Indicat	tors (minimum of 2 require	d)
of one required,	; check all that apply)				
			Surface Soil	Cracks (B6)	
	Water-Stained Leaves (B	39)	☐ Drainage Pat		
		C1)			
					9)
					•
	Recent Iron Reduction in	Tilled Soils (C6)	Geomorphic	Position (D2)	
	Thin Muck Surface (C7)		r		
P. LOW COMP. (ALL)	Other (Explain in Remar	ks)			
Surface (B8)			FAC-neutral	Test (D5)	
0 0					
	Depth (inches):				
res O No 💿	Depth (inches):			Ver O No O	1
res O No 💿	Depth (inches):	wetiano Hyd	irology Present?	res 🔾 NO 😌	
am gauge, monit	toring well, aerial photos, pr	evious inspections), if ava	ilable:		
Y Y	res No No O	Oxidized Rhizospheres a Presence of Reduced Iro Recent Iron Reduction in Thin Muck Surface (C7) Other (Explain in Remare Yes No Depth (inches): Yes No Depth (inches): Depth (inches):	Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Yes No Depth (inches): Depth (inches): Wetland Hydrogen Depth (inches): Wetland Hydrogen Depth (inches): Wetland Hydrogen Depth (inches):	Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Microtopogra Surface (B8) Depth (inches): Motioned Hydrology Present 2	Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches): Marl Deposits (B15) 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) Wetland Hydrology Present? Yes No Depth (inches): Depth (inches):

Tree Stratum (Plot size: 30')	Absolute % Cover	Re	ecies? el.Strat. over	Indicator Status	Dominance Test wor	ksheet:			
1. Acer saccharum		V	33.3%	FACU-	Number of Dominant S That are OBL, FACW, o			2	(A)
2. Fagus grandifolia		V	33.3%	FACU	That are obe, There, o	i i Aci			0.0
3. Betula alleghaniensis	15	~	33.3%	FAC	Total Number of Dominant Species Across All Strata: 8			0	(B)
4	0		0.0%		Species Across All Strat	d.		- 0	(B)
5.			0.0%		Percent of dominant Species				/ 1. (m)
6			0.0%		That Are OBL, FACW	I, or FA	C:	25.0%	(A/B)
7.	0		0.0%		Prevalence Index worksheet:				
Sapling/Shrub Stratum (Plot size: 15')	45	= To	tal Cove	r	Total % Cover	of: 0	Multipl	y by:	
1. Fagus grandifolia	8	V	30.8%	FACU		0	x 2 =	0	
2. Picea rubens	18	V	69,2%	FACU	FACW species	20		60	
3	0		0.0%		FAC species	66	x 3 =	264	-
4.5	0		0.0%		FACU species	0	x 4 =	0	-
5	0		0.0%		UPL species	53870.5	x 5 =		
6	0		0.0%		Column Totals:	86	(A)	324	(B)
7	0		0.0%		Prevalence Inde	x = B/A	<i>A</i> =	3.767	
Herb Stratum (Plot size: 5'	26	= To	tal Cove	r	Hydrophytic Vegetati				
1.Aralia nudicaulis	5	V	33.3%	FACU	Rapid Test for H	3 3	_	tation	
2. Fagus grandifolia	5	V	33.3%	FACU	☐ Dominance Test	9 A	3 15 -		
3. Trientalis borealis	5	~	33.3%	FAC	Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting				
4.	0		0.0%		data in Remarks	idaptati s or on a	ions + (Pi a separat	rovide sup e sheet)	porting
5.	0		0.0%		Problematic Hyd				(plain)
6.	0		0.0%						
7.	0		0.0%		¹ Indicators of hydri be present, unless di	ic soil a	nd wetlar	nd hydrol Iematic	ogy must
8.	0		0.0%				The Part of the Pa		
9.	0		0,0%		Definitions of Veg	etatio	n Strata	i.	
10	0		0.0%		Tree - Woody plants,				diamete
11. 12.			0.0%		at breast height (DBI	H), rega	irdless of	height.	
12.	15	= To	0.0%		Sapling/shrub - Wood greater than 3.28 ft (an 3 in. D	BH and
Woody Vine Stratum (Plot size:)									
1	0		0.0%		Herb - All herbaceou size, and woody plan				ardless o
2	0	Н	0.0%		size, and woody plan	115 1622	ulali 3.20	o it tall.	
3.	0	H	0.0%		Woody vine - All woo	dy vine	s greate	than 3.2	8 ft in
4	0		0.0%		height.				
	0	= To	otal Cove	r					
					Hydrophytic Vegetation Present? Yes	0	No •		
Remarks: (Include photo numbers here or on a separate s	heet.)								

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

-			
c	-	ī	ı

Sampling Point: an36 upland

			the depth	needed to document the indicator or confirm the a	absence of indicators.)	
Depth (inches)	Color (n	Matrix ioist)	0/0	Redox Features Color (moist) % Type 1 Loc2	Texture	Remarks
0-6	10YR	3/2	100%		Loam	
6-9	10YR	4/4	100%		Sandy Loam	
9-13	10YR	4/6	100%		Sandy Loam	
			*		*	
			-			
					-	
					-	
						-
1 Type: C=Conc	entration N=	- Danletio	n PM=Pedi	uced Matrix, CS=Covered or Coated Sand Grains 2Loca	tion: PI =Pore Lining M=M:	atriv
Hydric Soil I		Берісцо	III IGI-KCGI	aced Matrix, 63—covered of coated Saile Grains		ematic Hydric Soils : 3
Histosol (A				Polyvalue Below Surface (S8) (LRR R,		LRR K, L, MLRA 149B)
Histic Epip	edon (A2)			MLRA 149B)		x (A16) (LRR K, L, R)
Black Histi	BATTER NAME OF			Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) LRR K, L)	The state of the s	or Peat (S3) (LRR K, L, R)
	Sulfide (A4) ayers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	(LRR K, L)
	.ayers (A5) Below Dark Si	uface (A	11)	Depleted Matrix (F3)		urface (S8) (LRR K, L)
	Surface (A1)		,	Redox Dark Surface (F6)	Thin Dark Surface	
	ck Mineral (S1			Depleted Dark Surface (F7)		asses (F12) (LRR K, L, R) in Solls (F19) (MLRA 149B)
Sandy Gle	yed Matrix (S	4)		Redox Depressions (F8)	The second state of the second) (MLRA 144A, 145, 149B)
Sandy Red					Red Parent Materia	
Stripped M		D MIDA	140B)		Very Shallow Dark	
	ice (S7) (LRR				Other (Explain in R	emarks)
			n and wetla	nd hydrology must be present, unless disturbed or proble	ematic.	
Restrictive La	yer (if obse	rved):				
Type:	oc):				Hydric Soil Present?	Yes O No 💿
Depth (inch	ies):					
Remarks:						



