

PAUL R. LEPAGE GOVERNOR PATRICIA W. AHO COMMISSIONER

January 2012

Alec Jarvis Evergreen Wind Power II Maine Genlead LLC 179 Lincoln Street, Suite 500 Boston, MA 02111

RE: Site Location of Development Act and Natural Resources Protection Act Applications, Oakfield #L-24572-24-C-N, #L-24572-TF-D-N, #L-24572-IW-E-N, #L-24572-24-F-N, \ #L-24572-TF-G-N

Dear Mr. Jarvis:

Please find enclosed a signed copy of your amended Department of Environmental Protection land use permit. You will note that the permit includes a description of your project, findings of fact that relate to the approval criteria the Department used in evaluating your project, and conditions that are based on those findings and the particulars of your project. Please take several moments to read your permit carefully, paying particular attention to the conditions of the approval. The Department reviews every application thoroughly and strives to formulate reasonable conditions of approval within the context of the Department's environmental laws. You will also find attached some materials that describe the Department's appeal procedures for your information.

If you have any questions about the permit or thoughts on how the Department processed this application please get in touch with me directly. I can be reached at 446-1216 or at Jessica.Damon@maine.gov.

Sincerely,

Jemus Dana

Jessica M. Damon, Project Manager Division of Land Resource Regulation Bureau of Land & Water Quality

pc: File

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STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 17 STATE HOUSE STATION AUGUSTA, ME 04333

## DEPARTMENT ORDER

## IN THE MATTER OF

Pursuant to the provisions of 35-A M.R.S.A. Sections 3401-3457, 38 M.R.S.A. Sections 481 <u>et seq.</u> and 480-A <u>et seq.</u>, and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application for a permit amendment filed by EVERGREEN WIND POWER II and MAINE GENLEAD LLC with the supportive data, agency review comments, public comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

## 1. <u>PROJECT DESCRIPTION</u>:

A. History of Project: In Department Order #L-24572-24-A-N and L-24572-TF-B-N, dated January 12, 2010, the Department approved a Site Location of Development Act (Site Law) and Natural Resources Protection Act (NRPA) permit for the construction of a 51-megawatt (MW) wind energy development, known as the Oakfield Wind Project. The proposed development consisted of 34 wind turbines in 36 potential locations, with associated turbine pads, electrical collection infrastructure, an electrical interconnection substation, meteorological (met) towers, and an Operations & Maintenance (O & M) building, for a total for 45.1 acres of new impervious area and approximately 50 acres of new developed area. The NRPA permit approved impacts to wetlands and one significant vernal pool (SVP). This included 2,440 square feet of fill in forested, scrub shrub, and emergent freshwater wetlands,

and the clearing of 8,790 square feet of wetland vegetation for construction of the transmission lines. The project as originally proposed would have resulted in the alteration of upland habitat of one SVP, where the project crane road would be located within 200 feet of the SVP, leaving 82% of the critical terrestrial habitat undisturbed. The applicant (Evergreen Wind Power II, LLC) also received a Permit By Rule (PBR #47798) for a stream crossing.

B. Summary: In their amendment application, the applicants propose to change the turbine types from General Electric (GE) 1.5 MW turbines to Vestas V-112 3.0 MW turbines, increase the total number of turbines from 34 to 50, and increase the capacity of the project from 51 MW to 150 MW. The applicants are also proposing to add a new substation and point of electrical interconnection with the electrical grid. This will involve the construction of a 59-mile generator lead transmission line. The turbine portion of the project is located in the Town of Oakfield and T4R3 WELS. The generator lead transmission line is proposed to run through the Town of Chester, the Town of Woodville, the Town of Mattawamkeag, Molunkus Township, Macwahoc Plantation, North Yarmouth Academy Grant, Reed Plantation, Glenwood Plantation, T3R3 WELS, T4R3 WELS, the Town of Linneus, and the Town of Oakfield. The proposed Oakfield Wind Project meets the definition of an expedited wind energy development set forth in 35-A M.R.S.A. §3451 (4).

1) <u>Wind Turbines.</u> The applicants propose to construct 50 Vestas V-112 wind turbines, each of which is capable of generating 3.0 MW. Each turbine is approximately 276 feet in height from the ground to the center of the hub; the total height from the ground to the tip of a fully extended turbine blade would be approximately 459 feet.

2) <u>Turbine Pads.</u> The turbines will be constructed on 50 turbine pads. Each turbine pad will encompass approximately 2.0 to 2.2 acres and will include a 25-foot diameter turbine foundation pedestal with surrounding 12.5-foot gravel ring, and a 70-foot wide by 85-foot long gravel crane pad, all within a cleared and graded construction laydown area. The laydown areas will be revegetated once construction is complete. The impervious area associated with each turbine pad will be approximately 0.23 to 0.28 acres. The total amount of impervious area associated with the 50 crane pads is approximately 12.65 acres.

3) <u>Access Roads and Crane Path.</u> The applicants propose to construct approximately 24 miles of access roads and crane roads with a combination of new roads and improved existing land management roads. The access roads will be constructed or improved to a 24-foot wide gravel surface. The crane roads will be located along the ridge tops and constructed with a 36-foot width. After construction, certain roads in the Spaulding, Skitacook and Meduxnekeag Lake watersheds will be reduced to a 12- to 16-foot width by restoring and revegetating the sides of the roads. All other roads will remain as constructed.

4) <u>Electrical Collector Substation</u>. The applicants propose to collect electricity generated by the turbines in a 34.5-kilovolt (kV) above-ground collector line that will ultimately become the 115-kV generation lead line at a proposed substation on South Oakfield Road. The northern substation originally proposed and approved in Department Order #L-24572-24-A-N will not be constructed. The new proposed substation will consist of a 200-foot wide by 225foot long gravel yard and two access roads.

5) <u>Meteorological Towers</u>. The applicants propose to install up to five permanent 84meter meteorological towers. Eight potential locations for these are identified in the application. The applicants also propose to install four temporary 84-meter meteorological towers at turbine pad locations that would be in place for up to nine months. The applicants have identified nine potential locations for the temporary met towers. The locations for the permanent and temporary met towers will be determined during construction. None of the identified potential locations would impact protected natural resources.

6) <u>Generation Lead Line</u>. The applicants propose to construct a 59-mile long 115-kV generation lead transmission line from Bangor Hydro-Electric's existing Keene Road substation in the Town of Chester to a new substation to be located in the Town of Oakfield. The line will consist primarily of single-pole, 70-foot tall structures, with an occasional double and triple pole structure. The amount of clearing associated with the corridor will vary from 50 to 100 feet in width. The proposed generator lead transmission line will be located adjacent to existing transmission corridors for approximately 40 miles, or 67% of the total length.

The applicants are also seeking approval under the Natural Resources Protection Act (NRPA) to fill 2.57 acres of freshwater wetlands, including 14,821 square feet of wetlands of special significance. The applicants have applied for, and the Department has approved, three Permits-By-Rule (PBRs), two for clearing less than 25% of the critical terrestrial habitat around two Significant Vernal Pools (SVPs) and one for a stream crossing. The proposed generator lead transmission line will also impact 39.03 acres of Inland Waterfowl and Wading Bird Habitat (IWWH) and 70.77 acres of Deer Wintering Area (DWA).

C. Current Use of Site: The proposed wind turbine site includes ridgelines of the Oakfield Hills, Sam Drew Mountain and Hunt Ridge. The area consists of mostly undeveloped forest that has been partially logged. The site of the proposed generation lead transmission line is mainly forested. Commercial timber management is common and there are existing logging roads on the site. Undeveloped forestlands, agricultural lands, rural residential and seasonal residential properties are located in the area surrounding the project site.

D. Public Interest: The Department did not receive any request for a public hearing during the 20 day period specified in the Departments rules governing the processing of applications for such request to be submitted. The Department held a public meeting on August 3, 2011 that was open to the public, including residents of Oakfield, other towns and townships that are affected by the project, and people who own property on Mattawamkeag and Pleasant Lakes. The Department sent letters to all abutters of the project notifying them of the meeting as well as to all town offices and it published a notice in a local newspaper. The Department received hundreds of emails and letters from interested persons regarding the proposed project, most expressing concerns but some in support of the proposed project. The letters and emails describing concerns about the proposed project that were related to standards that are reviewed as part of the Site Location of Development Act and NRPA were considered in the review of the proposal.

An interested person asked that the applications be reviewed under the amendments to the

Department's existing noise limits that have been provisionally adopted by the Board of Environmental Protection. Because the amended rules must still be reviewed and approved by the Maine Legislature and then finally adopted by the Board they are not in effect. Thus the Department applied the existing Chapter 375 (10) noise rules to the applications.

Interested persons contended that a series of statements by the applicants in the Project Need section of the applications were not substantiated with scientific facts, and stated that LD 2283 (An Act to Implement Recommendations of the Governor's Task Force on Wind Power Development) directed the Legislature to determine the climate benefits of wind power, which has not occurred. The Legislature did make findings in its adoption of the Wind Energy Act, in 35-A M.R.S.A.§3402, that it is in the public interest to encourage the construction and operation of community wind power generation facilities because wind energy "is an economically feasible, large-scale energy resource that does not rely on fossil fuel combustion or nuclear fission, thereby displacing electrical energy provided by these other sources and avoiding air pollution, waste disposal problems and hazards to human health from emissions, waste and by-products". Further 35-A M.R.S.A. §3454 provides that the primary siting authority, here the Department, shall presume that an expedited wind energy development provides energy and emissions-related benefits described in 35-A M.R.S.A.§3402. The applications include a statement that renewable energy demands are increasing and that this project will address concerns about reducing greenhouse gases and particulates from combustion. While the applicants' statements were general in nature, the Department defers to the Legislature's findings and also utilizes its knowledge and expertise in this area to evaluate the statements. The policy considerations of the Legislature in enacting the Wind Energy Act are relevant in the Department's interpretation of its statues, but the Department is required to focus on the statutory licensing criteria set forth by the Legislature. The amount of potential climate benefit from the proposed project is not a factor under the licensing criteria.

An interested person expressed a variety of concerns related to the stated net capacity of the proposed project, lack of zoning in Aroostook County, unsupported claims of improved air quality provided by the project, and potential adverse impacts on local meteorology. Several interested persons voiced concerns about the wind power industry being subsidized by the government. The Department notes these concerns but that they are not factors to be considered under the applicable statutory licensing criteria.

During its review of the application, the Department also received hundreds of electronic emails stating that the Department should review the amended application as a new application since the applicants have made major changes to the previous proposal. The Department's review of the revisions and additions to the previously-approved proposal was conducted using the same process as that required for a new application. As in past reviews of wind development applications, the Department conducted a public informational meeting to hear comments, concerns, and questions from interested parties. The Department determined that given the common aspects of the original project and the revised proposed project, and the use of the same location, the evaluation of this proposal as a request for a permit amendment made the most effective use of the Department's prior knowledge and information gathered, as well as being more efficient for the applicant and persons wishing to be involved in the permitting process. This approach is also consistent with existing regulatory requirements, which require

a modification to an existing Site Law permit if there is a change in the approved activity, which is the case here.

While the applications were being reviewed, the Department received comments from some interested persons in the surrounding towns regarding how the proposal would negatively impact tourism. The Department also received articles about various negative aspects of the wind power industry in this country and in Europe. The Department received some comments about the shortcomings of the Wind Energy Act. All of these concerns were noted but were only considered to the extent they addressed permitting criteria and were thus within the scope of the Department's review of the proposed project.

E. Comments on Draft Order. The Department issued a Draft Order for public comment on January 6, 2012. The comment period on the draft order was closed on January 13, 2012.

# 2. <u>TITLE, RIGHT OR INTEREST:</u>

To demonstrate title, right or interest in the property proposed for development, as required in Chapter 2 §11(D) and Chapter 372 § 9 of the Department's rules, the applicants submitted copies of deeds, leases and lease options between the applicants and the property owners for the proposed project site. The applications include deeds which show that the property owners who are leasing to the applicants have ownership over the parcels which are the subject of the leases.

The Department finds that the deeds, leases and lease options submitted by the applicants demonstrate a right to the necessary use of the property. The duration and the terms of the leases for the proposed project area are sufficient for the processing of these applications.

The applicants also submitted easements for certain adjacent parcels of land pertaining to noise, shadow flicker effects and safety setbacks. In its comments on the draft order, the town of Linneus stated that some noise easements would violate restrictive covenants on lots in subdivisions which restrict uses of those lots to single family residential purposes. Within the town of Linneus, a large scale timber harvest and sale was found by the courts to be a commercial use and a violation of such a covenant. The Department does not have the legal jurisdiction to ultimately decide whether an agreement to grant a noise easement to a neighboring landowner would violate such a covenant. However, the Department considered this argument, and the response filed by the applicants, and concludes that the agreement of landowners in a residential subdivision to tolerate noise levels on their property in excess of Department standards is not likely to be found by a court to be a commercial use of that property and is acceptable for the Department's purposes of processing and granting a permit for this development.

Therefore the Department finds that the applicants demonstrated sufficient title, right or interest in all of the property which is proposed for development or use. Prior to the start of construction, the applicants must submit to the Department for review evidence that all necessary options have been exercised and final deeds, leases and easements have been executed and recorded.

# 3. <u>FINANCIAL CAPACITY</u>:

The total cost of the construction of the project is estimated to be \$363,000,000.00. Evergreen Wind Power II LLC and Maine Genlead LLC are wholly owned by First Wind Holdings LLC. The applicants submitted a letter of support to provide initial funding for the project from First Wind in Appendix 3-1 of the application. Prior to the start of construction, the applicants must submit to the Department for review and approval evidence that they have been granted a line of credit or a loan by a financial institution authorized to do business in the State or evidence of any form of financial assurance determined by Department Rules, Chapter 373(1), to be adequate.

The Department received comments from an interested person with concerns about the applicants' financial capacity. The interested person stated that only a professional review of the financials that the applicants submitted prior to construction would enable the Department to determine if the applicants are accurately reporting their assets. The interested person asked that the applicants show that they have funds to commence all site preparation or revegetation (should the project not proceed) before starting the project. This commenter further asked that, prior to construction, the applicants show that they have current capacity to fund all construction and all decommissioning payments. These arguments are based on the interested person's allegation that construction on the Rollins Mountain Wind project started before the applicants beginning construction on this project without a complete and final demonstration of financial capacity is addressed by the requirement of the Site Law, 38 M.R.S.A. §484(1) and this approval as set forth below and in Special Condition 5.

The Department finds that the applicants have demonstrated adequate financial capacity to comply with Department standards provided that the further evidence of financial capacity to construct the development in its entirety is submitted prior to any site alterations as described above.

## 4. <u>TECHNICAL ABILITY</u>:

The applicants provided resume information for key persons involved with the project and a list of projects successfully constructed by the applicants. The applicants also retained the services of several consulting firms to assist in the design and engineering of the project. These firms and their involvement in the proposed project are as follows:

- Stantec Consulting natural resource assessment, permitting
- DeLuca Hoffman Engineering, LLC engineering
- Albert Frick Associates, Inc. soil assessment
- RLC Engineering electrical engineering design
- Terrence DeWan Associates visual impact analysis
- Bodwell EnviroAcoustics LLC sound assessment
- TRC/Northeast Cultural Resources prehistoric archaeological resources
- Independent Archaeological Consulting historic archaeological resources

- Public Archaeology Lab historic architectural resources
- Integrated Forest Management public outreach
- Verrill-Dana and Bernstein-Shur legal counsel

Based on the experience and expertise of the applicants and their retained consultants, the Department finds that the applicants have demonstrated adequate technical ability to comply with Department standards.

#### 5. <u>NOISE</u>:

To address the Site Law standard pertaining to the control of noise, 38 MRSA §484 (3), and the rules adopted thereunder, Chapter 375 §10, the applicants submitted a Noise Impact Study entitled "Sound Level Assessment," completed by Bodwell EnviroAcoustics LLC and dated June 2011. The sound level study was conducted to model expected sound levels from the proposed revised Oakfield Wind project, and to compare the model results to requirements set forth in Chapter 375 § 10.

As discussed in Finding 1, the applicants have revised the originally approved and permitted Oakfield Wind Project that included 34 GE 1.5 MW turbines totaling 51 MW of generating capacity. The Noise Impact Study submitted with these amendment applications is based on current proposal to use 50 Vestas V112 3.0MW wind turbines which the applicants state would result in a wind energy facility with 150 MW of generating capacity.

The Oakfield Wind Power project must comply with Department regulations applicable to sound levels from construction, routine operation and routine maintenance. Chapter 375 §10 applies hourly sound level limits ( $L_{Aeq-Hr}$ ) at facility property boundaries and at nearby protected locations. Chapter 375§10 (G)(16) defines a protected location as "[a]ny location accessible by foot, on a parcel of land containing a residence or planned residence or approved subdivision near the development site at the time a Site Location of Development application is submitted..." In addition to residential parcels, protected locations include, but are not limited to, schools, state parks, and designated wilderness areas.

The hourly sound level resulting from routine operation of a development is limited to 75 decibels (dBA) at any development property boundary as outlined in Chapter 375 \$10(C)(1)(a)(i). The hourly equivalent sound level limits at any protected location vary depending on local zoning or surrounding land uses and existing (pre-development) ambient sound levels. At protected locations within commercially or industrially zoned areas, or where the predominant surrounding land use is non-residential, the hourly sound limits for routine operation are 70 dBA in the daytime (7:00 a.m.) and 60 dBA in the nighttime (7:00 p.m. to 7:00 a.m.). At protected locations within residentially zoned areas or where the predominant surrounding land use is residential, the hourly sound level limits for routine operation are 60 dBA daytime and 50 dBA for nighttime. Where the daytime pre-development ambient hourly sound level is equal or less than 45 dBA and/or nighttime ambient hourly sound level is equal to or less than 35 dBA, the Department's strictest "Quiet Location" limits of 55 dBA daytime and 45 dBA nighttime apply.

