

**STATE OF NEW HAMPSHIRE
SITE EVALUATION COMMITTEE**

**DOCKET NO. 2008-04
APPLICATION OF GRANITE RELIABLE POWER, LLC**

**DECISION GRANTING CERTIFICATE OF SITE AND FACILITY
WITH CONDITIONS**

July 15, 2009

APPEARANCES: Douglas L. Patch, Esq. and Susan S. Geiger, Esq., of Orr & Reno, for the Applicant; Peter C.L. Roth, Esq., Senior Assistant Attorney General, Counsel for the Public; Lisa Linowes for Industrial Wind Action Group; David Publicover, Ph.D., for the Appalachian Mountain Club; Kathlyn J. Keene; Robert A. Keene; Jon Odell; Farrell S. Seiler for the New Hampshire Wind Energy Association; and William Gabler for Clean Power Development, LLC.

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I. APPLICATION

On July 15, 2008, Granite Reliable Power, LLC (Applicant) filed with the Site Evaluation Committee (Committee) an application for a Certificate of Site and Facility (Application) to construct and operate a renewable energy facility, *see* RSA 162-H:6-a, consisting of thirty-three (33) wind turbines each with a nameplate rating of three (3) megawatts (MW), for a total nameplate capacity of ninety-nine (99) MW, on two private tracts in Coös County (Project or Facility). Pet. Ex. 1.1. The Application was accepted by the Chairperson of the Committee as complete on August 14, 2008. *See*, Order Accepting Application for Certificate of Site and Facility and Designating a Sub-Committee Pursuant to RSA 162-H:6-a (August 14, 2008) at 3.

The Applicant is a Delaware limited liability company, registered to do business in New Hampshire, with a principal place of business in Essex, Connecticut. Pet. Ex. 1.1 at 27-28. The Applicant also has an office in Lancaster, New Hampshire. Pet. Ex. 1.1 at 28. The Applicant is seventy-five percent (75%) owned by Noble Environmental Power, LLC (NEP), a privately held Delaware limited liability company that “markets renewable energy and develops, owns, constructs and operates wind power projects.” Pet. Ex. 1.1 at 27; Pet. Ex. 2.1 at Supplement to Application Information Tab p. 1. The remaining twenty-five percent (25%) is owned by Freshet Wind Energy, LLC. Pet. Ex. 2.1 at

Supplement to Application Information Tab p. 1. According to the Application, NEP, which is responsible in some measure for nearly all of the development stage requirements for the Facility, such as financing and permitting on behalf of the Applicant, employs approximately 150 people throughout the United States and is developing or operating “wind parks” totaling more than 1,000 MW of electrical power. Pet. Ex.1.1 at 9, 62.

The Facility is proposed to be located in the unincorporated places of Dixville, Erving’s Location, Millsfield, Odell and the Town of Dummer in Coös County. Pet. Ex. 1.1 at 30. More specifically, the Facility will be built primarily upon two large parcels of privately held commercial forest land identified as the Phillips Brook Tract and the Bayroot Parcel. Application at 31, Application Fig. 3. The Application states that long-term lease agreements with the relevant landowners for use of the land have been obtained. Pet. Ex. 1.1 at 31. The proposed turbines will be placed in groups or “strings” along the ridgeline roughly forming the boundary between the two large parcels; specifically, on Dixville Peak in Dixville, Mount Kelsey and Owlhead Mountain in Millsfield, and along an unnamed ridge sometimes referred to as Fishbrook Ridge located to the south and east of Owlhead Mountain in Millsfield. Pet. Ex. 1.1 at 30-31. This ridgeline also divides two area watersheds. Pet. Ex. 1.1 at 31. On the west, the Phillips Brook and its tributaries drain to the Upper Ammonoosuc River and then to the Connecticut River in Groveton. Pet. Ex. 1.1 at 31 and Figure 3. To the east, several tributaries feed the Androscoggin River as it flows south and east through Gorham. Pet. Ex. 1.1 at 31-32 and Figure 3.

Access to the turbine sites will be obtained by the use of numerous existing logging roads, subject to the upgrade of approximately nineteen (19) miles of roads, as well as by the addition of approximately twelve (12) miles of new roads. Pet. Ex. 1.1 at 53. The new and upgraded roads will be generally constructed to a width of thirty-four (34) feet to accommodate the turning radii of the trucks transporting the turbine parts. Pet. Ex. 1.1 at 46. Additional road work will consist of laying down new gravel and completing general improvements to enable the roads to handle the heavy loads required in construction. Pet. Ex. 1.1 at 46. In all, the Application estimates that the modification and addition of roads, along with the other requirements of construction, will result in about 203 acres of land being disturbed to varying degrees. Pet. Ex. 1.1 at 33. The Applicant has indicated that it applied for or obtained the relevant permits required by the State and Federal governments for the construction of the roads, turbines and other structures and for the environmental impacts resulting from the Project. Pet. Ex. 1.1 at 40-41, App. 2, 3, 4, 6, 42. The Applicant has also indicated its intent to adhere to local zoning regulations to the degree practicable, despite their preemption by other law. Pet. Ex. 1.1 at 36.

The Project itself will include thirty-three (33) turbines known as the “V90” series, manufactured by Vestas Wind Systems A/S. Pet. Ex. 1.1 at 41. Each turbine consists of a tower approximately 262 feet tall supporting a nacelle, and a rotor with a diameter of 295 feet. Pet. Ex. 1.1 at 42. The nacelle is attached to the top of the tower and houses the main mechanical components of the turbine. Pet. Ex. 1.1 at 42. The overall height of each turbine will be approximately 410 feet. Pet. Ex. 1.1 at 42, Figure 7. The base width of each turbine is approximately sixteen (16) feet, though a 200-foot

area will be cleared for each turbine to facilitate installation of the foundations and the turbines themselves. Pet. Ex. 1.1 at 42, 47. In addition to the turbines, the Project includes: (1) an electrical substation with a nearby maintenance building and lay down yard; (2) an interconnection switching station; (3) a collection line; and (4) an electrical interconnection line. Pet. Ex. 1.1 at 44. The Facility, including its attendant lines and stations, will span some fourteen and one-half (14.5) miles. Pet. Ex. 1.1 at 30.

Once operational, the turbines would produce power at wind speeds between nine (9) and fifty-five (55) miles per hour and have an anticipated average capacity factor of thirty-five percent (35%). Pet. Ex. 1.1 at 42, 43. At speeds greater than fifty-five (55) miles per hour, the rotor blades would “feather,” meaning they would turn parallel to the direction of the wind so as to cease turning and producing power. Pet. Ex. 1.1 at 42.

The power generated by the turbines is to be collected by a new 34.5 kilovolt (kV) collection line. Pet. Ex. 1.1 at 44. That line will generally run underground but, in some places, will be erected as an overhead line, such as when running along the access roads or when necessary to avoid environmental impacts. Pet. Ex. 1.1 at 49. The collected power will be routed via the collection line to the new substation located in the Town of Dummer, about one and one-half (1.5) miles south of the turbines. Pet. Ex. 1.1 at 53-54. Adjacent to the substation will be a maintenance building for the storage of tools, materials and spare parts, as well as a lay down yard for the temporary storage of large components and other parts. Application at 53-54. At the substation, the power will be transformed to 115 kV and then transported five and eight-tenths (5.8) miles along Dummer Pond Road in a 100-foot wide corridor on a new 115 kV interconnection line to a point of connection with an existing Public Service Company of New Hampshire

(PSNH) 115 kV transmission line. Pet. Ex. 1.1 at 44, 50. Through the interconnection switching station located at this point, the power will enter the “grid” onto what is referred to as the “Coös County Loop,” a transmission line running through a substantial portion of the county. Pet. Ex. 1.1 at 50-51. The Applicant expects that the Facility will annually produce 300,000 megawatt hours (MWH), sufficient to meet the needs of about 40,000 homes. Pet. Ex. 1.1 at 43.

The Applicant contends that it has the financial, technical and managerial capabilities to both construct and operate the Facility, given NEP’s experience in constructing and operating other wind parks throughout the United States. Pet. Ex. 1.1 at 62-65. According to the Applicant’s estimates, construction of the Facility will cost approximately \$275,000,000, most of which will be project financed; that is, paid through the operation of the Facility and the sale of the power produced there. Pet. Ex. 1.1 at 64. It intends to make up the remainder of the funding through NEP’s ability to secure other financing, including from outside investors. Pet. Ex. 1.1 at 64.

II. PROCEDURAL BACKGROUND

This proceeding began with the filing of the Application on July 15, 2008 for the construction of a renewable energy facility, *i.e.*, the proposed wind park. *See*, RSA 162-H:6-a. State agencies having jurisdiction over the matter, as well as various local governing bodies in the area, were notified of the project. The Committee did not receive any information from any state agency that the Application did not have sufficient information to carry out the purposes of RSA Chapter 162-H. *See*, Order Accepting Application for Certificate of Site and Facility and Designating a Subcommittee Pursuant to RSA 162-H:6-a (issued August 14, 2008) at 2. The Application was, therefore,

deemed sufficient and accepted. *See*, RSA 162-H:6-a, II, III. A Subcommittee was then appointed to consider the Application.

The Subcommittee held a public informational hearing, *see*, RSA 162-H:10, I, on October 2, 2008, at the Groveton High School in Groveton, New Hampshire, and conducted a site visit the following day. At the informational hearing, the Applicant presented general information about the Project to the Subcommittee and the public, and the Applicant's representatives answered questions from the public and Counsel for the Public. The Committee then took public comments and all those interested in commenting were given the opportunity to do so. The Subcommittee held a second public information hearing and comment session at the Lancaster Town Hall in Lancaster on March 23, 2009.

Prior to the first public informational hearing, on September 26, 2008, the Subcommittee issued a Report of Pre-Hearing Conference stating that the parties had agreed to a schedule for discovery and hearings as well as various procedural issues. That schedule was later amended to accommodate the intervenors.

The parties participated in five technical sessions on: October 30, 2008 in Concord; November 21, 2008, in Lancaster; December 19, 2008, in Berlin; and February 3, and March 2, 2009 in Concord. The purpose of the technical sessions was to permit the parties to obtain additional discovery from each other. At the technical sessions this was accomplished by allowing questions to be posed to various consultants and proposed witnesses for each party.

In addition to hearing from the parties in this matter, the Subcommittee has solicited the views of the public on the Application. Over the course of the proceedings,

the Subcommittee has received numerous written comments from the public pertaining to the proposed development in favor of and in opposition to the project. Members of the public have identified a number of concerns for the region in their comments. The members of the public have raised issues regarding the environmental effects of the construction of such a project in a relatively undeveloped region of Coos County. The supporters and opponents of the project claim, respectively, positive and negative effects of the project on the orderly development of the region. The Subcommittee has also received both positive and negative comments concerning the managerial, technical and financial capabilities of the Applicant. The Subcommittee has considered the views of the public as expressed both at public hearings and in writing in its consideration of the record evidence in this docket.

III. INTERVENTION AND HEARINGS

Clean Power Development, LLC (CPD) sought to intervene on the ground that it intends to develop a biomass electrical generation facility in nearby Berlin, New Hampshire and that its proposed facility, like the Applicant's, would require connection to the Coös County Loop. Because the Coös County Loop is nearing its transmission capacity, CPD contended that its rights and interests in constructing a new generation facility could be affected by the addition of the Facility's output to that transmission line. Also, CPD was concerned more broadly with the impact of the addition of renewable generation facilities on the development of the region. The Applicant sought to limit CPD's role in the proceedings to matters regarding the orderly development of the region. However, as CPD had significant interests at stake beyond those related to the orderly

development of the region, the Subcommittee granted it full intervenor status. *See*, RSA 541-A:32, I; N.H. Code of Admin. Rules Site 202.11(b).

Sonja M. Sheldon and Wayne Urso, both of the unincorporated place of Millsfield, separately sought to intervene as nearby property owners and, in Ms. Sheldon's case, as an abutter. Also, Mr. Urso, as a selectman for Millsfield, sought to have every voter in Millsfield deemed an intervenor. The Applicant did not object to any of these requests. Ms. Sheldon and Mr. Urso were permitted to intervene. The other voters of Millsfield were not granted intervention because none of them, other than Ms. Sheldon and Mr. Urso, actually petitioned to intervene. Moreover, as it appeared Ms. Sheldon and Mr. Urso shared common interests, they were treated as a single intervening party for purposes of pre-hearing discovery, presentation of evidence and arguments, and cross-examination. *See*, RSA 541-A:32, III(c); N.H. Code of Admin. Rules Site 202.11(d)(3). Both Ms. Sheldon and Mr. Urso withdrew as intervenors near the end of the adjudicatory phase of the proceeding.

Kathlyn Keene, Robert Keene and Jon Odell sought to intervene as interested property owners in the Coös County towns of Jefferson and Lancaster. Their interests originated, they contended, in their desire to protect the environment and economy of Coös County. The Applicant objected to their intervention on the ground that they had not met the threshold for demonstrating a sufficient interest in the matter. Though the Subcommittee agreed with the Applicant that they did not demonstrate substantial interests which would be affected by the proceedings, nor interests that would not be adequately represented by Counsel for the Public, the Subcommittee permitted them to intervene "in the interests of justice." *See*, RSA 541-A:32, I(c); N.H. Code of Admin.

Rules Site 202.11(b)(3). Their participation was combined for all purposes, with the reservation that it might be further combined with other parties if warranted.

The Appalachian Mountain Club (AMC), the Industrial Wind Action Group (IWAG), and the New Hampshire Wind Energy Association (NHWEA) each moved to intervene on the grounds that their interests, as well as those of their members and associates, may be affected by the Facility and the Subcommittee's actions relative to it. More specifically, they asserted interests relating to the protection of the environment and the orderly development of wind energy resources. The Applicant objected only to the intervention of IWAG. Much like the Keenes and Mr. Odell, the Subcommittee determined that none of these entities had demonstrated substantial interests that would be affected by the proceedings, yet they were permitted to intervene to "contribute to a thorough exploration of the important issues" Order Granting Petitions to Intervene and Revising Procedural Schedule (issued October 14, 2008) at 6; *see*, RSA 541-A:32, II; N.H. Code of Admin. Rules Site 202.11(c). Additionally, the Subcommittee determined that because the Applicant had not shown a basis to distinguish among these groups, they were all permitted to intervene despite the Applicant's objection. Their participation, however, was permitted subject to the provision that it could be limited or combined with others as advisable.

Pursuant to RSA 162-H:9, I, Senior Assistant Attorney General Peter Roth was appointed as Counsel for the Public, whose role is to "represent the public in seeking to protect the quality of the environment and in seeking to assure an adequate supply of energy." RSA 162-H:9, I. Counsel for the Public is accorded all the rights, privileges and responsibilities of an attorney representing a party in a formal action.

Lastly, though it did not petition initially to be made an intervenor to this matter, the New Hampshire Department of Fish and Game (NHF&G) has had a significant role in matters related to the Project's environmental impacts. According to NHF&G, regardless of whether it petitioned to intervene, it is a proper party to the matter as the only state agency responsible for the protection and management of the state's wildlife. *See*, Letter of NHF&G dated December 19, 2008. NHF&G was granted intervention at a prehearing conference on March 5, 2009.

Between March 9, 2009 and May 27, 2009, the Subcommittee held adjudicatory hearings. The Subcommittee met in adjudicatory hearings on nine separate days and heard testimony from approximately twenty two (22) witnesses. In some instances, witnesses were recalled to address new matters as they arose. In addition, the Subcommittee held two hearings to take public comment and conducted a site visit.

On April 17, 20 and 29, May 27, and June 10, 2009, the Subcommittee met publicly to deliberate on the Application. During its deliberations, the Subcommittee first took up a motion by intervenor IWAG to exclude Subcommittee member Glenn Normandeau from the deliberations or votes of the Subcommittee. That motion contended, in relevant part, that NHF&G stood to benefit from the mitigation plan negotiated by the Applicant, NHF&G and the AMC, described *infra*, and that because Mr. Normandeau is the Executive Director of the NHF&G, a potential conflict of interest had arisen. *See*, Motion of Industrial Wind Action Group Seeking Withdrawal of NH Fish & Game Director Normandeau from the Subcommittee at 2-3. The Applicant was given the opportunity to respond to the motion. Also, Mr. Normandeau stated that he had no hand in the negotiation of the mitigation plan, that the requirements of the plan were

more an administrative burden on NHF&G than a benefit to it, and that in his opinion he had not pre-judged the case and was not beset by a conflict of interest.

Following deliberations and consultation with legal counsel, the Subcommittee denied the motion. The motion was denied inasmuch as Director Normandeau had neither a real nor apparent conflict of interest. Additionally, the motion was arguably untimely in that Director Normandeau had been involved as a Subcommittee member since the outset of the proceedings and no motion alleging a conflict had been made by any party. It is pertinent to note that the participation of Director Normandeau was not challenged when it appeared that NHF&G might take a position against the granting of a Certificate of Site and Facility.

Upon reaching a conclusion on this motion, the Subcommittee took up, serially, the criteria for the granting of a certificate under RSA 162-H: 16 and the evidence and arguments thereunder. After careful deliberation the Subcommittee voted to approve the Application and issue a Certificate of Site and Facility for the project as set forth in the Application, subject to a number of conditions to be set forth in the Certificate.

IV. POSITIONS OF THE PARTIES

A. Applicant

With its Application, the Applicant submitted the pre-filed testimony of:

- Adam Gravel, a Project Manager and Wildlife Biologist with Stantec Consulting;
- Steven Pelletier, a Senior Scientist with Stantec Consulting;
- Charles Readling, Director of Development for NEP;
- Pip Decker, Development Manager for NEP;
- Christopher Lowe, Chief Financial Officer of NEP;
- Daniel Mandli, Senior Vice President of NEP;
- David Hessler, an acoustical engineer with Hessler Associates, Inc.;
- Hope Luhman, Assistant Director for Cultural Resources and Senior Archaeologist with The Louis Berger Group, Inc.;

- Jean Vissering, a landscape architect with Jean Vissering Landscape Architecture;
- Matthew Borkowski, a Meteorology Analyst with NEP;
- Philip Beaulieu, project manager employer by Horizons Engineering, Inc.; and
- Raymond Lobdell, President of Lobdell Associates, Inc.

To this testimony, the Applicant added the pre-filed testimony of:

- Mark Lyons, a consultant for NEP;
- Jeffrey Wood, Senior Vice President for Project Finance for NEP; and
- Stephen LaFrance, President of Horizons Engineering.

The Applicant contends that this testimony, along with other evidence and testimony in the application and at the hearing, demonstrate that a Certificate of Site and Facility ought to issue for the siting, construction and operation of the Facility because the Applicant and NEP have the financial, technical and managerial capabilities to build and operate it. The Applicant avers that the Facility will not unduly interfere with the orderly development of the region, nor have an adverse effect on the aesthetics, historic sites, air and water quality, natural environment, or public health and safety of the area.

The Applicant has stated that its proposal is the best option for the area in that, for example, its original intent had been a wind park comprising sixty-seven (67) turbines capable of producing one and one-half (1.5) MW each, but that it was able to use only thirty-three (33) turbines when it determined that the site had the ability to support larger turbines. Pet. Ex. 1.1 at 56-57. It argues that this consolidation is beneficial to the Project and the area in numerous respects. Pet. Ex. 1.1 at 56-57. Furthermore, the Applicant indicated that with some initial upgrades to the Coös County Loop transmission line, such as “re-sagging” the line to enable it to carry more electricity, there would be no significant negative impact by the facility on the New England bulk power transmission system. Pet. Ex. 1.1 at 43-44. The Applicant additionally contends that the

development of the project is consistent with the state energy policy set out in RSA 378:37. Pet. Ex. 1.1 at 100.

Regarding environmental impacts, in addition to the mitigation required by the State of New Hampshire through the permitting process, the Applicant reached an agreement with NHF&G and the AMC to provide for certain high elevation mitigation, described *infra*. Thus, the Applicant contends that any adverse environmental impacts have been sufficiently addressed.

Additionally, the Applicant argues that, although the on-going recession may have made financing more difficult, it still has the financial capability to complete the Project. The Applicant has indicated that it intends to secure financing for the Project near the start of construction and that it will, in fact, be able to do so at that time, particularly in light of the recently passed stimulus measure which contains substantial benefits for wind power facilities.

B. Counsel for the Public

In addressing concerns about environmental impacts, Counsel for the Public commissioned an environmental study performed by George Mariani, Ph.D., and Sanford Environmental Services. The study included a site inspection, and an environmental impact and permitting analysis. *See*, Public Counsel (PC) Ex. 1. The study essentially concluded that the Project would infringe upon environmentally sensitive areas and would negatively affect various bird and bat species. *See generally*, PC Ex. 1, 2, 3. Additionally, the study concluded that there were potential negative impacts on water quality. *See*, PC Ex. 1 at 8-9. As noted, however, the Applicant has, since the filing of

the study, reached an agreement with the NHF&G and the AMC on an environmental mitigation plan that Counsel for the Public has agreed not to contest.

Counsel for the Public contended in his closing statement that the Applicant had not met its burden of showing that the Project “doesn’t create an unreasonable adverse impact on the environment, on aesthetics, that it’s consistent with the energy policy, that it’s the only alternative that this Committee should consider.” *See*, Transcript, March 19, pp. 64-65. However, in his Post Hearing Memorandum, Counsel for the Public indicated that the weaknesses in the Applicant’s case could be remedied by imposing conditions and he set forth thirty proposed conditions.

Counsel for the Public also raised numerous concerns relative to the financial capabilities of the Applicant to construct and operate the Facility and retained Cypress Associates, LLC to analyze the Applicant’s finances. According to the pre-filed testimony of James Sundstrom of Cypress Associates, the financial hurdles facing this project are substantial. *See*, PC Ex. 5. The analysis concluded that “there is no financing plan for the project and the [Applicant] does not have the capability to fund the project on its balance sheet.” PC Ex. 5 at 10-11. This conclusion was based upon financial difficulties resulting from the economic recession and the loss of available credit for projects of this type. PC Ex. 5 at 7-9. According to Mr. Sundstrom’s testimony, although the recent federal stimulus will probably create new sources of credit for wind energy projects, it is not clear when such credit might become available. PC Ex. 5 at 9. Further, the analysis opined that the Project has a high cost relative to the amount of power produced, and that its location presents a difficult construction and operation environment. Also, the analysis found that the Applicant does not have financial

characteristics, or contracts for the purchase of the Facility's power, that would attract outside investors.

After reviewing further data however, and upon completing a further analysis, Mr. Sundstrom concluded that the Applicant has demonstrated the ability to attract and develop financing for the Project and that the Applicant is taking the best approach to the challenging marketplace and presenting the best possible case to lenders and investors. *See*, Transcript, March 16, p. 195 -196.

C. Clean Power Development

Clean Power Development is a New Hampshire company in the business of developing renewable energy generation facilities and plans to build a 22 MW biomass electric generation facility in Berlin, Coos County, New Hampshire. CPD supported the issuance of a Certificate of Site and Facility to the Applicant and noted that granting the certificate would not affect its ability to generate and transmit power on the Coos County Loop or affect its position within the ISO-NE queue.

D. Kathlyn Keene, Robert Keene, Jon Odell

Ms. Keene, whose participation was consolidated with that of Robert Keene and Jon Odell, takes the position that the Facility would spoil the pristine nature of the area, resulting in a decrease in tourism, a major economic boon to Coös County. She opposes the Application and asserts that the Applicant failed to carry its statutory burden. She also believes that the Facility will have a negative impact on property values in the area, in that it will decrease the value of the current owners' properties and discourage new people from moving into the area. She also argues that persons interested in purchasing vacation homes in the area would be discouraged from doing so, which would further

depress property values. More broadly, she expresses concerns that the Facility will negatively impact the orderly development of the region, particularly as concerns the development of recreational opportunities.

E. Appalachian Mountain Club

Initially, the AMC was of the opinion that, although it generally supported the development of wind energy, the construction of some parts of the Facility would be injurious to wildlife habitats and that the proposed mitigation plan was, in many ways, deficient. Moreover, the AMC expressed concerns about the road and turbine pad construction plan, but acknowledged that it did not have the expertise to evaluate the sufficiency of those plans. Also, the AMC expressed a belief that the decommissioning plan was lacking in some respects.

AMC's concerns were largely addressed through the High Elevation Mitigation Settlement Agreement negotiated with NHF&G and the Applicant and discussed *infra*. The AMC, however, adheres to its positions that the decommissioning plan is inadequate and that the Applicant needs to improve its road construction plan to better protect wetland areas.

F. Industrial Wind Action Group

IWAG expressed a general belief that wind energy development could be a good thing but it contended that the Applicant failed to carry its burden on the statutory criteria in numerous respects. First, IWAG argues that the Applicant had not undertaken sufficient steps to safeguard bird and bat populations or surrounding wildlife habitats relative to both the construction and operation of the Facility. Specifically, IWAG contended that the studies of bird and bat populations and their habitats and migration

patterns were inadequate to legitimately evaluate the impact of the Project on the local species, including threatened species and those of special concern. Also, IWAG contended that the mitigation plan among the Applicant, NHF&G and the AMC was deficient in addressing high elevation impacts. IWAG also argued that the scale of the Project – its overall length, as well as the substantial expansion of the roads – was unduly injurious to the surrounding areas.

IWAG believes that because wind power is, by its nature, intermittent, it may not be a viable long-term solution to the area’s energy needs. In addition, IWAG contended that the Applicant had not provided sufficient studies of the wind patterns in the area to determine whether the Project would, in fact, produce the amount of power the Applicant expects. Further, IWAG believes that the Applicant’s analysis of alternative sites is inadequate to judge whether the selected site is the best site or whether the proposed design is the best design. IWAG also questions whether the Applicant and NEP have the financial, managerial and technical capabilities to carry out the Project.

G. New Hampshire Wind Energy Association

NHWEA contends that the Project is in the public interest in that it will contribute to the state’s energy diversity and reliability, and because it will aid in the reduction of greenhouse gases. NHWEA also sides with the company in its conclusion that it is financially capable of completing the Project. Finally, NHWEA believes that the Project will have lasting beneficial effects on the area.

H. New Hampshire Department of Fish and Game

NHF&G provided significant input and testimony regarding the environmental impacts of the Project. At the outset, NHF&G took the position that the Project would

have substantial detrimental effects on vegetation and wildlife in important high-elevation habitats. Also, NHF&G was of the opinion that the Applicant's proposed mitigation plan was inadequate. After much negotiation, NHF&G, AMC and the Applicant executed a High Elevation Mitigation Settlement Agreement. In light of the Settlement Agreement, NHF&G supported the issuance of the Certificate of Site and Facility, so long as the Settlement Agreement was adopted as a condition to the Certificate.

V. HIGH ELEVATION MITIGATION SETTLEMENT AGREEMENT.

Portions of the project site are located in high elevation areas (above 2,700 feet) on Dixville Peak, Mount Kelsey and Owlhead Mountain. The environment in these areas is a sensitive habitat characterized by older growth spruce fir forest. The high elevation spruce forest forms the habitat for several species of concern in New Hampshire including but not limited to Bicknell's Thrush. During the pendency of these proceedings, the Applicant, NHF&G and AMC entered into negotiations in an effort to reach a stipulation addressing the high elevation challenges. These parties reached an agreement that is referred to as the High Elevation Mitigation Settlement Agreement.

The High Elevation Mitigation Settlement Agreement requires the Applicant to secure the permanent conservation of approximately 1,735 acres of land above 2,700 feet in elevation through the transfer of fee title to the land to the NHF&G or its designee. Under the Settlement Agreement the Applicant will cause the landowners to transfer the mitigation lands to NHF&G in fee simple. The lands to be conserved under the Agreement are located on Mount Kelsey, Long Mountain, Muise Mountain and Baldhead Mountain. In addition, the Applicant is not to use, and is to prevent others from using,

Whitcomb Mountain for wind energy facilities. The plan also calls for the limitation on timber cutting required to construct the Project, and for roadbeds to be re-vegetated so that they will be returned to twelve (12) feet in width once construction is complete. The Applicant must prohibit the use of motorized vehicles in the mitigation lands. The Applicant also must take commercially reasonable efforts to restrict motorized public access on all gated turbine access roads above 2,700 foot elevation that are constructed for the wind park.

