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

BOARD ORDER

DRAFT

IN THE MATTER OF

RECORD HILL WIND, LLC.	) SITE LOCATION OF DEVELOPMENT ACT
Roxbury, Oxford County	) NATURAL RESOURCES PROTECTION ACT
RECORD HILL WIND PROJECT	)
L-24441-24-A-Z (denial)	) APPEAL
L-24441-TF-B-Z (denial)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 344 (2-A) and 341-D (4) and Chapter 2, Section 24 (B) of the Department of Environmental Protection's regulations, the Board of Environmental Protection has considered the appeal of the Concerned Citizens to Save Roxbury (CCSR), Barry Allen, Antonio DeSalle, Tom Currivan, Michelle Currivan, Ron Dube, Chris Dube, Nancy Fickett, Tom Ganley, Theodore Gotto, Priscilla Gotto, Leo F. Kersey, Jr., Linda Kuras, Dale Hodgkins, BJ Hodgkins, Lisa Hodgkins, Colleen Martineau, Cathy Mattson, Anne Morin, Laureen Olsen, Rob Olsen, Philip Paquette, Sarah Paquette, , Vicky Stanislawski, Todd Stanislawski, Eric Roderick, Michael Ronan, Rob Roy, Kelly Sastamoine, Richard Theriault, Matt Towle, Eben Thurston, Lester Thurston, Steve Thurston, Les Turner, Gloria Turner, Nancy Wahlstrom, Carl Wahlstrom, and the Silver Lake Camp Owners Association (SLCOA), collectively "appellants", the material filed in support of the appeal, the response of the applicant, the supplemental evidence admitted into the record, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROCEDURAL HISTORY:

On December 2, 2008, RECORD HILL WIND, LLC. (applicant) filed a Site Location of Development Act (Site Law) application and a Natural Resources Protection Act (NRPA) application for a permit to construct to a wind energy development known as the Record Hill Wind Project, in the Town of Roxbury. During the Department's review of the application, numerous letters from interested property owners within the community were received that described specific concerns associated with the proposed project.

The applicant proposes to construct a 50.6-megawatt (MW) wind energy generation facility, which is an expedited wind energy development in accordance with the Wind Energy Act, 35-A M.R.S.A. § 3451 (4). The proposed project consists of 22 Siemens SWT-2.3-93 wind turbines (2.3 MW each) with associated turbine pads. The turbines will be constructed in a north-south orientation along the ridgeline of Record Hill, Flathead Mountain, and Partridge Peak. The proposed project also includes 6.1 miles of new access roads and a crane path, 19,500 linear feet of electrical transmission lines, a 20,700 square foot electrical collector

substation, two permanent 80 meter meteorological towers, and a 5,500 square foot operations & maintenance building.

On February 18, 2009, the Department held a public meeting in the Town of Rumford pursuant to 38 M.R.S.A. § 345-A (5) to provide all interested parties with an opportunity to provide information and ask questions of the Department regarding the project. The Department approved the applications in Department Order #L-24441-24-A-N/L-24441-TF-B-N, dated August 20, 2009.

On September 21, 2009, the appellants listed above filed an appeal of the Department's decision to the Board. On November 3, 2009, appellants filed a request for stay of the permit, in the form of a Temporary Restraining Order to prohibit further construction of the Record Hill Wind Project. On December 3, 2009, the Board of Environmental Protection (Board) heard oral argument on that request. In a letter dated December 7, 2009, the parties withdrew the request for a stay provided that all argument and documentation with regard to the petition be accepted into the record by the Board and that the issues raised in the petition be merged with their appeal of the project.

2. STANDING:

The appeal was filed in the name of two associations with members who live in the vicinity of the Record Hill Wind Project and several individuals who own property in the Town of Roxbury.

CCSR and SLCOA are associations comprised of seasonal and year-round property owners, renters, or regular visitors to the Town of Roxbury. The Board finds that CCSR and SLCOA are entities with standing as defined in Chapter 2, Section 1(B) and may bring this appeal before the Board.

Barry Allen, Antonio DeSalle, Tom Currivan, Michelle Currivan, Ron Dube, Chris Dube, Nancy Fickett, Theodore Gotto, Priscilla Gotto, Leo F. Kersey, Sr., Lisa Hodgkins, Colleen Martineau, Cathy Mattson, Anne Morin, Kelly Sastamoine, Richard Theriault, Matt Towle, Michael Ronan, Nancy Wahlstrom, Carl Wahlstrom, Les Turner, and Gloria Turner are owners of property in the Town of Roxbury and described specific concerns regarding the Record Hill Wind Project. The Board finds that these individuals have demonstrated standing as aggrieved persons as defined in Chapter 2, Section 1(B) and may bring this appeal before the Board.

Eben Thurston and Steve Thurston are seasonal occupants of a family property that is located in the Town of Roxbury. These individuals described specific concerns regarding the Record Hill Wind Project. Although these individuals are not residents of the town in which the project is proposed, the Board finds that the individuals submitted sufficient documentation to qualify as aggrieved persons as defined in Chapter 2, Section 1(B), and, therefore, may bring this appeal before the Board.

Philip and Sarah Paquette are residents of the Town of Byron and own a property near Record Hill. They described specific concerns regarding the Record Hill Wind Project. Although these individuals are not residents of the town in which the project is proposed, the Board finds that the individuals submitted sufficient documentation to qualify as aggrieved persons as defined in Chapter 2, Section 1(B) and, therefore, may bring this appeal before the Board.

Tom Ganley, Linda Kuras, Dale Hopkins, BJ Hodgkins, Vicky Stanislawski, Todd Stanislawski, and Rob Roy are residents of the Town of Roxbury; however, these individuals did not submit any documentation demonstrating particularized injury from the Department's decision. For this reason, the Board finds that these individuals are not aggrieved persons and do not have standing to bring the appeal before the Board pursuant to 38 M.R.S.A. § 341-D(4).

Laureen Olsen, Rob Olsen and Lester Thurston are seasonal occupants of a family property located in the Town of Roxbury. These individuals did not submit any documentation demonstrating particularized injury from the Department's decision. For this reason, the Board finds that these individuals are not aggrieved persons and do not have standing to bring the appeal before the Board pursuant to 38 M.R.S.A. § 341-D(4).

Eric Roderick is a resident of the Town of Byron. Mr. Roderick stated that he is opposed to the Record Hill Wind Project; however, he did not submit any documentation demonstrating particularized injury from the Department's decision. For this reason, the Board finds that Mr. Roderick is not an aggrieved person and does not have standing to bring the appeal before the Board pursuant to 38 M.R.S.A. § 341-D(4).