Due to the rural nature of the proposal, Department standards require that the applicants meet the "Quiet Location" limits, the Department's most restrictive sound limits. The applicants propose to operate the project in compliance with these limits as set forth in Chapter 375 (H)(3)(1). In Quiet Locations, nighttime limits at a protected location apply at the property line of the protected location, or up to 500 feet from sleeping quarters when the property line is greater than 500 feet from a dwelling.

To assist with the review of the application, the Department retained a noise expert, Peter Guldberg of Tech Environmental, Inc., to review the applicants' prediction model and associated data as well as other evidence received on the issue of noise.

A. <u>Sound Level Modeling.</u> The applicants' noise consultant, Bodwell EnviroAcoustics LLC, developed a sound level prediction model to estimate sound levels from the operation of the proposed project. The sound model for the revised project was created using Cadna/A software developed by DataKusik of Germany. Cadna/A allows the consultant to construct topographic surface models of area terrain for calculating sound attenuation from multiple sound sources such as wind turbines. The locations of the proposed turbines, roads, parcels, land uses and waterbodies have been entered into Cadna/A in order to calculate sound levels at various points within the proposed project area. Sound level predictions are calculated in accordance with ISO 9613-2, which is an international standard for calculating outdoor sound propagation.

Although substation transformers emit sound, they were not considered significant sound sources by the applicants' consultant due to the low sound output and relatively large distance from protected locations and were not included in the model. The Department and Peter Guldberg found this appropriate and acceptable.

The Bodwell EnviroAcoustics LLC June 2011 report determined expected sound levels from the proposed project, and compared these levels to the Department's sound level limits for "quiet areas" of 45 dBA during the nighttime and 55 dBA during the daytime at protected locations. This report incorporated conservative factors for sound attenuation using the following assumptions:

- mapping waterbodies as reflective surfaces and excluding potential sound attenuation due to foliage
- adding 2.0 dBA to manufacturer's wind turbine performance specification as recommended by the manufacturer
- adding 3.0 dBA to turbine sound power level as an uncertainty factor in the ISO 9613-2 model of attenuation of sound during propagation outdoors; and
- assuming that all turbines are operating simultaneously at continuous full sound output, except where daytime only or noise reduced operation (NRO) is required.

These conservative factors added a total of 5.0 dBA to the Vestas V112 maximum sound power level of 106.5 dBA, resulting in an assumed maximum sound power level in the acoustic modeling of 111.5 dBA.

Sound levels from wind turbine operations were modeled in the area surrounding the proposed project site. For some locations at which the predicted noise levels will exceed the limits established in Chapter 375, the applicants have obtained sound easements and submitted these easements in Appendix 5-2 of the Evergreen Wind Power II application. As set forth in Chapter 375 § 10 (C)(5)(s), a noise (sound) easement may exempt the project from meeting the Department's noise limits for the specific noise, on a specific parcel of land, and for the term covered by the agreement, essentially making the that parcel of land no longer considered a protected location under the rules. With the easement properties excluded, sound level predictions were calculated at 13 receptor points that represent the protected locations. The applicants' sound level predictions indicate that with all wind turbines operating simultaneously at full capacity, the proposed project will meet the Department's daytime sound level limit of 55 dBA at all regulated protected locations.

The applicants' model predicted that at full operation capacity the nighttime sound level limit of 45 dBA would not be met at certain protected locations, therefore the applicants propose to utilize a nighttime operations plan in order to meet the nighttime sound level limits at all regulated protected locations. The total uncertainty factor of 5.0 dBA was also added to the Vestas' sound power levels for the turbines with nighttime noise reduction operation modes (NRO modes). This NRO includes curtailing nighttime operations of five wind turbines in the north group (N), three turbines in the east group(E), and six in the south group(S), as shown in Table 1 below. Table 1 reflects the degree of reduction proposed for each turbine for which NRO is proposed, with NRO 1 being a 1 dBA reduction and NRO 2 being a 2 dBA reduction.

Table 1

Turbine #	Nighttime Operation
N11,N13 & N14	NRO 1
N15	NRO 2
N16	NRO 4
E01	NRO 1
E03	NRO 2
E04	NRO 2
S01, S02, S03 & SO4	NRO 2
S05	NRO 1
S07	NRO 2

During nighttime hours, the applicants propose to implement noise-restricted operation of specific turbines listed in Table 1 to meet the Department's nighttime sound level limit of 45 dBA at all protected locations that are not exempt due to existing sound easements.

B. <u>Short Duration Repetitive Sound.</u> Chapter 375 §10(G)(19) defines short duration repetitive sound (SDRS)as "a sequence of repetitive sounds which occur more than once within an hour, each clearly discernible as an event and causing an increase in the sound level of at least 6 dBA on the fast meter response above the sound level observed immediately before and after the event, each typically less than ten seconds in duration, and which are inherent to the process or operation of the development and are foreseeable." Chapter 375 requires that 5 dBA

be added to the observed level of any defined SDRS resulting from routine operation of a development.

The June 2011 report submitted by the applicants summarized measurements of operating wind turbines in Maine and data from published literature that indicate that sound level fluctuations during the blade passage of wind turbines typically range from 2 to 5 dBA with an occasional event reaching 6 dBA or more. However, the applicants' report concludes that the occurrence of these higher fluctuations would be so infrequent that they are not expected to meet the Department's definition of SDRS or affect the predicted sound levels. The Department's consultant, Tech Environmental reviewed this study and stated, "Since the 5-dBA penalty for SDRS is applied only to the SDR sounds and not the entire measurement interval, the infrequent occurrence of SDR sound events are not expected to significantly affect the project's sound levels and no adjustment to the acoustic model predictions for 1-hour LegA levels is necessary. Compliance testing for SRDS will be done after the project completion." Based on the applicants' June 2011 report, the experience of operating wind turbines in Maine, and the evaluation of the Department's consultant, the Department finds that the proposed project is unlikely to generate short duration repetitive sounds. Compliance testing for SDRS which will be incorporated into the post-construction noise monitoring program (discussed later in this finding) after project completion will provide insurance that SDRS is not occurring.

C. <u>Tonal Sound</u>. As defined in Chapter 375 \$10(G) (24), a regulated tonal sound occurs when the sound level in a one-third octave band exceeds the arithmetic average of the sound levels in the two adjacent one-third octave bands by a specified dB amount based on octave center frequencies. Chapter 375 requires that 5 dB be added to the observed level of any defined tonal sounds that result from routine operation of a development.

The applicants' June 2011 report states that the Vestas V112 Sound Level Performance Standard warranties that the Vestas V112 turbines will not produce a tonal sound as it is defined by Maine's Noise Regulations. In its review of the applicants' study on behalf of the Department, Tech Environmental confirmed that an analysis of the sound power octave band spectrum for the Vestas V112 reveals that it has no potential for creating a tonal sound as defined in the Department's Regulations. On the basis of the manufacturer's warranty and the expert analysis conducted by the Department's noise consultant, the Department finds that the project will not produce tonal sounds.

D. <u>Generation Lead Line</u>. The proposed generator lead line is anticipated to produce a minor noise impact during operation.

E. <u>Public Comment.</u> Interested persons submitted comments regarding sound levels from the proposed project. One interested person was concerned with NROs and their ability to work as described. The peer review for the Department found that the NROs as proposed will allow the project to meet the required noise standards.

One interested person requested the Department to use the same level of protection the Land Use Regulation Commission (LURC) gave to an Unorganized Territory by lowering the nighttime dBA limit to 40 decibels. Furthermore, the commenter stated that the World Health

Organization (WHO) recommends a noise limit of less than 40 dBA at a residence. Tech Environmental reviewed these comments and noted that LURC set a 40 dBA limit for Bull Hill Wind Farm because that project was located adjacent to the town of Eastbrook, which has adopted a uniform 40-dBA limit for wind energy projects. The Department would similarly impose a stricter noise limit if a project was located in a municipality with a noise ordinance that applied to wind energy projects and that set lower limits then those in the Department's Regulations, but that is not the case here. With regard to the contention that the WHO's recommended nighttime noise limit is lower than the Department's, the Chapter 375 quiet area sound limit is 45 dBA, and it is consistent with the nighttime 45 dBA limit that the WHO recommends. The WHO document that references a 40-dBA guideline refers to an annual average sound level, which for wind turbine projects is equivalent to a one-hour limit of 45 dBA or higher. The WHO does not recommend a short term sound limit at or below 40 dBA.

An interested person submitted a study entitled "The Bruce McPherson Infrasound and Low Frequency Noise (IFLN) Study – Adverse Health Effects Produced by Large Industrial Wind Turbines Confirmed," prepared by Steve Ambrose and Robert Rand and dated December 2011. Other interested persons also referred to this study in comments to the Department. This study was commissioned by a private grant and created to determine why there were complaints about the loss of well-being and hardships experienced by people living near large industrial wind turbines operating in Falmouth, Massachusetts. The commenter submitting this study is concerned about infra sound and low frequency noise from the proposed project. The Department does not regulate low frequency sound levels, but Tech Environmental, Inc. reviewed this study and the concerns raised. Tech Environmental, Inc. observed that the wind turbines used in the study and the wind turbines proposed for Oakfield are not comparable. The Oakfield project proposes to use the latest generation from Vestas in the V112 turbine that has pitch-regulated blades. These are designed so that the individual blades rotate, or pitch, out of the wind at high speeds which allows the turbine to noiselessly shed excess wind. The turbines used in the December 2011 study were an older model V82 that has a stall-regulated design. Stall-regulated turbines employ a fix blade that is slightly twisted down the length of the blade. At higher wind speeds a stall regulated turbine blade produces higher levels of low frequency impulse noise, which a pitch-regulated turbine does not do. Moreover, the homes studied in the December 2011 study were located closer to the wind turbines than the distance between homes and any turbines proposed by the applicants. The Department does not regulate low frequency sound levels. Furthermore, Tech Environmental found major flaws in the study itself.

F. <u>Department Review</u>. As noted above, the Department's independent noise expert, Peter Guldberg of Tech Environmental, assisted the Department in its review of potential noise impacts. Tech Environmental reviewed all of the materials submitted by the applicants and by members of the public.

Tech Environmental reviewed the original June 2011 Bodwell Sound Level Assessment and submitted a Peer Review of the Sound Level Assessment, dated September 1, 2011. Tech Environmental concluded that the turbine maximum sound power level with a conservative uncertainty factor was used in the analysis; the acoustic model and its assumptions are appropriate; the sound receiver locations are appropriate; the decibel contour maps adequately

cover the potential impact area; and the Department's Noise Regulations have been properly interpreted and applied by the applicant.

G. <u>Post-construction Monitoring Program.</u> To ensure that the modeling and predictions submitted by the applicants and deemed reasonable by the Department correctly predicted sound levels, and that the project continues to meet the noise standards reflected in this permit over time, the applicant must conduct post-construction sound level monitoring at least once during the first year of project operations, and then once each successive fifth year thereafter until the project is decommissioned. Additional compliance monitoring may be required by the Department in response to a complaint, or any subsequent enforcement action by the Department, or for validation of the applicant's predicted sound levels when requested by the Department. The complaint response protocol, attached to this order as Appendix A, will apply to this development. These requirements also address concerns raised by interested persons regarding the options to homeowners' if noise appears to be greater than approved by the Department.

H. <u>Municipal Review Committee.</u> In the course of the municipal review of the project, the Town of Oakfield's Wind Energy Review Committee (WERC) retained the services of Resource System Group (RSG), a professional noise consultant, to address sound and noise issues related to the proposed project. RSG performed an independent review of the sound modeling submitted by the applicants, as described in its Final Report dated October 19, 2011. As a result of this report, the applicants revised a portion of its DEP amendment application to address concerns raised during this review. Some of the revisions made to the application are more restrictive than the standards of the Site Law. These revisions include:

• As discussed above, to meet the Department's quiet nighttime limit of 45 dBA at all protected locations, the applicants proposed to operate several turbines in NRO including, but not limited to, N11, N13, N14, N15 and N16, which are part of the northern string of turbines. To address the Town of Oakfield's concerns about impacts to several dwellings on Thompson Settlement Road near the northern turbine string located less than 500 feet from the property line, the applicants now propose to increase NRO as needed up to a 4-dBA reduction for turbines N13, N14, and N15 when winds are from the south or southeast and/or provide substantial evidence (including collected sound data) that sound levels will not exceed the 45 dBA or 55 dBA limits at locations up to 500 feet from these dwellings on Thompson Settlement Road, regardless of the location of the property line.

• The applicants indicated that they may in the future investigate reducing or eliminating the use of NRO. In this event the applicants will be required to apply to the Department for a modification of this Order, supported with monitoring data that demonstrates compliance at the affected locations when NRO is reduced or not utilized. The applicants will provide substantial evidence (including collected sound data) to the Department, in the form of a minor amendment application, with a copy to the Town demonstrating that sound levels will not exceed the 45 dBA nighttime and 55 dBA daytime sound limits, including at locations within 500 feet of the dwellings described above on Thompson Settlement Road near the northern turbine string, regardless of the

location of the property lines for those parcels. If NRO is reduced, the applicants propose to provide monitoring data to show compliance at the affected locations based on the reduced NRO.

• The applicants will compare sound levels (dBA) from the wind turbines to ANSI S12.2-2008 indoor, acoustically-induced, moderately perceptible vibration and rattle standard for octave band frequencies up to 63 Hz. The applicants will collect 1/3 octave band data during monitoring carried out in accordance with Chapter 375.10 and the sound monitoring protocol. For comparison to ANSI S12.2-2008, the applicants will report the 1/3 octave band data as ten-minute equivalent sound levels (Leq) and extend at least to 20 Hz.. The applicants will report the 10-minute equivalent C-weighted sound levels (LCeq) to the Town of Oakfield, and to the Department.

• The applicants propose post-construction monitoring consistent with the previously permitted Oakfield Wind proposal, which includes provisions to monitor for overall sound level, SDRS, and tonal sounds. The applicants propose to amend the post-construction monitoring protocol to include at least six representative monitoring locations around the project, including one location at or near the following roads: Spaulding Lake Road, Brown Road, Nelson Road and South Road; and two locations on or near Thompson Settlement Road. The specific locations will be chosen in consultation with the Department and the Town of Oakfield based on how well they represent local meteorological conditions and their relative noise impact from the wind turbine (highest potential to exceed the applicable noise standards). In addition, special consideration will be given to landowners that have registered sound complaints. The number of monitoring locations in subsequent project monitoring, if required, may be reduced in consultation with the Town and approval of the Department, if it is determined that such location(s) are not needed to demonstrate compliance.

• The Oakfield Wind Project Sound Complaint Response and Resolution Protocol will now incorporate these changes.

• If prominent discrete tonal sounds occur or are reasonably suspected to be occurring, the applicants will perform a timely investigation to determine if the wind energy facility is properly operating or has been properly maintained, and determine if any applicable sound limits have been exceeded, as determined in accordance with the Department's protocol for determining compliance, including but not limited to the Department's interpretation and applicable sound limits, the applicants will promptly notify the Department and the Town of Oakfield. The applicants will expedite an investigation of the sound level exceedence and the associated tonal sound, and will develop a mitigation plan and a schedule to achieve compliance with applicable sound level limits. The applicants will provide copies of the mitigation plan and provide a written report describing the action(s) taken and new measurement results that demonstrate compliance. Mitigation options could include reduction of the overall sound levels and/or the tonal sound component.

Peter Guldberg of Tech Environmental reviewed this proposal from the applicants and noted that the Sound Study already promised NRO levels 1 and 2 for turbines N13, N14 and N15, and showed compliance with the 45-dBA limit with an assumed 5-dBA uncertainty factor. The request to go up to NRO 4 (4-dBA reduction) for N13, N14, and N15 is to accommodate the Town of Oakfield's request that the 45-dBA limit be extended beyond the definition of "protected location" in the Department's regulations. Mr. Guldberg also pointed out that the applicants should collect 1/3-octave band data down to 16 Hz and not stop at 20 Hz, if they intend to properly apply the induced-vibration criteria in ANSI 12.2. The applicants responded that the applicants were voluntarily agreeing to collect and report certain low frequency sound in a range agreed to with the Town and its acoustic consultant. They further commented that the applicant's agreement to collect and report these data for the Town is not intended as an agreement to be subject to ANSI limits, nor do Department regulations subject the project to the ANSI limits.

An interested person commented on the Municipal Review Committee's proposals and was concerned about unproven NRO, low frequency noise, and the inaccuracy of CADNA Noise Modeling. Peter Guldberg reviewed these concerns and responded to each in a letter dated November 18, 2011:

• The Vestas turbines have warranted the reductions of 1 to 4 dBA for NRO Modes 1 to 4 dBA in actual use and this is strong evidence that the turbines can and will achieve reductions needed for compliance with the Department's nighttime 45 dBA limit at protected locations along with the goals of the agreement with the Town for extending the 45 dBA limit beyond property lines in certain instances.