AN36 Wetand

Applicant/Owner: Eolian Re Investigator(s): AF JG			City/Coun	ity: Antrim		Sampling Date: 27-Sep-11
Investigator(s): AF JG	enewable Ene	rgy, LLC		Sta	ite: NH	Sampling Point: an37 wetland
			Sectio	n, Township, Range:	s. T.	R.
Landform (hillslope, terrac	e, etc.): T	errace		ef (concave, convex, n		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA):			Lat.:	Long	g.:	Datum:
Soil Map Unit Name:					NWI classifi	cation: PFO
Are climatic/hydrologic co	nditions on	the site ty	pical for this time of year?	Yes No	(If no, explain in	Remarks.)
Are Vegetation , So		or Hydrol		ed? Are "Normal	Circumstances" p	w- @ w- O
Are Vegetation, So	oil 🗆 .	or Hydrolo	ogy naturally problemation	c? (If needed.	explain any answe	rs in Remarks.)
			**			important features, etc.
Hydrophytic Vegetation P	resent?	Yes 💿	No O			
Hydric Soil Present?		Yes 💿		s the Sampled Area vithin a Wetland?	Yes No	
Wetland Hydrology Preser	nt?	Yes 💿	No O	Tellin a vectoria:		
Hydrology						
Hydrology					C	/
Wetland Hydrology Indica Primary Indicators (minin		required:	check all that annly)		Secondary Indicato	rs (minimum of 2 required)
Surface Water (A1)	idili oi one	required,	✓ Water-Stained Leaves (B9)		✓ Drainage Patte	
✓ High Water Table (A2)			Aquatic Fauna (B13)		Moss Trim Line	
✓ Saturation (A3)			Marl Deposits (B15)			ater Table (C2)
Water Marks (B1)			Hydrogen Sulfide Odor (C1)		Crayfish Burro	ws (C8)
Sediment Deposits (B2)			Oxidized Rhizospheres along L	iving Roots (C3)	Saturation Visi	ble on Aerial Imagery (C9)
Drift deposits (B3)			Presence of Reduced Iron (C4)	Stunted or Str	essed Plants (D1)
Algal Mat or Crust (B4)			Recent Iron Reduction in Tilled	d Soils (C6)	Geomorphic Po	osition (D2)
Iron Deposits (B5)			Thin Muck Surface (C7)		Shallow Aquita	
Inundation Visible on Ae Sparsely Vegetated Cond		18.7 N. N. N.	Other (Explain in Remarks)		✓ Microtopograp✓ FAC-neutral Telegrap	
Field Observations:						
Surface Water Present?	Yes	No O	Depth (inches): 1			
Water Table Present?	Yes	No O	Depth (inches): 0			
	Yes	No O	Depth (inches): 0	Wetland Hydi	rology Present?	Yes ● No ○
Saturation Present? (includes capillary fringe)				s inspections), if avai		

Tree Stratum (Plot size: 30')	Absolute % Cover	Re		Indicator	Dominance Test w	orksheet	:		
4		V		Status	Number of Dominant			5	(4)
1. Acer rubrum 2.			0.0%	FAC	That are OBL, FACW	, or FAC:		5	(A)
			0.0%		Total Number of Don			_	
			0.0%		Species Across All St	rata:		5	(B)
5.			0.0%		Percent of domina	nt Specie	es		
			0.0%		That Are OBL, FAC			100.0%	(A/B)
5.	0		0.0%		Prevalence Index v	vorkshaa	٠.		
	_	- T	otal Cove		Total % Cov		Multiply	v hv:	
Sapling/Shrub Stratum (Plot size: 15')	20	= 10	otal Cove	:r	OBL species	3	x 1 =	у оу.	
, Acer rubrum	10	V	28.6%	FAC		10	x 2 =	20	
Betula alleghaniensis	20	V	57.1%	FAC	FACW species	50		150	-
3. Vaccinium corymbosum	5		14.3%	FACW-	FAC species	***	x 3 =		
	0		0.0%		FACU species	0	x 4 =	0	
5.	0		0.0%		UPL species	0	x 5 =	0	-
3.	0		0.0%		Column Totals:	63	(A)	173	(B)
,	0		0.0%		Prevalence In	dex = B/	A =	2.746	
Herb Stratum (Plot size: 5')	35	= To	otal Cove	er	Hydrophytic Veget				
1.Osmunda cinnamomea	5	V	62.5%	FACW	Rapid Test for		-	tation	
2. Carex lurida	3	V	37.5%	OBL	✓ Dominance Test is > 50%				
3.	0		0.0%		✓ Prevalence In	dex is ≤3	3.0 ¹		
4.	0		0.0%		Morphologica				porting
5.	0		0.0%		data in Rema				_1_:_>
6.	0		0.0%		Problematic	туагорпу	uc vegeta	cion (EX	piaiii)
7.	0		0.0%		1 Indicators of hy	dric soil a	nd wetlar	nd hydrolo	gy must
8.	0	\Box	0.0%		be present, unless	disturbe	d or probl	ematic.	
9.	1.41		0.0%		Definitions of Ve	egetatio	n Strata	:	
0.	0		0.0%		Tree Woody plan	to 2 in /	7.6 am) a	r moro in a	diam atau
1.	0		0.0%		Tree - Woody plan at breast height (D				nameter
2.	0		0.0%					-	
Woody Vine Stratum (Plot size:)	8	= To	otal Cove	er	Sapling/shrub - Wo greater than 3,28 f			an 3 in. Di	3H and
1.	0	{	0.0%		Herb - All herbace	ous (non-	woody) pl	lants, rega	ırdless c
2.	0		0.0%		size, and woody pl	ants less	than 3.28	3 ft tall.	
3.	0		0.0%		Woody vine - All w	ondy vine	es areater	than 3.28	tft in
4.	0		0.0%		height.	oody viin	oo greater	man o.zc	, , , , , ,
	0	= To	otal Cove	er					
					Hydrophytic Vegetation Present? Yo	es •	No O		

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an37 wetland

	ription: (Des	cribe to	the depth ne	eded to document the indicator or confirm the	e absence of indicators.)	
Depth (inches)		Matrix		Redox Features		
	Color (m		%	Color (moist) % Type 1 Loc2	Texture	Remarks
0-10	10YR	3/2	100%		Muck	
10-15	2.5Y	4/2	100%		Fine Sandy Loam	
-	-					
	-					
I Tomas C. Can	readenties D	Danistia	n DM Dadus	ed Matrix, CS=Covered or Coated Sand Grains 2Lo	antina Di Dan Linia M M	Luk
		Depletio	n. KM=Reduct	ed Matrix, C5=Covered of Coated Sand Grains 200		
Hydric Soil				Polyvalue Below Surface (S8) (LRR R,	Indicators for Proble	ematic Hydric Soils: 3
☐ Histosol (✓ Histic Epi	pedon (A2)			MLRA 149B)	_	LRR K, L, MLRA 149B)
Black His	THE STATE OF THE S			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Selection and an arrangement of the selection of the sele	x (A16) (LRR K, L, R)
The state of the s	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)		or Peat (S3) (LRR K, L, R)
	Layers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	
	Below Dark St	ırface (A	11)	Depleted Matrix (F3)		urface (S8) (LRR K, L)
-	rk Surface (A12			Redox Dark Surface (F6)	Thin Dark Surface	
F-10-15	uck Mineral (S1	92		Depleted Dark Surface (F7)		asses (F12) (LRR K, L, R)
	eyed Matrix (S	50		Redox Depressions (F8)	- 100 - 100	in Soils (F19) (MLRA 149B)
Sandy Re		25			Red Parent Materia) (MLRA 144A, 145, 149B)
Stripped	Matrix (S6)				Very Shallow Dark	3 2
Dark Surf	face (S7) (LRR	R, MLRA	149B)		Other (Explain in R	
3Indicators o	f hydrophytic y	enetation	n and wetland	hydrology must be present, unless disturbed or pro	120 12	(Circina)
			Tuna Trecora	marios present, aness astarbea or pro-	Dictinduct	
Restrictive L	ayer (it obse	rvea):				
Type:	1				Hydric Soil Present?	Yes No
Depth (inc	nes):					160 100
Remarks:						

