8. HISTORIC SITES AND UNUSUAL NATURAL AREAS:

Historic Sites: The applicant conducted historic architecture, Euro-American archaeological, and historic archaeological investigations of the proposed project area to determine potential impacts on historic resources.

1.) Prehistoric Archaeological Survey. The applicant submitted the results of documentary research and field surveys dated December 5, 2007. Documentary research was conducted at the Maine Historic Preservation Commission (MHPC). Research, performed in conjunction with assistance from MHPC, concluded that no archaeological sites are located within one mile of the project site. A site visit was conducted on November 15, 2007 to assess whether the project site is likely to contain prehistoric resources and to determine whether stone may be present that might have been exploited by prehistoric inhabitants. Given that the project area is located largely along an upland ridge with poorly drained soils, prehistoric sensitivity is low. Further, the likelihood of prehistoric rock being exploited is minimal. Results of the prehistoric archaeological survey are compiled in a document prepared by TRC Companies, Inc., dated December 5, 2007 and was submitted as Appendix 8-1 of the application. The applicant's documentary research and field surveys concluded that there is no evidence that supports that prehistoric archaeological resources are present and the project area is of low archaeological sensitivity.

2.) Euro-American Archaeology Phase O Survey. This assessment consisted of background research, a sensitivity model pertinent to the project area, and a site visit to confirm the presence or absence of potential archaeological resources. The Euro-American Archaeological Phase O Survey was prepared by Independent Archaeological Consulting, Inc., dated February 26, 2008 with the last revision dated November 29, 2008, and was submitted as Appendix 8-2 of the application. Results of the applicant's assessment concluded that the project area has little sensitivity for Euro-American archaeological resources. The only likely historic land use in the area has been limited to logging. While there is ample evidence of modern logging, these features are less than 50 years old and are not significant due to their late date and their commonality over much of the modern state.

3.) Historic Architecture Survey. A historic architecture survey was conducted 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 Independent Archaeological Consulting, Inc., dated November 2008, and is seen in that application in Appendix 8-3. This survey was conducted within a five mile radius, which is known as the Area of Potential Effect. Within the Area of Potential Effect, the applicant evaluated 289 historic resources. None of the evaluated properties are listed on the National Registry of Historic Places. The applicant also identified nine properties within the Area of Potential Effect that have resources that are potentially eligible for listing on the national registry; of these resources, four would have no view of the project site. The five remaining properties would have intermittent views of the proposed project; however, those views are not

anticipated to significantly affect the qualities that make the properties potentially eligible for listing.

Unusual Natural Areas: To determine if unusual natural areas, including rare, threatened, and endangered (RTE) species occur with the scope of the project, the applicant consulted with the Maine Natural Areas Program. In a letter dated September 13, 2007, the Natural Areas Program stated that there are no known rare botanical features documented specifically within the project area.

Additionally, Stantec Consulting completed field investigations in 2007 and 2008 that included wetland delineations, vernal pool surveys, and a landscape analysis-based RTE plant field survey. The survey characterized the existing natural communities and assessed the potential of the on-site natural communities to support RTE plant species. No RTE species were observed during the field surveys.

The Department finds that the proposed development will not have an adverse effect on the preservation of any historic sites or unusual natural areas either on or near the development site.

9. BUFFERS:

The applicant proposes to utilize several types of vegetative buffers with a vegetation management plan in order to balance the operational needs of the proposed project with the environmental benefits of riparian buffers. Buffers for the proposed project include no-ground-disturbance buffers around roads and turbines, a corridor buffer, waterbody buffers at streams and other crossings, and a buffer around the 250-foot habitat of significant vernal pools. The vegetation cutting practices which will be used to preserve and maintain buffers include no cutting, limited and selective clearing, and mechanized clearing combined with selective use of herbicides.

1.) Access Road, Crane Path, & Turbine Buffers. The applicant proposes to maintain forested buffers for access roads and turbines. These buffers are restricted ground disturbance areas designed for the purpose of creating a visual screen and providing stormwater runoff and phosphorus treatment, which is further described in Finding 11. In specific areas where grading will allow for sheet flow of stormwater runoff, the applicant proposes to maintain a 55 foot wide forested buffer. In areas where sheet flow is not possible, stormwater will be collected in ditches along the downhill side of the roads. Sixteen feet of the proposed 32 foot wide crane paths and most of the turbine pad areas, specifically the construction laydown area, for each turbine will be allowed to re-vegetate in order to provide additional buffering capacity.

In addition to roadside buffers described above, a portion of one access road (Station 53+50 to 80+75) and the crane path (Sheets C117 to C124) will be bordered by an approximately 100 foot wide Phosphorous Restriction zone. The zone also includes roadside and ditch turnout buffers. This zone totals approximately 155 acres. The zone encompasses all developed area within the Ellis Pond watershed and includes most of the proposed turbines and associated turbine pads. While selective cutting of vegetation and

harvesting under frozen conditions may occur in this area, no grubbing or soil disturbance will be permitted.

2.) Generator Lead Buffers. The area within the generator lead corridor will require vegetative cutting to meet line safety and reliability goals. The applicant proposes to employ ISO-New England safety standards to vegetative management of the collector line. Corridor construction and maintenance procedures will provide for the retention of low ground cover to the greatest extent practicable during construction, restoration and stabilization of areas affected by construction, and ongoing maintenance activities with the intention of promoting long-term growth of low vegetation.

3.) Stream Buffers. The applicant proposes to maintain a minimum of a 100 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 and within 25 feet of any wetlands with water visible at the surface. Additionally, no refueling or maintenance of equipment will be performed within waterbody buffer areas. No permanent structures will be placed within 100 feet of any stream. Further, tree cutting in stream buffer areas will be limited to hand removal of capable species greater than eight feet.