The associations and individuals listed above will collectively be referred to as "appellants" or by their individual namesakes. The findings set forth above are made only to the appellants' administrative standing before this Board. Since many, though not all, of the identified appellants properly demonstrated their standing, the Board proceeds to the merits of the appeal.

3. FINDINGS & CONCLUSIONS OBJECTED TO:

The appellants object to the Department findings and conclusions relating to the following:

A. Noise;
B. Financial capacity
C. Decommissioning;
D. Scenic character;
E. Wildlife;
F. Stormwater; and
G. Shadow flicker.

4. BASIS FOR APPEAL:

The appellants assert that the Department erred in its findings that:

A. The applicant made adequate provisions to ensure that noise standards pursuant to the Site Location of Development Rules, Chapter 375(10) were met provided that the applicant followed the noise compliance protocol outlined in the Department permit;
B. The applicant demonstrated adequate financial capacity to comply with Department standards;
C. The applicant made adequate provisions for demonstrating a decommissioning plan and a means to execute the plan;
D. The proposed project will not have an unreasonable adverse effect on the scenic character of scenic resources of state or national significance;
E. 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 that the applicant followed the avian, bat, and raptor compliance protocol outlined in the Department permit;
F. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards for stormwater; and
G. The proposed project will not unreasonably cause shadow flicker to occur over adjacent properties.

The appellants also assert that the applicant did not demonstrate sufficient title, right, or interest in all of the property which is proposed for development or use.

Moreover, the appellants contend that the proposed wind energy development will have an unreasonable adverse impact on the value of their personal property and will also adversely affect tourism of the surrounding area.

5. REMEDY REQUESTED:

The appellants request that the Board hold a public hearing and reverse the August 20, 2009 Department decision approving a permit for the construction of the Record Hill Wind Project in the Town of Roxbury.

6. REQUEST FOR A PUBLIC HEARING:

The permit applications were filed on December 2, 2008 and the Department subsequently received one written request and one verbal request from interested parties that a public hearing be held. The requests for a public hearing were considered carefully by the Department, but the Department determined that the interested parties had not presented sufficient credible conflicting technical information regarding the licensing criteria to warrant a public hearing. In a letter dated January 23, 2009, the Department notified all interested

parties that a public hearing would not be held. However, due to the considerable amount of public interest and in accordance with 38 M.R.S.A § 345-A(5) the Department conducted a public meeting in the Town of Rumford to provide all interested parties an opportunity to provide information to the Department.

During the eight month period of the review of the applications, the appellants had the opportunity to present information and argument to the Department and availed themselves of that opportunity both at the public meeting and through submittal of additional information during the review process. At the public meeting, participants submitted information to the Department that was included in the project file and considered by the Department. Participants submitted information related to specific design details of the project, project need, Department procedures, shadow flicker, scenic issues, noise, impacts to wildlife, decommissioning, economic feasibility, erosion control, water quality, and title, right, or interest.

The Board finds that the record is adequately developed with regard to the statutory criteria, and that the appellants did not demonstrate that there is sufficient conflicting technical evidence on a licensing criterion to warrant a public hearing.

7. TITLE, RIGHT, OR INTEREST:

Appellants assert that the applicant does not have sufficient title, right, or interest in the property proposed for development or use because the applicant does not have the necessary transmission infrastructure to connect with the state's electrical grid or allow the grid to safely absorb the project's output. Appellants assert that if the project cannot operate without an upgrade to the grid, then it should not be approved until that upgrade is assured.

In order to demonstrate title, right, or interest in the property proposed for development, the applicant submitted a redacted copy of a wind energy facility ground lease between the applicant and the property owner for a duration of twenty years with the right to extend the terms of the lease for an additional ten years at the end of year twenty for the Record Hill Wind Project and the associated access roads and electrical infrastructure. The applicant also submitted a quitclaim deed which shows that the property owner has ownership over the parcel on which development or use is proposed. A warranty deed was submitted by the applicant for the property containing the proposed maintenance building and collector substation. Moreover, the applicant submitted an executed option agreement to allow the electrical infrastructure to cross the northeastern corner of the property abutting the maintenance building parcel.

The applicant states that safety, reliability, and scheduling of electrical resources in Maine are coordinated by the Independent System Operator of New England (ISO-NE). The applicant further states that the Record Hill Wind Project will require an upgrade of the Central Maine Power Company's grid, and the applicant will be required by the Federal Energy Regulatory Commission to reimburse Central Maine Power Company for some portion of the cost of such an upgrade. The applicant asserts that these separate projects will

be owned by, and the work will be supervised by two separate entities being the applicant and Central Maine Power Company.

The Department concluded that while the upgrade to the grid system is a related project without which the proposed wind energy development would not be built; it is a separate project and the applications for permits are acceptable to be processed separately.

The Board finds that the duration and terms of the lease for a period of twenty years with the right to extend the terms of the lease for an additional ten years at the end of year twenty, the deeds, and the option agreement submitted by the applicant demonstrate a right to the needed use of the property with adequate duration and terms for the proposed project and its associated uses sufficient for the processing of this application. Therefore, the Board finds that the applicant demonstrated sufficient title, right, or interest in all of the property which is proposed for development or use.

8. RESPONSE TO APPEAL:

A. NOISE:

The appellants argue that the Department erred in its conclusion that the noise generated from the proposed project will not have an unreasonable adverse effect on the surrounding environment pursuant to the operational standards as set forth in the Site Location of Development Rules, Chapter 375 §10, based on the following contentions:

(1) The sound model used to develop the sound level study for the proposed project was not designed for wind turbines;
(2) The sound level study submitted by the applicant failed to use line source calculations;
(3) The applicant's sound level study failed to adequately consider short duration repetitive sounds (SDRS) and apply a 5 dba penalty;
(4) The Department failed to consider the health effects of nighttime noise; and
(5) The Department failed to impose adequate non-compliance mitigation measures.

To assess whether a proposed project has made adequate provision to control excessive environmental noise, the Department has adopted regulations which provide acceptable noise level limits in various settings. Chapter 375 §10 sets forth hourly sound pressure level limits ($L_{Aeq\text{-}Hr}$) at facility property boundaries and at nearby protected locations. Chapter 375 §10 (G) (16) defines protected locations as "any location accessible by foot, on a parcel of land containing a residence or approved subdivision...." In addition to residential parcels, protected locations include but are not limited to schools, state parks, and designated wilderness areas.