	City/Co						
Energy, LLC		Sta	ate:	Sampling Point: an37 uplan			
	Sec	ion, Township, Range:	s. T.	R.			
Hillside	Local re	lief (concave, convex, i	none): undulatin	g Slope: 25.0 % / 14			
	Lat.:	Lon	ıg.:	Datum:			
			NWI classif	ication:			
, or Hydrolog	significantly distur	tic? (If needed,	l Circumstances" (oresent? Yes No No O			
		ng point location	ns, transects	important reatures, etc			
		Te the Campled Area	oled Area				
		within a Wetland?	Yes O No 🖲)			
Yes O N	4o •						
			Secondary Indicate	ors (minimum of 2 required)			
one required; ch	neck all that apply)		r-1				
	Aquatic Fauna (B13)		Moss Trim Lin	es (B16)			
	Marl Deposits (B15)		Dry Season W	ater Table (C2)			
	Hydrogen Sulfide Odor (C1)						
				ible on Aerial Imagery (C9)			
		ied soils (C6)					
ery (B7)				phic Relief (D4)			
ace (B8)			FAC-neutral T	est (D5)			
O No 💿	Depth (inches):						
O No 💿	Depth (inches):			0 0			
O No O	Depth (inches):	Wetland Hyd	irology Present?	Yes No 💿			
anugo monitori	ing well agrial photos provi	ous inspections), if ava	ilable				
	on the site typi , or Hydrolog , or Hydrolog ttach site i Yes	Adjustic Fauna (B13) Water-Stained Leaves (B9) Aquatic Fauna (B13) Mari Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (In Recent Iron Reduction in Till Thin Muck Surface (C7) ery (B7) Other (Explain in Remarks) No	Section, Township, Range: Local relief (concave, convex, Lat.: London the site typical for this time of year? Yes No	Section, Township, Range: S. T. Hillside Local relief (concave, convex, none): undulating that: Long.: NWI classif on the site typical for this time of year? on the site typical for this time of year? on thydrology significantly disturbed? Are "Normal Circumstances" property of the site map showing sampling point locations, transects, and that site map showing sampling point locations, transects, and the site map showing sampling point locations, transects, and the site map showing sampling point locations, transects, and the site map showing sampling point locations, transects, and the site map showing sampling point locations, transects, and the site map showing sampling point locations, transects, and the sampled Area within a Wetland? Yes \ No Secondary Indicate and the surface show the sample path of the site of the sample path of the samp			

	Absolute		ominant oecies?	Indicator	Sampling Point: an37 upland Dominance Test worksheet:		
Tree Stratum (Plot size: 30'	% Cover		ver	Status			
1. Quercus rubra	50	V	60.2%	FACU-	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)		
2. Tsuga canadensis	33	V	39.8%	FACU			
3.	0		0.0%		Total Number of Dominant Species Across All Strata: 7 (B)		
4.	0		0.0%		Species Across Air Strate.		
	0		0.0%		Percent of dominant Species		
6.	0		0.0%		That Are OBL, FACW, or FAC: 28.6% (A/B)		
7.	0		0.0%		Prevalence Index worksheet:		
	83	= To	otal Cove	r	Total % Cover of: Multiply by:		
Sapling/Shrub Stratum (Plot size: 15'	- 00		J		OBL species 0 x 1 = 0		
1. Acer rubrum	10	V	25.0%	FAC	FACW species $0 \times 2 = 0$		
2. Acer pensylvanicum	15	\checkmark	37.5%	FACU	FAC species 25 x 3 = 75		
3. Viburnum lantanoides	15	V	37.5%	FAC	112 453		
4.	0		0.0%		naco species		
5	0		0.0%		UPL species x 5 =		
6.	0		0.0%		Column Totals: 138 (A) 527 (B)		
7.	0		0.0%		Prevalence Index = B/A = 3.819		
(5)	40	= To	otal Cove	r	Hydrophytic Vegetation Indicators:		
Herb Stratum (Plot size: 5'					Rapid Test for Hydrophytic Vegetation		
1 .Aralia nudicaulis	5	~	33.3%	FACU	Dominance Test is > 50%		
2. Quercus rubra	10	1	66.7%	FACU-			
3.	0		0.0%		Prevalence Index is ≤3.0 ¹		
4.	0		0.0%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5.	0		0.0%		Problematic Hydrophytic Vegetation 1 (Explain)		
6.	0		0.0%				
7.	0		0.0%		$^{ m 1}$ Indicators of hydric soil and wetland hydrology must		
8.	0		0.0%		be present, unless disturbed or problematic.		
9.	0		0.0%		Definitions of Vegetation Strata:		
10.	0		0.0%		Tree Weeds plants 2 in (7.6 cm) or more in diameter		
I1.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
12.	0		0.0%				
Woody Vine Stratum (Plot size:	15	= To	otal Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall		
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of		
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.		
	0		0.0%	-			
3.	0				Woody vine - All woody vines greater than 3.28 ft in		
4.		0.0%		-	height,		
	0	= To	otal Cove	r			
	0	= To	otal Cove	er	Hydrophytic Vegetation Present? Yes No No		

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an37 upland

Profile Desc Depth	ription: (Des	cribe to Matrix	the depti	h needed to document the indicator or confirm t Redox Features	ne absence of indicator	'S.)
(inches)	Color (r		- %	Color (moist) % Type 1 Loc	Texture	Remarks
0-8	10YR	3/2	100%		Loam	
8-16	10YR	4/4	100%		Sandy Loam	
16+						Bedrock
			-			
	_					
	-					
					_	
		=Depletio	n. RM=Re	duced Matrix, CS=Covered or Coated Sand Grains 21	The second secon	A 13 14 14 14 14 14 14 14 14 14 14 14 14 14
Hydric Soil				Пат. Г. а. Г. а. г	Indicators for P	Problematic Hydric Soils: 3
Histosol ((A1) ipedon (A2)			Polyvalue Below Surface (S8) (LRR R, MLRA 1498)		A10) (LRR K, L, MLRA 149B)
Black His	No. of Contrast of			Thin Dark Surface (S9) (LRR R, MLRA 149B)		Redox (A16) (LRR K, L, R)
	n Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)		Peat or Peat (S3) (LRR K, L, R)
P-1	Layers (AS)			Loamy Gleyed Matrix (F2)		e (S7) (LRR K, L) How Surface (S8) (LRR K, L)
Depleted	Below Dark S	urface (A	11)	Depleted Matrix (F3)		urface (S9) (LRR K, L)
Thick Dar	rk Surface (A1	2)		Redox Dark Surface (F6)		nese Masses (F12) (LRR K, L, R)
C-3	uck Mineral (S	25		Depleted Dark Surface (F7) Redox Depressions (F8)	Company on Salary	oodplain Soils (F19) (MLRA 149B)
	eyed Matrix (S	34)		Redox Depressions (Fo)	Mesic Spodic	(TA6) (MLRA 144A, 145, 149B)
	edox (S5)				Red Parent M	Material (TF2)
	Matrix (S6) face (S7) (LRR	D MID	140R\			Dark Surface (TF12)
	3 (8) 5	8	950		10	in in Remarks)
			in and weti	land hydrology must be present, unless disturbed or pr	obiematic.	
Type: B	.ayer (if obse	erved):				
Depth (inc					Hydric Soil Prese	ent? Yes O No 💿
	iles). 10				-	
Remarks:						



