ORDER UNDER APPEAL

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

DEPARTMENT ORDER

IN THE MATTER OF

EVERGREEN WIND POWER III, LLC	) SITE LOCATION OF DEVELOPMENT ACT
Lincoln, Lee, Winn, Burlington,	) NATURAL RESOURCES PROTECTION ACT
Mattawamkeag, Penobscot County	) WATER QUALITY CERTIFICATION
ROLLINS WIND PROJECT	)
L-24402-24-A-N (approval)	)
L-24402-TH-B-N (approval)	)
L-24402- IW-C-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. § 481 et seq. and 480-A et seq., 35-A M.R.S.A. § 3401, et seq., and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application of EVERGREEN WIND POWER III, LLC with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. Summary: Evergreen Wind Power III, LLC (applicant) proposes to construct a 60-megawatt (MW) wind energy generation facility known as the "Rollins Wind Project" in the towns of Lincoln, Mattawamkeag, Lee, Burlington and Winn, Maine. The proposed wind generation facility includes the construction of two wind turbine clusters; the construction and upgrade of two permanent access roads, 40 turbine pads, 4 permanent meteorological towers, a 43,200 square foot electrical substation, a 34.5 kV overhead collector line among the turbines, a 34.5 kV, 5.4 mile connecter line between the North and South portions of the project, a 115 kV, 8.8 mile transmission line and a 9,000 square foot Operations and Maintenance (O & M) facility. The proposed Rollins Wind Project is an expedited wind energy development in accordance with Title 35-A § 3451 (4).

(1) Wind turbine clusters. The wind energy facility will consist of 40 General Electric 1.5-MW turbines located in two clusters; one (1) on Rollins Mountain (Rollins North), which is located in the towns of Lincoln and Lee and consists of an approximately three-mile long ridge line containing the summit of Rollins Mountain, and one (1) on Rollins South, which is located in the towns of Lincoln and Burlington and contains six distinct peaks across a four-mile ridgeline. The applicant proposes to construct approximately 18 turbines in the Rollins North cluster and approximately 22 turbines in the Rollins South cluster. The project design includes 41 potential turbine locations to allow for flexibility in final project construction; however, only

40 actual wind turbines will be constructed. Each proposed turbine will measure 262 feet in height to the center of the hub, and a total of 389 feet to the tip of a fully extended blade.

(2) Wind turbine cluster access roads. The Rollins North portion of the wind energy facility will be accessed by an existing woods road, located off Route 6 near the Lincoln/Lee town line. The existing road will be upgraded from a width of +/- 10 feet to a width of 16 feet for a distance of 2,600 linear feet and will be widened to 32 feet starting at the base of the first turbine pad located adjacent to the road. The 32-foot wide road will extend 4.6 miles along the entire Rollins North turbine cluster. The Rollins South portion of the wind energy facility will be accessed by an existing woods road, located off Half Township Road in the Town of Lincoln. The access road construction will consist of: the upgrading of the existing road from a width of +/- 10 feet to a width of 16 feet for a distance of 4,000 linear feet, the construction of +/- 700 feet of new road, and the widening of the existing road to 32 feet starting at the base of the first turbine pad located adjacent to the road. The 32-foot wide road will extend 7.4 miles along the entire Rollins South turbine cluster. Upon completion of the turbine clusters on both Rollins North and Rollins South, the 32-foot wide sections of the access roads will be narrowed to a finished 16-foot wide footprint. In addition to the finished access roads, the wind energy facility will require the creation of 40 wind turbine pads, which will be cleared for construction staging and turbine installation. The size of the individual turbine pads will vary due to the existing topography of the area. The total amount of new impervious area associated with the Rollins North and Rollins South turbine cluster access roads and associated turbine pads construction is 27.9 acres. In addition to these permanently developed areas, the project will create a total of 14 temporary lay-down areas throughout the project site, resulting in a total of approximately 19.8 acres that will be cleared of vegetation and graded. All of these lay-down areas will be seeded and mulched upon the completion of construction and will be allowed to naturally re-vegetate.

(3) Meteorological towers. The wind energy facility will include the construction of up to four permanent 80-meter meteorological towers located on the project site, near turbines N05, N16, S15 and S20. The towers will measure approximately 263 feet in height and 18 inches in width and will be composed of guyed lattice construction.

(4) Substation. The wind energy facility will include the construction of a substation with a footprint of 43,200 square feet, located at the north end of the project, off the turbine access road to turbine N16. The substation will include approximately 1,500 square feet of impervious area associated with pads for the transformer, control shed and back up generator. The remaining 41,700 square feet will be covered with crushed stone. The entire substation will be surrounded by a security fence. The gravel entrance to the substation will measure approximately 84 feet long and will have a total area of 2,000 square feet.

(5) Electric transmissions lines. The wind energy facility will include an electrical collection and transmission system that consists of a 34.5-kV summit connecter line

between Rollins North and Rollins South, a 34.5 kV collector line among the turbines, and a 115 kV transmission line that will deliver electrical power from the proposed substation in Lee to the Line 56 generator lead line in Mattawamkeag. The 34.5 kV summit collector line will run primarily along the crane roads and gather power from the turbines. A 5.4 mile connector line will be located between Rollins North and Rollins South in the town of Lincoln, Maine. The summit collector line will consist primarily of single pole structures that average 45 feet in height. The collector line will be co-located primarily adjacent to the wind generation facility roads. Where co-location is practicable, the collector line will require an additional 40 feet of clearing adjacent to the roads. In areas where co-location is not practicable, a clearing width of 80 feet will be required for the collector line.

The 115 kV transmission line, located in Winn and Mattawamkeag, will be located in a new corridor having a clearing width of approximately 150 feet and will measure 8.8 miles in length. The transmission line will consist primarily of 55 to 70-foot tall two-pole, H-frame structures, with some triple pole structures being utilized, as necessary, at the most critical points. The applicant will utilize existing woods roads to access the transmission lines to the extent practicable, however, the existing woods roads will require small isolated upgrades in order to accommodate the construction equipment necessary to construct and maintain the transmission lines. The total amount of road upgrades for all transmission line access roads is 40,140 square feet.

(6) Operations and Maintenance facility. The wind energy generation facility will include an Operations and Maintenance (O&M) facility consisting of a total of approximately 4.47 acres of impervious area at the south end of Rollins North, on the north side of Route 6. This facility will include a 9,000 square foot single-story office building with an associated 5,600 square foot parking area, a 10,000 square foot single-story warehouse, two construction staging and parking areas, measuring 122,304 square feet and 27,000, respectively, a 16,800 square foot oversized truck/trailer loop and checkpoint, and five gravel pads for temporary trailers; four measuring approximately 800 square feet each and one measuring a total of approximately 1,200 square feet in size.

The applicant is also seeking approval under the Natural Resources Protection Act for the placement of fill in 6,266 square feet of freshwater wetlands during the construction of the wind energy generation facility access roads and the installation of the utility pole structures along the connector and transmission line corridors; the temporary alteration of 5.6 acres of freshwater wetland associated with the construction of temporary access roads on the transmission lines; the conversion of approximately 35 acres of forested freshwater wetland to early succession scrub-shrub freshwater wetland; and the alteration of 5.84 acres of Inland Wading Bird and Waterfowl Habitat (IWWH) during construction of the transmission line. The wind energy generation facility will require the construction of 2 new stream crossings within the project area. The applicant submitted a Permit-by-Rule Notification Form (PBR #47775) for the stream crossings. In addition, the construction of the electrical collection and transmission system will require the

alteration of forest riparian habitat along 16 streams located along the collection and transmission line routes.

The proposed wind energy generation facility is shown on a set of plans, the first of which is entitled "Proposed Rollins Wind Project, Figure 1 Project Area Map" prepared by Stantec and dated September 15, 2008.

B. Current Use of Site: The majority of the project site consists of undeveloped/ forest lands with 6 residential structures located within the project site.

C. The Maine Department of Environmental Protection (Department) received 35 requests from interested parties for a public hearing on the proposed Rollins Wind Project. The requests for a public hearing were denied on January 9, 2009 based on the fact that none of the interested parties submitted credible conflicting technical information regarding any of the licensing criteria, in accordance with Chapter 2, Rules Concerning the Processing of Applications and Other Administrative Matters, 06-096 CMR 2, which specifies that "the Department will hold public hearings in those instances where the Department determines there is credible conflicting technical information regarding a licensing criteria and it is likely that a public hearing will assist the decision-maker in understanding the evidence."

However, in response to the considerable amount of public interest concerning the proposed project, the Department held a public meeting, pursuant to 38 M.R.S.A. § 345-A (5), providing all interested parties an opportunity to present information to the Department, with this information becoming part of the record. The public meeting was held on the evening of February 11, 2009 at Mattanawcook Academy in Lincoln, Maine, with approximately 44 interested parties in attendance, 16 of which presented oral comments. The Department accepted all information that was presented into the record and subsequently received numerous letters and supplemental documents from other interested parties, raising questions and concerns regarding specific aspects of the proposed project. Overall, a total of 63 interested parties submitted information into the public record.

2. FINANCIAL CAPACITY:

The total cost of the project is estimated to be $130,000,000. Evergreen Wind Power III, LLC (Evergreen) is the project applicant and owner. Evergreen is wholly owned by First Wind Maine Holdings, LLC, which in turn is a wholly- owned subsidiary of First Wind Holdings, LLC (First Wind). The applicant submitted a letter of support to provide initial funding for the project from First Wind as Appendix 3-1 of the application. Prior to the start of construction, the applicant must submit evidence 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 any other form of financial assurance determined by Department Rules, Chapter 373(1), to be adequate to the Bureau of Land and Water Quality for review and approval.

The Department finds that the applicant has demonstrated adequate financial capacity to comply with Department standards provided that the applicant submits evidence of financial capacity, as described above.

3. TECHNICAL ABILITY:

The applicant provided resume information for key persons involved with the project and a list of projects successfully constructed by the applicant. The applicant also utilized the services of several consulting firms, as follows: Stantec Consulting (Stantec) (civil design, natural resource assessments, permitting); SGC Engineering, LLC (electrical engineering design, property research and acquisition); Landworks (visual impact analysis); Resource Systems Engineering (RSE) (sound assessment); TRC/Northeast Cultural Resources (prehistoric archaeological resources), Independent Archeological Consulting (historic archaeological resources), Public Archeology Lab (historic architectural resources); and Albert Frick Associates, Inc. (soils) to assist with the proposed Rollins Wind Project.

The Department finds that the applicant has demonstrated it will have adequate technical ability to comply with Department standards.

4. NOISE:

The applicant submitted a sound level study entitled "Sound Level Assessment", completed by RSE and dated October 30, 2008. The sound level study was conducted to model expected sound levels from the proposed Rollins Wind Project and to compare the model results to operational standards pursuant to the Site Location of Development Rules, Chapter 375 §10.

In recognition of the rural nature of the site, the applicant elected to apply quiet limits of 55 dBA during daytime and 45 dBA at night at all nearby protected locations in accordance with Chapter 375 §10 (H) (3) (1), even though pre-development ambient sound levels under weather conditions suitable for wind turbine operation can exceed area thresholds of 45 dBA daytime and 35 dBA nighttime.

Pursuant to Department regulations, short duration repetitive (SDR) sounds 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. SDR sound events are typically less than 10 seconds in duration and occur more than once within an hour. When routine operation of a development produces SDR sound, 5 dBA is added to the observed levels of the SDR sound for purposes of determining compliance with applicable noise limits. Measurements and observations by RSE during wind turbine operations indicate that sound levels can fluctuate over brief time periods as noted by the passage of wind turbine blades, however the observed measurements indicate that these sound level fluctuations typically range from 2 to 4 dBA and thus do not result in the 6 dBA increase required to be an SDR sound as set forth pursuant to Chapter 375 §10 (C) (1) (e).

RSE developed the acoustic model using the CADNA/A software program to map area terrain in three dimensions, locate the proposed turbines, and calculate outdoor sound propagation from the wind turbines. Area topography and wind turbine locations were provided to RSE by Stantec based on United States Geological Survey (USGS) topographic information and project design. The sound level estimates were calculated for simultaneous operation of the GE 1.5 sharp leading edge (sle) wind turbines at all 41 prospective turbine locations operating at full power as defined by GE Energy. These moderate to full load conditions exist with wind speeds at or above 20.1 miles per hour at the turbine hub. The wind turbines were treated as point sources at the hub height of 262 feet above base grade elevation using sound power levels from GE Energy. Sound level estimates are based on the operating sound level at full power plus an uncertainty factor of an additional 2 dBA based on the GE specifications and measurements by RSE of similar turbines during full operation.

Sound levels from the wind turbine operation were calculated for five (5) receiver points (R1-R5) in the vicinity of the Rollins Wind Project as depicted on the set of plans the first of which is entitled "Vicinity Site Plan (1 of 2), prepared by RSE and dated October 30, 2008. Receiver points represent nearby protected locations where the most stringent nighttime limits apply. Chapter 375 §10 (G) (16) defines a protected location in pertinent part as "any location, accessible by foot, on a parcel of land containing a residence or approved subdivision.... near the development site at the time a Site Location of Development application is submitted..." In all cases, the nighttime limits apply within 500 feet of any living or sleeping quarters on a protected location.

The applicant further identified six (6) residential structure locations (D1-D6) that are closer to the wind turbines than the receiver points on Rollins South as depicted on a plan entitled "Estimated Sound level Contours Rollins South Excerpt", prepared by RSE as a Supplement dated April 2, 2009. Three of the identified locations, D2, D4 and D5 are either owned by the applicant or subject to executed lease agreements with the property owner. These locations are therefore considered part of the project site and are not subject to sound level limits in accordance with Chapter 375 §10 (C) (5) (s). The other three locations, D1, D3 and D6, are subject to executed perpetual easements that grant the applicant the right to have sound generated from the wind power project impact the servient land and exceed otherwise applicable state or local maximum sound level limits applicable to locations on the servient land. In accordance with Chapter 375 §10 (C) (5) (s) sound level limits do not apply at these locations.

In order to determine what sound levels would occur at receiver points, the attenuation of sound as it travels between the turbine and receiver is calculated by the model. Sound level attenuation from the wind turbines to the receiver points was calculated by the acoustic model in accordance with ISO 9613-2 "Attenuation of sound during propagation outdoors". ISO 9613-2 is an international standard commonly used for predicting sound levels from noise sources for moderate downwind condition in all directions. For the Rollins Wind Project, the prediction model calculated attenuation due to distance, atmospheric absorption, and intervening terrain. Factors were applied for ground absorption assuming a mix of hard and soft ground. To be conservative in calculating

attenuation, the surfaces of nearby lakes were specifically mapped and assigned no ground absorption as appropriate for a hard, reflective surface. In addition, the model calculations excluded attenuation from foliage, which has the potential to reduce sound levels.