4.) Vernal Pool Buffers. The applicant proposes to maintain a minimum of a 250 foot vegetated buffer, as measured from the edge of the 250 foot habitat on each side, for significant vernal pools that are present within the vicinity of the proposed project. Clearing for developed area and electrical infrastructure will not result in greater than 25 percent of habitat conversion of any significant vernal pool, which includes the vernal pool depression and its critical terrestrial habitat. Herbicide use within this buffer will be prohibited; no refueling or maintenance of equipment will be conducted within this buffer.

Vegetation Maintenance Plan. The applicant submitted a vegetation management plan (Appendix 10-1 of the application) entitled "Post-Construction Vegetation Management Plan" prepared by James W. Sewall Company and Stantec Consulting and dated November 2008 with the last revision date being July 2009. The plan summarizes vegetation maintenance methods and procedures that will be utilized by the applicant for the transmission line corridor, describes maintenance requirements and restrictions associated with waterbody crossings, and describes the procedures to be followed in the vicinity of vernal pools. Further, the plan provides procedures for managing or removing osprey nests built on power line structures, describes a system for identifying restricted areas, and summarizes training requirements for personnel and contractors.

The Department finds that the applicant has made adequate provision for buffer strips provided that the applicant complies with the post-construction vegetation management plan submitted in the application, and that all visual screening buffers and stormwater treatment buffers must be marked on the ground pursuant to Chapter 500 Stormwater Management rules within 60 days of the start of operation. Further, prior to the start of operation, the applicant must record deed restrictions with the Registry of Deeds for the

subject parcel(s). The deed restrictions must be consistent with Chapter 500 Stormwater Management Rules and have attached a plot plan for the parcel(s), drawn to scale, that specifies the location of all stormwater buffers on the parcel. The applicant shall submit a copy of the recorded deed restrictions, including the plot plan(s), to the Department within 90 days of the recording.

10. SOILS:

The applicant submitted a Class C Medium-High Intensity Soil Survey and a Medium-high to High Intensity Soil Survey for the proposed project site prepared by Albert Frick Associates, Inc. and dated October 31, 2008. The applicant also submitted a Class B High-Intensity Soil Survey for the collector substation, prepared by Statewide Surveys, Inc, and dated July 3, 2009. Both reports are in the appendices of Section 11 in the application. These reports concluded that the soils are generally appropriate for the proposed construction activities.

All of the reports were reviewed by staff from the Division of Environmental Assessment (DEA) of the Department's Bureau of Land and Water Quality. DEA also reviewed a Blasting Plan submitted by the applicant and outlining the proposed procedures for blasting in the area of the turbine foundations, the proposed access roads in areas requiring significant cut, and underground power line trenches. DEA commented that the blasting plan does not include specific limits for ground vibration. For any blast at which ground vibration is monitored, the applicable limit on ground vibration at inhabitable structures not owned or controlled by the developer is the frequency-dependent standard in Figure B-1 of Appendix B, U.S. Bureau of Mines Report of Investigations 8507. The applicant acknowledged DEA's comments and has agreed to apply the specific limits in Figure B-1 for ground vibration.

Prior to any blasting on the project site, the applicant must submit a pre-blast survey to the Department for review and approval. All blasting must be conducted in compliance with the provisions set forth by 38 M.R.S. § 490-Z (14). In addition, the applicant must follow all applicable limits on ground vibration at inhabitable structures not owned or controlled by the applicant in conformance with the U.S Bureau of Mines Report of Investigations 8507.

The applicant does not anticipate using a rock crusher on the project site during the construction of the proposed project; however, if a rock crusher is required to be utilized on site, the applicant must insure that the crusher is licensed by the Department's Bureau of Air Quality and is being operated in accordance with that license.

The Department finds that the applicant has submitted evidence that the soils on the project site present no limitations to the proposed project that cannot be overcome through standard engineering practices provided that the applicant submits a pre-blast survey to the Department for review and approval, prior to any blasting on the project site, and if a rock crusher will be utilized on site, the applicant must insure that the

crusher is licensed by the Department's Bureau of Air Quality and is being operated in accordance with that license.

11. STORMWATER MANAGEMENT:

The proposed project includes approximately 18.4 acres of new impervious area and 18.8 acres of new developed area. Approximately 0.7 acres of developed area currently exists due to existing logging rods. The proposed project lies within the watershed of the Swift River, Meadow Brook, and Ellis Pond (also known as Roxbury Pond or Silver Lake). 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 is applying the phosphorous methodology to address impacts to Ellis Pond. Stormwater quality treatment will be achieved with various roadside, turnout, and 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 buffers and by two small detention areas.

A. Basic Standard:

(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 plan sheets containing erosion control details were reviewed by the Division of Watershed Management (DWM) of the Department's Bureau of Land & Water Quality. DWM commented that, as stated in the erosion control plan, minimum erosion control measures will need to be implemented. However, based on site and weather conditions during construction, additional erosion and sedimentation control measures may be necessary. All areas of instability and erosion must be repaired and maintained immediately during construction until the site is completely stabilized or vegetation is established.

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor. Given the size and nature of the project site, 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. Prior 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.

Interested parties stated that erosion occurred at the site of a previously permitted wind energy development, known as Kibby Mountain. In part due to this experience, interested parties assert that erosion is likely to occur at the proposed project site.

DWM commented that reports from the third party inspector for Kibby Mountain have indicated that major erosion control issues resulted from the logging and clearing practices on the site. These factors were not under the control of the developer of the permitted wind energy development. Rather, the erosion control issues on that site were the result of activities undertaken by the property owner. For the proposed project, the applicant must retain the services of a third party inspector to make weekly visits to the project site and report on the erosion and sedimentation control efforts, problems encountered during their inspections, if any, and recommend corrective measures taken. This is in addition to the contractor's own efforts at compliance, additional site visits from Department staff and, the applicant's reviewed and approved erosion and sedimentation control plan as guidance to the level of effort necessary to conduct the project.

(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short and long-term maintenance requirements. This plan was reviewed by, and revised in response to the comments of 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 all common facilities including the stormwater management system.

(3) Housekeeping: 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).