AN37 Wetand

Sampling Date: 27-Sep-11
Sampling Point: an38 wetland
. R.
Slope: 0.0 % / 0.0 °
Datum:
sification: PFO/PSS
Control of the contro
in Remarks.) Toresent? Yes No
present? Yes V No
wers in Remarks.)
s, important features, etc.
0
ators (minimum of 2 required)
Cracks (B6)
atterns (B10) Lines (B16)
Water Table (C2)
rrows (C8)
/isible on Aerial Imagery (C9)
Stressed Plants (D1)
Position (D2)
uitard (D3)
raphic Relief (D4)
Test (D5)
Yes No
Yes No

Tree Stratum (Plot size: 30') 1. Acer rubrum 2. 3. 4. 5. 6. 7. Sapling/Shrub Stratum (Plot size: 15') 1. Ilex verticillata 2. 3.	0 0		100.0% 0.0% 0.0% 0.0% 0.0%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (B)			
2. 3. 4. 5. 6. 7. Sapling/Shrub Stratum (Plot size: 15') 1. Ilex verticillata 2.	0 0 0 0		0.0% 0.0% 0.0%	TAC	Total Number of Dominant			
3. 4. 5. 6. 7. Sapling/Shrub Stratum (Plot size: 15') 1. Ilex verticillata 2.	0 0 0 0		0.0%					
4. 5. 6. 7. Sapling/Shrub Stratum (Plot size: 15') 1. Ilex verticillata 2.	0 0 0		0.0%		Species Across All Strata: 4 (B)			
5. 6. 7. Sapling/Shrub Stratum (Plot size: 15') 1. Ilex verticillata 2.	0 0							
5. 7. Sapling/Shrub Stratum (Plot size: 15') 1. Ilex verticillata 2.	0		0.070		Percent of dominant Species			
7. Sapling/Shrub Stratum (Plot size: 15') 1. Ilex verticillata 2.	0		0.00/	-	That Are OBL, FACW, or FAC: 100.0% (A/B)			
Sapling/Shrub Stratum (Plot size: 15') 1. Ilex verticillata 2.	-		0.0%					
1. Ilex verticiliata 2.	20		0.0%		Prevalence Index worksheet:			
2.		= T	otal Cove	r	Total % Cover of: Multiply by:			
2.	50	~	100.0%	FACW+	OBL species 3 x 1 = 3			
2	0		0.0%		FACW species $75 \times 2 = 150$			
	0		0.0%		FAC species $20 \times 3 = 60$			
1	0	\Box	0.0%		FACU species $0 \times 4 = 0$			
4,	0		0.0%	-	UPL species $0 \times 5 = 0$			
5					Column Totals: 98 (A) 213 (B)			
5	0		0.0%		COTUMN TOTALIST			
7	0		0.0%		Prevalence Index = B/A = 2.173			
Herb Stratum (Plot size: 5')	50	= T	otal Cove	r	Hydrophytic Vegetation Indicators:			
1.Osmunda cinnamomea	10	V	35.7%	FACW	Rapid Test for Hydrophytic Vegetation			
2.Iris versicolor	3		10.7%	OBL	✓ Dominance Test is > 50%			
3.Coptis trifolia	15	~	53.6%	FACW	✓ Prevalence Index is ≤3.0 ¹			
4.	0		0.0%	771071	Morphological Adaptations ¹ (Provide supporting			
5.	0		0.0%		data in Remarks or on a separate sheet)			
6.			0.0%		Problematic Hydrophytic Vegetation 1 (Explain)			
	0				¹ Indicators of hydric soil and wetland hydrology must			
7.	0		0.0%		be present, unless disturbed or problematic.			
8.	0		0.0%		Definitions of Vegetation Strata:			
9.	0	Н	0.0%	-	Definitions of Vegetation Strata.			
10.	0		0,0%		Tree - Woody plants, 3 in. (7,6 cm) or more in diameter			
11.	0		0.0%		at breast height (DBH), regardless of height.			
12.	0		0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and			
Woody Vine Stratum (Plot size:)	28	= Total Cover		r	greater than 3.28 ft (1m) tall			
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless of			
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.			
3.	0		0.0%	7	Moody vine All words vines content than 2.20 ft in			
4.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in height.			
	0	= T	otal Cove	r	noight.			
					Hydrophytic Vegetation Present? Yes No			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: an38 wetland

Profile Descr	iption: (Des	cribe to	the depti	needed to document the indicator or confirm the	absence of indicators.)	
Depth		Matrix		Redox Features		
(inches)	Color (n		%	Color (moist) % Type 1 Loc ²	Texture	Remarks
0-12	2.5Y	2/1	100%		Muck	
12+	2.5Y	5/1	100%		Gravelly Sand	
				· · · · · · · · · · · · · · · · · · ·		
			_			
			_			
1 Type: C=Cond	centration. D=	=Depletio	n. RM=Re	duced Matrix, CS=Covered or Coated Sand Grains 2Loc	ation: PL=Pore Lining, M=Ma	atrix
Hydric Soil I						ematic Hydric Soils: 3
Histosol (/				Polyvalue Below Surface (S8) (LRR R,		
✓ Histic Epip				MLRA 1498)	· -	LRR K, L, MLRA 149B)
Black Hist	E			Thin Dark Surface (S9) (LRR R, MLRA 149B)		x (A16) (LRR K, L, R)
	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	The second contract of the second	or Peat (S3) (LRR K, L, R)
arment in the second	Layers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	#2500160000000000000000000000000000000000
	Below Dark S	urface (A:	(1)	Depleted Matrix (F3)	The state of the s	urface (S8) (LRR K, L)
	k Surface (A1	7		Redox Dark Surface (F6)	Thin Dark Surface	Total Device (Sept.
	ck Mineral (S			Depleted Dark Surface (F7)		asses (F12) (LRR K, L, R)
	yed Matrix (S	### T		Redox Depressions (F8)		in Soils (F19) (MLRA 149B)
Sandy Red	Service of the service of) (MLRA 144A, 145, 149B)
	Matrix (S6)				Red Parent Materia	
	ace (S7) (LRR	R. MLRA	149B)		☐ Very Shallow Dark	
					Other (Explain in R	emarks)
Indicators of	hydrophytic	vegetatio	n and wet	and hydrology must be present, unless disturbed or prob	lematic.	
Restrictive La	ayer (if obse	erved):				
Type:						
Depth (inch	hes):				Hydric Soil Present?	Yes No
Remarks:						
4						

Project/Site: Antrim Wind Project	City/Cou	inty: Antrim		Sampling Date: 27-Sep-11
Applicant/Owner: Eolian Renewable Energy, LLC		Sta	te: NH	Sampling Point: AN38 upland
Investigator(s): AF JG	Secti	on, Township, Range:	s. T.	R.
Landform (hillslope, terrace, etc.): Hillside	Local rel	ief (concave, convex, n	one): undulating	g Slope: 25.0 % / 14.0 °
Subregion (LRR or MLRA):	Lat.:	Long	ı.:	Datum:
Soil Map Unit Name:			NWI classifi	ication:
Are climatic/hydrologic conditions on the site	typical for this time of year?	Yes No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydro		ed? Are "Normal	Circumstances" p	V (a) N- (
Are Vegetation, Soil, or Hydro			explain any answe	
Summary of Findings - Attach sit		,		
Hydrophytic Vegetation Present? Yes	No 💿	. .	,	
Hydric Soil Present? Yes	No (e)	Is the Sampled Area	Yes O No •	
Wetland Hydrology Present? Yes	No 💿	within a Wetland?	ies UNO U	
Hydrology				
Wetland Hydrology Indicators:				rs (minimum of 2 required)
Primary Indicators (minimum of one required		A*:	Surface Soil Cr	
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)		☐ Drainage Patte	
Saturation (A3)	Marl Deposits (B15)			ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burro	
Sediment Deposits (B2)	Oxidized Rhizospheres along	Living Roots (C3)		ible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (C	4)	Stunted or Str	essed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tille	ed Soils (C6)	Geomorphic P	osition (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquita	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)			hic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Te	est (D5)
Field Observations:				
Surface Water Present? Yes No •	3 C A S C A			
Water Table Present? Yes O No O	Depth (inches):	W-M1 W1		Yes O No •
Saturation Present? (includes capillary fringe) Yes No •	Depth (inches):	wetiand Hyd	ology Present?	res O NO O
Describe Recorded Data (stream gauge, mon	itoring well, aerial photos, previo	us inspections), if avai	lable:	
Remarks:				