The High Elevation Mitigation Settlement Agreement was signed by the Applicant, NHF&G and AMC and entered into evidence as Petitioner's Exhibit No. 48. Counsel for the Public did not participate in the negotiations but did agree not to oppose the Settlement Agreement. IWAG and Kathlyn Keene oppose the Settlement Agreement. The remaining intervenors did not take a position with regard to the High Elevation Mitigation Settlement Agreement.

In addition, under the High Elevation Mitigation Settlement Agreement, the Applicant is to make a one-time payment of \$200,000 to NHF&G to be used in conducting studies on the impact of the development of the area on certain animal species, including the American Marten and Bicknell's Thrush. This is in addition to any studies of bird and bat species conducted by the Applicant once the Facility is operational. The Applicant will also make a one-time payment of \$750,000 to NHF&G to secure or assist with the permanent conservation of comparable habitat elsewhere. The money is to be held by the NHF&G and to be spent by it, in consultation with the AMC, to conserve habitats important to species of conservation concern. Lastly, if and when the land upon which the Facility sits is permanently abandoned by the landowner for

wind energy production, the land is to be conveyed to the owner(s) of the adjoining high-elevation land for perpetual conservation. The Applicant must complete all of the terms of the High Elevation Mitigation Settlement Agreement before it commences construction in areas above 2,700 feet.

VI. ANALYSIS AND FINDINGS

A. State Permits

The proposed Project involves construction and operation in areas implicating three important state permits: (1) Section 401 Water Quality Certification; (2) Standard Dredge and Fill Permit, also referred to as a Wetlands Permit; and (3) Alteration of Terrain Permit, also referred to as a Site Specific Permit.

1. Section 401 Water Quality Certification

Section 401 of the United States Clean Water Act (33 USC 1341) requires that 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 discharge into navigable waters must obtain a license or permit from the State in which the discharge originates. Similarly, RSA 485-A: 12, III requires that any activity requiring certification under Section 401 obtain certification from the New Hampshire Department of Environmental Services (DES) stating that the discharge complies with state surface water quality standards. The federal permit that requires a 401 Water Quality Certification from DES is the U. S. Army Corps of Engineers permit under Section 404 of the Clean Water Act to place fill in wetlands.

On July 15, 2008, the Applicant filed its Request for a 401 Water Quality Certification. Pet. Ex. 1.2, App. 4. The request stated that, although not proposed as part

of the Project, there might be small withdrawals from or discharges to area waters incidental to the construction. Pet. Ex. 1.2, App. 4 at 2. Also, the request identified potential discharges into various wetlands as a result of storm water runoff and concrete washouts from the construction sites, but stated that the Applicant would take various steps to minimize the impact of those discharges. Pet. Ex. 1.2, App. 4 at 2-3. The Applicant also indicated that, once construction was completed, there might be potential discharges from washed out gravel roads or from catastrophic failure of the turbines' lubricating oil containment systems. Pet. Ex. 1.2, App. 4 at 4-5. The details on spill containment, the Applicant stated, would be addressed in an Environmental Protection Administration Spill Prevention Control and Countermeasure (SPCC) Plan. Pet. Ex. 1.2, App. 4 at 4-5.

On April 27, 2009, DES issued its Section 401 water quality certification for this project. DES determined that the proposed project would affect a number of surface water bodies. DES further determined that the project would not violate surface water quality standards or cause additional degradation to surface waters not presently meeting standards, so long as the project was constructed and operated in accordance with a number of conditions set forth in the permit. The conditions required in the 401 Water Quality Certificate include but are not limited to:

1. The submission and implementation of a DES approved Construction Best Management and Practices (BMP) Inspection and Maintenance Plan. Among other things, the plan requires daily and weekly inspections, pre-storm and post-storm inspections, emergency inspections, winter shut down inspections, inspection and maintenance reports and turbidity monitoring.
2. The submission and implementation of a DES approved turbidity monitoring plan to confirm that measures to control erosion during construction are not causing or contributing to violations of state surface water quality standards.

3. The use of “rock sandwich” cross drainage, as detailed in the project plans and as required by a professional engineer hired by the applicant to determine where additional rock sandwiches may be necessary in order to minimize changes in sub surface hydrology.
4. The submission and implementation of a DES approved monitoring plan to confirm that operation of the facility is not causing or contributing to violations of state surface water quality standards.
5. The submission and implementation of a DES approved inspection and maintenance program to ensure the long term effectiveness of permanent storm water practices.
6. The submission and implementation of a DES approved Spill Prevention Control and Countermeasures Plan in accordance with federal regulations to prevent oil spills and oil from entering surface waters.
7. Limitations on the use of herbicides, fertilizers and de-icing agents within the project area. See, Pet. Ex. 39 pp. 13 -16.

It should also be noted that the 401 Certificate is contingent upon the Applicant’s compliance with the Wetlands Permit and Alteration of Terrain Permit, each of which was also approved by DES. Pet. Ex. 39 at 3.

2. Wetlands Permit

In July, 2008, as required by statute, the Applicant filed an Application for a Dredge and Fill Permit with the Wetlands Bureau of DES. This permit is commonly referred to as the Wetlands Permit and is issued under the authority of RSA 482-A:3 and in accordance with administrative regulations promulgated by DES. See, NH CODE OF ADMINISTRATIVE RULES, Env-Wt 300, *et. seq.* The copy of the permit application included in the Application estimated that the Project would impact 558,144 square feet, or about twelve and eight tenths (12.8) acres, of wetlands. Pet. Ex. 1.2, App. 2 at 11. In contrast, DES, in its findings, stated that the permit application proposed impacting 644,188 square feet, or about fourteen and eight tenths (14.8) acres, of wetlands. DES

Letter of February 10, 2009 at 13. The permit allows for impacts on 587, 722 square feet, or about thirteen and forty-nine one hundredths (13.49) acres, of wetlands. Pet. Ex. 40 at 10.

On February 10, 2009, the Wetlands Bureau issued its permit and final conditions. The Bureau found that the project impacted more than 20,000 square feet of wetlands and was, therefore, a “major project” under NH CODE OF ADMINISTRATIVE RULES Env-Wt 303.02.

The identified wetland impacts would be on perennial and seasonal streams in the area of construction, as well as on numerous vernal pools. Pet. Ex. 1.2, App. 2 at 4, 11. Initially, DES expressed concerns about the degree of wetlands impacts. *See*, DES Letter of November 12, 2008. In response, the Applicant modified its plans and expanded its proposed mitigation plan. The mitigation plan approved by DES, which is separate from the one negotiated by the Applicant with NHF&G and the AMC, included the execution of conservation easements on 620 acres of undeveloped land in Columbia and Erving’s Location. DES Letter of February 10, 2009 at 12-13. In addition, the Applicant was required to construct eight vernal pools totaling 3,600 square feet under the direction of a certified wetland scientist. DES Letter of February 10, 2009 at 12-13. By its terms, the permit would not be effective unless the conservation easements were properly executed. Pet. Ex. 40 at 12. In all, the permit contained about forty general and specific conditions. Pet. Ex. 40 at 10-13. The Wetlands Permit was also issued upon the condition that the Applicant enters into a high elevation mitigation plan with NHFG. Pet. Ex. 40, Condition 25.

3. Alteration of Terrain Permit

The Applicant also applied for a Site Specific Permit from the Alteration of Terrain Bureau of DES. RSA 485-A:17 regulates activity that includes construction in an area or manner that would significantly alter terrain characteristics in such a way as to impede natural runoff or create an unnatural runoff. The authority to regulate and permit such activities resides with DES. The permit application sought authority to disturb 8,857,017 square feet, or nearly 203 acres, of terrain. Pet. Ex. 1.2, App. 3 at 4. DES indicated that it had various concerns about the initial plans. *See*, DES Status Report of November 12, 2008. In the end, DES approved the permit application's proposed amount of disturbance, subject to various conditions, including that there be no degradation in water quality. *See*, Pet. Ex. 41 at 15-16. The Alteration of Terrain Permit also contained a number of conditions under which the construction and operation of the project must be conducted for the purpose of ensuring that there is no unreasonable adverse effect on water quality or the natural environment. *See*, Pet. Ex. 41

The Subcommittee finds that DES has appropriately reviewed and considered the various applications for permits submitted by the Applicant. The Subcommittee further finds that DES has fulfilled its statutory obligations, after a careful consideration of the application and plans submitted by the Applicant, and after consideration of public input through the 401 Water Quality Certificate process. The Subcommittee hereby adopts all three permits and will make each permit and the conditions contained therein conditions of the Certificate of Site and Facility to be issued in this docket.

B. Consideration of Alternatives

In the Application, and in testimony, the Applicant outlined the alternatives that it considered before choosing the project site set forth in the Application. The Applicant reports that it undertook a preliminary screening of multiple potential sites in New England and New York in 2006. The criteria for the screening focused initially on the availability of wind resources and proximity to existing transmission lines and roads. Proximity to transmission lines and existing roads can limit the adverse impacts associated with the development of a wind park.

The considerable wind resources and the developed system of logging roads in the project area drew the Applicant's attention to Coos County. Pet. Ex. 1.1, Application Vol. 1, p. 55. The Applicant then began to explore the alternatives within the Coos County area. At first, the Applicant considered the construction of 67 turbines with a capacity of 1.5 MW each. These turbines would have been located on the eastern and western ridges of the site. Pet. Ex. 1.1, Application Vol.1, p. 56. After further wind studies were conducted, the Applicant learned that the wind resource in Coos County could support a 3.0 MW turbine size. This led to the design of a project that had fewer turbines, each with greater capacity. As a result, the Applicant undertook further study before determining the placement and configuration of the turbines within the project site. The availability of logging roads, privately owned lands, and proximity to the Coos County Loop transmission line all played a role in the Applicant's choice of site and where it proposes to place the various turbines and other components of the Project. See, Pet. Ex. 1.1, Application Vol. 1, p. 56

In undertaking its site choice analysis the Applicant reports that it also considered a smaller project size. The Applicant asserts, however, that decreasing the size of the project would reduce the energy production and economic viability of the project but would only marginally reduce localized environmental impacts. The Applicant also advises that the Project is sized “to maximize the available wind resources while being sensitive to various environmental factors.” Pet. Ex. 1.1, Application Vol. 1, p. 59

RSA 162–H: 16, IV requires the Subcommittee to consider alternatives but does not provide detailed guidance as to how alternatives are to be considered. The Site Evaluation Committee normally considers the evidence of alternatives presented by an applicant. The Committee also considers any other evidence in the record pertaining to alternative sites. In this case, the Subcommittee considered the Applicant’s site selection process and also considered the possibility of approving a smaller sized project. The Subcommittee discussed in particular the possibility of prohibiting the construction of turbines on Mount Kelsey or Dixville Peak as part of a smaller project that would have less high elevation impact.

As part of its analysis of available alternatives, the Subcommittee carefully considered the impact of the High Elevation Mitigation Settlement Agreement. Pet. Ex. 48. The Subcommittee noted that, in the absence of the Settlement Agreement, it would have had considerable difficulty in approving the Project as proposed due to the potential effects on the high elevation ridge line. The perpetual preservation of surrounding high elevation lands as contained in the High Elevation Mitigation Settlement Agreement, however, reasonably mitigates and compensates for the potential effects of the proposed project in high elevation areas. Moreover, the Settlement Agreement arguably has the

effect of preserving the area against potential adverse effects that could have resulted from other uses if the Project were not constructed. Finally, the Subcommittee also observed that significantly reducing the number of turbines at the highest elevations would eliminate the most valuable portions of the wind resource and could make the project economically unviable.

The Subcommittee agrees that the project site with the accompanying High Elevation Mitigation Settlement is superior to the option of constructing more turbines with a lower capacity each on the eastern and western ridges of the property. Such an option would require more construction sites and would likely require more road construction, thus causing additional environmental impacts over a larger area of land.

The Subcommittee finds that the Applicant engaged in a reasonable alternatives analysis and made a reasonable determination in its selection of the Coos County site when the High Elevation Mitigation Settlement Agreement is taken into account. The Subcommittee also finds that the proposed site, its significant wind resources, its proximity to the transmission system and an already existing network of logging roads, coupled with the High Elevation Mitigation Settlement Agreement, render the proposed site the preferred location among the available alternatives for the construction of the proposed facility.

C. Statutory Criteria

R.S.A. 162-H: 16 requires the Subcommittee to consider certain criteria in the determination whether to grant or to deny a Certificate of Site and Facility. The statute requires the Subcommittee to consider the following: 1) whether the Applicant has adequate financial, managerial and technical capability to assure construction and

operation of the facility in accordance with the terms and conditions of the Certificate; 2) whether the project will unduly interfere with the orderly development of the region having considered the views of local, municipal and regional planning committees and governing bodies; 3) whether the project will have an unreasonable adverse effect on aesthetics, historic sites, air and water quality, the natural environment or public health and safety; and 4) whether the project is consistent with the state energy policy established in R.S.A. 378: 37. See, R.S.A.162-H: 16, IV.

1. Financial, Managerial and Technical Capability

The Applicant asserts that it has adequate financial, managerial and technical capability to construct and operate the proposed facility in accordance with the specifications in the Application and any conditions that the Subcommittee may order. The Applicant points to its expertise in constructing and operating wind parks in New York and Texas. In addition, the Applicant points to its ability to finance its New York, 2007 and New York, 2008 portfolios that, in total, encompass seven different wind park projects. The Applicant offered the testimony of Pip Decker, project manager, (See, Pet. Ex. 3, 4; Transcript Day 1, Redacted pp 41 – 84, 104 – 287; Transcript Day 2, pp. 10 – 142) Mark Lyons, Christopher Lowe, Jeffrey Wood and Daniel Mandli in support of its claim that it possesses adequate financial, managerial and technical capability.

Counsel for the Public asserts that significant conditions are required in order to assure adequate financial, managerial and technical capabilities to construct and operate the Project. He essentially claims that the Applicant does not have the present ability to finance the property projects from its own funds. Counsel for the Public concedes that the Applicant has, in the past, financed projects of this size or greater and has

demonstrated significant financial capability with respect to those projects. Nonetheless, he emphasizes that the Applicant currently does not have a complete financing package in place. Therefore, Counsel for the Public asserts that the issuance of a Certificate should be conditioned on a demonstration that the Applicant has received committed construction financing in an amount not less than \$300 million and that the Subcommittee should entertain a hearing concerning the financing package if requested by any party.

In addition, Counsel for the Public asserts that the Applicant is a "relatively inexperienced developer" and argues that the Applicant has never constructed a high elevation wind park. He also points out that various subcontractors have filed liens against the Applicant's New York projects. Counsel for the Public further finds the failure of two wind turbines at the Applicant's Altona, New York facility to be troubling with regard to the managerial and technical capabilities of the Applicant.

IWAG and Kathlyn Keene assert that a Certificate should be denied because the Applicant has failed to demonstrate adequate financial, managerial and technical capabilities. In support of its position, IWAG points to certain construction liens that are outstanding against some of the Applicant's projects in New York State. IWAG also points to the failure of two turbines at a wind park located in Altona, New York owned and operated by the Applicant's parent company for the purpose of asserting that the Applicant does not have sufficient managerial and technical capabilities to operate the proposed facility.

During the course of the proceedings, the Subcommittee received the testimony of Christopher Lowe and John Wood concerning the financial capabilities of the Applicant.

The Subcommittee also received testimony from Daniel Mandli concerning the technical and managerial capabilities of the Applicant. IWAG offered no witness testimony but did present various exhibits pertaining to the New York liens and the Altona wind turbine failures.

a. Project Financing

The Applicant intends to finance the construction of the Project through traditional project financing methods that may include debt financing, tax equity financing and owner equity. The Applicant intends to secure a construction loan and notes that the market in the industry generally requires that term financing be in place before financial entities will commit to a construction loan. The Applicant agrees that the Subcommittee should require that construction not commence until such time as committed construction financing is in place. The Applicant expressed confidence in its ability to obtain financing based upon the projected costs and projected performance of the Project. The Applicant also points out that it may be eligible for an Investment Tax Credit (ITC) under the American Rehabilitation and Recovery Act in an amount up to thirty percent of the construction costs. Finally, the Applicant reports that it is conducting negotiations for a long term power purchase agreement with a regulated utility, which would make the project more attractive to investors and banks.

The Subcommittee notes that the financing of large scale renewable energy facilities is a complicated endeavor. Such facilities are rarely financed from the existing balance sheet assets of the developer. The financing of such projects normally occurs through non-recourse project financing such as proposed by the Applicant in this docket. The Applicant, through its parent company, has recently demonstrated its capability to

undertake such an endeavor as evidenced by the successful financing of seven wind parks in New York State. In fact, Counsel for the Public's financial expert, James Sundstrom, acknowledges that the Applicant has demonstrated the capability to undertake a successful project financing for this project. Transcript Day 5, p. 196. Mr. Sundstrom also believes that the Applicant has taken the correct approach to formulating a plan for project financing that presents the best possible case to lenders and investors in the current markets. Mr. Sundstrom opined that he did not believe that the financing condition offered by the Applicant was necessary and that the Applicant could start construction under a form of remediation bond that would secure remediation in the event construction began and then was not completed. *See*, Transcript Day 5, 182, 187.

The Applicant has demonstrated, by a preponderance of the evidence, that it has the financial capability to finance, construct and operate the project. Nonetheless, all parties agree that the current market for financing such projects is challenging. Therefore, the Subcommittee determines that the Applicant must have committed construction financing for the project in place before construction may commence. The Applicant shall provide notice to the Subcommittee when construction financing is in place. Such notice shall contain the name and address of the lender or lenders. Under RSA 162-H: 2, III "commencement of construction" is defined as: "any clearing of the land, excavation or other substantial action that would adversely affect the natural environment of the site of the proposed facility, but does not include land surveying, optioning or acquiring land or rights in land, changes desirable for temporary use of the land for public recreational uses, or necessary borings to determine foundation conditions, or other preconstruction monitoring to establish background information

related to the suitability of the site or to the protection of environmental use and values.” Nothing herein should be construed to prohibit the owners of the project lands from continuing logging operations and activities in areas below 2700 feet in elevation.

b. The Altona Turbine Failures

During the adjudicatory hearings, the Subcommittee learned that two turbines had recently failed, one of which collapsed, at a wind park owned by Noble Environmental in Altona, New York. Counsel for the Public, IWAG and Kathlyn Keene all cited the failures as evidence that the Applicant lacks the required technical and managerial capability to construct and operate the proposed project.

The record reveals that the turbine failures in Altona occurred as the result of a wiring anomaly in the electronic pitch system, which is designed to feather the turbine blades to a neutral position, thereby slowing and braking the operation of the turbine. Pet. Ex. 52. It is important to recognize that the turbines proposed for the instant project are manufactured by a different manufacturer than those located at the Altona wind park. The Vestas V90 turbine does not employ the same wiring or type of pitch control system. The V90 incorporates a hydraulic pitch system that controls the rotor blade angles in relation to the wind using individual hydraulic pitch cylinders. The V90 also incorporates an emergency pitch accumulator for each blade that remains constantly loaded with high pressure hydraulic fluid. In the event of power loss, a full feathering solenoid valve “fails open” for each blade accumulator, forcing the blades to pitch out of the wind.

The cause of the Altona failures was a manufacturing problem. The instant project will incorporate different turbines that are wired differently and include an

entirely different type of pitching system. The Subcommittee finds that the Altona turbine failures do not provide a reasonable basis upon which to conclude that the Applicant lacks the appropriate technical and managerial experience to construct and operate the project.

c. New York Liens

During the course of the adjudicatory proceedings, it came to light through various press reports that a number of mechanics liens had been lodged by sub-contractors and contractors of the Applicant's parent company concerning the wind parks in New York State. IWAG, Kathlyn Keene and Counsel for the Public all suggest that the Applicant cannot demonstrate adequate managerial capability because of the existence of these liens. The Subcommittee re-called Christopher Lowe to address these claims.

Mr. Lowe testified that disputes with contractors, vendors and sub-contractors are not rare. The total amount of liens lodged in New York State amounted to less than .3% of the total project expenditures in New York. Mr. Lowe also testified that Noble has either bonded or was in the process of bonding all of the mechanics liens pending their resolution. Mr. Lowe pointed out that the largest group of liens arose from subcontractors of a company that had filed for bankruptcy protection and did not pay its subcontractors. Mr. Lowe concedes that the Company did not do a good job of credit screening with the particular contractor. He also noted that the individuals responsible for the credit screening are no longer employed by Noble.

The Subcommittee recognizes that construction disputes are often associated with large scale construction projects. It appears, however, that the Applicant's parent

company acted in an appropriate manner in bonding, resolving and otherwise dealing with such disputes. The Subcommittee finds that the existence of the New York liens does not controvert the Applicant's demonstrated managerial and technical capabilities.

d. Decommissioning

In determining whether the Applicant has adequate financial, managerial and technical capabilities to carry out the construction and operation of the Project, the Subcommittee must also consider the issue of decommissioning costs. As indicated above, the Applicant and Coos County have entered into an Agreement that contains extensive provisions governing the manner in which decommissioning will be carried out and, pertinently, how it will be funded. The Subcommittee finds that the financial requirements contained within the Agreement are well within the financial, managerial and technical capabilities of the Applicant and that the Agreement and the additional conditions contained within the Certificate adequately protect the public in the event that decommissioning of the project becomes necessary.

In light of the foregoing considerations, and after consideration of the Application and its attachments, the witness testimony and the exhibits, the Subcommittee finds that the Applicant has demonstrated adequate financial, technical and managerial capability to construct and operate the proposed facility.

2. Orderly Development of the Region

Under RSA 162-H:16, IV(b), the Subcommittee must find that the site and facility “[w]ill not unduly interfere with the orderly development of the region with due consideration having been given to the views of municipal and regional planning commissions and municipal governing bodies.”

The Applicant argues that it has met its burden on this criterion. According to the Applicant, the majority of the Facility will be constructed on tracts of land in unincorporated places and is thus subject to regulation by the County as opposed to a municipal governing body. The Applicant points out that letters have been submitted by members of the County Planning Board and the County Commissioners indicating support for the Project. See, Pet. Ex. 2.2, Appx. 49 & 50. Similar support has been demonstrated by the governing body of the Town of Dummer, the only incorporated municipality where Project components will be located. Pet. Ex. 2.2, Appx. 48.

The Applicant also asserts that the Project is consistent with the 2006 Master Plan for Unincorporated Places in Coös County. That document, which states a goal of protecting the natural resources of the area, also “[e]ncourage[s] the development of wind power projects and other alternative energy resources where these can be undertaken in an environmentally sound manner.” Pet. Ex. 2.2, Appx. 52 at 25.

In addition to the above, the Applicant contends that the Project will produce beneficial economic impacts for the region, such as its payment in lieu of taxes. Applicant’s Post-Hearing Brief (APHB) at 31. The Applicant also points to approximately \$122,000,000 in “direct, indirect and induced benefits” for the County and local communities over the next twenty years. APHB at 31. The Applicant suggests the possibility of an increase in so-called “green tourism” resulting from visits by those interested in seeing the turbines in operation. APHB at 32. There is no evidence, according to the Applicant, that the Project will have an adverse impact upon property values or recreational opportunities in the area. APHB at 32.

Counsel for the Public, in his final memorandum, states that impacts upon the orderly development of the region are outside his statutory jurisdiction, and that he takes no position on the application in this regard. Counsel for the Public's Post-Hearing Memorandum (CPPHM) at 4. He did, however, state that the certificate should not be granted absent a complete system impact study and unambiguous "green light" from ISO-NE. CPPHM at 4.

As for the intervenors, Ms. Keene contends that the Project will have a "major negative impact" upon the economy of the region and upon the region's ability to be marketed as a destination for those seeking "unspoiled land." Kathlyn Keene Post-Hearing Brief (KKPHB) at 20. She also contends that there is a lack of information documenting the impact the Project would have on tourism in the region. KKPHB at 21. Most specifically, she argues that the Project would discourage those seeking to purchase second homes from doing so. KKPHB at 19.

NHWEA, in its Post-Hearing Brief, contended that the Project would have substantial and lasting positive economic impacts on the region. NHWEA Brief at 2. It noted the Applicant's payment in lieu of taxes, the "high-paying local jobs," and the payments to leaseholders as positive contributions to the local economy. NHWEA Brief at 2. CPD stated that granting a Certificate to the Applicant would have no effect on the ability of CPD to connect its proposed biomass unit to the Coos County Loop or otherwise interfere with CPD's position in the ISO-NE queue. See, Transcript, March 19, 2009, p. 20-21.

Having considered the arguments of the parties and intervenors, and upon review of the relevant information, the Subcommittee finds that the Applicant has met its burden

of showing that the Project will not interfere with the orderly development of the region. The local governing bodies have demonstrated substantial support for the Project. In fact, the County Commissioners voiced support for the project as far back as September 2008, shortly after the Application was filed. *See*, Pet. Ex. 2.2, Appx. 50, Letter from Coös County Commissioners dated September 10, 2008. That letter indicated that the Commissioners have been in contact with NEP for nearly two years during the initial planning phases and that they fully supported the Project. Pet. Ex. 2.2, Appx. 50. The County Commissioners have continued to support the Project and, in fact, have entered an agreement with the Applicant for conditions relating to the Project. *See*, APHB, Attachment A. (Letter from Coös County Commissioners dated April 14, 2009.) The Selectmen of the Town of Dummer have also stated their support for the Project, subject to certain conditions. *See*, Pet. Ex. 2.2, Appx. 48, Letter of Town of Dummer, October 23, 2008, and Appx. 47, Agreement with Town of Dummer January 19, 2009. The Coös County Planning Board has also supported the Project. *See*, Pet. Ex. 2.2, Appx 49, Letter of Coös County Planning Board dated September 30, 2008. *See also*, APHB, Attachment A, Agreement with Coos County. Similarly, as pointed out by the Applicant, the Project complies with the 2006 Master Plan for Unincorporated Places in Coös County. Giving consideration to the views of the governing bodies relating to the area of the Project, the Subcommittee concludes that there is support for a finding that the Project will not interfere with the orderly development of the region.

As to the contention that the Project will injure property values and tourism in the area, the visual and auditory impacts on the area are attenuated given the distance of the turbines from area residences and businesses. Likewise, because of their location, there

is little, if any, public impact or danger. Therefore, it is unlikely that property values or tourism in the area will suffer appreciably. Furthermore, even Ms. Keene, who contended that the adverse economic impacts will be significant, acknowledges that this conclusion is not based upon studies of the potential impacts upon the region. *See*, KKPHB at 20. Conversely, the Applicant has provided studies of other wind facilities indicating that they have shown no negative impact on property values. Pet. Ex. 1.3, Appx. 30a and 30b. Additionally, there is nothing indicating that the construction or operation of the Facility will curtail recreational activities in the area. Hiking, fishing, ATV and snowmobile use, and other recreational activities will be essentially unchanged. Accordingly, we conclude that from the perspective of property values and tourism, the Project will not interfere with the orderly development of the region.

Relative to the orderly development of the region, the Subcommittee considers the effects of decommissioning the project. Like any energy facility, the turbines have a useful life. At this point, the actual useful life of the turbines cannot be predicted with precision. The agreement between the County and the Applicant, however, employs a useful life of 20 years. *See*, APHB, Attachment A. At the termination of the useful life of the turbines, it will be necessary to remove them from the project site. Dismantling and removal arguably may have impacts on the orderly development of the region, the natural environment and water quality issues. The parties have offered various alternatives for dealing with issues that arise as part of decommissioning the project.

The Applicant and Coos County have submitted a signed agreement, APHB Attachment A, which includes a decommissioning plan. After careful consideration, the Subcommittee finds that, with three additional conditions, the decommissioning plan

contained within the Coos County Agreement provides the best level of protection and the most efficient manner of controlling the eventual decommissioning of the facility.