B. General 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. Mitigation for the non-linear portion of the project (the collector substation and Operations & Maintenance building) is being achieved by using Best Management Practices that will control runoff from 96% of the impervious area and 95% of the developed area. The proposed access roads meet the definition of "a linear portion of a project" in Chapter 500 and the applicant is proposing to reduce runoff volume to 82% of the volume from the impervious area and 82% of the developed area.

Because of the proposed project's location partially within the watershed of Ellis Pond, stormwater runoff from the portion of the project site in the Pond's watershed will be treated to meet the phosphorus standard outlined in Chapter 500(4)(C). The applicant's 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". For this project, the Permitted Phosphorus Export is 6.37 pounds of phosphorus per year. The applicant proposes to remove phosphorus from

the project's stormwater runoff by utilizing the stormwater treatment methods discussed above and incorporating a Phosphorous Restriction Zone totaling approximately 155 acres discussed in Finding 9. The proposed stormwater treatment will be able to reduce the export of phosphorus in the stormwater runoff equal to the maximum permitted phosphorus export for the project site.

The forested, limited disturbance stormwater buffers will be protected from alteration through the execution of a deed restriction, as described in Finding 9. A deed restriction must be put in place for any portion of the designated buffer and have attached to it a plot plan, drawn to scale, that specifies the location of the buffers. The applicant proposes to use the deed restriction language contained in Appendix G of Chapter 500. Prior to the start of construction, the applicant must submit a copy of the recorded deed restriction including the plot plan to the Department within 90 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 shall include, but are not limited to, a combination of field flagging and clearly marked signage.

The stormwater management system proposed by the applicant 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 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 and level spreader's construction, stone berm material and placement, and settling basin from initial ground disturbance to final stabilization. If necessary, the inspecting engineer will interpret the turnouts' and spreaders' location and construction plan for the contractor. Once the turnouts and spreaders are constructed and stabilized, the inspecting engineer will notify the Department in writing within 14 days to state that the turnouts and spreaders have been completed. 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, the items inspected on each visit, and include any testing data or sieve analysis data of the berm media.

The applicant must also retain the services of a professional engineer to inspect the construction and stabilization of the grassed underdrained soil filters. The same protocol as listed above must be followed. The engineer must include data that includes information about the filters' effectiveness and determine any maintenance items needed.

Based on the stormwater 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 General Standards provided that the applicant adheres to the required protocol for inspections of the ditch turnouts, level lip spreaders, and grassed underdrained soil filters 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.

DWM reviewed the analysis of the watersheds involved in the proposed project for flooding. DWM commented that the nature of the linear project creates relatively little impervious area in any one sub-watershed. The applicant analyzed the impact of the conversion of cover type on the wider watershed area. The project design results in a large amount of disconnected impervious areas. This design keeps flows from exiting the site in a concentrated flow and lengthens the flow path in a manner that will mitigate for local flooding impact. 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 channel limits and runoff areas, and peak flow from the project site.

12. GROUNDWATER:

The proposed project is located across two U.S. Geological Survey quadrangles: Roxbury and Ellis Pond. The applicant submitted significant sand and gravel aquifer data for these areas from the Maine Geological Survey. The Maine Geological Survey data indicates that the nearest aquifer is located over one mile east of the proposed project near the Swift River. A single bedrock well is proposed to serve domestic needs at the project's Operations & Maintenance building. This location for a well will not affect any significant sand and gravel aquifers.

Spill Prevention, Control, and Countermeasures (SPCC) plan. The applicant stated that the potential sources of groundwater contamination during construction will be fuel and hydraulic and lubricating oils used in the operation of vehicles and construction equipment. The applicant submitted a set of procedures for handling these materials and preventing spills should such an event occur. The Department's Division of Environmental Assessment (DEA) reviewed the applicant's draft SPCC plan and commented that the applicant must submit a final SPCC plan for construction of the facility to the Department for review and approval prior to the start of construction. The applicant must also submit a final SPCC plan for the operation of the facility prior to the start of operation. The applicant must also apply setbacks proposed in the current plan for buffer areas between petroleum storage and fueling areas and wells and protected resources to areas of herbicide usage or other use of chemicals and fuels in maintenance of the right-of-way. 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 in maintenance of the right of way, the right of way 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 flagged in the field.

The Department finds that the proposed project will not have an unreasonable adverse effect on ground water quality provided that the applicant must submit a final SPCC plan for construction of the facility to the Department for review and approval prior to the start of construction and a final SPCC plan for the operation of the facility for review and approval prior to the start of operation and adhere to additional procedures as referenced above.

13. WATER SUPPLY:

The proposed project will not require water supply for the operation of the wind turbines or the electrical equipment. The only anticipated demand for water will be at the Operations & Maintenance building. A private water well will be drilled on-site to supply potable water to the Operations & Maintenance building. During construction, the applicant or its contractors will supply drinking water to workers. Drinking water will be supplied either from an existing public water supply or by bottled or other bulk water supply.

Non-potable water will be needed for dust abatement at a rate of up to 20,000 gallons per day during construction. This water will not be withdrawn from a groundwater source. Rather, a 4,000 gallon tanker truck will bring water to the site from the boat ramp at Ellis Pond in Roxbury Pond Village. Pursuant to 06-096 Chapter 587 (6) of the Department's Rules, In-stream Flows and Lake and Pond Water Levels, this activity will not change the naturally occurring water levels of the Ellis Pond or surrounding lakes given the limited volume of the withdrawal amount. The applicant stated that it has taken steps to coordinate efforts with the local municipality to regulate water withdrawal from Roxbury Pond for the purpose of dust abatement. Concrete required for the project will not be produced on-site, but instead will be provided by existing batch plants.

The applicant submitted an assessment of groundwater supplies that are available on the project site and a map provided by the Maine Geological Survey which denotes the locations of bedrock wells within the vicinity of the project site (submitted as Appendix 16-1 in Section 15 of the application). This assessment was reviewed by the Department's Division of Environmental Assessment, who commented that there is adequate groundwater resource for the proposed project.