The hourly equivalent level resulting from routine operation of a development is limited to 75 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 varies

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 level limits for routine operation are 70 dBA daytime (7:00 a.m. to 7:00 p.m.) and 60 dBA 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 lower, 60 dBA daytime and 50 dBA nighttime. In addition, where the daytime pre-development ambient hourly sound level is equal to or less than 45 dBA and/or nighttime ambient hourly sound level is equal to or less than 35 dBA, lower limits known as quiet location limits apply. For such "Quiet Locations", the hourly sound level limits for routine operation are 55 dBA daytime and 45 dBA nighttime. In all cases, nighttime limits at a protected location apply at the property line of a protected location or up to 500 feet from sleeping quarters when the property line is greater than 500 feet from a dwelling.

The applicant submitted a sound level study entitled "Sound Level Assessment", completed by its noise expert, Resource Systems Engineering (RSE), dated December 1, 2008 with a last revision date of January 20, 2009. The applicant submitted a supplement to the sound level study, dated June 16, 2009, which analyzed potential noise implications of a change from the originally proposed Clipper turbines to the currently proposed Siemens turbines. The sound level study was conducted to model expected sound levels from the proposed Record Hill Wind Project and to compare the model results to operational standards pursuant Chapter 375 (10), the Site Law Rules. In recognition of the rural nature of the site, the applicant opted to apply quiet limits of 55 dBA daytime and 45 dBA nighttime at all nearby protected locations in accordance with Chapter 375 §10 (H) (3) (1).

The acoustic model was developed using the CADNA/A software program performing calculations in accordance with the generally recognized standard for estimating the propagation of sound in the environment promulgated by the International Standards Organization (ISO) as Chapter 9613-2, *Attenuation of Sound During Propagation Outdoors*. CADNA/A uses three dimensional terrain, proposed wind turbine characteristics and locations plus environmental factors to calculate outdoor sound propagation from the wind turbines. RSE calculated sound levels for simultaneous operation of the Siemens SWT-2.3-9.3 wind turbines at all 22 prospective turbine locations. Calculations were based on the apparent sound power spectrum produced at full sound power provided by Siemens. The wind turbines were treated as point sources at the hub height of 80 meters above base/grade elevation using sound power levels provided by WINDTEST, Kaiser-Wilhelm-Koog GmbH, which is a report of acoustical emissions of a Siemens wind turbine generator system of the type SWT-2.3-9.3, September 2005. The sound level modeling that was conducted by RSE included the following assumptions: all wind turbines operating at full sound power output, downwind conditions in all directions simultaneously, moderate ground absorption, no foliage attenuation, and the addition of a 5 dBA uncertainty factor applied to the turbine manufacturer's specifications. The results of the acoustic model were plotted on a

vicinity site plan that shows residential parcels in relation to the project area where the most restrictive sound level limits apply in relation to the predicted sound output expected to be generate by the facility.

The results of the applicant's sound level study indicate that sound levels at full sound power production of the Record Hill Wind Project will be from 5 to 11 dBA below the nighttime sound level limit of 45 dBA hourly equivalent limit at the closest protected locations. Results also indicate that sound levels at full sound power production of the wind project will be from 12 to 20 dBA below the 55 dBA hourly equivalent limit.

The appellants argue that the applicant should have used a line source analysis instead of a point source analysis. A line source is defined as a source of noise that emanates from a linear geometry and is comprised of multiple point sources. Roadway noise is an example of a linear source of noise. A point source is a single localized source.

The appellants argue that the decay rate of a line source is 3 dB for every doubling of distance; the decay rate of a point source is 6 dB for every doubling of distance. During the Department's review process, interested parties contracted E-Coustic Solutions, a noise assessment firm, to review the applicant's sound level study. The appellants point to this review in support of their argument. In the review, E-Coustic Solutions opines that the appropriate decay rate for ridge mounted turbines is 3 dB. E-Coustic Solutions also modeled predicted sound levels using a decay rate of 3 dB. In consideration of the results of E-Coustic Solution's review and the difference in decay rates, the appellants assert that if the applicant's sound level study had used line source calculations rather then point source calculations, then the Department's noise limit would be exceeded.

The Department retained the services of a third party noise expert, EnRad Consulting (EnRad), to review the sound level study that was submitted by the applicant. In comments dated April 30, 2009 and August 10, 2009, EnRad stated that the Record Hill Wind Project noise assessment is technically correct according to standard engineering practices and done in accordance with Chapter 375 (10), the Department's Noise Regulation.

EnRad stated in its review of the applicant's sound level study that when applied correctly, point source and line source measurements produce the same data. A difference in data may occur only in instances where topography is consistently level. EnRad commented that in the case of known sound sources in a linear array, such as wind turbines along a ridge, calculations are the most accurate when based on each turbine as a point source. EnRad concluded that the applicant's sound level model provides sufficient accuracy for the given situation.

The appellants assert that the applicant's sound level study did not account for potential short duration repetitive sounds (SDRS). In a review of the applicant's sound level study by E-Coustic Solutions opines that many current studies of SDRS from wind turbines

show that SDRS are commonly in the range of 5-6 dBA and can frequently exceed 10-15 dBA.

Chapter 375 (10) requires a penalty of +5 dBA to be incorporated into a sound level prediction model if SDRS are predicted to occur. SDRS are a sequence of sound events, each clearly discernible, that cause an increase of 6 dBA or more in the sound level observed before and after an event. SDRS events are typically less than 10 seconds in duration and occur more than once within an hour. SDRS is commonly associated with the thumping noise associated with operation of turbine blades. The applicant's analysis concluded that operations of the proposed project are not expected to result in the 6 dBA increase required to be SDRS as defined in Chapter 375.10(G)(19). Following review of the applicant's sound level study, EnRad also concluded that predicted sound levels including SDRS are indicated to be below Department sound level limits. Although the applicant's modeling techniques were in keeping with Department regulations, EnRad stated that there is sufficient concern related to the accuracy of SDRS predictability to require the applicant to confirm SDRS compliance with post-construction sound compliance measurements. Therefore, as a condition of approval, the Department required the applicant to implement a routine operation noise compliance assessment plan, entitled "Record Hill Wind Project Wind Turbine Sound Compliance Assessment Plan" dated June 2, 2009 with the last revised date being August 3, 2009.