		_Sp	minant ecies?		Sampling Point: AN38 upland
Tree Stratum (Plot size: 30'	Absolute % Cover		l.Strat.	Indicator Status	
Pinus strobus	33	~	34.4%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: (A)
Pintos strobus Pragus grandifolia	33	~	34.4%	FACU	That are obt, FACW, or FAC.
**************************************	15		15.6%	FACU-	Total Number of Dominant
. Tsuga canadensis	15	H	15.6%	FACU	Species Across All Strata: 5 (B)
. Isuga canadensis	0		0.0%	FACU	Percent of dominant Species
					That Are OBL, FACW, or FAC: 0.0% (A/B)
S	0		0.0%		
	0	Ш,	0.0%		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15'	96	= To	tal Cove	r	Total % Cover of: Multiply by:
. Fagus grandifolia	25	V	100.0%	FACU	OBL species 0 x 1 = 0
).	0		0.0%		FACW species $0 \times 2 = 0$
	0		0.0%	-	FAC species $0 \times 3 = 0$
	0	H	0.0%		FACU species 123 x 4 = 492
	0	H	0.0%		UPL species $0 \times 5 = 0$
		H	110000000000000000000000000000000000000	-	Column Totals: 123 (A) 492 (B)
	0	H	0.0%		COTOMIC TOCKTON
	0		0.0%	-	Prevalence Index = B/A = 4.000
lerb Stratum (Plot size: 5'	25	= To	tal Cove	r	Hydrophytic Vegetation Indicators:
1. Quercus rubra	1	V	50.0%	FACU-	Rapid Test for Hydrophytic Vegetation
2.Fagus grandifolia	1	V	50.0%	FACU	Dominance Test is > 50%
3.	0		0.0%		Prevalence Index is ≤3.0 ¹
4.	0		0.0%	-	Morphological Adaptations ¹ (Provide supporting
5.	0		0.0%		data in Remarks or on a separate sheet)
6.		H			Problematic Hydrophytic Vegetation 1 (Explain)
7.	0		0.0%		1 Indicators of hydric soil and wetland hydrology must
8.	0		0.0%		be present, unless disturbed or problematic.
	0		0.0%	_	Definitions of Vegetation Strata:
9.	0		0.0%		Definitions of Vegetation Strata.
10.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11.	0	Ц	0.0%		at breast height (DBH), regardless of height.
12.	0	Ш	0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:	2	= To	tal Cove	r	greater than 3.28 ft (1m) tall
1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless o
2.	0		0.0%		size, and woody plants less than 3.28 ft tall.
3	0		0.0%	-	l.,
4.	0		0.0%		Woody vine - All woody vines greater than 3.28 ft in height.
4.		- To	tal Cove		neight.
	U	= 10	ILAI COVE	ir	
					Hydrophytic Vegetation

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

0-5 5-7 7-14	Color (me		_	Redox Features	absence of indicators.)	
5-7 7-14		0.000000	%	Color (moist) % Type 1 Loc²	Texture Remarks	
7-14	10YR	3/2				
	2.5Y	6/1	100%		Fine Sandy Loam	
	10YR	4/4	100%		Sandy Loam	
14-20	10YR	4/6	100%		Sandy Loam	
			_			
				·		
ne: C=Concen	ntration. D=I	Depletio	n.RM≕Re	duced Matrix, CS=Covered or Coated Sand Grains ² Loca	ation: PI =Pore Lining M=Matrix	
dric Soil Ind		- органо		Local Halling our destricts of country destricts	Indicators for Problematic Hydric Soils: 3	
Histosol (A1)				Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Histic Epipedon (A2)				MLRA 1498)	Coast Prairie Redox (A16) (LRR K, L, R)	
Black Histic (No. of the last of			Thin Dark Surface (S9) (LRR R, MLRA 149B)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
Hydrogen Su				Loamy Mucky Mineral (F1) LRR K, L)	Dark Surface (S7) (LRR K, L)	
Stratified Lay		76 - 35cc	5050	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)	
Depleted Bel		Bosner year	11)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L)	
Thick Dark S				Depleted Dark Surface (F7)	Iron-Manganese Masses (F12) (LRR K, L, R)	
Sandy Muck Sandy Gleyed				Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLRA 149B)	
Sandy Gleyer)		is more and transplant amountained and the state	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
Stripped Mati					Red Parent Material (TF2)	
Dark Surface	NI (1980)	R, MLRA	149B)		✓ Very Shallow Dark Surface (TF12)✓ Other (Explain in Remarks)	
ndicators of hy	drophytic ve	egetatio	n and wetl	and hydrology must be present, unless disturbed or proble	E 100	
trictive Laye						
Туре:						
Depth (inches	i):				Hydric Soil Present? Yes O No 💿	
marks:						