• The interested person is concerned with the fact that there are no limits put on low frequency noise, however the Department does not regulate low frequency noise. Mr. Guldberg found no evidence that the Oakfield Wind project will produce low frequency sound that constitutes a nuisance. In Mr. Guldberg's experience, utility-scale wind turbines that are limited to 45 dBA or less produce low frequency sound levels that are too low to produce vibrations in residential structures or create annoyance. The commenter's reference to "participating parties" and "non-participating parties" is based on the fact that some nearby residents have entered into agreements with the applicants granting noise easements. These people which he refers to as "participating parties" are thus not afforded the protections of the Department's sound regulations. The town's noise consultant predicted that low frequency noise levels for the non-participating homes in Oakfield would be below the ANSI S12.2 thresholds for indoor rattles and vibration for all non-participating homes. The interested person drew comparisons with the Mars Hill project, which as discussed below is not a comparable project.

• The interested person stated that an analysis by Robert Rand showed the predicted noise levels to be lower than what would occur, on average "by 3 db or more". The graph referred to plots of sound level versus distance for two projects, Mars Hill, which is in existence, and the proposed Oakfield project. The comparison is not valid for these reasons: 1) the turbines used in the two projects are not the same; 2) the number of turbines, density and geometry to receivers is different; and 3) the values presented for Oakfield are model

predictions that contain the 5 dBA safety factor, and that safety factor was not used in the Mars Hill modeling for sound levels. This graph prepared by Robert Rand does not provide information regarding the accuracy of the acoustic model predictions for Oakfield Wind. A detailed review of the accuracy of the CADNA\A model, when applied to utility scale wind turbines in high-ridge environments in Maine, found that this model, when used in conjunction with a 2 dBA uncertainty factor, accurately predicts actual maximum sound levels.

The interested person further stated that the Vinalhaven project (Fox Island Wind, a small-scale wind energy development certified by the Department), was found to produce noise levels that exceed night limits as a result of CADNA shortcomings. Other interested persons also raised concerns about noise levels based on issues relating to the Vinalhaven project. This conclusion about the CADNA model is incorrect because the consultant for that particular project assumed an incorrect sound limit of 50 dBA for the Town of Vinalhaven and he failed to include an uncertainty factor for the turbine sound power level.

I. <u>Department Findings.</u> The Department finds that the sound modeling techniques used by the applicants are in keeping with standard industrial sound modeling protocols. The Department's knowledge and experience with these modeling techniques include the information submitted during the recent rulemaking process to amend Chapter 375 §10, in which a large amount of evidence in the form of technical data and public testimony and comments were received and reviewed by the Department and its former noise expert, Warren Brown.

Based on the applicants' submissions, and the review of those submissions by the Department's expert, and with the proposal to operate the specified turbines in reduced sound power mode as outlined in the application, the Department finds that the proposed project will meet all applicable standards of Chapter 375 (10), including tonal sound and SDRS, and that the applicant has made adequate provisions for the control of excessive environmental noise from the proposed project provided that the applicants operate turbines in reduced sound power mode as outlined in the application. To ensure that the project operates in compliance with the permit and the Department's regulations, the Department finds that the applicants must implement the post-construction monitoring program, including the complaint response protocol. The applicants must submit the compliance locations for review and approval to the Department prior to operation; the applicants must implement the complaint response protocol outlined below; and the applicants must submit sound level monitoring reports in accordance with the post-construction monitoring program described above. Upon any finding of noncompliance by the Department, the applicants must take short term action immediately to adjust operations to reduce sound output to applicable limits under Chapter 375 (10). Within 60 days of a determination of non-compliance by the Department, the applicants must submit, for review and approval, a compliance plan that proposes actions to bring the project into compliance. The Department will review any such compliance plan and may require additional mitigation or alternative measures. If immediate actions to bring the project into compliance with the applicable noise standards are not taken or not successful while the process of generating and obtaining approval of a longer term plan is taking place, the Department may take such enforcement action as it finds appropriate to ensure compliance with the Site Law, applicable provisions of Chapter 375 (10), and this permit.

## 6. <u>SCENIC CHARACTER</u>:

In order to assess the potential scenic impact of the proposed project on resources of state and/or national significance, the applicants submitted two visual impact assessments (VIA) for the proposed project prepared by Terrence J. DeWan and Associates (TJD&A). The first, entitled *Section 30: Visual Impacts of a Generation Facility*, focused on examining the potential scenic impact of the generating facility and associated facilities to scenic resources of state or national significance (SRSNS) within eight miles of the proposed project using the evaluation criteria presented in the Wind Energy Act. The second, entitled *Section 6: Visual Quality and Scenic Character*, evaluated the generator lead line, using the Department's traditional scenic assessment procedures. In addition, a user intercept survey authored by Market Decisions and dated October 2011 was submitted for evaluation by the applicants. The Department hired a third party expert, James F. Palmer of Scenic Quality Consultants (SQC), to review the Scenic Character section of the applications and provide the Department with comments.

Title 35-A § 3452 (1) provides in pertinent part that:

In making findings regarding the effect of an expedited wind energy development on scenic character and existing uses related to scenic character pursuant to ... Title 38, section 484, subsection 3 or section 480-D, the [Department] shall determine, in the manner provided in subsection 3, whether the development significantly compromises views from a scenic resource of state or national significance such that the development has an unreasonable adverse effect on the scenic character or existing uses related to scenic character ... Except as otherwise provided in subsection 2, determination that a wind energy development fits harmoniously into the existing natural environment in terms of potential effects on scenic character and existing uses related to scenic character is not required for approval under... Title 38, section 484, subsection 3.

With regard to the facilities associated with an expedited wind energy development, such as substations, buildings, access roads and generator lead lines, Title 35-A § 3452 (2) provides in pertinent part that:

The [Department] shall evaluate the effect of associated facilities of a wind energy development in terms of potential effects on scenic character and existing uses related to scenic character in accordance with ... Title 38, section 484, subsection 3, in the manner provided for development other than wind energy development if the [Department] determines that application of the standard subsection 1 to the development may result in unreasonable adverse effects due to the scope, scale, location or other characteristics of the associated facilities. An interested party may submit information regarding this determination to the [Department] for its consideration. The [Department] shall make a determination pursuant to this subsection within 30 days of its acceptance of the application as complete for processing.

Title 35-A § 3452 (3) provides that:

A finding by the [Department] that the development's generating facilities are a highly visible feature in the landscape is not solely sufficient basis for determination that an expedited wind energy project has an unreasonable adverse effect on the scenic character and existing uses related to scenic character of a scenic resource of state or national significance. In making its determination under subsection 1, the [Department] shall consider insignificant the effects of portions of the development's generating facilities located more than 8 miles, measured horizontally, from a scenic resource of state or state or national significance.

The proposed amended Oakfield wind project contains "generating facilities" including wind turbines and towers as defined by 35-A M.R.S.A. § 3451 (5) and "associated facilities" such as buildings, access roads, and substations, as defined by 35-A M.R.S.A. § 3451 (1). The proposed project is subject to the expedited wind energy development standards outlined above and, to the extent applicable, 38 M.R.S.A. § 484 (3). The amended Oakfield application also contains the generator lead line.

As provided in 35-A M.R.S.A. § 3452 (2), the Department made a determination within 30 days of the receipt of the application that the potential effects of the generator lead transmission line on the scenic character and existing uses would be reviewed under 38 M.R.S.A § 484(3) of the Site Law and 38 M.R.S.A. §480-D(1) of the Natural Resources Protection Act.

The Department required the applicant to conduct a visual impact assessment within a threemile radius of the proposed generation facility portion of the project. Although not specifically required by the Department, the applicant also reviewed potential impacts in the area between three and eight miles of the proposed project. The applicants' VIA for the generating facility and associated facilities, not including the generator lead transmission line, addressed the following criteria, as set forth in 35-A § 3452(3):

- (A) The significance of the potentially affected scenic resource of state or national significance;
- (B) The existing character of the surrounding area;
- (C) The expectations of the typical viewer;
- (D) The expedited wind energy development's purpose and the context of the proposed activity;
- (E) The extent, nature, and duration of potentially affected public uses of the scenic resource of state or national significance and the potential effect of the generating facilities' presence on the public's continued use and enjoyment of the scenic resource of state or national significance; and
- (F) The scope and scale of the potential effect of views of the generating facilities on the scenic resource of state or national significance, including but not limited to issues related to the number and extent of turbines visible from the scenic resource of state or national significance, the distance from the scenic resource of state or national significance and the effect of prominent features of the development on the landscape.

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1.) <u>National Natural Landmarks</u>. The VIA found no National Natural Landmarks within an eight-mile radius of any turbines or associated project facilities.

2.) <u>Historic Resources.</u> The applicants conducted historic resource surveys which indicated that there are four properties within eight miles of the proposed project as amended. The four properties are:

- William Sewall House is located on Main Street in Island Falls.
- Island Falls Opera House is located on Patten Road and Sewall Street in Island Falls.
- Oakfield Station is located on Station Street in Oakfield.
- Oakfield Grange is located on Ridge Road in Oakfield.

Of the four properties, the turbines will be visible from the Oakfield Grange only; the view from the other sites is blocked by topography and vegetation.

3) <u>National or State Park.</u> There are no national or state parks within eight miles of the generator facility and associated facilities. However, the Bureau of Parks and Lands does own land on Mattawamkeag Lake which is discussed below.

4.) <u>Great Ponds.</u> There are two great ponds within eight miles of the generator facility and associated facilities that have been designated as "significant" in the *Maine Wildlands Lake Assessment*: Pleasant Lake and Mattawamkeag Lake. There are no lakes within eight miles that have been designated as "outstanding" from a scenic perspective in the *Maine Wildlands Lake Assessment*.

• **Pleasant Lake** is a 1,832-acre lake with a shoreline of mixed forest located in T4 R3 WELS and the Town of Island Falls. There are approximately 150 camps and year-round homes surrounding the lake. Typical uses on the lake include boating, fishing, ice fishing, camping, swimming, snowmobiling, and seasonal camps. There is a potential for turbines to be visible from nearly 90 percent of the lake; the closest turbine tips visible from the lake will be 1.5 miles away, and the hubs of up to 22 turbines will be visible from most of the lake. The applicants' study concluded that the visual impacts to the lake of the revised project proposed in this applicants' study, this scenic impact was determined to be low tending toward medium and would not be an unreasonable adverse impact.

• **Mattawamkeag Lake** is 3,330 acres in size and is located in the Town of Island Falls and T4 R3 WELS. The lake consists of two large basins and is surrounded by mixed forest. It is listed as a significant scenic resource in the *Maine Wildlands Lake Assessment* (Giffen et al. 1987). Turbines will be visible from 10 percent of Upper Mattawamkeag Lake, and from 80 percent of Lower Mattawamkeag Lake. The overall scenic impact to Upper Mattawamkeag Lake will be minimal to low and on Lower Mattawamkeag Lake it will be medium to high. The VIA concluded that the revised project should not have an unreasonable adverse effect on the lake's scenic character or the uses related to the scenic character of the

lake.

5.) <u>Scenic Rivers.</u> The VIAs for the generator facility and associated facilities found no designated Scenic River or Stream segments within eight miles of the project.

6.) <u>Scenic Viewpoints or Trails.</u> The VIA for the generator facility and associated facilities noted one scenic turnout overlooking Upper Mattawamkeag Lake on Route 2 in Island Falls. At this location the tops of several turbines will be visible, although they will be more than four miles away. Because this turnout is not on a designated scenic highway, state reserved land, a trail used exclusively for pedestrian use, or in a ranked coastal area, it is not considered a scenic resource of state or national significance. Nevertheless, the applicants submitted a photosimulation from this location in the VIA.

7.) <u>Scenic Viewpoint located in a Coastal Area.</u> The VIAs determined that this is not applicable to the proposed project.

<u>Associated Facilities</u>. Roads, Crane Paths and Buildings. The VIAs determined that the access roads, crane paths, turbine pads and Operation and Maintenance (O&M) building have a minimal possibility of being seen from any SRSNS or other public area. The applicants' study concluded that these associated facilities will not have an unreasonable adverse effect on scenic character and existing uses.

Several members of the public commented that the proposed turbines would change the character of Pleasant Lake and Mattawamkeag Lake. One interested person was specifically concerned with the hiker survey that was used by the applicants since it was completed for a different wind energy development, the Bull Hill Wind project. This commenter stated that the Bull Hill survey was flawed because it included no margin of error and used poor sampling methods. Further, this commenter expressed concerns about the impacts on the remote character of Mattawamkeag Lake, and did not agree with the VIA's conclusion that "the Project should have a minor impact on the public's continued use and enjoyment of Pleasant Lake." This person also asserted that statements in the VIA that scenic quality might be less important to people fishing or boating on these lakes are unsupported. It was further pointed out that a site visit showed that the canopy is not tall enough to visually shield the turbines from either Pleasant Lake or Mattawamkeag Lake.

Mr. Palmer, the Department's expert on scenic impacts, reviewed the applicants' VIAs and the comments submitted by the members of the public. He observed that both lakes' scenic value is listed as "significant," but not the higher rating of "outstanding" in the *Maine Wildlands Lake Assessment*. He commented that neither of the lakes would be considered "remote" because they have road access, boat launches, and residential development. He further commented that the members of the public commenting provided no evidence that wind development in Maine has had a significant effect on recreational use of affected areas. The initial surveys conducted by the applicants indicate that there will be little to no effect on recreation use or experience.

Mr. Palmer agrees with the public comment that vegetation will not screen all views of the turbines; however the Wind Energy Act states: "A finding by the primary siting authority that

the development's generating facilities area highly visible feature in the landscape in not a solely sufficient basis for determination that an expedited wind energy project has an unreasonable adverse effect on the scenic character and existing uses related to scenic character of a scenic resource of state or national significance ." (35-A M.R.S.A. §3452(3)). Mr. Palmer disagrees with the assertion that the Bull Hill survey is not valid or reliable. He found that the Bull Hill survey had a group reliability of .987 for the Black Mountain responses and .952 for the Donnell Pond responses, which are very high. There was no evidence that the hikers that agreed to be surveyed were any different than the hikers that declined to be surveyed. During the survey period, one hundred five adults were observed, and 81 completed the interview.

The applicants submitted a second survey by Market Decision entitled, "Pleasant Lake/Mattawamkeag Lake Wind Power Project Intercepts" dated October 2011. This document included interviews completed at locations on Pleasant Lake and Mattawamkeag Lake between August 26 and August 29, 2011 and between September 2 and September 5, 2011. The interested person reviewed the survey and contends that it had the same shortcomings as the Bull Hill survey, namely that the interviewees were self-selected and only included a small sample of the actual visitors. The interested person asserts that whether recreational users would return to the site should not be the only criterion by which visual impact should be evaluated.

Mr. Palmer reviewed the comments submitted criticizing the October 2011 report on the survey. In response to the public's concerns, Mr. Palmer asked the applicants for the raw data behind this report to further analyze the report's findings. After his review, he still concluded that this survey is valid. The survey included adults over 18 that agreed to be surveyed. He agrees with the public commenter that whether someone will continue to visit is not the only criterion, but one of several criteria.

In the initial review of the October 2011 report, Mr. Palmer found that the survey was "well constructed to address the Wind Energy Act's scenic criteria relating to users of [Scenic Resources of State or National Significance, or] SRSNSs." Mr. Palmer found that the scenic impact of the Oakfield Wind project from the "worst case" photo simulations shown to the respondents for Pleasant Lake and Mattawamkeag Lake will be very large and can be expected to be controversial. Mr. Palmer noted, however, that the "worst case" viewing conditions are limited to a restricted area, and from most of the lakes' area, there will be less visibility or no visibility of the proposed project. The survey participants at the Pleasant Lake boat launch responded that the scenic impact of the proposed project will have little to no effect on the enjoyment or continued use of either lake. The participants at Mattawamkeag Lake responded that there would be a medium or significant effect on their enjoyment. Fishing and boating were the most common activities recorded on both lakes, and the respondents felt that the visual change will have a small but noticeable negative effect on their continued fishing on these lakes, and a medium or significant effect on their continued use of these lakes for boating.

Mr. Palmer concluded that, based on these Wind Energy Act's evaluation criteria, the respondents at the Pleasant Lake boat launch may not experience a noticeable effect on the enjoyment of activities on and continued use of these lakes.

Mr. Palmer's opinion on the Mattawamkeag Lake boat launch survey results is that the effect on the respondents enjoyment will reach the level of an adverse impact, but he concluded that it is unlikely to be unreasonably adverse. It also appears that the effect on the continued use of these lakes for fishing may be adverse, but not unreasonably so. Mr. Palmer's conclusion was that while the effect on boating, another common water-based activity for these respondents, will be somewhat greater, it also does not appear to reach a level that would be unreasonably adverse.

Several persons commented on visual impacts from Bible Point, a local viewpoint that is owned in fee by the Bureau of Public Lands (BPL) and managed as a historic site. The lands surrounding Bible Point are owned privately but subject to a conservation easement held by the BPL. The conservation easement on the surrounding lands allows vehicular, mountain bike and snowmobile access into a boat access site at the outlet of Mattawamkeag Lake. Bible Point is not a Scenic Resource of State or National Significance (SNRNS) pursuant to the Wind Energy Act because it is not listed among the Public Reserved Lands identified by the Department of Conservation as an SRSNS, as required by the Wind Energy Act, nor is it listed on the National Register of Historic Places. Neither Bible Point nor the surrounding lands can be considered as an SRSNS trail, since the use is not limited to pedestrian use. Mr. Palmer did not visit the site, but based on land cover maps (GIS land cover data and Google Earth satellite imagery), he does not believe the turbines would be visible from the majority of the site. Ultimately, since this site is not an SRSNS, it does not need to be considered further by the applicants.

