

Water Quality Certification for the Antrim Wind Energy Project

Section 401 of the United States Clean Water Act (33 U.S.C. 1341) states, in part:

"Any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate...that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this title.....No license or permit shall be granted until the certification required by this section has been obtained or has been waived..."

The Antrim Wind Energy Project will impact wetlands which are subject to federal jurisdiction under Section 404 of the Clean Water Act; therefore, a permit from the US Army Corps of Engineers ("USACE") will be required prior to construction. Furthermore, Section 401 of the Clean Water Act applies to the Project, requiring that a Water Quality Certificate ("WQC") be issued by the NH Department of Environmental Services ("NHDES") under its authority pursuant to Section 401.

NHDES issued a Water Quality Certificate (# 2007-003, on May 30, 2007) to the USACE, such that the latter may administer a Statewide Programmatic General Permit for New Hampshire ("PGP"). This WQC was issued to cover projects which are approved by the NH Wetlands Bureau pursuant to NH RSA 482-A, and subsequently authorized by the Corps under the PGP. The most recent New Hampshire PGP was made effective on June 28, 2007, and modified on January 25, 2011. The current PGP expires on June 28, 2012.

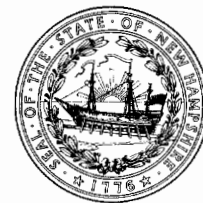
The total wetland impact associated with this project is approximately 0.192 acres (8,350 square feet); This is substantially less than the 3.0 acre limit for Minor and Major Impact projects as defined in the PGP. Based on recent, similar developments in the state of New Hampshire (i.e. Groton Wind in Groton, New Hampshire), as well as the small degree of anticipated wetland impacts at the Antrim Wind Energy Project, it is expected that the Project will qualify for the PGP pending review by the NHDES and the Corps' federal partners at the US Environmental Protection Agency, the US Fish and Wildlife Service, and the National Marine Fisheries Service. For these reasons, Antrim Wind Energy, LLC currently anticipates authorization of the Project under this general permit process, which would eliminate the requirement for an individual Section 401 Water Quality Certificate application.

If it is later determined that an individual Section 404 Wetlands Permit application is required, or if the NHDES exercises its option to require either a modification to WQC #2007-003 or an individual WQC, then Antrim Wind Energy, LLC will compile the necessary Section 401 Water Quality Certificate application and submit the same to the NH Department of Environmental Services through the Site Evaluation Committee.

Included in this appendix is a copy of WQC #2007-003"



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner

Greg Penta
Regulatory Division
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

WATER QUALITY CERTIFICATION

In Fulfillment of

Section 401 of the United States Clean Water Act (33 U.S.C 1341)

WQC # 2007-003

Activity Name	New Hampshire State Programmatic General Permit
Activity Location	State of New Hampshire
Owner/Applicant	Regulatory Division U.S. Army Corps of Engineers 696 Virginia Road Concord, MA 01742-2751
DATE OF APPROVAL (subject to Conditions below)	May 30, 2007

A. INTRODUCTION

The U.S. Army Corps of Engineers New England District (Applicant) seeks a Clean Water Act (CWA) Section 401 Water Quality Certification (Certification) from the New Hampshire Department of Environmental Services (DES) for the New Hampshire Programmatic General Permit (PGP). The PGP is a statewide permit, which will be issued by the Applicant pursuant to 33 CFR 325.5(c)(3), for minimal impact activities within the State of New Hampshire. The intent of the PGP is to simplify the permit application review processes of the Applicant and DES Wetlands Bureau, as the permit review processes are nearly parallel relative to federal and state statutory authority. The new PGP will become effective June 2, 2007 and will subsequently expire on June 2, 2012. The current PGP expires June 2, 2007.

This 401 Certification documents laws, regulations, determinations and conditions related to the PGP for the attainment and maintenance of NH surface water quality standards, including the provisions of NH RSA 485-A:8 and NH Code of Administrative Rules Env-Ws 1700, for the support of designated uses identified in the standards.

B. WATER QUALITY CERTIFICATION APPROVAL

Based on the findings and conditions noted below, the New Hampshire Department of Environmental Services (DES) has determined that any discharge associated with the Activity will not violate surface water quality standards, or cause additional degradation in surface waters not presently meeting water quality standards. DES hereby issues this 401 Certification subject to the conditions defined in Section E of this 401 Certification, in accordance with Section 401 of the United States Clean Water Act (33 U.S.C. 1341).

C. STATEMENT OF FACTS AND LAW

- C-1. Section 401 of the United States Clean Water Act (CWA, 33 U.S.C. 1341) states, in part: "Any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate...that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this title.....No license or permit shall be granted until the certification required by this section has been obtained or has been waived...No license or permit shall be granted if certification has been denied by the State..."
- C-2. Section 401 further states, in part "Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations...and shall become a condition on any Federal license or permit subject to the provisions of this section."
- C-3. RSA 485-A:8 and Env-Ws 1700 (Surface Water Quality Regulations, effective December 3, 1999) together fulfill the requirements of Section 303 of the Clean Water Act that the State of New Hampshire adopt water quality standards consistent with the provisions of CWA. Further, RSA 485-A:8 establishes two classes or grades of surface waters in New Hampshire for the purposes of classification: Class A and Class B.
- C-4. Env-Ws 1700 provides narrative water quality standards and numeric water quality criteria. Among other purposes, Env-Ws 1700 is used by DES for evaluating applications for 401 Water Quality Certification.
- C-5. Env-Ws 1701.02, entitled "Applicability", states that:
 - a. These rules shall apply to all surface waters.
 - b. These rules shall apply to any person who causes point or nonpoint source discharge(s) of pollutants to surface waters, or who undertakes hydrologic modifications, such as dam construction or water withdrawals, or who

undertakes any other activity that affects the beneficial uses or the level of water quality of surface waters."

C-6. Env-Ws 1702.18 defines a discharge as:

- a. The addition, introduction, leaking, spilling, or emitting of a pollutant to surface waters, either directly or indirectly through the groundwater, whether done intentionally, unintentionally, negligently, or otherwise; or
- b. The placing of a pollutant in a location where the pollutant is likely to enter surface waters."

C-7. Env-Ws 1702.39 defines a pollutant as: "pollutant" as defined in 40 CFR 122.2. This means "dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water."

C-8. Env-Ws 1702.46 defines surface waters as "perennial and seasonal streams, lakes, ponds and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses and other bodies of water, natural or artificial," and waters of the United States as defined in 40 CFR 122.2."

C-9. Surface waters are navigable waters for the purposes of certification under Section 401 of the Clean Water Act. Surface waters are jurisdictional wetlands for the purposes of wetlands permitting under RSA 482-A.

C-10. The named and unnamed surface waters, including rivers and streams, lakes and ponds, and wetlands, in New Hampshire, potentially affected by activities permitted under the PGP, are surface waters under Env-Ws 1702.46.

C-11. Env-Ws 1703.01 (c) states that "All surface waters shall provide, wherever attainable, for the protection and propagation of fish, shellfish and wildlife, and for recreation in and on the surface waters."

C-12. Env-Ws 1703.19, entitled "Biological and Aquatic Community Integrity", states that

- a. The surface waters shall support and maintain a balanced, integrated and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region; and
- b. Differences from naturally occurring conditions shall be limited to non-detrimental differences in community structure and function."

- C-13. Env-Ws 1703.21 (a)(1) states that "Unless naturally occurring or allowed under part Env-Ws 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that injure or are inimical to plants, animals, humans or aquatic life."
- C-14. The PGP is a federal wetlands permit under the federal Clean Water Act Section 404.
- C-15. The Applicant provided public notice for the PGP on March 12, 2007 and subsequently on April 3, 2007. The public notice included a draft PGP and a request for public comments. DES Watershed Management Bureau provided written comments by letter dated April 23, 2007.
- C-16. The Applicant is responsible for the development and implementation of the PGP, including any amendments.

D. FINDINGS

- D-1. The PGP reviewed for this 401 Certification is the draft PGP developed by the Applicant, as described in the public notice dated April 3, 2007 and in subsequent correspondence with the Applicant
- D-2. The PGP is a federal permit, which requires water quality certification under Section 401 of the federal Clean Water Act.
- D-3. Activities permitted under the PGP may result in a discharge and may cause permanent or temporary impacts to surface waters in New Hampshire.
- D-4. The Applicant consulted private and public entities, including the DES Wetlands Bureau during the development of the PGP.
- D-5. The PGP will be issued for projects that include dredge and fill of wetlands. DES Wetlands Bureau permitting process addresses dredge and fill impacts to jurisdictional wetlands. The 401 Certification decision relies, in part, on an approved permit from the DES Wetlands Bureau for the potential construction and post construction-related impacts to jurisdictional wetlands and other affected surface waters.
- D-6. Projects that include dredge and fill of wetlands under the PGP may also include temporary or permanent impacts to surface hydrologic conditions, such as peak runoff. DES Alteration of Terrain permitting process addresses impacts to surface hydrological conditions. The 401 Certification decision relies, in part, on an approved permit from the DES Alteration of Terrain Program for the potential construction and operation-related impacts to surface hydrology.
- D-7. DES periodically reviews wetlands permit applications for projects included under the PGP to determine whether additional conditions or an individual 401 Certification application is necessary.

- D-8. Most projects included under the PGP, if conducted in accordance with the conditions of the PGP, DES Wetlands Permit, and DES Alteration of Terrain Permit are not expected to cause or contribute to violations of water quality standards.

E. WATER QUALITY CERTIFICATION CONDITIONS

- E-1. Construction or operation of all projects included under the PGP shall meet NH surface water quality standards.
- E-2. Applications for projects included under the PGP shall be subject to DES review to determine whether additional conditions or an individual 401 Certification application is necessary to ensure compliance with surface water quality standards.
- E-3. If DES determines that surface water quality standards are being violated by the specific project or there is reasonable potential to expect that water quality standards will be violated if more project specific conditions are not included in the 401 Certification, DES may modify this 401 Certification for the specific project to include additional conditions to ensure compliance with surface water quality standards, when authorized by law, and after notice and opportunity for hearing.
- E-4. Construction on any specific project permitted under the PGP shall not commence until all other applicable permits and approvals have been granted, including those permits issued through DES Wetlands Bureau and, if necessary, DES Alteration of Terrain Program.
- E-5. All applicable conditions in the NH PGP shall be followed.
- E-6. DES reserves the right to inspect any project permitted under the PGP and the effects of the project on affected surface waters at any time to monitor compliance with the NH surface water quality standards.

F. APPEAL

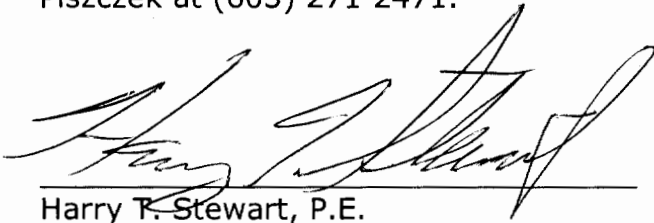
If you are aggrieved by this decision, you may appeal the decision to the Water Council. Any appeal must be filed within 30 days of the date of this decision, and must conform to the requirements of Env-WC 200. Inquiries regarding appeal procedures should be directed to Michael Sclafani, DES Council Appeals Clerk, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095; telephone 603-271-6072.

401 Certification 2007-003

May 30, 2007

Page 6 of 6

If you have questions regarding this 401 Certification, please contact Paul Piszczek at (603) 271-2471.

A handwritten signature in black ink, appearing to read "Harry T. Stewart", is written over a horizontal line.

Harry T. Stewart, P.E.
Director, Water Division

cc: Frank Delguidice, U.S. Army Corps of Engineers
Collis Adams, DES Wetlands Bureau
Paul Piszczek, DES Watershed Management Bureau
Chris Williams, DES Watershed Management Bureau (Coastal Consistency Program)
Dan Lynch, NH Fish and Game Department
Ralph Abele, U.S. Environmental Protection Agency
Michael Bartlett, U.S. Fish and Wildlife Service

**U.S. Army Corps of Engineers
New Hampshire Programmatic General Permit (PGP)
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 PGP, 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 to determine if there is an impaired water in the vicinity of your work area.*		X
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	X	
2.2 Are there proposed impacts to SAS, shellfish beds, special wetlands and vernal pools (see PGP, GC 26 and Appendix A)? Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) website, www.nhnaturalheritage.org , specifically the book Natural Community Systems of New Hampshire .		X
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	X	
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 lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)	X	
2.5 The overall project site is more than 40 acres.	X	
2.6 What is the size of the existing impervious surface area?	0 sq. ft.	
2.7 What is the size of the proposed impervious surface area?	500,940 sq. ft.	
2.8 What is the % of the impervious area (new and existing) to the overall project site?	0.16%	
3. Wildlife	Yes	No
3.1 Has the NHB 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 a NHB determination.)		X
3.2 Would work occur in any area identified as either “Highest Ranked Habitat in N.H.” or “Highest Ranked Habitat in Ecological Region”? (These areas are colored magenta and green, respectively, on NH Fish and Game’s map, “2010 Highest Ranked Wildlife Habitat by Ecological Condition.”) Map information can be found at: <ul style="list-style-type: none"> • PDF: www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html. 	X	
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?	X	
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		X
3.5 Are stream crossings designed in accordance with the PGP, GC 21?	X	

4. <u>Flooding/Floodplain Values</u>	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?		X
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?		
5. <u>Historic/Archaeological Resources</u>		
If a minor or major impact project, has a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) been sent to the NH Division of Historical Resources as required on Page 5 of the PGP?	X	

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

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

District 1, 641 Main St, Lancaster, NH 03584

District 2, 8 Eastman Hill Road, Enfield, NH 03748

District 3, 2 Sawmill Rd, Gilford, NH 03249

District 4, 19 Base Hill Road, Swanzey, NH 03446

District 5, PO Box 16476, Hooksett, NH 03106

District 6, PO Box 740, Durham, NH 03824

APPLICATION FOR DRIVEWAY PERMIT

Pursuant to the provisions of **Revised Statutes Annotated, Chapter 236, Section 13** (printed on reverse of application) and amendments thereto, and **Declaratory Ruling 2000-01**, permission is requested to: (circle one) **Construct / Alter** (Indicate quantity of) 1 driveway entrance(s) to my property on the (circle one): **North / South / East / West** side of **NH Route** 9 or **Street/Road:** (Keene Road) In the **Town of** Antrim at a location which will meet the requirements for safety specified in said statutes.

The driveway entrance(s) requested is (are) for access to: Antrim Wind Energy Project

Residence, Industry, Business, Subdivision, Other

Describe nature and size of industry, business or subdivision: Wind power facility: 10 turbines: +/- 57 developed acres

110 **Feet** (circle one): **North / South / East / West** of Utility Pole Number: PSNH / 12S / CTC / 32S

0.63 **Feet or Miles** (circle one): **North / South / East / West** of Road or Junction: Loverens Mill Road

Town Tax Map # 212 and Lot # 27

As the landowner (or designated applicant) I agree to the following:

1. To construct driveway entrance(s) only for the bonafide purpose of securing access to private property such that the highway right-of-way is used for no purpose other than travel.
 2. To construct driveway entrance(s) at permitted location(s).
 3. To construct driveway entrance(s) in accordance with statutes, rules, standard drawings, and permit specifications as issued by the New Hampshire Department of Transportation.
 4. To defend, indemnify and hold harmless the New Hampshire Department of Transportation and its duly appointed agents and employees against any action for personal injury and/or property damage sustained by reason of the exercise of this permit.
 5. To furnish and install drainage structures that are necessary to maintain existing highway drainage and adequately handle increased runoff resulting from the land development and obtain all easements thereto.
 6. I am the owner or a duly authorized agent of the owner of the parcel upon which the driveway will be constructed. I have provided accurate and complete title and subdivision information concerning the parcel to the Department. I understand that the Department is relying on this information in considering this application and that the Department does not perform independent title research or make judgments about title or access disputes.
- For new driveway(s), include copy of current deed and, if not the same, previous deed dated prior to July 1, 1971 of the parcel. If this parcel is part of a larger tract subdivided after July 1, 1971, then provide complete subdivision plans and deed history dating back to at least July 1, 1971.
 - Attach sketch or plan showing existing and proposed driveway(s) and the adjacent highway indicating distance to town road, town line, or other readily identifiable feature or landmark and also to the nearest utility pole (including pole numbers)

Signature of Landowner (Applicant)

John B. Kenworthy, Executive Officer,
Antrim Wind Energy, LLC.

Printed Name of Landowner

Date: January 26, 2012

155 Fleet Street

Mailing Address

Portsmouth, NH 03801-4050

Town/City, State, Zip Code

Telephone Number(s) 603-570-4842

Contact /Agent, if not Landowner: John B. Kenworthy, Executive Officer, Antrim Wind Energy, LLC.

FOR OFFICE USE ONLY:

GPS N = _____ GPS W = _____

Section: _____ Width: _____ Speed: _____

Right of Way: _____ Drainage: _____ SLD: _____

Conditions: _____

Permit Number Assigned: _____

§ 236:13 Driveways and Other Accesses to the Public Way. – I. It shall be unlawful to construct, or alter in any way that substantially affects the size or grade of, any driveway, entrance, exit, or approach within the limits of the right-of-way of any class I or class III highway or the state-maintained portion of a class II highway that does not conform to the terms and specifications of a written permit issued by the Commissioner of transportation.

II. Pursuant to this section, a written construction permit application must be obtained from and filed with the department of transportation by any abutter affected by the provisions of paragraph I. Before any construction or alteration work is commenced, said permit application shall have been reviewed, and a construction permit issued by said department. Said permit shall:

- (a) Describe the location of the driveway, entrance, exit, or approach. The location shall be selected to most adequately protect the safety of the traveling public.
- (b) Describe any drainage structures, traffic control devices, and channelization islands to be installed by the abutter.
- (c) Establish grades that adequately protect and promote highway drainage and permit a safe and controlled approach to the highway in all seasons of the year.
- (d) Include any other terms and specifications necessary for the safety of the traveling public.

III. For access to a proposed commercial or industrial enterprise, or to a subdivision, all of which for the purposes of this section shall be considered a single parcel of land, even though acquired by more than one conveyance or held nominally by more than one owner:

- (a) Said permit application shall be accompanied by engineering drawings showing information as set forth in paragraph II.
- (b) Unless all season safe sight distance of 400 feet in both directions along the highway can be obtained, the commissioner shall not permit more than one access to a single parcel of land, and this access shall be at that location which the commissioner determines to be safest. The commissioner shall not give final approval for use of any additional access until it has been proven to him that the 400-foot all season safe sight distance has been provided.
- (c) For the purposes of this section, all season safe sight distance is defined as a line which encounters no visual obstruction between 2 points, each at a height of 3 feet 9 inches above the pavement, and so located as to represent the critical line of sight between the operator of a vehicle using the access and the operator of a vehicle approaching from either direction.

IV. No construction permit shall allow:

- (a) A driveway, entrance, exit, or approach to be constructed more than 50 feet in width, except that a driveway, entrance, exit, or approach may be flared beyond a width of 50 feet at its junction with the highway to accommodate the turning radius of vehicles expected to use the particular driveway, entrance, exit or approach.
- (b) More than 2 driveways, entrances, exits or approaches from any one highway to any one parcel of land unless the frontage along that highway exceeds 500 feet.

V. The same powers concerning highways under their jurisdiction as are conferred upon the commissioner of transportation by paragraphs I, II, III and IV shall be conferred upon the planning board in cities and towns in which the planning board has been granted the power to regulate the subdivision of land as provided in RSA 674:35, and they shall adopt such regulations as are necessary to carry out the provisions of this section. Such regulations may delegate administrative duties, including actual issuance of permits, to a highway agent, board of selectmen, or other qualified official or body. Such regulations, or any permit issued under them, may contain provisions governing the breach, removal, and reconstruction of stone walls or fences within, or at the boundary of, the public right of way, and any landowner or landowner's agent altering a boundary in accordance with such provisions shall be deemed to be acting under a mutual agreement with the city or town pursuant to RSA 472:6, II (a).

VI. The commissioner of transportation or planning board shall retain continuing jurisdiction over the adequacy and safety of every existing driveway, entrance, exit, and approach to a highway, whether or not such access was constructed or installed pursuant to a permit under this section, and, unless the access is a public highway, the owners of property to which the access is appurtenant shall have continuing responsibility for the adequacy of the access and any grades, culverts, or other structures pertaining to such access, whether or not located within the public right of way. If any such access is or becomes a potential threat to the integrity of the highway or its surface, ditches, embankments, bridges, or other structures, or a hazard to the safety of the traveling public, by reason of siltation, flooding, erosion, frost action, vegetative growth, improper grade, or the failure of any culvert, traffic control device, drainage structure, or any other feature, the commissioner of transportation or planning board or their designee may issue an order to the landowner or other party responsible for such access to repair or remove such hazardous condition and to obtain any and all permits required therefor. The order shall describe the hazard, prescribe what corrective action or alteration in the location or configuration of such access shall be required, and set a reasonable time within which the action shall be completed. Such an order shall be sent by certified mail, and shall be enforceable to the same extent as a permit issued under this section. If the order is not complied with within the time prescribed, the commissioner or planning board or their designee may cause to be taken whatever action is necessary to protect the highway and the traveling public, and the owner or other responsible party shall be civilly liable to the state or municipality for its costs in taking such action.

§ 236:14 Penalty. – Any person who violates any provision of this subdivision or the rules and regulations made under authority thereof shall be guilty of a violation if a natural person, or guilty of a misdemeanor if any other person; and, in addition, shall be liable for the cost of restoration of the highway to a condition satisfactory to the person empowered to give such written permission.

Camela D. Caughlin

EOLIAN RENEWABLE ENERGY LLC
155 FLEET ST.
PORTSMOUTH 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:

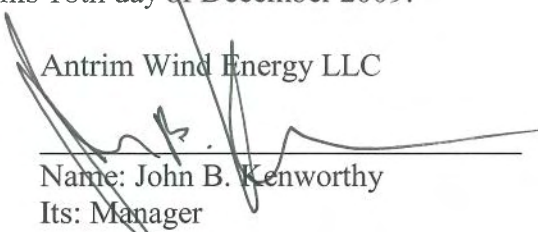
Lease shall be for an initial term of twenty-five (25) years and shall commence on the Effective Date.

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.

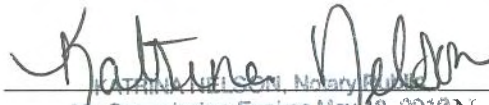
Antrim Wind Energy LLC
By: 
Name: John B. Kenworthy
Its: Manager

STATE OF NEW HAMPSHIRE

ss.:

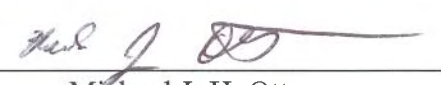
COUNTY OF ~~HILLSBORO~~ Rockingham

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.


Katherine Nelson, Notary Public
My Commission Expires May 18, 2010 Notary Public

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



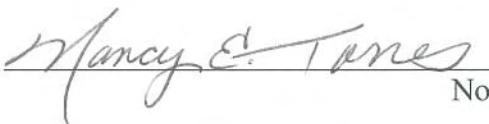

Nancy E. Torres
Notary Public

EXHIBIT A to MEMORANDUM OF LEASE

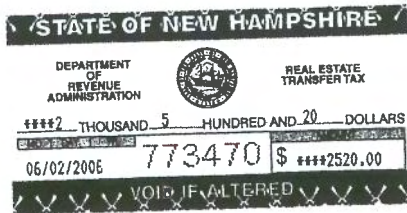
6038778

2006 JUN -2 PM 2:37

AL7

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

22.39
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24.39



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

1. Westerly by the same old road about 101.5 rods to land formerly owned by the late Hiram Griffin; thence
2. Southerly by said Griffin land about 62 rods to the corner of the wall by land of the Steele heirs; thence
3. 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

9-60-33

9-61-205

9-64-2.5

9-61-205

212-30-241ad

9-60-33

212-27-39ad

9-64-2.5

212-35-5.1 acc

BK7685PG0864

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
2. 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:

BK 7685 PG 0865

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.

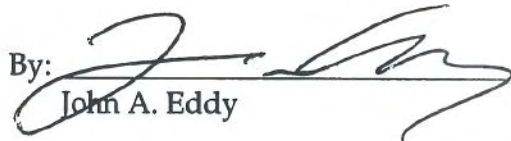
BK 7685 PG 0866

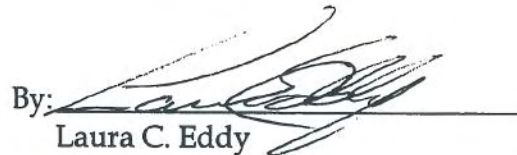
Subject to current use tax recorded with the said Registry of Deeds at Book 3696, Page 137.

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.

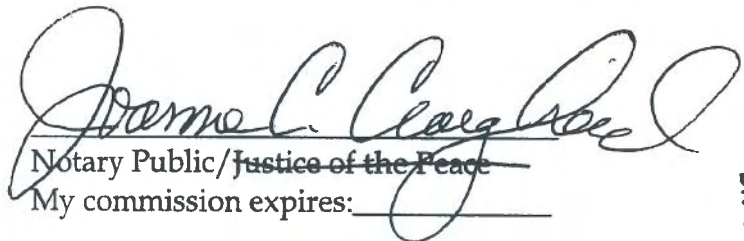
By: 
John A. Eddy

By: 
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.




Notary Public/~~Justice of the Peace~~
My commission expires: _____

BK 7685 PG 0867



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-WTE-11265-OE

Issued Date: 11/08/2011

Travis Bullard
Eolian Renewable Energy
155 Fleet Street
Portsmouth, NH 03801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine AWE_1
Location:	Hillsboro, NH
Latitude:	43-04-03.41N NAD 83
Longitude:	72-00-28.14W
Heights:	1431 feet site elevation (SE) 495 feet above ground level (AGL) 1926 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

☐ At least 10 days prior to start of construction (7460-2, Part I)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

This determination expires on 05/08/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before December 08, 2011. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on December 18, 2011 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-WTE-11265-OE.

Signature Control No: 150012126-153296181

(DNH -WT)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

The proposed construction would be located approximately 4.76 nautical miles (NM) west of the Hawthorne-Feather Airpark Airport (8B1). It would exceed the Obstruction Standards of Title 14, Code of Federal Regulations (14 CFR), Part 77 as follows:

Section 77.17(a)(2) by 143 feet - a height that exceeds 352 feet above ground level within 4.76 NM as applied to 8B1.

The proposal was not circularized for public comment because current FAA obstruction evaluation policy exempts from circularization those proposals that exceed the above cited obstruction standard. This is provided the proposal does not lie within an airport traffic pattern. This policy does not affect the public's right to petition for review determinations regarding structures, which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

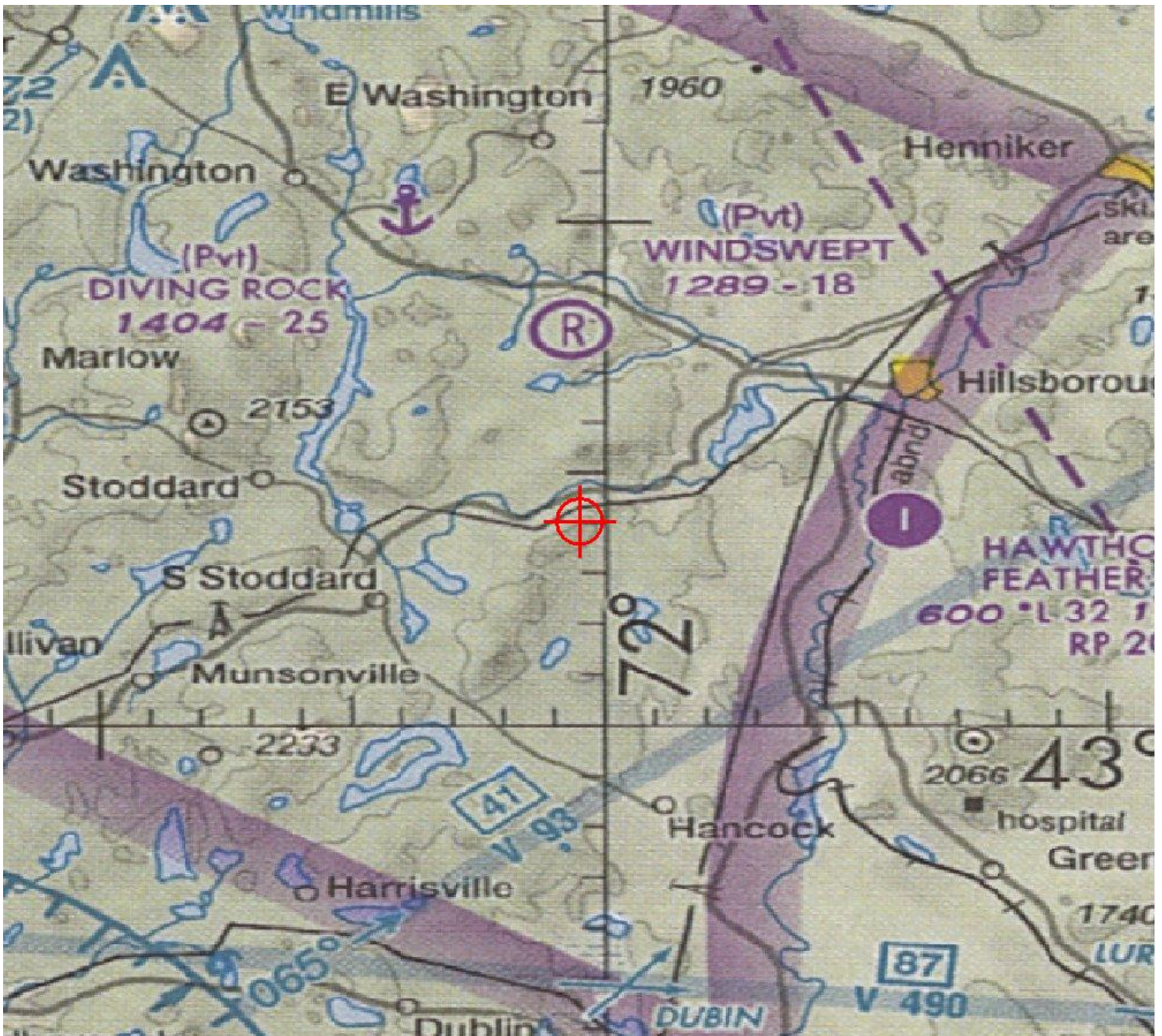
- > The proposed structure would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.
- > The proposed structure would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- > The proposed structure would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

- > The proposed structure would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- > The proposed structure would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports.
- > The proposed structure would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- > The proposed structure will be appropriately obstruction marked and lighted to make it more conspicuous to airmen flying in VFR weather conditions at night.

The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-WTE-11264-OE

Issued Date: 12/05/2011

Travis Bullard
Eolian Renewable Energy
155 Fleet Street
Portsmouth, NH 03801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine AWE_2
Location:	Hillsboro, NH
Latitude:	43-03-51.34N NAD 83
Longitude:	72-00-22.29W
Heights:	1743 feet site elevation (SE) 495 feet above ground level (AGL) 2238 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint only - Chapters 12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

- ☒ At least 42 days prior to start of construction (7460-2, Part I)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

Your request for consideration to utilize an Audio Visual Warning System to operate the White Paint Only is not approved. See attached for additional information.

This determination expires on 06/05/2013 unless:

- (a) extended, revised or terminated by the issuing office.

- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before January 04, 2012. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on January 14, 2012 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-WTE-11264-OE.

Signature Control No: 150012120-154599521

(DNH -WT)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2011-WTE-11264-OE

Proposal: To construct a Wind Turbine to a height of 495 feet above ground level (AGL), 2238 feet above mean sea level (AMSL).

Location: The structure will be located approximately 4.69 nautical miles (NM) west of the Hawthorne-Feather Airport (8B1) reference point.

Federal Aviation Regulations, FAR Part 77 Obstruction Standard(s) Exceeded:

Section 77.17(a)(2) by 152 feet - a height that exceeds 343 feet above ground level within 4.69 NM as applied to 8B1.

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS Criteria).

Wind Turbine would require the Boston (A90) (TRACON), Merrimack, NH/Manchester Airport (MHT), Manchester, NH Area "G" Minimum Vectoring Altitude (MVA) to increase from a current 3000 feet AMSL to 3200 feet AMSL.

This increase is not considered substantial. However, the proponent is required to give at least 6 weeks prior notice of construction so that the appropriate action may be taken to revise the Minimum Vectoring Altitude Chart (MVAC).

There are no impacts to any airport or IFR/VFR terminal or en route current or planned procedures. There is not a cumulative impact to any airport, nor is there any impact to any airport plan on file.

An aeronautical study for Visual Flight Rules (VFR) disclosed that the proposed structure would not affect VFR navigation. The proposed structure would have to exceed 500 feet Above Ground Level (AGL) to penetrate the vertical confines of any VFR route.

The proposed structure was found to have no substantial adverse effect on the VFR traffic patterns in the vicinity of the site.

Details of the structure were not circularized to the aeronautical public for comment.

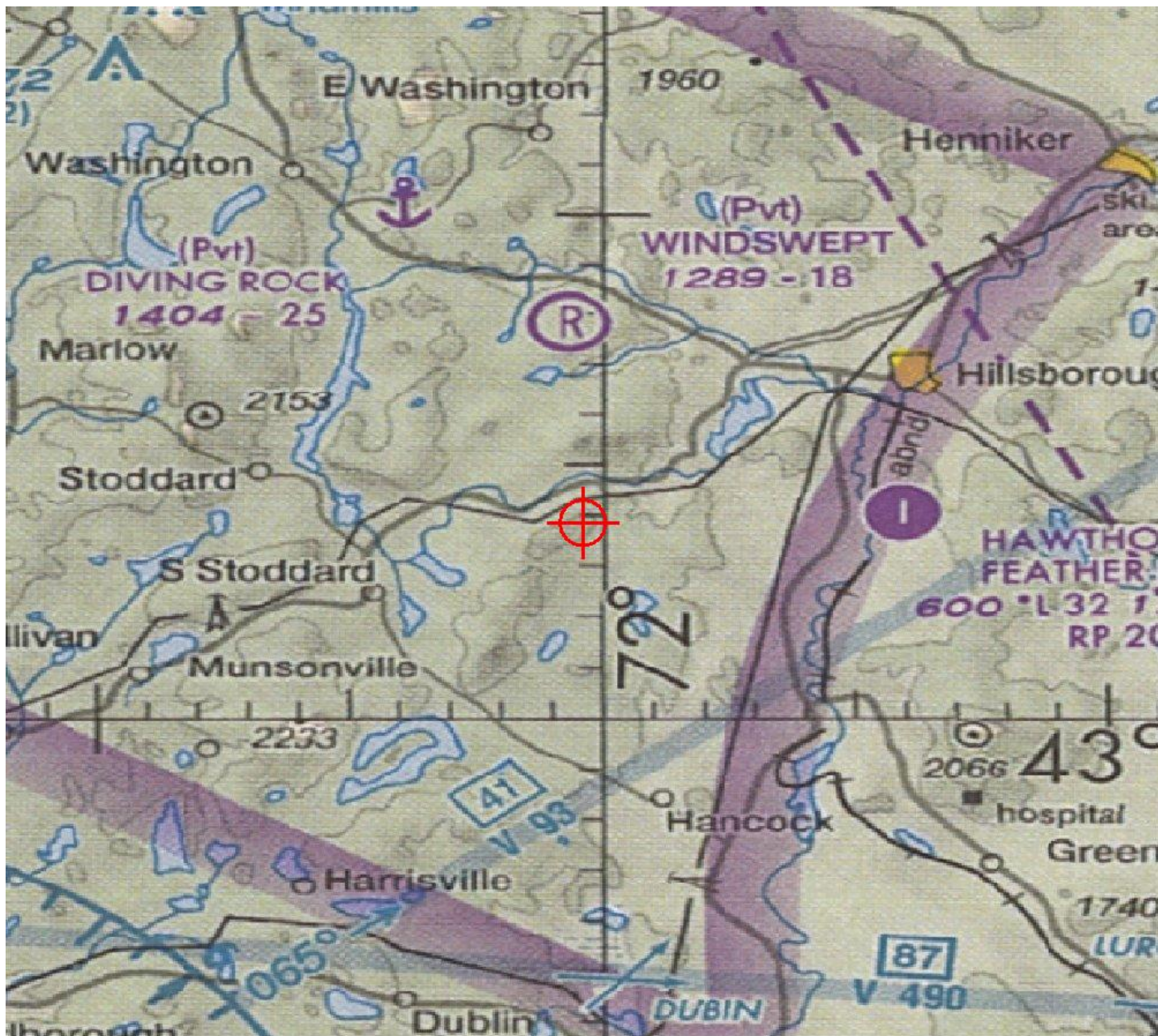
The impact on arrival, departure, and en route procedures for aircraft operating under VFR/IFR conditions at existing and planned public use and military airports, as well as aeronautical facilities, was considered during the analysis of the structure. The aeronautical study disclosed that the proposed structure would have no substantial adverse effect upon any terminal or en route instrument procedure or altitude.

The cumulative impact (IFR/VFR) resulting for the structure, when combined with the impact of other existing or proposed structures was considered and found to be acceptable.

Therefore, it is determined that the proposed structure would not have a substantial adverse effect upon the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation.

NOTE

"The FAA has scheduled a lighting study to establish standards for AVWS use on wind farms. We plan to complete this study within the next 6 months, and are confident we will have standards for AVWS as a lighting option for wind turbine farms. If you can defer your lighting request until after we complete our study, we will be able to review lighting options for AVWS then."





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-WTE-11266-OE

Issued Date: 12/05/2011

Travis Bullard
Eolian Renewable Energy
155 Fleet Street
Portsmouth, NH 03801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine AWE_3
Location:	Hillsboro, NH
Latitude:	43-03-41.26N NAD 83
Longitude:	72-00-32.62W
Heights:	1758 feet site elevation (SE) 495 feet above ground level (AGL) 2253 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

- ☒ At least 42 days prior to start of construction (7460-2, Part I)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

This determination expires on 06/05/2013 unless:

- extended, revised or terminated by the issuing office.
- the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before January 04, 2012. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on January 14, 2012 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-WTE-11266-OE.

Signature Control No: 150012128-154593490

(DNH -WT)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2011-WTE-11266-OE

Proposal: To construct a Wind Turbine to a height of 495 feet above ground level (AGL), 2253 feet above mean sea level (AMSL).

Location: The structure will be located approximately 4.56 nautical miles (NM) west of the Hawthorne-Feather Airport (8B1) reference point.

Federal Aviation Regulations, FAR Part 77 Obstruction Standard(s) Exceeded:

Section 77.17(a)(2) by 139 feet - a height that exceeds 356 feet above ground level within 4.56 NM as applied to 8B1.

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS Criteria).

Wind Turbine would require the Boston (A90) (TRACON), Merrimack, NH/Manchester Airport (MHT), Manchester, NH Area "L" Minimum Vectoring Altitude (MVA) to increase from a current 3200 feet AMSL to 3300 feet AMSL.

Wind Turbine would require the Boston (A90) (TRACON), Merrimack, NH/Manchester Airport (MHT), Manchester, NH Area "G" Minimum Vectoring Altitude (MVA) to increase from a current 3000 feet AMSL to 3300 feet AMSL.

This increase is not considered substantial. However, the proponent is required to give at least 6 weeks prior notice of construction so that the appropriate action may be taken to revise the Minimum Vectoring Altitude Chart (MVAC).

There are no impacts to any airport or IFR/VFR terminal or en route current or planned procedures. There is not a cumulative impact to any airport, nor is there any impact to any airport plan on file.

An aeronautical study for Visual Flight Rules (VFR) disclosed that the proposed structure would not affect VFR navigation. The proposed structure would have to exceed 500 feet Above Ground Level (AGL) to penetrate the vertical confines of any VFR route.

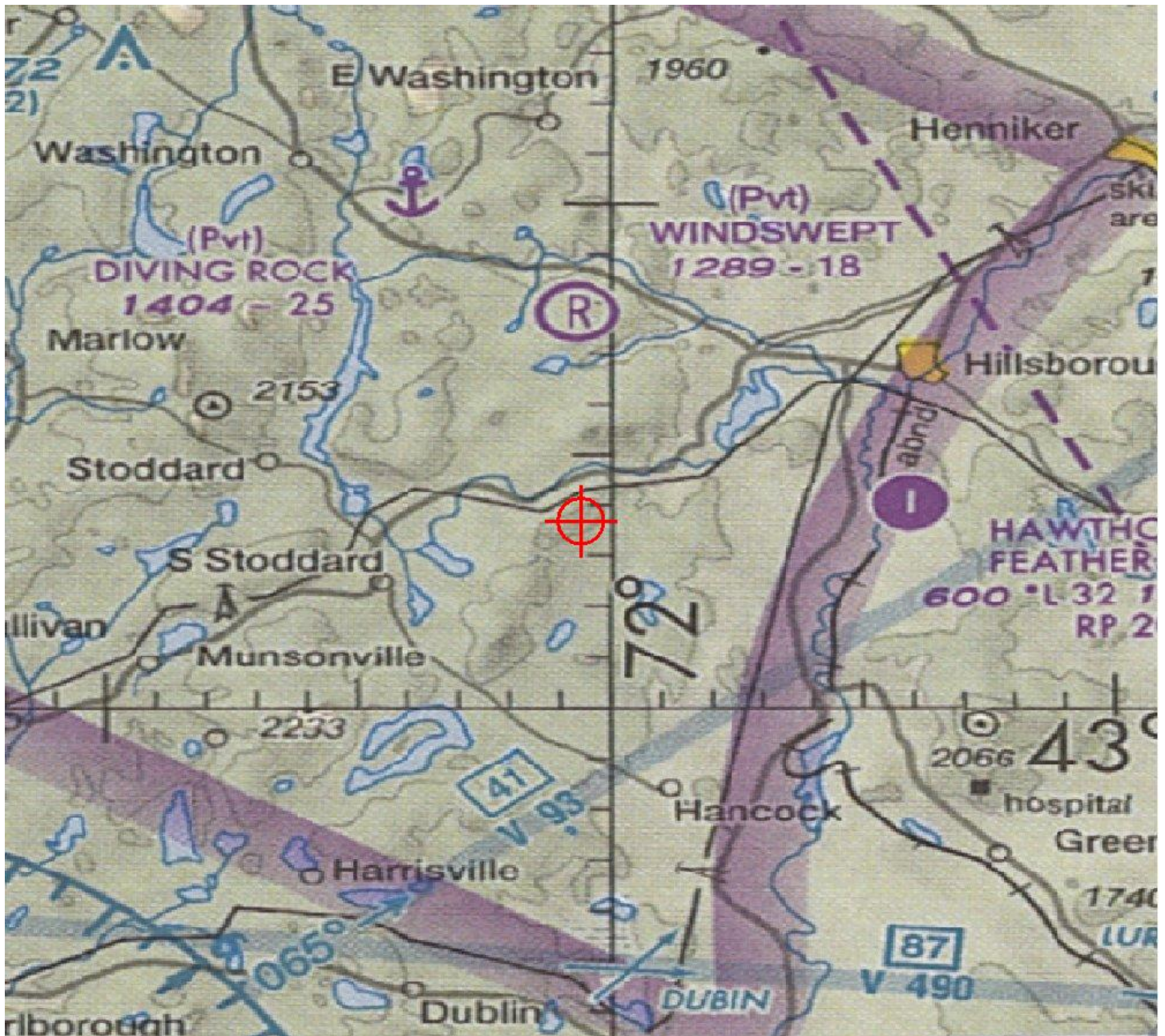
The proposed structure was found to have no substantial adverse effect on the VFR traffic patterns in the vicinity of the site.

Details of the structure were not circularized to the aeronautical public for comment.

The impact on arrival, departure, and en route procedures for aircraft operating under VFR/IFR conditions at existing and planned public use and military airports, as well as aeronautical facilities, was considered during the analysis of the structure. The aeronautical study disclosed that the proposed structure would have no substantial adverse effect upon any terminal or en route instrument procedure or altitude.

The cumulative impact (IFR/VFR) resulting for the structure, when combined with the impact of other existing or proposed structures was considered and found to be acceptable.

Therefore, it is determined that the proposed structure would not have a substantial adverse effect upon the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-WTE-11267-OE

Issued Date: 12/05/2011

Travis Bullard
Eolian Renewable Energy
155 Fleet Street
Portsmouth, NH 03801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine AWE_4
Location:	Hillsboro, NH
Latitude:	43-03-31.43N NAD 83
Longitude:	72-00-59.25W
Heights:	1682 feet site elevation (SE) 495 feet above ground level (AGL) 2177 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

- ☒ At least 42 days prior to start of construction (7460-2, Part I)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

This determination expires on 06/05/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before January 04, 2012. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on January 14, 2012 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-WTE-11267-OE.

Signature Control No: 150012130-154599818

(DNH -WT)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Proposal: To construct a Wind Turbine to a height of 495 feet above ground level (AGL), 2177 feet above mean sea level (AMSL).

Location: The structure will be located approximately 4.89 nautical miles (NM) west of the Hawthorne-Feather Airpark Airport (8B1) reference point.

Federal Aviation Regulations, FAR Part 77 Obstruction Standard(s) Exceeded:

Section 77.17(a)(2) by 106 feet - a height that exceeds 389 feet above ground level within 4.89 NM as applied to 8B1.

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS Criteria).

Wind Turbine would require the Boston (A90) (TRACON), Merrimack, NH/Manchester Airport (MHT), Manchester, NH Area "G" Minimum Vectoring Altitude (MVA) to increase from a current 3000 feet AMSL to 3200 feet AMSL.

This increase is not considered substantial. However, the proponent is required to give at least 6 weeks prior notice of construction so that the appropriate action may be taken to revise the Minimum Vectoring Altitude Chart (MVAC).

There are no impacts to any airport or IFR/VFR terminal or en route current or planned procedures. There is not a cumulative impact to any airport, nor is there any impact to any airport plan on file.

An aeronautical study for Visual Flight Rules (VFR) disclosed that the proposed structure would not affect VFR navigation. The proposed structure would have to exceed 500 feet Above Ground Level (AGL) to penetrate the vertical confines of any VFR route.

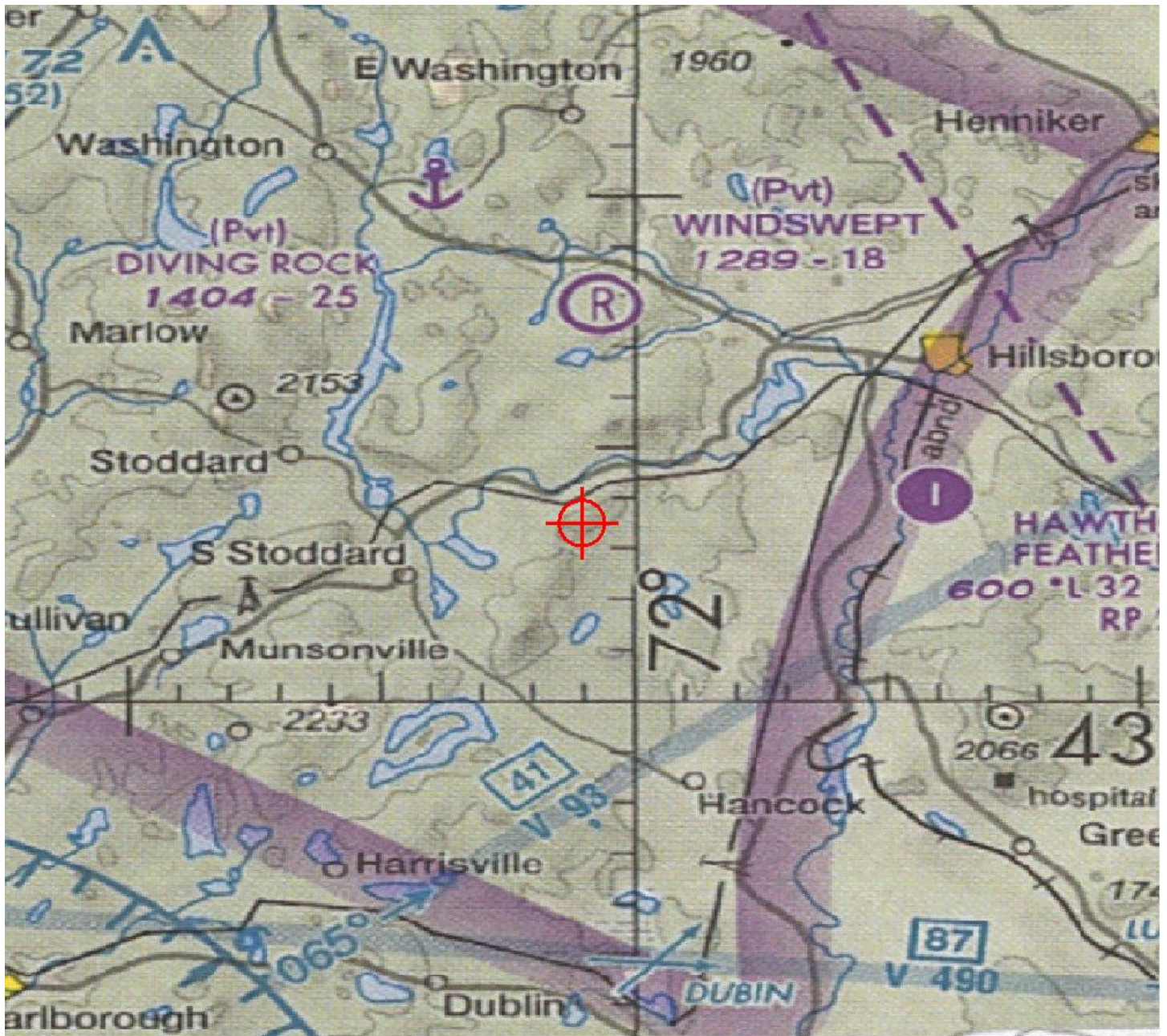
The proposed structure was found to have no substantial adverse effect on the VFR traffic patterns in the vicinity of the site.

Details of the structure were not circularized to the aeronautical public for comment.

The impact on arrival, departure, and en route procedures for aircraft operating under VFR/IFR conditions at existing and planned public use and military airports, as well as aeronautical facilities, was considered during the analysis of the structure. The aeronautical study disclosed that the proposed structure would have no substantial adverse effect upon any terminal or en route instrument procedure or altitude.

The cumulative impact (IFR/VFR) resulting for the structure, when combined with the impact of other existing or proposed structures was considered and found to be acceptable.

Therefore, it is determined that the proposed structure would not have a substantial adverse effect upon the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-WTE-11268-OE

Issued Date: 12/05/2011

Travis Bullard
Eolian Renewable Energy
155 Fleet Street
Portsmouth, NH 03801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine AWE_5
Location:	Hillsboro, NH
Latitude:	43-03-23.84N NAD 83
Longitude:	72-01-10.20W
Heights:	1726 feet site elevation (SE) 495 feet above ground level (AGL) 2221 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint only - Chapters 12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

- ☒ At least 42 days prior to start of construction (7460-2, Part I)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

Your request for consideration to utilize an Audio Visual Warning System to operate the White Paint Only is not approved. See attached for additional information.

This determination expires on 06/05/2013 unless:

- (a) extended, revised or terminated by the issuing office.

- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before January 04, 2012. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on January 14, 2012 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-WTE-11268-OE.

Signature Control No: 150012132-154600377

(DNH -WT)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Proposal: To construct a Wind Turbine to a height of 495 feet above ground level (AGL), 2221 feet above mean sea level (AMSL).

Location: The structure will be located approximately 5.31 nautical miles (NM) west of the Hawthorne-Feather Airport (8B1) reference point.

Federal Aviation Regulations, FAR Part 77 Obstruction Standard(s) Exceeded:

Section 77.17(a)(2) by 93 feet - a height that exceeds 402 feet above ground level within 5.31 NM as applied to 8B1.

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS Criteria).

Wind Turbine would require the Boston (A90) (TRACON), Merrimack, NH/Manchester Airport (MHT), Manchester, NH Area "G" Minimum Vectoring Altitude (MVA) to increase from a current 3000 feet AMSL to 3200 feet AMSL.

This increase is not considered substantial. However, the proponent is required to give at least 6 weeks prior notice of construction so that the appropriate action may be taken to revise the Minimum Vectoring Altitude Chart (MVAC).

There are no impacts to any airport or IFR/VFR terminal or en route current or planned procedures. There is not a cumulative impact to any airport, nor is there any impact to any airport plan on file.

An aeronautical study for Visual Flight Rules (VFR) disclosed that the proposed structure would not affect VFR navigation. The proposed structure would have to exceed 500 feet Above Ground Level (AGL) to penetrate the vertical confines of any VFR route.

The proposed structure was found to have no substantial adverse effect on the VFR traffic patterns in the vicinity of the site.

Details of the structure were not circularized to the aeronautical public for comment.

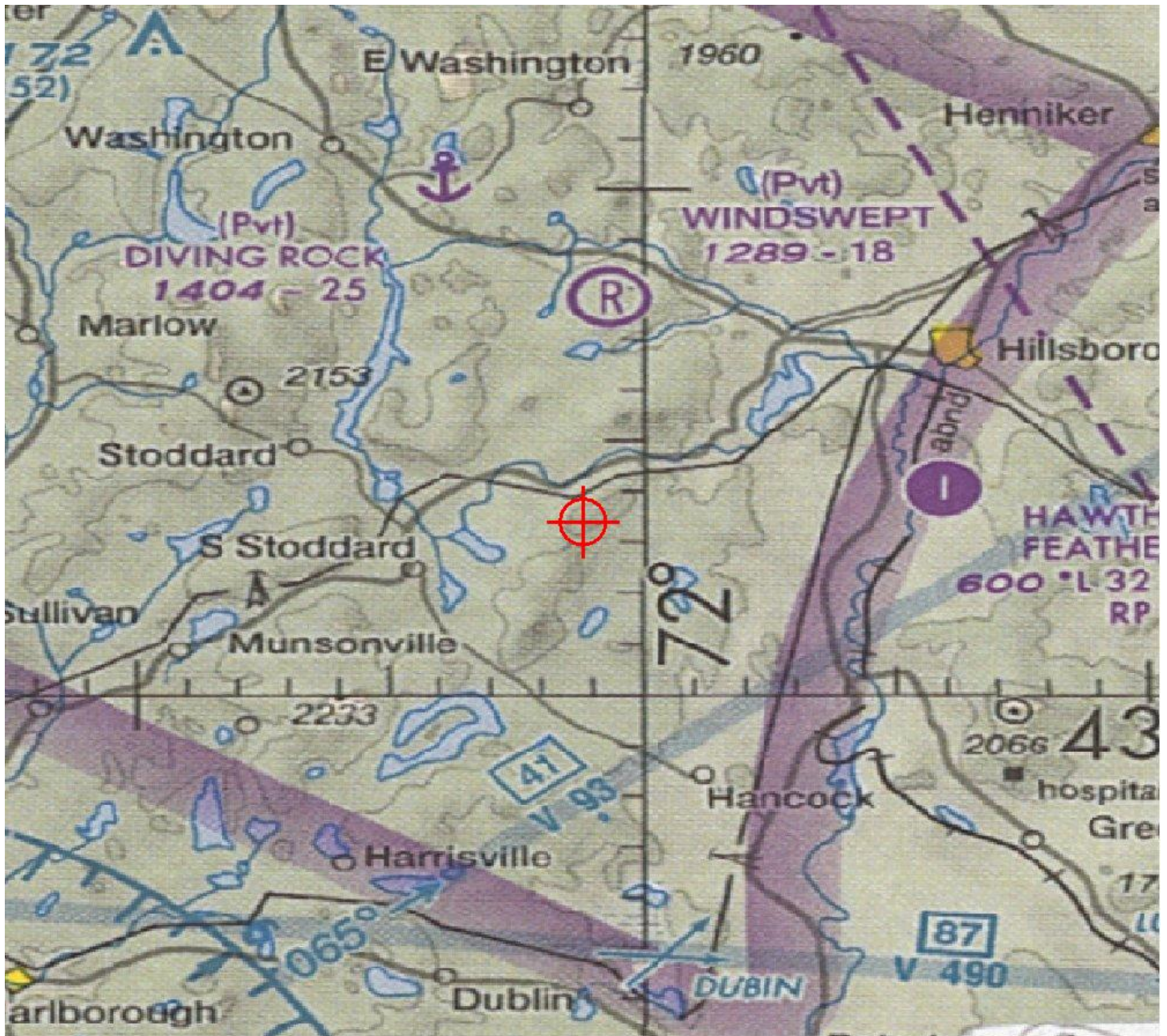
The impact on arrival, departure, and en route procedures for aircraft operating under VFR/IFR conditions at existing and planned public use and military airports, as well as aeronautical facilities, was considered during the analysis of the structure. The aeronautical study disclosed that the proposed structure would have no substantial adverse effect upon any terminal or en route instrument procedure or altitude.

The cumulative impact (IFR/VFR) resulting for the structure, when combined with the impact of other existing or proposed structures was considered and found to be acceptable.

Therefore, it is determined that the proposed structure would not have a substantial adverse effect upon the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation.

NOTE

"The FAA has scheduled a lighting study to establish standards for AVWS use on wind farms. We plan to complete this study within the next 6 months, and are confident we will have standards for AVWS as a lighting option for wind turbine farms. If you can defer your lighting request until after we complete our study, we will be able to review lighting options for AVWS then."





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-WTE-11269-OE

Issued Date: 11/08/2011

Travis Bullard
Eolian Renewable Energy
155 Fleet Street
Portsmouth, NH 03801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine AWE_6
Location:	Hillsboro, NH
Latitude:	43-03-09.66N NAD 83
Longitude:	72-01-11.94W
Heights:	1516 feet site elevation (SE) 495 feet above ground level (AGL) 2011 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

☐ At least 10 days prior to start of construction (7460-2, Part I)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

This determination expires on 05/08/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before December 08, 2011. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on December 18, 2011 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-WTE-11269-OE.

Signature Control No: 150012134-153296334

(DNH -WT)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

The proposed construction would be located approximately 5.07 nautical miles (NM) west of the Hawthorne-Feather Airpark Airport (8B1). It would exceed the Obstruction Standards of Title 14, Code of Federal Regulations (14 CFR), Part 77 as follows:

Section 77.17(a)(2) by 89 feet - a height that exceeds 406 feet above ground level within 5.07 NM as applied to 8B1.

The proposal was not circularized for public comment because current FAA obstruction evaluation policy exempts from circularization those proposals that exceed the above cited obstruction standard. This is provided the proposal does not lie within an airport traffic pattern. This policy does not affect the public's right to petition for review determinations regarding structures, which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- > The proposed structure would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.
- > The proposed structure would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- > The proposed structure would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

- > The proposed structure would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- > The proposed structure would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports.
- > The proposed structure would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- > The proposed structure will be appropriately obstruction marked and lighted to make it more conspicuous to airmen flying in VFR weather conditions at night.

The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-WTE-11270-OE

Issued Date: 12/05/2011

Travis Bullard
Eolian Renewable Energy
155 Fleet Street
Portsmouth, NH 03801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine AWE_7
Location:	Hillsboro, NH
Latitude:	43-02-54.23N NAD 83
Longitude:	72-01-17.79W
Heights:	1676 feet site elevation (SE) 495 feet above ground level (AGL) 2171 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint only - Chapters 12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

- ☒ At least 42 days prior to start of construction (7460-2, Part I)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

This determination expires on 06/05/2013 unless:

- extended, revised or terminated by the issuing office.
- the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before January 04, 2012. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on January 14, 2012 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-WTE-11270-OE.

Signature Control No: 150012136-154600989

(DNH -WT)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2011-WTE-11270-OE

Proposal: To construct a Wind Turbine to a height of 495 feet above ground level (AGL), 2171 feet above mean sea level (AMSL).

Location: The structure will be located approximately 5.17 nautical miles (NM) west of the Hawthorne-Feather Airport (8B1) reference point.

Federal Aviation Regulations, FAR Part 77 Obstruction Standard(s) Exceeded:

Section 77.17(a)(2) by 78 feet - a height that exceeds 417 feet above ground level within 5.17 NM as applied to 8B1.

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS Criteria).

Wind Turbine would require the Boston (A90) (TRACON), Merrimack, NH/Manchester Airport (MHT), Manchester, NH Area "G" Minimum Vectoring Altitude (MVA) to increase from a current 3000 feet AMSL to 3200 feet AMSL.

This increase is not considered substantial. However, the proponent is required to give at least 6 weeks prior notice of construction so that the appropriate action may be taken to revise the Minimum Vectoring Altitude Chart (MVAC).

There are no impacts to any airport or IFR/VFR terminal or en route current or planned procedures. There is not a cumulative impact to any airport, nor is there any impact to any airport plan on file.

An aeronautical study for Visual Flight Rules (VFR) disclosed that the proposed structure would not affect VFR navigation. The proposed structure would have to exceed 500 feet Above Ground Level (AGL) to penetrate the vertical confines of any VFR route.

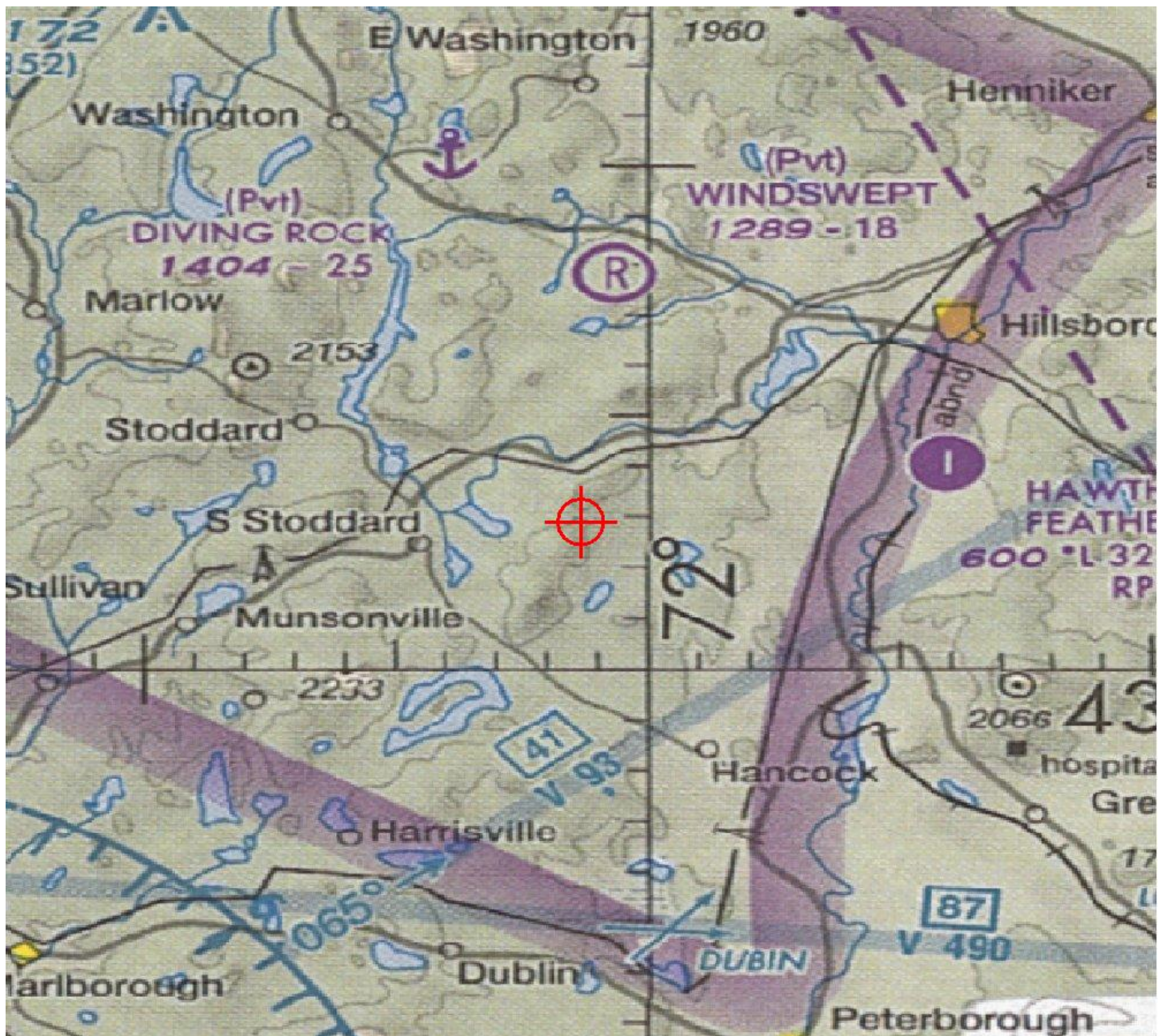
The proposed structure was found to have no substantial adverse effect on the VFR traffic patterns in the vicinity of the site.

Details of the structure were not circularized to the aeronautical public for comment.

The impact on arrival, departure, and en route procedures for aircraft operating under VFR/IFR conditions at existing and planned public use and military airports, as well as aeronautical facilities, was considered during the analysis of the structure. The aeronautical study disclosed that the proposed structure would have no substantial adverse effect upon any terminal or en route instrument procedure or altitude.

The cumulative impact (IFR/VFR) resulting for the structure, when combined with the impact of other existing or proposed structures was considered and found to be acceptable.

Therefore, it is determined that the proposed structure would not have a substantial adverse effect upon the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-WTE-11271-OE

Issued Date: 12/05/2011

Travis Bullard
Eolian Renewable Energy
155 Fleet Street
Portsmouth, NH 03801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine AWE_8
Location:	Hillsboro, NH
Latitude:	43-02-43.77N NAD 83
Longitude:	72-01-16.79W
Heights:	1700 feet site elevation (SE) 495 feet above ground level (AGL) 2195 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

- ☒ At least 42 days prior to start of construction (7460-2, Part I)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

This determination expires on 06/05/2013 unless:

- extended, revised or terminated by the issuing office.
- the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before January 04, 2012. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on January 14, 2012 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-WTE-11271-OE.

Signature Control No: 150012138-154604829

(DNH -WT)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Proposal: To construct a Wind Turbine to a height of 495 feet above ground level (AGL), 2195 feet above mean sea level (AMSL).

Location: The structure will be located approximately 5.51 nautical miles (NM) west of the Hawthorne-Feather Airpark Airport (8B1) reference point.

Federal Aviation Regulations, FAR Part 77 Obstruction Standard(s) Exceeded:

Section 77.17(a)(2) by 77 feet - a height that exceeds 418 feet above ground level within 5.51 NM as applied to 8B1.

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS Criteria).

Wind Turbine would require the Boston (A90) (TRACON), Merrimack, NH/Manchester Airport (MHT), Manchester, NH Area "G" Minimum Vectoring Altitude (MVA) to increase from a current 3000 feet AMSL to 3200 feet AMSL.

This increase is not considered substantial. However, the proponent is required to give at least 6 weeks prior notice of construction so that the appropriate action may be taken to revise the Minimum Vectoring Altitude Chart (MVAC).

There are no impacts to any airport or IFR/VFR terminal or en route current or planned procedures. There is not a cumulative impact to any airport, nor is there any impact to any airport plan on file.

An aeronautical study for Visual Flight Rules (VFR) disclosed that the proposed structure would not affect VFR navigation. The proposed structure would have to exceed 500 feet Above Ground Level (AGL) to penetrate the vertical confines of any VFR route.

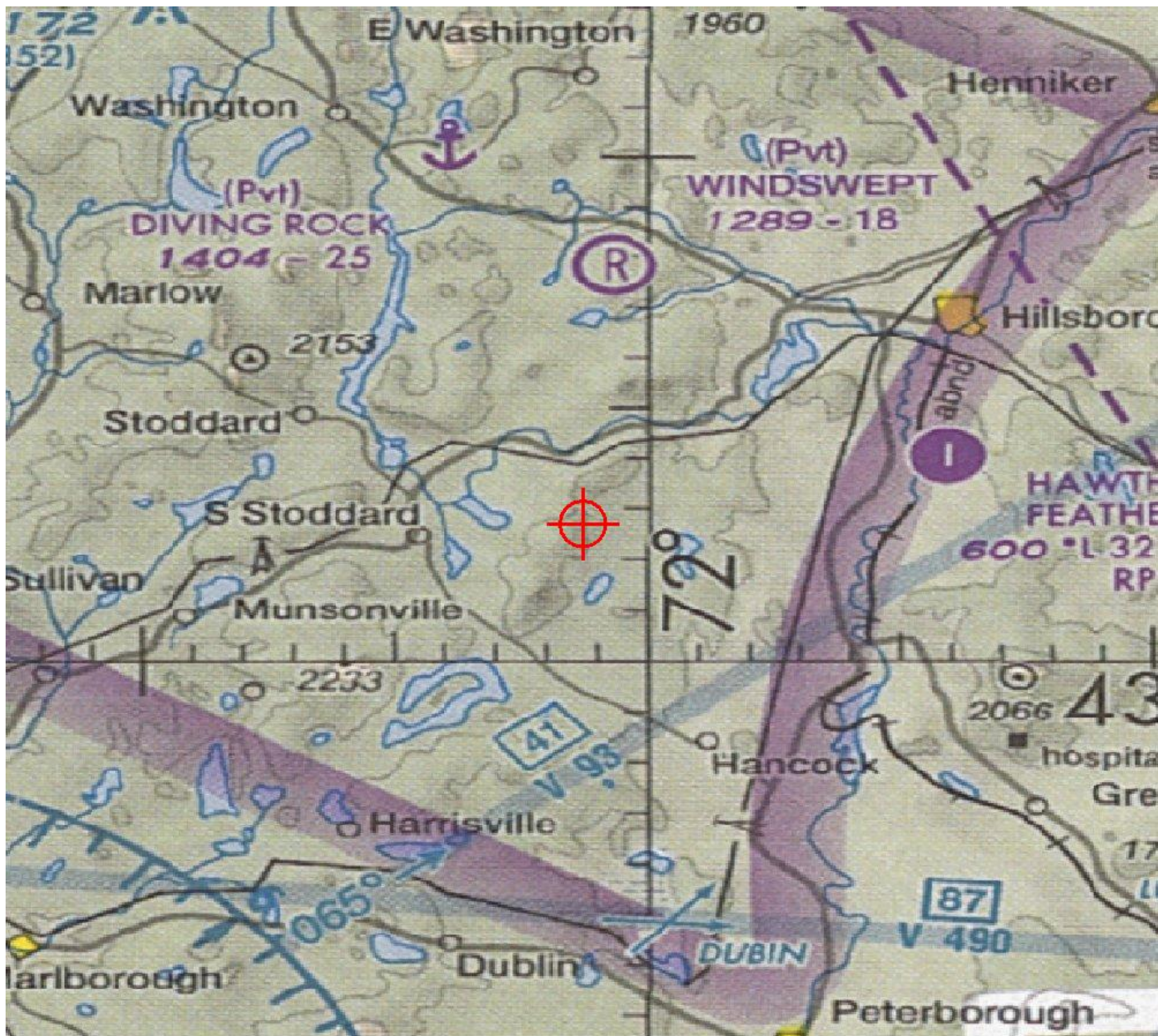
The proposed structure was found to have no substantial adverse effect on the VFR traffic patterns in the vicinity of the site.

Details of the structure were not circularized to the aeronautical public for comment.

The impact on arrival, departure, and en route procedures for aircraft operating under VFR/IFR conditions at existing and planned public use and military airports, as well as aeronautical facilities, was considered during the analysis of the structure. The aeronautical study disclosed that the proposed structure would have no substantial adverse effect upon any terminal or en route instrument procedure or altitude.

The cumulative impact (IFR/VFR) resulting for the structure, when combined with the impact of other existing or proposed structures was considered and found to be acceptable.

Therefore, it is determined that the proposed structure would not have a substantial adverse effect upon the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-WTE-11272-OE

Issued Date: 12/05/2011

Travis Bullard
Eolian Renewable Energy
155 Fleet Street
Portsmouth, NH 03801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine AWE_9
Location:	Hillsboro, NH
Latitude:	43-02-35.31N NAD 83
Longitude:	72-01-26.37W
Heights:	1646 feet site elevation (SE) 495 feet above ground level (AGL) 2141 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint only - Chapters 12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

- ☒ At least 42 days prior to start of construction (7460-2, Part I)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

This determination expires on 06/05/2013 unless:

- extended, revised or terminated by the issuing office.
- the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before January 04, 2012. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on January 14, 2012 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-WTE-11272-OE.

Signature Control No: 150012140-154605183

(DNH -WT)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Proposal: To construct a Wind Turbine to a height of 495 feet above ground level (AGL), 2141 feet above mean sea level (AMSL).

Location: The structure will be located approximately 5.33 nautical miles (NM) west of the Hawthorne-Feather Airpark Airport (8B1) reference point.

Federal Aviation Regulations, FAR Part 77 Obstruction Standard(s) Exceeded:

Section 77.17(a)(2) by 62 feet - a height that exceeds 433 feet above ground level within 5.33 NM as applied to 8B1.

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS Criteria).

Wind Turbine would require the Boston (A90) (TRACON), Merrimack, NH/Manchester Airport (MHT), Manchester, NH Area "G" Minimum Vectoring Altitude (MVA) to increase from a current 3000 feet AMSL to 3100 feet AMSL.

This increase is not considered substantial. However, the proponent is required to give at least 6 weeks prior notice of construction so that the appropriate action may be taken to revise the Minimum Vectoring Altitude Chart (MVAC).

There are no impacts to any airport or IFR/VFR terminal or en route current or planned procedures. There is not a cumulative impact to any airport, nor is there any impact to any airport plan on file.

An aeronautical study for Visual Flight Rules (VFR) disclosed that the proposed structure would not affect VFR navigation. The proposed structure would have to exceed 500 feet Above Ground Level (AGL) to penetrate the vertical confines of any VFR route.

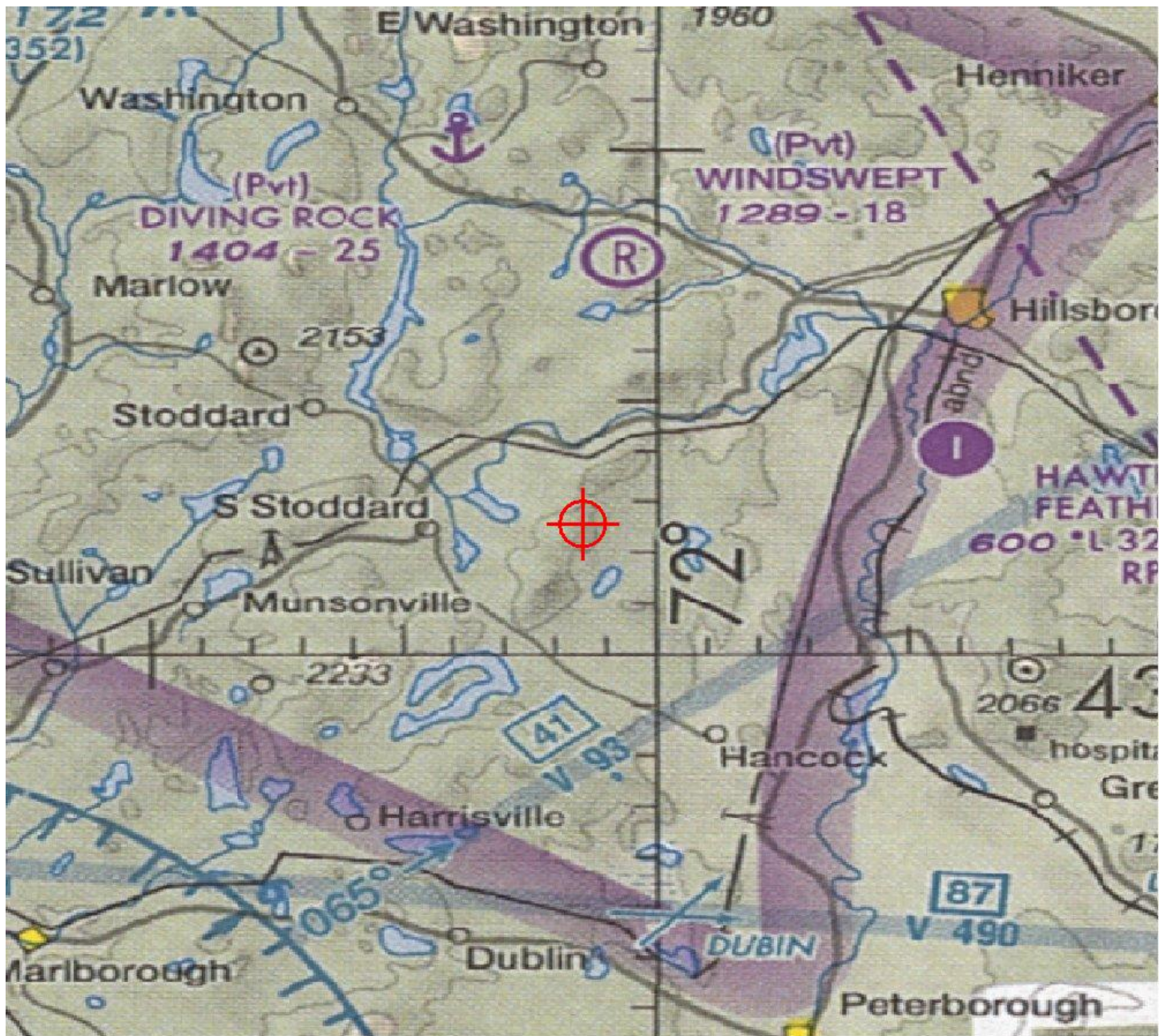
The proposed structure was found to have no substantial adverse effect on the VFR traffic patterns in the vicinity of the site.

Details of the structure were not circularized to the aeronautical public for comment.

The impact on arrival, departure, and en route procedures for aircraft operating under VFR/IFR conditions at existing and planned public use and military airports, as well as aeronautical facilities, was considered during the analysis of the structure. The aeronautical study disclosed that the proposed structure would have no substantial adverse effect upon any terminal or en route instrument procedure or altitude.

The cumulative impact (IFR/VFR) resulting for the structure, when combined with the impact of other existing or proposed structures was considered and found to be acceptable.

Therefore, it is determined that the proposed structure would not have a substantial adverse effect upon the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-WTE-11273-OE

Issued Date: 12/05/2011

Travis Bullard
Eolian Renewable Energy
155 Fleet Street
Portsmouth, NH 03801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine AWE_10
Location:	Hillsboro, NH
Latitude:	43-02-28.84N NAD 83
Longitude:	72-01-40.43W
Heights:	1896 feet site elevation (SE) 495 feet above ground level (AGL) 2391 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

- ☒ At least 42 days prior to start of construction (7460-2, Part I)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

This determination expires on 06/05/2013 unless:

- extended, revised or terminated by the issuing office.
- the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before January 04, 2012. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on January 14, 2012 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-WTE-11273-OE.

Signature Control No: 150012142-154594319

(DNH -WT)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2011-WTE-11273-OE

Proposal: To construct a Wind Turbine to a height of 495 feet above ground level (AGL), 2391 feet above mean sea level (AMSL).

Location: The structure will be located approximately 5.52 nautical miles (NM) west of the Hawthorne-Feather Airport (8B1) reference point.

Federal Aviation Regulations, FAR Part 77 Obstruction Standard(s) Exceeded:

Section 77.17(a)(2) by 43 feet - a height that exceeds 452 feet above ground level within 5.52 NM as applied to 8B1.

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS Criteria).

Wind Turbine would require the Boston (A90) (TRACON), Merrimack, NH/Manchester Airport (MHT), Manchester, NH Area "L" Minimum Vectoring Altitude (MVA) to increase from a current 3200 feet AMSL to 3400 feet AMSL.

This increase is not considered substantial. However, the proponent is required to give at least 6 weeks prior notice of construction so that the appropriate action may be taken to revise the Minimum Vectoring Altitude Chart (MVAC).

There are no impacts to any airport or IFR/VFR terminal or en route current or planned procedures. There is not a cumulative impact to any airport, nor is there any impact to any airport plan on file.

An aeronautical study for Visual Flight Rules (VFR) disclosed that the proposed structure would not affect VFR navigation. The proposed structure would have to exceed 500 feet Above Ground Level (AGL) to penetrate the vertical confines of any VFR route.