AN38 Wetland



AN38 Upland



AN38 Wetland



AN38 Wetland

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

		Sampling Date: 30-Nov-11
Applicant/Owner: Eolian Renewable Energy, LLC	State: NH	Sampling Point: AN41up
nvestigator(s): AF JG Section, Township, Ra	ange: S. T.	R.
andform (hillslope, terrace, etc.): Toeslope Local relief (concave, con		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R Lat.:	Long.:	Datum:
ioil Map Unit Name:	NWI classif	ication:
re climatic/hydrologic conditions on the site typical for this time of year? Yes No	(If no, explain in	Remarks.)
re Vegetation 🔲 , Soil 🔲 , or Hydrology 🔲 significantly disturbed? Are "N	ormal Circumstances" p	W (a) W ()
are Vegetation . , Soil . , or Hydrology . naturally problematic? (If nee	eded, explain any answe	ers in Remarks.)
Summary of Findings - Attach site map showing sampling point loca		
Hydrophytic Vegetation Present? Yes No 💿		
Hydric Soil Present? Yes No Is the Sampled A within a Wetland)
Wetland Hydrology Present? Yes O No		
Hydrology		
INGIDIOGA		
· · · · · · · · · · · · · · · · · · ·	Connede a Indicate	and (minimum of 2 manifold)
Wetland Hydrology Indicators:	-	ors (minimum of 2 required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Surface Soil C	racks (B6)
Wetland Hydrology Indicators:	-	racks (B6) erns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9)	Surface Soil Co Drainage Patte Moss Trim Lin	racks (B6) erns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13)	Surface Soil Co Drainage Patte Moss Trim Lin	racks (B6) erns (B10) es (B16) ater Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Marl Deposits (B15)	Surface Soil Co Drainage Patte Moss Trim Lin Dry Season W Crayfish Burro	racks (B6) erns (B10) es (B16) ater Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	Surface Soil Co Drainage Patte Moss Trim Lin Dry Season W Crayfish Burro Saturation Vis	racks (B6) erns (B10) es (B16) fater Table (C2) ws (C8)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	Surface Soil Co Drainage Patte Moss Trim Lin Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	racks (B6) erns (B10) es (B16) later Table (C2) ws (C8) lible on Aerial Imagery (C9) ressed Plants (D1) osition (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	Surface Soil Co Drainage Patte Moss Trim Lin Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P Shallow Aquita	racks (B6) erns (B10) es (B16) ater Table (C2) ws (C8) ible on Aerial Imagery (C9) essed Plants (D1) osition (D2) ard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	Surface Soil Co Drainage Patte Moss Trim Lin Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P Shallow Aquite	racks (B6) erns (B10) es (B16) ater Table (C2) ws (C8) ible on Aerial Imagery (C9) essed Plants (D1) osition (D2) ard (D3) ohic Relief (D4)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	Surface Soil Co Drainage Patte Moss Trim Lin Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P Shallow Aquita	racks (B6) erns (B10) es (B16) ater Table (C2) ws (C8) ible on Aerial Imagery (C9) essed Plants (D1) osition (D2) ard (D3) ohic Relief (D4)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	Surface Soil Co Drainage Patte Moss Trim Lin Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P Shallow Aquite	racks (B6) erns (B10) es (B16) ater Table (C2) ws (C8) ible on Aerial Imagery (C9) essed Plants (D1) osition (D2) ard (D3) ohic Relief (D4)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Aquatic Fauna (B13) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Presence of Reduction in Tilled Soils (C6) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches):	Surface Soil Co Drainage Patte Moss Trim Lin Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P Shallow Aquite	racks (B6) erns (B10) es (B16) ater Table (C2) ws (C8) ible on Aerial Imagery (C9) essed Plants (D1) osition (D2) ard (D3) ohic Relief (D4)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Water-Stained Leaves (B9) Aquatic Fauna (B13) Aquatic Fauna (B1	Surface Soil Co Drainage Patte Moss Trim Lin Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P Shallow Aquite Microtopograp FAC-neutral To	racks (B6) erns (B10) es (B16) fater Table (C2) ws (C8) fible on Aerial Imagery (C9) ressed Plants (D1) rosition (D2) ard (D3) shic Relief (D4) est (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	Surface Soil Co Drainage Patte Moss Trim Lin Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P Shallow Aquite	racks (B6) erns (B10) es (B16) ster Table (C2) ws (C8) ible on Aerial Imagery (C9) essed Plants (D1) osition (D2) ard (D3) shic Relief (D4)

Absolute % Cover	Re		Indicator Status	Dominance Test w	orksheet:				
	- Total			Number of Dominant Species That are OBL, FACW, or FAC: 2				(A)	
				That are Obt, FACW	, OF FAC.			(A)	
							10	1-1	
	1			Species Across All St	trata:		10	(B)	
-			TACO-				ries		
-	П						20.0%	(A/B)	
			-	Busicalanas Taday					
		31.5-1-14					ly by:		
60	= 10	otal Cove	er		7.65			100004	
10	V	40.0%	FACU						
10	~	40.0%	FACU	TO SHARRY TABLE DIES (SOCIETY)			4.00		
5	V	20.0%	FACU		2000		400		
0		0.0%		FACU species	15.00	x 4 =			
		0.0%		UPL species	0	x 5 =	0		
0		0.0%		Column Totals:	159	(A)	597	(B)	
0		0.0%		Drevalence In	idov – R/A	_	3 755		
25	***		er	part to a take to					
	150.5						-4-4:		
15	V	20.3%	FACU			_	etation		
15	V	20.3%	FACU						
19	V	25.7%	FAC						
25	V	33.8%	FACU					orting	
0		0.0%						lain)	
0		0.0%			пушортус	c reger	acion (Exp		
0		0.0%						y must	
0		0.0%		be present, unless	s disturbed	or prob	olematic.		
0		0.0%		Definitions of V	egetation	n Strata	a:		
0		0.0%		Tree - Woody plan	ate 3 in /7	6 cm)	or more in d	iameter	
0		0.0%						lameter	
0		0.0%		l					
74 = Total Cover									
				greater than 5,20	it (iiii) taii.	•			
0		0.0%						rdless c	
0		0.0%		size, and woody p	lants less	than 3,2	8 ft tall.		
0		0.0%		Woody vine - All v	voody vine	s greate	er than 3,28	ft in	
0		0.0%		height.					
0	= To	otal Cove	er						
	20 15 10 15 0 0 0 0 10 10 5 0 0 0 0 0 25 15 19 25 0 0 0 0 0 0 0 0 0 0 0 0 0	20	20	20	20	20	20	Number of Dominant Species That are OBL, FACW, or FAC: 15	

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: AN41up

(inches)		latrix				dox Featu			bsence of indicators.)				
	Color (m	Constitution of	%	Color (moist)	%	Type I	Loc2	Texture	Rei	marks		
0-5	10YR	3/2	100%						Loam				
5-12	10YR	4/3	100%						Sandy Loam				
12-15	2.5Y	5/2	95%	10YR	4/6	5%	С	М	Sandy Loam				
15+										stony ref	usal		
											_		
				4									
		-									-		
						-	-	-		-			
	-		-	-	-								
								-					
	-												
		vepletio	n. KM=Redu	uced Matrix,	_S=Cover	ed or Coate	ed Sand Gr	ains ² Locat	tion: PL=Pore Lining. M=M		2		
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R,							2	Indicators for Probl					
Histic Epip	The Contract of				A 149B)) source (v	JU) (LIKK	,	2 cm Muck (A10)		100		
Black Histi				Thin	Dark Surf	ace (S9) (L	RR R, ML	RA 149B)	Coast Prairie Redo				
Hydrogen	Sulfide (A4)			govern	TANK TOWNS	Mineral (F1))	Dark Surface (S7)		LKK K, L, K)		
	ayers (A5)			-	20 100 27	Matrix (F2)	k)		Polyvalue Below S		LRR K, L)		
-	Below Dark Sur		11)	powers.	eted Matri	x (F3) rface (F6)			Thin Dark Surface				
-	Surface (A12)			process.		Surface (F6)	7)		Iron-Manganese N	Masses (F12)	(LRR K, L, R)		
_	k Mineral (S1)				x Depress		,		Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Gley Sandy Red	yed Matrix (S4)							Mesic Spodic (TA6		A, 145, 149B)		
Stripped M									Red Parent Materi	15 6.			
	ice (S7) (LRR I	R, MLRA	149B)						✓ Very Shallow Dark✓ Other (Explain in		12)		
³ Indicators of	hydrophytic ve	enetatio	n and wetla	nd hydrology	must he r	resent uni	less distur	hed or proble		Kellia KS)			
Tridicators or			II dila Media	na nyarology	must be j	oreserie, um	icus distar	oca or proble	, made.				
anteintius I a	iyer (ii obser	vea);											
	uldery								Hydric Soil Present?	Yes O	No 💿		
Type: Bo													
Type: Bo Depth (inch									_				
Type: Bo Depth (inch													
Type: Bo													
Type: Bo													
Type: Bo													
Type: Bo													
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Type: Bo Depth (inch													
Type: Bo Depth (inch													
Type: Bo Depth (inch													
Type: Bo Depth (inch													