An area property owner commented that the people that own properties on Mattawamkeag Lake and Pleasant Lake were not given a public hearing about the impact of this project. The landowner expressed concern about negative impacts on local businesses which may result from the construction of the project, and the cumulative impacts of this project together with other wind power projects approved in the region. The Department held a public meeting in August 2011 that was open to people who owned property on Mattawamkeag and Pleasant Lakes. The Wind Energy Act contains no specific standards to address potential effects on local businesses.

Some members of the public raised concern over the visual impacts from the warning lights required by the Federal Aviation Administration that will be placed on the top of some turbines. An interested person submitted a photograph of another wind power project in the state which showed the reflection of such lights on a lake. The Department acknowledges that there may be some light reflected on the lake surface under rare occasions, but determined that the safety component of the required FAA lights outweighs any potential scenic impacts. Therefore the Department finds that these impacts are not unreasonable.

Some interested persons raised concerns over impacts on tourism, specifically in the Town of Island Falls. The Department notes these concerns but is only able to review the impact on tourists use and enjoyment of SRSNSs. The scenic impacts to SRSNSs were considered in the review of the application.

Based on the information presented in the VIA for the generator facility and associated

facilities, the design of the proposed generator facility and associated facilities, the applicant's user surveys, the comments and evidence submitted by members of the public, the analysis and review comments from the Department's visual impacts expert, Scenic Quality Consultants, and in consideration of 35-A MRSA § 3452 (2) and (3) the Department finds the generator facility will not unreasonably, adversely affect the scenic character of any SRSNS.

<u>Generator Lead Line</u>. The applicants submitted a separate VIA for this portion of the proposed project. As discussed, the proposed generator lead line will be located adjacent to existing transmission corridors for approximately 40 miles or 67% of its total length. The VIA prepared for this portion of the project was done using the Department's evaluation procedures under the Site Law, the NRPA, and the Department's regulations, Chapter 315 and Chapter 375 § 14. The Department determined, according to 35-A MRSA § 3452 (2) as described above, that this was appropriate because this portion of the project is a development of state or regional significance that may substantially affect the environment. No scenic resources were identified with views of the generator lead line. The VIA concluded that adequate provisions were made for fitting the generator lead line, the proposed development will not unreasonably adversely affect the scenic character of the surrounding area.

After reviewing the VIAs, the Department's visual impact expert, James Palmer of SQC, concluded in a report dated September 9, 2011, that the scenic impacts from the generator lead line, will not be unreasonably adverse.

Based on the VIA for the generator lead line and the comments from the Department's visual consultant the Department finds that the applicants have made reasonable accommodations to fit the generator lead line portion of the development into the natural environment and that no aspect of the project will have an unreasonable adverse effect on scenic character or existing uses related to scenic character of scenic resources of state or national significance, or other existing uses in the area.

# 7. <u>WILDLIFE AND FISHERIES</u>:

The applicants submitted the results of a series of ecological field surveys conducted by Stantec Consulting (Stantec), including wildlife surveys; wetland delineations; rare, threatened, and endangered plant species surveys; and vernal pool surveys within the project area, including the area affected by the 59 mile generation lead line. During the preparation of the surveys and other material in support of the application Stantec consulted with the Department and other natural resource review agencies.

A. <u>Significant Vernal Pools</u>. Stantec conducted vernal pool surveys within the project area in spring 2008, 2009, 2010 and 2011. Stantec identified 47 vernal pools within the turbine project area, six of which are Significant Vernal Pools (SVPs) and one of which is a Potentially Significant Vernal Pool (PSVP). Stantec identified 11 SVPs within the generation lead line portion of the project. Within the turbine project area, no SVP depressions will be impacted, and four percent of the critical terrestrial habitat of one SVP and three percent of the critical habitat of the PSVP will be impacted. For the generation lead line portion of the project, no

SVP depressions will be impacted, and impacts to the critical terrestrial habitat will be avoided by utilizing taller poles. No clearing except selective topping consisting of the cutting of taller trees will take place within 250 feet of any SVP depression.

The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the proposed project for impacts to SVPs and expressed concern about vernal pools (and other wildlife resources) because the applicants failed to document SVPs occurring outside the delineated report boundary whose upland zones fall within 250 feet of a project impact. MDIFW commented that as the applicants defined the project, "the project boundary does not sufficiently buffer the outside edge of all existing or proposed development impacts to ensure that all resources of concern within 250 feet of a project activity are considered in the review." The NRPA regulates SVPs on property owned or controlled by the applicant, or those SVPs have been identified on a state-wide database. The NRPA does not regulate SVPs on abutting land unless those SVPs have been identified on a state-wide database. The Department does not have the authority to require the applicants to conduct vernal pool surveys on property they do not own or control.

B. <u>Inland Waterfowl and Wading Bird Habitat.</u> The turbine portion of the project will not impact any Inland Waterfowl and Wading Bird Habitat (IWWH). The proposed generation lead line will cross ten sections of IWWH for a total impact of 39.03 acres. The applicants propose to implement a specific vegetation maintenance program in this habitat area. This will include cutting only vegetation that could grow to within 15 feet of a conductor in the next three to four years. If possible the applicants will leave two to three snags within the 500-foot wide of corridor to provide nesting habitat. The applicants will also locate poles in upland areas whenever possible in order to minimize impacts to the IWWHs. The Department finds that the impacts to IWWHs will be minimized by the proposed vegetation management plan and the effort to locate poles in upland areas. On this basis, and given the nature of a transmission line project, the Department finds that the impacts to IWWHs will not be unreasonable.

C. <u>Deer Wintering Area.</u> The turbine portion of the project will not impact any Deer Wintering Areas (DWA). The proposed generator lead line will intersect nine mapped DWAs. These are a combination of NRPA candidate Significant Wildlife Habitats, Land Use Regulation Commission (LURC) Fish and Wildlife Protection (P-FW) and a Cooperative Management Agreement DWA with a private landowner. The proposed project will impact a total of 70.77 acres of deer wintering area by permanent cover type conversion. The applicants propose to use a vegetation maintenance plan in these areas that includes cutting only vegetation that could grow to within 15 feet of the conductor in the next three to four years and retain conifers in these areas as much as possible.

MDIFW reviewed the impacts to DWAs and provided the following comments, which were based on the information in the applications and discussions between the applicants, Stantec consulting, and MDIFW representatives. Four of the mapped DWAs were identified as areas that could be negatively impacted by the proposed generation lead transmission line. These include: Macwahoc, Reed-South, Reed-North, and T3 R3 WELS-South. MDIFW's goal for these areas is to preserve connectivity (including travel corridors along riparian areas) across the transmission line. After consultation with MDIFW the applicant is proposing the following

measures to reach this goal:

1. Reed North (#992202). Two pole sets (#398, #399) have been changed from single pole to taller H-frame construction, thus increasing the potential clearance distance from the wires to the ground from 21 feet to 60 feet. This would allow trees up to 50 feet to remain or grow.

2. Reed South (#992301). At structures #380 and #381, taller H-frame construction would be used instead of single poles, and #381 is pulled back further from Wytopitlock Stream to increase the potential travel corridor.

3. Macwahoc (#991502). Taller H-frames would be used at structures #294 and #295, and both would be pulled back further from Molunkus Stream.

4. T3R3 South (#1000068). At structures #534 and #535, taller H-frame and three-pole structures will be used, increasing the allowable height for trees under the wires.

Based on the design of the project and the purchase of the compensation parcel described in Finding 16, the Department finds the project will not unreasonably impact DWAs.

D. <u>Rare, Threatened, and Endangered Species</u>. Stantec conducted a survey for Rare, Threatened, and Endangered\_(RTE) plant and animal species within the project area. MDIFW documented that two state-listed threatened mussels (Brook floater and yellow lampmussel) and one type of mussel state-listed as a Species of Special Concern (creeper mussel) occur along the East Branch of the Mattawamkeag River. Stantec did not observe any rare mussels within the project area. Stantec performed an RTE species survey in the summer of 2010 and identified four RTE species in wetlands along the proposed corridor. The species included showy lady's slipper, marsh valerian, swamp fly-honeysuckle and dwarf yellow water crowfoot. Stantec also documented the vocalization of a rusty blackbird, which is state-listed as a Species of Special Concern that were observed were a wood turtle, a northern harrier, blue spotted salamander, bald eagle, veery, evening grosbeak, chestnut-sided warbler, black-and-white warbler and white throated sparrow. MDIFW has no record of any bald eagle nests located within the proposed transmission line corridor.

MDIFW documentation shows that the following rivers and streams that are crossed by the generator lead line contain RTE species:

1) <u>The Penobscot River</u> : All four listed species of freshwater mussels that are considered RTE are found both above and below the transmission line crossing (Threatened: Brook Floater, Yellow Lampmussel, Tidewater Mucket; Special Concern: Creeper). Three species of state-listed dragonflies have been documented below the transmission line crossing(Threatened: Boreal Snaketail; Special Concern: Pygmy Snaketail, Cobra Clubtail).

2) <u>Molunkus Stream</u>: The Brook Floater (Threatened) has been documented both above and below the line crossing. The Creeper (Special Concern) has been documented below the line crossing.

3) <u>Macwahoc Stream</u>: The Brook Floater (Threatened), Creeper (Special Concern) and Tomah Mayfly (Threatened) have been documented above the line crossing.

4) <u>Wytopitlock Stream</u>: The Brook Floater (Threatened) has been documented above and

below the line crossing. The Tomah Mayfly (Threatened) and Wood Turtle (Special Concern) have been documented above the line crossing.

5) <u>West Branch Mattawamkeag River</u>: The Brook Floater (Threatened) and Yellow Lampmussel (Threatened) have been documented above and below the line crossing. The Pygmy Snaketail (Special Concern) has been documented above the line crossing.
6) <u>East Branch Mattawamkeag River</u>: The Brook Floater (Threatened) and Creeper (Special Concern) have been documented above and below the line crossing. The Yellow Lampmussel (Threatened) has been documented below the line crossing.

MDIFW commented that, in the absence of comprehensive surveys by the applicants, these crossing sites should be considered as having the potential to host one or more species currently protected under the jurisdiction of Maine's Endangered Species Act. MDIFW recommends that the applicants should be required to, wherever possible, adhere to the Department's *Minimum Performance Standards for Electric Utility Corridors* (dated October 27, 2010) at the crossing sites.

Based on the project design and provided there is no in-stream work, buffer requirements are applied at the crossing sites and the Compensation Parcel is purchased and preserved as described in Finding 16, the Department finds the project will not unreasonably impact RTEs.

E. <u>Salmon Habitat Streams.</u> The project as proposed would impact a total of 227 linear feet of perennial stream at three locations of Critical Habitat for Atlantic Salmon as shown in the application's Appendix 7-2. A fisheries scientist from the Department of Marine Resources (DMR) reviewed the applicants' proposal and recommended the use of bottomless arch culverts for spanning streams to maintain ecosystem function and fish passage connectivity. DMR found acceptable the applicants' Vegetation Management Plan (VMP) as proposed and the buffers proposed in the Right of Way (ROW) and described in Finding 9. The applicants have incorporated into their proposal the use of open bottom crossings at the three summit crossing locations to maintain fish passage and connectivity.

The proposed project includes 319,129 square feet of upland and wetland clearing for transmission line crossings of streams located within the area designated as critical habitat for salmon. The proposed project was reviewed by a fisheries scientist from the Bureau of Sea Run Fisheries and Habitat in DMR, who found acceptable the project buffers as proposed for the ROW in and around Atlantic salmon streams.

MDIFW reviewed potential impacts to aquatic habitats as a result of the proposed project. In its comments, MDIFW identified six proposed transmission line crossings where state-listed aquatic species were documented above and/or below the crossings, and recommends the applicant follow crossing standards as outlined in the Department's *Minimum Performance Standards for Electric Utility Line Corridors* for crossings of streams containing Threatened or Endangered Species. Specifically, these recommendations include but are not limited to: maintain a 100-foot natural riparian buffer on both sides of the stream, avoid placement of structures within the riparian buffer, and no application of herbicide within 25 feet of the stream. These are also consistent with performance standards recommended and implemented for other ROW projects in order to avoid/minimize take and harassment of state-listed species,

thus precluding the need for additional mitigation actions. The applicants responded that, with the exception of Macwahoc Stream, similar or stricter crossing standards are already proposed for each of these waterbodies in order to accommodate other natural resource concerns. The crossing at Macwahoc Stream remains classified under the project's general "Standard Stream" performance standards with a 25-foot buffer (no clearing/no structures) and limited clearing with structures within 25 to 100 feet of the stream. MDIFW recommended that the applicants follow the Department's minimum performance standards for the crossing of Macwahoc Stream, or apply crossing standards similar to what the applicant currently proposed for Atlantic Salmon habitats. The applicant has agreed to meet the Salmon habitat buffer restriction as discussed in Finding 9.

Based on the project design and provided there is no in-stream work and buffer requirements are applied at the crossing sites, the Department finds the project will not unreasonably impact Atlantic Salmon Habitat.

F. <u>Birds and Bats</u>. The applicants retained Stantec to conduct bird and bat surveys to identify which species occurred in the area of the proposed project. Stantec conducted specific avian surveys including raptor migration surveys and eagle use surveys. It also compiled a list of bird species observed on the site. Stantec conducted acoustic bat detector surveys during the fall of 2007 and the spring and summer of 2008. The majority of the bat calls identified were in the *Myotis* genus (65%) followed by unknown calls (34%). Less than one percent of the calls were identified as species in the red bat/eastern pipistrelle guild or big brown guild. The applicants propose to conduct post-construction monitoring to verify that the project is not having an impact to the local populations of birds and bats.

MDIFW recommended that, to minimize potential impacts to bat species found at the project site, operational control measures should be established for the proposed project. The applicants should be required to curtail the cut-in speed for all turbines to 5.0 meters/second (m/s) between April 20 and October 15 from one-half hour before sunset to one-half hour after sunrise. Under this recommendation, during times when the winds are less than the 5.0 m/s threshold, turbine blades would not rotate, thus reducing risk of fatality for bats. If at any point during this time period the wind speed increases to greater than 5.0 m/s, the turbine blades would be free to rotate. These curtailment measures are intended to be in place from day one of operation for the life of the project.

After consultation with MDIFW regarding curtailment and the potential for bat mortality, the applicant has agreed to seasonal curtailment of the turbine cut-in speed to 5.0 m/s on all turbines starting one half hour before sunset to one-half hour after sunrise for the life of the project. The applicants propose that this curtailment be required from May 1 to September 30, and only when the ambient temperature is above 50 degrees F from June 1 to August 31, and when above 32 degrees F in May and September. If at any point during this time period the wind speed increases to >5.0 m/s the turbine blades will be free to rotate. MDIFW has commented that this level of curtailment would be adequate.

MDIFW initially recommended the applicant not immediately revegetate the turbine pads in order to improve bird and bat searcher efficiency. However due to concerns about stormwater

runoff, erosion and sediment control and phosphorus runoff, the recommendation was removed. In response to a concern raised by MDIFW, the applicants agreed that the area surrounding turbine pads should be re-vegetated as quickly as possible after construction and to apply a correction factor to the bird and bat search results during each year of post-construction surveys based on the amount of vegetation cover that has been achieved. These are year-specific, sitespecific correction factors that are sensitive to the variance in vegetation growth by year. MDIFW stated that the final methodology for determining the exact correction factor may be developed based on further consultation between the applicants and MDIF&W.

Regarding post-construction monitoring of bird and bat mortality, MDIFW further stated that assuming an April 20 to October 15 search window, MDIFW is satisfied with searches taking place weekly between April 20 and May 31 and daily between June 1 and September 30, with a return to a weekly schedule from October 1 through October 15. The applicants responded that the post-construction monitoring is an evolving science, and they will work with MDIFW to finalize methodologies prior to the start of operation.

There is a heron rookery located within 0.6 miles of the generator transmission lead line. MDIFW commented that the impacts to the rookery would be minimal provided there are no construction activities within 0.25 miles of the rookery, such as road construction. If construction within 0.25 miles is required, MDIFW recommends that those activities should be prohibited from taking place between April 1 and August 15 of any calendar year.

A member of the public commented that the bat monitoring protocol as proposed is inadequate, given that white nose disease, which is threatening bat populations, is now present in Maine. This interested person urged the Department to adopt a curtailment plan similar to the Bull Hill Wind Project protocol. This person submitted an article entitled, "Adverse impacts of wind power generation on collision behavior of birds and anti-predator behavior of squirrels," dated November 9, 2007. Another interested person suggested that a bat impact study should be done by an independent expert. The Department finds that MDIFW review of all bat studies submitted to ensure that they are objective and scientifically sound is sufficient to assess the studies.

Based on the project design and the types and quantities of bats and birds found in the studies; and provided the applicants submit a finalized post-construction avian, bat, and raptor monitoring plan to the Department for review and approval prior to operation, the cut in speed for the turbines is curtailed from May 1 until September 30 as described above, and a prohibition of construction activities occurs within 0.25 miles of the Heron Rookery between April 1 and August 15, the Department finds the project will not adversely impact birds or bats.

Based on the Department's factual findings above, and review of the information submitted by the applicants, public comments and MDIFW's comments the Department finds that the proposed project will not unreasonably harm any significant wildlife habitat, unreasonably disturb wildlife, or unreasonably affect the use of the site by the subject wildlife.

The Department further finds that, based on the applicants' plan to implement the VMP, to maintain stream buffers, and to utilize culverts to maintain fish passage, and based on

MDIFW's review comments, the proposed project will not unreasonably harm fisheries habitat.

## 8. <u>HISTORIC SITES AND UNUSUAL NATURAL AREAS</u>:

<u>Historic Sites:</u> The applicants conducted historic architecture, Euro American archaeological, and historic archeological investigations of the proposed project area to determine potential impacts of the proposed project on these historic resources.

- A. <u>Surveys.</u> Section 8 of the applications includes the results of documentary research and field surveys for the historic and Euro American archeological resources entitled "Phase 0 Archaeological Survey: Oakfield Wind Project Amendment Summit Development Oakfield, Aroostook County, Maine," prepared by Independent Archaeological Consulting, LLC and dated August 11, 2010.
- B. <u>Historic Architecture Survey.</u> A historic architecture reconnaissance survey was conducted by the applicants in accordance with the requirements of Section 106 of the National Historic Preservation Act of 1966. The report and analysis of the historic architecture was prepared by Public Archaeology Lab, dated May 2011. The survey did not find any National Register properties located on or near the project site. Three properties were identified that had resources that were potentially eligible for listing on the National Register of Historic Places, all located approximately four to six miles from the project. The report concluded that the properties are not adversely affected by the proposed project.

The Maine Historic Preservation Commission (MHPC) reviewed the proposed project and found that the wind farm area had no prehistoric archaeological sites within the project area. However, site ME 321-003 (L. Sprague farmstead) is located along South Oakfield Road and must be avoided and protected with fencing along the margin of the site during road reconstruction and use. In a letter dated September 16, 2011, the Maine Historic Preservation Commission stated that, pursuant to 35-A MRSA §3452, the Oakfield Wind Generation Facility will not have an unreasonable adverse effect on historic properties.

<u>Unusual Natural Areas.</u> The Maine Natural Areas Program (MNAP) determined that the turbine portion of the project impacts an exemplary Beech/Birch/Maple Forest Natural Community and the generator lead line portion of the project intersects an exemplary Streamshore Ecosystem and a suite of rare plant species. MNAP raised concerns related to potential impacts to the Streamshore Ecosystem and the Beech/Birch/Maple Forest Natural Community. The applicants attempted to acquire land in an effort to redesign the project layout to avoid impacts to the Streamshore Ecosystem, but negotiations with the relevant landowners were unsuccessful. To compensate for impacts to the exemplary community and ecosystem, the applicants propose to preserve a parcel (as described in Finding 16) with an identified Habitat Focus Area and which includes 277 acres of Rare and Exemplary Habitat along Meadow Brook. The applicants proposed two met towers in the Beech/Birch/Maple Forest, but will only construct one of the towers; however, they included both clearing areas in the application. The construction of only one met tower will reduce the projected impacts to this. Based on this additional information, MNAP had no additional comments or concerns regarding these two identified areas.

Based on information in the application, MHPC's review, the proposed natural areas compensation plan in which the applicants will protect the 277-acre area as described above and in greater detail in Finding 16, and MNAP's review, the Department finds that the proposed development will not have an unreasonable adverse effect on the preservation of any historic sites or unusual natural areas either on or near the development site.

## 9. <u>BUFFER STRIPS</u>:

The applicant proposes to maintain vegetated buffers for stormwater management and phosphorus control (more fully described in Finding 11), habitat protection, and waterbody protection. Buffers for the proposed project include no disturbance buffers around roads and turbines, a corridor buffer, vernal pool buffers, Atlantic Salmon stream buffers at salmon habitat stream crossings, buffers for mapped Inland Waterfowl and Wading Bird Habitat and Deer Wintering Areas, and waterbody buffers at streams and other crossings. The vegetation cutting practices which have been proposed to preserve and maintain buffers are varied, depending on the type of buffer, and include no cutting, limited and selective clearing, and mechanized clearing combined with selective use of herbicides. The generation lead transmission line ROW will be continuously vegetated with grass and shrubs, and several methods will be used to maintain vegetated buffers along the proposed corridor.

- 1.) <u>Access Road, Crane Path, and Turbine Buffers.</u> The applicants propose to maintain forested buffers along access roads and around turbines. These buffers will provide both a visual screen and stormwater and phosphorus treatment from the developed areas. The stormwater and phosphorus treatment is further described in Finding 11. The majority of each turbine pad area at each turbine will be reseeded to provide additional buffering. The access roads will be constructed with a 24-foot width and the crane roads will be constructed with a 36-foot width. Where these two types of roadways occur in the Spaulding, Skitacook, and Meduxnekeag Lakes watersheds they will be revegetated after construction to be reduced to a 12- to 16-foot permanently maintained width.
- 2.) <u>Stream Buffers.</u> The applicants propose to maintain a minimum of a 25-foot wide forested buffer along streams crossed by the generator lead line and streams adjacent to new access roads. The use of herbicides will be prohibited within all waterbody buffers. There will be limited clearing within 100 feet of streams.
- 3.) <u>Salmon Habitat Stream Buffers.</u> The applicants propose to maintain a minimum of a 100foot wide forested buffer along Atlantic Salmon Commission (ASC) special concern Salmon Habitat Streams. There is no herbicide use allowed in this type of buffer. The only vegetation that will be removed during construction will be capable species that could grow to within 15 feet of a conductor in the next three to four years.
- 4.) <u>Significant Vernal Pools.</u> The applicants propose to maintain a 100-foot wide forested buffer around the perimeter of SVPs in the ROW. During construction the applicants will cut any capable species trees that are eight to ten feet or taller. Clearing of the ROW

between April 1 and June 30 will not be conducted with wheeled or tracked equipment within the 250-foot critical terrestrial habitat of the SVPs, and no clearing will occur within 25 feet of the SVP during this time period.

- 5.) <u>Inland Waterfowl and Wading Bird Habitat.</u> The generator lead transmission line will cross IWWH in 13 locations. During construction, only trees capable of growing to a height within the minimum ISO-New England (ISO-NE) Vegetation Maintenance Standard of 15 feet from a conductor within the next three to four years will be topped or removed. ISO-NE is an organization which ensures the constant availability of electricity to the people of New England. Where possible, the applicants will leave two to three snags per approximately 500 linear feet of corridor to provide nesting. Initial ROW clearing will be performed under frozen ground conditions whenever practical.
- 6.) <u>Deer Wintering Area.</u> The generator lead transmission line intersects nine DWAs, five of which are mapped MDIFW DWAs. Four of the DWAs are not regulated under the NRPA because they are not located in a freshwater wetland; however, MDIFW has management agreements with these landowners. Surveys indicate that only three of these areas could be considered moderate or high value DWAs. In addition to the five DWAs described above, one other location was identified by MDIFW in 2011. The applicants redesigned the project in the DWAs to minimize impacts by relocating poles, changing poles from single poles to H-frames, and increasing pole heights to minimize clearing. During construction only trees capable of growing to a height within the minimum ISO-NE Vegetation Maintenance Standard of 15 feet from a conductor within the next 3 to 4 years will be topped or removed.
- 7.) <u>Generator Lead Buffers.</u> The vegetation within the generator lead transmission line will be cut to meet ISO-NE safety standards. The cleared area for the ROW will be from 35 to 130 feet in width depending on adjacent existing infrastructure. Prior to any clearing, all resources and their buffers will be flagged. The applicants' normal ROW construction and maintenance procedures require low ground cover during construction. The applicants will immediately restore disturbed areas. The goal is to maintain long term growth of healthy, diverse and low vegetation.

<u>Vegetation Management Plan (VMP).</u> The applicants submitted vegetation maintenance plans (Post Construction Vegetation Management Plan Prepared for Maine GenLead, LLC, prepared by Stantec Consulting and dated August 2010 and Post Construction Vegetation Management Plan prepared for Evergreen Wind Power II, LLC prepared by Stantec Consulting and dated March 2011). These plans summarize vegetation management maintenance methods and procedures that will be utilized by the applicants for transmission line corridor and collector lines. These plans describe restrictive maintenance requirements for natural resources and significant wildlife habitats. The plans also include procedures for managing or removing osprey nests built on power line structures, describe a system for identifying restricted areas, and summarize training requirements for construction personnel.

The Department finds that the applicants have made adequate provision for buffer strips based on the post-construction VMP and the proposal to clearly mark on the ground, prior to

construction, all visual screening buffers, stream buffers and other resource buffers, and the stormwater buffers. Additionally, prior to operation the applicants must record all deed restrictions for stormwater buffers and submit the deed recordings along with plot plans to the Department within 60 days of the recordings.

## 10. <u>SOILS</u>:

The applicants submitted soil surveys for the turbine portion of the project prepared by Albert Frick Associates, Inc., dated November 2010 and revised May 2011. The applicants submitted a Class D soil survey for the proposed generation lead line prepared by Stantec. The applicants also submitted a Class L soil survey prepared by Stantec for areas with hydrologically sensitive soils. These reports were prepared by Registered Soil Scientists and were submitted in Section 11 of each application. The reports concluded that the soils are generally appropriate for the proposed construction activities.

The applicant submitted a blasting plan in Section 20 of the applications. These surveys were reviewed by the Department's Division of Environmental Assessment (DEA). In response to comments from DEA, the applicant has agreed that any Spill Prevention, Control, and Countermeasures Plan (SPCC) prepared by a contractor or subcontractor for the proposed project will be submitted to the Department for review at the same time it is submitted to the applicant. DEA further commented that the geotechnical report must be submitted to the Department for review and approval prior to the start of construction.

Based on the applicants' soils reports and Blasting Plan, and DEA's review comments, the Department finds that the soils on the project site present no limitations to the proposed project that cannot be overcome through standard engineering practices provided that any SPCC plan prepared by a contractor or subcontractor on this project is submitted to the Department for review, and the geotechnical report is submitted to the Department for review and approval.

# 11. <u>STORMWATER MANAGEMENT</u>:

In total, the 59-mile transmission line, the wind generation facility and associated roads will result in approximately 964 acres of disturbed land. The applicants state that, at the completion of construction, the land will be re-vegetated except the 86 acres that will be impervious. The proposed project is located in the watersheds of the Mattawamkeag River, Spaulding Lake, Meduxnekeag Lake, Skitacook Lake, Penobscot River and its tributaries, Molunkis Lake, and the West and East Branches of the Mattawamkeag River. The applicant submitted a stormwater management plan based on the basic, general, phosphorus, and flooding standards contained in Department Rules, Chapter 500.

The proposed project must meet the general standards for the portions of the project located within the watersheds of the Mattawamkeag River, Penobscot River and its tributaries, West and East Branch of the Mattawamkeag River and the Molunkis Stream. The proposed project must meet the phosphorus standards for the portions of the project located within the watersheds of Spaulding Lake, Meduxnekeag Lake, and Skitacook Lake. The proposed

stormwater management system consists of level spreaders, ditch turnouts, and vegetated buffers.

## A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan (Section 14 of the application) that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and the plan sheets containing erosion control details were reviewed by, and revised in response to the comments of, the Department's Division of Watershed Management (DWM). DWM commented that the applicant's erosion control plan is an acceptable plan and a good starting point for providing erosion control protection during construction. Based on site and weather conditions during construction, additional erosion and sedimentation control measures may be necessary. DWM found that regular inspection by a professional engineer will also be necessary to assure proper implementation and maintenance of the proposed erosion control measures, and the identification of any additional measures that may be needed.

Given the level of disturbance, steep slopes, and close proximity to water resources, the Department finds that the applicant must retain the services of a third party inspector in accordance with the Special Condition for Third Party Inspection Program, which is attached to this Order. The inspecting engineer must make weekly (at a minimum) visits to the project site while the project is under construction, report on the erosion and sedimentation controls and any problems encountered during the inspections, and recommend corrective measures if any must be taken. During construction, any area of instability or erosion must be corrected immediately and maintained until the site is completely stabilized or vegetation is established.

Erosion control details must be included on the final construction plans and the erosion control narrative must be included in the project specifications to be provided to the construction contractor. Prior to the start of construction, the applicant must conduct a pre-construction meeting to discuss the construction schedule and the erosion and sediment control plan with the appropriate parties. This meeting must be attended by the applicant's representative, Department staff, the design engineer, the contractor, and the third-party inspector.

(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short and long-term maintenance requirements. This plan was reviewed by DWM. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. The applicant will be responsible for the maintenance of the stormwater management system.

(3) Housekeeping: The applicants state that the proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on DWM's review of the applicant's erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500(4)(A) provided that the applicant conducts a pre-construction meeting and retains a third-party inspector to oversee project construction. The applicants must ensure

that the third-party inspector is selected with the Department's approval as outlined in the Special Condition for Third-Party Inspector Program and in consultation with the Town.

B. General and Phosphorus Standards: The applicant's stormwater management plan includes general treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. The portions of the proposed project that are required to meet the General Standards meet the definition of "a linear portion of a project" in Chapter 500 and the applicant is proposing to control runoff volume from no less than 75% of the impervious area and no less than 50% of the developed area.

Because the proposed project is partially located in the watersheds of Spaulding, Meduxnekeag, and Skitacook Lake watersheds, stormwater runoff from those portions of the project site will be treated to meet the phosphorus standard outlined in Chapter 500(4)(C). The applicants' phosphorus control plan was developed using methodology developed by the Department and outlined in Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development.

Spaulding Lake. For the portion of the project on this lake, the Permitted Phosphorus Export is 3.66 pounds of phosphorus per year. The applicants propose to remove phosphorus from the project's stormwater runoff by utilizing vegetated buffers and level spreaders as shown on the set of plans referenced in Finding 1. The predicted phosphorus export for the project site on this lake, based on the applicant's model, is 3.61 pounds. The Department finds that the proposed stormwater treatment will be able to reduce the export of phosphorus in the stormwater runoff below the maximum permitted phosphorus export for this lake.

Meduxnekeag Lake. For the portion of the project on this lake, the Permitted Phosphorus Export is 14.14 pounds of phosphorus per year. The applicants propose to remove phosphorus from the project's stormwater runoff by utilizing vegetated buffers and level spreaders as shown on the set of plans referenced in Finding 1. The predicted phosphorus export for the project site, based on the applicant's model, is 14.04 pounds. The Department finds that the proposed stormwater treatment will be able to reduce the export of phosphorus in the stormwater runoff below the maximum permitted phosphorus export for the lake.

Skitacook Lake. For the portion of the project on this lake, the Permitted Phosphorus Export is 9.96 pounds of phosphorus per year. The applicants propose to remove phosphorus from the project's stormwater runoff by utilizing vegetated buffers and level spreaders as shown on the set of plans referenced in Finding 1. The predicted phosphorus export for the project site, based on the applicant's model, is 9.76 pounds. The Department finds that the proposed stormwater treatment will be able to reduce the export of phosphorus in the stormwater runoff below the maximum permitted phosphorus export for the lake.

The forested, limited disturbance stormwater buffers will be protected from alteration through the execution of a deed restriction as outlined in Finding 8. The applicant proposes to use the deed restriction language contained in Appendix G of Chapter 500 and submitted a draft deed restriction that meets Department standards. The Declaration of Restrictions must be recorded

prior to the start of operation, and the applicants must submit a copy of the recorded deed restriction including the plot plan to the Department within 60 days of its recording. Prior to initiating work in an area, the location of forested buffers must be permanently marked on the ground. Methods of marking the ground must include, but are not limited to, a combination of field flagging and clearly marked permanent signage.

The following minor adjustments may be made during construction without advance notice to the Department provided they do not impact protected resources and are reflected in the final as-built drawings: changes that result in a reduction in impact and/or footprint (such as a reduction in clearing or impervious area, and elimination of structures or a reduction in structure size); location of a structure within the identified clearing limits; the type of foundations used; additional drainage culverts, level spreaders or rock sandwiches; changes to culvert size or type provided that the culvert does not convey a regulated stream and that the hydraulic capacity of the substitute culvert is greater than or equal to that of the original; and changes of up to 10 feet in the base elevation of a turbine vertically as long as the change in elevation does not result in increased visual impacts or changes to the stormwater management plan.

Additionally, the following minor adjustments may be made upon prior approval by the third party inspector or Department staff, and do not require a revision or modification of the permit but must be reflected in the final as built drawings: minor changes that do not increase overall project impacts or project footprint and which do not impact any protected resources as long as any new areas of impact have been surveyed for environmental resources and do not affect other landowners. These changes include adjustments to horizontal or vertical road geometry that do not result in changes to the stormwater management plan; a shift of up to 100 feet in a turbine clearing area; and adjustments to culvert locations based on field topography.

The stormwater management system proposed by the applicants was reviewed by, and revised in response to comments from, DWM. After a final review, DWM commented that the proposed stormwater management system is designed in accordance with the Chapter 500 General and Phosphorus Standards. DWM recommended that the applicant retain the services of a professional engineer to inspect the construction and stabilization of the road ditch turnouts and stone bermed level spreaders to be built on the site. Inspections must consist of weekly visits to the site to inspect each turnout from initial ground disturbance to final stabilization. If necessary, the inspecting engineer will interpret the turnouts' location and the construction plan for the contractor. The inspecting engineer will notify the Department in writing within 14 days of the completion of construction and stabilization of the turnouts and level spreaders. Accompanying the engineer's notification must be a log of the engineer's inspections giving the date of each inspection, the time of each inspection and the items inspected on each visit.

Based on the stormwater system's design the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 General and Phosphorus Standards provided that the applicant adheres to the protocol for inspections of the ditch turnouts and level spreaders, that the buffers are permanently marked on the ground, and a copy of the recorded deed restrictions are submitted to the Department, all as outlined above.

## C. Flooding Standard:

The applicant is proposing to utilize a stormwater management system based on estimates of pre- and post-development stormwater runoff flows obtained by using Hydrocad, a stormwater modeling software that utilizes the methodologies outlined in Technical Releases #55 and #20, U.S.D.A., Soil Conservation Service, and detains stormwater from 24-hour storms of 2-, 10-, and 25-year frequency. The post-development peak flow from the site will not exceed the pre-development peak flow from the site and the peak flow of the receiving waters will not be increased as a result of stormwater runoff from the development site.

DWM commented that the proposed system is designed in accordance with the Chapter 500 Flooding Standard.

Based on the system's design and DWM's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500, Flooding Standard for peak flow from the project site, and channel limits and runoff areas.

The Department further finds that the proposed project will meet the Chapter 500 standards for: (1) easements and covenants; (2) management of stormwater discharges; (3) discharge to freshwater or coastal wetlands; and (4) threatened or endangered species.

## 12. <u>GROUNDWATER</u>:

There is one significant sand and gravel aquifer in the proximity of the proposed project; it is located along the Mattawamkeag River on the Monument Brook U.S. Geological Survey quadrangle. It is approximately 800 to 2,500 feet wide. The generator lead transmission line will run across the aquifer for approximately 1,584 feet.

Water for the Operations & Maintenance (O & M) building will be supplied via one bedrock well. The well is not located near any mapped significant sand and gravel aquifers. Daily withdrawal from the well will be less than 1,000 gallons.

The applicants submitted a Spill Control, Containment and Countermeasures Plan (SPCC plan) detailing steps to be taken to prevent groundwater contamination during construction, however the applicants did not submit an SPCC plan for the on-going operation of the project. The applicants stated that potential contamination during construction would be fuel and hydraulic and lubricating oils used in operation vehicles and construction equipment. The SPCC plan includes general operational requirements, storage and handling requirements, and training requirements to prevent spilling of oil, hazardous materials or waste. The plan also sets out spill reporting and cleanup requirements should such an event occur. No herbicides will be used, stored, mixed or transferred between containers within designated buffers or within 25 feet of streams or wetlands with standing water. Prior to any construction, site preparation or maintenance, the applicant must flag the boundaries of any such setbacks in the field. All staff must receive suitable training to recognize and comply with these setback markers and requirements. Prior to any application of herbicides or other use of chemicals or petroleum products during maintenance of the generator lead transmission line, the ROW must be checked

for any new construction that would require establishment of setbacks for herbicides or other use of chemicals or petroleum products, and any such setback must be clearly marked in the field.

Prior to operation of the development, the applicant must submit an operational SPCC Plan for the on-going operation of the project to the Department for review and approval.

DEA reviewed the applicant's proposals for protecting groundwater and recommended that the applicants submit any SPCC Plan prepared by a contractor or subcontractor on this project to the Department for review. DEA also approved the use of calcium chloride or water for dust control provided that along the generator lead transmission line the Third Party Inspector approves the locations for water withdrawal and the vehicle access to these locations is stabilized prior to and after use. The withdrawal of water must not adversely impact the quantity or quality of water or associated biological criteria of any water body used as a source of dust control.

The Department finds that the proposed project will not have an unreasonable adverse effect on groundwater quality provided the applicants submit the operational SPCC Plan to the Department for review and approval, submit the contractor or subcontractor SPCC Plans to the Department for review, and provided dust control measures meet the requirements of DEA as outlined above. The Department may require changes to any SPCC Plan or handling or storage procedure based on review of the SPCC Plans or inspection of the site.

## 13. <u>WATER SUPPLY</u>:

The only change with regard to the proposal for the water supply for the wind turbine portion of the proposed project from the previously permitted project is an increase from 20,000 to 30,000 gallons per day of non-potable water dust abatement during construction, to be used if necessary. This increase in potential water withdrawal is not anticipated to cause any changes in the naturally occurring water levels of the surrounding lakes from which it will be withdrawn. The generation lead transmission line will not require a permanent water supply for operation and maintenance activities.

The Department finds that the applicant has made adequate provision for securing and maintaining a sufficient and healthful water supply.

## 14. <u>SOLID WASTE</u>:

The development of the site and construction of the turbines will generate approximately 985 cubic yards of construction debris, packaging materials, and associated wastes. The generation lead transmission line will generate approximately 780 cubic yards of construction debris, packaging materials, and associated wastes. All construction and demolition debris will be disposed of at Juniper Ridge Landfill, which is in substantial compliance with the Department's Solid Waste Management Regulations of the State of Maine. In a letter dated June 15, 2010, Juniper Ridge Landfill stated the landfill has the capacity to accept this construction waste. Any waste generated that is not construction and demolition debris will be disposed of at the

Oakfield transfer station, which is in substantial compliance with the Department's Solid Waste Management Regulations of the State of Maine.

All marketable trees to be removed from the proposed project site will be harvested and sold for timber or pulp. All stumps and grubbings generated will be disposed of on site, either chipped or burned, with the remainder to be worked into the soil, in compliance with Solid Waste Management Regulations of the State of Maine.

The Department's Bureau of Remediation and Waste Management reviewed the applicant's proposal for solid waste disposal, and stated that the proposal is adequate. Based on the above information, the Department finds that the applicant has made adequate provision for solid waste disposal.

## 15. <u>FLOODING</u>:

The applicants do not propose any structure other than three poles within a flood zone. As discussed in Finding 11, the Department has reviewed the applicant's plans for stormwater management and found that the project is unlikely to have an adverse impact on downstream flooding. Based on the nature of the project and the minimal structures in the flood zone, the Department finds that the proposed project is unlikely to cause or increase flooding or cause an unreasonable flood hazard to any structure.

## 16. <u>WETLAND IMPACTS</u>:

The applicants retained Stantec Consulting to locate wetlands and waterbody resources on the proposed project site. These results are presented in Section 7 of each application. The results of the applicants' surveys for wetlands and waterbodies which may be affected by the turbine sites, access roads and collector lines are summarized as follows:

- 159 wetlands were identified along the proposed access roads and the electrical collector line.
- 59 jurisdictional streams were identified, including 43 perennial streams.
- 47 vernal pools were identified, including six significant vernal pools, as discussed in Finding 7.
- 51 wetlands were identified that met the criteria of wetlands of special significance.

The results of the surveys completed for the generator lead transmission line are summarized as follows:

- 480 wetlands were identified.
- 47 jurisdictional streams were identified.
- 137 vernal pools were identified including 11 significant vernal pools, as discussed in Finding 7.
- 138 wetlands were identified that met the criteria of wetlands of special significance.

<u>Freshwater Wetland Impacts.</u> The applicants propose to permanently fill 2.32 acres of wetlands for the generator lead transmission line and 0.25 acres of wetlands for the turbine

sites, access roads and collector lines. This will result in a total of 2.57 acres of fill in wetlands. The applicant is proposing 4.00 acres of vegetation conversion in wetland areas for the turbine sites, access roads and collector lines, and 133.4 acres of vegetation conversion for the generator lead transmission line portion of the project. This will result in a total of 137.4 acres of vegetation conversion in wetland areas.

<u>Stream Impacts.</u> The applicants propose to culvert 72 linear feet of streams for the proposed generator lead transmission line and culvert 383 linear feet of streams for the turbine sites, access roads and collector lines. This will result in a total of 455 linear feet of stream impacts. The applicants also propose to clear approximately 13.31 acres within 100 feet of streams associated with this project. The proposed project will cross 22 streams.

The Department's Wetlands and Waterbodies Protection Rules, Chapter 310, provide the framework for the Department's analysis of whether a proposed project's impacts to the protected resources would be unreasonable as that term is used in the NRPA, and whether the project meets the NRPA licensing criteria. A proposed project's impacts may be found to be unreasonable if the project would cause a loss in wetland area, functions and values for which there is a practicable alternative that would be less damaging to the environment. For this aspect of the Department's review an applicant must provide an analysis of alternatives to the project.

A. Avoidance. The applicants submitted an alternatives analysis for the wetland and stream impacts of the proposed project completed by Stantec Consulting and dated June 9, 2011. The applicants state that the proposed project was designed to avoid wetlands to the greatest extent possible and the applicants were able to site the proposed turbines and associated access roads in predominantly upland areas. The applicants used existing roads when possible to avoid any new impacts to natural resources. Any new roads that were necessary were designed to avoid wetlands if practical. The construction and maintenance of the electrical transmission line will primarily result in a permanent change in vegetation cover type in wetland areas.

B. Minimal Alteration. In the determination of whether any adverse impacts from a project are unreasonable, the Department looks at whether the amount of wetland and waterbodies to be altered have been kept to the minimum amount necessary for meeting the overall purpose of the project. The applicant is proposing construction practices to reduce erosion, maintain stream and vernal pool buffers and reduce habitat fragmentation by the proposed co-locating of the majority of the generator lead transmission line. Prior to the start of construction, the location of stream buffers, wetlands and vernal pool buffers must be marked on the ground.

C. Compensation. Compensation is required to achieve the goal of no net loss of wetland functions and values. The applicants submitted an assessment of the functions and values of wetlands impacted by the proposed project prepared by Stantec. The assessment determined that the primary functions and values of the impacted wetlands were wildlife habitat, with some levels of floodwater alteration, sediment/toxicant retention, and production export. The applicants are proposing to preserve a 2,100-acre parcel approximately eight miles from the proposed corridor, located in Drew's Plantation in Penobscot County as compensation for the impacts of the proposed project. The compensation area is adjacent to the existing

Mattawamkeag River Wildlife Management Area (WMA) managed by MDIFW. The proposed compensation area contains 277 acres of rare and exemplary habitat along Meadow Brook. Stantec also prepared a functions and values assessment for the proposed compensation area. This report determined that the compensation area would provide nearly all of the functions and values of the wetlands to be altered. These include: floodwater alteration, fish and shellfish habitat, production export, sediment/shoreline stabilization, wildlife habitat and uniqueness/heritage. This habitat consists of an unpatterned fen ecosystem and provides habitat for Maine's rare plants. There are two known rare plant locations in the vicinity of this parcel, which also contains 253 acres of DWA (regulated by the Land Use Regulation Commission) that has recently undergone cutting activity that would no longer occur once the area is preserved. There are prolific scrub shrub and emergent wetlands within the parcel, and it contains at least four known potential vernal pools. This parcel is at risk of development due to its potential for future timber harvest. In summary, this parcel offers:

- Location directly adjacent to the Mattawamkeag River WMA
- 459 acres of wetland preservation, including 216 acres of scrub shrub wetlands, 39 acres of emergent or open water wetlands and 204 acres of forested wetlands.
- 425 acres of mapped IWWH wetland habitat
- 253 acres of regulated DWA habitat
- Four potential significant vernal pools
- 15,000 linear feet of USGS stream habitat in the critical habitat area for the Atlantic Salmon
- Brook trout habitat
- 277 acres of Rare and Exemplary habitat along Meadow Brook and two other unnamed USGS streams, an Unpatterned Fen Ecosystem

To further mitigate for potential wetland resource impacts, the applicants propose to restore approximately 10,000 square feet of Significant Vernal Pool buffer, approximately 20,000 square feet of upland stream buffer and approximately 1,800 square feet of wetlands by relocating existing roads to avoid impacting natural resources.

The Department finds that the applicant has avoided and minimized wetland and water body impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project provided that prior to the start of construction, the location of stream buffers, wetlands and vernal pool buffers are marked on the ground; prior to the start of construction the applicant purchases the conservation parcel as described in the application, and evidence that the applicant has completed this transaction is submitted to the Department within 60 days of closing.

## 17. <u>SHADOW FLICKER</u>:

In accordance with 38 M.R.S.A. § 484 (10), an applicant must demonstrate that the proposed wind energy development has been designed to avoid unreasonable adverse shadow flicker effects. Shadow flicker caused by wind turbines is defined as alternating changes in light intensity caused by the moving blade casting shadows on the ground and stationary objects. Shadow flicker is the sun seen through a rotating wind turbine rotor. Shadow flicker does not occur when the sun is obscured by clouds or fog or when the turbine is not rotating. The spatial

relationships between a wind turbine and receptor, as well as wind direction which causes the turbines to rotate, are key factors relating to shadow flicker occurrence and duration. At distances of greater than 1,000 feet between wind turbines and receptors, shadow flicker usually occurs when the rotor plane is in-line with the sun and receptor (as seen from the receptor), the cast shadows will be very narrow (blade thickness) and of low intensity, and the shadows will move quickly past the stationary receptor. When the rotor plane is perpendicular to the sun-receptor "view line," the cast shadow of the blades will move within a circle equal to the turbine rotor diameter.

The applicants submitted a shadow flicker analysis as Section 26 of the amendment application. This analysis was subsequently updated to reflect the modified turbine blades proposed for the project. The applicants used WindPRO, a wind modeling software program, to model expected shadow flicker effects on adjacent properties from the 50 proposed turbine locations. The applicants assumed a worst case scenario, that all receptors have a direct in-line view of the incoming shadow flicker sunlight, and did not take into account any existing vegetative buffers.

The Department generally recommends that an applicant conduct a shadow flicker model out to a distance of 1,000 feet or greater from a residential structure, and the applicants' model did so. The applicants modeled 170 receptors, 63 of which would potentially receive shadow flicker. Maine currently has no numerical regulatory limits on exposure to shadow flicker; however, the industry commonly uses 30 hours per year as a limit to reduce nuisance complaints. The applicants found that five properties have the potential for greater than 30 hours per year of shadow flicker. The five properties expected to have flicker impact above 30 hours per year are either part of the project site through purchase or a lease, or are subject to an easement for shadow flicker. Based on the WindPRO analysis, no other property is calculated to receive flicker in excess of 30 hours per year.

The Department finds that the shadow flicker modeling conducted by the applicant is credible. Based upon the proposed project's location and design, the distance to the nearest shadow flicker receptor, and results of the shadow flicker analysis, the Department finds that the proposed project will not unreasonably cause shadow flicker to occur over adjacent properties which are not subject to an easement allowing for shadow flicker.

## 18. <u>PUBLIC SAFETY:</u>

The proposed project will use Vestas V-112 3.0-megawatt (MW) wind turbine generators. The turbines' conformity with International Electrotechnial Commission standards has been certified by Det Norske Veritas and included in the applications in Appendix 27-1 dated March 19, 2010.

The Department recognizes that locating wind turbines a safe distance away from any occupied structures, public roads or other public use areas is extremely important. In establishing a recommended safety setback, the Department considered industry standards for wind energy production in climates similar to Maine, as well as the guidelines recommended by certifying agencies such as Det Norske Veritas. Based on these sources, the Department requires that all wind turbines be set back from the property line, occupied structures or public areas at a

minimum of 1.5 times the maximum blade height for the wind turbine. Based on the Department setback specifications, the minimum setback distance to the nearest property line should be 688.5 feet for the Vestas turbines. A review of the application indicates that, with the exception of seven turbines, all are setback an adequate distance from the property boundary. The applicants submitted executed agreements with the seven participating landowners whose property lines are closer than a proposed turbine. All of the properties are forested in the areas within 688.5 feet from the turbines and no public roads or access areas are within the setback area. These agreements are included in Appendix 27-2 of the applications. The applicants must submit evidence that these agreements have been recorded in the Aroostook County Registry of Deeds to the Department for review prior to construction.

<u>Municipal Review</u>. As described above, the Town of Oakfield's Wind Energy Review Committee reviewed the proposed project and prepared a report with its findings dated October 19, 2011. As a result of this study, the applicants amended a portion of the application to address concerns raised during this review. These amendments include:

• The applicants will maintain records of ice throw debris found within public ways or other areas outside the designated safety setback of 688.5 feet from the base of the turbines.

• The applicants will implement previously established measures to minimize risks to users of snowmobile trails that remain within the safety setback of 688.5 feet from the base of the turbines, including installing signage warning of potential risks and operational constraints including but not limited to shut-down of individual turbines due to excessive accumulation of ice on turbine blades.

The Department finds that the applicants provided documentation in the form of standard compliance by the manufacturer that the wind generation equipment has been designed to conform to applicable industry safety standards and has demonstrated that the proposed development has been sited such that it will not present an unreasonable safety hazard to adjacent properties or adjacent property uses. The Department further finds that the applicants' submitted sufficient evidence which demonstrates that the proposed project has been sited with appropriate safety setbacks from adjacent properties and existing uses provided that prior to project construction, the applicants submit a copy of the recorded easements to the Department.

## 19. DECOMMISSIONING PLAN:

In order to facilitate and ensure appropriate removal of the wind generation equipment when it reaches the end of its useful life or if the applicants cease operation of the turbines, the Department requires an applicant to demonstrate, in the form of a decommissioning plan, the means by which decommissioning will be accomplished. The applicants submitted a decommissioning plan as Section 29 of the application. The decommissioning plan includes a description of the trigger for implementing the decommissioning, a description of work required, an estimate of decommissioning costs, a schedule for contributions to its decommissioning fund and a demonstration of financial assurance.

A. <u>Trigger for implementation of decommissioning.</u> The proposed wind turbine generators are designed and certified by independent agencies for a minimum expected operational life of 20 years, however other factors may also trigger the requirement for decommissioning. The applicants' proposal is that the wind generation facility will be decommissioned when it ceases to generate electricity for a continuous period of twelve months. In the case of a force majeure event which is the cause of the project not generating electricity for 12 months, the applicants may submit to the Department for review and approval reasonable evidence in support of a request that they not be required to decommission the project at that time.

An exception to the requirement that decommissioning begin if twelve months of no generation occurs will be allowed for a force majeure event, however the Department finds that the applicants' proposed definition of "force majeure" is exceedingly broad, and the following will constitute a force majeure allowing greater than twelve months before decommissioning is required. "Force majeure" shall mean fire, earthquake, flood, tornado, or other acts of God and natural disasters; strikes or labor disputes; or war, civil strife or other violence. In the event of a force majeure event which results in the absence of electrical generation for twelve months, by the end of the twelfth month of non-operation the applicant shall demonstrate to the Department that the project will be substantially operational and producing electricity within twenty-four months of the event. If such a demonstration is not made to the Department's satisfaction, the decommissioning must be initiated eighteen months after the force majeure event.

B. <u>Description of work.</u> The description of work contained in Section 29 of the application outlines the applicants' proposal for the manner in which the turbines and other components of the proposed project will be dismantled and removed from the site. Subsurface components will be removed to a minimum of 24 inches below grade, facilities will be removed and salvaged, and disturbed areas will be re-seeded. At the time of decommissioning, the applicants must submit a plan for continued beneficial use of any wind energy development component proposed to be left on-site to the Department for review and approval.

C. <u>Financial Assurance.</u> The applicants propose that financial assurance for the decommissioning costs will be fully established by year 15 of operation. The applicants propose to reserve \$50,000 each year from the year the project commences through calendar year 7. The first year's payment shall be in place prior to the start of construction. At the end of the seventh year the estimated cost of decommissioning will be reassessed. Based on the new assessment in years 8 through 15 the applicants will make annual contributions of an equal amount each year to fully fund the decommissioning reserve by the end of the 15<sup>th</sup> year. On or prior to the end of calendar year 15 of the project's operation, the estimated cost of decommissioning (minus the salvage amount) will be reassessed and a copy will be submitted to the Town of Oakfield and the Department. The amount that is equal to the remaining balance will be reserved at that time for decommissioning and site restoration.

An interested person submitted concerns regarding the proposed decommissioning plan, specifically that the applicants are a limited liability company and would bear limited financial responsibility if the company were to dissolve. The interested person contends that the Department should require that the entire cost of decommissioning should be fully funded by

year seven. Another interested person submitted concerns about what would happen if First Wind goes bankrupt. The Department finds that applicants' financial capacity demonstration and the regular deposits to the decommissioning fund, along with the possibility of legal remedies in the case of a bankruptcy or dissolution, provide adequate assurance that the project will be decommissioned as proposed.

One member of the public commented that the lifespan of this project would not be as long as the applicants have stated. This concern is addressed with the applicants' proposal to have decommissioning required when the proposal ceases to generate electricity for a continuous period of twelve months.

The Town of Oakfield's Wind Energy Review Committee (WERC) reviewed the proposed project. As a result of that process and the town's Final Report dated October 19, 2011, the applicants now propose to include documentation that substantiates both demolition costs and salvage values associated with decommissioning costs with any required re-evaluation of the decommissioning costs.

Based on the applicants' proposal outlined above, with the changes set forth above, and in consideration of the public comments, the Department finds that the applicants' proposal will adequately provide for decommissioning.

## 20. <u>TANGIBLE BENEFITS:</u>

The applicants submitted a description of the tangible benefits to be provided by the project in Section 28 of the application. In that description the applicants described tangible benefits that the project will provide to the State of Maine and to the host community of Oakfield, including economic benefits and environmental benefits.

The applicants state that the proposed project will add significant new property tax value to the Town of Oakfield. In 2009, the Town of Oakfield designated a TIF (Tax Increment Financing) district and adopted a Development Program for the TIF district. The Town intends to amend the designation of a municipal TIF district to be known as "Amended Town of Oakfield Wind Project Municipal Development and Tax Increment Financing District," and adopt the first amendment to the Development Program for the District as presented to the Town.

The applicants' state that their proposal will benefit the host communities and surrounding areas through construction-related employment opportunities. These will include tree clearing and excavation jobs, and jobs in businesses that support construction such as lodging, restaurant, fuel and concrete supply. The applicants anticipate hiring five to ten permanent employees to operate and maintain the facility.

The 59- mile generator lead line will also result in increased property values and property taxes paid to the property taxing jurisdictions.

<u>Communities Benefits Agreement.</u> The applicants propose to establish a community benefits package that will consist of an annual payment to the Town of Oakfield of \$5,000/MW, which

equals \$15,000 per turbine. This payment will total \$600,000 annually paid to the Town of Oakfield for the 20 year term of the agreement.

Based the employment opportunities, the tax revenue and the Community Benefits Agreement proposed by the applicants, the Department finds that the applicants have demonstrated that the proposed project will provide significant tangible benefits to the host community and surrounding area pursuant to 35-A M.R.S.A.§ 3454, provided that annual payments are made to the Town of Oakfield as described above.

## 21. <u>ALL OTHER</u>:

All other Findings of Fact, Conclusions and Conditions remain as approved in Department Order #L-24572-24-A-N, and subsequent orders.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 480-A <u>et seq.</u> and Section 401 of the Federal Water Pollution Control Act:

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.
- B. The proposed activity will not cause unreasonable erosion of soil or sediment.
- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.
- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life provided the applicants implement turbine curtailment for the protection of bats, implement the post-construction bird monitoring surveys, adhere to the Department's recommendations at stream crossing sites, and observe the construction window to minimize disturbance to the heron rookery, all as described in Finding 7; and provided the applicants preserve the compensation parcel described in Finding 16.
- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.

I. The proposed activity is not on an outstanding river segment as noted in 38 M.R.S.A. Section 480-P.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 481 <u>et seq.</u>:

- A. The applicants have provided adequate evidence of financial capacity and technical ability to develop the project in a manner consistent with state environmental standards provided that, prior to construction, the applicants submit evidence that financing has been secured as outlined in Finding 3.
- B. The applicants have made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities provided the applicants submit all executed sound easements, operate the project with designated turbines operating in reduced sound power mode, submit the compliance locations to the Department, establish compliance locations, implement the complaint protocol, and submit sound level monitoring reports in accordance with the post-construction monitoring program, all as described in Finding 5; provided the applicants comply with the post construction VMP and mark all buffers on the ground as described in Finding 9; the applicants must incorporate all of the revisions outlined in the Municipal Review Section of Finding 5; and provided the applicants avoid and protect the L. Sprague Farmstead as described in Finding 8.
- C. The proposed development will be built on soil types which are suitable to the nature of the undertaking and will not cause unreasonable erosion of soil or sediment nor inhibit the natural transfer of soil provided that the SPCC plan and geotechnical report are submitted as described in Finding 10.
- D. The proposed development meets the standards for stormwater management in Section 420-D and the standard for erosion and sedimentation control in Section 420-C provided that the applicants hold a pre-construction meeting, hire a third-party inspector to oversee project construction, follow the protocol for inspection of the ditch turnouts and treatment berms, permanently mark buffers on the ground and submit a copy of the recorded deed restrictions, all as described in Finding 11.
- E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur.
- F. The applicants have made adequate provision of utilities, including water supplies, sewerage facilities, solid waste disposal and roadways required for the development and the development will not have an unreasonable adverse effect on the existing or proposed utilities and roadways in the municipality or area served by those services.

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- G. The activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure.
- H. The proposed development will not significantly compromise views from a scenic resource of state or national significance such that the development will have an unreasonable adverse effect on the scenic character or existing uses related to scenic character of the area.
- I. The proposed development will not unreasonably cause shadow flicker effects to occur over adjacent properties.
- J. The activity will not present an unreasonable safety hazard to adjacent properties or adjacent property provided the applicants submit evidence of fully executed and recorded public safety easements as described in Finding 18.
- K. The applicant has made adequate provisions to achieve decommissioning of the wind power facility provided the decommission plan is implemented as described and under the circumstances set forth in Finding 19.
- L. The activity will provide significant tangible benefits to the host community and surrounding area, provided that the applicant implements the Community Benefit Fund as discussed in Finding 20.

THEREFORE, the Department APPROVES the application of EVERGREEN WIND POWER III LLC and MAINE GENLEAD LLC to develop a 150 MW wind energy development project known as the revised Oakfield Wind Project, SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations:

- 1. The Standard Conditions of Approval, a copy attached.
- 2. In addition to any specific erosion control measures described in this or previous orders, the applicants shall take all necessary actions to ensure that their activities or those of their agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.
- 3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
- 4. The applicants or other responsible party shall, within three months of the expiration of each five-year interval from the date of this Order, submit a report certifying that the items listed in Department Rules, Chapter 500, Appendix B(4) have been completed in accordance with the approved plans.
- 5. Prior to the start of construction, the applicants shall submit evidence that they have secured final financing for the project in accordance with 38 MRSA §484(1) and Chapter 375(1), to the

Department for review and approval.

- 6. The applicants shall operate the project with the designated 14 turbines in reduced sound mode as shown in Finding 5.
- 7. Prior to the commencement of operation, the applicants shall submit the sound level compliance locations to the Department for review and approval.
- 8. Prior to the start of construction, the applicants shall submit evidence that all necessary options have been exercised and final deeds, leases and easements (with the exception of stormwater buffers) have been executed and recorded to the Department for review.
- 9. The Declaration of Restrictions for the storm water buffers shall be recorded prior to the start of operation, and the applicants shall submit a copy of the recorded deed restriction including the plot plan to the Department within 60 days of its recording.
- 10. Any Spill Prevention, Control, and Countermeasures Plan prepared by a contractor or subcontractor for the proposed project shall be submitted to the Department for review.
- 11. Prior to commencement of operation, the applicants shall implement the complaint response protocol set forth in Appendix A attached to this Order.
- 12. The applicants shall submit sound level monitoring reports in accordance with the postconstruction monitoring program.
- 13. All in-stream work shall be done between July 15<sup>th</sup> and October 1 of any calendar year.
- 14. The applicants shall comply with the Vegetation Management Plan submitted with the application and with the Department's VMP where specified.
- 15. The applicants shall retain the services of a third-party inspector in accordance with the Special Condition for Third-Party Inspector Program, attached to this Order.
- 16. Prior to the start of construction, the applicants shall conduct a pre-construction meeting to discuss the construction schedule and the erosion and sediment control plan with the appropriate parties. This meeting shall be attended by the applicant's representative, Department staff, the design engineer, the contractor, and the third-party inspector.
- 17. Prior to the start of construction, the location of all buffers (including natural resource buffers and stormwater buffers) shall be clearly marked in the field using durable signs and/or flagging that is visible to construction personnel. The location of protective buffers shall be marked on construction drawings and restrictions within these buffers shall be explained during the pre-construction meeting with the contractor. The applicants' environmental inspector shall be responsible for ensuring signs are maintained and visible to construction personnel during the construction phase of the project. Location of protective buffers shall be permanently marked on the ground following the construction phase of the project.

- 18. Prior to the commencement of operation, the applicants shall submit an operational SPCC plan to the Department for review.
- 19. The applicants shall retain the services of a professional engineer to inspect the construction and stabilization of the stone bermed level spreaders and road ditch turnouts. The applicants shall submit the inspecting engineer's report to the Department within 14 days of completion of the stone bermed level spreaders and turnouts.
- 20. The applicants shall make annual payments to the Town of Oakfield in accordance with the terms of the Community Benefit Agreement.
- 21. The applicants shall incorporate all revisions to the applications outlined in the Municipal Review Section of Findings 5, 18 and 19.
- 22. The applicants shall avoid and protect the L. Sprague Farmstead with fencing along South Oakfield Road margin during road construction and use.
- 23. The applicants shall ensure that the third party inspector approves all locations and access for water withdrawal prior to use, and those locations shall be stabilized prior to and after use.
- 24. Prior to the start of construction the applicants shall purchase the compensation parcel described in Finding 16 and evidence of the transfer must be submitted to the Department within 60 days of closing.
- 25. The applicants shall implement the decommissioning plan as described in Finding 19 and in accordance with the changes to the applicants' proposal as set forth in Finding19.
- 26. The applicants shall submit a finalized post-construction avian, bat, and raptor monitoring plan to the Department for review and approval prior to operation.

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27. All other Findings of Fact, Conclusions and Conditions remain as approved in Department Order #L-24572-24-A-N, and subsequent orders, and are incorporated herein.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

## PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

JD/L24572CNDNENFNGN/ATS#73550/73551/73553/74215/73865

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## Appendix A

Evergreen Wind Power II, LLC (herein referred to as Evergreen) submitted a sound level study completed by Scott Bodwell. The sound level study was conducted to model expected sound levels from the proposed Oakfield Wind Project (the "Project") and to compare model results to operation standards pursuant to the Site Location of Development Rules, Chapter 375 §10.

In recognition of the rural nature of the site, the applicant elected to apply quiet limits of the 55 dBA during daytime and 45 dBA at night at all nearby protected locations in accordance with Chapter 375 §10 (H) (3) (1). This is a conservative approach, because ambient sound levels under weather conditions suitable for wind turbine operation can exceed thresholds of 45 dBA daytime and 35 dBA nighttime. Conservative assumptions were also incorporated into the modeling of predicted sound levels from the project. Thus it is expected that sound levels from the operating Project will remain within predicted levels.

As an added measure, Evergreen will implement the following procedure for receiving input and responding to the public, in the event there are concerns regarding compliance with applicable sound level standards during operation of the Project. This procedure is in addition to the compliance testing protocol that will be implemented as part of the DEP Site Location Permit.

The intent of the sound complaint resolution protocol is to:

- 1. provide a transparent process for reporting sound complaints to Evergreen;
- 2. provide a consistent approach to documenting complaints and to inform subsequent monitoring efforts; and
- 3. provide a process for informing the Town and DEP of sound complaints.

Evergreen will provide a contact person and 24 hour "hotline" telephone number for complaints regarding sound from the Project. Contact information along with a copy of this protocol and a "Sound Complaint Record Form" will be mailed to all abutters, consistent with the definition of abutters set forth in Chapter 2 of the Maine DEP regulations, and provided to the Town and DEP.

Residents of Oakfield are encouraged to fill out the Sound Complaint Record Form but they are not required to do so in order to make a complaint on the hotline. The purpose of the form is to ensure that a standardized set of basic information is collected for each complaint in order to facilitate analysis. The following information will be required from the complainant in order to process the form:

- Name and address of complainant
- > Date, time and duration or periods of sound event
- Description of sound event—relative amplitude, source of annoyance, steady or fluctuating, low/mid/high or mix of frequencies/pitch, noticeable vibration, indoor or outdoor and specific location
- Description of other audible sounds from sources outside and inside the dwelling of the complainant.

Evergreen will complete the Sound Complaint Record Form by providing the following:

- Nearest turbine to complaint location
- Date and time call or form processed
- > Power output (kW), wind speed and direction of closest turbines during sound event

Local/surface weather conditions—cloud cover, precipitation, relative wind speed and direction, temperature, and relative humidity

Ground conditions – field, wooded, snow, foliage, frozen/icing

A log of complaints will be kept and managed by the operational staff at the Project site. Evergreen will provide a copy of the complaint log to the Town and DEP on a quarterly basis or more frequently upon request by the Town or DEP.

The response to each complaint will depend on each situation, but may include, without limitation, a visit to the location of the complaint; inspection of the operating condition of the turbines closest to the complaint location to evaluate potential upset conditions that might increase sound levels; informal sound monitoring by Evergreen; an informal evaluation of the complaint by Evergreen's sound consultant; or formal sound monitoring. In the event that Evergreen conducts formal sound monitoring at a complaint location, it will notify the Town ahead of time, allow the Town Complaint Review Officer and Town Manager the opportunity to observe, and will provide the results to the Town. In addition, if Evergreen conducts a visit to a complaint are conducts informal sound monitoring at a complaint location, it will undertake best efforts to notify the Town Complaint Review Officer and Town Manager and allow them the opportunity to observe. In any event, a Sound Complaint Response Form and Follow-up Record will be completed by Evergreen staff.

Evergreen will use the information collected during the first three months of operation to assist in selecting compliance monitoring locations for testing in accordance with the DEP post-construction sound level compliance assessment plan, as well as timing to ensure monitoring is conducted under weather and operating conditions when sound from the project is most noticeable.

If Evergreen or the DEP determines that there is a consistent pattern of complaints that suggest sound levels from the Project may exceed applicable DEP sound level limits, Evergreen will develop and implement an appropriate protocol for ensuring that the Project continues to meet applicable sound level limits. Evergreen shall take reasonable steps to provide a copy of the protocol to the Town and DEP prior to its implementation, and will provide the results of testing undertaken as part of the protocol to the DEP and the Town. If the Project is not in compliance with the DEP standards, and as set forth in the DEP Site Law permit, Evergreen will submit a revised operation protocol to the DEP and provide a copy to the Town that demonstrates the Project will be in compliance at all the protected locations surrounding the Project.

#### **Protocol Implementation:**

Evergreen Wind will hold an initial public information meeting in conjunction with the Town to explain the complaint response and resolution process, including how to properly file complaints and complete the form(s). The Town will also explain how this complaint protocol relates to the Town's separate Wind Energy Facility Operations Ordinance.

Forms will be mailed to project abutters and will be available at the Town Office and the DEP.

The 24/7 hotline number will be mailed to abutters and posted at the Town Office.

For the first year of operations, Evergreen will hold quarterly meetings in conjunction with the Town to discuss complaints and their resolution. This process can also be used to report the results of compliance testing per the DEP protocol.

Evergreen Wind will develop and schedule in consultation with the DEP compliance testing to occur sometime after commercial operations but during the first year of routine operations so that complainant locations can be incorporated as appropriate.

The proactive and innovative measures identified in this sound complaint response and resolution protocol will facilitate a more complete understanding and evaluation of potential sound complaints and will ensure that those complaints are appropriately addressed. Evergreen invites the public to participate in this process to ensure that the Oakfield Wind Project remains a positive contributor to the community.

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L-24572-24-C-N, L-24572-TF-D-N L-24572-IW-E-N, L-24572-24-F-N L-24572-TF-G-N

## Department of Environmental Protection <u>SITE LOCATION OF DEVELOPMENT (SITE)</u> <u>STANDARD CONDITIONS</u>

#### STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL.

- 1. This approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from the plans, proposals and supporting documents is subject to the review and approval of the Board prior to implementation. Further subdivision of proposed lots by the applicant or future owners is specifically prohibited, without prior approval by the Board of Environmental Protection, and the applicant shall include deed restrictions to this effect.
- 2. The applicant shall secure and comply with all applicable Federal, State and local licenses, permits, authorizations, conditions, agreements, and orders, prior to or during construction and operation as appropriate.
- 3. The applicant shall submit all reports and information requested by the Board or Department demonstrating that the applicant has complied or will comply with all conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- 4. Advertising relating to matters included in this application shall refer to this approval only if it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- 5. Unless otherwise provided in this approval, the applicant shall not sell, lease, assign or otherwise transfer the development or any portion thereof without prior written approval of the Board where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval shall be granted only if the applicant or transferee demonstrates to the Board that the transferee has the technical capacity and financial ability to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant.
- 6. If the construction or operation of the activity is not begun within two years, this approval shall lapse and the applicant shall reapply to the Board for a new approval. The applicant may not begin construction or operation of the development until a new approval is granted. Reapplications for approval shall state the reasons why the development was not begun within two years from the granting of the initial approval and the reasons why the applicant will be able to begin the activity within two years from the granting of a new approval, if granted. Reapplications for approval may include information submitted in the initial application by reference.
- 7. If the approved development is not completed within five years from the date of the granting of approval, the Board may reexamine its approval and impose additional terms or conditions or prescribe other necessary corrective action to respond to significant changes in circumstances which may have occurred during the five-year period.
- 8. A copy of this approval must be included in or attached to all contract bid specifications for the development.
- 9. Work done by a contractor pursuant to this approval shall not begin before the contractor has been shown by the developer a copy of this approval.

(2/81)/Revised November 1, 1979

**DEPLW 0429** 



## Natural Resource Protection Act (NRPA) Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCE PROTECTION ACT, TITLE 38, M.R.S.A. SECTION 480-A ET.SEQ. UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

- A. <u>Approval of Variations From Plans.</u> The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.
- B. <u>Compliance With All Applicable Laws.</u> The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. <u>Erosion Control.</u> The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.
- D. <u>Compliance With Conditions</u>. Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.
- E. <u>Time frame for approvals.</u> If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- F. <u>No Construction Equipment Below High Water</u>. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.
- G. <u>Permit Included In Contract Bids.</u> A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.
- H. <u>Permit Shown To Contractor</u>. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

Revised (4/92/DEP LW0428

### **Before Construction**

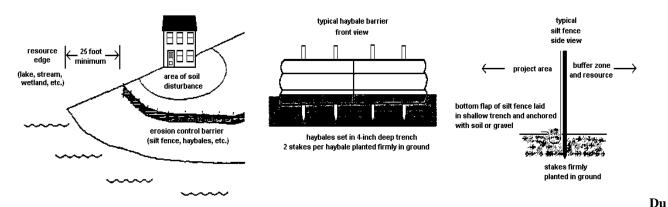
1. If you have hired a contractor, make sure you discuss your permit-by-rule with them. Talk about what measures they plan to take to control erosion. Everybody involved should understand what the resource is, and where it is located.

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Most people can identify the edge of a lake or river. However, the edges of wetlands are often not so obvious. Your contractor may be the person actually pushing dirt around, but <u>you are both responsible</u> for complying with the permitby-rule.

- 2. Call around to find where erosion control materials are available. Chances are your contractor has these materials already on hand. You probably will need silt fence, hay bales, wooden stakes, grass seed (or conservation mix), and perhaps filter fabric. Places to check for these items include farm & feed supply stores, garden & lawn suppliers, and landscaping companies. It is not always easy to find hay or straw during late winter and early spring. It also may be more expensive during those times of year. Plan ahead -- buy a supply early and keep it under a tarp.
- **3.** Before any soil is disturbed, make sure an erosion control barrier has been installed. The barrier can be either a silt fence, a row of staked hay bales, or both. Use the drawings below as a guide for correct installation and placement. The barrier should be placed as close as possible to the soil-disturbance activity.
- **4.** If a contractor is installing the erosion control barrier, double check it as a precaution. Erosion control barriers should be installed "on the contour", meaning at the same level or elevation across the land slope, whenever possible. This keeps stormwater from flowing to the lowest point along the barrier where it can build up and overflow or destroy the barrier.



#### ring Construction

- 1. Use lots of hay or straw mulch on disturbed soil. The idea behind mulch is to prevent rain from striking the soil directly. It is the force of raindrops hitting the bare ground that makes the soil begin to move downslope with the runoff water, and cause erosion. More than 90% of erosion is prevented by keeping the soil covered.
- 2. Inspect your erosion control barriers frequently. This is especially important after a rainfall. If there is muddy water leaving the project site, then your erosion controls are not working as intended. You or your contractor then need to figure out what can be done to prevent more soil from getting past the barrier.
- **3.** Keep your erosion control barrier up and maintained until you get a good and healthy growth of grass and the area is permanently stabilized.

Rev. 8/02

# STORMWATER MANAGEMENT LAW STANDARD CONDITIONS

## STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

**Standard conditions of approval.** Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

- (1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S.A. § 420-D(8) and is subject to penalties under 38 M.R.S.A. § 349.
- (2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- (3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- (4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.
- (5) Initiation of project within two years. If the construction or operation of the activity is not begun within two years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference.
- (6) Reexamination after five years. If the project is not completed within five years from the date of the granting of approval, the department may reexamine its approval and impose additional terms or conditions or prescribe other necessary corrective action to respond to significant changes in circumstances or requirements which may have occurred during the five-year period.
- (7) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the developer, and the owner and each contractor and subcontractor has certified, on a form provided by the

department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

- (8) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the department.
- (9) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.
  - (a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
  - (b) All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the facilities.
  - (c) The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the department, and the maintenance log is being maintained

November 16, 2005

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Special Condition for Third Party Inspection Program

DEPLW078-B2001

November 2008

## THIRD-PARTY INSPECTION PROGRAM

#### 1.0 THE PURPOSE OF THE THIRD-PARTY INSPECTION

As a condition of this permit, the Maine Department of Environmental Protection (MDEP) requires the permit applicant to retain the services of a third-party inspector to monitor compliance with MDEP permit conditions during construction. The objectives of this condition are as follows:

- 1) to ensure that all construction and stabilization activities comply with the permit conditions and the MDEP-approved drawings and specifications,
- 2) to ensure that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations, and
- 3) to ensure communication between the contractor and MDEP regarding any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan.

This document establishes the inspection program and outlines the responsibilities of the permit applicant, the MDEP, and the inspector.

#### 2.0 SELECTING THE INSPECTOR

At least 30 days prior to starting any construction activity on the site, the applicant will submit the names of at least two inspector candidates to the MDEP. Each candidate must meet the minimum qualifications listed under section 3.0. The candidates may not be employees, partners, or contracted consultants involved with the permitting of the project or otherwise employed by the same company or agency except that the MDEP may accept subcontractors who worked for the project's primary consultant on some aspect of the project such as, but not limited to, completing wetland delineations, identifying significant wildlife habitats, or conducting geotechnical investigations, but who were not directly employed by the applicant, as Third Party inspectors on a case by case basis. The MDEP will have 15 days from receiving the names to select one of the candidates as the inspector or to reject both candidates. If the MDEP rejects both candidates, then the MDEP shall state the particular reasons for the rejections. In this case, the applicant may either dispute the rejection to the Director of the Bureau of Land and Water Quality or start the selection process over by nominating two, new candidates.

#### 3.0 THE INSPECTOR'S QUALIFICATIONS

Each inspector candidate nominated by the applicant shall have the following minimum qualifications:

- 1) a degree in an environmental science or civil engineering, or other demonstrated expertise,
- 2) a practical knowledge of erosion control practices and stormwater hydrology,
- 3) experience in management or supervision on large construction projects,
- 4) the ability to understand and articulate permit conditions to contractors concerning erosion control or stormwater management,
- 5) the ability to clearly document activities being inspected,
- 6) appropriate facilities and, if necessary, support staff to carry out the duties and responsibilities set forth in section 6.0 in a timely manner, and

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7) no ownership or financial interest in the development other than that created by being retained as the third-party inspector.

#### 4.0 INITIATING THE INSPECTOR'S SERVICES

The applicant will not formally and finally engage for service any inspector under this permit condition prior to MDEP approval or waiver by omission under section 2.0. No clearing, grubbing, grading, filling, stockpiling, or other construction activity will take place on the development site until the applicant retains the MDEP-approved inspector for service.

#### 5.0 TERMINATING THE INSPECTOR'S SERVICES

The applicant will not terminate the services of the MDEP-approved inspector at any time between commencing construction and completing final site stabilization without first getting written approval to do so from the MDEP.

#### 6.0 THE INSPECTOR'S DUTIES AND RESPONSIBILITIES

The inspector's work shall consist of the duties and responsibilities outlined below.

- 1) Prior to construction, the inspector will become thoroughly familiar with the terms and conditions of the state-issued site permit, natural resources protection permit, or both.
- 2) Prior to construction, the inspector will become thoroughly familiar with the proposed construction schedule, including the timing for installing and removing erosion controls, the timing for constructing and stabilizing any basins or ponds, and the deadlines for completing stabilization of disturbed soils.
- 3) Prior to construction, the inspector will become thoroughly familiar with the project plans and specifications, including those for building detention basins, those for installing the erosion control measures to be used on the site, and those for temporarily or permanently stabilizing disturbed soils in a timely manner.
- 4) During construction, the inspector will monitor the contractor's installation and maintenance of the erosion control measures called for in the state permit(s) and any additional measures the inspector believes are necessary to prevent sediment discharge to off-site properties or natural resources. This direction will be based on the approved erosion control plan, field conditions at the time of construction, and the natural resources potentially impacted by construction activities.
- 5) During construction, the inspector will monitor the contractor's construction of the stormwater system, including the construction and stabilization of ditches, culverts, detention basins, water quality treatment measures, and storm sewers.
- 6) During construction, the inspector will monitor the contractor's installation of any stream or wetland crossings.
- 7) During construction, the inspector will monitor the contractor's final stabilization of the project site.
- 8) During construction, the inspector will keep logs recording any rain storms at the site, the contractor's activities on the site, discussions with the contractor(s), and possible violations of the permit conditions.
- 9) During construction, the inspector will inspect the project site at least once a week and before and after any significant rain event. The inspector will photograph all protected natural resources both before and after construction and will photograph all areas under construction. All photographs will be identified with, at a minimum the date the photo was taken, the location and the name of the individual taking the photograph. *Note: the frequency of these inspections as contained in this condition may be varied to best address particular project needs.*
- 10) During construction, the inspector will prepare and submit weekly (*or other frequency*) inspection reports to the MDEP.

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- 11) During construction, the inspector will notify the designated person at the MDEP immediately of any sedimentladen discharges to a protected natural resource or other significant issues such as the improper construction of a stormwater control structure or the use of construction plans not approved by the MDEP.

#### 7.0 INSPECTION REPORTS

The inspector will submit weekly written reports (*or at another designated frequency*), including photographs of areas that are under construction, on a form provided by the Department to the designated person at the MDEP. Each report will be due at the MDEP by the Friday (*or other designated day*) following the inspection week (Monday through Sunday).

The weekly report will summarize construction activities and events on the site for the previous week as outlined below.

- 1) The report will state the name of the development, its permit number(s), and the start and end dates for the inspection week (Monday through Sunday).
- 2) The report will state the date(s) and time(s) when the inspector was on the site making inspections.
- 3) The report will state the date(s) and approximate duration(s) of any rainfall events on the site for the week.
- 4) The report will identify and describe any erosion problems that resulted in sediment leaving the property or sediment being discharged into a wetland, brook, stream, river, lake, or public storm sewer system. The report will describe the contractor's actions to repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.
- 5) The report will list the buildings, roads, parking lots, detention basins, stream crossings or other features open to construction for the week, including those features or areas actively worked and those left unworked (dormant).
- 6) For each area open to construction, the report will list the date of initial soil disturbance for the area.
- 7) For each area open to construction, the report will note which areas were actively worked that week and which were left dormant for the week. For those areas actively worked, the report will briefly state the work performed in the area that week and the progress toward final stabilization of the area -- e.g. "grubbing in progress", "grubbing complete", "rough grading in progress", "rough grading complete", "finish grading in progress", "finish grading complete", "grubbing in progress", "grubbing reading complete", "permanent seeding complete", "area fully stable and temporary erosion controls removed", etc.
- 8) For each area open to construction, the report will list the erosion and sedimentation control measures installed, maintained, or removed during the week.
- 9) For each erosion control measure in-place, the report will note the condition of the measure and any maintenance performed to bring it to standard.

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## **Third Party Inspection Form**

This report is prepared by a Third Party Inspector to meet the requirements of the Third Party Inspector Condition attached as a Special Condition to the Department Order that was issued for the project identified below. The information in this report/form is not intended to serve as a determination of whether the project is in compliance with the Department permit or other applicable Department laws and rules. Only Department staff may make that determination.

TO: PM, Maine DEP (@maine.gov)	FROM:
PROJECT NAME/ LOCATION:	DEP #:
DATE OF INSPECTION:	DATE OF REPORT:
WEATHER:	CONDITIONS:

## SITE CHARACTERISTICS:

# ACRES OPEN:	# ACRES ACTIVE:	# ACRES INACTIVE:
LOCATION OF OPEN LAND:	LOCATION OF ACTIVE LAND:	LOCATION OF INACTIVE LAND:
OPEN SINCE:	OPEN SINCE:	OPEN SINCE:

### PROGRESS OF WORK:

INSPECTION OF:	Satisfactory	Minor Deviation (corrective action required)	<b>Unsatisfactory</b> (include photos)
STORMWATER CONTROL (VEGETATIVE & STRUCTURAL BMP'S)			
EROSION & SEDIMENTATION CONTROL (TEMPORARY & PERMANENT BMP'S)			
OTHER: (PERMIT CONDITIONS, ENGINEERING DESIGN, ETC.)			

COMMENTS/CORRECTIVE ACTIONS TAKEN (attach additional sheets as necessary):

## Photos (must be labeled with date, photographer and location):

Cc:				
Original and all copies were sent by email only.				



# DEP INFORMATION SHEET Appealing a Commissioner's Licensing Decision

Dated: May 2004

Contact: (207) 287-2811

## **SUMMARY**

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) in an administrative process before the Board of Environmental Protection (Board); or (2) in a judicial process before Maine's Superior Court. This INFORMATION SHEET, in conjunction with consulting statutory and regulatory provisions referred to herein, can help aggrieved persons with understanding their rights and obligations in filing an administrative or judicial appeal.

## I. <u>ADMINISTRATIVE APPEALS TO THE BOARD</u>

## LEGAL REFERENCES

DEP's General Laws, 38 M.R.S.A. § 341-D(4), and its Rules Concerning the Processing of Applications and Other Administrative Matters (Chapter 2), 06-096 CMR 2.24 (April 1, 2003).

## HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written notice of appeal within 30 calendar days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days will be rejected.

## HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner and the applicant a copy of the documents. All the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

## WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

The materials constituting an appeal must contain the following information at the time submitted:

1. *Aggrieved Status*. Standing to maintain an appeal requires the appellant to show they are particularly injured by the Commissioner's decision.

2. *The findings, conclusions or conditions objected to or believed to be in error*. Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.

3. *The basis of the objections or challenge*. If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.

4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.

5. *All the matters to be contested*. The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.

6. *Request for hearing*. The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.

7. *New or additional evidence to be offered.* The Board may allow new or additional evidence as part of an appeal only when the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or show that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2, Section 24(B)(5)

## OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record*. A license file is public information made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.

2. Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal. DEP staff will provide this information on request and answer questions regarding applicable requirements.

3. *The filing of an appeal does not operate as a stay to any decision.* An applicant proceeding with a project pending the outcome of an appeal runs the risk of the decision being reversed or modified as a result of the appeal.

## WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge initiation of the appeals procedure, including the name of the DEP project manager assigned to the specific appeal, within 15 days of receiving a timely filing. The notice of appeal, all materials accepted by the Board Chair as additional evidence, and any materials submitted in response to the appeal will be sent to Board members along with a briefing and recommendation from DEP staff. Parties filing appeals and interested persons are notified in advance of the final date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision. The Board will notify parties to an appeal and interested persons of its decision.

**ADDITIONAL INFORMATION:** If you have questions or need additional information on the appeal process, contact the DEP's Director of Procedures and Enforcement at (207) 287-2811.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.