The Coos County Agreement provides an appropriate description of the decommissioning work that will be required to be performed. The description of the work includes a detailed dismantling and removal sequence. The Coos County Agreement also requires the Applicant to provide to the County a detailed site specific estimate of the decommissioning costs prior to the commencement of construction and at least every five years thereafter. The County will reasonably exercise approval authority over the estimated decommissioning costs and they will become a part of the written agreement. The Coos County Agreement sets forth the specific items that must be accounted for in the elements of the decommissioning plan. The Agreement also provides that the decommissioning estimates shall be fully funded within the first ten years of the project life and also must provide financial assurances such as insurance or bonding of its financial ability to carry out decommissioning if necessary before year ten.

IWAG and Kathlyn Keene argue that the decommissioning fund should be fully funded before construction commences. This condition is unnecessary inasmuch as the Coos County Agreement requires the Applicant to provide financial assurances of its ability to decommission the facility, if necessary, before year ten of its useful life.

Similarly, Counsel for the Public, AMC and IWAG object to the Coos County Agreement in that it provides that the County shall have approval authority over the decommissioning estimate. They argue that this function should be administered by the Site Evaluation Committee. However, the Subcommittee finds that the County is in a better position to assess the validity of estimates of the cost of decommissioning because

County officials are more familiar with the geography, the resources and the local economy. Moreover, if a dispute should arise between the County and the Applicant, the Committee can exercise its enforcement authority. See, RSA 162-H:12.

Although the Subcommittee concludes that the Coos County agreement is appropriate, there are some additional concerns that we address by imposing three additional conditions.

The first concern is raised in the interest of ensuring that the Applicant or its successors are not required to decommission the project if there is active pursuit to establish new technologies at the project, or to increase the useful life of the project. The Subcommittee recognizes the significant value of the wind resources at the project site and would not require complete decommissioning in an instance where the Applicant, or its successors, could continue to make the highest use of that resource through the installation of new technologies, especially if such technologies are consistent with the goals of RSA 162H:1. The Agreement provides that the Facility must be decommissioned if, in the absence of mitigating circumstances, it does not generate electricity for a period of 365 consecutive days. However, the Subcommittee will circumscribe this portion of the Agreement so as not to require decommissioning if there is an application, petition, motion or other request pending before the Committee, or if an application for a certificate for a new facility or a sizeable change or addition is pending with the Committee.

Second, in the event of decommissioning, a complete and effective re-vegetation plan must be in place. In this regard, the Applicant, in consultation with NHF&G, will be required to develop a plan for re-vegetation above 2700 feet in elevation. The plan must

address re-establishment of endemic species including spruce and fir within the restored right of way, and include provisions for the planting of seedlings and application of organic matter to best support a successful restoration effort.

Finally, in addition to providing annual proof of its financial ability to carry out the decommissioning plan, the Applicant shall provide such proof to the County at any time upon request.

Having considered the views of local, municipal and regional planning committees and governing bodies the Subcommittee finds that, subject to the conditions addressed above and set forth in the Certificate, the Project will not unduly interfere with the orderly development of the region.

3. Adverse Effects

a. Aesthetics

RSA 162-H:16, IV(c) requires that the Subcommittee consider whether the Project will have an unreasonable adverse effect on aesthetics. The evidence submitted during the proceedings on this issue came primarily from the testimony and cross-examination of the Applicant's consultant, Jean Vissering. Ms. Vissering prepared a visual impact assessment documenting the Project's impact upon the viewsheds in the area. Pet. Ex. 15. This report included numerous photo simulations depicting what the Project would look like from various locations when completed. Pet. Ex. 1.2, Appx. 11. The report was later supplemented by the Applicant. Pet. Ex. 2.2, Appx. 55. Ms. Vissering concluded that the Project would not detract from the scenic resources in the area. Pet. Ex. 15 at 5. Ms. Vissering also noted that while the turbines will be lit to comply with requirements of the Federal Aviation Administration, the lighting would not

be visible from any area recreation sites and would not cause a glow in the night sky.

Pet. Ex. 15 at 6. She confirmed her conclusions during the hearing. Transcript, March 10, 2009 at p 142 – 200.

In addition, the Applicant presented the testimony of Matthew Borkowski, who concluded that any shadow flicker caused by the Project would not adversely affect the area due to the significant distances between the turbines and any local residences or businesses. Pet. Ex. 20 at 2; Transcript, March 9, 2009, p. 87.

Counsel for the Public contends that the Project will have significant adverse impacts on aesthetics, but that these impacts may be mitigated by requiring conditions on, for example, visual barriers and restrictions on lighting. CPPHM at 4. Counsel for the Public also asks that a visitor's center and information kiosks be established as mitigation for the unavoidable visual impacts. CPPHM at 4.

As noted by the Applicant's expert witness, the Project will not detract from the scenic resources in the area because it is remotely sited, views of the area are blocked by other peaks, it is viewable only in limited locations and from a great distance, and the area forests are actively logged, which somewhat diminishes the scenic quality of the surrounding landscape. Pet. Ex. 15 at 7. Obviously, the turbines are tall structures that will extend well beyond tree top level but, at the same time, the evidence does not support a finding that the turbines themselves are aesthetically displeasing.

Consequently, the Subcommittee is persuaded by a preponderance of the evidence that the Project will not have unreasonable adverse effects on the aesthetics of the area. As a result, there is no basis for requiring that the Applicant erect a visitor's center or tourist

kiosks. Of course, the Applicant may choose to do so as part of its community outreach efforts.

b. Historic Sites

RSA 162-H:16, IV(c) also requires that, in order to issue a certificate, the Subcommittee must find that the Project will not have an unreasonable adverse effect upon historic sites. We note that there is nothing proposed as part of the Project that would involve the direct alteration of any historic sites. Further, the New Hampshire Division of Historical Resources (DHR) has concluded that there will be no adverse effects on historic or archaeological properties within the viewshed of the Project. *See*, New Hampshire Division of Historical Resources letter dated April 6, 2009. On behalf of the Applicant, Dr. Hope Luhman completed a survey of the area and identified properties either listed or eligible to be listed on the National or New Hampshire registers of historic places. Pet. Ex. 1.2, Appx. 12a & 12b; Ex. 17 at 2; *see also* Pet. Ex. 2.2, Appx. 46. In addition, she investigated whether there were any significant archaeological sites in the area of the Project. Pet. Ex. 17 at 4-5. Dr. Luhman concluded that there would be no adverse effect on any historic or archaeological sites resulting from the construction or operation of the Facility. Appx. Ex. 17 at 4-5. No other party offered evidence of any adverse effect on historic sites.

There is no evidence indicating that the Project would have an adverse effect upon historic sites and the Applicant has shown through its witnesses that the Project will not have an unreasonable adverse effect on historic sites. However, the Subcommittee is cognizant that archeological resources are sometimes found during the excavation phases of development. If such resources are discovered during construction, the DHR shall be

notified immediately and shall determine the need for appropriate evaluative studies or other determinations and may establish mitigation conditions. Likewise, should the construction plans change, the Applicant will notify and consult with DHR before excavation. With this condition as part of the Certificate, the Subcommittee concludes that the project will not have an unreasonable adverse effect on historic sites.

c. Air and Water Quality

RSA 162-H: 16, IV(c) requires the Subcommittee to determine if the Project will have an unreasonable adverse effect on air and water quality. This Project will create no air emissions and thus will not have an adverse effect on air quality. In fact, it can reasonably be argued that at some point in time the electricity produced by the Project will displace the use of fuels at other plants which do, in fact, negatively affect air quality.

As for water quality, the Applicant asserts that through construction planning and mitigation efforts the Project will not have an unreasonable adverse effect on water quality. The Applicant points to the extensive planning done in applying for its state permits and to its mitigation efforts to demonstrate that there will not be an unreasonable adverse impact on water quality. Applicant's witness, Raymond Lobdell, a certified wetlands and soil scientist testified that "[w]etlands impacts will be minimized by siting turbines and infrastructures out of wetlands whenever possible, utilizing existing logging roads for access during construction and operation of turbines whenever possible, constructing any new access roads to avoid wetland impacts, and mitigating unavoidable wetland impacts in a manner that meets or exceeds all state or federal minimum standards." Pet. Ex. 11, p.7-18. Steven LaFrance, an engineering consultant for the

Applicant also testified that he had made numerous revisions over time to the original plans in order to accommodate water quality concerns expressed by the other parties and by DES in the permitting process. Tran. March 11, 2009, pp.287- 288. In addition, the Applicant notes that it incorporated the use of rock sandwiches as a construction technique at the behest of the AMC and Counsel for the Public's consultants. APHB, p. 41. In addition to its efforts to minimize wetland impacts, the Applicant also points to its mitigation plan to offset the effects on existing wetlands. The mitigation plan includes the permanent conservation of approximately 620 acres of upland buffer protection. *See*, Pet. Ex. 1.1 p. 77; APHB, p. 38. The Applicant also avers that the wetland mitigation lands are located in the headwaters of the Phillips Brook watershed and have been identified as an important sub-watershed area of the Upper Ammonoosuc River in the N.H. Fish and Game Wildlife Action Plan. *See*, Exhibit Pet.11, pp.6 - 7. The mitigation plan also includes the creation of eight vernal pools totaling 3,600 square feet and the restoration of several perennial and seasonal stream crossings. *See*, Pet. Ex. 12, p.4-15 and Pet. Ex. 2.2, Appendix 45, pp.16-17; *See also*, Pet. Ex. 40.

Counsel for the Public presented the testimony of George Mariani and Terry Sanford on the effect of the construction on water quality. Messrs. Sanford and Mariani made a number of recommendations that they assert would provide a better alternative pertaining to water quality and wetlands impact. In some instances they recommended conditions above and beyond those contained within the Wetlands Permit, such as the creation of new or restored wetlands on a one-for-one ratio. *See*, PC Ex. 1, p. 11-21. They also pointed to several areas where they would recommend slope re-calculation in order to lessen the effect of the construction. *See*, PC Ex. 4.

AMC initially had concerns regarding the effect that the construction of the Project would have on high elevation eco-systems. However, the AMC, along with the Applicant and NHF&G, negotiated a High Elevation Mitigation Settlement Agreement that addressed AMC's concerns in that regard. In addition, the Applicant revised its plans to include the rock sandwich construction techniques.

IWAG and Kathlyn Keene opposed the issuance of a Certificate and in doing so pointed to the challenging nature of construction at high elevations. IWAG submitted exhibits demonstrating the effects of the use of improper construction techniques at other projects in high elevations. See, Ex. IWA X 23-a, 23-b, 31 – 33.

Having considered the testimony of all of the witnesses, and taking into account the comprehensive process employed by DES in its consideration of the Wetlands Permit, the Alteration of Terrain Permit and the Water Quality Certification (*see*, Section VI, A above), the Subcommittee finds that the proposed project will not have an unreasonable adverse effect on water quality so long as the Applicant abides by the conditions contained within the DES permits, which will be designated as a requirement of the Certificate. Correspondingly, there is no compelling reason to apply additional restrictions to the construction techniques or plans to minimize wetlands impact. We recognize that construction efforts can impact wetlands but we conclude that the Applicant's efforts to minimize those impacts, combined with a mitigation plan that preserves 620 acres of upland buffer, demonstrates that the project will not have an unreasonable adverse effect on water quality, subject to the conditions contained in the 401 Water Quality Certification, the Wetlands Permit and the Alteration of Terrain Permit.

d. Natural Environment

The effect of the proposed project on the natural environment was the focus of substantial concern by the parties and the Subcommittee. Portions of the Project are proposed to be constructed in areas of high elevation forest (above 2,700 feet) on Dixville Peak, Mount Kelsey and Owlhead Mountain. These high elevation areas are home to contiguous parcels of older growth spruce fir forests and are considered to be a sensitive habitat for both plant and animal species. While the Applicant originally argued that the Project would not have an unreasonable adverse impact on these high elevation areas, almost all of the other parties expressed significant concerns. Eventually, the Applicant, AMC and NHF&G negotiated a High Elevation Mitigation Settlement Agreement that resolved the concerns raised by the AMC and NHF&G. See, Pet. Ex. 48. IWAG and Kathlyn Keene continued to oppose the granting of a certificate based in part on the impacts on the natural environment. Counsel for the Public did not participate in the negotiation of the High Elevation Settlement Agreement but does not oppose it.

Prior to the filing of the Application, the Applicant reports that its consultants conducted a number of studies concerning both resident and migrating birds in the area of the project. The Applicant presented three seasons of nighttime migration radar surveys that were conducted over a two-year period. See, Pet. Ex. 1.2 Appdx. 19, 20; Pet. Ex. 1.3, Appdx. 21, 22. These radar studies were conducted in the Fall of 2006, the Spring of 2007 and the Fall of 2007. The studies revealed consistent trends and migration metrics. The results demonstrated consistent mean heights of travel and consistent mean direction of travel. Based on these studies the Applicant's consultants opined that the risk of

nighttime collisions of migrating birds with the proposed wind turbines was minimal. Pet. Ex. 1.1 p. 84.

The Applicant also conducted Breeding Bird Surveys in the Spring of 2007 and the Spring of 2008. See, Pet. Ex. 1.3, Appdx. 23, 24. These surveys confirmed the presence of Bicknell's Thrush and the Rusty Blackbird, both species of special concern in New Hampshire. Pet. Ex. 1.1 p. 84. There was also unconfirmed evidence of the Three-Toed Woodpecker, a threatened species in New Hampshire. *Id.* The Applicant's consultants noted that permanent habitat loss and fragmentation will occur as a result of the project but they assert that habitat loss and fragmentation has been minimized and mitigated through careful site design strategies. *Id.*

The Applicant also commissioned a Fall 2007 raptor study. The raptor study documented low passage rates and identified the Red Tailed Hawk and Turkey Vulture as the most common species. The Applicant also advises that Cooper's Hawk and Osprey, each of which is a state designated threatened species were observed at the site as well as the Red Shouldered Hawk, a species of special concern in New Hampshire. The Applicant also asserts that numerous recent post-construction studies at other projects reveal an extremely low raptor mortality measurement. The Applicant attributes this low mortality rate to various features associated with the design and placement of modern wind turbines. Pet. Ex 1.1 p. 85.

The Application also addressed potential effects of the Project on bats. GRP reports that, prior to filing its Application, it conducted three full seasons of acoustic bat detector surveys for the purpose of documenting bat activity within the proposed site.

See, Pet. Ex. 1.3, Appdx. 19, 20, 21. Bat activity was determined to be low. Pet. Ex. 1.1, p. 86

In conjunction with NHF&G, the Applicant identified other wildlife that might be impacted by the project. It was determined that fish and amphibians were unlikely to be affected but that there was a possibility of impacts on two mammal species, Pine Marten and Canada Lynx. Pine Marten is listed as an endangered species in New Hampshire, while Canada Lynx is listed as an endangered species federally and in New Hampshire. Because of the possible presence of these species within the project area the Applicant undertook a Winter Track Survey in 2007. Pet. Ex. 1.3, Appdx. 25. The survey was designed in conjunction with NHF&G and the United States Fish and Wildlife Service. The survey revealed the presence of Pine Marten but did not reveal any Canada Lynx. The Applicant submits that careful site design, utilizing existing roads as much as possible, avoiding sensitive habitat, and minimizing disturbance to the extent practicable will reduce any impacts on the Pine Marten population. See, Pet. Ex. 1.1 p. 87.

The area of the proposed project ranges in elevation from 1,000 to 3,400 feet and the Applicant reports that varying plant communities can be expected due to differences in soils. The Project is expected to have both temporary and permanent impacts on plant and natural communities. However, the project area is an industrial foresting area and the large scale forest harvesting practices have already had an impact on the area. Pet. Ex. 1.1, p. 78. Each of the ridges involved in the project area have some areas with elevation in excess of 2,700 feet. These areas are considered to be sensitive high elevation areas that are predominantly vegetated by balsam fir and red spruce. The high elevation areas

have experienced little disturbance from logging activities but the side slopes and valleys have been heavily harvested over the years.

The Applicant conducted a number of studies of the existing plant and natural communities. The studies consisted of a 2007 Reconnaissance-Level Rare Plant Survey, Pet. Ex. 1.2 Appdx. 15; a Spring 2008 Natural Community Characterization, Pet. Ex. 1.2 Appdx. 16; and a Spring 2008 Rare Plant Survey, Pet. Ex. 1.2 Appdx. 17. In addition, the Applicant reports that it consulted with the New Hampshire Natural Heritage Bureau (NHB). NHB conducted an environmental review for potential rare plant or sensitive plant species and identified a number of potential species that might exist in the project area. The Applicant reports that it investigated all areas identified by NHB but found no rare or sensitive plant species to be on the project site. Pet. Ex. 1.1, p. 80. The Applicant also reports that there are 3,747 acres of high elevation terrain in the project area and that only 58 acres (less than 2%) would be permanently impacted by the project. Pet. Ex 1.1, p. 80.

In addition to the environmental studies set forth in the Application, the Applicant presented the testimony of Adam Gravel and Steven Pelletier, wildlife biologists employed by Stantec Consulting. They presented the above referenced studies and opine that the project would not have an unreasonable adverse effect on the natural environment. After the negotiation and execution of the High Elevation Mitigation Settlement Agreement, Messrs. Gravel and Pelletier re-confirmed their opinions.

NHF&G initially presented the testimony of Will Staats and Jillian Kelley, both of whom are wildlife biologists. Mr. Staats and Ms. Kelley testified about the unique nature of the high elevation areas within the project site. They are characterized as being

among the last remaining areas of contiguous high elevation spruce fir forest in New Hampshire. F&G Ex. 1, p. 6. They also testified that the current owners of the project site have an existing permit to conduct timber harvesting up to 3,000 feet in the project area. F&G EX. 1, p. 11. Staats and Kelley expressed concerns that the project would have an unreasonable adverse impact on various high elevation species including Bicknell's Thrush, Three-Toed Woodpecker, American Marten and Canada Lynx. They also testified that the mitigation package initially offered by the Applicant was insufficient. NHF&G therefore initially opposed the issuance of a Certificate that would affect the high elevation areas of the project site.

Subsequent to the submission of Mr. Staats' and Ms. Kelly's pre-filed direct testimony, NHF&G, along with the AMC, entered into a High Elevation Mitigation Settlement Agreement with the Applicant. Both Mr. Staats and Ms. Kelley testified that the Settlement Agreement adequately mitigated any impacts that the project would impose on high elevation parcels. NHF&G thereafter took the position that the High Elevation Mitigation Settlement Agreement should be a condition of the Certificate.

In support of its position, NHF&G offered a Settlement Agreement Habitat Assessment. NHFG Ex. 6. The Habitat Assessment compared the high elevation area within the Project site to the lands offered as part of the Settlement Agreement and concluded that the Settlement Agreement "balance(d) the scale between development impacts and off-setting conservation actions." Steven Weber, Chief of Wildlife for NHF&G, also testified about the adequacy of the High Elevation Settlement Agreement. Mr. Weber testified that the conservation values obtained through the High Elevation Mitigation Settlement Agreement compensated for the expected impacts of the Project at

the site. Tran. 5/27/09, p. 35. Mr. Weber's opinion is additionally informed by his personal knowledge of both the mitigation land and the project site. Tran. 5/27/09, p. 39.

Like NHF&G, AMC initially raised concerns regarding the impact of the proposed project on the natural environment of the high elevation forests, particularly on Mt. Kelsey. Through the testimony of Dr. David Publicover, the AMC initially opposed construction of the project in these areas. See, Ex. AMC 1. However, the AMC participated in the High Elevation Mitigation Settlement Agreement. In an update to his Pre-filed Testimony Dr. Publicover testified:

It is my professional opinion that the provisions of the Agreement provide sufficient mitigation to compensate for Project impacts to high-elevation ecosystems, habitats and species, and resolves any and all concerns regarding the issue of high-elevation mitigation. It is also my professional opinion that with the inclusion of the enhanced mitigation set forth in the Agreement the proposed development does not constitute an unreasonable adverse effect on the natural environment as understood by RSA 162-H.

Update to Pre-filed Testimony, Ex. AMC. 15. AMC urged the Subcommittee to ensure that the High Elevation Mitigation Settlement Agreement be a condition to the terms of a Certificate.

IWAG originally opposed the construction of the Project in the high elevation areas and continues to oppose the project despite the High Elevation Mitigation Settlement Agreement. IWAG notes that the Settlement Agreement does not reduce the amount of lands impacted by the project. IWAG also points to the testimony of Trevor Lloyd Evans, who was presented by Counsel for the Public. Dr. Lloyd Evans raised specific concerns regarding the Bicknell's Thrush population and opined that the project would invite predators of Bicknell's and other existing species. He also pointed out that 45% of the potential Bicknell's habitat in the world is located in New Hampshire. Dr.

Lloyd Evans expressed concerns that although Bicknell's Thrush generally resided under the canopy of the forest "the male's flight display during breeding involves flying at elevations up to 70 meters above the ground and large circles that are greater than 100 meters." Under these circumstances it is possible that Bicknell's display flight might come within the rotor span of the turbines. Tran, 3/19/09 p. 52. See, IWAGPHB p. 17 – 19. Kathlyn Keene raised many of the same concerns as raised by IWAG.

Counsel for the Public eventually took the position that with certain conditions the Project would not unreasonably impact the natural environment. The conditions recommended by Counsel for the Public are contained in an addendum to his Post Hearing Brief. The most notable of those conditions was that clear cutting should not occur between April 1 and August 1 so as to cause as little impact as possible to bird breeding. Counsel for the Public also recommended additional bird and bat surveys.

The Subcommittee heard extensively from the parties about the effects on the environment and whether the High Elevation Mitigation Settlement Agreement adequately mitigates the impacts of the proposed project. Having considered the evidence and the arguments, the Subcommittee finds that the Project will not have an unreasonable adverse effect on the natural environment so long as the High Elevation Mitigation Settlement Agreement is adhered to along with certain other conditions. The Subcommittee recognizes the sensitive nature of the high elevation areas involved in the project site and it recognizes that there will be a decrease in the conservation value of these areas once construction and operation of this project begins, which may disrupt to some degree the various species of avian, mammal and plant life. However, the High Elevation Mitigation Settlement Agreement reasonably compensates for those impacts.

Therefore, the Settlement Agreement will be made a condition of the Certificate of Site and Facility. In addition, some additional conditions, described below, are necessary in order to ensure that any impacts on the natural environment are not unreasonably adverse.

During the proceedings, the Subcommittee became aware that the Applicant, in consultation with NHF&G, was conducting or preparing to conduct some additional pre-construction bird and raptor studies. As a condition of the Certificate, the Applicant will be required to continue with these studies subject to review and approval by NHF&G. If there is a disagreement between the Applicant and NHF&G regarding such studies, either may petition the Committee to resolve the dispute.

The Subcommittee recognizes, as testified to by Dr. Lloyd Evans, that pre-construction studies serve as baseline studies and have no predictive value as to the actual effect on the various wildlife species. Thus, it is important that the Applicant conduct similar post-construction studies in order to obtain a measure of the actual effect of the project on the wildlife in the area. Therefore, the Applicant shall implement a post-construction bird and bat mortality study designed by its consultants and reviewed and approved by NHF&G. The study should be conducted for three consecutive years and a full report and analysis should be produced after each complete year. In addition, the Applicant will be required to conduct post-construction breeding bird surveys that replicate the pre-construction surveys for the project site. NHF&G shall review and approve the protocols for said studies. The post construction studies must occur one year, three years, and five years after construction has been completed. If the Applicant and NHF&G cannot achieve consensus on such studies then either party may petition the Committee for a determination.

The Subcommittee recognizes that re-vegetation will be an important part of the construction process for this project and that areas above 2,700 feet will present the greatest challenge to re-vegetation. Therefore, once construction above 2,700 feet is complete, the project shall be re-vegetated in accordance with a plan to be developed by the Applicant in conjunction with NHF&G. The plan must address re-establishment of endemic species including spruce fir within the restored right of way. The plan must include provisions for planting of seedlings and the application of organic matter to best support successful restoration.

In order to lessen the impact of the proposed project on breeding birds, as a condition of the Certificate the Applicant shall not conduct any significant vegetation cutting activities above 2,700 feet elevation on Mount Kelsey or Dixville Peak between April 1 and August 1. This should not pose a problem for the Applicant as the Application represented that clearing activities would occur while frost is on the ground in order to minimize scarification and soil disturbance. Pet. Ex. 1.1, p. 81. Finally, if, after notice and an opportunity to be heard, the Committee determines that the Project is having an unreasonable adverse impact on any species it may take appropriate action within its jurisdiction.

With the High Elevation Mitigation Settlement Agreement and the other conditions contained herein, the Subcommittee finds that the proposed project, if constructed and operated in accordance with the Application and the conditions of the Certificate, will not have an unreasonable adverse effect on the natural environment.

e. Public Health and Safety

The Subcommittee finds that the siting, construction and operation of the Project will not have an unreasonable adverse effect on public health or safety as long as certain conditions are applied to the Certificate. The relatively remote location of the site is a substantial factor in determining whether there will be an unreasonable adverse effect on public health or safety. The site is located in relative wilderness and concerns associated with wind turbine development, such as ice throw and noise, are substantially diminished. The location of the proposed facility is an area traditionally subject to commercial forestry endeavors. Although the site and the area around it is also used for recreational purposes by hikers and snowmobilers, the site is not located in an area that draws a substantial tourist population in comparison to other regions of the state.

The remoteness of the site standing alone, however, cannot support a finding that there will be no unreasonable adverse effect on the public health and safety, unless the Applicant complies with certain health and safety conditions. The following conditions will be made part of the Certificate.

First, a safety plan is necessary for the safe operation of the proposed facility. Therefore, prior to the commencement of construction, the Applicant, in cooperation with Coos County, shall prepare and implement a detailed safety and access plan providing, among other things, gate access protocols and methods to discourage persons from coming within 1,300 feet from any turbine location.

Second, the Coos Trail does draw hikers and is maintained through volunteer efforts. The Applicant, in cooperation with NHF&G, shall use its best efforts to maintain

the integrity of the Coos Trail while also assuring the safety of the public using the trail. It is recognized that this will require the re-location of a portion of the Coos Trail.

Third, in order to avoid an attractive nuisance all turbines shall be constructed in such a manner that they are not climbable from the ground to twenty feet above ground level.

Fourth, to the extent that blasting may be necessary in the construction or decommissioning of the Project, the Applicant shall comply with all rules and regulations for blasting and the transportation of explosive materials and use of state and local thoroughfares as promulgated by statute or the regulations of the Department of Safety and the Department of Transportation. The Department of Safety and the Department of Transportation are each delegated the authority to specify the use of any appropriate technique, methodology, practice or procedure associated with blasting, transportation of explosives or other heavy loads which shall occur during the construction or decommissioning of the Project.

4. Consistency with the State's Energy Policy

Under RSA 162-H:16, IV(d), the Subcommittee must find that the operation of the Project is consistent with the state energy policy as established in RSA 378:37. RSA 378:37 provides that it is the policy of the state to meet the energy needs of the citizens and businesses “at the lowest reasonable cost while providing for the reliability and diversity of energy sources; the protection of the safety and health of the citizens, the physical environment of the state, and the future supplies of nonrenewable resources; and consideration of the financial stability of the state’s utilities.”

The Applicant is not a utility and the Project is not utility property. Thus, consideration of the financial stability of the state's utilities is essentially irrelevant here. As to the other elements of the state energy policy, the Applicant contends that adding the Project to the state's "resource mix," APHB at 59, will contribute toward the diversity of energy sources sought by the policy. Also, the Applicant contends that because the Facility will produce no emissions, it will protect public health and the physical environment. APHB at 59. Finally, the Applicant contends that the Project, because it uses a renewable resource, will protect non-renewable resources, and because it is a "price taker" in the power markets, will not increase the costs of electricity. APHB at 60.

Counsel for the Public points out that the state's energy policy with respect to wind facilities is not developed, but, to the extent the policy supports diversification of energy sources, the Project is consistent with the policy. CPPHM at 6.