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Sampling	Date: 30-Nov-11
Sampling	Point: AN41wet
т.	R.
concave	Slope: 0.0 % / 0.
	Datum:
WI classification: P	FO
explain in Remarks.)	
stances" present?	Yes No
any answers in Rema	arks \
	ant features, etc.
● No ○	
200	
ary Indicators (minimum	n of 2 required)
rface Soil Cracks (B6)	
ainage Patterns (B10) ss Trim Lines (B16)	
y Season Water Table (0	C2)
ayfish Burrows (C8)	/
turation Visible on Aeria	l Imagery (C9)
inted or Stressed Plants	s (D1)
omorphic Position (D2)	
allow Aquitard (D3)	NAN.
crotopographic Relief (D C-neutral Test (D5)	14)
van (i)	No O
resent? Yes 🔍	NO O

	ants	DominantSpecies?			Sampling Point: AN41wet			
Tree Stratum (Plot size: 30')	Absolute % Cover	Re	l.Strat.	Indicator Status				
1. Acer rubrum	33	~	76.7%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)			
2 Fraxinus pennsylvanica		V	23.3%	FACW				
3.	0		0.0%		Total Number of Dominant Species Across All Strata: 5 (B)			
1.	0		0.0%		Species Across Air Scrota.			
5.			0.0%		Percent of dominant Species			
5.	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)			
7.	0		0.0%		Prevalence Index worksheet:			
Sapling/Shrub Stratum (Plot size: 15')	43	= To	tal Cove	er	Total % Cover of: Multiply by:			
1. Acer rubrum	10	V	55.6%	FAC	OBL species 0 x 1 = 0			
2. Betula alleghaniensis		V	44.4%	FAC	FACW species 60 x 2 = 120			
,		П	0.0%	TAC	FAC species 51 x 3 = 153			
			0.0%		FACU species $0 \times 4 = 0$			
1. 5.	0		0.0%		UPL species $0 \times 5 = 0$			
5.	0		0.0%		Column Totals: 111 (A) 273 (B)			
7.	0	H	0.0%	-	Prevalence Index = B/A = 2.459			
*		- To	tal Cove		Tronging Index in Division			
Herb Stratum (Plot size: 5')	18	= 10	IN COA	ar	Hydrophytic Vegetation Indicators:			
1.Osmunda cinnamomea	50	V	100.0%	FACW	Rapid Test for Hydrophytic Vegetation			
2.	0		0.0%		✓ Dominance Test is > 50%			
3.	0		0.0%		Prevalence Index is ≤3.0 ¹			
4.	0		0.0%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)			
6.	0		0.0%		Froblematic Hydrophytic Vegetation (Explain)			
7.	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must			
8.	0	0.0%			be present, unless disturbed or problematic.			
9.	0		0.0%		Definitions of Vegetation Strata:			
10.	0		0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter			
1.	0		0.0%		at breast height (DBH), regardless of height.			
2.	0		0.0%					
Mandy Vine Combuse (District)	50	= Total Cover		er	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall			
Woody Vine Stratum (Plot size:) 1.	0		0.0%		Herb - All herbaceous (non-woody) plants, regardless o			
2.	0		0.0%	7	size, and woody plants less than 3.28 ft tall.			
3.	0		0.0%					
	0		0.0%		Woody vine - All woody vines greater than 3,28 ft in height.			
4		= Total Cover		ır	_ neignt.			
			un corr	***				
					I .			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

470	ш
34.0	8

Sampling Point: AN41wet

Profile Desci	ription: (Des	cribe to	the depti	needed to document the indicator or confirm	the absence of indicator	rs.)
Depth		Matrix		Redox Features		
(inches)	Color (m		%	Color (moist) % Type 1 Loc	= =====================================	Remarks muck
0-9	2.5Y	2/1	100%		sapric	
9+	10YR	2/2	100%		Sandy Loam	organic streaking
Specialists in some derver in						
A Post No.						
y						
			-			
r-market and the same						
¹ Type: C=Con	centration. D=	Depletio	n. RM=Re	duced Matrix, CS=Covered or Coated Sand Grains	Location: PL=Pore Lining.	M=Matrix
Hydric Soil 1	Indicators:				Indicators for P	Problematic Hydric Soils: 3
Histosol ((A1)			Polyvalue Below Surface (S8) (LRR R,		A10) (LRR K, L, MLRA 149B)
✓ Histic Epi	pedon (A2)			MLRA 149B)	Canat Basisla	Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)			Thin Dark Surface (S9) (LRR R, MLRA 1498	"	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)		(S7) (LRR K, L)
Stratified	Layers (A5)			Loamy Gleyed Matrix (F2)		low Surface (S8) (LRR K, L)
Depleted	Below Dark Su	ırface (A	11)	Depleted Matrix (F3)		urface (S9) (LRR K, L)
Thick Dar	rk Surface (A12	2)		Redox Dark Surface (F6)		ese Masses (F12) (LRR K, L, R)
Sandy Mu	ıck Mineral (S1)		Depleted Dark Surface (F7)	The second secon	odplain Soils (F19) (MLRA 149B)
Sandy Gle	eyed Matrix (S	4)		Redox Depressions (F8)		(TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)				27	Naterial (TF2)
Stripped I	Matrix (S6)					Dark Surface (TF12)
Dark Surf	face (S7) (LRR	R, MLRA	149B)			in in Remarks)
³ Indicators of	f hydrophytic v	regetatio	n and wetl	and hydrology must be present, unless disturbed or p	problematic.	
Restrictive L						
Type:	ayer (II obse	ived j.				
Depth (inc	hac).				Hydric Soil Prese	nt? Yes • No O
	nes).					
Remarks:						
					2	
					15	



AN41 Wetland

EXHIBIT 6 USACE NH PROGRAMMATIC PERMIT APPENDIX B



New Hampshire General Permits (GPs) Appendix B - Corps Secondary Impacts Checklist (for inland wetland/waterway fill projects in New Hampshire)

- 1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
- 2. All references to "work" include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
- 3. See GC 5, regarding single and complete projects.
- 4. Contact the Corps at (978) 318-8832 with any questions.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See		
http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm		V
to determine if there is an impaired water in the vicinity of your work area.*		
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	/	
2.2 Are there proposed impacts to SAS, special wetlands. Applicants may obtain information		
from the NH Department of Resources and Economic Development Natural Heritage Bureau		_
(NHB) DataCheck Tool for information about resources located on the property at		\checkmark
https://www2.des.state.nh.us/nhb_datacheck/. The book Natural Community Systems of New		
Hampshire also contains specific information about the natural communities found in NH.		
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology,	-	
sediment transport & wildlife passage?	V	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent		
to streams where vegetation is strongly influenced by the presence of water. They are often thin		1
lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream		•
banks. They are also called vegetated buffer zones.)		
2.5 The overall project site is more than 40 acres?	<	
2.6 What is the area of the previously filled wetlands?	9,277 s	f
2.7 What is the area of the proposed fill in wetlands?	10,000	sf
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?	0.3 %	
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species,		
exemplary natural communities, Federal and State threatened and endangered species and habitat,		
in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS		V
IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/		
USFWS IPAC website: https://ecos.fws.gov/ipac/location/index		

✓	
✓	
	✓
V	
Yes	No
	V
	1.40
	Yes

^{*}Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

** If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.

EXHIBIT 7 PROPERTY INFORMATION

Мар	Lot	Owner	Туре	Property Address	Owner Address	Owner Address
212	27.1	PSNH DBA EVERSOURCE ENERGY	Project Parcels	KEENE ROAD	780 NORTH COMMERCIAL STREET	MANCHESTER, NH 03101
212	27	MICHAEL JAMES HUTCHINS OTT	Project Parcels	354 KEENE ROAD	PO BOX 160	ANTRIM, NH 03440

Doc # 1028814 Jun 24, 2010 10:40 AM Book 8214 Page 2699 Page 1 of 6 Register of Deeds, Hillsborough County

EOLIAN RENEWABLE FUELLY LLC 155 FLEET ST. PORTSMONTH NH 03801 ATTN: JACK KENWORTHY

Antrim Wind (Antrim, NH – Map #212 Lot #'s 212-030-000; 212-027-000; 212-034-000 – Michael J. Ott)

EXHIBIT C MEMORANDUM OF LEASE

PARTIES TO LEASE:

LESSOR Michael J. Ott P.O. Box 160

Antrim, New Hampshire 03440

LESSEE

Antrim Wind Energy LLC c/o Eolian Renewable Energy

155 Fleet Street

Portsmouth, New Hampshire 03801

PREMISES:

Lessor is the owner of that certain real property described in Exhibit A attached hereto ("Lessor's Land"). Lessor leases to Lessee all or a portion of Lessor's Property as depicted on the map attached hereto as Exhibit B (the "Leased Premises"), together with the non-exclusive right of ingress to and egress from Windpower Facilities (defined in the Lease) located on the Leased Premises, adjoining properties and elsewhere over and across the Leased Premises and Lessor's Land by means of existing roads and lanes, if any, or otherwise by such route or routes as Lessee may construct from time to time.