The stated accuracy of sound level attenuation calculations per ISO 9613-2 is plus or minus 3 dBA. In order to compensate for inaccuracy inherent in the calculation and measurement methods, RSE added 3 dBA to the specified sound power levels. This is in addition to the 2 dBA uncertainty factor from the GE specifications described above. Consequently, the overall adjustment to the rated sound power levels from the GE specifications is plus 5 dBA.

Using the model, sound level contours for operation of the proposed Rollins Wind Project were calculated for the entire study area surrounding the proposed project as depicted on a set of plans the first of which is entitled "*Estimated Sound Level Contours (1 of 2)*", prepared by RSE and dated October 30, 2008. The analysis identified the predicted sound level based on full operation for the five (5) identified receiver points within the vicinity of the project site R1, 38 dBA, R2, 44 dBA, R3, 43 dBA, R4, 39 dBA, and R5, 42 dBA. Based on these results, the applicant states that the proposed Rollins Wind Project will be in compliance with the maximum nighttime noise limit of 45 dBA established in Chapter 375 §10 (C) (1) (5) at these protected locations.

The Department contracted with EnRad Consulting (EnRad) to provide outside peer review of the sound level assessment submitted by the applicant. In its comments, EnRad stated that the Rollins Wind Project noise assessment is essentially reasonable and technically correct according to standard engineering practices and Chapter 375 § 10. EnRad noted that the wind project prediction model based on CADNA/A software with incorporation of an uncertainty factor of + 5 dBA and the intentional omission of possible attenuating factors (absorptive cover, lake surfaces and foliage) yields reasonably conservative estimates for hourly sound levels. However, because analysis of amplitude modulation is beyond the scope of models that calculate outdoor sound propagation, EnRad recommends further evaluation for excessive amplitude modulation and potential SDR sound that might trigger application of the 5 dBA penalty to be applied to measured or modeled sound levels. If SDR sounds occur for a significantly large percentage of time, application of the 5 dBA penalty could result in locations with measured sound levels of 43 dBA or greater exceeding the 45 dBA limit for periods of the SDR sound event.

In consideration of the comments from EnRad and the potential for SDR sounds to occur, and to ensure that the 45 dBA hourly sound level limit is met during all conditions, the applicant must implement an operational compliance assessment methodology for use during very selective, meteorological and background sound conditions. The compliance assessment method will enable compliance measurements to be determined under the most favorable conditions for sound propagation and maximum amplitude modulation. All operational compliance must be determined in accordance with the compliance assessment plan entitled "Rollins Wind Project Wind Turbine Sound Compliance

Assessment Plan Final Revised"(the assessment plan), submitted by Evergreen Wind Power III, LLC, that was prepared in consultation with the Department and EnRad, and dated April 6, 2009. The applicant further agrees to pay all reasonable and documented costs incurred by the Department in reviewing the compliance information associated with the implementation of the assessment plan in accordance with the provisions of 38 M.R.S.A. § 344-A.

Interested parties raised concerns regarding the human health affect and sleep disturbance linked to infrasound and low frequency sound less than 250 Hz from wind turbines. Infrasound is sound that is generally considered to be less than 20 Hz, the normal limit of human hearing. In response to the stated concerns, EnRad commented that infrasound has been widely accepted to be of no concern below the common human perception threshold of 85-90 dBG for non-pure tone sounds. The Department finds that there is insufficient evidence to conclude otherwise. Numerous national infrasound standards limit industrial facilities, impact equipment and jet engines, but wind turbine infrasound levels fall far below these standards.

In reviewing noise concerns generally associated with wind turbines, the Maine Center for Disease Control (MCDC) within the Department of Health and Human Services (DHHS) commented that, according to a 2003 Swedish EPA review of noise and wind turbines, interference and noise-induced hearing loss is not an issue when studying the effects of noise from wind turbines as the exposure levels are too low. The MCDC further states that it finds no evidence in peer-reviewed medical and public health literature of adverse health effects from the kinds of noise and vibrations associated with wind turbines other than occasional reports of annoyances. Most studies on the health effects of noise have been done using thresholds of 70 dBA or higher outdoors, much higher than what is seen in wind turbines. With regard to sleep disturbance, the World Health Organization (WHO) guidelines for community noise recommend that outdoor noise levels in living areas for nighttime not exceed 45 dBA, which is consistent with Maine law.

Interested parties also raised concerns regarding the Chapter 375 §10 compliance standard of 45 dBA at protected locations. They state that the dBA standard, or A-weighting, is not accurate at measuring the sound generated from wind turbines and further that the Department should measure compliance based on a dBC standard, or C-weighting, which emphasizes sound at frequencies less than 250 Hz. With regard to this issue, EnRad stated that wind turbines rotating under conditions necessary for power production produce a measurable broadband amplitude modulation of sound ("swoosh") that occurs during the passage of each turbine blade and approximately once per second (±1 Hz), which should not be confused with infrasound. The A-weighting scale is widely used in noise ordinances and sound control regulation. The introduction of C-weighting for the assessment of wind turbine sound is preliminary and unrefined on a broad basis.

The applicant has demonstrated, through the creation of a sound propagation model, that the expected operational sound levels associated with the proposed Rollins Wind Project will be in compliance with the 45 dBA nighttime limit at all protected locations adjacent

to the proposed project. While the sound modeling techniques used by the applicant are in keeping with standard industrial sound modeling protocols, the Department finds that there is sufficient concern related to the model's ability to accurately predict SDR sounds to require the applicant to implement the assessment plan referenced above. If the compliance data indicates that, under most favorable conditions for sound propagation and maximum amplitude modulation, the Rollins Wind Project is not in compliance with Department standards as described above, within 60 days of a determination of non-compliance by the Department, the applicant must submit, for review and approval, a revised operation protocol that demonstrates that the project will be in compliance at all the protected locations surrounding the development

5. SCENIC CHARACTER:

In order to assess the potential scenic impact of the Rollins Wind Project on resources of state and/or national significance the applicant submitted a visual assessment entitled "Visual Assessment of the proposed Rollins Wind Project", prepared by Landworks and dated October 14, 2008. The methodology utilized in the study included visual and cartographic analysis, on-site and field study to reinforce analysis and findings, ArcGIS to generate view shed maps for visual simulation, and digital photography with CADD and rendering programs Vector Works, Sketch Up and Photoshop to accurately model turbines from selected viewing points.

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...Title 38 § 484 (3) or § 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 § 3.

Title 35-A § 3452 (2) provides in pertinent part that:

> The primary siting authority (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 § 484 (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 Rollins Wind Project contains "generating facilities" including wind turbines and towers as defined by 35-A M.R.S.A. § 3451 (5) and "associated facilities" such as buildings, access roads and substations and generator lead transmission lines as defined by 35-A M.R.S.A. § 3451 (1). As a result, the proposed Rollins Wind Project

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).

(1) Generating facilities. The generating facilities for Rollins Wind Project will be located within the towns of Burlington, Lee, Lincoln and Winn, with the view-shed of the proposed project including primarily the towns and townships of Burlington, Chester, Enfield, Lee, Lincoln, Lowell, Springfield, T3-R1 and Winn, as well as portions of Grand Falls Township, Lakeville, Mattawaumkeag, Summit Township, Webster Plantation, Woodville, and T3 ND. All of these towns and townships are located within an 8-mile radius of any or all of the proposed generating facilities.

In accordance with 35-A M.R.S.A. § 3452 (4), the applicant conducted a visual assessment of all view-sheds of the proposed project. The view-shed analysis looked at potential view impacts for all components of the generating facility. The visual analysis also considered the fact that, in accordance with the FAA regulations for turbine lighting, the applicant proposes to place lights on 24 of the proposed wind turbines as well as on 4 of the meteorological towers. According to the current FAA standards, the lights that are typically used for turbine projects are omni-directional, L-864 Red Flashing Lights (either incandescent or rapid discharge (strobe)) that have a minimum 750 candela and a 3-degree vertical beam spread. The applicant states that these lights do not produce glare (as they are designed to be visible primarily to aircraft and not to viewers on the ground), have a limited, vertical beam spread and will be located at considerable distances from view-shed areas related to historic or scenic resources. Although not specifically required by the Department, the applicant chose to include all view-sheds located within the 3-8 mile radius of the proposed generating facilities in the visual analysis.

The applicant's visual assessment identified scenic resources of state or national significance as defined pursuant to 35-A §3451(9) and determined that there were not any such resources within 3 miles of the generating facilities. The visual assessment, however, did identify; two (2) lakes, Number 3 Pond in T3-R1, NBPP and Saponac Pond in Burlington, which are listed in one of the two designated state inventories: the *Maine's Finest Lakes Study or* the *Maine Wildlands Lakes Assessment,* as having outstanding or significant scenic quality. Both of these waterbodies are rated as being "significant" for their scenic value. The applicant's scenic assessment also identified four (4) properties that are listed in the National Register of Historic Places that are located within a 3-8 mile radius of the proposed project, Mallet Hall on Route 6 in Lee, the Abial Cushman Store (Lee Forest Grange) on Route 6 in Lee, The Old Tavern on Route 188 in Burlington, and the George Smith Homestead on Main Street in Mattawamkeag. The visual assessment concluded that none of the four (4) properties would have a view of the generating facilities or their associated facilities.

Although there is a rebuttable presumption that a visual impact assessment is not required for those portions of a development's generating facilities located more than three miles from a scenic resource of state or national significance, Landworks

evaluated the visual impact of the generating facilities on scenic resources located between 3 and 8 miles from the generating facilities.

The natural landscape of the view-shed area surrounding the proposed Rollins Wind Project consists of numerous stream corridors and a total of 24 named lakes and ponds. The stream corridors and waterbodies are located within a hilly, rolling landscape that typically ranges from 300 to 900 feet above sea level. The highest point in the region is Passadumkeag Mountain, which is situated south of the project site and has a summit of 1,469 feet above sea level. There are extensive native woodlands located within the view-shed, which are composed of older forests with white pine, spruce, fir and northern hardwoods as well as successional woodlands that are populated with alder, birch and pine. These woodlands provide a forested backdrop for much of the region.

(A) Number 3 Pond. This waterbody is located approximately 6.5 miles from the nearest turbine on Rollins North and is surrounded by low ridges and wooded hillsides. The turbines on Rollins South will not be visible from all locations with the view-shed due to intervening hills and ridge tops. The applicant states that Number 3 Pond is not as extensively developed as some of the other ponds located within the project view-shed, however, it shares similar landscape characteristics with the surrounding ponds. The shoreline of Number 3 Pond is almost entirely wooded, except for the low growing vegetation that is found within the wetland areas associated with the pond. There are approximately 10 lakeshore camps located on Number 3 Pond, as well as several other camps that are located along Thurlow Road, which is located at the northwest end of the pond. In addition to the camps, there is also a cluster of cell towers, located on Mt. Jefferson in Lee, which are clearly visible from the eastern end of the pond and from several locations within the vicinity of the pond and adjacent hillsides. A boat launch is located on the east facing shoreline, which faces in the opposite direction of the wind turbines. The private camps on this pond are located in the northwestern portion of the pond in the vicinity of the boat launch and do not have a direct view of the wind project.

The wind turbines located on Rollins North will be visible form several vantage points with view-shed of Number 3 Pond. The southeastern portion of Number 3 Pond contains potential views of two turbines, designated as N-01 and N-02, in the Rollins North cluster. Both of these turbines are located above the portion of the pond that is currently developed and views of the turbines in the southeastern part of the pond will also include views of cell towers on Mt. Jefferson, as well as the existing camps and their associated docks and lawn areas. Given the configuration and orientation of the pond, many locations along the shore and from the water will not have a direct view of the wind project. From the view-shed within Number 3 Pond, the scale of the wind turbines will not dominate the view, as they will occupy only a very minor portion of the overall view and panorama from the pond's vantage points.

(B) Saponac Pond. Saponac Pond is located at the edge of the 8-mile radius of the proposed project site. The shoreline of Saponac Pond contains land uses and landscape features similar to Number 3 Pond, as it is also wooded with a mix of deciduous and coniferous vegetation, with the exception of the low growing vegetation that is found in the wetland areas that are located along the southeastern, southwestern and a narrow portion of the northern shoreline. This pond is more developed than Number 3 Pond, with camps located along the east, west, northeast and northwest shorelines of the pond. Development along a low hillside above the eastern shore of the lake is also visible from the shoreline of the pond, and there is a public boat launch located on the northwest shoreline. The boat launch is oriented in an easterly direction; therefore, none of the wind project will be seen from the launch.

The wind turbines located on Rollins North will be visible from several vantage points within the view-shed of Saponac Pond. The turbines that could possibly be seen from this pond include turbines S-20 and S-21 at the southern quarter of the pond, turbines S-17, S-18, and S-19 at the northern half of the pond, and turbine S-16 at the northern quarter of the pond. Portions of the rotor/hub for turbines S-14 and S-15 could also potentially be visible within the northern quarter of the pond. The applicant states that given the distance between the proposed project and the pond, the views of the proposed turbines are distant and the turbines will not dominate the view, nor will they significantly alter the visual quality or the ambience of the pond. Additionally, most, if not all of the private camps on the pond are either located on the eastern or western shoreline, and both of these shorelines are located outside of the view-shed area of the turbines.

The assessment of visual impacts for both of the identified scenic resources of state or national significance also took into account other factors that influence view, such as the cloud cover and extent of the viewing period. The applicant states that National Weather Service data indicates that, in a typical month, approximately 13 to 14 days contain sufficient cloud cover within the region to obscure or otherwise lessen the influence of the turbines from within the view-shed. The applicant contends that based on these facts, combined with the long distances to the turbine sites from these two (2) waterbodies, that the scale of the turbines when viewed from that distance as well as the overall orientation of the developed areas on the resources, that the proposed project should not result in an unreasonable adverse effect on the scenic values and existing uses related to these two great ponds.

(C) Mallet Hall, the Abial Cushman Store (Lee Forest Grange), the Old Tavern, and the George Smith Homestead. All of these properties are located between 3.6 and 7+ miles from the nearest proposed wind turbine. The structures are primarily wood frame public or private structures located within the village settings of Lee and Mattawaumkeag. The applicant did not produce visual simulations for these locations based on the finding that no portion of the proposed wind project will be visible from these locations due to screening vegetation and intervening

topography. This evaluation includes the wintertime when there are no leaves on the deciduous trees.

The Maine Historic Preservation Commission (MHPC) reviewed the project and stated that two of the properties that are potentially eligible for listing, the Page Family Farmstead and Page Family Barn, are located approximately four miles from the nearest turbine and will have intermittent views of turbine blades; however, these views will not adversely affect the historic character defining features of these historic properties. Therefore, there will be no visual impacts to any of the properties within the view-shed that are listed on the National Register of Historic Places.

The Department finds that the applicant has demonstrated that the proposed development will not create a highly visible feature to the landscapes surrounding Number 3 Pond and Saponac Pond or any of the properties listed in the National Register of Historic Places and further that the generating facilities will not significantly compromise views from these resources such that the generating facilities will have an unreasonable adverse effect on the scenic character or existing uses related to scenic character of the resources.

(2) Associated facilities. The associated structures including access roads, building, substations and generator lead transmission lines must also meet the applicable standards pursuant to 35-A M.R.S.A. § 3452 (1) and to the extent practicable 38 M.R.S.A § 484 (3). The visual assessment submitted by the applicant states:

(A) Access roads. The applicant states that the proposed access roads will be built on existing woods roads and gravel roads. The existing roads are located throughout the project area and typically provide access to ponds as well as to remote camps and logging sites. In areas where the roads must be widened to 32 feet in overall width, the applicant proposes, once project construction is complete, to narrow the roads back to 16 feet and to seed these areas. The combination of existing vegetation and topographic features will limit the visibility of the road construction associated with the project. As proposed, a total of 23% of all of the roads that are associated with the proposed project will utilize the existing road network in order to access the turbine sites. The remainder of the roads to be constructed will be located either within the forest canopy or in open areas adjacent to the turbine sites themselves. Visibility of access roads will be limited by their placement within the forest canopy. The applicant states that the only aspect of the road network that has the potential to be visible will be a slight shadow line where the road clearings have been widened for the construction phase of the proposed project.

(B) Buildings. The applicant's analysis shows that the proposed Operations and Maintenance facility (O&M facility), located adjacent to the Rollins South access road off Route 6 in the vicinity of the Lincoln/Lee town line will be partially visible from the public road. The proposed O & M facility will be sited as far

away from Route 6 as possible and will be built slightly above the existing grade of the road, which will allow the maximum amount of existing vegetation to be maintained as possible on the project site, creating a natural buffer to screen the proposed facility from the main road. Although visible from the road, the proposed O & M facility will also be constructed in a manner that will be consistent with other commercial sites in the surrounding area, therefore the applicant states that the use will not appear out of place or discordant with the land uses typically seen in the Lincoln area. There may be limited, if any, adverse visual impacts associated with the O & M facility.

(C) Substation. The proposed substation will be located at the northern end of the project and the applicant states that it will be located within the existing forest cover. The applicant states that existing natural topography will serve to limit any external views of the substation and therefore the substation will not result in adverse visual impacts on the surrounding area.

(D) Generator-lead transmission lines. The proposed 34.5 kV, 5.4 mile long summit connecter, located between Rollins North and Rollins South and 34.5 kV collector line located among the turbines, will be co-located on existing access roads to the extent practicable. When not co-located, the connecting line will be located through a relatively undeveloped area with few residential sites and limited, if any, development. The applicant states that natural topography will serve to limit any external views of the connecter lines and therefore the connecter line will not result in an adverse visual impact on the surrounding area.

The proposed 115 kV, 8.8 mile long transmission line was also reviewed in the visual analysis. The proposed transmission line will run northerly from the substation location through the town of Winn and will be built utilizing H-frame construction, with proposed pole heights measuring between 55 feet and 70 feet high. These heights, as well as those proposed for the connecter lines, are typical for electrical distribution and transmission lines in the region. The applicant states that the transmission line will be located through an area that has very limited development and exposure to public view and will not cross or travel in the vicinity of any major pond or great pond. Based on the above factors, the applicant states that there will be minimal visual impacts associated with the proposed transmission line.

The applicant avoided scenic and aesthetic impacts from the public viewpoints by proposing to use existing access roads wherever practicable for construction and maintenance, and siting the proposed associated facilities in areas where existing topography and vegetation provide visual screening. Therefore, the Department finds that the associated facilities 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.

Based on the project's location and design and in consideration of the evaluation criteria pursuant to 35-A M.R.S.A § 3452 (3) the Department finds that the applicant has made reasonable accommodation to fit the development into the natural environment and that no aspect of the project will have an unreasonable adverse effect on the scenic character or existing uses related to scenic character of scenic resources of state or national significance.

6. WILDLIFE AND FISHERIES:

The construction and operation of the proposed Rollins Wind Project will result in a permanent change in cover type and habitat fragmentation from the clearing associated with the turbines, access roads and transmission lines. The majority of the surrounding forest area will remain undisturbed with no additional development in the immediate vicinity of the turbines. The applicant states that some short-term disturbances to wildlife are likely during construction; however, it contends that wildlife will adapt and respond to this temporary alteration to the overall habitat.

During the initial planning stages of the proposed Rollins Wind Project, the applicant conducted an evaluation of the wildlife habitat in the areas surrounding the proposed project and identified concerns related to significant vernal pools (SVPs), inland wading bird and waterfowl habitats (IWWHs), deer wintering areas (DWAs), and migratory birds, bats and raptors. During the fall of 2007 and the spring of 2008, the applicant also conducted rare, threatened, and endangered (RTE) species surveys for plant and animal species concurrently with the proposed delineated project area.

(1) Significant Vernal Pools. The applicant surveyed the proposed project area in May of 2008 for the presence of vernal pools and identified a total of fifty-eight (58) vernal pools scattered throughout the entire project area. Of the fifty-eight (58) vernal pools, two (2) of the pools that were identified were determined to meet the SVP criteria in accordance with Chapter 335(9) (B). The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the vernal pool identifications submitted by the applicant and stated that it concurs with the applicant's findings. Neither of the SVP's will be directly impacted and only one (1) will sustain impacts within the buffer area adjacent to the SVP within 250-500 feet from the vernal pool depression. The loss of forest habitat within this buffer area is 19.2 % of the overall SVP and buffer area. Based on the impact amount, MDIFW states that the project, as proposed, should not have a negative impact on either of the two (2) SVPs or the SVP buffers, and further that no habitat compensation is necessary to offset lost habitat functions and values.

Interested parties raised concerns with regard to the accuracy of the vernal pool surveys conducted by the applicant. They specifically noted that many vernal pools have not been included on the project site plans and that a significant impact is going to occur in these vernal pools. Interested parties further suggested that an independent study of the vernal pool survey methods be required to insure that no vernal pools were overlooked. MDIFW considered the concerns raised by the

interested parties and stated that they worked closely with the applicant to develop and review the vernal pool survey effort and reporting method for this project and are confident that all vernal pools were identified on the project site. Therefore, MDIFW concluded that an independent study of the vernal pool survey effort is not warranted, nor do they anticipate any further surveys will be necessary in the spring of 2009.

The applicant conducted a vernal pool survey on the entire project site in accordance with methods outlined by MDIFW. The surveys identified two (2) SVPs within the project site that are regulated as a significant wildlife habitat pursuant to 38 M.R.S.A. § 480 B 10 and 56 vernal pools, which are not regulated by the State of Maine. The Department finds that the applicant has avoided all impacts to SVP habitat and further that the applicant has minimized impacts within the SVP buffer area between 250-500 feet of the vernal pool depression.

(2) Inland Wading & Waterfowl Habitat (IWWH). The proposed transmission line portion of the Rollins Wind Project will be constructed through approximately 9.39 acres of Inland Wading Bird & Waterfowl Habitat. Approximately 3.82 acres of the impact will occur in portions of the IWWH that are already developed area and 5.56 acres will involve the conversion of forest habitat to early succession scrub-shrub vegetation. The applicant has avoided impacts within the IWWH locating the crossings within existing developed areas and/or by crossing the habitats at their narrowest points.

The proposed project was reviewed and modified in response to comments from MDIFW. MDIFW commented that the construction of the project will not result in a complete loss of habitat function and value; however, the loss of forest habitat area adjacent to the emergent portions of the habitat will significantly degrade the ability of the habitat to provide adequate cover for some species of inland waterfowl. MDIFW further commented that the applicant must be required to mitigate the habitat impacts by implementing habitat management best management practices (BMPs) to further minimize the loss of habitat function and value.

The Department finds that the construction of the 115 kV transmission line through three (3) IWWHs will result in a reduction in habitat functions and values within 5.56 acres of habitat area. As a result, the Department requires that the applicant provide mitigation to offset the reduction in IWWH function and value and/or provide compensation for the habitat impact. Based on the review comments from MDIFW and the Department, the applicant proposes to mitigate for lost or reduced functions and values within the IWWH by implementing project specific BMPs to minimize the impacts associated with the project during construction as well as during the long-term maintenance of the facility. The project specific BMPs are outlined in the habitat mitigation plan entitled "BMP's for the IWWHs Crossed by the Rollins 115 kV Line", prepared by Stantec and dated March 30, 2009 and the invasive species management plan for the entire electrical collection and transmission system entitled "Invasive Species Management Plan", prepared by Stantec and dated March, 2009.

The habitat mitigation plan was reviewed by Department staff and found to significantly reduce the potential loss in habitat function and value both during the construction phase of the project as well as the long-term maintenance of the transmission corridor. The Maine Department of Conservation, Maine Natural Areas Program (MNAP) commented that the invasive species management plan adequately addresses the issue of invasive species management. The approach, scope, and duration all appear to be sufficient and realistic, and the prospect of incorporating invasive species management into the integrated vegetation management plan for the transmission line after 5 years makes the program even more likely to be effective at achieving its goal.

In addition to the project specific BMPs designed to mitigate for some of the diminished IWWH functions and values resultant from the proposed Rollins Wind Project, the applicant has agreed to make a contribution to the Natural Resources Mitigation Fund in the amount of $140,140.00. The applicant must make a contribution to the Natural Resources Mitigation Fund by submitting a payment, in the amount stated above, made payable to the Treasurer, State of Maine, to the In-lieu-fee (ILF) Program Administrator at 17 State House Station, Augusta, Maine 04333, prior to the start of construction.

(3) Deer Wintering Areas (DWA). The applicant identified two (2) mapped indeterminate deer wintering areas located along the proposed transmission line: one (1) DWA is located along Salmon Stream in the town of Winn on the south end of the proposed line and the other is located just south of the transmission line crossing of Route 168, also in the town of Winn. The transmission line will cross approximately 28.3 acres of area mapped as DWA. MDIFW states that both of the mapped DWAs have been recently harvested and currently do not provide adequate conforming cover to qualify as moderate or high value wintering habitat. As a result, the Department will not require the applicant to mitigate or compensate for lost habitat functions and values within the DWAs; however, the applicant is encouraged to follow the same project specific mitigation outlined for IWWHs to the maximum extent practicable in the DWAs.

(4) Migratory Birds and Bats and Raptors. The applicant states that in general, transmission lines and poles can pose a potential threat to birds, as these structures are relatively tall and have long lines of cable that can be difficult to see. Furthermore, the applicant states that wind turbines can also pose a threat to both migratory birds and bats due to their height and the spinning of turbine blades. Therefore, in order to determine the potential risks of the proposed project to the migratory birds and bats in the area, the applicant conducted nocturnal radar surveys, diurnal raptor surveys, and acoustic bat surveys in 2007 and 2008 at the location of the Rollins North cluster. Monitoring data was not collected at Rollins South given its proximity and similarity to Rollins North with regard to bird and bat passage.

The results of the bat radar surveys conducted by the applicant indicate that passage rates at the site of the proposed Rollins Wind Project are comparable to other radar

sites in the vicinity of the proposed project area. The results of the applicant's acoustic bat data also suggests that the number of bats in the project area is similar to other sites in the vicinity of the project area, although the data for tree level bat activity from fall 2007 is high. The flight direction data submitted by the applicant indicate that the majority of migratory birds are flying at a height sufficient to avoid the proposed turbines and blades.

The applicant also conducted surveys on raptors, including bald eagles, in which a total of 8 bald eagle nests were located, all of which have been mapped by MDIFW and are located within approximately 5 miles of the proposed project site. No mapped bald eagle nests were found to be located within the proposed project area. In addition the results of the applicant's diurnal raptor surveys indicates that passage rates of raptors is low compared to other sites in the area and that this low rate is likely due to the lack of large landscape features that would concentrate raptor migration activity.

Based on these surveys, the applicant states that the operation of wind turbines in the proposed project area will not pose a significant threat to birds and bats, as the overall data collected on the proposed project site indicates that this project is not located in an area of significant bird and bat migration and that the construction of the project will not significantly impact populations of these species.

Interested parties raised concerns with regard to the validity surrounding the nocturnal radar surveys, diurnal raptor surveys, and acoustic bat surveys conducted in 2007 and 2008 on Rollins North. They specifically question why no surveys were conducted by the applicant on Rollins South and how they can effectively draw conclusions on the potential impacts of the proposed portion of the project on Rollins South without having conducted studies at this location. MDIFW provided suggested survey advice to the applicant initially based on the understanding that the project would be constructed in two phases. When the applicant decided to combine the Rollins North and Rollins South projects into one single project, the applicant consulted with MDIFW regarding the need for two separate studies given the proximity between the two ridgelines. The expert opinion of the MDIFW wildlife biologists is that passage rates and flight heights are similar for the two sites. Furthermore, the avian, bat and raptor survey effort that was conducted by the applicant was done in accordance with MDIFW's recommendations and is consistent with other studies that have been conducted in Maine and that the results of the survey effort were also consistent with results from studies at other Maine sites.

MDIFW further states that although sample size was low as compared to other sites in the region for raptor occurrence, 82% of raptors observed during the study were observed below 120 meters for at least a portion of their flight through the project area. The eagle nest that is the closest to the project area is located on Upper Pond and has been identified by MDIFW as BE468A. This nest is located approximately one mile from the proposed turbine locations on Rollins South. This nest is situated outside the project area; however, it is located within close proximity to the project

site. MDIFW commented that given the close proximity of this nest to the proposed project, the potential exists for negative impacts to the nest occupants, in particular, for fledging eaglets.

In order to address concerns raised by MDIFW regarding avian, bat and raptor (including eagle) mortality associated with the Rollins Wind Project, the applicant has agreed to conduct post-construction monitoring in consultation with MDIFW and the Department. The applicant submitted a draft post-construction monitoring protocol in which they outline procedures to monitor avian and bat casualties, including raptor fatalities, in order to assess the impacts of the project on these species. MDIFW commented that the draft protocol is based on the rapidly evolving methods associated with post-construction assessment, and will begin in the first year of the project's operation and will continue to evolve in consultation with MDIFW. The applicant must submit a finalized post-construction monitoring protocol to the Department for review and approval prior to placing the Rollins Wind Project on-line.