If the applicant's post-construction compliance data indicates that the Record Hill Wind Project is not in compliance with Department noise standards, including SDRS, the applicant is required to submit a revised operations plan that demonstrates that the project will be in compliance with Chapter 375(10) at all protected locations.

The appellants assert that the required noise compliance assessment plan does not impose non-compliance mitigation measures and does not provide notice to interested parties to review compliance data and challenge the adequacy of the compliance testing and mitigation requirements.

In the Department's decision, the Department required the applicant to submit a revised operations plan for review and approval if the applicant's post-construction compliance data indicates that the proposed project is not in compliance with Department noise standards. The plan must include consideration of various mitigation measures capable of achieving compliance with Department noise standards. Among other strategies, the applicant must consider and analyze potential turbine shutdown scenarios to achieve compliance with the terms of the Department permit. The Department's decision requires that the applicant submit a revised operations plan for review and approval that demonstrates that the project will be in compliance at all protected locations surrounding the project. According to Chapter 2, Section 14 (A), public notice is required in those instances when an individual intends to submit a new, transfer, renewal, or amendment application to the Department. The Board finds that the condition the Department placed on the permit, together with the normal legal requirement that a permit holder comply

with the permit issued, will provide an adequate safeguard that the noise level limits are not exceeded.

With regard to the appellants' contention that the permit should provide interested parties the opportunity to review the data submitted and challenge the adequacy of compliance testing, pursuant to1 M.R.S.A. §§ 401-410, records submitted to the Department are generally available to the public for review. However, the issue of whether compliance has been achieved is most appropriately a matter for the Department to determine.

The appellants argue that the Department failed to consider the health effects of nighttime noise. The appellants pointed to information provided by the Maine State Planning Office which states that prolonged noise exposure is a serious threat to human health, especially when resulting in sleep interruption and especially during the nighttime hours.

During review of the applications, interested parties stated concern that low frequency sound emitted from wind turbines is linked to annoyance, sleep disturbance and other secondary adverse health effects. Low frequency noise is sound that is generally considered to be less than 20 Hz, the normal limit of human hearing. Low frequency noise vibrations are common in our background, particularly in neighborhoods near airports and trains and known to be emitted from many household appliances and vehicles.

In response to concerns from interested parties, the Department consulted with the Maine Center for Disease Control (MCDC). MCDC considered the interested parties' concerns and the evidence submitted and found no evidence in peer-reviewed medical and health literature of unreasonable adverse health effects from the noise generated by wind turbines other than occasional reports of annoyances. MCDC stated in documentation that distance from wind turbines, height of a wind turbine relative to the surrounding topography, the quality of sound, wind conditions, and wind direction all affect how the wind turbine noise affects people. Also, EnRad commented that infrasound has been widely accepted to be of no concern below the common human perception threshold for tonal sounds. Numerous national infrasound standards establish limits for industrial facilities, impact equipment and jet engines, but wind turbine infrasound levels fall below these limits.

The Board has considered the information contained in the permitting record, evidence admitted during the administrative appeal, the arguments of the appellants, and the licensee's response to the appeal. The Board finds MCDC's and EnRad's analyses to be credible evidence on the prediction of whether the project will meet the Department's noise standards. The applicant submitted a detailed sound level assessment model which uses the Department's most restrictive sound level limits and which meets standard industrial sound modeling protocols. Results of the applicant's sound level study indicates that the proposed development can be constructed such that it is in compliance with the 45 dBA sound level limit required pursuant to Chapter 375 (10) provided that they measure for potential SDRS that may be present due to excessive amplitude

modulation utilizing the "Record Hill Wind Project Wind Turbine Sound Compliance Assessment Plan". After weighing evidence submitted by the appellants against the analysis of MCDC and EnRad regarding potential adverse health effects, the Board recognizes that noise emitted from the proposed project has a potential to be heard at an audible level from protected locations and the noise generated by the Record Hill Wind Project may be deemed as an annoyance depending on a person's level of sensitivity. However, after consideration of the evidence submitted by appellants and analyses of MCDC and EnRad, the Board finds that the applicant has made adequate provisions to ensure that noise standards pursuant to the Site Law Rules, Chapter 375 (10) were met, and that the proposed project will not have an unreasonable adverse health effect on the surrounding environment and protected locations.

B. FINANCIAL CAPACITY:

Appellants assert that the applicant has not demonstrated adequate financial capacity to construct the proposed wind energy development. The appellants state that the applicant began construction without demonstrating sufficient financial assurance of the project. The appellants submitted financial documentation obtained from applications of two other recently permitted wind energy developments in order to show how these wind energy developments demonstrated financial capacity, and argued that the same submissions should have been required of the applicant here.

The Site Law requires that an applicant demonstrate financial capacity to develop the project consistent with State environmental standards and the provisions of the Site Law. The Site Law allows a permit to be issued with a condition that prior to any alterations to the site the permit holder provide evidence of a line of credit or a loan by a financial institution authorized to do business in Maine or evidence of some other form of financial assurance allowed under the Board's regulations. Chapter 373(1) sets forth several forms of financial capacity demonstration which may be acceptable, but does not limit an applicant to the listed forms.

In the application, the applicant stated that non-recourse debt financing will be raised through a third party for the Record Hill Wind Project. The applicant submitted a letter of support from CoBank, dated October 2, 2008. In the letter, CoBank indicated that it intended to provide financing for the project.

In its August 20, 2009 decision, the Department found that the applicant demonstrated adequate financial capacity to comply with Department standards provided that prior to construction of the project, the applicant submitted final evidence for review and approval that the applicant has been granted a line of credit or a loan by a financial institution authorized to do business in this State, or evidence of another form of financial assurance determined by the Department to be adequate pursuant to Chapter 373(1). Due to a drafting and editing error, Condition #4 of the permit required the applicant to submit evidence of financial assurance prior to operation of the project instead of prior to construction of the project. This error resulted in an inconsistency in the permit between

the language of the underlying Finding and the language of Condition #4. The issue of the inconsistency was raised by the appellants and the applicant was subsequently notified of the error on the part of the Department. The applicant was informed of the applicable language of the Site Law and was requested to submit evidence of the final demonstration of financial capacity immediately as construction had begun.

On October 1, 2009, the applicant submitted a letter from The Northern Trust Company, dated August 27, 2009. The letter states that Record Hill Wind, LLC. currently has adequate funds to finance the Record Hill Wind Project by means of unencumbered cash and securities held by The Northern Trust Company.

Following review of the letter, the Department determined that the submitted form of evidence of financial capacity to develop the project was acceptable and concluded that the requirement of a demonstration of financial capacity had been met.