TERM OF LEASE:

Lease shall be for an initial term of twenty-five (25) years

and shall commence on the Effective Date.

EXTENSION TERM:

Lessee shall have the option to renew the Lease for one

additional twenty-five (25) year term.

Antrim Wind (Antrim, NH – Map #212 Lot #'s 212-030-000; 212-027-000; 212-034-000 – Michael J. Ott)

DATED at Portsmouth, New Hampshire this 18th day of December 2009.

STATE OF NEW HAMPSHIRE

COUNTY OF HILLSBORD Rockingham

On this 18th day of December, 2009, before me, the undersigned, a Notary Public in and for said State, personally appeared John B. Kenworthy, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his, signature on the instrument, the individual(s) or the person(s) upon behalf of which the individual acted, executed the instrument.

DATED at Town Hall , Antrim NH this 24 day of Davember, 2009.

MICHAEL J.H. OTT

By:

Name: Michael J. H. Ott

Its: Self

STATE OF NEW HAMPSHIRE

SS.:

COUNTY OF HILLSBORO

On this 24 day of December, 2009 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael J. H. Ott, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his, signature on the instrument, the individual(s) or the person(s) upon behalf of which the individual acted, executed the instrument.

EXHIBIT A to MEMORANDUM OF LEASE

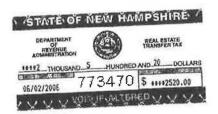
6038778

2006 JUN - 2 PH 2: 37

ALT

Record and return to: Craighead and Martin, PLLC 62 Stark Street Manchester, NH 03101

22.39



9-60 9-61 9-64

2520

WARRANTY DEED

TS

KNOW ALL MEN BY THESE PRESENTS, That, we, John A. Eddy and Laura C. Eddy, husband and wife, both of 763 Templeton Turnpike Road, Fitzwilliam, County of Cheshire, and State of New Hampshire, for consideration paid, grants to Michael James Hutchins Ott, a single person of 493 Ocean Boulevard, #24, Hampton, County of Rockingham, and State of New Hampshire, with Warranty Covenants:

The following four (4) tracts of land situated in Antrim, County of Hillsborough and State of New Hampshire:

Tract 1:

A certain tract of land situated in the northwest part of Antrim in the County of Hillsborough and State of New Hampshire, bounded and described as follows:

Beginning at the Northeast corner of the premises at a stake and stones by an old road leading from near the dwelling formerly occupied by Walter Buchanan to the dwelling of the late William R. Carr; thence

- Westerly by the same old road about 101.5 rods to land formerly owned by the late Hiram Griffin; thence
- Southerly by said Griffin land about 62 rods to the corner of the wall by land of the Steele heirs; thence
- Easterly by said last mentioned land about 94 rods to the corner of the wall by land of the late William R. Carr; thence
- 4. Northerly by said Carr land about 19.5 rods to a stake and stones; thence

7-40-33 7-41-205

9-61-208 212-30-64 ad 9-60-33 212-27-89ad 9-64-2.5

ORIGINAL NOT SUITABLE FOR PROPER REPRODUCTION

- 5. Easterly by said Carr land about 21.5 rods to a stake and stones; thence
- 6. Northerly by said Carr land about 49 rods to the first named bound.

Estimated to contain 43 acres, more or less.

Tract 2:

Also another tract of land situated in the northwest part of said Antrim, New Hampshire, bounded and described as follows:

Beginning at the Northeast corner of the premises; thence

- 1. Southerly by land formerly owned by Samuel Tuttle 52 rods; thence
- Westerly by the wall by land formerly owned by Dodge to the Northwest corner of said Dodge land; thence
- 3. Southerly by said Dodge land to land formerly owned by Davis; thence
- 4. Westerly by said Davis land and land formerly owned by Handley to land formerly of Samuel Curtis; thence
- 5. Northerly and Easterly by said Curtis land to land formerly owned by John McClure, et al; thence
- 6. Easterly by said McClure land to land formerly owned by Samuel Weston; thence
- 7. Southerly by said Weston land to land formerly owned by Samuel Tuttle, et al, about 57 rods; thence
- 8. Easterly by said Tuttle land to the point of beginning.

Said to contain 150 acres, more or less.

Tract 3:

A certain tract of land with the buildings thereon, if any, situate in the north part of Antrim, Hillsborough County and State of New Hampshire, bounded and described as follows:

Beginning at the Northwest corner of the premises at a stake and stones by land formerly owned by John Dodge; thence

- 1. Southerly by said Dodge land to the old road leading from the former residence of William R. Carr to the former residence of Samuel Dinsmore, to a stake and stones; thence
- 2. Easterly by said road about 37 rods to stake and stones; thence
- 3. Northerly by land formerly owned by Chandler Boutelle to a stake and stones by land formerly owned by Grafton Curtice; thence
- 4. Westerly by said Curtice land to the bound first mentioned.

Estimated to contain 6.5 acres, more or less, but reserving to the Public Service Company of New Hampshire and those claiming under it, any pole rights it may have acquired.

Tract 4:

Also another tract adjoining the above tract, bounded and described as follows:

Beginning at a bound on the Southerly side of the Keene Road, State Highway, at an old roadway; thence

- 1. Easterly by said Keene Road to land formerly of William M. Conn; thence
- 2. Southerly by wall and said Conn land to land formerly of William Boutelle; thence
- 3. Westerly by said Boutelle land to a stake and stones; thence
- 4. Southerly by said Boutelle land to the Old Town Road; Thence
- 5. Westerly by said Old Road to road first above mentioned; thence
- 6. Northerly by said roadway to the bound of beginning.

Said premises are subject to the rights of the public of the State highway and rights heretofore conveyed to the Public Service Company of New Hampshire.

Subject to current use tax recorded with the said Registry of Deeds at Book 3696, Page 137.

This conveyance of the within described properties are not subject to homestead rights.

Meaning and intending to describe and convey the same premises conveyed to the within grantor by Warranty Deed of Donald H. Hardwick, Sr., dated June 10th, 1999, and recorded at the Hillsborough County Registry of Deeds at Book 6115 Page 1762.

SIGNED this 2nd day of June, 2006.

John A. Eddy

Laura C. Eddy

STATE OF NEW HAMPSHIRE COUNTY OF HILLSBOROUGH

On this 2nd day of June, 2006, personally appeared the above-named John A. Eddy and Laura C. Eddy, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the foregoing instrument, and acknowledged that they executed the same in that capacity, and for the purposes therein contained.

C CRA

COMMISSION
EXPIRES
NOV. 13, 2007

HAMPS

Notary Public/Justice of the Pea My commission expires: