STATE OF MAINE
DEPARTMENT OF CONSERVATION
22 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0022

JOHN ELIAS BALDACCI
GOVERNOR

ELIZA TOWNSEND
COMMISSIONER

COMMISSION DECISION
IN THE MATTER OF

TransCanada Maine Wind Development, Inc.
Denial of Development Permit DP 4860

Findings of Fact and Decision

The Maine Land Use Regulation Commission, at a meeting of the Commission held on August 4, 2010**,** at Bangor, Maine, after reviewing the application and supporting documents submitted by TransCanada Maine Wind Development, Inc. for Development Permit DP 4860, public and Intervenor comments, agency review comments and other related materials on file, pursuant to 12 M.R.S.A. § 681, *et seq*. and the Commission's Standards and Rules, finds the following facts:

1. Applicant: TransCanada Maine Wind Development, Inc.
   3647 The Arnold Trail
   Chain of Ponds Twp., ME 04936

   Agent: Juliet Browne, Esq., Verrill Dana
   One Portland Square
   Portland, ME 04112

2. Project location: Kibby Twp. and Chain of Ponds Twp., Franklin County
   Kibby Twp. – FR13, Plan 1, Lot 1.1 and 2
   Chain of Ponds Twp. – FR014, Plan 01, Lot 1

3. Zoning: P-MA Subdistrict, P-SL2 Subdistrict, P-WL1, 2 and 3 Subdistricts, and M-GN Subdistrict.

**Background and Public Hearing Administrative History**

4. *Development Permit for the Kibby Wind Project (KWP).* Final Development Plan Permit DP 4794 (as amended) was granted by the Commission to TransCanada Maine Wind

Development, Inc. (hereinafter "the applicant") on July 9, 2008 for the 132 megawatt (MW) KWP in Kibby and Skinner Twps., Franklin County.

A. The KWP includes forty-four 410 ft tall wind turbines, approximately 18 miles of new gravel access roads and 19 miles of improved existing roads, 34.5 kV collector lines interconnecting the turbines and the Kibby Substation, 27.7 miles of above-ground 115 kV transmission (generator lead) line, and associated facilities and activities.

B. The wind energy facility is being constructed in two phases, Series A and Series B, with each phase containing 22 turbines. Construction of Series A was completed, and went on-line in January of 2009. Series B is under construction, and is expected to be completed in the fall of 2010. The Series B turbines are currently partially installed, but the photo-simulations prepared for the review of the KWP addressed the visual effect of all 44 turbines, with particular attention on five identified high value viewpoints (reference Zoning Petition ZP 709).

C. With the exception of three, the turbines are located in the D-PD Subdistrict, but the 115 kV transmission line connecting the KWP to the New England grid at the Bigelow Substation in Carrabassett Valley is largely located outside the D-PD Subdistrict. With the passage of the Wind Energy Act (PL 2007, Ch. 661) on April 18, 2008, all of the KWP turbines are now located in the wind energy development expedited permitting area.

D. Final Development Plan Permit DP 4794 has been amended several times (Amendments A through E) for minor adjustments to the design and layout of the KWP. The total number of turbines approved has not increased, and the amendments have in large part reduced the size of the impact areas. Amendment F is currently pending, and includes minor changes to the KWP needed to construct the Kibby Expansion Project (KEP), proposed in the pending Development Permit DP 4860. Once construction is complete, the turbines in Series B of the KWP will be visible from several locations on the Chain of Ponds and from Kibby Stream. The turbines in Series A are currently primarily visible from Kibby Stream, but a view of Series A from Chain of Ponds is blocked by Kibby Range and Sisk Mountain.

5. *Public hearing on Development Permit DP 4860.* On December 23, 2009, the Commission accepted for processing the application submitted by the applicant for Development Permit DP 4680, for the Kibby Expansion Project (KEP).

A. *Requests for public hearing and Intervenor status.* The Commission received several requests for a public hearing and petitions requesting Intervenor status.
   (1) On February 3, 2010, within 45 days of accepting the application as complete, the Commission granted a public hearing. The public hearing date was set at a later time.
   (2) On February 3, 2010, the Commission also granted Intervenor status to four Parties, all of whom voiced opposition to the project (collectively opposing intervening parties):
      (a) Friends of the Boundary Mountains (FBM) [opposed]

(b) Appalachian Mountain Club (AMC) [opposed in part]
(c) Maine Audubon Society (MAS) [opposed in part]
(d) Natural Resources Council of Maine (NRCM) [opposed in part]

B. *Public hearing.*

(1) *Pre-hearing conference*. The pre-hearing conference was held on February 24, 2010, at which various procedural matters were discussed and dates set, including the dates for submittal of pre-filed testimony and witness lists. The public hearing and Commission site visit were set for May 11 and 12, 2010, with May 11th designated for the Commissioner's site visit. Three Parties, MAS, AMC, and NRCM were consolidated for the purposes of conducting the public hearing (collectively the consolidated parties or CP). FBM was not consolidated with any other Party. A Pre-hearing Conference Memorandum and Order was distributed to the Parties on March 9, 2010.