While not specifically a part of the state's energy policy set out in RSA 378:37, another source of information considered by the Subcommittee is the Electric Renewable Portfolio Standard recently adopted in RSA Chapter 362-F. The purpose of this statute is to stimulate investment in low emission renewable energy generation technologies. RSA 362-F: 1. Under RSA 362-F:4, I(a), wind energy is identified as a Class I source of electrical power, and the statute sets goals for increasing the use of Class I sources over time. RSA 362-F:3. The goal of increasing the use of such sources is also supported by the Governor's Executive Order 2007-03, which established a task force to design a plan to combat climate change by, in part, reducing greenhouse gas emissions.

The state's energy policy supports the diversification of electrical generating facilities. This diversification is to be accomplished while still providing protection of

the safety and health of the citizens, the physical environment of the state, and the future supplies of non-renewable resources. The construction of a wind powered electrical generating source meets the goals set out in the policy. Moreover, the increased use of wind based power would aid in the Legislature's expressed desire to increase reliance upon renewable generation as set out in the Renewable Portfolio Standard statute. For these reasons, the Subcommittee finds that the Project is consistent with the state energy policy.

VII. CONCLUSION

Throughout the pendency of this Application the Subcommittee has endeavored to be as transparent and inclusive as possible. We held an additional public meeting in Coos County and accepted comments from the public both orally and in writing. We have reconvened these proceedings each time a new issue has arisen, such as the matter of the New York construction liens raised by IWAG and the assessment of the High Elevation Mitigation Settlement Agreement. The parties have had a full and fair opportunity to raise all issues and present their arguments. As a consequence, we are confident that we heard and understand the positions of all the parties, the potential impacts of the proposed project and the effects that it will have on Coos County and the state as a whole.

We have considered the Application, the exhibits, the testimony and the briefs and oral arguments. We have considered available alternatives. We have fully reviewed the environmental impacts of the proposed facility. We have also considered all other relevant factors bearing on the objectives of R.S.A. 162-H. Having done so we find, subject to the conditions discussed herein and made a part of the Order and Certificate:

1. The Applicant has adequate technical, managerial and financial capability to assure construction and operation of the facility in continuing compliance with the terms and conditions of the Certificate.

2. The construction and operation of the facility will not unduly interfere with the orderly development of the region with due consideration having been given to the views of municipal and regional planning committees and governing bodies.

3. The construction and operation of the facility will not have an unreasonable adverse effect on aesthetics, historic sites, air quality, water quality, the natural environment or public health or safety.

4. Operation of the facility is consistent with the state energy policy established in R.S.A. 378:37.

STATE OF NEW HAMPSHIRE
SITE EVALUATION COMMITTEE

Docket No. 2008-04

Re: Application of Granite Reliable Power, LLC for a Certificate of Site and Facility for the Siting, Construction and Operation of the Granite Reliable Wind Park, A Renewable Energy Facility, Consisting of Thirty Three (33) Wind Turbines and Associated Facilities in Coos, County, New Hampshire

ORDER AND
CERTIFICATE OF SITE AND FACILITY

WHEREAS, Granite Reliable Power, LLC, (Applicant) has filed an Application for a Certificate of Site and Facility (Application) to site, construct, and operate a Renewable Energy Facility more particularly described as a wind powered electric generation facility designed for operation at 99 Megawatts (MW) to be located on private property located in the Town of Dummer and the unincorporated places known as Dixville, Ervings Location, Millsfield and Odell. Said private property primarily consists of two tracts of land known as the Phillips Brook Tract and the Bayroot Parcel.

Whereas, the Application seeks authority for the construction and operation of thirty three (33) Vestas V90 wind turbines each having a nameplate capacity of three (3) MW for a total nameplate capacity of ninety-nine (99) MW. The proposed wind turbines will consist of a tubular steel tower approximately 262 feet tall, rotor blades (3) with an approximate diameter of 295 feet; and a nacelle that measures thirteen feet in height, twelve feet in width and thirty two feet in length. The wind turbines will be installed in groups or “strings” located along Dixville Peak in Dixville, Mt. Kelsey and Owlhead Mountain in Millsfield and along an unnamed ridgeline sometimes locally referred to as Fishbrook located south and east of Owlhead Mountain in Millsfield. The Application also proposes to construct twelve miles of new roads connecting turbines within the strings and connecting the strings to existing access roads. Nineteen miles of existing access roads located in Dixville, Erving’s Location, Odell, Millsfield and the Town of Dummer will be upgraded as part of the proposed associated facilities. The Application proposes the construction of a new 34.5 kV electric transmission line for the collection of electricity from the turbines and delivery to a proposed substation on Dummer Pond Road in the Town of Dummer. The Application also proposes the construction of a new 115 kV electric transmission line which will run for 5.8 miles along Dummer Pond Road and interconnect with an existing 115 kV line owned and operated by Public Service Company of New Hampshire in the Town of Dummer. A new interconnection switching station will be constructed at the point of interconnection. In addition the Application proposes the construction of a maintenance building and a lay down yard adjacent to the sub-station to be constructed in the Town of Dummer. (The proposed site and construction shall hereinafter collectively be referred to as the Project.)

Whereas, the Subcommittee has held a number of public meetings and hearings regarding the Application including a Public Information Hearing pursuant to R.S.A. 162-H: 10, on October 2, 2008; adjudicatory proceedings on March 9, 10, 11, 13, 16, 17, 19 and on April 2, and May 27, 2009, to hear evidence regarding the Application; and, in addition held a Public Hearing on March 23, 2009, to hear additional public comment on the Application; and,

Whereas, the Subcommittee has received and considered both oral and written comments from the public concerning the Application; and,

Whereas, the Subcommittee has considered available alternatives and fully reviewed the impact of the site and all other relevant factors bearing on whether the objectives of R.S.A. 162-H would be best served by the issuance of a Certificate of Site and Facility (Certificate); and,

Whereas, the Subcommittee finds that the Applicant has adequate financial, technical, and managerial capability to assure construction and operation of the Project in continuing compliance with the terms and conditions of this Certificate; and,

Whereas, the Subcommittee finds that, subject to the conditions herein, the Project will not unduly interfere with the orderly development of the region with due consideration having been given to the views of municipal and regional planning commissions and municipal governing bodies; and,

Whereas, the Subcommittee finds that, subject to the conditions herein, the Project will not have an unreasonable adverse effect on aesthetics, historic sites, air and water quality, the natural environment, and public health and safety; and,

Whereas, the Subcommittee finds that the siting, construction and operation of the Project is consistent with the state energy policy established in R.S.A. 378:37.

NOW THEREFORE, it is hereby ORDERED that the Application of Granite Reliable Power, LLC, is approved subject to the conditions set forth herein and this Order shall be deemed to be a Certificate of Site and Facility pursuant to R.S.A. 162-H: 4; and it is,

Further Ordered that, the Site Evaluation Subcommittee's Decision dated July 15, 2009, and any conditions contained therein are hereby made a part of this Order; and it is,

Further Ordered that, the Applicant may site, construct and operate the Project as outlined in the Application, as amended, and subject to the terms and conditions of the Decision and this Order and Certificate; and it is,

Further Ordered that, this Certificate is not transferable to any other person or entity without the prior written approval of the Subcommittee; and it is,

Further Ordered that, this Certificate is conditioned on the present ownership structure of the Applicant, *to wit* the Applicant is owned by Noble Environmental Power, LLC (75%) and Freshet Wind Energy, LLC (25%), and neither the Applicant, nor the Applicant's assets shall be

transferred by sale or other method to any other person or entity without the prior written approval of the Subcommittee. In the event of an unapproved sale, this Certificate shall be null and void; and it is,

Further Ordered that, the Applicant shall provide immediate notice to the Subcommittee in the event that the Applicant or any of its parent companies shall file a bankruptcy or insolvency petition in any jurisdiction, foreign or domestic; or be forced into involuntary bankruptcy or any other proceeding pertaining to debt restructuring or the liquidation of assets; and,

Further Ordered that, all permits and/or certificates recommended by the New Hampshire Department of Environmental Services including the Wetlands Permit, the Alteration of Terrain Permit and the Section 401 Water Quality Certificate shall issue and this Certificate is conditioned upon compliance with all conditions of said permits and/or certificates which are appended hereto as Appendix I; and it is,

Further Ordered that, the New Hampshire Department of Environmental Services is authorized to specify the use of any appropriate technique, methodology, practice or procedure associated with the conditions of the Wetlands Permit, the Alteration of Terrain Permit and the Water Quality Certificate including the authority to approve minor modifications to said permits and certificates; and it is,

Further Ordered that, the Agreement between Coos County and the Applicant, attached as Appendix II (Coos County Agreement), shall be a part of this Order and the Conditions contained therein shall be conditions of this Certificate. To the extent that any disputes arise under the Coos County Agreement the parties shall file a motion for declaratory ruling, a motion for enforcement or such other motion as may be procedurally appropriate with the Subcommittee and the Subcommittee shall make such final interpretations or determinations that may be necessary; and it is,

Further Ordered that, the additional decommissioning conditions contained herein at Appendix III, shall be conditions of this Certificate; and, it is,

Further Ordered that, the Agreement between the Applicant and the Town of Dummer, attached as Appendix IV (Dummer Agreement), shall be a part of this Order and the conditions contained therein shall be conditions of this Certificate. To the extent that any disputes arise under the Dummer Agreement the parties shall file a motion for declaratory ruling, a motion for enforcement or such other motion as may be procedurally appropriate with the Subcommittee and the Subcommittee shall make such final interpretations or determinations that may be necessary; and it is,

Further Ordered that, the High Elevation Mitigation Settlement Agreement between the Applicant, the Appalachian Mountain Club and the New Hampshire Fish and Game Department (NHF&G), attached as Appendix V, and the conditions contained therein shall be conditions of this Certificate. To the extent that any disputes arise under the High Elevation Mitigation Agreement the parties shall file a motion for declaratory ruling, a motion for enforcement or such

other motion as may be procedurally appropriate with the Subcommittee and the Subcommittee shall make such final interpretations or determinations that may be necessary; and it is,

Further Ordered that, the Applicant shall not commence construction, as “commencement of construction” is defined in RSA 162-H: 2, III, until such time as construction financing is completely in place. The Applicant shall notify the Subcommittee when construction financing is in place and shall generally advise the Subcommittee of the name and address of the lender or lenders providing such financing. Nothing in this condition or in this Order shall prohibit the owners of the land on which the Project is to be constructed from continuing with logging activities in areas below 2700 feet in elevation; and it is,

Further Ordered that, the Applicant shall obtain all appropriate certificates, determinations, and/or licenses from the United States Federal Aviation Authority (FAA) as required under federal law pertaining to hazards to aviation and shall comply with all conditions contained in such certificates or licenses; and, it is

Further Ordered that, if during construction or thereafter, any archeological resources are discovered or affected as a result of project planning or implementation, the New Hampshire Division of Historical Resources (NHDHR) shall be notified immediately and the (NHDHR) shall determine the need for appropriate evaluative studies, determinations of National Register eligibility, and mitigative measures (redesign, resource protection, or data recovery) as required by state or federal law and regulations. If construction plans change, notification to and consultation with the (NHDHR) shall be required. NHDHR is authorized to specify the use of any appropriate technique, methodology, practice or procedure associated with historical resources associated with the Project including the authority to approve minor modifications to such practices and procedures as may become necessary; and it is,

Further Ordered that, upon completion of construction all areas above 2,700 feet in elevation will be revegetated in accordance with a plan to be developed by the Applicant in consultation with NHF&G. This plan will address reestablishment of endemic species, including spruce and fir, within the restored right-of-way. The plan will include provisions for planting of seedlings and application of organic matter to best support a successful restoration effort; and, it is,

Further Ordered that, the Applicant shall implement a post-construction bird and bat mortality study designed by its consultants and reviewed and approved by NHF&G. The study should be conducted for three consecutive years, and a full report with analysis should be produced after each complete year; and it is,

Further Ordered that, the Applicant shall conduct additional pre-construction breeding bird surveys and raptor surveys and such other surveys as can be accomplished prior to the commencement of construction. The protocol and standards for said studies shall be subject to review and approval by NHF&G. A full report with analysis shall be submitted after each season of study. If the Applicant and NHF&G cannot achieve consensus on any issue pertaining to such pre-construction surveys, they may petition the Subcommittee for a final determination; and, it is,

Further Ordered that, the Applicant shall conduct post-construction breeding bird surveys that replicate the pre-construction surveys for the project site. The protocol for said studies shall be subject to review and approval by NHF&G. The post-construction studies shall occur 1, 3, and 5 years after construction has been completed. A full report with analysis shall be submitted after each year of study. If the Applicant and NHF&G cannot achieve consensus on any issue pertaining to such post-construction surveys, they may petition the Subcommittee for a final determination; and, it is,

Further Ordered that, if after notice and an opportunity to be heard, the Site Evaluation Subcommittee determines that the Project is having an unreasonable adverse impact on any species, it may take appropriate action within its jurisdiction; and, it is,

Further Ordered that, nothing contained herein, including any conditions contained in this Certificate, shall be deemed to constitute a permit to take any species, or as a waiver of any of the provisions of the federal Migratory Bird Treaty Act or any other applicable law pertaining to endangered and threatened species; and, it is,

Further ordered that, the Applicant shall not conduct any significant vegetation cutting activities above 2700 feet elevation on Mt Kelsey or Dixville Peak between April 1, and August 1; and, it is,

Further Ordered that, prior to the commencement of construction, the Applicant in cooperation with Coos County, shall prepare and implement a detailed safety and access plan providing, among other things, gate access protocols, and methods to discourage persons from coming within 1,300 feet from any turbine location; and, it is,

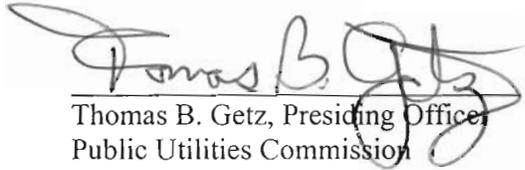
Further Ordered that, the Applicant, in cooperation with NHF&G shall use its best efforts to maintain the integrity of the Coos Trail while also assuring the safety of the public using the trail. It is recognized that this will require the re-location of a portion of the Coos Trail; and, it is,

Further Ordered that, all turbines shall be constructed in such a manner that they are not climbable from the ground to twenty feet above ground level; and, it is,

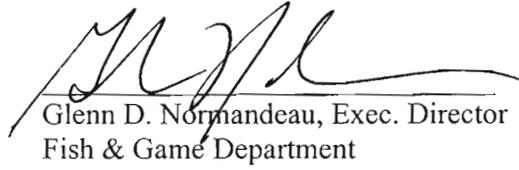
Further Ordered that, to the extent that blasting may be necessary in the construction or decommissioning of the Project the Applicant shall comply with all rules and regulations for blasting and the transportation of explosive materials and use of state and local thoroughfares as promulgated by statute or the regulations of the Department of Safety and the Department of Transportation. The Department of Safety and the Department of Transportation are each delegated the authority to specify the use of any appropriate technique, methodology, practice or procedure associated with blasting, transportation of explosives or other heavy loads which shall occur during the construction or decommissioning of the Project; and it is,

Further Ordered that all Conditions contained in this Certificate and in the Decision shall remain in full force and effect unless otherwise ordered by the Subcommittee.

By Order of the Site Evaluation Subcommittee this 15th day of July, 2009.



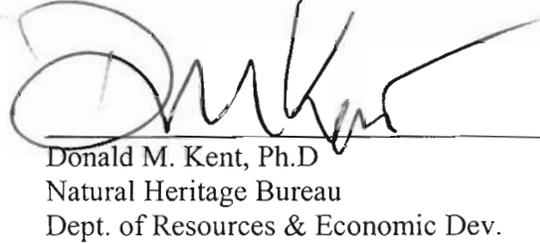
Thomas B. Getz, Presiding Officer
Public Utilities Commission



Glenn D. Normandeau, Exec. Director
Fish & Game Department



Robert Scott, Director
Air Resources Division
Dept. of Environmental Services



Donald M. Kent, Ph.D.
Natural Heritage Bureau
Dept. of Resources & Economic Dev.



William P. Janelle
Dept. of Transportation

Christopher L. Northop
Office of Energy & Planning

Michael D. Harrington
Public Utilities Commission

By Order of the Site Evaluation Subcommittee this 15th day of July, 2009.

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Michael D. Harrington
Public Utilities Commission

APPENDIX I

1. SECTION 401 WATER QUALITY CERTIFICATE
2. NHDES WETLANDS PERMIT
3. NHDES ALTERATION OF TERRAIN PERMIT

Granite Reliable Power LLC.
Attn: Mr. Walter Howard, CEO
8 Railroad Avenue
Essex, CT 06426

WATER QUALITY CERTIFICATION
In Fulfillment of
Section 401 of the United States Clean Water Act (33 U.S.C 1341)
WQC # 2008-004

Activity Name	Granite Reliable Power Windpark
Activity Location	Coos County in the Town of Dummer and the unincorporated places of Millsfield, Odell, Erving's Location and Dixville.
Affected Surface waters	Androscoggin River, Pontook Reservoir, Pond Brook, Little Dummer Pond, Big Dummer Pond, Newell Brook, Phillips Brook, Unnamed Tributaries to Phillips Brook, Watkinson Brook, West Branch Phillips Brook, Kelley Brook, West Inlet to Millsfield Pond, West Branch Clear Stream, an unnamed tributary to Clear Stream, Clear Stream, Cascade Brook, and various unnamed wetlands
Owner/Applicant	Granite Reliable Power, LLC 8 Railroad Avenue Essex, Connecticut 06426
Appurtenant permit(s):	U.S. Army Corps of Engineers Individual Permit DES Wetlands Bureau Permit DES Alteration of Terrain Permit
DATE OF APPROVAL (subject to Conditions below)	April 27, 2009

A. INTRODUCTION

Granite Reliable Power (GRP) (Applicant), proposes the construction and operation of a new wind power facility consisting of 33 wind turbines and associated electrical interconnection facilities including 2 electrical substations, upgrading approximately 20 miles of existing gravel logging roads, and construction of approximately 12 miles of new gravel access roads in Coos County in the Town of Dummer and the unincorporated places of Dixville, Erving's Location, Millsfield and Odell (Activity). The Activity construction period is expected to take approximately two years, and the operation period is indefinite after completion of construction.

This 401 Water Quality Certification (401 WQC) documents laws, regulations, determinations and conditions related to the Activity 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-Wq 1700, for the support of designated uses identified in the standards.

B. 401 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 WQC 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 (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:12, III, states: "No activity, including construction and operation of facilities, that requires certification under section 401 of the Clean Water Act and that may result in a discharge, as that term is applied under section 401 of the Clean Water Act, to surface waters of the state may commence unless the department certifies that any such discharge complies with the state surface water quality standards applicable to the classification for the receiving surface water body. The department shall provide its response to a request for certification to the

federal agency or authority responsible for issuing the license, permit, or registration that requires the certification under section 401 of the Clean Water Act. Certification shall include any conditions on, modifications to, or monitoring of the proposed activity necessary to provide assurance that the proposed discharge complies with applicable surface water quality standards. The department may enforce compliance with any such conditions, modifications, or monitoring requirements as provided in RSA 485-A:22."

- C-4. RSA 485-A:8 and Env-Wq 1700 (Surface Water Quality Regulations, effective May 21, 2008) 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 the Act.
- C-5. Env-Wq 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-Wq 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-Wq 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-Wq 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 rivers and streams, lakes and ponds, and wetlands, affected by the Activity, are surface waters under Env-Wq 1702.46.
- C-11. Env-Wq 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-Wq 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-Wq 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 Activity reviewed for this 401 Certification requires a federal wetlands permit from the U.S. Army Corps of Engineers under the federal Clean Water Act Section 404. The Applicant has submitted an application for a U.S. Army Corps of Engineers individual wetlands permit.
- C-15. The Applicant is responsible for the Activity, including construction and operation.
- C-16. In accordance with RSA 162-H:7, the Applicant submitted an application for a Certificate of Site and Facility to the New Hampshire Site Evaluation Committee in July, 2008.
- C-17. The Applicant filed an application for a DES 401 Water Quality Certification dated July 15, 2008 for the Activity.
- C-18. Plans reviewed for this 401 WQC are entitled "Granite Reliable Power, LLC, Granite Reliable Power Wind Park, Coos County, New Hampshire, July 2008, Revised December 2008" and a revised sheet 143 which was received by the DES Alteration of Terrain Bureau on February 6, 2009.
- C-19. The applicant filed an application for the Activity for a DES Wetlands Bureau Permit dated July 11, 2008.

- C-20. The applicant filed an application for the Activity for a DES Alteration of Terrain Program Permit dated July 11, 2008.
- C-21. The U.S. Army Corps of Engineers (Corps) issued a public notice for the Activity (File Number: NAE-2008-410) on January 27, 2009. The public comment period ended on February 27, 2009.
- C-22. The Applicant submitted a Preliminary Water Quality Monitoring Plan, dated September 30, 2008, on October 2, 2008. The plan included preliminary thoughts regarding monitoring during construction and long term post construction monitoring.
- C-23. In the application for 401 Certification, the Applicant stated that a Stormwater Pollution Prevention Plan (SWPPP) will be prepared in accordance with the Environmental Protection Agency's (EPA) Construction General Permit (CGP).
- C-24. In the application for 401 Certification, the Applicant stated that a Spill Prevention Control and Countermeasure (SPCC) Plan in accordance with EPA criteria will be prepared.

D. FINDINGS

- D-1. The Activity reviewed for this 401 Certification consists of the construction and operation of a new wind power facility consisting of 33 wind turbines and associated electrical interconnection facilities including 2 electrical substations, upgrading approximately 20 miles of existing gravel logging roads, and construction of approximately 12 miles of new gravel access roads in Coos County in the Town of Dummer and the unincorporated places of Dixville, Erving's Location, Millsfield and Odell.
- D-2. The Activity requires water quality certification under Section 401 of the federal Clean Water Act and New Hampshire RSA 485-A:12, III.
- D-3. The Activity will result in a discharge and may cause the permanent alteration of, or temporary impacts to surface waters.
- D-4. Storm water runoff, including snowmelt, and groundwater flow to surface waters from within the area affected by the Activity during warm and cold-weather conditions are discharges under the definitions of Env-Ws 1702.18.
- D-5. Surface waters that could be potentially affected by the Activity and their associated DES assessment unit (AU) numbers (where available) include the following: Androscoggin River (NHRIV400010603-04), Pontook Reservoir (NHLAK400010602-11), Pond Brook (NHRIV400010602-12 and NHRIV400010602-13), Little Dummer Pond (NHLAK400010602-07), Big

Dummer Pond (NHLAK400010602-06), Newell Brook (NHRIV400010602-10), Phillips Brook (NHRIV801010704-03 and NHRIV801010704-04), 3 Unnamed Tributaries to Phillips Brook, Watkinson Brook, West Branch Phillips Brook (NHRIV801010704-03), Kelley Brook (NHRIV801010704-03), West Inlet to Millsfield Pond, West Branch Clear Stream (NHRIV400010502-02), an unnamed tributary to Clear Stream, Clear Stream (NHRIV400010502-01), Cascade Brook (NHRIV400010502-01), and various unnamed wetlands adjacent to the Activity.

The potentially affected surface waters are Class B waterbodies; Class B New Hampshire surface water quality standards (SWQS) apply to the Activity. Class B waterways are considered suitable for aquatic life, primary and secondary contact recreation, fish consumption, wildlife, and, after adequate treatment, as a water supply.

According to the NH Fish and Game Department on February 6, 2009, the brooks, streams, rivers, ponds/lakes in the vicinity of the proposed Activity are considered cold water fisheries.

- D-6. In accordance with RSA 162-H:7, the Activity requires a Certificate of Site and Facility from the New Hampshire Site Evaluation Committee.
- D-7. The Activity includes dredge and fill of wetlands. The 401 Certification decision relies, in part, on an approved permit from the DES Wetlands Bureau for the potential construction-related impacts to jurisdictional wetlands, which include all surface waters identified in section D-5 of this 401 Certification. Through its processing, and anticipated issuance, the DES wetlands permit will address the dredge and fill impacts to jurisdictional wetlands.
- D-8. The Activity may temporarily or permanently impact surface water hydrologic conditions, such as peak runoff. 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. Through its processing and anticipated issuance, the DES Alteration of Terrain permit will address potential impacts to surface water hydrology and peak flows.
- D-9. Primary water quality issues of concern associated with the Activity include potential increases in turbidity and benthic deposits due to land disturbance and wet weather discharges of settleable and suspended solids during and after construction of the Activity; potential increases in water temperature due to reductions in riparian canopy and shading; potential increases in phosphorus and nitrogen due to the addition of fertilizers which can lead to excessive aquatic plant growth; potential spills of lubricating oil for the turbines and electrical transmission facilities; the potential application of herbicides and pesticides; and the potential

application of deicing materials, especially those containing chloride such as "rock salt" during the winter months. Other pollutants typically associated with vehicular traffic are not a concern as the project will only result in 2 to 3 vehicle trips per week.

- D-10. To control erosion and deposition of settleable and suspended solids in surface waters, the Activity has been designed with the following features: 1) the use of gravel surfaces with stabilized side slopes for access roads and pads that will resist disturbance by vehicular traffic 2) culverts spaced at frequent intervals under access roads to minimize concentration of stormwater flow to ensure that stormwater and shallow groundwater that travels downslope will continue downslope with little diversion by roadside ditches 3) construction of "rock sandwiches" to minimize changes in subsurface hydrology, 4) diversion of precipitation on steeper roadway surfaces through use of rubber diverters installed across the roadway at regular intervals to shorten flow path length and reduce erosion forces 5) stabilized ditches to resist erosion, 6) construction of sediment traps at culvert outlets, 7) strategically located outlet locations to provide longer travel times and filtering distances to surface waters, 8) construction of grass treatment swales at select locations, 9) construction of sediment basins at sub-station pads and 10) typical temporary erosion control measures during construction such as silt fences, hay bales, stone check dams etc.

The 401 Certification decision relies, in part, on an approved permit from the DES Alteration of Terrain Program which will ensure that erosion control measures are designed to meet state requirements. Construction and maintenance of erosion control measures as proposed and in accordance with DES Alteration of Terrain permit requirements are not expected to result in water quality violations for turbidity or benthic deposits due to settleable and suspended solids.

To ensure that erosion control measures are functioning properly and are protective of surface waters during construction, erosion control inspections and turbidity monitoring can be required. With regards to inspection of erosion control measures during construction, the plans referenced in C-18 of this 401 Certification, which are also part of the Alteration of Terrain permit application, indicate that the following will be done:

1. A Certified Professional in Erosion and Sediment Control or a Professional Engineer licensed in New Hampshire ("Monitor"), shall be employed to regularly inspect the site;
2. The Monitor shall inspect the site at least once a week and if possible during any 1/2 inch or greater rain event (i.e., 1/2 inch of

precipitation or more within a 24 hour period) or within 24 hours of such an event;

3. The Monitor shall provide technical assistance to the Contractor on appropriate Best Management Practices for Erosion and Sediment Control requirements;
4. Within 24 hours of each inspection, the Monitor shall submit a report to DES via email. Such reports shall include photographs of the site that are representative of the Activity.

In light of the sensitive resources within the project area and scale of the proposed Activity, the following additional construction BMP inspection and reporting requirements and turbidity monitoring are considered necessary to prevent construction related surface water quality violations.

A. Weekly Erosion Control Meeting: The Applicant's prime Contractor for the Activity (prime Contractor) shall hold weekly erosion control meetings with the Monitor. Minutes of the meeting shall be kept on file and made available to DES upon request.

B. Inspection Frequency

1. Daily Inspections: The prime Contractor shall inspect all erosion control measures every day that work is conducted from the time construction commences and earth is disturbed until construction is complete.
2. Weekly Inspections: After construction has commenced and earth has been disturbed, the Monitor shall conduct weekly erosion control site inspections to verify all erosion control measures are maintained properly to protect surface waters and wetlands. The Monitor shall document and report its findings, including recommendations for maintenance of BMPs or the addition of new control measures to the prime Contractor.
3. Pre-storm inspections: The Monitor shall print the 5-day forecast once daily (7-9 am) for the duration of the project. All forecasts shall be clearly marked with the date and time, kept on file, provided to the prime Contractor. In addition, the 5-day forecast on the day of the weekly meeting shall be attached to the weekly meeting minutes distributed by the Monitor. Inspection shall occur within 24 hours prior to the start of any rain event of 0.5 inches or more in a 24-hour period that is predicted to occur during the workweek. A normal workweek is Monday through Friday. Holidays and weekends are included as part of the normal workweek when work is anticipated to occur on those days. If the predicted event occurs outside of the normal workweek, the

inspection shall occur on the normal workday just before any scheduled days off, such as holidays and weekends. Unless otherwise approved by DES, the Accuweather website (<http://home.accuweather.com/index.asp?partner=accuweather>) shall be used for the purpose of predicting future precipitation amounts. Future precipitation amounts on the Accuweather web site may be determined by typing in the location of the project (city, state and/or zip code), clicking on the link for Days 1-5 forecasts and then clicking on the day(s) of interest.

- C. Emergency Inspections During Storm Events: Inspections shall occur during the daylight hours (Monday through Sunday, including holidays) during storm events whenever plumes are visible or if turbidity sampling indicates water quality standards are exceeded due to turbid stormwater from the construction site. Inspections and corrective action shall be implemented during the daylight hours (Monday through Sunday, including holidays) until turbidity water quality standards are met.
- D. Post Storm Inspections: Inspections shall occur on the first workday following storms of greater than 0.5 inches in a 24-hour period. Precipitation amounts shall be based on precipitation recorded at a rain gauge installed at the construction site or other approved method. Inspections and corrective action shall be implemented during the daylight hours (Monday through Sunday, including holidays) until turbidity water quality standards are met.
- E. Winter Shutdown Inspections: Inspections during winter shut down shall occur as specified in the NPDES General Permit for Stormwater Discharges from Construction Activities (commonly known as the Construction General Permit)
- F. Provisions for Handling Emergencies: Contact information shall be provided to DES for at least two people that DES can contact at any time regarding construction related stormwater concerns. The Applicant shall prepare an Emergency Procedures Plan describing procedures to address and correct emergency, construction related stormwater issues in an expeditious manner. The plan shall include the responsibilities of key individuals, the availability of equipment, and the availability of erosion control and BMP supplies. All emergency erosion control and BMP supplies must be kept on-site.
- G. Inspection and Maintenance Plans and Reports: Written inspection and maintenance reports shall include the items stipulated in the EPA NPDES General Permit for Stormwater Discharges from Construction Activities, as well as the predicted 24-hour rainfall for pre-storm inspection reports, measured rainfall amounts for post-inspection reports. The reports shall also indicate if erosion control measures "pass" or "fail". Unless otherwise

authorized by DES, the reports shall be submitted to DES by electronic mail (email) within 24 hours of each inspection.

- H. Weather Station Specifications: Unless otherwise authorized by DES, the Applicant shall be responsible for maintaining a weather station that can measure rainfall to an accuracy of 0.01 inches, monitor temperature to an accuracy of 1 degree Fahrenheit or Celsius, and has hourly data storage and download capabilities.
- I. Precipitation Notification Plan: The Applicant shall specify how the Monitor, and others, will be notified when precipitation has occurred that will trigger the need for inspections and/or turbidity sampling. Automatic notification is preferred. If considered necessary and feasible by DES, the weather station shall be equipped to send automatic email notifications to notify the Monitor when construction BMP inspections and/or turbidity sampling is necessary. Should automated email notification be considered necessary, it shall be capable of the following: Start of rain event: Once 0.25 inches of rain or rain-mix precipitation has been measured an automated email notification will be sent to the prime Contractor, the Monitor, and any other interested parties. The email shall provide hourly rainfall, and time of rainfall for the previous 24 hours. End of rain event: Once six hours without rain or rain-mix precipitation has passed an automated email notification will be sent to the prime Contractor, the Monitor and DES. The email shall provide hourly rainfall and time of rainfall from the start of the rain event to the end of the rain event, including the six hour "dry" period.
- J. Turbidity Monitoring: To confirm that construction best management practices (BMPs) for controlling erosion are performing as intended, turbidity monitoring is needed. Unless otherwise authorized by DES, the Applicant shall submit a Turbidity Sampling Plan that includes the turbidity monitoring elements specified in the February 2, 2009 DES Inter-Department Communication entitled "Amendment of the November 16, 2006 Guidance for BMP Inspection and Maintenance and Turbidity Sampling and Analysis Plans for I-93 Expansion Project Water Quality Certification". This document includes guidance regarding sampling station number and locations, sampling frequency, sampling duration, size of storms that need to be sampled, how soon after the start of precipitation sampling should begin, quality assurance quality control provisions, and turbidity meter specifications.

The above construction inspection/maintenance, turbidity monitoring and reporting requirements, combined with a requirement that a sufficient quantity of erosion control supplies shall be kept on site to expeditiously respond to erosion control issues, should be sufficient to ensure and confirm that proposed erosion control measures during construction are not causing or contributing to surface water quality violations.

Similar inspection, maintenance and monitoring can be required to ensure that permanent erosion control measures continue to function properly after construction.

- D-11. The potential discharge of lubricating oils to the ground and surface waters from the turbines and electrical transmission facilities associated with the Activity is a potential water quality concern. The Applicant has stated in its 401 Water Quality application that they will prepare a Spill Prevention Control and Countermeasure (SPCC) Plan in accordance with EPA criteria (40 CFR 112). The SPCC Plan will address operating procedures to prevent oil spills, control measures installed to prevent oil from entering surface waters and countermeasures to contain, clean up and mitigate the effects of and oil spill. According to 40 CFR 112.3(d), a licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements. By means of this certification the Professional Engineer attests: (1) That she or he is familiar with the requirements of this part ; (2) That she or his agent has visited and examined the facility; (3) That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part; (4) That procedures for required inspections and testing have been established; and (5) That the Plan is adequate for the facility. Proper implementation of an approved SPCC Plan certified by a Professional Engineer licensed in the State of New Hampshire is expected to prevent water quality violations associated with the discharge of lubricating oils.
- D-12. During construction of the Activity, improper management of concrete washout activities could result in surface water quality violations. The Applicant proposes to prohibit such discharges through signage and designation of washout areas designed to contain concrete wash water. Preparation and implementation of a DES approved concrete wash water plan can be required to prevent potential water quality violations due to concrete wash water.
- D-13. Operation of the Activity could result in the application of herbicides to control vegetation along access roads, pads and in the power line corridors. Improper application of herbicides can harm aquatic life and result in surface water quality violations. An email sent to DES on November 13, 2008 by Horizon's Engineering Inc. on behalf of the Applicant, stated that herbicide use will be limited to just the switchyard and substation areas. "This is due to safety concerns about using mechanized equipment (weed-whackers, and the like) around electrical equipment. If needed, herbicides will be applied in conformance with best management practices and per manufacturers recommendations. For all other areas vegetation management (typically once-a-year mowing of turbine pads and roadside slopes) will generally be done with a flail-type mower or rotary bush hog. Occasional management of successional

growth under powerlines will be done through mechanized means (typically a "Brontosaurus" type of boom mower) only." It is expected that such limited use of herbicides applied in accordance with best management practices and per manufacturer's recommendations will not significantly impact surface water quality.

D-14. Maintenance of roads during the winter can sometimes involve application of de-icing chemicals that contain chloride (i.e. rock salt), which is potential water quality concern. Chlorides are conservative substances that persist in the environment. Frequent application of road salt can result in levels of chloride in surface waters that are harmful to aquatic life. In an email sent to DES on November 10, 2008 by Horizons Engineering on behalf of the Applicant, the following is stated: "Winter access for preventative maintenance will be done using tracked equipment (snowmobiles and snowcats), however plowing may be needed for unscheduled maintenance of turbines that require large or heavy component replacement if oversnow transport is not a feasible option. During such an unplanned event it is possible that sand or a sand/salt blend might need to be applied to the plowed road surface to aid in traction of a transport vehicle hauling a replacement part. Again, these type of events are considered infrequent and would be used if all other reasonable options (such as over snow transport) have been exhausted first." "The blending of salt with the sand is generally done to keep the sand from freezing so that the sand can be loaded into a spreading vehicle to be applied to roadway to aid in traction. Given the anticipated infrequent nature of needing a plowed access to a portion of the site (unforeseen equipment breakdown and replacement), the ability to find dry sand that is free from any salt in the dead of winter may severely hamper the ability to make repairs to their infrastructure." It is expected that such limited use of sand and chloride will not significantly impact surface water quality.

D-15. Projects involving alteration of terrain can result in discharges to surface waters of nutrients such as phosphorus and nitrogen that can lead to excessive aquatic plant growth and impairment of aquatic life and contact recreational uses such as swimming or wading. Application of fertilizers can be a primary source of nutrients. An email sent to DES on November 13, 2008 by Horizon's Engineering on behalf of the Applicant, stated the following: "Fertilizers will only be used for initial vegetation establishment if soils analyses indicate a need for fertilizer. In such case the fertilizer will be applied only at agronomic rates indicated by such soil analyses." It is expected that a one time application of fertilizer with fertilizer application rates for nitrogen, phosphorus and potassium based on soils analyses coupled with requirements to only use fertilizers with slow release nitrogen and no pesticides will not result in any significant impacts to surface water quality.

- D-16. Projects involving alteration of terrain can result in water temperature increases due to removal of vegetation adjacent to surface waters that provide natural shading, construction of impervious surfaces such as pavement and rooftops and construction of best management practices such as detention ponds. Significant temperature increases can adversely impact the Biological and Aquatic Community Integrity (Env-Wq 1703.19) of surface waters especially in temperature sensitive cold water fisheries. The Activity has been designed to minimize thermal increases by utilizing gravel instead of impervious pavement for access roads and pads, by maintaining natural vegetated buffers to surface waters (except at stream crossings) that will aid in the re-assimilation of runoff into the ground where it can be cooled and enter the groundwater table, and by avoiding the use of best management practices that detain stormwater such as detention ponds. Construction of the proposed stormwater system for the Activity is not expected to result in any significant increase in water temperature and, therefore, should not cause or contribute to impairment of the Biological and Aquatic Community Integrity (Env-Wq 1703.19).
- D-17. Confirmation that operation of the Activity does not cause or contribute to surface water quality violations can be determined by development and implementation of a surface water monitoring plan with appropriate quality assurance/ quality control provisions.

E. WATER QUALITY CERTIFICATION CONDITIONS

- E-1. The Activity shall not cause or contribute to a violation of surface water quality standards. If DES determines that surface water quality standards are being violated as a result of the Activity, DES may modify this 401 Certification to include additional conditions to ensure the Activity complies with surface water quality standards, when authorized by law, and after notice and opportunity for hearing.
- E-2. The Applicant shall allow DES to inspect the Activity and its effects on affected surface waters at any time to monitor compliance with the conditions of this 401 Certification.
- E-3. The Applicant shall consult with DES regarding any proposed modifications to the Activity, including construction or operation, to determine whether this 401 Certification requires modification in the future.
- E-4. The Applicant shall comply with the conditions of the DES Wetlands Bureau Permit issued for the Activity by the DES Wetlands Bureau, including any amendments. The conditions shall become conditions of this 401 Certification upon issuance of this 401 Certification. This 401

Certification approval is contingent upon issuance of the DES Wetlands Bureau permit.

- E-5. The Applicant shall comply with the conditions of the DES Alteration of Terrain Program Permit issued for the Activity by the DES Terrain Alteration Bureau, including any amendments. The conditions shall become conditions of this 401 Certification upon issuance of this 401 Certification. This 401 Certification approval is contingent upon issuance of the DES Alteration of Terrain Program permit.
- E-6. Unless otherwise authorized by DES, the Applicant shall keep a sufficient quantity of erosion control supplies on the site at all times during construction to facilitate an expeditious (i.e., within 24 hour) response to any construction related erosion issues on the site.
- E-7. The Applicant shall develop and submit a Construction BMP Inspection and Maintenance Plan to DES for approval at least 90 days prior to construction. Unless otherwise authorized by DES, the plan shall incorporate all elements described in section D-10 (items A through I) of this 401 Certification. The Applicant shall then implement the approved plan.
- E-8. The Applicant shall prepare a turbidity sampling plan to confirm that measures to control erosion during construction are not causing or contributing to surface water quality violations. Unless otherwise authorized by DES, the turbidity sampling plan shall include the turbidity monitoring elements specified in the February 2, 2009 DES Inter-Department Communication entitled "Amendment of the November 16, 2006 Guidance for BMP Inspection and Maintenance and Turbidity Sampling and Analysis Plans for I-93 Expansion Project Water Quality Certification" which includes guidance regarding sampling station number and locations, sampling frequency, sampling duration, size of storms that need to be sampled, how soon after the start of precipitation sampling should begin, quality assurance quality control provisions, and turbidity meter specifications. The plan shall be submitted to DES for approval at least 90 days prior to construction. The Applicant shall then implement the approved plan. Unless otherwise authorized by DES, the turbidity sampling results along with station ID, date, time, other field notes, and a description of corrective actions taken when violations of state surface water quality criteria for turbidity are found, shall be submitted to DES via electronic mail within 48 hours of collection.
- E-9. 'Rock sandwich' cross drainage as shown on the detail on sheet 143 of the plans referenced in section C-18 of this 401 Certification, shall be used in all areas where roads are constructed through wetlands excluding stream channel crossings. The Applicant shall retain the services of a Professional Engineer licensed in the State of New Hampshire to inspect the site during

construction to determine where any additional rock sandwiches are necessary to minimize changes in subsurface hydrology.

- E-10. Unless otherwise authorized by DES, the Applicant shall develop and submit a monitoring plan to DES for approval at least 90 days prior to construction. The purpose of the plan is to confirm that operation of the Activity is not causing or contributing to violations of state surface water quality standards. The plan shall include the parameters to be sampled, the location, timing and frequency of sampling, sampling and laboratory protocols, quality assurance / quality control provisions as well as when data will be submitted to DES. The applicant shall consult with DES and submit the monitoring data in a format that can be automatically uploaded into the DES Environmental Database. Once approved by DES, the Applicant shall implement the sampling plan.
- E-11. In order to ensure the long-term effectiveness of approved permanent stormwater practices, the Applicant shall develop an Inspection and Maintenance (I & M) plan approved by DES. Unless otherwise authorized by DES, the I & M plan shall comply with the requirements of the Alteration of Terrain regulations (Env-Wq 1500 – effective 01-01-2009), section Env-Wq 1507.08 Long Term Maintenance. Prior to construction, the Applicant shall submit the I & M plan to DES for approval and then implement the approved plan.
- E-12. The Applicant shall prepare and submit a Spill Prevention, Control, and Countermeasures plan (SPCC) for the Activity in accordance with federal regulations (40 CFR part 112). The plan shall include a certification by a Professional Engineer licensed in the State of New Hampshire as described in section D-11 of this Certification. The Applicant shall submit the plan to DES Watershed Management Bureau for review and approval at least 90 days prior to the installation of the first turbine. The SPCC Plan shall include, but not be limited to, operating procedures to prevent oil spills, control measures installed to prevent oil from entering surface waters, countermeasures to contain, clean up and mitigate the effects of an oil spill, and facility inspections. The Applicant shall then implement the approved plan and maintain records demonstrating compliance with the plan. Such records shall be made available to DES within 30 days of receiving a written request by DES.
- E-13. The Applicant shall submit a plan to prevent water quality violations due to discharges of concrete wash water during construction. The Applicant shall submit the plan to DES Watershed Management Bureau for review and approval at least 90 days prior to placement of any concrete within the Activity area. The Applicant shall then implement the approved plan.
- E-14. Herbicide use associated with the Activity shall be minimized to the maximum extent possible and shall only be allowed on a limited, as-

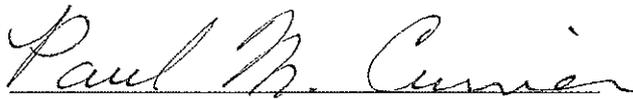
needed basis in the switchyard and substation areas to control vegetation that could otherwise disrupt operation of the Activity. Herbicides shall only be applied in strict accordance with the manufacturer's recommendations. Unless otherwise authorized by DES, the Applicant shall maintain records of herbicide use, including the name and brand of herbicide used, the date herbicides were applied, where they were applied, and the amount used. Such records shall be provided to DES within 30 days of receiving a request from DES.

- E-15. Unless otherwise authorized by DES, fertilizers shall only be applied once on soils disturbed during construction to support the initial establishment of vegetation. Prior to fertilizer application, soils shall be tested to determine the minimum amounts of lime, nitrogen (N), phosphorus (P) and potassium (K) needed to support vegetation. Lime application rates, fertilizer selection (in terms of N, P and K content) and fertilizer application rates shall be consistent with the soil test results. Fertilizers shall not contain any pesticides. Where possible, fertilizer with slow release nitrogen shall be used. Soil test results, the name, brand and nutrient content (N, P and K) of fertilizer and application rates for lime and fertilizer shall be provided to DES within 30 days of receiving a request from DES.
- E-16. To the maximum extent possible, winter access for maintenance or other purposes shall be accomplished using tracked equipment (i.e., snowmobiles and snowcats). Plowing and/or sanding of roads (including use of sands containing chloride) for winter access shall be minimized to the maximum extent possible, and shall only be allowed when over-snow transport using tracked equipment is not feasible (i.e., such as for the unscheduled maintenance of turbines that require large or heavy component replacement that cannot be transported over-snow). Unless otherwise authorized by DES, the Applicant shall maintain records of the dates when chloride was applied, the reason it was applied, and the estimated amount of chloride applied on each date. The Applicant shall submit such records to DES by May 1 of the first two years of operation and within 30 days of receiving a request from DES thereafter.
- E-17. The terms and conditions of this 401 Certification may be modified and additional terms and conditions added as necessary to ensure compliance with New Hampshire surface water quality standards, when authorized by law, and after notice and opportunity for hearing.

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 NHDES Council Appeals Clerk, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095; telephone (603) 271-6072.

If you have questions regarding this Certification, please contact Gregg Comstock at (603) 271-2983.



for
Harry T. Stewart
Director, DES Water Division

cc: Richard Roach, ACOE
Carol Henderson, NH Fish and Game
Town of Dummer Board of Selectman
Coos County Commissioner's Office
Dixville (Unincorporated Place), Clerk
Millsfield (Unincorporated Place), Clerk
Ken Kimball, Appalachian Mountain Club
Lisa Linowes, Industrial Wind Action Group
Thomas Burack, Chairman, EFSEC
Thomas Getz, EFSEC

NH Department of Environmental Services (DES)
Response to Public Comment and List of Substantive Changes for
Section 401 Water Quality Certification (WQC # 2008-004)
Granite Reliable Power Windpark in Coos County
4/27/09

On February 13, 2009, the New Hampshire Department of Environmental Services (DES) issued a draft Section 401 Water Quality Certification for public comment for the Granite Reliable Power Windpark in Coos County (WQC # 2008-004). The public comment period ended on March 18, 2009. Comments were received from the Appalachian Mountain Club (AMC) and the Industrial Wind Action Group (IWAG). The following represents DES' response to comments. To facilitate review, comments are numbered (i.e., Comment A1, Comment B2, etc.) with DES' response provided immediately below each comment in bold, italicized font. Immediately following the response to comments is a list of substantive changes made to the draft 401 Certification.

A. Comments from the Appalachian Mountain Club (AMC)

The Appalachian Mountain Club recommends, based on the testimony submitted during the NH Site Evaluation Committee hearings, that the draft 401 WQC for this Project be modified to include the following in Section E - Water Quality Certification Conditions.

Comment A1: To encourage natural forest regeneration on disturbed sites the Applicant should be required as follows: Materials used for erosion control in the high elevation ecosystems (\geq 2700 feet in elevation) shall be limited to natural organic materials like wood chips or bark that will not inhibit natural regeneration of the forest, and prohibit techniques such as non-native grass mixes that inhibit natural forest regeneration.

DES Response: The Applicant has consulted with the DES Alteration of Terrain Bureau and the New Hampshire Department of Resources and Economic Development, Division of Forests and Lands, Natural Heritage Bureau regarding appropriate soil stabilization techniques that won't inhibit natural forest regeneration in the high elevation ecosystems. Agreed upon seeding requirements/specifications are shown on sheet 143 of the plans and include only native high elevation grass species. In addition, condition 9 of the Alteration of Terrain Bureau conditions submitted to the EFSEC on February 10, 2009 (which are also conditions of the 401 Certification – see condition E-5), requires the Applicant to comply with the project specific seeding specifications included on sheet 143 of the plans.

Comment A2: The Project will represent some of the highest elevation road construction of this size and magnitude in New England and not experienced before in New Hampshire. It will involve road construction on extremely steep slopes, large cut and fills, fragile soils and an environment where precipitation is dramatically higher due to orographic effects. The Certification should stipulate that:

- 1) The Monitor should be a qualified 3rd party paid for by the Applicant but who is directly responsible to DES, not to the Applicant.
- 2) The Monitor must be free of any conflict of interest arising from his or her employment or relationship to the Applicant, or its contractors.
- 3) The Monitor should have the authority to immediately stop construction activity if permit conditions are not being strictly adhered to or to protect the environment.

DES Response: DES believes that the qualification and reporting requirements of the environmental monitor specified in the Alteration of Terrain Permit, which are also conditions (by reference) in the 401 Certification, are adequate (see below). Should issues arise, the DES Alteration of Terrain Bureau will know within 24 hours and take appropriate steps.

Condition E-5 of the 401 Certification requires the following:

"The Applicant shall comply with the conditions of the DES Alteration of Terrain Program Permit issued for the Activity by the DES Terrain Alteration Bureau, including any amendments. The conditions shall become conditions of this 401 Certification upon issuance of this 401 Certification. This 401 Certification approval is contingent upon issuance of the DES Alteration of Terrain Program permit."

The DES Alteration of Terrain Program Permit requires the following:

"10. The permittee shall employ the services of an environmental monitor ("Monitor"). The Monitor shall be a Certified Professional in Erosion and Sediment Control or a Professional Engineer licensed in the State of New Hampshire and shall be employed to inspect the site from the start of alteration of terrain activities until the alteration of terrain activities are completed.

11. During this period, the Monitor shall inspect the subject site at least once a week, and if possible, during any ½ inch or greater rain event (i.e. ½ inch of precipitation or more within a 24 hour period). If unable to be present during such a storm, the Monitor shall inspect the site within 24 hours of this event.

12. The inspections shall be for the purposes of determining compliance with the permit. The Monitor shall submit a written report to the Department within 24 hours of the inspections. The reports shall describe, at a minimum, whether the project is being constructed in accordance with the approved sequence, shall identify any deviation from the conditions of this permit and the approved plans, and identify any other noted deficiencies.

13. The Monitor shall provide technical assistance and recommendations to the Contractor on the appropriate Best Management Practices for Erosion and Sediment Controls required to meet the requirements of RSA 485-A:17 and all applicable DES permit conditions.

14. Within 24 hours of each inspection, the Monitor shall submit a report with photographic documentation to DES via email (to Craig Rennie at: craig.rennie@des.nh.gov)."

Comment A3: It is common for high elevation soils to have broad areas of subsurface seepage flow that are ecological important in these high elevation ecosystems. The Application proposed to constrict and channelize flows under the roads. In Maine it has been required that 'rock sandwiches' be used when road construction interfaces with these broad subsurface flow conditions. The AMC and the State's Public Counsel witness have testified on the need for the 'rock sandwich' technique and the Applicants consultant has now admitted that this technique is warranted for this Project. The Water Quality Certificate should require that an independent 3rd party, qualified expert be required to identify where "rock sandwiches" are appropriate and require the Applicant to use this technique in those locations to protect natural subsurface flow patterns.

DES Response: The Applicant has included rock sandwiches in the design. Sheet 143 of the plans shows a detail of a 'rock sandwich' and includes a note which states the following: "Rock sandwich cross drainage to be used in all areas where roads are constructed through wetlands excluding stream channel crossings. Additional areas requiring the rock sandwich may be encountered once construction commences and will be determined by the field engineer."

To help ensure that rock sandwiches are constructed where appropriate, Condition E-9 has been added to the 401 Certificate as follows:

'Rock sandwich' cross drainage as shown on the detail on sheet 143 of the plans referenced in section C-18 of this 401 Certification, shall be used in all areas where roads are constructed through wetlands excluding stream channel crossings. The Applicant shall retain the services of a Professional

Engineer licensed in the State of New Hampshire to inspect the site during construction to determine where any additional rock sandwiches are necessary to minimize changes in subsurface hydrology.

B. Comments from the Industrial Wind Action Group (IWAG):

The Industrial Wind Action Group (“IWA”) is a national organization focused on raising awareness of the negative impacts of utility-scale wind if sited improperly. In this capacity, our organization closely monitors wind energy proposals, development, and post-construction performance and attendant impacts. IWA has been granted intervenor status before the New Hampshire Site Evaluation Committee regarding the Granite Reliable Power LLC (“GRP”) wind energy proposal, SEC Docket 2008-04.

We appreciate the opportunity to provide comments to the New Hampshire Department of Environmental Services in regard to the draft 401 Water Quality certificate submitted to the Site Evaluation Committee (“SEC”) on February 10, 2009. Per the document filed with the SEC, you state the public comment period will extend from “mid February to mid March 2009. It is our hope that these comments fall within the time period you contemplated.

General Comments:

Wind energy development must be planned, sited, designed, mitigated, and monitored in a thoughtful manner to ensure it is done right from the start. In order to ensure high-quality, legitimate, and non-controversial development decisions, such resource planning must be science-based. The NH Department of Environmental Services, in our opinion, did not meet this test in regard to its review of the wetlands impacts and terrain alteration that will result from the proposed GRP project.

The Administrative rules Env-Wt 300 govern DES’ decision to grant a wetlands permit. In the findings section of the Wetlands Bureau Conditions, Finding #11, the DES asserts “The applicant has demonstrated by plan and example that each factor listed in Env-Wt 302.04(a) Requirements for Application Evaluation, has been considered in the design of the project.” Yet, in our reading of the rules and the materials submitted to DES by GRP, we cannot find any evidence in the record that shows:

Comment B1: The applicant submitted proof that the potential impacts have been avoided to the maximum extent practicable (Env-Wt 302.03(a))

DES Response: The comment references wetland regulations and is more related to issuance of the DES Wetland Permit and not the 401 Water Quality Certification. Although a response is not needed for 401 Water Quality Certification, the DES Wetland Bureau offers the following response: In a letter dated November 12, 2008 from DES to Thomas Burack, Chairman of the Site Evaluation Committee, items 2, 3 and 6 indicate the need for the Applicant to revise the plans to minimize on-site wetland impacts. In response, revised plans were submitted to DES on January 5, 2009, which show additional on-site wetland avoidance measures to the maximum extent practicable. This is considered proof that potential impacts have been avoided to the maximum extent practicable.

Comment B2: The alternative proposed by the applicant is the one with the least impact to wetlands or surface waters on site (Env-Wt 302.04(a)(2)). In fact, there is no evidence in the record that any alternative analysis was conducted.

DES Response: See DES response to Comment B1.

Comment B3: The extent of impact of the project on plants, fish and wildlife. While the DES at least acknowledges several State listed threatened and endangered species in Finding #9, there is no

information that attempts to quantify the impact of the project development on these species nor does DES consider the extent to which their habitat will be degraded or destroyed through direct and secondary impacts. There is no indication DES requested information pertaining to federally threatened or endangered species including migratory wildlife. (Env-Wt 302.04(a)(7))

DES Response: The comment references wetland regulations and is more related to issuance of the DES Wetland Permit and not the 401 Water Quality Certification. Although a response is not needed for 401 Water Quality Certification, the DES Wetland Bureau offers the following response: DES recognized the potential impact on plants, fish and wildlife as part of the wetland application review process, and on November 12, 2008, DES requested additional information from the Applicant which included that the Applicant address concerns raised by the NH Fish & Game Department, and that the Applicant revegetate as many areas as practicable to protect water quality and promote wildlife passage. Further, in the wetlands permit, DES issued condition #25 which states, " This permit is contingent upon the execution of a conservation easement on 620 acres as depicted on revised plans received by DES on February 5, 2009, and in accordance with the high-elevation mitigation plan (above 2,700' in elevation) that is negotiated and agreed upon with the NH Fish & Game Department.. And finally Finding #9 in the wetlands permit states, "The applicant proposes to mitigate the environmental impacts by executing a conservation easement on 620 acres of undeveloped land within Columbia and Erving's Location, and by negotiating an agreement with the NH Fish & Game Department to preserve high-elevation habitat (land above 2,700 square feet in elevation) to protect sensitive wildlife species, such as American marten, Bicknell's thrush, and American three-toed woodpecker. Mitigation will also include the creation of 8 vernal pools, totaling 3,600 square feet, within the proposed easement areas to provide suitable herpetological habitat."

Comment B4: Whether DES evaluated other wind energy facilities located at elevations above 2700 feet and considered the high risk of increased flooding, erosion, or sedimentation. DES appears to treat this extensive development as comparable to subdivision roads in areas already impacted by human activity rather than recognizing the unique issues that might arise at this project site.

DES Response: DES respectfully disagrees as several requirements have been incorporated into the 401 Water Quality Certification, Wetlands Permit and/or Alteration of Terrain Permit to address the high elevation construction which aren't included in typical subdivision roads. Examples include the following: High elevation plant seedings that won't inhibit natural forest regeneration in the high elevation ecosystems (see DES Response to Comment A1); construction of rock sandwiches to minimize changes in subsurface hydrology (see DES Response to Comment A3); water diversion bars along steep sections of roadway to help prevent erosion; and enhanced inspection, maintenance and surface water monitoring requirements during construction to ensure that erosion control measures have been installed properly and are preventing erosion related water quality violations from occurring (see DES Response to Comment B9).

Comment B5: Whether the department abided by Rule Env-Wt 302.04(d) in determining that any other practicable alternative would have a less adverse impact on the area and environments under the department's jurisdiction. The department's failure to request an alternatives analysis makes it impossible for the any such determination to be made.

DES Response: The comment references wetland regulations and is more related to issuance of the DES Wetland Permit and not the 401 Water Quality Certification. Although a response is not needed for 401 Water Quality Certification, the DES Wetland Bureau offers the following response: See DES response to Comment B1. Revisions to the plans submitted to DES on January 5, 2009 showing less

wetlands impact, indicate that the alternative would have a less adverse impact on the area and environment under DES jurisdiction.

Comment B6: In light of these concerns and the ongoing SEC hearings, we believe DES released its findings prematurely. There are outstanding questions pertaining to wind energy development at high elevations which should be answered before asking the public to provide meaningful input to the process. If not too late, we respectfully ask that a public hearing be scheduled to grant the public the full benefit of hearing directly from DES as to how it conducted its review of the project.

DES RESPONSE: *A public hearing is not considered necessary for 401 Certification for the following reasons:*

a) as indicated in DES response to IWAG Comment B4 above, DES believes it has accounted for potential issues associated with protecting water resources at high elevations in its review; and

b) through the EFSEC process,

(1) DES has provided regular updates on the status of the 401 Water Quality Certification (including findings and conditions) as well as the Alteration of Terrain and Wetlands permits which are part of the public record

(<http://www.nhsec.nh.gov/2008-04/index.htm>),

(2) there has been adequate opportunity for public comment including two EFSEC public informational hearings on October 2, 2008 and March 23, 2009, and

(3) a review of the record indicates that the Industrial Wind Action Group (IWAG) has taken advantage of the process and has filed documents with the EFSEC on several occasions:

9/17/08 Request to Intervene

3/15/09 IWAG letter to NHDES

4/5/09 IWAG Request for Extension of Time

4/10/09 Final Memorandum of Lisa Linowes on behalf of the Industrial Wind Action Group.

In addition to the above general comments we have specific concerns with several of the DES Findings marked D-n.

Comment B7: D-1: Finding D-1 correctly details the number of miles of roads that will be constructed as part of the project site, however we object to the characterization that GRP will be ‘upgrading’ approximately 20 miles of existing gravel logging roads. During testimony before the SEC on March 11, 2009, Horizons Engineering confirmed that the roads would span in width from over 30-feet to 150-feet and in some cases significant ledge cuts would be required on the steeper slopes. The road bases for the existing roads would be substantially rebuilt to withstand the impacts of thousands of tons of equipment. Appendix A and Appendix B of this letter include photographs of roads as built at the Kibby Wind Energy facility in Maine. On March 11, Horizons Engineering confirmed under oath before the SEC that the roads GRP will be constructing will be akin to the roads depicted in these pictures.

DES RESPONSE: *“Upgrading” is a common term used to describe changes made to infrastructure (such as roads) so that they will achieve their intended use. No change was made to the document for the following reasons:*

a) Alternative wording was not provided,

b) “upgrading” is simply used to describe a portion of the project, and

c) use of the word “upgrading” does not have any bearing on conditions necessary to protect surface water quality.

Comment B8: D-9: Please state the basis for the assertion made in finding D-9 that “other pollutants typically associated with vehicular traffic are not a concern as the project will only result in 2 to 3 vehicle trips per week”. Construction of the project site will require substantial vehicular traffic during the 1-2 year construction period. Further, it is well documented that wind energy facilities invite traffic given the substantial road system, despite signage and gates.

DES RESPONSE: The Applicant has stated that there will only be 2 to 3 vehicles per week once the project is constructed. During the construction process there will likely be more activity but it is temporary in nature. Over the long term, given the light weekly traffic loads, pollutant loadings from vehicular traffic are not expected to be a significant concern.

Comment B9: D-10: Given the location of the project site at above 2700 feet elevation it is critical that the permit findings recognize the high risk of erosion when vegetation is removed. This is due to the shallow soils, steep slopes, and high precipitation at these elevations . The Kibby Mountain wind facility experienced a significant failure of erosion control measures resulting in a 900-foot mud slide. We’ve included in Appendix C the site inspection report prepared around the time of the failure and photographs of the mud slide. Given the unique attributes of the GRP site and the enormity of the project scale, we strongly recommend the DES require that the site be monitored more frequently than once per week and that all rain events of ½ inch or more should result in a monitor visit without exception.

DES RESPONSE: A condition was added (E-7 in the final 401 Certification) which states the following: “The Applicant shall develop and submit a Construction BMP Inspection and Maintenance Plan to DES for approval at least 90 days prior to construction. Unless otherwise authorized by DES, the plan shall incorporate all elements described in section D-10 of this 401 Certification”. Section D-10 was amended to include daily inspections by the Contractor, at least weekly inspections by the environmental monitor, pre-storm inspections for any storm event of 0.5 inches or more, turbidity monitoring during storm events greater than 0.5 inches in 24 hours, inspections and corrective actions in daylight hours during storms where turbidity monitoring indicates water quality violations, post storm inspections for storms greater than 0.5 inches in 24 hours. This will result in BMPs being inspected more than once per week.

Comment B10: D-11: It is important to acknowledge that turbine failures including tower collapse and fire have resulted in site contamination due to oil leaks from the turbines. Incidents of this nature have occurred throughout the United States including the March 6 tower collapse in Altona, New York involving a Noble Environmental wind turbine . In addition, the Searsburg wind energy facility in Searsburg, Vermont experienced a collapse in September 2008 resulting in an oil spill and the Maple Ridge wind energy facility in Lowville experienced a transformer failure that leaked oil underground contaminating a residential well .

DES RESPONSE: Condition E-12 of the 401 Certification requires the Applicant to prepare and implement a DES approved Spill Prevention, Control and Countermeasure (SPCC) plan in accordance with federal regulations (40 CFR part 112). The plan must include operating procedures to prevent oil spills, control measures to prevent oil from entering surface waters, countermeasures to contain clean up and mitigate the effects of an oil spill and facility inspections. Federal regulations (40 CFR part 112) also require certification of the SPCC plan by a licensed Professional Engineer. By means of this certification the Professional Engineer attests: (1) That she or he is familiar with the requirements of this part ; (2) that she or his agent has visited and examined the facility; (3) that the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry

standards, and with the requirements of this part; (4) that procedures for required inspections and testing have been established; and (5) that the Plan is adequate for the facility. The requirement to include a certification by a Professional Engineer licensed in the State of New Hampshire was added to condition E-12. In addition, condition E-12 was amended to require the Applicant to maintain records demonstrating compliance with the SPCC plan and submit such records to DES within 30 days of receiving a written request by DES. Proper implementation of an approved SPCC Plan certified by a Professional Engineer licensed in the State of New Hampshire is expected to prevent water quality violations associated with the discharge of lubricating oils.

Comment B11: D-13: DES' finding D-13 is particularly worrisome as it suggests DES reviewers do not understand the importance of carefully managing the edge effects of the road. We recommend consultation with NH F&G personnel and NH Audubon to better understand how best to manage re-vegetation efforts. Per testimony before the SEC, the use of grasses should be avoided to ensure grass does not spread into the forested area and suppress re-growth of the trees.

DES RESPONSE: See DES Response to comment A1 above.

Comment B12: D-14: We encourage DES to investigate wind energy facilities in Maine, Vermont, Pennsylvania, New York, and elsewhere to understand the frequency in which de-icing chemicals are needed. While the GRP has stated salt used would be limited, we encourage DES to validate such assertions. There have been a number of turbine failures in New York, Illinois, and Pennsylvania during the winters of 2007 and 2008.

DES RESPONSE: Finding D-14 of the 401 Certification discusses how the Applicant will minimize use of deicing chemicals containing chlorides (i.e., road salt). Condition E-16 of the draft 401 Certification requires the Applicant to minimize plowing and sanding/salting of roads to the maximum extent possible and to only consider this option when over-snow transport using tracked equipment is not feasible (i.e., such as for the unscheduled maintenance of turbines that require large or heavy component replacement that cannot be transported over-snow). To validate the amount of chloride used each year, the Applicant must maintain records of the dates when chloride was applied, the reason it was applied, and the estimated amount of chloride applied on each date. The Applicant must then submit such records to DES. In the draft 401 Certification, the requirement was to submit such records within 30 days of receiving a request from DES. This requirement has been revised in the final 401 Certification to require submittal of chloride use records by May 1 of the first two years of operation and within 30 days of receiving a request from DES thereafter.

List of Substantive Changes Made to Draft 401 Certification

Section	Description of Substantive Changes Made to Draft
Finding D-10	<p>In light of the sensitive resources within the project area and scale of the project, additional construction BMP inspection / reporting requirements and turbidity monitoring requirements were added to prevent construction related surface water quality violations. Additional requirements included:</p> <p style="padding-left: 40px;">Weekly erosion control meetings, daily inspections by the prime Contractor, weekly inspections by the certified professional in erosion and sediment control (Monitor), pre-storm inspections by the Monitor, emergency inspections during storm events, post storm inspections, winter shutdown inspections, provisions for handling emergencies, reporting requirements including a submission of reports electronically within 24 hours, weather station specifications, submission of a plan to notify the Monitor and others when precipitation has occurred that will trigger the need for inspections and/or turbidity monitoring, and submission of a turbidity monitoring plan in accordance with DES guidance.</p>
Finding D-11	<p>Added professional engineer certification requirements per federal regulations for oil Spill Prevention Control and Countermeasure Plans .</p>
Condition E-7	<p>Revised the condition to submit a Construction BMP Inspection and Maintenance Plan to include the new requirements specified in Finding D-10.</p>
Condition E-8	<p>Revised the condition to submit a turbidity sampling plan that includes the elements in DES document t dated February 2, 2009 that includes guidance regarding sampling station number and locations, sampling frequency, sampling duration, size of storms that need to be sampled, how soon after the start of precipitation sampling should begin, quality assurance/quality control provisions, and turbidity meter specifications.</p>
Condition E-9	<p>Added a condition to install rock sandwich cross drainage per sheet 143 of the plans at all areas where roads are constructed through wetlands (excluding stream channel crossings) and to retain the services of a professional engineer licensed in New Hampshire to inspect the site during construction to determine where additional rock sandwich cross drainage should be constructed.</p>
Condition E-12	<p>Added a requirement to the oil Spill Prevention, Control and Countermeasure Plan (SPCCP) to include a certification from a professional engineer licensed in New Hampshire as specified in federal regulation and Finding D-11. Also added a requirement to maintain records of compliance with the SPCCP and to submit such records to DES upon request.</p>
Condition E-16	<p>Added a requirement to submit records of chloride use associated with winter deicing practices to DES by May 1 of the first two years of operation.</p>

WETLANDS BUREAU CONDITIONS

PROJECT DESCRIPTION:

Dredge and fill 587,722 square feet (13.49 acres) of wetlands, perennial and intermittent streams (impacting 11,451 linear feet) to construct a power generating wind park that will include the construction of 33 wind turbines (3.0 megawatts each), approximately 12 miles of new access roads, and upgrading approximately 20 miles of existing logging roads. Work will include improving existing culvert crossings within intermittent and perennial streams with properly sized culverts and bridges to improve aquatic resource passage, sediment transport, and overall stream stability. Mitigate environmental impacts by executing a conservation easement on 620 acres of undeveloped land within Columbia and Erving's Location, and by negotiating an agreement with the NH Fish & Game Department to preserve high-elevation habitat (land above 2,700 square feet in elevation) to protect sensitive wildlife species, such as American marten, Bicknell's thrush, and American three-toed woodpecker. Mitigation will also include the creation of 8 vernal pools, totaling 3,600 square feet, within the proposed easement areas to provide suitable herpetological habitat.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with the revised plans by Horizons Engineering, PLLC dated December 2008, as received by the Department on January 5, 2009; and by revised plans dated and received on February 6, 2009.
2. Any further alteration of areas on this property that are within the jurisdiction of the DES Wetlands Bureau will require a new application and further permitting by the Bureau.
3. This approval is contingent on approval by the DES Alteration of Terrain Bureau.
4. At least 48 hours prior to the start of construction, a pre-construction meeting shall be held with DES Land Resources Management Program staff at the project site or at the DES Office in Concord, NH to review the conditions of the Wetlands and Terrain Alteration programs. It shall be the responsibility of the permittee to schedule the pre-construction meeting, and the meeting shall be attended by the permittee, his/her professional engineer(s), wetlands scientist(s), and the contractor(s) responsible for performing the work.
5. All stream work shall be done during low flow conditions.
6. Appropriate siltation/erosion/turbidity controls shall be in place prior to construction, shall be maintained during construction, and remain in place until the area is stabilized. Silt fence(s) must be removed once the area is stabilized.
7. Discharge from dewatering of work areas shall be to sediment basins that are: a) located in uplands; b) lined with hay bales or other acceptable sediment trapping liners; c) set back as far as possible from wetlands and surface waters, in all cases with a minimum of 20 feet of undisturbed vegetated buffer.
8. Culvert outlets shall be protected in accordance with the DES Best Management Practices for Urban Stormwater Runoff Manual (January 1996) and the Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire (August 1992).
9. Proper headwalls shall be constructed within seven days of culvert installation.
10. Dredged material shall be placed outside of the jurisdiction of the DES Wetlands Bureau.

11. Within three days of final grading in an area that is in or adjacent to wetlands or surface waters, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tack or netting and pinning on slopes steeper than 3:1.
12. Where construction activities have been temporarily suspended within the growing season, all exposed soil areas shall be stabilized within 14 days by seeding and mulching.
13. Where construction activities have been temporarily suspended outside the growing season, all exposed areas shall be stabilized within 14 days by mulching and tack. Slopes steeper than 3:1 shall be stabilized by matting and pinning.
14. The contractor responsible for completion of the work shall utilize techniques described in the DES Best Management Practices for Urban Stormwater Runoff Manual (January, 1996) and the Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire (August, 1992).
15. In order to minimize final roadway widths, impacts from access road construction and turbine installation shall be restored and revegetated to the greatest extent practicable.

MITIGATION CONDITIONS:

Wetland construction:

16. This permit is contingent upon the creation of 8 vernal pools, totaling 3,600 square feet, in accordance with the revised plans received by DES on February 5, 2009.
17. The schedule for construction of the vernal pool creation areas shall coincide with site construction unless otherwise considered and authorized by the Wetlands Bureau.
18. The permittee shall designate a NH Certified Wetland Scientist (CWS) who will be responsible for monitoring and ensuring that the vernal pool creation areas are constructed in accordance with the mitigation plan. Monitoring shall be accomplished in a timely fashion and remedial measures taken if necessary. The Wetlands Bureau shall be notified in writing of the designated CWS prior to the start of construction and if there is a change of status during the project.
19. The final siting location of each of the proposed vernal pools within the easement areas shall be coordinated and field verified by the designated CWS, Wetlands Bureau staff, and a NH Fish & Game Biologist.
20. An updated final plan showing the location of the selected vernal pool sites shall be submitted to DES and for review and approval prior to their construction.
21. The vernal pool creation areas shall be properly constructed, monitored, and managed in accordance with the approved final mitigation plans, and remedial actions taken that may be necessary to create functioning wetland areas similar to those of the wetlands destroyed by the project. Remedial measures may include replanting, relocating plantings, removal of invasive species, changing soil composition and depth, changing the elevation of the wetland surface, and changing the hydrologic regime.
22. The designated CWS shall conduct follow-up inspections during the first 3 consecutive breeding seasons, to review the success of the vernal pool creation areas and to schedule remedial actions if necessary. A report outlining these follow-up measures and a schedule for completing the remedial work shall be submitted to DES by August 1 of each year, for a total of 3 years of monitoring.
23. The permittee shall attempt to control invasive, weedy species such as purple loosestrife (*Lythrum salicaria*) and common reed (*Phragmites australis*) by measures agreed upon by the

Wetlands Bureau if the species is found in the mitigation areas during construction and during the early stages of vegetative establishment.

24. A post-construction report documenting the status of the completed project with photographs shall be submitted to the Wetlands Bureau within 60 days of the completion of the vernal pool creation areas.

Land preservation:

25. This permit is contingent upon the execution of a conservation easement on 620 acres as depicted on revised plans received by DES on February 5, 2009, and in accordance with the high-elevation mitigation plan (above 2,700' in elevation) that is negotiated and agreed upon with the NH Fish & Game Department.

26. The conservation easements to be placed on the preservation areas shall be written to run with the land, and both existing and future property owners shall be subject to this easement.

27. The plan noting the conservation easements with a copy of the final easement language shall be recorded with the Registry of Deeds Office for each appropriate lot. A copy of the recording from the County Registry of Deeds Office shall be submitted to the DES Wetlands Bureau prior to the start of construction.

28. The applicant shall prepare a report summarizing existing conditions within the conservation areas. Said report shall contain photographic documentation of the easement area, and shall be submitted to the DES and the grantee prior to construction to serve as a baseline for future monitoring of the easement area.

29. The conservation easement areas shall be surveyed by a licensed surveyor, and marked by monuments prior to construction, and the final easement plans showing the metes and bounds shall be submitted to DES for review and approval.

30. The final conservation easement language and stewardship plan for the high-elevation mitigation parcel(s) shall be submitted to DES prior to construction.

31. There shall be no removal of the existing vegetative undergrowth within the easement area and the placement of fill, construction of structures, and storage of vehicles or hazardous materials is prohibited.

32. Activities in contravention of the conservation easement shall be construed as a violation of RSA 482-A, and those activities shall be subject to the enforcement powers of the Department of Environmental Services (including remediation and fines).

GENERAL CONDITIONS:

33. A copy of this approval shall be posted on site during construction in a prominent location visible to inspecting personnel;

34. This approval does not convey a property right, nor authorize any injury to property of others, nor invasion of rights of others;

35. The DES Wetlands Bureau shall be notified upon completion of work;

36. This approval does not relieve the applicant from the obligation to obtain other local, state or federal permits that may be required;

37. Transfer of this approval to a new owner shall require notification to and approval by the Department;

38. This approval shall not be extended beyond the current expiration date.

39. This project has been screened for potential impacts to known occurrences of rare species and exemplary natural communities in the immediate area. Since many areas have never been

surveyed, or have received only cursory inventories, unidentified sensitive species or communities may be present. This permit does not absolve the permittee from due diligence in regard to state, local or federal laws regarding such communities or species.

40. The permittee shall coordinate with the NH Division of Historic Resources to assess and mitigate the project's effect on historic resources.

FINDINGS:

1. The project is classified as a Major Project per NH Administrative Rule Env-Wt 303.02(c), as wetland impacts are greater than 20,000 square feet.

2. On December 5, 2007, January 11, 2008, February 19, 2008, and March 27, 2008, DES held pre-application meetings with Noble Environmental Power and their agents, as well as US Fish & Wildlife Service, NH Fish & Game Department, and US Army Corps of Engineers to discuss the proposed project and methods of avoiding and minimizing wetland and wildlife related impacts.

3. On July 1, 2008, DES staff conducted a site inspection of the subject property to view wetland areas and other natural resources within the project vicinity, which included high-elevation habitats that are proposed to be impacted for road construction.

4. On July 29, 2008, DES received a Standard Dredge and Fill application that proposed impacting 644,188 square feet (14.8 acres) of wetlands to construct the proposed wind generation facility.

5. On July 29, 2008, DES issued a "Notice of Administrative Completeness" letter to the applicant and their agent.

6. On November 12, 2008, DES issued a "Request for More Information" letter to the applicant and their agent to address questions and concerns that were found during the technical review of the application.

7. On January 5, 2009, DES received revised plans and application that responded to concerns raised in the DES "Request for More Information" letter.

8. Additional plan revisions were emailed to DES on February 5, 2009 that modified the mitigation proposal based on continued negotiations with landowners and the NH Fish & Game Department, and on February 6, 2009 that modified the seeding specifications to better accommodate high-elevation growing conditions.

9. The applicant proposes to mitigate the environmental impacts by executing a conservation easement on 620 acres of undeveloped land within Columbia and Erving's Location, and by negotiating an agreement with the NH Fish & Game Department to preserve high-elevation habitat (land above 2,700 square feet in elevation) to protect sensitive wildlife species, such as American marten, Bicknell's thrush, and American three-toed woodpecker. Mitigation will also include the creation of 8 vernal pools, totaling 3,600 square feet, within the proposed easement areas to provide suitable herpetological habitat.

10. DES finds that the mitigation proposal meets the ratios as outlined in Chapter 800 of the Mitigation Rules.

11. The applicant has demonstrated by plan and example that each factor listed in Env-Wt 302.04(a) Requirements for Application Evaluation, has been considered in the design of the project.

12. Public hearings are being held by the New Hampshire Energy Facility Site Evaluation Committee (SEC) in March 2009 to allow citizens the opportunity to comment on the overall project.

13. The New Hampshire Energy Facility Site Evaluation Committee (SEC) has jurisdiction over the project and therefore will ultimately decide if the project is approved or denied by April 2009.

ALTERATION OF TERRAIN BUREAU CONDITIONS

PROJECT DESCRIPTION:

Construct a power generating wind park that will include the construction of 33 wind turbines (3.0 megawatts each), approximately 12 miles of new access roads, and upgrading approximately 20 miles of existing logging roads. The total area of contiguous disturbance has been calculated to be 202.87 acres (8,837,017 square feet).

PROJECT SPECIFIC CONDITIONS:

1. Water quality degradation shall not occur as a result of the project.
2. Revised plans shall be submitted for an amendment approval prior to any changes in construction details or sequences. The Department must be notified in writing within ten days of a change in ownership.
3. The Department must be notified in writing prior to the start of construction and upon the completion of construction.
4. The revised plans dated December 2008 and supporting documentation in the file are a part of this approval.
5. No construction activities shall occur on the project after expiration of the approval unless the approval has been extended by the New Hampshire Energy Facility Site Evaluation Committee (SEC).
6. This approval does not relieve the applicant from the obligation to obtain other local, state or federal permits that may be required (e.g. from US EPA, US Army Corps of Engineers, etc.) Projects disturbing over 1 acre may require a federal stormwater permit from EPA. Information regarding this permitting process can be obtained through the following e-mail address: www.des.state.nh.us/StormWater/construction.htm.
7. The smallest practical area shall be disturbed during construction activities.
8. Construction shall proceed in accordance with the "Overall Phasing Plan" developed by Horizons Engineering, PLLC, dated December 2008.
9. The project specific seeding specifications included on Sheet 143 are part of this approval
10. The permittee shall employ the services of an environmental monitor ("Monitor"). The Monitor shall be a Certified Professional in Erosion and Sediment Control or a Professional Engineer licensed in the State of New Hampshire and shall be employed to inspect the site from the start of alteration of terrain activities until the alteration of terrain activities are completed.
11. During this period, the Monitor shall inspect the subject site at least once a week, and if possible, during any ½ inch or greater rain event (i.e. ½ inch of precipitation or more within a 24 hour period). If unable to be present during such a storm, the Monitor shall inspect the site within 24 hours of this event.
12. The inspections shall be for the purposes of determining compliance with the permit. The Monitor shall submit a written report to the Department within 24 hours of the inspections. The reports shall describe, at a minimum, whether the project is being constructed in accordance with the approved sequence, shall identify any deviation from the conditions of this permit and the approved plans, and identify any other noted deficiencies.
13. The Monitor shall provide technical assistance and recommendations to the Contractor on the appropriate Best Management Practices for Erosion and Sediment Controls required to meet the requirements of RSA 485-A:17 and all applicable DES permit conditions.

SITE SPECIFIC CONDITIONS CONTINUED:

Page 2 of 2

14. Within 24 hours of each inspection, the Monitor shall submit a report with photographic documentation to DES via email (to Craig Rennie at: craig.rennie@des.nh.gov).
15. Prior to beginning construction, the contractor's name, address, and phone number shall be submitted to DES via email (see above).
16. All temporary impact areas for access road construction and staging areas shall be restored and replanted in accordance with the revised plans by Horizons Engineering dated December 2008.

APPENDIX II

COOS COUNTY AGREEMENT



Coös County Commissioners' Office

P.O. Box 10
West Stewartstown, N.H. 03597
603-246-3321
fax: 603-246-8117

April 14, 2009

Mr. Thomas S. Burack, Chairman
NH Site Evaluation Committee
NH Department of Environmental Services
29 Hazen Drive
Concord, NH 03301

**Re: Application of Granite Reliable Power, LLC
Docket No. 2008-04**

Dear Commissioner Burack:

On April 10, 2009 the Coös County Commissioners unanimously approved the enclosed Agreement with Granite Reliable Power, LLC regarding operation and potential decommissioning of the proposed wind park.

Item 12. of the Agreement addresses the plan for decommissioning work if circumstances should trigger decommissioning of the wind park and restoration of the project site.

It is my understanding that Granite Reliable Power, LLC will also be filing this Agreement with the NH Site Evaluation Committee.

Sincerely,


Suzanne L. Collins
Coös County Administrator

Enclosure

COMMISSIONERS

BURNHAM A. JUDD, PITTSBURG • PAUL R. GRENIER, Berlin • THOMAS M. BRADY, JEFFERSON

**AGREEMENT BETWEEN
County of Coös and Granite Reliable Power, LLC**

WHEREAS, Granite Reliable Power, LLC (GRP) is proposing to construct and operate a 99 MW wind energy facility ("Project") in Coös County, New Hampshire, and

WHEREAS, GRP has submitted an application for Certificate of Site and Facility for the Project to the New Hampshire Site Evaluation Committee (NHSEC), and

WHEREAS, the County of Coös ("County") desires that GRP comply with the following provisions regarding operation and potential decommissioning of the Project, and

WHEREAS, the County and GRP desire that the NHSEC adopt these provisions as conditions and incorporate them into any certificate it may grant GRP for the Project,

NOW THEREFORE on the tenth day of April 2009, Granite Reliable Power, LLC (GRP) and the Board of Commissioners of Coös County's Unincorporated Places on behalf of Coös County (County) hereby agree as follows:

1. Warnings. A clearly visible warning sign identifying danger from voltage shall be placed at all electrical collection facilities, switching or interconnection facilities, and substations.

Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on all anchor points of guy wires, if any, and along the guy wires up to a height of ten feet from the ground.

A clearly visible warning sign concerning safety risks related to winter or storm conditions shall be placed no less than 300 feet from each wind turbine tower base on access roads.

2. Access. The County or its designee(s) shall have access to the Project Site for the purpose of emergency response. GRP shall provide access to the Project Site, Wind Turbines or other facilities upon request of the County to ensure compliance with the provisions of this agreement.

3. Liability Insurance. GRP or its successor(s) shall maintain a current general liability policy covering bodily injury and property damage with limits of at least \$10 million in the aggregate. Certificates shall be made available to the County upon request. Proof of insurance to be provided by GRP or its successors annually on or about March 15th of each calendar year. Any deductibles to above

insurance must be covered by adequate reserves. Proof of such reserves will be provided to the County annually or about March 15.

4. Indemnification. GRP specifically and expressly agrees to indemnify, defend, and hold harmless the County and its officers, elected officials, employees and agents (hereinafter collectively "Indemnitees") against and from any and all claims, demands, suits, losses, costs and damages of every kind and description, including attorneys' fees and/or litigation expenses, brought or made against or incurred by any of the Indemnitees resulting from or arising out of any negligence or wrongful acts of the GRP, its employees, agents, representatives or Subcontractors of any tier, their employees, agents or representatives in the connection with the Project. The indemnity obligations under this Article shall include without limitation:

- a. Loss of or damage to any property of the County, GRP or any third party;
- b. Bodily or personal injury to, or death of any person(s), including without limitation, employees of the County, or of GRP or its Subcontractors of any tier.

The GRPs indemnity obligation under this Article shall not extend to any liability caused by the sole willful negligence of any of the Indemnitees.

5. Wind Turbine Equipment and Facilities

a. Visual Appearance

- Wind turbines shall be a non-obtrusive color such as white, off-white, or gray.
- Wind turbines shall not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety.
- Wind turbines shall not display advertising, except for reasonable identification of the turbine manufacturer and/or GRP or its successors.

b. Controls and Brakes

- All wind turbines shall be equipped with a redundant braking system. This includes both aerodynamic over-speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over-speed protection.

c. Electrical Components

- All electrical components of the Project shall conform to relevant and applicable local, state, and national codes, and relevant and applicable international standards.

6. Project Security.

- a. The exterior of wind turbine towers shall not be climbable up to fifteen (15) feet above ground surface.
- b. All access doors to wind turbines and electrical equipment shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons.

7. Public Information, Communication and Complaints.

- a. Public Inquiries and Complaints. During construction and operation of the Project, GRP shall maintain a phone number and identify a responsible person for the public to contact with inquiries and complaints through completion of decommissioning. GRP shall make reasonable efforts to respond to the public's inquiries and complaints.
- b. Complaint Resolution. GRP shall develop and submit to the County a process to resolve complaints concerning the construction or operation of the Project. The process shall not preclude the local government from acting on a complaint.
- c. Signs. Signs shall be reasonably sized and limited to those necessary to identify the Project Site and provide warnings or liability information, construction information, or identification of private property. There will be no signs placed in the public right of way.

8. Emergency Response

- a. Upon request, GRP shall cooperate with the County's first responders and any emergency services that may be called upon to deal with a fire or other emergency at the Project. GRP will develop and coordinate implementation of an emergency response plan for the Project. GRP and County will establish protocols to provide emergency response access to the Project Site within a reasonable time following an alarm or other request for emergency response.
- b. GRP shall cooperate with the County's emergency services to determine the need for the purchase of any equipment required to provide an adequate response to an emergency at the Project that would not otherwise need to be purchased by the County. If agreed between the County and GRP, GRP shall purchase any specialized equipment for storage at a mutually agreeable location. The

County and GRP shall review together on an annual basis the equipment requirements for emergency response at the Project.

- c. GRP shall provide and maintain protocols for direct notification of emergency response personnel designated by the County.
- d. GRP shall provide the County with contact information of personnel available at every hour of the day.
- e. GRP shall provide training to emergency response personnel identified by the County. Those identified for training will include First Alarm mutual aid responders. Training shall be conducted at times agreed to by the County and GRP prior to the commencement of construction and on an annual basis during operation of the Project. The training shall include, but not be limited to, the location and operation of on-site fire suppression equipment, Project Site and Wind Turbine access, and communication protocols.
- f. GRP shall maintain smoke and/or fire alarm systems that are installed in all Wind Turbines and facilities. The County or its designee(s) and GRP shall work to identify sources of water on or around the Project Site that may be utilized in the event of a fire at the Project Site outside the Wind Turbines, and collaborate on a process for utilizing the identified sources. The cost of identifying these water sources, if any, shall be borne by GRP.

9. Public Roads.

- a. GRP shall identify all state and local public roads to be used within the County to transport equipment and parts for construction, operation or maintenance of the facility.
- b. GRP shall hire a qualified professional engineer, approved by County, to document road conditions prior to construction and again thirty days after construction is completed or as weather permits.
- c. Any road damage caused by GRP or its contractors at any time shall be promptly repaired at the GRP's expense.
- d. GRP will reimburse the County for costs associated with special details caused directly by a need to direct or monitor traffic within the County limits during construction.

10. Construction Period Requirements

- a. Site Plan. Prior to the commencement of construction, GRP shall provide the County with a copy of the final Soil Erosion and Sediment Control site plans showing the construction layout of the Project.
- b. Construction Schedule. Prior to the commencement of construction activities at the Project, GRP shall provide the County and if required, the State of New Hampshire Department of Transportation and/or Department of Safety, with a schedule for construction activities, including anticipated use of public roads for the transport of oversize and overweight vehicles. GRP shall provide updated information and schedules regarding construction activities to the County on a monthly basis, or upon request of the County.
- c. Disposal of Construction Debris. Tree stumps, slash and brush will be disposed of onsite or removed consistent with state law. Construction debris shall not be disposed of at County facilities.
- d. Blasting. The handling, storage, sale, transportation and use of explosive materials shall conform to all state and federal rules and regulations.
- e. Storm Water Pollution Control. GRP shall obtain a New Hampshire Site-Specific Permit and conform to all of its requirements including the Storm Water Pollution Prevention Plan and requirements for inspections as included or referenced therein. GRP shall provide the County with a copy of all state and federal storm water, wetlands, or water quality permits and related conditions.
- f. Construction Vehicles
 - Construction vehicles shall only use a route approved by the New Hampshire Department of Transportation (NHDOT). There shall be no staging or idling of vehicles on public roads. The NHDOT shall be notified at least 24 hours before each construction vehicle with a Gross Vertical Weight greater than 88,000 pounds is to use a State road. Acceptance by the State of vehicles exceeding this level is not a waiver of the GRP's obligation to repair all damage to roadways caused by vehicles used during construction or during any other time through the completion of decommissioning.
 - The start-up and idling of trucks and equipment will conform to all applicable Department of Transportation or Department of Safety regulations.

11. Operating Period Requirements

a. Spill Protection

GRP shall take reasonable and prudent steps to prevent spills of hazardous substances, including but not limited to oil and oil-based products, used during the construction and operation of the Project. This includes oil, gasoline, and other hazardous substances from construction related vehicles and machinery, permanently stored oil, and oil used for operation of permanent equipment. GRP shall provide the County with a copy of the Spill Prevention, Control and Countermeasure (SPCC) Plan for the Project as required by state or federal agencies.

b. Signal Interference. GRP shall make reasonable efforts to avoid any disruption or loss of radio, telephone, television, or similar signals, and shall mitigate any harm caused by the Project, subject to the Complaint Resolution process.

12. Decommissioning.

Anticipated Life of Wind Turbines

Megawatt-scale wind turbines are designed and certified by independent agencies for a minimum expected operational life of 20 years.

As the wind turbines approach the end of their expected life, it is expected that technological advances will make available more efficient and cost-effective generators that will economically drive the replacement of the existing generators.

a. Trigger for Implementing Decommissioning Plan.

Decommissioning will be required if the Project has not generated electricity for a period of three hundred and sixty-five (365) consecutive days, unless GRP or its successor produces evidence of mitigating circumstances, including delays surrounding long lead time for spare part procurement or an act or condition outside of GRP's control. Decommissioning and restoration activities will adhere to the requirements of appropriate governing authorities and will be in accordance with applicable federal, state and local permits and/or conditions.

b. Description of Decommissioning Work

i. Wind Turbine Removal.

Turbine and tower removal will be dismantled and removed in the reverse of the erection sequence, as follows:

- Assemble and stage crane on pad at turbine;
- Install erosion control measures as required;
- Disconnect electrical connections;
- Remove rotor and block on ground;
- Disassemble rotor;
- Remove nacelle and set on ground;
- Remove turbine tower sections and stage on ground;
- Remove electrical down tower assembly;
- Haul off turbine components;
- Remove foundation to 2 feet below grade;
- Backfill foundation;
- Rehabilitate disturbed areas.
- Leaks of petroleum, oils, or other hazardous materials will be remediated.

Wind turbines will be dismantled using standard best management practices. Critical lift plans will be developed specifically for each major turbine component. The components will be removed from the site and transported to appropriate facilities for reconditioning, salvage, recycling, or disposal. Depending on the ultimate destination, some components may need to be disassembled on-site to maximize reuse or ensure compliance with applicable disposal regulations.

ii. Other facilities.

Foundations, anchor bolts, rebar, conduit, and other subsurface components will be removed to a minimum 2 feet below grade. Items not known to be harmful to the environment buried greater than 2 feet below grade may be left in place or removed, at GRP's sole discretion. Once removal is complete the excavation will be backfilled with material of quality comparable to the immediate surrounding area. The disturbed soils of the site will be rehabilitated, including appropriately regrading and reseeded the area.

The Project collector system, substation, and interconnection facilities will be removed and salvaged, recycled, or repurposed to the maximum extent economically practicable, providing that applicable regulations and permit conditions are followed. Any other components will be hauled to approved disposal sites. Any trenches or holes that remain after removal will be backfilled, and the surface areas will be rehabilitated.

Construction pads will be rehabilitated and reseeded. Road shoulders will be revegetated to a width of 12 feet. Culverts will remain in place.

Site restoration will include, as reasonably required, leveling, terracing, mulching, and other steps necessary to prevent soil erosion to ensure establishment of suitable vegetation.

c. Estimate of Decommissioning Costs.

Detailed site-specific estimates of the following decommissioning costs and salvage values (Total Estimated Net Decommissioning Cost) will be provided to the County prior to commencement of Project construction, and updated every five (5) years thereafter. GRP agrees that submittal of its initial estimate of net decommissioning costs hereunder shall be a precondition to the commencement of construction of the Project. Decommissioning cost estimates provided prior to construction and at five (5) year intervals will be subject to review and approval by the County, and such approval will not be unreasonably withheld, conditioned and/or delayed. Decommissioning cost estimates agreed to by the County will be signed by both parties to this Agreement and attached as an Amendment at any such times that the costs are revised.

Turbine equipment removal (per turbine)

- Remove blades and hub
- Remove nacelle
- Dismantle and remove tower
- Foundation removal
- Backfill and restoration
- Total per turbine
- Collection, substation and roads
 - Overhead collection removal
 - Underground collection removal

- Substation removal
- Road shoulder revegetation
- Meteorological tower and maintenance building removal

d. Ensuring Decommissioning and Site Restoration Funds

The project will ensure that financial assurance (in a form acceptable to the County) for Total Estimated Net Decommissioning Cost ("Decommissioning Fund") will be fully established within the first ten (10) years following completion of construction of the Project. At the discretion of the County, an additional study may be commissioned to update the Total Estimated Net Decommissioning Cost in any five year period, which will replace the then current cost estimate. The cost of the study shall be borne by GRP or its successors. On or prior to December 31 of each year, in years 1-10 of the project's operation, ten percent of the Total Estimated Net Decommissioning Cost will be secured in a form acceptable to the County. The Year 10 payment shall be adjusted as may be necessary to ensure that the total amount in the Decommissioning Fund at the end of year 10 is equal to the most recent estimate of total net decommissioning costs. Prior to the establishment of the full Decommissioning Fund at the end of year 10, GRP shall on an annual basis provide the County with proof (through insurance or other means) of its financial ability to carry out decommissioning should it be required prior to year 10.

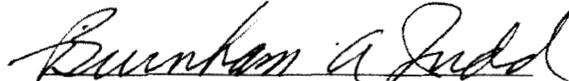
Upon complete decommissioning of the site, any remaining balance in the Decommissioning Fund shall be returned to GRP or its successor.

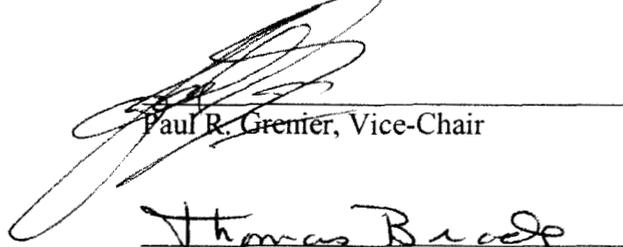
These decommissioning cost security provisions shall be binding upon any successor to GRP.

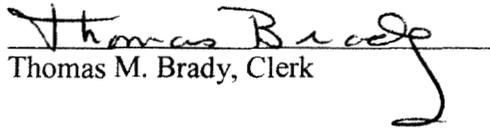
This is agreement is subject to GRP or its successors providing to the County the detailed estimate of costs for decommissioning, found on page eight (8) of this agreement prior to the commencement of any phase of Project Construction.

IN WITNESS WHEREOF, the parties have caused this agreement to be executed.

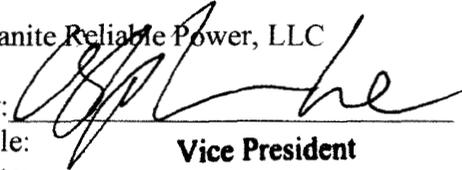
COÖS COUNTY, NEW HAMPSHIRE


Burnham A. Judd, Chairman


Paul R. Grenier, Vice-Chair


Thomas M. Brady, Clerk

Granite Reliable Power, LLC

By: 

Title: **Vice President**

Date: 4/13/09

APPENDIX III

ADDITIONAL DECOMMISSIONING CONDITIONS

APPENDIX III

ADDITIONAL DECOMMISSIONING CONDITIONS

The following conditions shall supplement the decommissioning conditions contained in the Agreement between the Applicant and Coos County (Coos County Agreement), See Appendix III.

1. Decommissioning need not occur if the Project has not generated electricity for a periods of 365 consecutive days as specified in the Coos County Agreement, Section 12, a, if a.) there is a pending application, petition, motion or other request pending before the Committee pertaining to the Project; or, b.) if an application is pending for the construction of a new facility or for the construction of a sizeable change or addition to the existing facility.
2. After decommissioning all areas above 2,700 feet in elevation will be revegetated in accordance with a plan to be developed by GRP in consultation with NHFG. This plan will address reestablishment of endemic species, including spruce and fir, within the restored right-of-way. The plan will include provisions for planting of seedlings and application of organic matter to best support a successful restoration effort.
3. Condition 12, d, of the Coos County Agreement is amended to reflect that in addition to providing annual proof of financial ability to carry out decommissioning should it be required before ten years, the Applicant shall provide such proof to the County at any time it is requested.

APPENDIX IV

TOWN OF DUMMER AGREEMENT

TOWN OF DUMMER

75 Hill Road
Dummer, NH 03588
(603) 449-2006

January 19, 2009

Mr. Thomas S. Burack, SEC Chairman
P.O. Box 95
Concord, NH 03302-0095

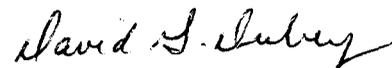
Dear Mr. Burack,

This is to inform you that the town of Dummer and Granite Reliable Power, LLC have agreed upon a list of conditions for the wind energy facility that has been proposed for construction in Coos County. A copy of these conditions is attached.

As we stated at the public hearing in October, we request that the Site Evaluation Committee endorse these terms and include them as conditions in the permits that are required for construction to begin. If these conditions are included, then the town of Dummer will support the proposed construction.

Thank you for your attention to this matter.

Sincerely,



David G. Dubey, Chairman
Board of Selectmen

Cc: Atty. Michael J Iacopino

Granite Reliable Power, LLC (as Applicant in State of New Hampshire Site Evaluation Committee Docket No. 2008-004) and the Town of Dummer Board of Selectmen hereby agree that the following conditions be included in an order granting a certificate for site and facility for the Granite Reliable Power Windpark:

1. Outdoor Lighting

At the proposed switchyard and substation, and any other facilities to be constructed in Dummer, Applicant agrees to install minimal exterior lighting necessary to maintain safety and security. Applicant further agrees that exterior lights will be left off at night, except when needed for work being performed on site, or when turned on by motion sensors.

2. Public Access

Applicant agrees to not obstruct access, via what is currently known as the Dummer Pond Road, to the Dummer Ponds and the snowmobile/ATV trail system. Applicant may erect gates across access roads that are to be constructed by the Applicant, and may install security fences around its facilities. These fences are to be placed be no more than 50 feet from the facilities.

3. Future Expansion

Applicant agrees that after the Granite Reliable Power Windpark (as currently proposed and as may be certified) is completed, Applicant will be subject to all of the Town of Dummer's local ordinances, including building codes and Zoning Laws. Prior to initiating any new construction, Applicant will apply for a building permit, and, if necessary, a zoning variance. The Applicant and the Town of Dummer will work together, in good faith, to review the local ordinances and to effect any reasonable amendments necessary to accommodate the Applicant's needs.

4. Succession

Applicant agrees that the above conditions will be binding on any successor owners, and will be included in any agreement to sell the Granite Reliable Windpark, in perpetuity.

APPENDIX V

HIGH ELEVATION MITIGATION SETTLEMENT AGREEMENT

HIGH-ELEVATION MITIGATION SETTLEMENT AGREEMENT

Granite Reliable Power, LLC, (“GRP”), the New Hampshire Fish and Game Department (“NHFG”) and the Appalachian Mountain Club (“AMC”) (collectively the “Parties”) enter into this Agreement as of the last date signed below.

WHEREAS Granite Reliable Power, LLC is a Delaware Limited Liability Company registered with the New Hampshire Secretary of State to do business in New Hampshire, and whose primary business is the development and operation of commercial wind power electrical generating facilities.

WHEREAS the New Hampshire Fish and Game Department is a state agency with the responsibility for the conservation, protection, and management of wildlife populations and habitats within the state.

WHEREAS the Appalachian Mountain Club is a not-for-profit conservation organization headquartered in Boston, MA whose mission is to promote the protection, enjoyment, and wise use of the mountains, rivers, and trails of the Appalachian region.

WHEREAS GRP is proposing to construct a 99-megawatt wind power facility (the “Windpark”) located in the unincorporated places of Millsfield, Ervings Location, Dixville and Odell and the town of Dummer in Coos County, NH.

WHEREAS the Windpark is the subject of a current application before the New Hampshire Site Evaluation Committee (SEC), and will require regulatory approvals or authorizations from the SEC and other state and federal regulatory agencies.

WHEREAS the parties agree that wind is an important indigenous renewable energy resource within the state, and that responsible utilization of this resource will provide benefits to the state and its citizens and is consistent with state energy policy.

WHEREAS the development of the Windpark will involve construction of wind turbines and access roads in certain areas above 2700 feet in elevation encompassing high-elevation spruce-fir habitat, which is recognized in the state Wildlife Action Plan as a limited habitat of particular importance and sensitivity.

WHEREAS the Parties agree that Mount Kelsey and Dixville Peak encompass high-elevation ecosystems of particularly high quality, and that development of the Windpark will impact these habitats and wildlife species of conservation concern that are known to or may potentially utilize them, including but not limited to American marten, Bicknell’s thrush, three-toed woodpecker and Canada Lynx.

WHEREAS the Parties share a mutual interest in ensuring that the Windpark is developed in a manner that minimizes potential adverse environmental impacts, and which ensures that the benefits of project development outweigh potential adverse environmental impacts.

WHEREAS the Parties agree that in order to balance the impacts to high-elevation habitat created by project development on Mount Kelsey and Dixville Peak significant compensatory mitigation is warranted and necessary, and that such mitigation should focus on the permanent protection of high-elevation habitats and research into the effects of windpark development and operation on wildlife species of concern.

WHEREAS GRP has entered into agreements with the owners of the lands described herein, by which those landowners have granted options to have such parcels conveyed to NHFG.

WHEREAS the Parties have entered into this Agreement with the intent that all issues identified in the Agreement are resolved to the satisfaction of the Parties.

WHEREAS NHFG and AMC jointly agree that the provisions of this agreement provide sufficient mitigation to compensate for project impacts to high elevation ecosystems, habitats and species, and resolves any and all concerns regarding the issue of mitigation for impacts to high elevation ecosystems expressed in pre-filed testimony and, unless specifically noted otherwise in this agreement.

NOW THEREFORE, the Parties covenant and agree as follows:

This Agreement shall take effect immediately following the issuance of all necessary final and non-appealable permits for the construction of the Windpark.

GRP shall complete all obligations specified under Mitigation Provisions below prior to conducting any construction activities (including clearing of vegetation) above 2700 feet in elevation on Mount Kelsey or Dixville Peak, however GRP shall have no obligations hereunder if it does not commence such construction activities. GRP agrees that it shall have construction financing in place sufficient to fund its obligations hereunder prior to commencing such construction activities.

A. Mitigation Provisions

1. GRP shall secure the permanent conservation of the following lands above 2700 feet elevation plus or minus (per A.7), totaling approximately 1735 acres through transfer of fee title to NHFG or other appropriate state agency approved by NHFG.

- a. Mount Kelsey, excluding a radius of 500 feet around each wind turbine tower and a width of 75 feet in both directions from the centerline of each access road (such exclusion to be referred to herein as "Retained Land") (anticipated being approximately 1281 acres)(see Exhibit B2 and B5).
- b. Long Mountain (approximately 220 acres)(see Exhibit B4).
- c. Muise Mountain (approximately 60 acres)(see Exhibit B3).
- d. Baldhead Mountain, currently included in the Wetland Mitigation Parcel (approximately 174 acres).

2. GRP agrees that it has entered into agreements with the title owners of the lands described in A.1, above, or will enter into such agreements contemporaneously with this Agreement, by which said landowners provide GRP options to purchase said lands for NHFG.
3. Protection of these lands shall be governed by the following provisions:
 - a. Future development and timber harvesting shall be prohibited, unless specifically requested and approved by NHFG to meet specific habitat improvement need(s). Any other harvesting planned for these areas as of the date of this agreement or in the future shall not occur.
 - b. Motorized recreational activities (including but not limited to snowmobiles and all-terrain vehicles) shall be prohibited.
 - c. No additional roads or structures will be allowed.
 - d. To the extent necessary, NHFG staff shall be permitted to cross adjoining lands to access the conserved areas
4. Lands above 2700 feet in the approximately 620-acre conservation parcel (Wetland Mitigation Parcel) (see Exhibit B1) on Phillips Brook intended as mitigation for wetland impacts as proposed by GRP shall be governed by the same provisions as those areas listed above and be transferred through fee title to NHFG or other appropriate state agency approved by NHFG.
5. Within the Retained Land on Mt Kelsey, only those trees necessary for project construction will be cut. Once construction is completed, there shall be no commercial timber harvesting in this area. After project construction the roadway shall be re-vegetated so that the roadbed is limited to 12 feet in width.
6. If and when the Retained Land is permanently abandoned by the landowner for wind energy production, it will be conveyed to the owner of the adjoining high-elevation lands for the purpose of perpetual conservation.
7. GRP shall provide recordable surveys of the lands to be transferred (as described in A.1, above), as well as marked boundaries. Note that the 2700 foot elevation will be referenced as the boundary of the target areas. However, the actual boundaries may follow straight lines centered on the 2700' elevation to facilitate survey and boundary line marking, provided that the area encompassed by these lines shall not be less than the area encompassed by the 2700 foot elevational contour.
8. GRP shall make a one time payment of \$200,000 (Two Hundred Thousand Dollars) to NHFG to be used to conduct studies of the impacts of the development on use of the area by American marten, Bicknell's thrush, and/or other wildlife species of concern, with the studies to be designed by NHFG and conducted by NHFG or other party or parties designated by NHFG.

This is not intended to substitute for the need on the part of GRP to conduct any bird or bat post-construction monitoring studies that might be required through this or any other permitting process.

9. GRP shall take commercially reasonable efforts to restrict motorized public access on all gated turbine access roads above 2700 foot elevation that are constructed for the Windpark.
10. GRP shall make a one time payment of \$750,000 (Seven Hundred and Fifty Thousand Dollars) to NHFG to secure or assist with the permanent conservation of comparable habitat outside of the project area. These funds shall be held in escrow by NHFG or its designee until expended. Funds shall be expended on one or more projects approved by NHFG after consultation with AMC. The priority for expenditure of the funds shall be for projects that secure conservation of habitat for American marten or other species of conservation concern, with a focus on high elevation spruce-fir habitat in Coos County.
11. GRP agrees that it will not construct wind turbines or associated infrastructure on Whitcomb Mountain or permit any other party to utilize its electric collection lines for wind energy facilities on Whitcomb Mountain.

B. Other Obligations

1. GRP shall file the Mitigation Provisions of this Agreement as an amendment to its Application Appendix 40 immediately upon signing of this Agreement.
2. NHFG and AMC shall file supplemental pre-filed testimony, and/or oral testimony, expressing their belief that the provisions of this agreement provide sufficient mitigation to compensate for project impacts to high elevation ecosystems, habitats and species, and resolve any and all concerns regarding the issue of mitigation. NHFG and AMC shall also express this belief in oral testimony before the SEC at the public hearing, and in any written or verbal public communication addressing the issue of mitigation. Neither NHFG nor AMC shall legally challenge the certificate for the Windpark, whether by rehearing, appeal or otherwise.
3. The Parties shall recommend to the Site Evaluation Committee in supplemental pre-filed testimony and oral testimony at the public hearing that the Mitigation Provisions of this Agreement be included by the SEC as conditions to the Certificate of Site and Facility for the project. However, this Agreement shall be legally binding upon GRP whether or not the Mitigation Provisions are included by SEC as conditions to the Certificate.
4. NHFG and AMC reserve the right to submit supplemental pre-filed testimony to the SEC, or comments to other state or federal regulatory agencies considering other project permit applications, regarding issues not addressed by the Agreement. NHFG and AMC agree that such testimony or comments shall not be used to recommend denial of the Certificate or other permits, but shall be limited to recommendations for additional permit

conditions. This includes concerns about high elevation road construction techniques and project decommissioning as outlined in AMC's pre-filed testimony.

5. NHFG and AMC agree not to oppose the Windpark, including GRP's applications to the SEC and USACE, without limiting their rights under paragraph B.4 and B.6.
6. GRP reserves the right to raise any issues related to RSA 212-A:13, III to the extent that any other party or intervenor, any member of the public, any organization or other person, any local, state or federal agency, official or body, or any member of the Site Evaluation Committee provides any comments, testimony, reports, questions, or any evidence relating to RSA 212-A, the rules promulgated under that statute, any actions taken pursuant to those rules or statutes, or any threatened or endangered species, species of special concern, or species deemed in need of conservation. NHFG and AMC reserve the right to disagree with GRP's interpretation that RSA 212-A:13, III prevents the SEC from considering the Project's impacts on threatened or endangered species, species of special concern, or species deemed in need of conservation.
7. GRP agrees to defend, indemnify and hold harmless the State of New Hampshire, through its Fish and Game Department, from and against any and all claims, liabilities or penalties asserted against the State, by or behalf of any person, on account of, based or resulting from arising out of (or which may be claimed to arise out of) the acts or omissions of GRP that are alleged to have caused personal injury or property damage as a result of Windpark construction or operation. To the extent GRP obtains any liability insurance to defend against any such claim, GRP shall include the State of New Hampshire as an additional insured.

C. General Terms

1. Entire Agreement: This Agreement contains the entire and integrated agreement among the Parties relating to the subject matter contained herein. Each Party acknowledges that no representations, inducements, promises, or agreements, oral or written, with reference to the subject matter herein have been made other than those expressly set forth herein. This Agreement cannot be modified, rescinded or terminated orally; any modification of this Agreement must be in writing signed by each of the Parties. Nothing in this Agreement shall be construed as limiting the Parties from executing such a mutually-agreeable written modification of any of the terms of this Agreement
2. Waiver. No waiver by any party of a breach hereof or a default hereunder shall be deemed a waiver by such party of any other breach or default.
3. GRP shall at all times have the right to sell, assign, encumber, transfer, or grant subordinate rights and interests in this Agreement and/or any or all of its other rights and interests under this Agreement, in each case without the consent of the other Parties.