On November 3, 2009, appellants filed a request, entitled a Petition for a Temporary Restraining Order, that the Board stay the permit, to prohibit further construction of the Record Hill Wind Project on the grounds that adequate evidence of financial capacity had not been satisfied.

On November 24, 2009, the applicant agreed to halt construction of the Record Hill Wind Project following winter stabilization of the project site and implementation of erosion and sedimentation control measures. The applicant stated it anticipated resuming construction after mud season in 2010. On November 25, 2009, in light of the appellants' questions regarding financial capacity, the applicant agreed to submit to the Department updated documentation of financial capacity at least 15 days prior to resuming construction. On December 7, 2009, appellants withdrew their request for a stay after the applicant agreed to halt construction and provide updated evidence of financial capacity prior to the re-commencement of construction activities.

The Board has considered the information in the permitting record, the appellants' request for a stay, the applicant's response to the petition and appeal, and all other information submitted subsequent to issuance of the Department permit. The Board recognizes the clerical error made by the Department in condition #4 and finds that the condition should be modified to be consistent with the Site Law language and the underlying Finding. The Board finds that the evidence submitted adequately demonstrates the financial capacity to comply with Department standards for financial capacity provided that the applicant submits to the Department for review and approval updated documentation of financial capacity at least 15 days prior to resuming construction.

C. DECOMMISSIONING:

Appellants contend that the Department Order should be reversed because it failed to require the decommissioning fund for the project to be fully funded prior to the operation

of the wind energy facility. The appellants also object to the deduction for scrap value in estimated decommissioning costs.

Pursuant to the Wind Power L.D. 2283, Part A § Section B-13 (6), an applicant for a wind energy development is required to submit a decommissioning plan that includes a demonstration of current and future financial capacity that would be unaffected by the applicant's future financial condition to fully fund any necessary decommissioning costs commensurate with the project's scale, location and other relevant considerations, including, but not limited to, those associated with site restoration and turbine removal.

The Site Law application form requests that applicants provide a demonstration that, upon the end of the useful life of the facility, the applicant will have financial assurance in place for 100% of the total cost of decommissioning, less salvage value. At the time of the filing of this application, the Site Law permit application form stated that an applicant could propose securing financial assurance in phases, as long as complete financial assurance is in place a minimum of 5 years prior to the expected end of the useful life of the equipment.

The applicant submitted documentation that states that megawatt-scale wind turbines are designed and certified by Det Norske Veritas, a risk assessment and certification agency, for a minimum expected operational life of 20 years. The Siemens SWT-2.3-93 turbine selected for the Record Hill Wind Project is a megawatt-scale technology and is certified as having at least 20 years of anticipated life.

The applicant submitted a decommissioning plan that ensures that the funds for decommissioning costs will be reserved at least five years prior to the expected end of the useful operational life of the project as follows. On or prior to December 31 of each calendar year for years 11-14 of the project's operation, 20% of the total estimated decommissioning cost will be reserved in the form of cash or a letter of credit to the decommissioning fund. On or prior to December 31 of year 15 of the project's operation, the estimated cost of decommissioning, minus salvage value, will be reassessed and an amount equal to the balance of such updated estimated cost of decommissioning, less salvage value and less the amounts reserved in years 11-14, will be reserved for decommissioning and site restoration. The applicant states that the funds will be kept in place until such time as the decommissioning work has been completed, provided that the financial assurance may be used to pay the costs of the decommissioning. The applicant agreed to structure the financial assurance such that the Department will have third-party authority to access and utilize the decommissioning funds for the specific purpose of accomplishing decommissioning and site restoration as described in the application if that were to become necessary. The trigger for the Department's third party rights is the dissolution of the project's owner or the project ceasing to generate electricity for a continuous period of twelve months.

Based on the information in the permitting record, the Department found that the applicant had adequately demonstrated that it had developed a financial assurance

mechanism that would provide for fully funding the cost of decommissioning less salvage value within 15 years of the commencement of operation of the wind energy facility.

Appellants contend that the Wind Energy Act requires a pre-funded decommissioning fund. The appellants also object to the deduction for scrap value in estimated decommissioning costs. Appellants submitted as evidence a statement from an interested party which states that the applicant overestimated the scrap value of the proposed project.

The Legislature's directive to the Department with regard to decommissioning requires that the financial capacity demonstrated be unaffected by the applicant's future financial condition. While the applicant currently has, in the form of unencumbered cash and securities held by The Northern Trust Company, the capacity to fund the decommissioning, the Board finds that a steadier and more frequently reassessed set aside of funds is prudent.

After considering the appellants arguments in this appeal, and the language the Legislature used in its direction to the Department on this issue in the Wind Power Act, the Board finds that the applicant should be required to provide for incremental collection of decommissioning funds beginning in year 1 of project operation and for more frequent reassessment of salvage value that may be deducted from the estimate of funds necessary. Therefore, the Board requires the applicant to provide financial assurance as follows

The applicant's decommissioning plan must include the following provisions:

a. On or prior to December 31 of each calendar year for years 1-7 commencing with the commencement of operation of the facility, an amount equal to $50,000 must be reserved in the form of a performance bond, surety bond, letter of credit, parental guaranty or other acceptable form of financial assurance, to a decommissioning fund;
b. The applicant must reassess the estimated salvage value and overall decommissioning costs at the end of the seventh year of operation in addition to the end of the fifteenth year of operation. The reassessed salvage value and decommissioning cost estimates must be submitted to the Department for review and approval no later than December 31st of the seventh and fifteenth year of operation;
c. The applicant must continue to make annual contributions to the decommissioning reserve in an amount commensurate with the goal of fully funding the decommissioning reserve by the end of the fifteenth year of operation in years 8-15 based on the revised estimates as approved by the department; and
d. If the decommissioning reserve shows a shortfall based on the revised decommissioning cost less salvage value at the end of the fifteenth year of operation the applicant must make a lump sum contribution to the decommissioning reserve in the amount of the shortfall to fully fund the decommissioning reserve.

The Board modifies the Department's order with the language set forth in Section C above.

D. SCENIC CHARACTER:

Appellants assert that the applicant should have performed a visual impact assessment of the project specific to Roxbury Pond. Appellants argue that the use of "Maine's Finest Lakes" study, published the Maine state Planning Office, as a tool for the Department in determining whether a great pond is a pond of state or national significance is improper, because the report is incomplete. Appellants submitted documentation from an interested party during the Department's review process that opines that if the Maine State Planning Office had applied methods of designating scenically significant lakes to Roxbury Pond, then Roxbury Pond would be considered a scenic resource of state or national significance.

Title 35-A § 3452 (1) in pertinent part provides 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…the Site Law, Title 38, section 484, subsection 3 or the Natural Resources Protection Act Section 480-D the Department shall determine, in a manner provided in subsection 3, whether the development significantly compromises views from a scenic resource of state or national significance. 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.

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 in 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:

> In making its determination pursuant to subsection 1, and in determining whether an applicant for an expedited wind energy development must provide a visual impact assessment in accordance with subsection 4, the Department shall consider:
>
> (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.

A finding by the Department that the development's generating facilities are a highly visible feature in the landscape is 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. In making its determination under subsection 1, the primary siting authority 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 national significance.

Title 35-A § 3452 (4) provides, in pertinent part that:

An applicant for an expedited wind energy development shall provide the Department with a visual impact assessment of the development that addresses the evaluation criteria in subsection 3 if the Department determines such an assessment is necessary in accordance with subsection 3. There is a rebuttable presumption that a visual impact assessment is not required for those portions of the development's generating facilities that are located more than 3 miles, measured horizontally, from a scenic resource of state or national significance. The Department may require a visual impact assessment for portions of the development's generating facilities located more than 3 miles and up to 8 miles from a scenic resource of state or national significance if it finds there is substantial evidence that a visual impact assessment is needed to determine if there is the potential for significant adverse effects on the scenic resource of state or national significance…

The proposed Record Hill 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, substations, and generator lead transmission lines as defined by 35-A M.R.S.A. § 3451 (1). Therefore, the proposed Record Hill Wind Project and its associated facilities must be reviewed pursuant to the expedited wind energy development standards outlined above and, to the extent applicable, 38 M.R.S.A. § 484 (3).

The applicant conducted a general visual impact assessment of all viewsheds of the proposed project. In accordance with 35-A M.R.S.A. § 3452 (3)&(4), the Department required that the applicant conduct a general visual impact assessment within a three mile radius of the proposed project, because the Swift River, a resource of state or scenic significance, is located within three miles of the proposed project. Although not

specifically required by the Department, the applicant conducted a general visual impact assessment within eight miles in recognition of the number and variety of scenic resources of state or national significance surrounding the project area. The applicant's visual impact assessment identified scenic resources of state or national significance as defined pursuant to 35-A §3451(9). The applicant did not conduct a visual impact assessment specific to Roxbury Pond.

The Wind Energy Law provides that a great pond is a scenic resource of state or national significance, as defined by 35-M.R.S.A. §3451(9), for the organized territory of the State, if it is one of the 66 great ponds identified as having outstanding or significant scenic quality in the "Maine's Finest Lakes" study, published by the Maine State Planning Office. Roxbury Pond is not listed as one of the 66 great ponds in the report; therefore, Roxbury Pond does not fit the definition of a scenic resource of state or national significance. For this reason, while the applicant submitted a general visual impact assessment for the development, the applicant was not required to conduct a visual impact assessment specific to Roxbury Pond.

During the Department's review of the applications, the interested parties acknowledged that Roxbury Pond is not listed in the study on Maine's Finest Lakes, as stated above. However, the interested parties contend that potential visual impacts affecting Roxbury Pond should be considered, evaluated, and included in the study.

The Maine State Planning Office commented that the "Maine's Finest Lakes" study involved assessment of great ponds of 10 acres or more in size for a number of different natural resources-related values, one of which was scenic quality. The report is used as guidance for statewide planning and Department land use permit review. In its findings, the report identifies 66 lakes as having "outstanding" or "significant" scenic quality. The review of potential effects of an expedited wind energy development under the Wind Energy Act is focused on impacts to scenic resources of state or national significance and because Roxbury Pond has not been designated as such a resource in the report, the applicant is not required to demonstrate that the development would not have an unreasonable effect on its scenic character or existing uses.

The Board has considered the appellants' arguments and the evidence in the record. Based upon this evidence, the Board finds that the applicant has adequately assessed the proposed project's potential visual impacts as set forth under the Wind Energy Act and has demonstrated that the project will not significantly compromise views from a scenic resource of state or national significance. The Board further finds the Record Hill Wind Project will not have an unreasonable adverse effect on the scenic character or existing uses related to scenic character of scenic resources of state or national significance.

E. WILDLIFE:

The appellants contend that the Department erred in its findings that the proposed wind energy facility will have an unreasonable impact on resident bald eagles on French Island

in Roxbury Pond, pursuant to the Natural Resources Protection Act and the Significant Wildlife Habitat Rules, Chapter 335(3)(C). The appellants further contend that the language in the Department's Order with regard to the post-construction avian, bat, and raptor monitoring protocol allows the applicant to reject implementing measures to protect wildlife, if results of the protocol reveal that unreasonable adverse impacts to wildlife have not be avoided or minimized as determined by the Department and the Maine Department of Inland Fisheries and Wildlife (MDIFW). The appellants object to the Department's use of the language requiring the applicant to "consider" mitigation measures in the event that the Department and MDIFW determines that mitigation measures are warranted rather than requiring the mitigation measures be implemented. Further, one of the appellants, CCSR, asserts that given reports of goat deaths from sleep disturbance in Taiwan and anecdotal reports of the disappearance of game animals from lands near turbines, the Record Hill Wind Project presents a risk to local terrestrial wildlife or habitat.

During the Department's review process, several interested parties stated that the proposed project has the potential to negatively affect the bald eagles that utilize the existing nest on French Island.

In accordance with guidelines outlined by MDIFW, the applicant conducted migratory bird and raptor surveys that included bald eagles during fall 2007, spring 2008, and summer 2009. According to the applicant's experts, the usage by bald eagles was relatively low. Two adult bald eagles were observed on September 4, 2007. Both were seen migrating at approximately 70 meters over Flathead Mountain. A juvenile bald eagle was observed on September 20, 2007, migrating west of the project ridgeline at an altitude of 200 to 300 meters. Two bald eagles were observed during the spring 2008 migratory and raptor migration survey on May 1 and May 6, 2008. These individuals were observed flying parallel to the ridgeline over the valley to the west of the project. One of these eagles was observed flying low along the valley, while the other was estimated at 200 meters above the valley. Seven bald eagles were observed during the summer 2009 migratory bird and raptor survey between July 13, 2009 and August 16, 2009. These individuals were seen flying over Roxbury Pond.

The applicant acknowledged that there is one bald eagle nest on French Island in Roxbury Pond approximately two miles west of the project site. The applicant stated that mortality from collisions with turbines is not expected due to the location of the turbines on upland ridgelines, because bald eagles tend to hunt on bodies of water.

In response to interested parties' concerns, MDIFW commented that it has monitored nesting of bald eagles at French Island since 1998. The nest and surrounding ¼ mile radius is designated as an Essential Habitat under the Maine Endangered Species Act. An Essential Habitat is defined as an area identified by MDIFW as currently or historically providing physical or biological features essential to the conservation of an Endangered or Threatened Species and requiring special management considerations, and the management guidelines for the protection of the area. An Essential Habitat

designation for bald eagles allows for the review of projects which might significantly alter or unreasonably harm the immediate nest vicinity. This regulation has been a key to mitigating potential disturbances near nesting eagles and bolstering species recovery. MDIFW stated that most bald eagle activity is along the shores of lakes, rivers, streams and coastal waters. However, ridgelines like Record Hill can create updrafts favorable for soaring flights. After reviewing the applicant's migratory bird and raptor surveys, MDIFW agreed with the applicant that results from the studies showed relatively low use of the ridgeline being proposed for development by bald eagles during the surveys.

Based upon MDIFW recommendations, the Department required, as a condition of approval, that a detailed post-construction monitoring plan be developed in conjunction with MDIFW as a condition of approval. The Department's decision requires that the applicant submit a post-construction avian, bat, and raptor monitoring plan for review and approval that demonstrates that the project does not unreasonably impact migratory birds, bats, and raptors within the vicinity of the project. This monitoring plan must be conducted in three separate years after the project is placed on-line, specifically after years 1, 3, and 5. All three year's protocols must incorporate a sampling effort at all turbine locations in order to determine impacts to wildlife. Monitoring must be done at the individual turbine scale as well as at the project scale. This sampling scheme will be used to guide MDIFW and the applicant in the implementation of appropriate and practical measures for ensuring the avoidance or minimization of any unreasonable adverse impacts, the specific measures will depend on the research and science, since new technology is constantly developing. Based on recent research findings, measures that must be considered include, but are not limited to modified lighting, modified operations, on-site habitat management, and habitat protection.

The post-construction monitoring plan includes a survey of bald eagle activity associated with Roxbury Pond and the ridgeline habitats along the Record Hill Wind Project. The survey protocol must be developed in consultation with MDIFW and the U.S. Fish and Wildlife Service, and must be inclusive of both migratory and non-migratory periods. How the post-construction monitoring plan is implemented will be determined by the Department, and will be dependent on the type and severity of impacts, cost benefit considerations, and practicality. Additional measures may be considered depending on future research findings.

The appellants' object to the language in the Order requiring the applicant to "consider" taking certain measures, namely turbine operation modification, habitat management, and compensatory mitigation, and they assert that the Department could not require the implementation of such measures should unexpected impacts be found to be occurring. The appellants argue that the permit therefore does not ensure that there will be no unreasonable impacts on bald eagles.

CCSR referred, without documentation, to reports of goat deaths from sleep disturbance in Taiwan and anecdotal reports of the disappearance of game animals from lands near turbines, and argued that the Record Hill Wind Project presents a risk to local terrestrial

wildlife or habitat. The applicant stated that the current use of the project site is primarily commercial timber management. According to the Maine Geographic Information Systems (GIS) mapping database, the nearest pasture or open field is approximately 4500 linear feet from the ridgeline; however, the Department was not able to confirm whether domestic animals are kept at this location. CCSR did not submit any evidence to the Board to indicate that the operation of the Record Hill Wind Project at the proposed project site will adversely affect domestic animals.

The Board has considered the information concerning eagle usage of the area in the record, including the appellants' argument. Based upon the studies conducted by the applicant, which were done in the manner requested by MDIFW, and MDIFW's comments and recommendations, the Board finds that the Record Hill Wind Project is not located in an area of significant bald eagle usage, and the construction of the project will not significantly impact populations of these species. Moreover, the Board finds that the activity will not degrade any significant wildlife habitat, unreasonably disturb wildlife, or unreasonably affect use of the proposed project site by wildlife. Further, the Board finds the language contained in the permit condition requiring post-construction monitoring protocol does not affect the overall effectiveness of the intent of the protocol. The Board finds the protocol as set forth in the order to be an acceptable and practicable means for ensuring the avoidance or minimization of unreasonable adverse impacts of migratory birds, bats, and raptors.

F. STORMWATER:

Appellants Antonio DeSalle, Theodore Gotto, Priscilla Gotto, and SLCOA contend that the proposed project will have an adverse effect on the water quality of Roxbury Pond. These appellants assert that erosion from all aspects of the project will impact the surrounding area and that the project will contribute to pollution of nearby streams and Roxbury Pond. These appellants also stated concern over potential stormwater runoff during the construction phase of the project.

The project includes approximately 18.4 acres of new impervious area and 18.8 acres of new developed area. Impervious area is defined as the total area of a parcel that consists of buildings and associated constructed facilities or areas that will be compacted through design or use to reduce their permeability. Developed area is defined as all land areas that are stripped, graded, grubbed, filled, or excavated at any time. Approximately 0.7 acres of developed area currently exists on the site in the form of due to existing logging roads. The project lies within the watershed of the Swift River, Meadow Brook, and Roxbury Pond. The applicant submitted a stormwater management plan based on the basic, general, and flooding standards contained in Department Rules, Chapter 500. Under the general standards, the applicant applied the phosphorous methodology to address impacts to Roxbury Pond. Stormwater quality treatment will be achieved with various roadside turnouts, level spreader buffers, and two grassed underdrained soil filters. Stormwater flooding mitigation will be achieved with lengthening flow paths and disconnecting impervious area through the use of vegetative buffers and by two small

detention areas. The applicant also submitted an erosion and sedimentation control plan 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. The erosion and sedimentation control plan described the project site's erosion potential and measures to control erosion during and after construction.

The plans and the applicant's stormwater management system were reviewed by the Department's Division of Watershed Management which determined the plans to be acceptable and designed in accordance with the Chapter 500 Basic and General Standards.

Given the size and nature of the project site, the Department required the applicant to retain the services of a third party inspector during construction of the project in accordance with the Special Condition for Third Party Inspection Program as outlined in Document #DEPLW078-B2001. According to the document, the purpose of the third party inspection is to ensure that all construction and stabilization activities comply with the permit conditions and the Department-approved drawings and specifications, 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 to ensure communication between the contractor and the Department regarding any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan.

Following consideration of the appellants' arguments, based on the applicant's erosion and sedimentation control plan and stormwater management plan, and the Division of Watershed Management's review of those plans, the Board finds that the Record Hill Wind Project meets the Basic and General Standards contained in Chapter 500 and is not likely to have an unreasonable adverse effect on the water quality of Roxbury Pond.

G. SHADOW FLICKER:

Appellant Matt Towle argues that not enough scientific data was submitted by the applicant regarding health risks from potential shadow flicker effects of the project.

According to 38 M.R.S.A. § 481 et seq., an applicant must demonstrate that a 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 not the sun seen through a rotating wind turbine rotor nor what an individual might view moving through the shadows of a wind farm. According to Site Law, the spatial relationships between a wind turbine and receptor, as well as wind direction are key factors related to shadow flicker duration. At distances of greater than 1,000 feet between wind turbines and receptors, shadow flicker usually only occurs at sunrise or sunset when the cast shadows are sufficiently long. For situations

where 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), of low intensity, and 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. No shadow flicker will be cast when the sun is obscured by clouds or fog or when the turbine is not rotating.

The applicant submitted a shadow flicker analysis, prepared by EAPC Wind Energy Services, LLC, dated November 6, 2008 with the latest revision date being May 3, 2009. The applicant utilized WindPRO, a wind modeling software program, to model expected shadow flicker effects on adjacent properties from all 22 of the proposed turbine locations. The applicant assumed a worst case scenario prediction by assuming that the sun would be shining every day and that all receptors would face the turbine directly.

According to Site Law application requirements, an applicant is required to conduct a shadow flicker model out to a distance of 1,000 feet or greater from a residential structure. Rather than modeling shadow flicker hours out to a distance of 1,000 feet, the applicant elected to conduct a shadow flicker model out to a distance at 3,000 feet from each turbine, which is greater than the distance generally recommended by the Department. The analysis was conducted at this distance because there are no residential structures at a distance less than 2,345 feet from the nearest turbine location.

The analysis identified four potential receptor sites (residential structures) in the vicinity near the project site. The four receptor sites were field-verified by the applicant as residential dwellings. The applicant's model indicated that none of the residences have the potential for shadow flicker.

The Board has considered the argument raised by the appellant on this issue, and applicant's shadow flicker analysis. The Board finds that the shadow flicker model conducted by the applicant is credible. The Board finds that the project will not cause unreasonable shadow flicker to occur over the adjacent properties based upon the results of the applicant's shadow flicker analysis and the project's location and design.

9. OTHER CONSIDERATIONS:

Appellants contend that the proposed wind energy development will have an unreasonable adverse impact on the value of their personal property and will also hinder tourism in the surrounding area.

The Board does not have authority to consider potential impacts to property values or tourism as a basis for determining whether permitting requirements have been satisfied under the applicable laws for any particular project.

Based on the above findings, the Board concludes that:

1. The appellants filed a timely appeal.

2. The Board denies the request for a public hearing for this appeal.

3. The applicant must submit updated documentation of financial capacity to the Department for review and approval at least 15 working days prior to resuming construction as set forth in the modification to the Department's Order in Section B of the Order and Modification 1 below.

4. The applicant must provide for the modified financial assurance provisions for the project's decommissioning plan as set forth in the Section C of this Order and Modification 2 below.

5. The applicant's proposal to construct a 50.6 MW wind energy development, known as the Record Hill Wind Project, in the Town of Roxbury meets the criteria for a permit pursuant to the Site Location of Development Act, 38 M.R.S.A. § 484, the Natural Resources Protection Act, 38 M.R.S.A §480-D, and the Wind Energy Act, 35-A M.R.S.A. §§ 3452-3455.

THEREFORE, the Board AFFIRMS the Department's approval of the permit applications filed by RECORD HILL WIND, LLC. to construct a 50.6 MW wind energy development, known as the Record Hill Wind Project, in the Town of Roxbury, Maine, but MODIFIES Department Order #L-24441-24-A-N/L-24441-TF-B-N as follows:

1. The applicant must submit to the Department for review and approval updated documentation of financial capacity at least 15 days prior to resuming construction in accordance with Chapter 373(1).

2. The applicant must incorporate the following provisions into its decommissioning plan:
   a. On or prior to December 31 of each calendar year for years 1-7 commencing with the commencement of operation of the facility, an amount equal to $50,000 must be reserved in the form of a performance bond, surety bond, letter of credit, parental guaranty or other acceptable form of financial assurance, to a decommissioning fund;
   b. The applicant must reassess the estimated salvage value and overall decommissioning costs at the end of the seventh year of operation in addition to the end of the fifteenth year of operation. The reassessed salvage value and decommissioning cost estimates must be submitted to the Department for review and approval no later than December 31st of the seventh and fifteenth year of operation;
   c. The applicant must continue to make annual contributions to the decommissioning reserve in an amount commensurate with the goal of fully funding the decommissioning reserve by the end of the fifteenth year of operation in years 8-15 based on the revised estimates as approved by the department; and
   d. If the decommissioning reserve shows a shortfall based on the revised decommissioning cost less salvage value at the end of the fifteenth year of operation

the applicant must make a lump sum contribution to the decommissioning reserve in the amount of the shortfall to fully fund the decommissioning reserve.

The Board DENIES the appeal of the Concerned Citizens to Save Roxbury, Barry Allen, Antonio DeSalle, Tom Currivan, Michelle Currivan, Ron Dube, Chris Dube, Nancy Fickett, Tom Ganley, Theodore Gotto, Priscilla Gotto, Leo F. Kersey, Jr., Linda Kurás, Dale Hodgkins, BJ Hodgkins, Lisa Hodgkins, Colleen Martineau, Cathy Mattson, Anne Morin, Laureen Olsen, Rob Olsen, Philip Paquette, Sarah Paquette, Vicky Stanislawski, Todd Stanislawski, Eric Roderick, Michael Ronan, Rob Roy, Kelly Sastamoine, Richard Theriault, Matt Towle, Eben Thurston, Lester Thurston, Steve Thurston, Les Turner, Gloria Turner, Nancy Wahlstrom, Carl Wahlstrom, and the Silver Lake Camp Owners Association.

DONE AND DATED AT AUGUSTA, MAINE, THIS_____ DAY OF _____, 2010.

BOARD OF ENVIRONMENTAL PROTECTION

By: _____

Susan M. Lessard, Chair