Post-construction mortality studies will help address overall mortality rates and negative impacts to the target species. The study will be designed to provide information that can be used to offset potential mortality due to project operation by implementing operational strategies. If the post-construction monitoring demonstrates that the project is having an unreasonable adverse impact, as determined by the Department in consultation with MDIFW, the applicant must work with the Department and MDIFW to implement appropriate and practical measures for avoiding, minimizing or mitigating continued impacts. Measures to be considered will take into account the most recent research findings concerning the causes of impacts. Measures that must be considered based on recent research findings include, but are not limited to:

(1) Modified Operations. If a turbine is found to be causing unreasonable adverse impacts, the applicant must consider suspending its operation for periods determined by the Department to be of highest risk, provided there is good reason to expect that a non-operating turbine will pose less risk than an operating turbine. For example, if impacts were occurring at night during certain periods of fall migration, the applicant must consider modifying the operation of the turbine during those high-risk nights; and/or

(2) On-Site Habitat Management. The applicant must consider habitat management measures in the vicinity of the turbines to modify wildlife behavior and reduce the risk of impacts. Any such measures must be determined by the Department in consultation with MDIFW in response to specific concerns or impacts that are related to habitat factors. Examples include, but are not limited to, modifying the type or extent of vegetation cover, forest openings, perching and nesting sites, or cover for prey species; and/or

(3) Habitat Protection. The applicant must consider providing appropriate compensatory mitigation for wildlife impacts such as protection or enhancement

of wildlife habitat with a similar function and value similar to that impacted by the project. The Department in consultation with MDIFW, will determine the appropriateness of any mitigation of compensation.

Actual measures to be taken will depend on the type and severity of impacts, cost benefit considerations, and practicality. Additional measures may be considered depending on future research findings.

(5) Rare, threatened, and endangered species (RTE). The applicant requested information regarding the presence of any rare, threatened or endangered species (RTE) species on or in the vicinity of the project site from the United States Fish and Wildlife Service (USFWS) and the MDIFW. The USFWS submitted a letter to the applicant, dated April 28, 2008, stating that there are no federally threatened or endangered species under their jurisdiction that are known to occur in the project area, and noted a bald eagle nest on Upper Pond. The applicant also received a letter from MDIFW, dated May 1, 2008, stating that there are no Essential Habitats located within the project area, however, they identified the presence of a bald eagle nest (BE468A) as described above. In their comments on the application, MDIFW noted the potential for negative impacts to these eagles and fledglings. The applicant stated that the nest is one (1) mile from the nearest turbine, and that there have been no reported bald eagle fatalities at an operating wind power facility in the United States.

The Department finds that the applicant has avoided and minimized impacts to significant wildlife habitat to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project. Further, the Department finds that the applicant has adequately off-set the loss of significant wildlife habitat functions and values from the proposed project and that the activity will not degrade any significant wildlife habitat, unreasonably disturb the subject wildlife, or unreasonably affect use of the site by the subject wildlife provided that the applicant constructs the project in compliance with all project specific BMPs outlined in the habitat mitigation plan, makes a contribution into the Natural Resources Mitigation Fund in the amount of $140,140.00 and submits a finalized post-construction avian and bat and raptors (including eagles) monitoring protocol to the Department for review and approval prior to placing the Rollins Wind Project on-line.

7. HISTORIC SITES AND UNUSUAL NATURAL AREAS:

Historic Sites. The applicant conducted historic architecture, Euro-American archaeological and historic archaeological investigations at the proposed project site in order to determine if the proposed wind energy development would have impacts on historic resources.

(1) 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, which requires that a survey be conducted within the five mile radius, known as the Area of Potential Effect (APE). Within the APE, the

applicant evaluated five hundred seventy-eight (578) historic resources, of which three (3) properties were identified that are listed on the National Registry of Historic Places. The applicant also indentified a total of ten (10) additional properties within the APE as being resources that are potentially eligible for listing on the National Registry of Historic Places. The historic structures were evaluated in the Historic Architecture Survey and there were no other impacts from the project on the 10 properties in the APE. The MHPC reviewed the project and determined that the proposed project will not have an unreasonable effect on the identified historic resources in terms of impacts to existing uses, as described in Finding 5 above.

Interested parties raised concerns regarding the completeness of the applicant's survey techniques and stated that they are concerned that there are some potential historic places have not been identified that are located in the view-shed of the project site. MHPC reviewed the survey and survey methods and stated that the analysis of the project's potential to historic places has been completed in a manner that is consistent with standard practices and protocols.

(2) Euro-American Archaeology Phase I and Phase II Surveys. The applicant conducted a survey for Euro-American historic resources, which evaluated cartographic information and field investigations to identify likely locations of historic structures. A review of this information resulted in the identification of the remains of two fire towers in the proposed project area. Since one of the fire towers (Fire Lookout Tower #1) would be impacted by the proposed project, the applicant conducted a Phase II investigation of this fire tower. Due to the absence of archaeological and documentary evidence with regard to this site, this fire tower was recognized by MHPC as being ineligible for listing on the National Registry of Historic Places. The location of Fire Lookout Tower #2 (ME 241-002) will not be impacted by the proposed project, therefore, no further surveys were conducted at this site.

The applicant also identified one (1) intact cellar hole (D. Hook Homestead, ME 233-001) as well as two (2) historic cemeteries located off Half Township and Rocky Dundee Roads. Due to the fact that all of these sites are located outside the boundaries of the proposed project site, none of these resources will be impacted by the proposed project.

Interested parties raised concerns regarding the impacts of the proposed project on the D. Hook cellar hole. The D. Hook cellar hole is not located within the area to be impacted by the proposed project; however, it is in close proximity to an existing unnamed gravel road that will be used as part of the proposed project. To ensure no adverse impact on this historic site, if the portion of the existing access road that is located adjacent to the D. Hook Homestead needs to be relocated during the construction of the project, an archaeological survey must first be completed and submitted to the Department for review and approval prior to any construction occurring at this location.

Interested parties also raised a concern regarding a potential Scottish settlement that is believed to have existed in 1750 in Rocky Dundee. Interested parties state that this settlement was not addressed in the application due to the fact that the sensitivity assessment for Euro-American archeological resources that was used was based on cartographic evidence from 19th-20th century maps. The earliest date that those maps show of a Euro- American settlement that began in the area is in the 1820's. Interested parties also voiced concern that the site models used for sensitivity assessment were based on the proximity to transportation systems and that the Scottish settlement predates the time covered by the maps that the applicant used to make the assessments. MHPC commented that the interested parties are correct in stating that the model used for this study was in fact based on 19th and early 20th century sources. MHPC is aware that this model occasionally results in earlier sites being missed, however, MHPC further states that for most areas throughout the state, that this model works well. If there is the probability of earlier sites being located in an area, MHPC uses a different model to identify these sites. MHPC commented that it has no credible evidence that there was an early occupation of this area by a Scottish settlement and the evidence provided by the interested parties does not establish the existence of such a settlement. Therefore, MHPC states that they are satisfied with the historic archaeological survey that was conducted for the proposed project and are confident that no historic archaeological sites exist within the project area.

Interested parties further raised concerns regarding the effectiveness of the "windshield survey", which was the type of survey used to identify archeological resources. MHPC states that the term "windshield survey" is misleading, as it does not adequately convey the actual work involved in this type of survey. MHPC states that this survey technique is used and recognized by the MHPC as well as by other archaeologists throughout the state. All areas where occupation is possible as suggested by vegetation, stone walls, other signs of human activity or simply a flat dry area suitable for a house, receive a thorough walk-through as part of the survey. MHPC states that this survey technique has proven successful over the years and that they are satisfied with the survey methods undertaken by the applicant for this proposed project.

(3) Prehistoric Archaeological Survey. The applicant conducted documentary research and field surveys of the proposed project site, none of which revealed any pre-historic archaeological resources on the project site, supporting the conclusion that the project area is of low archaeological sensitivity.

Unusual Natural Areas. The applicant consulted with the Maine Natural Areas Program (MNAP) during resource assessment for the proposed project site. MNAP provided information to the applicant in two separate letters, dated October 16, 2007 and April 24, 2008, in which MNAP states that there are no known rare or exemplary botanical communities located within the proposed project area. MNAP, however, did indicate that some rare or exemplary botanical communities have been identified within the vicinity of the project area. The applicant conducted wetland delineations on the project site in 2007

and 2008 in which they conducted field evaluations of hydrologic, soil and vegetative conditions. The applicant states that none of the endangered, threatened or special concern species noted by MNAP in the vicinity of the project were observed in the project area during the course of these 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 provided that the applicant conducts an archaeological survey for any impacts associated with any redesign of the unnamed road in the vicinity of the D. Hook Homestead. The survey must be submitted for review and approval prior to the start of construction at this location.

8. BUFFERS:

The applicant proposes to establish natural and naturalized buffers on the project site in order to provide visual screening, stormwater management and phosphorus control as part of the proposed project. Buffers areas will include: access road and turbine pad buffers; transmission line water quality buffers; riparian and waterbody buffers; vernal pool buffers; and salmon stream buffers. The applicant submitted a vegetation management plan entitled "Post-Construction Vegetation Management Plan", prepared by SGC and Stantec and dated July 2008. The vegetation management plan outlines all procedures for the maintenance of the designated buffer areas.

(1) Access road and turbine pad buffers. The applicant will maintain 100-foot wide forested buffers along the access roads and turbine areas, however, these buffer widths may vary slightly depending on existing topography and site constraints. These buffers will be designated as "limited cut buffer areas" and are designed to provide a visual break from the access roads as well as to provide treatment for stormwater and phosphorus from the developed areas. No pole placement or herbicide use will be allowed in these buffer areas. In addition to these approximate 100-foot wide forested buffers, the majority of the turbine pad areas, in addition to all areas where the access roads size will be reduced from 32 feet to a finished width of 16 feet, will be seeded and maintained as meadow buffer. Prior to the start of construction, all limits of clearing shall be temporarily marked or flagged on the ground in order to protect the designated buffer areas during the construction of the project. All buffer areas designated to provide treatment must be permanently marked on the ground pursuant to the Chapter 500 Stormwater Management Rules within 60 days of placing the Rollins Wind Project on-line. In addition, the applicant must record a deed restriction with the Registry of Deeds for the subject parcel(s). The deed restriction must have attached to it a plot plan for the parcel, drawn to scale, that specifies the location of all stormwater buffers on the parcel. Prior to the start of construction, the applicant must submit a copy of the recorded deed restriction including the plot plan(s) to the BLWQ.

(2) Connector and transmission line water quality buffers. The construction of the transmission line will require cutting vegetation in order to ensure safe and reliable

operation of the line; however the transmission lines are designed to provide low growing vegetation while maximizing protection of the resources encountered within the right of way (ROW). The applicant's typical ROW construction and maintenance procedures will require the retention of low ground cover to the maximum extent practicable during construction, immediate restoration and stabilization of areas affected by construction, and ongoing maintenance activities that promote the long-term growth of diverse, healthy, low vegetation. All vegetation that is greater than 2 inches at diameter breast height (dbh) will be cut at ground level and all vegetation that is 8-10 feet tall or taller will be removed or topped. As a result, the low vegetation being maintained in the utility corridor will provide good high-quality cover for small mammals and birds as well as significant browse habitat for larger mammals. The vegetation will additionally prevent soil erosion and sedimentation of water and wetland resources.

(3) Riparian and waterbody buffers. The applicant proposes to establish 25-foot wide buffers adjacent to all streams and waterbodies affected by the construction of the proposed project. In areas where it is feasible, these buffers will be widened to the greatest extent practicable. The applicant proposes to measure the riparian and waterbody buffers from the top of bank on each side of all streams or waterbodies that are proposed to be crossed by the connector or transmission lines, except in the case of salmon streams, for which the measurements will be made as described below.

In order to minimize soil disturbance within riparian and waterbody buffers, the applicant has designed the transmission line to avoid the placement of any structures within the buffer area. Additional procedures and restrictions will apply within the buffers during construction and follow-up vegetation maintenance as outlined in the vegetation management plan in order to further protect streams and waterbodies from sedimentation. All capable species that are 8-10 feet or taller will be cut at ground level, however, no other vegetation will be removed from these 25-foot wide buffer areas except as necessary for temporary equipment crossings.

During initial clearing and vegetation maintenance within the riparian and waterbody buffers, the applicant proposes to remove vegetation either through hand-cutting or by traveling or reaching into the buffer using low ground pressure mechanized harvesting equipment. Following completion of construction in a riparian or waterbody buffer, any temporarily disturbed ground will be restored to the original contours and seeded with permanent vegetation. Follow-up vegetation maintenance practices will encourage the growth of dense, low ground cover and shrub species. No herbicides will be used within 25 feet of any surface water existing at the time of application. In addition, no refueling or maintenance of equipment will be performed within the 25-foot riparian or waterbody buffer areas.

(4) Vernal pool buffers. The applicant proposes to maintain a minimum 75-foot vegetated buffer adjacent to all vernal pools, regardless of their designation as a significant vernal pool as described in Finding 6 above, and potential vernal pools

crossed by the transmission line, as measured from the edge of the habitat on each side. Only capable species that are 8-10 feet tall or taller will be cut within this 75-foot buffer area at ground level. No other vegetation, other than dead or danger trees, will be removed. In addition, no refueling or maintenance of equipment, including chain saws, will be performed within these 75-foot vernal pool buffer zones.

(5) Salmon habitat stream buffers. The Department of Marine Resources (DMR) stated in its review of the application that the rivers and streams that are located in the Penobscot drainage area are considered to be potential salmon habitat, which includes all perennial rivers and streams located within the proposed project site. However, since there are no rivers being crossed as part of the proposed project, these buffers are only applicable to the streams on the project site. In order to protect the salmon habitat streams, the applicant has agreed to maintain a 75-foot riparian buffer width on each side of the streams.

The conductor height along the transmission line is the determining factor of the maximum height that vegetation is allowed to grow within the ROW. Therefore, in order to maintain the tallest vegetation possible to provide maximum shading of these salmon habitat streams, the applicant proposes to locate the pole structures as close to the edge of the buffers as possible, which will also increase the height of the safety security zone. There is one notable exception to this approach, which is the crossing of Salmon Stream in Winn. In this location, the applicant proposes to locate one pole set in a different arrangement, as the pole on the north side of the stream needs to be located further from the bank of the stream in order to take advantage of an upland location and the other pole needs to be located at a further distance so as to avoid the placement of the pole in the immediate floodplain to the stream.

The overall combination of taller structures and maximum allowable vegetation height within 75 feet of each bank at the salmon habitat streams will provide vegetation that ranges from approximately 20 to 30 feet tall, on average, over the course of a routine maintenance cycle. All capable species that have the potential to grow to within 15 feet of a conductor in the subsequent 3-4 years upon the construction of this portion of the transmission line will be removed. No other vegetation will be removed and no herbicide use will be allowed within the 75-foot buffer.

MDIFW states that it agrees with the applicant that this mitigation proposal, and that maintaining vegetation within the range of heights indicated will minimize the potential for warming of water temperatures that might otherwise result from removal of existing vegetation.

The Department finds that the applicant has made adequate provision for providing buffers within the proposed project area provided that: the applicant complies with the post-construction vegetation management plan submitted with the application, all buffer areas designated to provide treatment must be permanently marked on the ground pursuant to the Chapter 500 Stormwater Management Rules within 60 days of placing the

project on-line, and that the applicant record a deed restriction with the Registry of Deeds for the subject parcel(s). The deed restriction must have attached to it a plot plan for the parcel, drawn to scale, that specifies the location of all stormwater buffers on the parcel. Prior to the start of construction, the applicant must submit a copy of the recorded deed restriction including the plot plan(s) to the BLWQ.

9. SOILS:

The applicant submitted a Class C Medium-High Intensity Soil Survey of the elevated ridgeline areas entitled "Supplemental Soil Narrative Report For Road Alignment Rollins Wind Power Project", prepared by Al Frick Associates, Inc. and dated October, 2008, (Appendix 11-1A of the application) and a Class D Medium-Intensity Soil Survey, on the 115 kV transmission line segment and the 34.5 kV connector line segment, entitled "Rollins Wind Project Class D Medium-Intensity Soil Survey 34.5kV Connector and 115 kV Transmission Lines Penobscot County, Maine", prepared by Stantec and dated September 2008. Both of these reports concluded that with proper planning and construction techniques, the soils are appropriate for the proposed construction activities. In addition, the applicant also conducted an analysis of the potential for acid rock drainage as can be seen in the report entitled Geological Reconnaissance Preliminary Acid Rock Drainage Evaluation Proposed Rollins Mountain Wind Power Project", prepared by SW Cole Engineering, Inc. and dated June 13, 2008.

All three of the reports were reviewed by staff from the Division of Environmental Assessment of the Bureau of Land and Water Quality (DEA). DEA found that the potential for acid-producing rock is not expected to be widespread in this area, and problems with this material can be managed appropriately by avoiding by minimizing disturbance of the rocks and mixing any such rocks that must be excavated with other materials with higher neutralizing potential when placed in fill or other areas. However, DEA further commented that if additional borings or other subsurface explorations beyond what is currently proposed are necessary in some areas of the turbine pads or roads during construction, the applicant must submit logs and locations of these explorations along with other relevant information, such as mitigation measures for acid-producing rock, if necessary, and locations of any potentially acid-generating rock encountered. With this precautionary provision with regard to these explorations, the soils information submitted for geology review appears to be adequate at this time.

In response to DEA comments, the applicant proposes to, prior to the start of construction; complete a geotechnical investigation of the road corridor and each turbine pad location. The results of this investigation will be used by the applicant to determine the type of turbine foundation design appropriate for each location. Available geotechnical investigation results will be submitted to the Department prior to the start of construction. Subsequent geotechnical investigation results will be submitted to the Department, as available.

The applicant states that blasting is anticipated for the majority of the turbine foundations, the proposed access roads in areas requiring significant cut, and the

underground power line trenches as well as for some of the aboveground 115 kV transmission line poles. However, blasting is not anticipated for the construction of the Operations and Maintenance (O&M) facility or the substation. Additional blasting may be required in areas located along the transmission line corridors, as ledge and large rock may need to be removed at specific locations during construction of the proposed project. In these limited circumstances, blasting may be required for breaking or moving large boulders that restrict construction equipment from accessing structure locations. However, the relative size of the charge will still be small considering the limited amount of excavation required to allow for vehicle or equipment movement.

Prior to any blasting on the project site, the applicant must submit a pre-blast survey and a blasting plan 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). 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 and a blasting plan incorporating this change must be submitted to the Department prior to construction.

The applicant does not anticipate using a rock crusher on the project site during the construction of the Rollins Wind 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: complete a geotechnical investigation of the road corridor and each turbine pad location prior to the start of construction; the applicant submits a pre-blast survey and a blasting plan 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.

10. STORMWATER MANAGEMENT:

The proposed project includes approximately 28.82 acres of new impervious area and 525 acres of new developed area. It lies within the watersheds of Long Pond, Mattakeunk Pond, Madagascal Pond, Little Eskatassis Pond, Upper Pond, Salmon Stream, Magdagascal Stream, Penobscot River and Mattakeunk Stream, which are pond or lake watersheds listed as sensitive or threatened watersheds. The applicant submitted a stormwater management plan based on the basic, general, phosphorus and flooding standards contained in Department Rules, Chapter 500. The proposed stormwater management system consists of various roadside, turnout and level spreader buffers, both meadow and forested.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan (Section 14 of the application) that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPS, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of the Division of Watershed Management (DWM) of the Bureau of Land and Water Quality (BLWQ).

DWM recommended that due to the level of disturbance associated with the proposed project, the steep slopes, and the project's close proximity to on-site water resources, that the applicant must retain the services of a third party inspector in accordance with the Special Condition for Third Party Inspection Program, which is attached to this Order. The third party inspector must inspect the erosion and sedimentation controls on the site and inspections must consist of weekly visits to the site to inspect erosion and sedimentation controls from initial ground disturbance to final stabilization. If necessary, the third party inspector must interpret the erosion and sedimentation control plans and notes for the contractor. Once the site has reached final stabilization, the third party inspector must notify the Department in writing within 14 days to state that construction has been completed. Accompanying the notification must be a log of the inspections giving the date of each inspection, the time of each inspection, and the items inspected on each visit.

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. 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.

(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.

Prior to the placement of the project on-line, the applicant must submit a copy of an executed long-term maintenance contract (minimum of 5 years and renewable) for the on-going maintenance of the stormwater control structures to the BLWQ.

(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 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 Standard:

The applicant's stormwater management plan includes general treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. The proposed project meets the definition of "a linear portion of a project" in Chapter 500 and the applicant is proposing to control runoff volume from no less than 75% of the impervious area and no less than 50% of the developed area. DWM's analysis confirms that the proposed project will create very little developed area in any of the stream watersheds and that all areas that are re-vegetated are proposed to be mowed only once per year. The O & M facility, which is located within the Madagasdcal Pond Watershed, is discussed below.

The limited cut forested and meadow stormwater buffers located along the access roads will be protected from alteration through the execution of a deed restriction. The applicant submitted a draft deed restriction that meets Department standards. Prior to the start of construction, all limits of clearing shall be temporarily marked or flagged on the ground. All buffer areas that are designated to provide treatment must be permanently marked on the ground pursuant to the Chapter 500 Stormwater Management Rules within 60 days of placing the Rollins Wind Project on-line. The deed for each parcel that contains any portion of the designated buffer must contain deed restrictions incorporating the buffer requirements and the deed must have attached to it a plot plan for the parcel, drawn to scale, that specifies the location of the buffer on the parcel. Prior to the start of construction, the applicant must submit a copy of the recorded deed restriction including the plot plans to the BLWQ.

Due to the location of the proposed project in the watersheds of Little Eskatassis Pond, Long Pond, Madagascal Pond, Mattakeunk Pond, and Upper Pond, stormwater runoff from the project site will be treated to meet the phosphorus standard outlined in Chapter 500 (4) (C) (1) (b). 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 (PPE) for these ponds is as follows: Little Eskatassis Pond is 0.639 pounds per year (lbs/yr); Long Pond is 5.561 lbs/yr; Madagascal Pond is 2.747 lbs/yr; Mattakeunk Pond is 1.216 lbs/yr and Upper Pond is 8.8156 lbs/yr. The applicant proposes to remove phosphorus from the project's stormwater runoff by utilizing roadside, turnout and level spreader buffers as shown on a set of plans, which include sheets 63-93, entitled "Erosion and Stormwater Management Plan" and dated September 19, 2008 with the latest revision on any of the plan sheets of March 12, 2009. The proposed stormwater

treatment will be able to reduce the export of phosphorus in the stormwater runoff below the maximum permitted phosphorus export for the site.

The stormwater management system proposed by the applicant was reviewed by, and revised in response to, comments from DWM. After a final review, DWM finds that the proposed stormwater management system is designed in accordance with the Chapter 500 General Standard provided that: prior the start of construction, the applicant retain the services of a third party inspector in accordance with the Special Condition for Third Party Inspection Program; the applicant conduct a pre-construction meeting to discuss the construction schedule and the erosion and sediment control plan with the appropriate parties; the applicant temporarily marks or flags all limits of clearing prior to the start of construction; the location of the forested and meadow buffers located on each parcel is permanently marked on the ground within 60 days of placing the project on-line, and prior to the start of construction, the deed for each parcel that contains any portion of the designated buffer contains deed restrictions relative to the buffer. Furthermore, the applicant must submit a copy of the recorded deed restriction to the BLWQ.

Based on the stormwater system's design, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 Phosphorus Standards provided that prior the start of construction, the applicant retain the services of a third party inspector in accordance with the Special Condition for Third Party Inspection Program; the applicant conduct a pre-construction meeting to discuss the construction schedule and the erosion and sediment control plan with the appropriate parties; the location of the forested and meadow buffers located on each parcel is permanently marked on the ground prior to the start of construction; and the deed for each parcel that contains any portion of the designated buffer contains deed restrictions relative to the buffer. Furthermore, the applicant must submit a copy of the recorded deed restriction to the BLWQ.

C. Flooding Standard:

The applicant provided an analysis of the watersheds involved on the proposed project site regarding flooding. However, since the overall nature of this linear project will create a relatively small amount of impervious area in any one sub-watershed, the applicant examined the impact on the wider watershed area.

DWM reviewed the analysis and stated that by examining the impact on the watershed's curve number, which is the first step in the typical TR20 or TR55 analysis, that the relative change in flooding in each watershed can be accurately calculated and that this is an acceptable approach. DWM's analysis confirms that the large amount of disconnected impervious area associated with the roads that are proposed to be constructed will keep these flows from exiting the site in concentrated flow, and will lengthen the flow path in a manner that will mitigate for local flooding impacts. Furthermore, DWM finds that the proposed roadside buffers, turnouts and level spreader buffers that will be used to treat all impacts created by the construction

of the proposed access roads will also be adequate in mitigating for flooding. Therefore, this treatment is acceptable and the proposed system is designed in accordance with the Chapter 500 Flooding Standard.

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

11. GROUNDWATER:

The proposed project is located within four USGS quadrangles: Lincoln East, Lee, East Winn and Mattawamkeag. The applicant submitted Maine Geological Survey (MGS) Significant Sand and Gravel Aquifer Maps for Lee, East Winn and Mattawaumkeag. The applicant consulted with MGS regarding the availability of the Lincoln East Quad and MGS states that field mapping was conducted for this quad, however, due to the fact that no significant aquifers were found, no map was published.

(1) Significant sand and gravel aquifers. The applicant located one significant sand and gravel aquifer underlying the project, which is located on the Winn quad, which was submitted as Figure 15-1 of the application. This aquifer is very narrow (400 to 500 feet wide) and is located along Mattakeunk Stream. The transmission line runs along the aquifer for just over one mile (approximately 5,350 feet). There are no known public drinking water supply wells in the area within 100 feet of the proposed transmission line or turbine locations, no U.S. Environmental Protection Agency-designated sole source aquifers located in the project area and no public or private water wells are located in the corridor along the entire length of the proposed transmission line right-of-way (ROW). DEA reviewed the project plan and found that provided that the applicant explicitly follows the construction SPCC plan, requirements for setbacks from wells and other resources, that they adequately mark and comply with no-herbicide-use areas, and comply with all other requirements of the permit, it is unlikely that a discharge having an unreasonable adverse impact on a significant sand and gravel aquifer will occur.

The applicant proposes to drill one (1) bedrock well on the project site in order to serve domestic water needs. The bedrock well will be located adjacent to the proposed O & M facility as indicated on the plan sheet entitled "Enlarged Site Plan, O & M Building & Construction Staging/Muster Area", prepared by Stantec Consulting Services, Inc. and dated September 5, 2008.

(2) Spill Prevention and Control Countermeasure (SPCC) plans. The applicant has identified areas in which herbicide use and storage will be prohibited due to possible proximity to drinking water wells, and states that maps of protected natural resources and their setbacks will be provided to the clearing contractor before clearing begins, and that buffer area and protected resources will also be marked in the field before and after clearing. The potential sources of groundwater contamination during

construction will be fuel as well as hydraulic and lubricating oils used in the operation of vehicles and construction equipment. To ensure that proper spill containment procedures are in place the applicant must submit a construction Spill Prevention and Control and Countermeasure (SPCC) Plan to the Department for review and approval prior to the start of construction. The construction SPCC plan must describe procedures to be used for fueling vehicles working along the transmission line construction right-of-way and elsewhere on the site as well as setbacks from resources for fuel storage and refueling. The operational SPCC must be submitted to the Department for review and approval prior to placing the Rollins Wind Project on-line.

The Department finds that the proposed project will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur; the proposed project will not unreasonably deplete ground water resources; and that the proposed project will not have an unreasonable adverse effect on ground water quality or quantity provided that prior to the start of construction, the applicant submits the final construction SPCC Plan to the Department for review and approval and that prior to placing the Rollins Wind Project on-line the applicant submits an operational SPCC Plan to the Department for review and approval.

12. WATER SUPPLY:

The proposed project will not require water supply for the operation of the wind turbines or the electrical transmission equipment, therefore, the only demand for water at the project site will be at the O & M facility. This facility will have drinking water and bathroom facilities, a shower for the staff and hose bibs for routine maintenance needs. Daily withdrawal will be less than 1,000 gallons. In order to supply water to this facility, the applicant proposes to drill one (1) private bedrock well on-site at the O & M facility as described in Finding 12 above. This well, in combination with water that is either brought in off-site from an existing approved public water utility or that is bottled and comes from an approved source, will be used to supply drinking water for workers during construction. The applicant submitted a letter, dated August 27, 2008, from the Maine Department of Conservation (DOC), which states that they have located all wells in the vicinity of Lincoln/Lee and that based on the available well yield information in the database, there is a high probability that the proposed rock well will yield adequate supply for the potable needs of the O & M facility.

The applicant states that approximately 20,000 gallons per day of non-potable water will be needed during construction for dust abatement on the project site. The required non-potable water will be withdrawn from local lakes and will be delivered by a tanker truck to the construction site at a rate of approximately 4,000 gallons per load. Water for dust abatement will not be withdrawn from any ground water sources, rivers or streams. Given the limited volume of this withdrawal, the applicant states that this activity will not change the naturally occurring water levels of the surrounding lakes.

DEA reviewed the proposed withdrawal methods for providing water to the project site during construction and found that given the volume and duration of this use, lake water levels are not likely to be reduced below levels specified in Department Rules Chapter 587§ 6, regarding withdrawals from waterbodies. However, DEA further states that the tanker trucks must be parked at a stable location when drawing water in order to avoid soil disturbance, that intakes must not disturb bottom sediment and no backwash may be discharged from the tanker truck into waterbodies in order to avoid the transfer of plant or animal material between waterbodies. DEA further states that if all of these criteria are met, it is unlikely that this water usage will result in unreasonable adverse impact on lake water quality.

The Department finds that the applicant has made adequate provision for securing and maintaining a sufficient and healthful water supply provided that when withdrawing water from the lakes the tanker trucks are parked at a stable location when drawing water in order to avoid soil disturbance, that intakes do not disturb bottom sediment, and no backwash is discharged from the tanker truck into waterbodies in order to avoid the transfer of plant or animal material between waterbodies.

13. WASTEWATER DISPOSAL:

The proposed Operations and Maintenance (O&M) facility includes a design for a standard light-commercial septic system to process wastewater from the building. The proposed wastewater disposal system will be located at least 100 feet from the proposed water supply well, as indicated on the plan sheet, entitled "O&M Facility Layout Plan", prepared by Stantec Consulting Services, Inc. and dated September 5, 2008. The applicant submitted the soil survey map and report as discussed in Finding 9 above. The estimated design flow for the O & M facility subsurface wastewater disposal system is 300 gallons per day (gpd).

The applicant submitted a subsurface wastewater disposal system (HHE-200 form), dated July 22, 2008, which was reviewed by staff from the Department of Health and Human Services, Division of Health Engineering (DHHS-HE). The proposed system was found to be in conformance with the requirements of the Mane Subsurface Wastewater Disposal Rules, 10-144A CMR 241. This information was reviewed by, and revised in response to comments from DEA. DEA commented that the proposed wastewater disposal system for the O&M facility is located more than 300 feet from the down gradient property boundary, therefore, it is not likely that this disposal system, if operated and maintained properly, will result in unreasonable adverse impact on offsite groundwater quality.

Based on DEA's and DHHS-HE's comments, the Department finds that the proposed wastewater disposal systems will be built on suitable soil types.

14. SOLID WASTE:

All marketable timber will be removed from the summits, transmission corridors, and road rights of way by a wood harvesting contractor and other clearing-related wood waste

will be shipped off-site for third party use or chipped on-site and used within the project area. Alternately, non-marketable woody stems may be mowed to complete the necessary clearing of the transmission corridor or other project areas. Stumps will remain in place except where removal is necessary for placement of a structure or for proper matting or travel, in which case they will be buried as needed on-site.

Construction of the wind turbines and transmission line will generate an estimated 176 cubic yards of solid waste consisting of construction debris, packaging material, and associated construction wastes. All construction debris generated will be disposed of either at the Pine Tree Secured Landfill Facility or the Juniper Ridge Landfill Facility, both of which are currently in substantial compliance with the Solid Waste Management Regulations of the State of Maine.

The majority of the stumps and grubbings generated will be ground for erosion control mix and used on the project site. The remainder will be chipped or burned on-site and worked into the soil, in compliance with Solid Waste Management Regulations of the State of Maine.

When completed, the proposed O & M building is anticipated to generate 144 tons of solid waste per year. All general solid wastes from the proposed project will be disposed of at the Lincoln Transfer and Recycling Center, which is currently in substantial compliance with the Solid Waste Management Regulations of the State of Maine.

Based on the above information, the Department finds that the applicant has made adequate provision for solid waste disposal.

15. FLOODING:

In order to determine if the proposed 115 kV transmission line would cross a mapped flood zone, the applicant consulted flood zone maps of Penobscot County. These maps indicated that no flood zones would be crossed in the area where the transmission line traverses Winn and Mattawamkeag. The applicant did, however, find one portion of Winn that was not mapped, which includes a crossing of Salmon Stream. At this location, the stream is approximately 30 feet wide with wetland on both sides. In order to cross this stream, the applicant proposes to locate the poles more than 350 feet from the stream bank, placing one set of poles on an upland finger and the other in forested wetland, such that neither of these pole sets will increase the flooding hazard associated with Salmon Stream.

The Department finds that based on topographic location and design, the proposed project is unlikely to cause or increase flooding or cause an unreasonable flood hazard to any structure.

16. WETLAND & WATERBODY IMPACTS:

Freshwater Wetlands. The applicant identified a total of 317 freshwater wetlands areas within the project site. Of this total, 132 wetlands were identified in the Rollins South project area, 26 along the proposed connector transmission line, 49 in the Rollins North project area, and 110 along the transmission line. All of the wetlands located on the project site were identified as either palustrine forested (forested), palustrine scrub-shrub (scrub-shrub), palustrine emergent (emergent), or some combination thereof. A total of forty-five (45) of the 317 wetlands that were identified are classified as Wetlands of Special Significance (WOSS) in accordance with Chapter 310 § 4.

The applicant conducted a wetland functional assessment of the identified wetland areas and determined that the majority of the wetlands are forested areas that exhibit the primary functions of floodwater alteration, sediment/toxicant retention, and nutrient removal. The emergent and scrub-shrub wetlands were found to be of slightly more value, with the primary functions being groundwater recharge/discharge, floodwater alteration, sediment/toxicant retention, and nutrient removal.

In addition to the wetlands located on the project area, a total of forty-four (44) streams were also identified within the project area. The applicant identified a total of twenty-two (22) streams in the Rollins South project area, seven (7) along the connector transmission line, six (6) in the Rollins North area, and nine (9) along the transmission line.

The applicant proposes to permanently alter a total of 6,266 square feet of freshwater wetland during the construction of the access roads and the installation of the utility pole structures located along the transmissions line corridors; to convert approximately 35 acres of forested freshwater wetland to early succession scrub-shrub freshwater wetland along the transmission line corridors and to temporarily alter 5.6 acres of freshwater wetland associated with the construction of temporary access roads located along the transmission line corridor.

Rivers, Streams and Brooks. The applicant has identified two (2) streams; one (1) in the Rollins North project area and one (1) in the Rollins South project area, both of which will require the installation of a culvert. These stream crossings have been permitted by the Department in PBR # 47775. All of the other stream crossings on Rollins North and Rollins South will be located on existing roads, which may require replacement as necessary, pursuant to the maintenance and repair exemption in 38 M.R.S.A. § 480 Q 2-A . The applicant states that impacts to the sixteen (16) streams along the proposed electrical collection and transmission system will be minimal. The applicant proposes to implement the vegetative management plan outlined in Finding 10 to minimize the effect of clearing both during construction and long term maintenance of the project.

The Department's Wetlands and Waterbodies Protection Rules, Chapter 310, interpret and elaborate 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 and dated October, 2008. The applicant states that the proposed project site was selected to best meet the project purpose of developing a commercially viable, low-impact wind energy project in Maine that generates power for delivery to the New England regional electric market. The applicant considered multiple factors when selecting the site both in terms of overall environmental impacts and economic viability of sites throughout the state. These factors include the quality of the wind resource, site geography in terms of efficient layout and construction ease, compatibility with existing land uses, costs and logistics of delivering power, and environmental impacts. In siting the proposed turbine clusters and associated access roads, the applicant designed the project layout to avoid freshwater wetland impact to the extent practicable. Where wetland impacts could not be avoided, the applicant moved or shifted the development to minimize the impacts to wetlands and streams.

The alternative analysis evaluated each of the collection and transmission lines for potential impacts using selection criteria that included landowner impacts, environmental impacts, project cost, and other considerations such as co-location. Specific analysis criteria included impacts on existing land uses, the effect of each alternative on current and anticipated future uses, and the proximity of potential impacts to significant cultural resources, fisheries, wildlife habitat, and wetland resources. The amount of vegetation that would need to be cleared was also considered, as well as the types and classifications of waterbodies crossed and potential aesthetic impacts to area view-sheds.

The applicant conducted a connecter line analysis to identify the most appropriate route for connecting the power from each of the two turbine arrays to a single location where it can be stepped up from 34.5 kV to 115 kV for transmission to the grid. After factoring in the site selection criteria, six conceptual connecter line transmission route alternatives (Alternatives 1-6) were identified. The connecter line alternatives were evaluated based on landowner impacts, environmental impacts, project cost, and other considerations. The applicant used these criteria to facilitate comparisons among the various alternatives and as a macro-evaluation tool to assist in identifying the preferred connection location and route.

Alternatives 1 and 4 were dismissed based on the impacts to the Curtis Farm Road. Adding utility lines to the area would result in visual impacts for many landowners and potentially change the character of the area. Alternative 2 was dismissed due to direct visual impacts to landowners along Half Township Road and Route 6. Alternative 3 was dismissed because it would have the largest amount of wetland impact and provide the least opportunity of all the alternatives to co-locate the

transmission line with roads. The applicant determined that alternative 5 represented the connecter route that impacted the least amount of freshwater wetland, minimized stream impacts, and provided the greatest opportunity for co-location with existing roads with minimal landowner impacts.

The applicant also conducted an alternative analysis to determine the best location for a 115 kV transmission line connection to the New England power grid. In order to determine the least environmentally damaging practical alternative for the proposed transmission line route, the applicant again conducted a comparative analysis of specific criteria, including: landowner impacts, environmental impacts, project cost, and other considerations such as co-location. The applicant investigated 3 alternatives (Alternatives 1-3) as described in the application. Line 56, a 115 kV transmission line located to the north and west of the project, provides the closest connection to the Chester substation and the New England power grid. Line 56 is the generator lead from the Stetson Wind Power Project and has the capacity to accommodate the output from the proposed project. The alternative analysis concluded that the preferred and least damaging practicable alternative connection route is alternative 3. Alternative 1 was determined to be substantially more expensive than the others, have the highest impact on dwellings located within 300 feet of the proposed line, and have the highest visual impact. Alternative 2 was dismissed due to the environmental impacts caused by the Penobscot River crossing.

The principle benefit of Alternative 3 is that it avoids the Penobscot River crossing and takes advantage of existing clearings, such as gravel pits and existing roads, where available. The proposed route for alternative 3 was redesigned several times during the planning phase of the project in order to avoid adverse environmental impacts. The final design of the transmission line avoids direct impacts to large wetland areas and vernal pools located towards the southern portion of the proposed transmission line. Further north, the direct impacts to Mattakeunk Stream were also avoided by moving the line west so that the forested ridgeline in the area forms a visual buffer between the stream and the transmission line.

B. Minimal Alteration. The amount of wetland and streams to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project.

In the summit areas of the proposed project site, the applicant generally proposes to avoid crossing any flat areas where the wetlands are located. However, in areas where wetland impacts could not be avoided, the applicant minimized wetland impacts by using various techniques which included the narrowing of road shoulders where possible as well as modifying cut and fill slopes on the roads and turbine pads. Buffers are proposed to be maximized to allow for larger riparian areas between roads and turbine pads and the wetland areas. Roads will be threaded through some areas to ensure that they cross at the most narrow point and will have minimal effect on the larger wetland area's function.

In order to minimize impacts associated with the summit connector transmission line route, the applicant proposes to place the route to the south in order to connect to turbine 5 rather than continuing along the boundary through a larger wetland area located on the property boundary near turbine 4. Impacts to small wetland areas located along the route will be minimized by placing all pole structures outside of the wetland boundaries. Impacts will be further minimized by avoiding the placement of fill in wetlands except where pole placement within wetlands is unavoidable. The applicant determined that pole placement within wetlands would be unavoidable in areas where the wetland is too large to place poles outside of the wetland boundary or when moving the one pole outside the wetland boundary would cause additional impacts from other poles.

The construction of the transmission lines will result in some wetland and stream impacts; however, the Department finds that the applicant has minimized these impacts to the greatest extent practicable through site selection and the implementation of a vegetation management plan as described in Finding 10 above. The vegetative management plan outlines procedures designed to minimize impacts in and adjacent to freshwater wetlands and streams during initial construction of the project as well as long term maintenance of the facility.

C. Compensation. In accordance with Chapter 310 5(C)(6)(a)(ii), compensation is not required for impacts associated with the proposed project, as 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 stream 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.

17. AIR QUALITY:

Construction activities such as exhaust from construction vehicles and dust from unpaved roads may cause temporary effects on air quality; however, these effects will be minimal due to the proposed project being located in a rural environment and the limited duration of construction activities in any one place at a time. In addition, routine maintenance of the transmission line will create insignificant emissions from the maintenance vehicles and will be similar to emissions currently produced during the maintenance of other existing transmission lines servicing the area.

Dust would be the most likely form of air emissions associated with the construction of the proposed project, as dust from construction equipment is expected along existing logging roads. Dust from this equipment would be similar to that from existing on-going logging operations. In most cases, no treatment is generally applied, except where safety and visibility are 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. This treatment will occur 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 be constructed using crushed stone pads, which will limit dust and mud tracking off the project site. Dust is not expected to be an issue along the transmission right of way because soils are expected to have significant woodland duff, leaves, and organic matter, which should act to cover silty soils.

The Department finds that no significant source of air emissions has been identified.

18. ODORS:

The applicant states that there are no odors associated with operation of a wind generation facility or an electric transmission line; however, there may be some limited, short-term odors that are associated with the exhaust from harvesting or construction equipment or from clearing activities associated with the construction of the project.

Clearing will be performed utilizing standard forestry equipment under controlled conditions. A construction supervisor and environmental inspector will closely supervise any brush burning. The applicant states that if any burning is necessary, it will be done in compliance with local and state open burning permit requirements.

The Department finds that no significant sources of odors have been identified.

19. ALTERATION OF CLIMATE/WATER VAPOR:

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

20. ACCESS TO SUNLIGHT:

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

21. SHADOW FLICKER:

An applicant must demonstrate the proposed wind power project generating facilities have been designed to avoid unreasonable adverse shadow flicker effects. Shadow flicker caused by wind turbines is the alternating changes in light intensity caused by the moving blade casting shadows on the ground and stationary objects, such as a window at a dwelling. 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. The spatial relationships between a wind turbine and receptor, as well as wind direction are key determining factors related to shadow flicker duration. Shadow flicker can be a nuisance to people living near a wind energy development. Shadow flicker frequency due to wind turbines is generally on the order of the rotor frequency, typically 0.6-1.0 Hz., which is below the 10 Hz threshold generally held in the literature to be the exposure that can cause harm to humans.