4. Binding Agreement and Assignment: This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns. GRP shall at all times have the right to sell, assign, encumber, transfer, or grant subordinate rights and interests in this Agreement and/or any or all of its other rights and interests under this Agreement, in each case without the consent of the other Parties. NHFG and AMC agree that they will not take any action intended to block the financing of the Windpark.
5. Choice of Law: This Agreement shall be construed and interpreted in accordance with the laws of the State of New Hampshire, without regard to any choice or conflict of law provision or rule (whether of the State of New Hampshire or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of New Hampshire.
6. Authority: The Parties to this Agreement represent and warrant that they are authorized to enter into this Agreement in their individual or representative capacities. The Parties further represent that the execution and delivery of this Agreement and the performance of the Parties' obligations hereunder have been duly authorized by all necessary action.
7. Signatures: This Agreement may be signed in multiple identical counterparts, each of which shall be deemed an original, but all of which together shall constitute the Agreement. Signatures delivered by facsimile or other electronic means shall have the same effect as delivery of an original signature.
8. Severability: If any clause or provision of this Agreement or the application thereof shall be held unlawful or invalid, no other clause or provision of this Agreement or its application shall be affected, and this Settlement Agreement shall be construed and enforced as if such unlawful or invalid clause or provision had not been contained herein. The Parties all agree that any interpretation of "TITLE XVIII, FISH AND GAME, RSA CHAPTER 212-A, ENDANGERED SPECIES CONSERVATION ACT Section 212-A:13, Exemptions and Restrictions" shall not be used in any way to prevent the implementation of any elements of this Agreement.
9. Notices: All notices, requests, demands, claims and other communications hereunder shall be in writing. Any notice, request, demand, claim or other communication hereunder shall be deemed duly given or delivered (i) when delivered personally to the recipient, (ii) one Business Day after being sent to the recipient by reputable overnight courier service (charges prepaid), (iii) one Business Day after being sent to the recipient by facsimile transmission or electronic mail, or (iv) four Business Days after being mailed to the recipient by certified or registered mail, return receipt requested and postage prepaid, and addressed to the intended recipient as set forth below:
10. No Third Party Beneficiaries: This Agreement shall not confer any rights or remedies upon any Person other than the Parties and their respective successors and permitted assigns.

11. Captions and Construction: The captions in this Agreement are for convenience only and shall not affect the construction or interpretation of any term or provision hereof. The use in this Agreement of the singular shall include the plural, as the context may require. The word "including" shall mean including without limitation. The Parties have participated jointly in the negotiation and drafting of this Agreement. If an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this Agreement.
12. Amendments and Waiver: The terms of this Agreement may not be amended, waived or terminated orally, but only by an instrument in writing signed by the Parties. No waiver by any Party of any provision of this Agreement or any default, misrepresentation or breach of warranty or covenant hereunder, whether intentional or not, shall be valid unless the same shall be in writing and signed by the Party making such waiver, nor shall such waiver be deemed to extend to any prior or subsequent default, misrepresentation or breach of warranty or covenant hereunder or affect in any way rights arising by virtue of any prior or subsequent such occurrence.
13. No Joint Venture: Nothing in this Agreement is intended to create an association, trust, partnership or joint venture between the NHFG and/or AMC, on the one hand, and Granite Reliable Power, on the other hand, or impose a trust, partnership, fiduciary duty, obligation, or liability on or with respect to any Party.
14. Project Changes and Dispute Resolution:
 - A. The Parties have entered into this Agreement based on the Granite Reliable Power Windpark as currently proposed and set forth in its application submitted to the NH SEC, including the provisions set forth in this Agreement and the amendment to the NH SEC application contemplated by this Agreement. It is understood by the parties that there may be changes to the "Windpark" during the course of final project design and/or as a result of the regulatory review process. If any party to the Agreement determines that there has been a material change that results in significant and new adverse impacts that materially prejudices the party, the party shall provide, within 10 days of learning of the changes or modifications, written notice by certified mail to the other parties that it is withdrawing from the Agreement because of such modification, change or condition. Such withdrawal by a party shall be subject to the dispute resolution process in Section B below. In the event any party withdraws from the Agreement, any other party may withdraw within 30 days by providing notice to all other parties. Regardless of whether any party other than Granite Reliable Power withdraws from this Agreement, Granite Reliable Power agrees that it will comply with and implement the terms of this Agreement as long as the Project receives final, non-appealable Permits with terms and conditions and financial impacts consistent with the Agreement and the Granite Reliable Power Windpark as currently proposed.
 - B. In the event that any dispute arises over compliance with the terms and conditions of the Agreement, including a determination of material prejudice due to changes, conditions, or modifications in the Granite Reliable Power Windpark, the parties agree to

engage in good faith negotiations for a period of at least 60 days, if necessary, in an effort to resolve the dispute. A minimum of two meetings shall be held to attempt to resolve the dispute during the 60-day period, if necessary. In the event the Parties are unable to reach agreement, GRP shall hire a mediator agreeable to NHFG and AMC to assist in the resolution of the dispute. If a mediated resolution of the dispute does not occur within 60 days of the initial request for negotiation, a party may seek relief in an appropriate forum.

14. Sovereign Immunity: Nothing herein shall serve to waive the sovereign immunity of the State of New Hampshire, which immunity is hereby reserved.

WITNESS:

New Hampshire Fish and Game Department

By: _____

Date:

Name: Steven Weber

Its: Wildlife Division, Chief

WITNESS:

Appalachian Mountain Club

By: _____

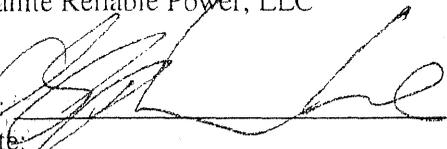
Date:

Name: _____

Its: _____

WITNESS:

Granite Reliable Power, LLC

By:  _____

Date:

Name: Chris Lower

Title: VICE PRESIDENT 3-10-9

~~of Noble Environmental Power, LLC~~

engage in good faith negotiations for a period of at least 60 days, if necessary, in an effort to resolve the dispute. A minimum of two meetings shall be held to attempt to resolve the dispute during the 60-day period, if necessary. In the event the Parties are unable to reach agreement, GRP shall hire a mediator agreeable to NHFG and AMC to assist in the resolution of the dispute. If a mediated resolution of the dispute does not occur within 60 days of the initial request for negotiation, a party may seek relief in an appropriate forum.

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WITNESS:

New Hampshire Fish and Game Department

By: Steven J. Weber
Date: 3/10/09

Name: Steven J. Weber
Its: Wildlife Division, Chief

WITNESS:

Appalachian Mountain Club

Kenn G. Albani

By: Andrew J. Falender
Date: 3/11/09

Name: Andrew J. Falender
Its: Executive Director

WITNESS:

Granite Reliable Power, LLC

By: _____
Date: _____

Name: _____
Title: _____
of Noble Environmental Power, LLC

High Elevation Mitigation Acres Coos County, New Hampshire Exhibit B1

**ERVINGS
LOCATION**

Mount Kelsey
- Owlhead
Acres: 519

Muise Mountain
Acres: 60

MILLSFIELD

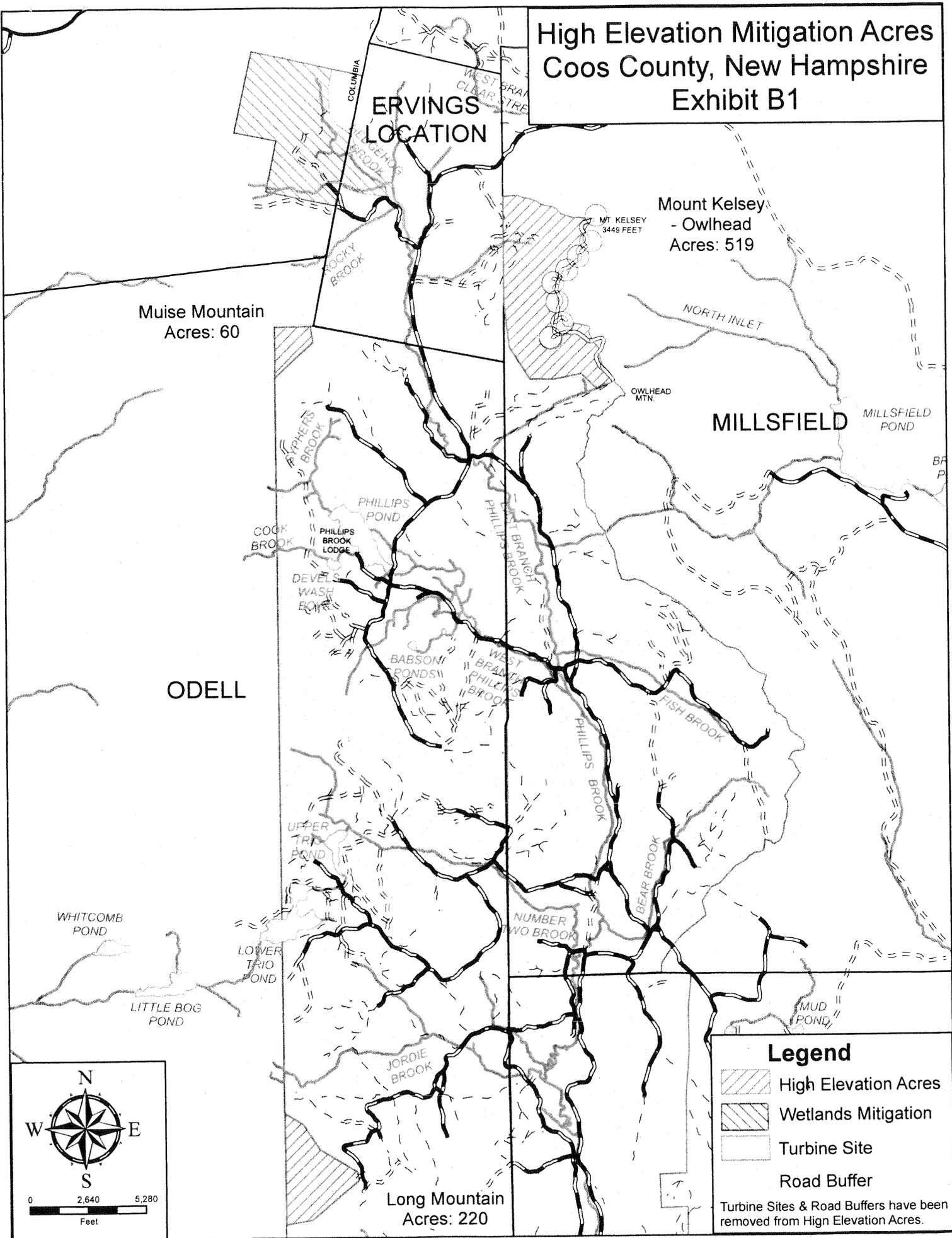
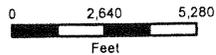
ODELL

Long Mountain
Acres: 220

Legend

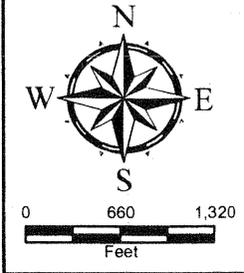
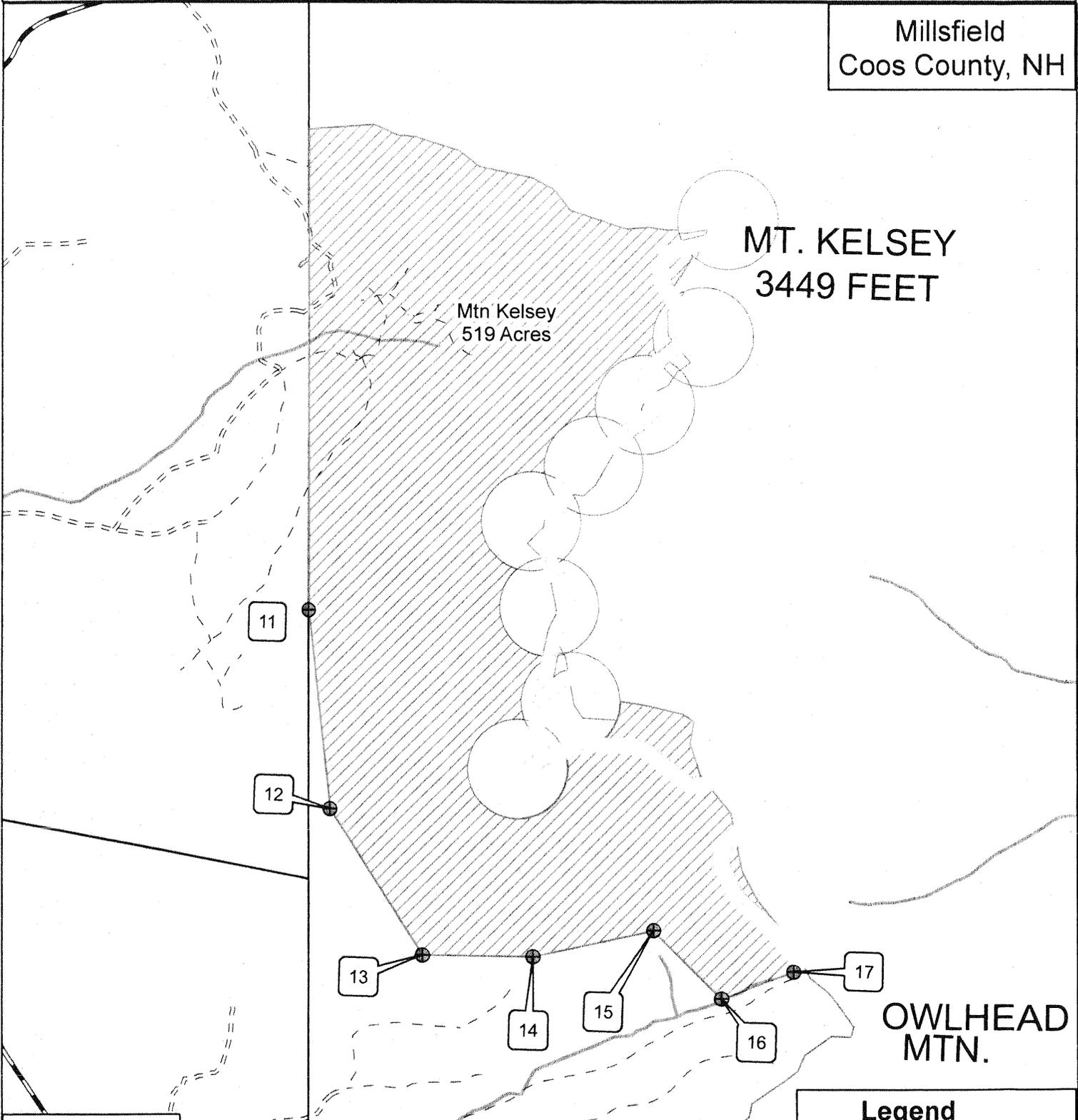
-  High Elevation Acres
-  Wetlands Mitigation
-  Turbine Site
-  Road Buffer

Turbine Sites & Road Buffers have been removed from High Elevation Acres.



High Elevation Mitigation Acres Exhibit B2

Millsfield
Coos County, NH



IDENT	x_orig	y_orig	x_proj	y_proj
11	315728.447	4962265.809	-71.32951954	44.79003113
12	315796.5632	4961653.197	-71.32843749	44.78453836
13	316079.184	4961204.963	-71.32470604	44.78057933
14	316415.0613	4961200.685	-71.32046259	44.78062716
15	316785.8976	4961280.074	-71.31580771	44.78143637
16	316992.6847	4961070.185	-71.31312064	44.77960139
17	317211.1664	4961152.616	-71.31039097	44.78039873

Legend

- High Elevation Acres
- Wetlands Mitigation
- Turbine Site
- Road Buffer

Turbine Sites & Road Buffers have been removed from High Elevation Acres.

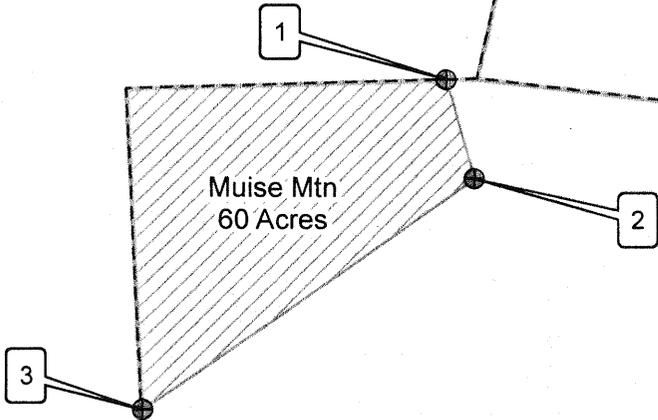
High Elevation Mitigation Acres Exhibit B3

ODELL
Coos County, NH

ROCKY
BROOK

Muisse Mtn
60 Acres

SYPHERS
BROOK

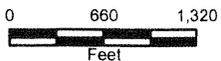


Legend

-  High Elevation Acres
-  Wetlands Mitigation
-  Turbine Site
-  Road Buffer

Turbine Sites & Road Buffers have been removed from High Elevation Acres.

IDENT	x_orig	y_orig	x_proj	y_proj
1	313018.9216	4961958.829	-71.36363111	44.78656637
2	313057.5451	4961738.918	-71.36306253	44.78459846
3	312525.8294	4961245.588	-71.36959638	44.78002195

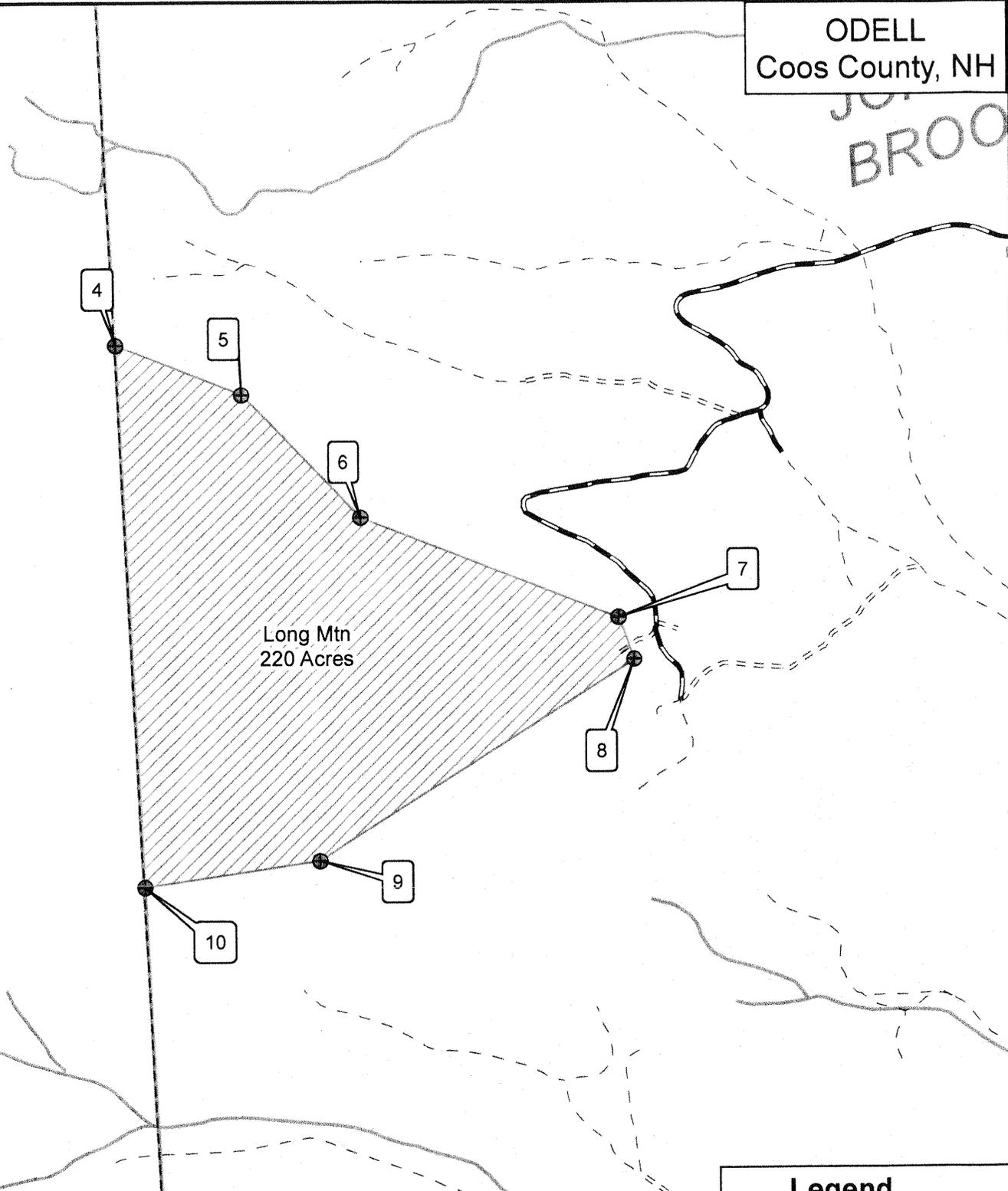


High Elevation Mitigation Acres

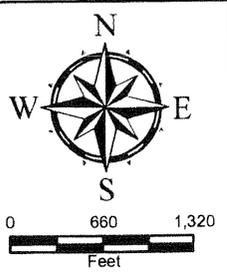
Exhibit B4

ODELL
Coos County, NH

JOB
BROOK



Long Mtn
220 Acres

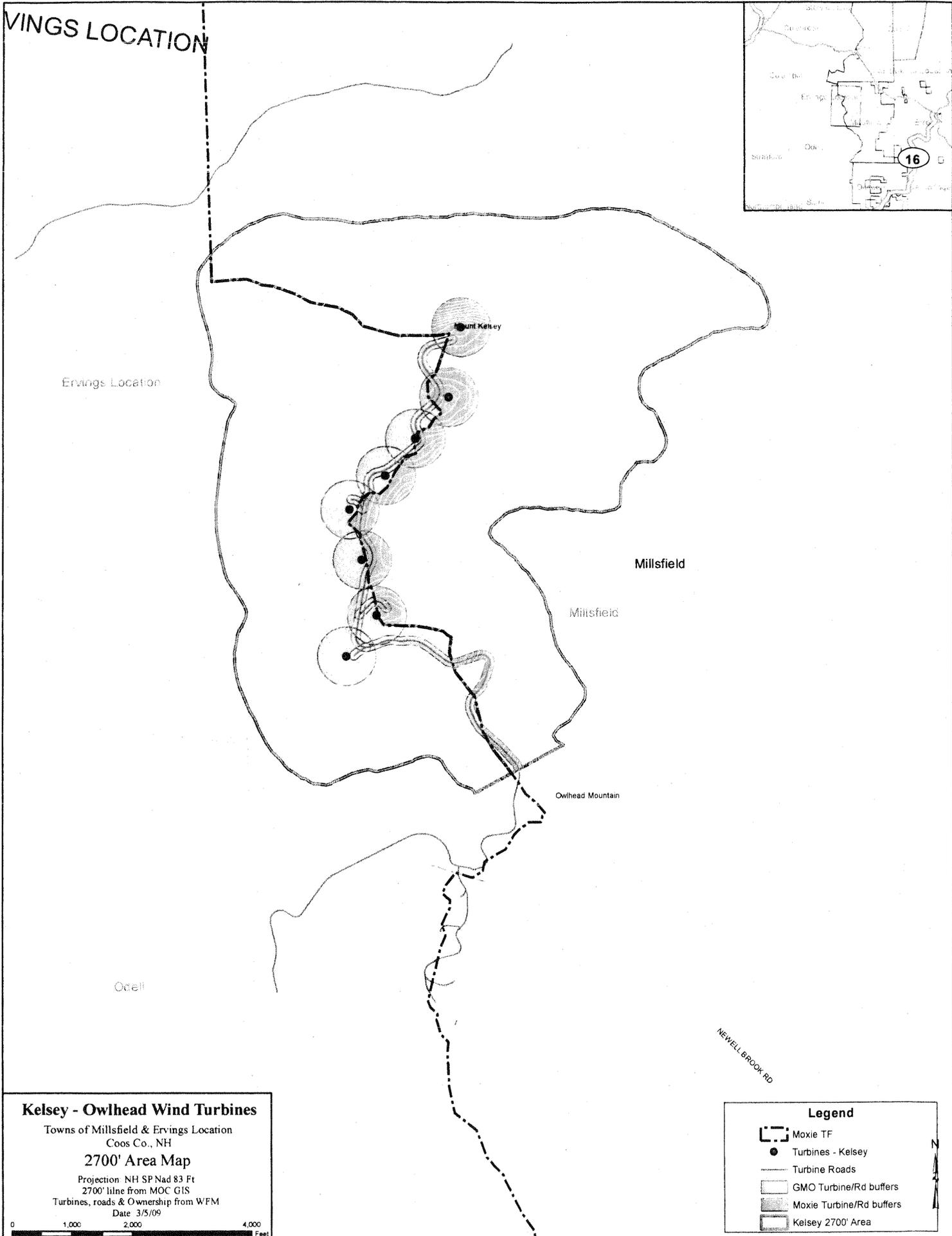


IDENT	x_orig	y_orig	x_proj	y_proj
4	312581.8095	4950989.038	-71.36512409	44.6877825
5	312830.892	4950838.143	-71.36192827	44.68649027
6	313063.7086	4950477.148	-71.35886095	44.6833039
7	313578.3867	4950171.557	-71.35226064	44.68068908
8	313606.7818	4950050.49	-71.35185858	44.67960747
9	312948.0743	4949495.645	-71.35996026	44.67444535
10	312590.2944	4949432.012	-71.36444711	44.67377965

Legend

-  High Elevation Acres
-  Wetlands Mitigation
-  Turbine Site
-  Road Buffer

Turbine Sites & Road Buffers have been removed from High Elevation Acres.



Kelsey - Owlhead Wind Turbines
 Towns of Millsfield & Ervings Location
 Coos Co., NH
2700' Area Map
 Projection NH SP Nad 83 Ft
 2700' line from MOC GIS
 Turbines, roads & Ownership from WFM
 Date 3/5/09

0 1,000 2,000 4,000 Feet

Legend

- Moxie TF
- Turbines - Kelsey
- Turbine Roads
- GMO Turbine/Rd buffers
- Moxie Turbine/Rd buffers
- Kelsey 2700' Area

N

Appeals Process

Any person or party aggrieved by this decision or order may appeal this decision or order to the New Hampshire Supreme Court by complying with the following provisions of RSA 541

R.S.A. 162-H: 11 Judicial Review. – Decisions made pursuant to this chapter shall be reviewable in accordance with RSA 541.

R.S.A. 541:3 Motion for Rehearing. - Within 30 days after any order or decision has been made by the commission, any party to the action or proceeding before the commission, or any person directly affected thereby, may apply for a rehearing in respect to any matter determined in action or proceeding, or covered or included in the order, specifying in the motion all grounds for rehearing, and the commission may grant such rehearing if in its opinion good reason for the rehearing is stated in the motion.

R.S.A. 541:4 Specifications. - Such motion shall set forth fully every ground upon which it is claimed that the decision or order complained of is unlawful or unreasonable. No appeal from any order or decision of the commission shall be taken unless the appellant shall have made application for rehearing as herein provided, and when such application shall have been made, no ground not set forth therein shall be urged, relied on, or given any consideration by the court, unless the court for good cause shown shall allow the appellant to specify additional grounds.

R.S.A. 541:5 Action on Motion. – Upon the filing of such motion for rehearing, the commission shall within ten days either grant or deny the same, or suspend the order or decision complained of pending further consideration, and any order of suspension may be upon such terms and conditions as the commission may prescribe.

R.S.A. 541:6 Appeal. Within thirty days after the application for a rehearing is denied, or, if the application is granted, then within thirty days after the decision on such rehearing, the applicant may appeal by petition to the supreme court.