The Department finds that the applicant has made adequate provision for securing and maintaining a sufficient and healthful water supply, provided that the applicant adheres to 06-096 Chapter 587 (6) of the Department's Rules, In-stream Flows and Lake and Pond

Water Levels, during construction when withdrawing water from Ellis Pond for the purpose of dust abatement.

14. WASTEWATER DISPOSAL:

The applicant stated that the only potential generation of wastewater would be from the proposed Operations & Maintenance building from a staff of nine employees or less. This equates to approximately 135 gallons of wastewater per day. There will be no commercial or industrial wastewater generation associated with the proposed project.

The design of the wastewater system includes a septic tank with a standard stone bed septic system that meets the Subsurface Wastewater Disposal Rules. The septic disposal system will be built on suitable soils and will be sited on the Maintenance Facility Lot a minimum of 100 feet from the water supply well. The applicant submitted a disposal area plan, dated July 10, 2009 and a subsurface wastewater disposal system design (HHE-200 form) dated July 10, 2009, both prepared by a professional soil evaluator from Stantec Consulting.

The applicant also submitted the soil survey map and report discussed in Finding 10 and an analysis of potential impacts to off-site groundwater quality resulting from on-site wastewater disposal prepared by a certified geologist. This information was reviewed by DEA.

Based on DEA's comments, the Department finds that the proposed wastewater disposal system will be built on suitable soil types.

15. SOLID WASTE:

All trees located in the footprint of the proposed turbine pads and expanded roads will be harvested and sold for commercial use. Smaller woody vegetation will be mulched and used for moisture retention on the site.

The development of the site and construction of the turbines will generate approximately 97 cubic yards of construction debris. By letter, dated November 12, 2008, Archie's, Inc., a Department-licensed non-hazardous waste hauler, stated that the company is capable of and willing to transport construction waste before and after construction and during operation of the project. All construction and demolition debris generated will be disposed of at Waste Disposal Services of Maine's Crossroads facility, which is substantial compliance with the Solid Waste Management Regulations of the State of Maine. This facility is located in Norridgewock.

Solid waste produced during operation of the proposed project is estimated to be less than 100 pounds of waste per week. Once in operation, domestic waste will be disposed of in a dumpster which will be sited at the proposed Operations & Maintenance building. The applicant will contract with a licensed waste hauler to periodically empty the dumpster and transport waste to a licensed waste disposal facility.

The Department's Bureau of Remediation and Waste Management (BRWM) reviewed the applicant's proposal for solid waste disposal, and stated that the proposal is adequate provided that mulch depth of processed brush is no more than 2 to 4 inches, and the mulch is placed within 30 days of completing the brush process.

Based on the above information and BRWM's review, the Department finds that the applicant has made adequate provision for solid waste disposal provided that mulch depth of processed brush is no more than 2 to 4 inches, and the mulch is placed within 30 days of completing the brush process.

16. FLOODING:

The proposed project crosses headwaters of streams in the ridge and connector line areas.

The applicant consulted flood zone maps of the Town of Roxbury (Oxford County) to determine if the proposed project would cross a mapped flood zone. The maps indicate that no flood zones are crossed by the proposed project. The flood zone maps can be seen on Page 19-1 and 19-2 in the application.

Based upon information in the record, the Department finds that the proposed project is unlikely to cause or increase flooding or cause an unreasonable flood hazard to any structure.

17. WETLAND AND WATERBODY IMPACTS:

Freshwater Wetlands. The applicant identified a total of 266 freshwater wetlands areas within the project site. Of this total, 73 wetlands were identified within the ridgeline turbine corridor, 126 wetlands were identified within the access road corridor, and 67 wetlands were identified within the generator lead corridor. All of the wetlands located on the project site were identified as either forested, scrub-shrub, or emergent. A total of forty-eight of the 266 wetlands that were identified are classified as Wetlands of Special Significance (WOSS) in accordance with Chapter 310 § 4 of the Department's Wetlands and Waterbodies Protection rules. The proposed project will impact 30 of the 266 freshwater wetlands that were delineated. Of these 30 freshwater wetlands, seventeen will be impacted by permanent fill and 13 will be impacted by clearing activities.

In addition to the wetlands located on the project area, a total of 77 streams were also identified within the project area. The applicant identified a total of 8 streams within the ridgeline turbine corridor, 47 streams were identified within the access road corridor, and 22 streams were identified within the generator lead corridor.

In order to construct the proposed project, the applicant proposes to permanently fill 13,364 square feet of forested, scrub shrub, and emergent freshwater wetlands and to clear 30,172 square feet of wetland vegetation due to construction of the transmission

lines. Approximately 12% of the proposed wetland fill is a result of expanding Mine Notch Road.

Rivers, Streams and Brooks. In total, there are 11 of the 77 delineated streams are crossed by the proposed project. The access roads will cross four of these streams; all of these crossings will result from new road construction. These four streams include a small perennial stream and three intermittent streams. The generator lead crosses the remaining seven streams; however, no in-stream work is anticipated for these crossings. The applicant proposes to implement a vegetative management plan and impose a 100 foot riparian stream buffer width long all streams as described in Finding 11 to minimize impacts to fisheries. MDIFW reviewed the proposed project and commented that all in-stream work must be conducted between July 15 and September 30.

Chapter 310 interprets and elaborates on the NRPA criteria pertaining to wetlands. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would cause a loss of wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a wetland alteration permit must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist.

A. Avoidance. The applicant submitted an alternative analysis for the proposed project completed by Stantec Consulting and dated December 1, 2008 with the latest revision date being July 10, 2009. The applicant stated that the site of the proposed project was chosen because it best meets the project purpose of developing a commercial scale wind energy project in Maine that delivers renewable energy to customers in Maine and New England. The applicant conducted a wide reaching survey of potential wind power sites before selection of the project site. The applicant considered numerous factors in analyzing potential sites for development. These factors include wind quality, proximity to transmission infrastructure, general site topography and accessibility, land use compatibility, and overall environmental impacts. The applicant used a scoring matrix to weigh each of these factors, and evaluate each site. This scoring system can be seen in Appendix 1A-1 of the application. After consideration of the factors at each of the alternative sites, the applicant determined that proposed project site represents the least environmentally damaging alternative as compared to the other alternative sites that were considered. Overall, the applicant proposes to permanently fill 13,364 square feet of forested, scrub shrub, and emergent freshwater wetlands and to clear 30,172 square feet of wetland vegetation due to construction of the transmission lines.

The applicant considered the following alternative sites:

- The applicant considered development in coastal Maine. Although wind quality in this area was determined to be good to excellent, the applicant identified significant land use compatibility issues and a moderate to high amount of anticipated environmental impacts.
- The applicant considered development on a coastal island off Maine. Although wind quality in this area was determined to be good to excellent, the applicant

identified poor transmission infrastructure, poor topography and accessibility, significant land use compatibility issues, and a moderate to high amount of anticipated environmental impacts.

- The applicant considered development at 6 locations in the western mountains of the State. Although wind quality in this area was determined to be good, the applicant identified fair to poor transmission infrastructure, a range from fair to favorable, topography and accessibility, significant land use compatibility issues, and a moderate amount of anticipated environmental impacts.
- The applicant investigated a site in a central location of the State. The resulting score of the majority of the factors was fair. In addition, the applicant identified numerous existing land use conflicts and a moderate amount of environmental impacts.
- The applicant investigated a site in a western location of the State. Although wind quality in this area was determined to be good, the applicant identified a fair transmission infrastructure, fair to poor topography and accessibility, several conflicting land use compatibility issues, and a moderate amount of anticipated environmental impacts.

The applicant made several design changes to avoid wetland impacts throughout the project site. The original design anticipated access being provided by Mine Notch Road and then splitting the access road to the ridge into two distinct segments. This access design required seven stream crossings, required cutting over two miles of new road, and it would pass immediately adjacent to a complex of high functioning vernal pools. The applicant has taken measures to space turbines such that impacts to large areas of wetlands are avoided.

B. Minimal Alteration. The amount of wetland and waterbodies to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. The applicant took precautions to avoid crossing flat areas of wetlands with roads. In the areas where wetland impacts could not be avoided, the applicant minimized wetland impacts by using various techniques. Some techniques used to minimize impacts included narrowing road shoulders where possible and modifying cut and fill slopes on both roads and turbine pads. The applicant maximized buffers to allow larger riparian areas between roads and turbine pads and the wetland areas. The applicant also designed roads through some areas to ensure that they crossed at the most narrow point and would have minimal effect on the larger area's function.

Wetland impacts were considered during the design of the proposed project in areas associated with turbine development. Specifically, the applicant minimized impacts to wetlands in the location of turbine pads 1, 2, 3, 4, and 5, all of which were shifted to reduce impacts to Wetland R68 and Vernal Pool 18CF. The original design considered impacting over 25 percent of the vernal pool critical terrestrial habitat. The project design for the crane path was shifted in order to move the crane path to the west side of the turbine pads, which reduced habitat fragmentation since the western side of the ridge is actively harvested for timber and already disturbed. The design shift also moved

turbines 1, 2, 3, and 4 to the north and turbine 5 to the south in order to reduce the amount of impacts to wetlands.

C. Compensation. In accordance with Chapter 310 5(C)(6)(a)(ii), compensation is not required for impacts associated with the proposed project, because the applicant is proposing to permanently alter less than 15,000 square feet of freshwater wetland.

The Department finds that the applicant has avoided and minimized wetland and waterbody 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 the applicant implements the vegetative management plan contained in the application and all in-stream work be conducted from July 15 – September 30.

18. AIR QUALITY:

The applicant stated that construction activities may cause temporary effects on air quality in the form of exhaust from construction vehicles and dust from unpaved roads. However, effects will be minimal due to the location of the proposed project in a rural setting and the limited duration of construction in any one place. Routine maintenance of the transmission line will create will not create significant emissions from maintenance vehicles and will be similar to emissions currently produced by maintenance of other existing transmission lines.

Dust is likely to be a form of air emission associated with the proposed project. Dust created by construction equipment is anticipated along existing logging roads, although the level of dust created will be similar to existing ongoing logging operations in the proposed project area. No treatment is generally applied except where safety and visibility may be problematic. However, the applicant proposes to treat some areas with calcium chloride, water, or other approved dust control agent where dust may be a nuisance to neighbors. Treatment will be on an as-needed basis as ordered by the resident engineer or timber land owner. Other areas such as construction entrances to public roads will have crushed stone pads that will limit dust and mud tracking. Dust is not anticipated to be an issue along the transmission right-of-way.

The Department finds that no significant source of air emissions has been identified with the exception of fugitive dust emissions described above.

19. ODORS:

The applicant stated that the clearing and construction phase of the proposed project will not create significant odors; however, limited, short term odors may be generated from harvesting or construction equipment.

Clearing activity will be conducted with standard forestry equipment under controlled conditions. If burning of vegetation is anticipated, burning will be accomplished in

compliance with local and state open burning requirements. Any brush burning will be supervised by a construction supervisor and environmental inspector.

No significant sources of odors have been identified.

20. ALTERATION OF CLIMATE/WATER VAPOR:

The proposed project does not involve any significant sources of water vapor emissions.

21. ACCESS TO SUNLIGHT:

The proposed project will not significantly affect any adjacent properties access to sunlight.

22. SHADOW FLICKER:

According to 38 M.R.S. § 481 et seq., 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 not the sun seen through a rotating wind turbine rotor nor what an individual might view moving through the shadows of a wind farm. No shadow flicker will be cast 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 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.

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. This analysis can be seen in the application in Appendix 26-1. 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 is shining every day and that all receptors face the turbine directly. Further, the analysis does not take vegetative screening into account between a turbine and a receptor.

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. The applicant ran the shadow flicker model out to a distance at 1,000 meters (3,280 feet) from each turbine. This number is over three times the distance 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 proposed turbine location.

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 analysis identified four receptor sites in the vicinity near the proposed project site. The four receptor sites were field-verified as residential dwellings. Results of the modeled receptors are as follows:

Receptor #	Distance to Nearest Turbine	Anticipated Shadow Flicker Hours
463	1000 meters	0
465	891 meters	0
467	954 meters	0
468	715 meters	0

Interested parties stated that many autistic children are prone to photosynthetic seizures. Interested parties expressed concern that the proposed project would have a potential negative health effect on autistic children as caused by shadow flicker when reflected off Roxbury Pond. Other interested parties expressed concern regarding the potential health effect to the general public as shadows are cast over Roxbury Pond.

The applicant researched the interested parties' concerns with the National Academy of Sciences and the Epilepsy Foundation. According to a publication issued by the National Academy of Sciences, entitled "Environmental Impacts of Wind-Energy Projects" (2007): "Flicker frequency due to a turbine is on the order of the rotor frequency (i.e., 0.6-1.0 Hz), which is harmless to humans." According to the Epilepsy Foundation, "only frequencies above 10 Hz are likely to cause epileptic seizures. (As a reference, frequencies of strobe lights used in discotheques are higher than 3 Hz but lower than 10 Hz.)." Based upon this information and results of the shadow flicker analysis, the applicant concluded that the proposed project avoids unreasonable shadow flicker effects.

The Department finds that the shadow flicker modeling conducted by the applicant is credible and that no shadow flicker effects are anticipated to occur at any given receptor site. The applicant did not submit an analysis of wind direction and wind speed at each turbine, average cloud cover, obstacles, or the available average sunshine hours for the region at different times of the year due to the fact that there are no receptor sites less than 2,345 feet from the nearest turbine location. However, it is reasonable to conclude that based upon the results of the shadow flicker modeling, shadow flicker effects at each of the receptor locations will not be increased by these factors when considering the distance of the receptor sites from the nearest turbine location.

Based upon the proposed project's location and design and results of the shadow flicker analysis, the Department finds that the proposed project will not unreasonably cause shadow flicker to occur over all adjacent properties.

23. PUBLIC SAFETY:

The proposed project will use Siemens 2.3 MW SWT-2.3-93 wind turbine generators. The turbines have been certified by Det Norske Veritas, a risk management company, to withstand Class IIA wind gusts, as defined by the International Electrotechnical Commission Standard 61400-1 "Wind Turbine Generator Systems-Part 1: Safety Requirements." The Standard considers an extreme wind speed at hub height of 42.5 meters per second. The applicant submitted evidence that the Siemens SWT-2.3-93 wind turbine meets acceptable safety standards in the form of Statements of Compliance (Type Certificate and Management System Certificate) issued by Det Norske Veritas dated January 11, 2007 and May 20, 2009.

The Department recognizes that locating wind turbines a safe distance away from any occupied structures, public road or other public use area is of utmost importance. 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 recommends that all wind turbines be setback from the property line, occupied structures or public areas, at a minimum of 1.5 times the maximum blade height of the wind turbine. The maximum height of the Siemens SWT-2.3-93 is 415 feet from the ground to the tip of the fully extended turbine blade. Based on the Department minimum setback specifications, the setback distance to the nearest property line is 622.5 feet.

Twenty of the 22 proposed turbine locations are located more than 622.5 feet from the property boundary of the Record Hill Wind Project. There are two parcels within 1.5 times the maximum blade height of the turbines; neither parcel is presently used for residential purposes. The nearest turbine to the property boundary of one of the parcels is 175 feet away; the nearest turbine to the property boundary of the other parcel is 400 to 450 feet away. The applicant submitted a waiver from both of the affected property owners, dated November 20, 2008 and December 19, 2008.

The Department finds that the applicant has provided documentation in the form of standards of 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 applicant submitted sufficient evidence which demonstrates that the proposed project has been sited with appropriate safety related setbacks from adjacent properties and existing uses.

24. DECOMMISSIONING PLAN:

The Siemens SWT-2.3-93 wind turbine generators are designed and certified by independent agencies for a minimum expected operational life of 20 years. In order to facilitate and ensure appropriate removal of the wind generation equipment when it reaches the end of its useful life, the Department requires an applicant to demonstrate, in

the form of a decommissioning plan, the means and methods by which decommissioning will be accomplished. The applicant submitted a decommissioning plan as Section 29 of the application. The decommissioning plan includes a description of the trigger for implementing the decommissioning plan, a description of work required, an estimate of decommissioning costs, and a demonstration of financial assurance.

1.) Description of trigger for implementation of decommissioning. The applicant states that the wind generation facility will be decommissioned when and if it ceases to generate electricity for a continuous period of twelve months. In the case of mitigating circumstances such as force majeure event, the applicant may submit to the Department for review and approval, reasonable evidence that the project has not been abandoned and should not be decommissioned.

2.) Description of work. The description of work contained in Section 29 of the application was developed by Reed and Reed, Inc., outlines how the turbines and other components of the proposed project will be dismantled using standard best management practices. Pursuant to Department guidelines, 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 owner must submit a plan for continued beneficial use of any wind energy development component left on-site to the Department for review and approval.

3.) Cost estimates for decommissioning. The applicant stated that decommissioning costs are estimated at $37,646 per turbine and $59,500 for removal of the proposed Operations & Maintenance Building. The total cost of decommissioning, minus salvage value, is estimated to be $828,215. A detailed breakdown of decommissioning costs is in Appendix 29-1 of the application.