The applicant submitted a shadow flicker analysis, included as Appendix 26-1 of the application, which utilized the Windpro software program to model the expected shadow flicker effects on adjacent properties. In the model, the applicant placed eighty (80) shadow flicker receptors in the area around the proposed Rollins Wind Project and collected data for all forty-one (41) of the proposed turbine locations. The applicant used a "worst case scenario" model approach for reporting the shadow flicker results. This approach assumed that the sun was always shining from sunrise to sunset, that the rotor plane was always perpendicular to the line from the turbine to the sun, and that the turbine was always operating. Specific local conditions which could reduce the shadow flicker, such as vegetation, cloud and fog patterns were not taken into account. In addition, the analysis assumed that the windows of residences were situated in direct alignment with the turbine-to-sun line of sight.

Maine has no set regulatory limits on exposure to shadow flicker, however, the industry commonly uses 30 hours per year as a limit to reduce nuisance complaints. The shadow flicker analysis submitted by the applicant identified five (5) receptor locations that will be subject to shadow flicker impact to some extent. These locations were identified as BM, BN, BY, CA and CB as indicated on a set of plans the first of which is entitled "Shadow Flicker Study – Northern Project Area", prepared by Stantec and dated September 26, 2008. The results indicate that receptor BM will experience 17 hours of shadow flicker per year, BN, 146 hours per year, BY, 62 hours per year, CA, 53 hours per year and CB, 40 hours per year.

The applicant submitted documentation in Appendix 2-2 of the application that receptor locations BN, CA and BY are residential locations that are subject to executed lease agreements with the property owner. These locations are therefore considered part of the project site and are not subject to shadow flicker restriction. The applicant further submitted documentation in Appendix 5-2 of the application that receptor locations BM, which was predicted by the study to incur 17 hours per year and CB, which was predicted by the study to incur 40 hours per year, are residential locations that are subject to executed perpetual easements that grant the applicant the right to cast shadows onto or produce a shadow flicker effect at the subject lands.

The Department finds that the shadow flicker modeling conducted by the applicant was conservative and that the actual probability of shadow flicker effects will occur at any given receptor location is dependent on the actual number of hours during a given year when the rotor disks of the wind turbines face directly towards the windows of the receptor location residence, there is enough sunlight to cast shadows, and the blades of the wind turbines are turning. The applicant did not submit an analysis of wind direction for the site, the effects of cloud cover or the available average sunshine hours for the region at different times of the year due to the fact that it had secure easements for all of the anticipated shadow flicker receptor locations outside the project location; however it is reasonable to conclude that the actual number of shadow flicker hours at each of the receptor locations will be less than the numbers reported in the study by some percentage due to these factors.

The three properties which will incur the greatest impact are within the project site and will be within the control of the applicant. Of the remaining two impacted locations, one location, BM, will sustain less than 17 hours per year, and the second, CB, would sustain 40 hours per year if no reductions occurred due to cloud cover, fog, wind direction, or vegetation. Moreover, the applicant has obtained easements for the owners of these two properties. Based on this evidence, the Department finds that the applicant has made adequate provision for the control of unreasonable shadow flicker from the proposed project.

22. PUBLIC SAFETY:

The proposed project will use General Electric (GE) 1.5 MW sharp leading edge (sle) wind turbine generators. The turbines are National Electric Code compliant and are designed to withstand Class IIa wind gusts of 55 meters per second, as established by the International Electrotechnical Commission. The applicant submitted evidence that the GE's 1.5 (sle) wind turbine meets acceptable safety standards in the form of a Design Safety Certification from Germanishcer Lloyd (GL) dated December 19, 2008.

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 Germanischer Lloyd and Deutsches Windenergie-Institute. Based on these sources, the Department recommends that all wind turbines be setback from the property line, occupied structures or public areas, a minimum of 1.5 times the maximum blade height of the wind turbine. The maximum height of the General Electric (GE) 1.5 MW (sle) is 389 feet from the base of the tower. Based on the Department minimum setback specifications, the setback distance to the nearest property line is 584 feet.

Forty (40) of the forty-one (41) proposed turbine locations are located more than 584 feet from the property boundary of the Rollins Wind Project. The one turbine that is located closer than 584 feet, turbine S-20, is located approximately 150 to 200 feet from the nearest property boundary. The applicant submitted a letter from the affected property owner, dated September 24, 2008, in which the owner states that he does not object to the siting of this wind turbine within 150 to 200 feet of the property boundary.

The Department finds that the applicant has provided documentation in the form of a certificate of design by the manufacturer that the wind generation equipment has been designed to conform to applicable industry standards and that the proposed development has been sited such that it will not present an unreasonable safety hazard to adjacent properties or adjacent property uses.

23. DECOMMISSIONING PLAN:

The General Electric (GE) 1.5 MW (sle) 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 and if they reach the end of their useful life, the Department requires the 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 contained in section 29 of the application. The decommissioning plan includes a description of the trigger for when decommissioning will be required, a decommissioning plan, an estimate of the cost of decommissioning, and a demonstration of financial assurance.

(1) Description of trigger for 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 a hiatus in operation, however, 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) Decommissioning plan. The detailed decommissioning plan contained within section 29 of the application outlines the decommissioning and restoration process necessary to remove all above-ground structures, remove all turbine and substation foundations to a depth of 24 inches, grading, to the extent necessary, and the final stabilization of all disturbed areas. At the time of decommissioning, the owner must submit evidence of a plan for continued beneficial use of any wind farm component left on-site to the Department for review and approval.

(3) Cost estimates for decommissioning. The applicant states that the cost of decommissioning the project is offset by the salvage value of the wind turbines and associated structures that are not placed into productive alternative use. As of the date hereof, the estimated cost of decommissioning, minus salvage value, is $800,000.

(4) Financial assurance. The owner will, on or prior to December 31 of each calendar year beginning with the calendar year in which the project commences commercial operations through and including calendar year 7, reserve an amount equal to $47,000 for decommissioning and site restoration. On or prior to the end of calendar 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 (minus salvage value) less the amounts reserved during the first 7 years of commercial operation plus interest, will be reserved for decommissioning and site restoration. This reserve amount may be in the form of a performance bond, surety bond, letter of credit, parental guaranty or other form of financial assurance, of which must be reviewed and approved by the Department prior to placing the Rollins Wind Project on-line. The financial assurance instrument

must be designed to allow the Department access to the decommissioning funds to facilitate the decommissioning process in the event of failure on the part of the owner to execute the decommissioning plan. The first year's installment of the financial assurance must be in place before the start of construction of the development. The financial assurance will be kept in place until such time as the decommissioning work has been completed, provided, however, to the extent available as liquid funds, the financial assurance may be used to offset the costs of decommissioning.

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 final financial assurance instrument is submitted to the Department for review and approval and the first year's installment of the financial assurance is in place prior to the start of construction.

24. TANGIBLE BENEFITS:

The applicant states that the Rollins Wind Project will provide significant tangible benefits on a local level for the towns of Lincoln, Lee, Winn, Burlington, and Mattawamkeag, as well as on a state-wide level. The applicant contends that the host communities will benefit through lease payments for land, employment opportunities, the local purchase of materials and supplies, and taxes paid on the project. On a state-wide level, the applicant states that the Rollins Wind Project will increase energy diversity, thereby helping to reduce electricity price volatility, and the project will help the state to meet its commitments under the Regional Greenhouse Gas Initiative (RGGI), which establishes limits for emissions associated with the generation of electricity.

(1) Landowner benefits. The applicant states that the project will provides a direct economic benefit to approximately 30 landowners directly participating in the project through land lease and easement agreements with the applicant. These land leases and easements will allow the landowners to gain an economic benefit from their land by providing steady annual revenue during the life of the project. The revenue will be paid directly to local landowners with no investment requirement.

(2) Employment. The applicant states that a significant portion of the estimated $130 million dollar project cost is expected to be spent on development, engineering and construction-related activities, much of which may stay within the State of Maine. The local host communities and immediately surrounding areas will benefit through construction-related employment opportunities, and the ancillary economic benefits of that construction activity. There will be the opportunity for employment in the areas of timber harvesting and construction as well as ancillary jobs that support construction, including: lodging, restaurant, fuel, and concrete supply. Following the construction phase, the applicant anticipates hiring permanent employees to operate and maintain the facility. The project will hire locally whenever possible, providing construction, operations, and maintenance employment opportunities to community residents.

(3) Property taxes. The applicant states that tax payments from the proposed project are expected to represent a substantial addition to the tax base in Penobscot County and will likely make the project one of the largest taxpayers in the region. The project infrastructure will bring similar direct tax benefits to the towns of Lincoln, Lee, Burlington, Winn, and Mattawamkeag, as annual tax revenue from the proposed project could be used to reduce the local property tax burden, improve schools, maintain roads, increase economic development activities, or enhance public services.

(4) Local contributions. In addition to local property taxes, the applicant has offered to contribute directly into a Community Benefits Fund (CBF) within the host communities of Lincoln, Lee, Winn, and Burlington. Each community, at their sole discretion, can decide to accept the contribution or negotiate their own community benefit through tax increment financing (TIF) or other mechanisms as determined by the community. If all communities participate in the CBF, the applicant will make a total annual contribution of $300,000 to the host communities for 20 years. The contribution will be divided among the host communities, at the applicant's sole discretion, based on the level of project investment in each community. If one or more host communities opt out of the CBF, the applicant will reduce the total annual contribution by an amount commensurate with the level of project investment in those host communities. The funds received by each community may be used at their discretion to create new programs, fund existing programs or provide additional tax relief.

(5) Additional contributions. In addition to the community benefits, the applicant has made, or will make, voluntary contributions to the following organizations: the Mattawamkeag Wilderness Park, WonderJam (local music and alternative energy festival), Burlington 4H Club, four (4) local snowmobile clubs and one (1) ATV club.

(6) Energy price volatility. The applicant states that new power generation facilities, particularly renewable power facilities like wind projects, will lead to lower and less volatile electricity prices. The State of Maine has adopted a Renewable Portfolio Standard (RPS) to diversify the electricity supply portfolio, stabilize rates, increase energy security, improve environmental quality, invigorate the clean energy industry, and promote economic development. The adoption of the RPS has resulted in an increased regional demand for renewable energy that exceeds the currently available and qualifying supply of renewable energy. The proposed 60 megawatt Rollins Wind Project will help meet this growing demand and take an important step toward achieving the policy objectives of the Maine RPS law.

The Department finds that the applicant has demonstrated that the proposed project will provide significant tangible benefits to the host community and surrounding area.

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: constructs the project in compliance with all project specific BMPs outlined in the habitat mitigation plan, makes a contribution into the Natural Resources Mitigation Fund in the amount of $140,140.00 prior to the start of construction, and submits a finalized post-construction avian, bat and raptor (including eagles) monitoring protocol to the Department for review and approval prior to placing the Rollins Wind Project on-line, as described in Finding 6; and implements the vegetative management plan contained in the application and described in Finding 16.

E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.

F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.

G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.

H. The proposed activity is not on or adjacent to a sand dune.

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

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 481 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 construction, the applicant submits evidence that they have been granted a line of credit or a loan by a financial institution authorized to do business in this State or evidence of any other form of financial assurance determined by Department Rules, Chapter 373(1), as described in Finding 2.

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 operation protocol that demonstrates that the project will be in compliance at all the protected locations surrounding the development as described in Finding 4; conducts an archeological survey prior to any road alignment revisions adjacent to the D. Hook Homestead (ME 233-001), as described in Finding 7; complies with the post-construction vegetation management plan contained in the application and Finding 8 and 16; parks the water tanker trucks at a stable location when drawing water, and ensures that intakes do not disturb bottom sediment and no that backwash is discharged from the tanker truck into waterbodies in order to avoid the transfer of plant or animal material between waterbodies, as described in Finding 12; and submits documentation to the Department for review and approval that the final decommissioning financial assurance instrument has been established and the first year's installment of the financial assurance is place prior to the start of construction, as described in Finding 23.

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 to the Department, as available, geotechnical investigations of the road corridor and each turbine pad location; submits a pre-blast survey and a blasting plan 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, insures that the crusher is licensed by the Department's Bureau of Air Quality and is being operated in accordance with that license, as describer in Finding 9.

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: prior the start of construction, the applicant retains the services of a third party inspector in accordance with the Special Condition for Third Party Inspection Program; the applicant conducts a pre-construction meeting to discuss the construction schedule and the erosion and sediment control plan with the appropriate parties; the applicant temporarily marks or flags all limits of clearing prior to the start of construction; the applicant permanently marks on the ground, within 60 days of placing the Rollins Wind Project on-line, all designated stormwater buffer areas; and prior to the start of construction the deed for each parcel that contains any portion of a designated stormwater buffer contains deed restrictions relative to the buffer, as described in Finding 10.

E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur provided that: prior to the start of construction, the applicant submits a final construction SPCC Plan to the Department for review and approval and prior to placing the Rollins Wind Project on-line, the applicant submits an operational SPCC Plan, to the Department for review and approval, as described in Finding 11.

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.

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 provide significant tangible benefits to the host community and surrounding area.

THEREFORE, the Department APPROVES the application of EVERGREEN WIND POWER III, LLC to construct a 60-megawatt wind project known as the Rollins Wind Project, in Lincoln, Lee, Burlington, Winn, and Mattawaumkeag, 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. The applicant shall compensate for impacts to Inland Wading Bird and Waterfowl Habitat by making a contribution to the Natural Resources Mitigation Fund in the amount of $140,140.00. Payment must be made payable to the Treasurer, State of Maine and be received by the In-lieu-fee (ILF) Program Administrator at 17 State House Station, Augusta, Maine 04333, prior to the start of construction.

5. The applicant shall, prior to the start of construction, submit evidence 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 any other form of financial assurance determined by Department Rules, Chapter 373(1).

6. 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.

7. The applicant shall implement the sound level compliance assessment plan outlined in Finding 4 and submit the results to the Department for review and approval, within one calendar year of placing the Rollins Wind Project on-line.

8. The applicant shall reimburse the Department for all reasonable and documented costs incurred in obtaining outside review of compliance data associated with the implementation of the Rollins Wind Project sound compliance assessment plan.

9. If sound compliance measurements completed in accordance with Special Condition #7 above determine the Rollins 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 operational protocol that demonstrates that the project will be in compliance at all protected locations.

10. The applicant shall implement the project specific BMPs outlined in the habitat mitigation plan in order to mitigate for lost or reduced Inland Wading and Waterfowl Habitat functions and values.

11. Prior to placing the Rollins Wind Project on-line, the applicant shall submit a finalized avian, bat and raptor (including eagles) monitoring protocol developed in consultation with MDIFW, to the Department for review and approval.