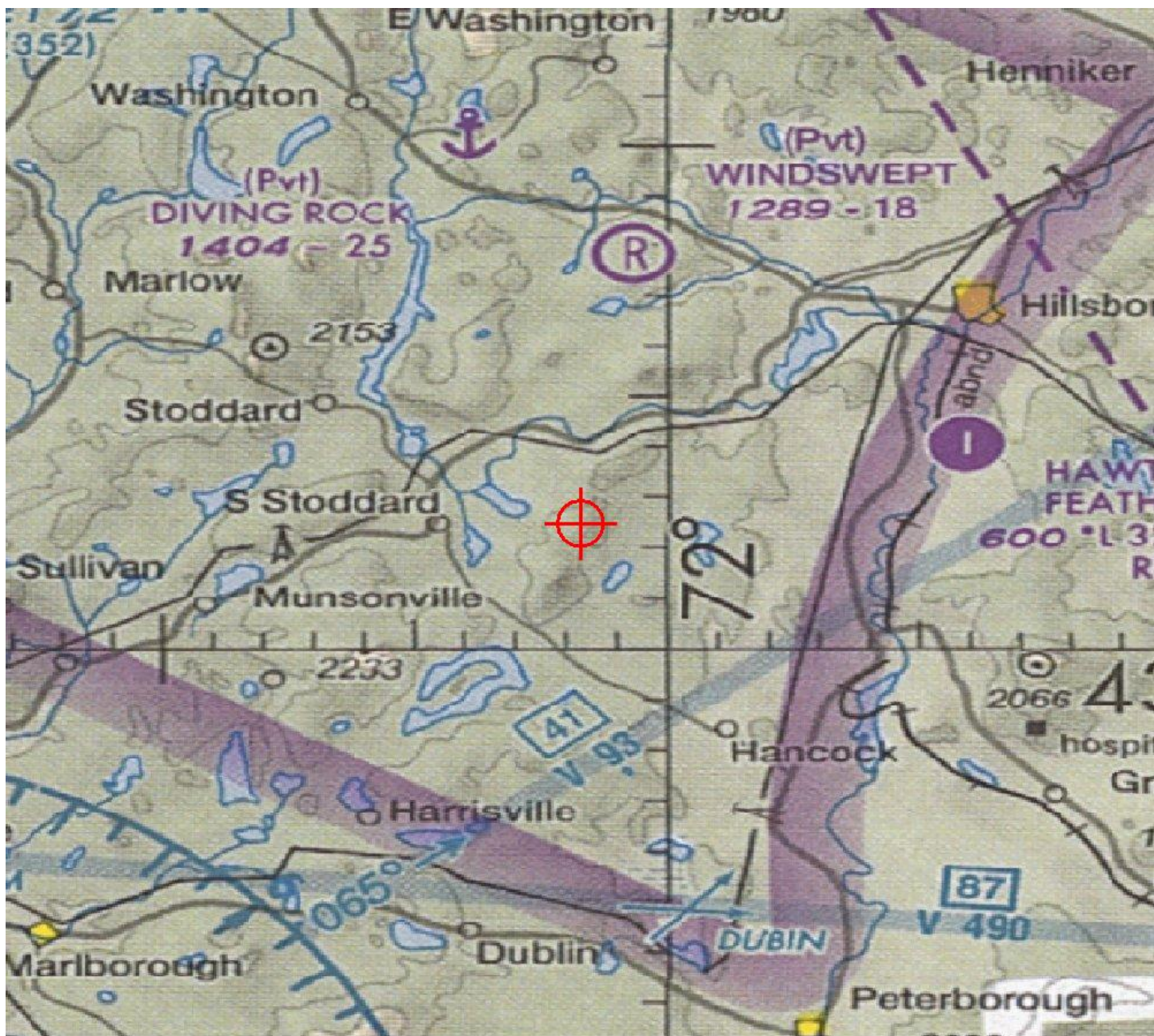
The proposed structure was found to have no substantial adverse effect on the VFR traffic patterns in the vicinity of the site.

Details of the structure were not circularized to the aeronautical public for comment.

The impact on arrival, departure, and en route procedures for aircraft operating under VFR/IFR conditions at existing and planned public use and military airports, as well as aeronautical facilities, was considered during the analysis of the structure. The aeronautical study disclosed that the proposed structure would have no substantial adverse effect upon any terminal or en route instrument procedure or altitude.

The cumulative impact (IFR/VFR) resulting for the structure, when combined with the impact of other existing or proposed structures was considered and found to be acceptable.

Therefore, it is determined that the proposed structure would not have a substantial adverse effect upon the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation.





THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES
LAND RESOURCES MANAGEMENT
SUBSURFACE SYSTEMS BUREAU

29 Hazen Drive P.O. Box 95

Concord, NH 03302-0095

phone: (603) 271-3501 fax: (603) 271-6683 website: <http://des.nh.gov/organization/divisions/water/ssb/index.htm>



APPLICATION FOR INDIVIDUAL SEWAGE DISPOSAL SYSTEM (ISDS) APPROVAL

Fee \$300 per System

DES Use:							Work Number:	
							Check No.	
							Amount:	
							Initials:	
1. INDICATE TYPE OF SYSTEM								
<input checked="" type="checkbox"/> New System		<input type="checkbox"/> Existing State Approved System (with Revision)		<input type="checkbox"/> Replacement System **SEE SECTION 12		If Replacement, is this system FAILED? <input type="checkbox"/> YES <input type="checkbox"/> NO		<input type="checkbox"/> Waivers Requested
For a Replacement System, provide previous Construction Approval # Operational Approval date / /								
2. SPECIAL TYPES OF SYSTEMS								
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Are you submitting Revised Plans?				If YES provide previous Construction Approval #				
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Is this application for a collection system? (phased build out)				If YES provide previous Construction Approval # AND Operational Approval date / /				
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Is City / Town prior approval required in accordance with RSA 482-A:32, II? Date approved / /								
3. SUBDIVISION STATUS								
SUBDIVISION NAME:				OR N/A BECAUSE: <input type="checkbox"/> pre-1967; <input checked="" type="checkbox"/> >= 5 acres; <input type="checkbox"/> Env-Wq 1004.05; <input type="checkbox"/> RSA 485-A:2, XIII				
STATE SUBDIVISION APPROVAL # n/a								
4. PROJECT LOCATION ADDRESS								
354 Keene Road							TOWN/CITY Antrim	
COUNTY	Book	Page	Probate #	TAX MAP(S)	BLOCK(S)	LOT(S)	UNIT(S)	
Hillsborough	7685	0864		212		27		
5. APPLICANT NAME (Last, First, Initial)				PHONE		EMAIL OR FAX		
Antrim Wind Energy, LLC c/o John B. Kenworthy				603-570-4842		jkenworthy@eolian-energy.com		
DESIGNER NAME Pettit, David M, TRC Companies <input type="checkbox"/> Same as applicant				NH Designer Permit # 1650		Home Owner Design <input type="checkbox"/>		
MAILING ADDRESS				TOWN/CITY		STATE	ZIP CODE	
155 Fleet Street				Portsmouth		NH	03801-4050	
6. PROPERTY OWNER NAME (Last, First, Initial)				PHONE		EMAIL OR FAX		
Ott, Michael								
MAILING ADDRESS				TOWN/CITY		STATE	ZIP CODE	
7. SIGNATURES (A NHDES PERMITTED DESIGNER MUST SIGN AS OR ON BEHALF OF APPLICANT)								
APPLICANT SIGNATURE¹ DATE: 1 / 18 / 2012 <i>David M. Pettit</i> on behalf of Antrim Wind Energy, LLC				PROPERTY OWNER SIGNATURE² DATE: 1 / 22 / 2012 <i>Michael Ott</i>				

8.	TYPE OF DEVELOPMENT				
<input type="checkbox"/> Single Family	<input type="checkbox"/> Condominium	<input type="checkbox"/> Camping/ Tenting	<input type="checkbox"/> Industrial	<input type="checkbox"/> Public Food Establishment	
<input type="checkbox"/> Apartment	<input type="checkbox"/> Manufactured Housing Park	<input type="checkbox"/> Commercial	<input type="checkbox"/> Duplex	<input checked="" type="checkbox"/> Other: O&M Building	
9.	DESIGN FLOW CALCULATIONS				
<input type="checkbox"/> Residential: Number of Bedrooms:		Total Flow: GPD			
<input checked="" type="checkbox"/> Commercial: Total Flow: 300 GPD					
10.	TYPE OF DESIGN				
<input checked="" type="checkbox"/> Gravity	<input checked="" type="checkbox"/> Above ground	Effluent Disposal Area Type (ie: stone & pipe): Enviro-Septic			
<input type="checkbox"/> Holding tank	<input type="checkbox"/> In Ground	<input checked="" type="checkbox"/> Pre Treatment			
<input type="checkbox"/> Pump	<input type="checkbox"/> At Grade	Pre treatment Type: Septic Tank			
<input type="checkbox"/> The 50 % Rule is being used in accordance with Env-Wq 1014.06					
11.	WATER SUPPLY (Indicate the type of water supply that services the lot – check all that apply)				
<input type="checkbox"/> Municipal (a) Name of System:			<input checked="" type="checkbox"/> Well On Lot:		
<input type="checkbox"/> Public Water System (a) Name:			Well radius on lot?		
Type of public water system: <input type="checkbox"/> Community <input type="checkbox"/> Transient non-community <input type="checkbox"/> Non-transient non-community			<input checked="" type="checkbox"/> Yes		
<input type="checkbox"/> Other:			<input type="checkbox"/> No (Provide Recorded Well Release)		
			<input type="checkbox"/> Well Off Lot (Provide Deeded Easement)		
12.	REPLACEMENT AND/OR FAILED SYSTEMS ONLY				
(a) Reason for Failure <input type="checkbox"/> Age; <input type="checkbox"/> Excessive Load; <input type="checkbox"/> Inappropriate Load; <input type="checkbox"/> Other (specify):					
(b) TYPE OF SYSTEM (OLD SYSTEM) BEING REPLACED					
<input type="checkbox"/> Gravity	<input type="checkbox"/> Above Ground / Mounded	Effluent Disposal Area Type:			
<input type="checkbox"/> Pump	<input type="checkbox"/> In Ground	<input type="checkbox"/> Pre Treatment Pre treatment Type:			
<input type="checkbox"/> Holding Tank	<input type="checkbox"/> At Grade	<input type="checkbox"/> Unknown / Other:			
Age of Existing System: years		Existing Septic Tank Size:		gallons Type:	
Number of Existing Structures Currently Served:		Total Flow (all bedrooms):		GPD	
Number of bedrooms:		Number of Current Occupants:			
Household Appliances that Discharge to Septic System: (check all that apply)					
<input type="checkbox"/> Garbage Grinder/Disposal	<input type="checkbox"/> Washing Machine	<input type="checkbox"/> Water Chlorinator	<input type="checkbox"/> Dish washer		
<input type="checkbox"/> Jacuzzi/Hot Tub	<input type="checkbox"/> Water Softener	<input type="checkbox"/> Solids Pump Unit before Tank	<input type="checkbox"/> Other:		
13.	OTHER NHDES APPROVALS / PERMITS REQUIRED TO CONSTRUCT THIS SYSTEM (Check all that apply)				
<input type="checkbox"/> Alteration of Terrain Permit #		<input type="checkbox"/> SSB Subdivision Approval Permit #			
<input type="checkbox"/> Pending		<input type="checkbox"/> Pending			
<input type="checkbox"/> Water Supply Approval Permit #		<input type="checkbox"/> Wetlands Bureau Approval Permit #			
<input type="checkbox"/> Pending		<input type="checkbox"/> Pending			
<input type="checkbox"/> UIC Registration					
<input type="checkbox"/> This project is located in the Protected Shoreland			Name of Waterbody:		
<input type="checkbox"/> Shoreland Permit #			Type of Waterbody <input type="checkbox"/> Lake; <input type="checkbox"/> River /Stream; <input type="checkbox"/> Tidal		
<input type="checkbox"/> Pending <input type="checkbox"/> N/A exempt					

¹ The following signatory certification applies to the Applicant: The Applicant certifies that s/he is a permitted designer in good standing or the owner of said property, and that the information submitted accurately represents the existing site conditions as of the date of application. The Applicant further agrees and understands that if any information submitted in this application which is material to the department's approval of the application is false or misleading, the approval as well as the designer's permit, if applicable, shall be subject to suspension or revocation. The applicant herewith certifies, where applicable, that the approved off-site, municipal or community water supply is available at the lot line.

² The following signatory certification applies to the Property Owner: I/We certify that I am/we are the present owner(s) of the property referenced in this application and that I/we have seen the plans and I/we hereby confirm that the plans are in accordance with my/our needs and desires. I/We fully understand that should this plan be approved, no waivers to the construction approval will be allowed and that any change(s) will require a new submission, review and approval.