4.) Financial assurance. The applicant will ensure that financial assurance for decommissioning costs will be fully established at least five years prior to expected end of useful economic 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 financial assurance will be kept in place until such time as the decommissioning work has been completed, provided that to the extent available as liquid funds, the financial assurance may be used to offset the costs of the decommissioning. The applicant shall 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. The trigger for the Department's third party rights shall be the dissolution of the

project's owner or if the project ceases to generate electricity for a continuous period of twelve months.

Interested parties stated that the applicant should be required to fully fund a bankruptcy remote fund adequate to fully decommission the project without reducing the fund for any salvage value and that the fund shall be fully funded upon the commencement of operation. Further, interested parties state that the DEP should solicit its own independent estimate of the cost of decommissioning this project

The Department considered the concerns raised by interested parties. The applicant provided an estimate and provisions for the total cost of decommissioning less salvage value of the equipment. The Department finds that the applicant has made adequate provisions for demonstrating a decommissioning plan and a means to execute the plan provided that the applicant submit demonstration of financial assurance no later than December 31 of year 11 of operation of the proposed project to the Department for review and approval.

25. TANGIBLE BENEFITS:

The applicant states that the Record Hill Wind Project will provide numerous tangible benefits to the State of Maine and to the host community of Roxbury. The applicant contends that, at the state level, the proposed project will offer a renewable energy source that will help stabilize and reduce electricity rates. The proposed project will help the state to meet its commitments under the Regional Greenhouse Gas Initiative (RGGI) and help retail power suppliers meet their commitments under the renewable Portfolio Standard. The applicant contends that the host communities will benefit through energy assistance, property tax benefits, and employment opportunities.

1.) Energy Assistance. The applicant agrees to pay the first 500 kilowatt hours of the electricity generation charges of every current residence in the Town of Roxbury for each month over the next 20 years or the life of the proposed project, whichever comes first. The applicant's purpose of this offer is to form a direct link between the existence of the proposed project and each resident's positive experience of living in the town. CMP, which holds the exclusive franchise for delivering electricity in Roxbury, has agreed to cooperate with the proposed project to provide this service with minimal extra billing or administrative procedures. Assuming that there were about 220 year-round residences and about 180 seasonal residences in Roxbury at the time of the offer (September 1, 2008), and that the cost of the electricity generation charge on CMP bills was about $0.10 per kilowatt hour, the applicant estimates that this tangible benefit is worth about $600 annually to each year-round residence and about $200,000 annually to all residents collectively.

2.) Property Tax Benefits. The applicant submitted two separate estimates of local property tax implication from the proposed project. One estimate was completed in 2007 by the applicant; the second estimate was completed in 2009 by the Maine Revenue Service. Depending upon the municipality's local assessment percentage of full

valuation, the proposed project is expected to be assessed at about $86-100 million. The applicant stated that because Roxbury's total assessed property value at this current time is approximately $33 million, the proposed project is expected to pay 75 percent of all taxes in the town and result in an approximately 60 to 65 percent reduction in property taxes. The applicant stated that its calculation was based on 2007 valuations, education costs based on membership in the local school administrative district and its formula for distributing costs among member towns, 2007 town budget levels, 2007 county taxes, and other factors. Property tax reductions were project to occur after factoring in adjustments to county taxes, state education subsidy, and municipal revenue sharing that will occur as a result of the new assessment. The applicant's estimated average annual property taxes on the proposed project are over $700,000 per year over the first ten years of the life of the proposed project. The applicant also submitted examples of property tax savings for a variety of assessed residences. One example is of the following: A residence in Roxbury that is currently assessed at $120,000 pays $2,305 in property tax. In a typical year after the proposed project begins operation, the applicant stated that this tax is anticipated to drop to $775, which amounts to a savings to the property owner of $1,530 per year.

The applicant submitted an independent estimate of the proposed project's tax impacts on the Town of Roxbury's budget and property taxes, which was prepared by the Maine Revenue Service for the municipality. This calculation used the new school unit's formula rather than the pre-existing school administrative district's formula to calculate education costs and included an 85% valuation of properties in Roxbury. The Maine Revenue Service's study of property tax implications of the proposed project generally conforms to the applicant's assessment, assuming the local municipal budget does not change.

3.) Employment Opportunities. The applicant contends that the proposed project will have a significant impact on employment in the state. At this time, almost all of the consultants and contractors currently working on the proposed project are based in Maine and employ Maine residents. The applicant stated that during construction, there will be job opportunities for activities such as tree clearing and excavation. In addition, local businesses such as motels, restaurants, gas stations, and pharmacies may potentially see increases in activity. After construction is finished, the operation of the project is anticipated to require employment of three to five full-time position equivalents. Jobs such as those involved in road maintenance and plowing will also be made available. The applicant stated that the proposed project will hire locally whenever possible. The value of the employment contracts between the applicant and Maine-based businesses may exceed $28 million and include over 75% of the construction, engineering, and consulting costs of the proposed project. The applicant submitted a plan, entitled "Tangible Benefits: Project Development Contractors", which denotes all of the companies and their location of operations in the State that are currently contracted by the applicant to provide assistance with the proposed project.

Interested parties stated that the energy assistance offer is contrary to the intent of the wind law and Maine laws calling for reduced fossil fuel use, energy efficiency and

conservation. Interested parties contend that by providing free electricity, the applicant is encouraging more consumption, rather than less. This will increase demand for electricity, resulting in more fossil fuel consumption and upward pressure on the price.

The Department reviewed the concerns expressed by interested parties. Based upon consideration of all of the benefits proposed by the applicant, information in the record, and interested parties' comments, the Department finds that the applicant has demonstrated that the proposed project will provide significant tangible benefits to the host community and surrounding area pursuant to 35-A § 3454.

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 et seq. 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 that the applicant submits a finalized post-construction avian, bat and raptor (including eagles) monitoring protocol to the Department for review and approval prior to the start of operation of the Record Hill Wind Project, as described in Finding 7 and all in-stream work is conducted between July 15 and September 30.

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. Sections 481 et seq.:

A. The applicant has 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 the start of operation, the applicant submits evidence for review and approval that it 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 pursuant to Chapter 373(1), as described in Finding #3.