12. If the avian, bat and raptor monitoring program implemented in accordance with the approved monitoring protocol referenced in Special Condition #11 above demonstrates that the Rollins Wind Project is having an unreasonable impact on birds, bats, or raptors (including eagles), as determined by the Department, the applicant shall implement appropriate and practical measures for avoiding and/or minimizing continued impacts. Measures to be considered include but are not limited to those outlined in Finding 6.

13. The applicant shall conduct an archeological survey along the existing access road in the location adjacent to the D. Hook Homestead, should any road realignment or expansion be necessary in this area. The survey shall be submitted to the Department for review and approval prior to the start of construction at this location.

14. Prior to the start of construction, the applicant shall temporarily mark or flag the limits of all clearing on the ground.

15. Within 60 days of placing the Rollins Wind project on-line, 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.

16. Prior to placing the Rollins Wind Project on-line, the applicant shall record a deed restriction for all stormwater treatment buffers with the Registry of Deeds for the subject parcel. The deed restriction must 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 BLWQ.

17. The applicant shall implement all vegetative management practices outlined within the post-construction vegetation management plan contained within the application unless

otherwise superseded by the project specific BMPs referenced in Special Condition # 10 and described in Findings 8 and 16.

18. Prior to the start of construction, the applicant shall submit available geotechnical investigations to the Department. If additional borings or other subsurface explorations are necessary in some areas of the turbine pads or roads during construction, the applicant shall submit logs and locations of these explorations along with other relevant information, such as mitigation measures for acid-producing rock, if necessary, and locations of any potentially acid-generating rock encountered to the Department.

19. Prior to the start of construction, the applicant shall submit a pre-blast survey and a blasting plan to the Department for review and approval. All blasting must be conducted in compliance with the provisions set forth by the State of Maine Statute Title 38, Chapter 3, Subchapter 1, Article 8-A, Section 490-Z (14). The applicant shall 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.

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

21. Prior to placing the Rollins Wind Project on-line, the applicant shall submit to the Bureau of Land and Water Quality, a copy of an executed long-term maintenance contract (minimum of 5 years and renewable) for the on-going maintenance of the stormwater structures.

22. Prior to the start of construction, the applicant shall submit a final construction Spill Prevention and Control and Countermeasure (SPCC) Plan to the Department for review and approval. The construction SPCC plan shall describe procedures to be used for fueling vehicles working along the transmission line construction right-of-way and elsewhere on the site as well as setbacks from resources for fuel storage and refueling.

23. Prior to placing the Rollins Wind project on-line, the applicant shall submit an operational SPCC Plan to the Department for review and approval.

24. The applicant shall insure that the tanker trucks are parked at a stable location when drawing water in order to avoid soil disturbance, that intakes do not disturb bottom sediment, and that no backwash is discharged from the tanker truck into waterbodies in order to avoid the transfer of plant or animal material between waterbodies.

25. Prior to the start of construction, 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 facilitate the decommissioning process. Evidence provided to the Department shall include verification that the first year's installment of the financial assurance is in place.

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 2009.04.21 12:20:27 -04'00'

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

bm/# l-24402-24-a-n/l-22402-th-b-n/l-22402-iw-c-n /ats#69007/69008/69107

Department of Environmental Protection

SITE LOCATION OF DEVELOPMENT (SITE) STANDARD CONDITIONS

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

1. **This approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from the plans, proposals and supporting documents is subject to the review and approval of the Board prior to implementation. Further subdivision of proposed lots by the applicant or future owners is specifically prohibited, without prior approval by the Board of Environmental Protection, and the applicant shall include deed restrictions to this effect.**

2. **The applicant shall secure and comply with all applicable Federal, State and local licenses, permits, authorizations, conditions, agreements, and orders, prior to or during construction and operation as appropriate.**

3. **The applicant shall submit all reports and information requested by the Board or Department demonstrating that the applicant has complied or will comply with all conditions of this approval. All preconstruction terms and conditions must be met before construction begins.**

4. **Advertising relating to matters included in this application shall refer to this approval only if it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.**

5. **Unless otherwise provided in this approval, the applicant shall not sell, lease, assign or otherwise transfer the development or any portion thereof without prior written approval of the Board where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval shall be granted only if the applicant or transferee demonstrates to the Board that the transferee has the technical capacity and financial ability to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant.**

6. **If the construction or operation of the activity is not begun within two years, this approval shall lapse and the applicant shall reapply to the Board for a new approval. The applicant may not begin construction or operation of the development until a new approval is granted. Reapplications for approval shall state the reasons why the development was not begun within two years from the granting of the initial approval and the reasons why the applicant will be able to begin the activity within two years from the granting of a new approval, if granted. Reapplications for approval may include information submitted in the initial application by reference.**

7. **If the approved development is not completed within five years from the date of the granting of approval, the Board may reexamine its approval and impose additional terms or conditions or prescribe other necessary corrective action to respond to significant changes in circumstances which may have occurred during the five-year period.**

8. **A copy of this approval must be included in or attached to all contract bid specifications for the development.**

9. **Work done by a contractor pursuant to this approval shall not begin before the contractor has been shown by the developer a copy of this approval.**

(2/81)/Revised November 1, 1979

DEPLW 0429

NATURAL RESOURCE PROTECTION ACT (NRPA) STANDARD CONDITIONS

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

A. **Approval of Variations From Plans.** The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.

B. **Compliance With All Applicable Laws.** The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.

C. **Erosion Control.** The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.

D. **Compliance With Conditions.** Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.

E. **Initiation of Activity Within Two Years.** If construction or operation of the activity is not begun within two years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits shall state the reasons why the applicant will be able to begin the activity within two years form the granting of a new permit, if so granted. Reapplications for permits may include information submitted in the initial application by reference.

F. **Reexamination After Five Years.** If the approved activity is not completed within five years from the date of the granting of a permit, the Board may reexamine its permit approval and impose additional terms or conditions to respond to significant changes in circumstances which may have occurred during the five-year period.

G. **No Construction Equipment Below High Water.** No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.

H. **Permit Included In Contract Bids.** A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.

I. **Permit Shown To Contractor.** Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

Revised (4/92)
DEP LW0428

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

Erosion Control for Homeowners

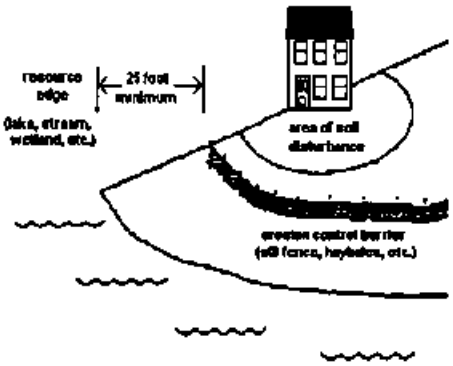
Before Construction

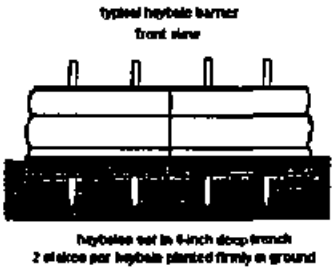
1. If you have hired a contractor, make sure you discuss your permit-by-rule with them. Talk about what measures they plan to take to control erosion. Everybody involved should understand what the resource is, and where it is located. Most people can identify the edge of a lake or river. However, the edges of wetlands are often not so obvious. Your contractor may be the person actually pushing dirt around, but you are both responsible for complying with the permit-by-rule.

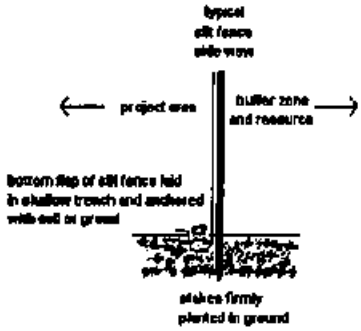
2. Call around to find where erosion control materials are available. Chances are your contractor has these materials already on hand. You probably will need silt fence, hay bales, wooden stakes, grass seed (or conservation mix), and perhaps filter fabric. Places to check for these items include farm & feed supply stores, garden & lawn suppliers, and landscaping companies. It is not always easy to find hay or straw during late winter and early spring. It also may be more expensive during those times of year. Plan ahead -- buy a supply early and keep it under a tarp.

3. Before any soil is disturbed, make sure an erosion control barrier has been installed. The barrier can be either a silt fence, a row of staked hay bales, or both. Use the drawings below as a guide for correct installation and placement. The barrier should be placed as close as possible to the soil-disturbance activity.

4. If a contractor is installing the erosion control barrier, double check it as a precaution. Erosion control barriers should be installed "on the contour", meaning at the same level or elevation across the land slope, whenever possible. This keeps stormwater from flowing to the lowest point along the barrier where it can build up and overflow or destroy the barrier.







During Construction

1. Use lots of hay or straw mulch on disturbed soil. The idea behind mulch is to prevent rain from striking the soil directly. It is the force of raindrops hitting the bare ground that makes the soil begin to move down slope with the runoff water, and cause erosion. More than 90% of erosion is prevented by keeping the soil covered.

2. Inspect your erosion control barriers frequently. This is especially important after a rainfall. If there is muddy water leaving the project site, then your erosion controls are not working as intended. You or your contractor then need to figure out what can be done to prevent more soil from getting past the barrier.

3. Keep your erosion control barrier up and maintained until you get a good and healthy growth of grass and the area is permanently stabilized.

Rev. 8/02

STORMWATER MANAGEMENT LAW STANDARD CONDITIONS

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

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

(1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S.A. § 420-D(8) and is subject to penalties under 38 M.R.S.A. § 349.

(2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.

(3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.

(4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.

(5) Initiation of project within two years. If the construction or operation of the activity is not begun within two years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference.

(6) Reexamination after five years. If the project is not completed within five years from the date of the granting of approval, the department may reexamine its approval and impose additional terms or conditions or prescribe other necessary corrective action to respond to significant changes in circumstances or requirements which may have occurred during the five-year period.

(7) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the developer, and the owner and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions

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

(8) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the department.

(9) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.

(a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
(b) All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the facilities.
(c) The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the department, and the maintenance log is being maintained

November 16, 2005

Special Condition
for
Third Party Inspection Program

THIRD-PARTY INSPECTION PROGRAM

1.0 THE PURPOSE OF THE THIRD-PARTY INSPECTION

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

1) to ensure that all construction and stabilization activities comply with the permit conditions and the MDEP-approved drawings and specifications,

2) to ensure that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations, and

3) to ensure communication between the contractor and MDEP regarding any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan.

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

2.0 SELECTING THE INSPECTOR

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

3.0 THE INSPECTOR'S QUALIFICATIONS

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

1) a degree in an environmental science or civil engineering, or other demonstrated expertise,

2) a practical knowledge of erosion control practices and stormwater hydrology,

3) experience in management or supervision on large construction projects,

4) the ability to understand and articulate permit conditions to contractors concerning erosion control or stormwater management,

5) the ability to clearly document activities being inspected,

6) appropriate facilities and, if necessary, support staff to carry out the duties and responsibilities set forth in section 6.0 in a timely manner, and

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

party inspector.

4.0 INITIATING THE INSPECTOR'S SERVICES

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

5.0 TERMINATING THE INSPECTOR'S SERVICES

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

6.0 THE INSPECTOR'S DUTIES AND RESPONSIBILITIES

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

1) Prior to construction, the inspector will become thoroughly familiar with the terms and conditions of the state-issued site permit, natural resources protection permit, or both.

2) Prior to construction, the inspector will become thoroughly familiar with the proposed construction schedule, including the timing for installing and removing erosion controls, the timing for constructing and stabilizing any basins or ponds, and the deadlines for completing stabilization of disturbed soils.

3) Prior to construction, the inspector will become thoroughly familiar with the project plans and specifications, including those for building detention basins, those for installing the erosion control measures to be used on the site, and those for temporarily or permanently stabilizing disturbed soils in a timely manner.

4) During construction, the inspector will monitor the contractor's installation and maintenance of the erosion control measures called for in the state permit(s) and any additional measures the inspector believes are necessary to prevent sediment discharge to off-site properties or natural resources. This direction will be based on the approved erosion control plan, field conditions at the time of construction, and the natural resources potentially impacted by construction activities.

5) During construction, the inspector will monitor the contractor's construction of the stormwater system, including the construction and stabilization of ditches, culverts, detention basins, water quality treatment measures, and storm sewers.

6) During construction, the inspector will monitor the contractor's installation of any stream or wetland crossings.

7) During construction, the inspector will monitor the contractor's final stabilization of the project site.

8) During construction, the inspector will keep logs recording any rain storms at the site, the contractor's activities on the site, discussions with the contractor(s), and possible violations of the permit conditions.

9) During construction, the inspector will inspect the project site at least once a week and before and after any significant rain event. The inspector will photograph all protected natural resources both before and after construction and will photograph all areas under construction. All photographs will be identified with, at a minimum the date the photo was taken, the location and the name of the individual taking the photograph. *Note: the frequency of these inspections as contained in this condition may be varied to best address particular project needs.*

10) During construction, the inspector will prepare and submit weekly *(or other frequency)* inspection reports to

the MDEP.

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

7.0 INSPECTION REPORTS

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

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

1) The report will state the name of the development, its permit number(s), and the start and end dates for the inspection week (Monday through Sunday).

2) The report will state the date(s) and time(s) when the inspector was on the site making inspections.

3) The report will state the date(s) and approximate duration(s) of any rainfall events on the site for the week.

4) The report will identify and describe any erosion problems that resulted in sediment leaving the property or sediment being discharged into a wetland, brook, stream, river, lake, or public storm sewer system. The report will describe the contractor's actions to repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.

5) The report will list the buildings, roads, parking lots, detention basins, stream crossings or other features open to construction for the week, including those features or areas actively worked and those left unworked (dormant).

6) For each area open to construction, the report will list the date of initial soil disturbance for the area.

7) For each area open to construction, the report will note which areas were actively worked that week and which were left dormant for the week. For those areas actively worked, the report will briefly state the work performed in the area that week and the progress toward final stabilization of the area -- e.g. "grubbing in progress", " grubbing complete", "rough grading in progress", "rough grading complete", "finish grading in progress", "finish grading complete", "permanent seeding completed", "area fully stable and temporary erosion controls removed", etc.

8) For each area open to construction, the report will list the erosion and sedimentation control measures installed, maintained, or removed during the week.

9) For each erosion control measure in-place, the report will note the condition of the measure and any maintenance performed to bring it to standard.

Third Party Inspection Form

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

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

SITE CHARACTERISTICS:

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

PROGRESS OF WORK:

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

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

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

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