B. The applicant has 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 that the applicant implements the sound compliance assessment plan and submits to the Department for review and approval, if necessary, a revised assessment plan that demonstrates that the project will be in compliance at all the protected locations surrounding the development as referenced in Finding 5.

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 applicant submits a pre-blast survey to the Department for review and approval, prior to any blasting occurring on the project site, and if a rock crusher is required to be utilized on site, the applicant must insure that the crusher is licensed by the Department's Bureau of Air Quality and is being operated in accordance with that license.

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 applicant adhere to the required protocol for inspections of the ditch turnouts, level lip spreaders, and grassed underdrained soil filters as outlined in Finding 11, and provided that the applicant retain the services of a third party inspector in accordance with the Special Condition for Third Party Inspection Program.

E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur.

F. The applicant has 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 provided that the applicant must submit a final SPCC plan for construction of the facility to the Department for review and approval prior to the start of construction and a final SPCC plan for the operation of the facility for review and approval prior to the start of operation, provided that the applicant adhere to 06-096 Chapter 587 (6) of the Department's rules, In-stream Flows and Lake and Pond Water Levels, during

construction when withdrawing water from a local lake source for the purpose of dust abatement, and provided that mulch depth of processed brush is no more than 2 to 4 inches and the mulch is placed within 30 days of completing the brush process.

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 activity will not unreasonably cause shadow flicker effects to occur over all adjacent properties.

I. The activity will not present an unreasonable safety hazard to adjacent properties or adjacent property uses.

J. The activity will provide significant tangible benefits to the host community and surrounding area.

THEREFORE, the Department APPROVES the application of RECORD HILL WIND, LLC to construct 55-megawatt wind energy development project, also known as the Record Hill Wind Project, in the Town of Roxbury, Maine, 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 applicant shall take all necessary actions to ensure that its activities or those of its 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. Prior to the start of operation, the applicant shall submit final evidence for review and approval that it has been granted a line of credit or loan by a financial institution authorized to do business in this State or evidence of another form of financial assistance determined by the Department to be adequate pursuant to Chapter 373(1) of the Department's Rules.

5. The applicant shall implement the sound level compliance assessment plan referenced in Finding 5 and submit the results to the Department for review and approval, within one calendar year of the start of operation of the Record Hill Wind Project.

6. If sound compliance measurements completed in accordance with Special Condition #5 above determine that the Record Hill Wind Project is not in compliance at all protected

locations, within 60 days of a determination of non-compliance by the Department, the applicant shall submit a revised assessment plan that demonstrates that the project will be in compliance at all protected locations. This assessment plan must include, among other strategies, consideration and analysis of how turbine shutdown scenario would cause the facility to operate on compliance with the terms of this permit.

7. Prior to the start of operation of the Record Hill Wind Project, the applicant shall submit a finalized avian, bat and raptor monitoring protocol developed in consultation with MDIFW, to the Department for review and approval. The monitoring plan shall include, among other things, a survey of Bald Eagle activity associated with Ellis Pond and the ridgeline habitats along the Record Hill Wind Project.

8. Prior to the start of operation of the Record Hill Wind Project, the applicant shall record a deed restriction for all stormwater treatment buffers with the Registry of Deeds for the subject parcel. The deed restriction shall have attached to it a plot plan for the parcel, drawn to scale, that specifies the location of all stormwater buffers on the parcel. The applicant shall submit a copy of the recorded deed restriction including the plot plan(s) to the Department within 90 days of its recording.

9. Prior to the start of construction, the applicant shall temporarily mark or flag the limits of all areas proposed to be cleared on the ground.

10. Prior to construction, the applicant shall permanently mark on the ground all buffer areas that are designated to provide stormwater treatment pursuant to the Chapter 500 Stormwater Management Rules. Methods of marking the ground shall include, but are not limited to, a combination of field flagging and clearly marked signage.

11. Prior to any blasting on the project site, the applicant shall submit a pre-blast survey to the Department for review and approval. All blasting must be conducted in compliance with the provisions set forth by 38 M.R.S.A. § 490-Z (14), and the applicant must follow all applicable limits on ground vibration at inhabitable structures not owned or controlled by the applicant in conformance with the U.S Bureau of Mines Report of Investigations 8507.

12. If a rock crusher is required to be utilized on site, the applicant must insure that the crusher is licensed by the Department's Bureau of Air Quality and is being operated in accordance with that license.

13. Prior to the start of construction, the applicant 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.

14. The applicant shall retain the services of a third party inspector in accordance with the Special Condition for Third Party Inspection Program as described in Finding 11.

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15. The applicant shall adhere to the required protocol for inspections of the ditch turnouts, level lip spreaders, and grassed underdrained soil filters as referenced in Finding 11.

16. Prior to the start of construction, the applicant shall submit a final SPCC plan for construction of the facility to the Department for review and approval. Prior to the start of operation, the applicant shall submit a final SPCC plan for operation of the facility to the Department for review and approval. The applicant shall adhere to the procedures outlined in Finding 12.

17. During construction, the applicant shall adhere to 06-096 Chapter 587 (6) of the Department's Rules, In-stream Flows and Lake and Pond Water Levels, when withdrawing water from the local lake source for the purpose of dust abatement.

18. The applicant shall conduct all in-stream work between July 15 and September 30 of any calendar year.

19. No later than December 31 of year 11 of operation of the Record Hill Wind Project, the applicant shall submit to the Department for review and approval, evidence that the final decommissioning financial assurance mechanism has been established. The financial assurance instrument shall be designed to allow the Department access to the decommissioning funds, if necessary, to implement the decommissioning process.

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

This permit has been digitally signed by Andrew C. Fisk on behalf of Commissioner David P. Littell. It is digitally signed pursuant to authority under 10 M. R.S.A. § 9418. It has been filed with the Board of Environmental Protection as of the signature date 2009.08.20 14:08:03 -04'00'

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

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