(2) Pre-filed testimony was submitted by the Parties on April 21, 2010.

(3) Between April 1 and May 5, 2010, three additional Procedural Orders were prepared in response to the Parties' requests and objections.

(4) The Fifth Procedural Order, dated May 7, 2010, includes the final hearing schedule, designating the amounts of time allotted for presentation of summaries of pre-filed testimony and cross-examination of witnesses and State agencies at the hearing.

(5) On May 11th, a site visit, which was open to the public, was conducted for the Commissioners to visit the existing KWP and to view the proposed KEP location.

(6) On May 11 and 12, 2010, a public hearing was held at the Sugarloaf Ski Resort in Carrabassett Valley, Franklin County.

(7) *Sixth and Seventh Procedural Orders*.

(a) On May 19, 2010, the Sixth Procedural Order was issued, among other things, addressing several questions that came up during the May 12th hearing, in particular requesting that MDIFW submit additional information regarding vernal pools and that the State Soil Scientist submit additional information about soil stabilization at the proposed KEP development site.

(b) On June 11, 2010, the Seventh Procedural Order was issued addressing questions by the Parties about their post-hearings briefs.

**Proposal**

The relevant review criteria are contained in Appendix A, attached at the end of this document, and incorporated herein by reference.

6. The proposed Kibby Expansion Project (KEP) is a 45 MW 'grid-scale wind energy development' (as defined in 35-A M.R.S., Ch. 34-A, § 3451(6)) that would be sited within the expedited permitting area for wind energy development along the ridgeline north of Sisk Mountain. The project would be located in Kibby Twp. and Chain of Ponds Twp., Franklin County, in a P-MA Subdistrict; P-SL2 Subdistricts; P-WL1, 2 and 3 Subdistricts; and an M-GN Subdistrict. The KEP would expand upon the KWP (*see* Finding of Fact #4) and would use the existing 115 kV generator lead line, O&M building/construction control center, and certain lay-down areas constructed for the KWP. No infrastructure improvements are needed

outside the immediate Kibby and Sisk Mountain area. Access to the project area would be by way of Gold Brook Road and Wahl Road. The 15 proposed turbines would be arranged along the northern portion of a ridgeline associated with Sisk Mountain, in part along the Canada/United States border.

A. The proposed KEP includes fifteen 3.0 MW Vestas wind turbines; 3.6 miles of new 34 foot (ft) wide ridgeline road (reduced to 20 ft wide after construction), 1.1 miles of new 20 ft wide access road, 2.2 miles of upgraded existing access roads, 8.9 miles of 34.5 kV collector and communication line, a new substation, and a 325 ft long segment of 115 KV transmission line to connect the new substation to the existing Kibby Substation.

B. The proposed KEP would connect to the New England grid using the existing 115 kV generator lead line that runs between the existing Kibby Substation and the existing Bigelow substation.

C. The proposed KEP would be located approximately 2 miles from the closest turbine of Series B of the existing KWP, and 4 miles from Series A of the KWP. Several hills are located between Series A and the KEP area, but no hills separate the KEP from Series B.

D. *Comprehensive Land Use Plan. (see Selser pre-filed testimony)* Based on the Commission's 2010 Comprehensive Land Use Plan (CLUP), as well as the Commission's 1997 CLUP, the applicant quoted that while the CLUP's "goals and policies may at times conflict with one another", it directs the Commission to "balance the various policies so as to best achieve its vision for the jurisdiction." CLUP at 5. In its pre-filed testimony, the applicant asserted that the proposed KEP is "an ideal example of how that balance can be applied by guiding important renewable development to locations most suited to accommodate that development and where the impacts will not compromise the principal values or vision of the jurisdiction."

(1) The applicant asserted that the proposed KEP would not be located in an area known for primitive recreational pursuits such as hiking. Rather, the project area is used for activities such as motorized boating, snowmobiling, and ATV riding. The KEP contended that the KEP would not interfere with the existing use of the area for recreational pursuits, noting that recreational user expectation in the Chain of Ponds area differs from the more remote back-country areas such as the Bigelow Preserve. Moreover, the applicant contended that the project area is not known for its remote character, having features such as Route 27 which make the area readily accessible by car, as well as heavy on-going logging activities; and being proximate to organized towns such as Eustis/Stratton. Due to these factors, the applicant asserted that the KEP would not be incompatible with the recreational uses of the area.

(2) The applicant contended that the KEP would not cause an undue adverse effect on high value natural resources or a high mountain area, and as such there would not be over-riding public values in need of protection that would outweigh the significant benefits the project would supply. The applicant referenced its testimony of the assessment of each natural resource in the project area.

(3) The applicant asserted that the proposed KEP is an excellent example of how the Commission can advance its energy and climate change policies while retaining the jurisdiction's principal values.
(4) The applicant asserted that the proposed KEP would be located several miles from the historic, cultural, or archaeological resources in the area (*i.e*, the Arnold Trail), and would not compromise these resources' educational, scientific, or social values.
(5) The applicant asserted that the KEP would not compromise the economic value of a working forest because the area would continue to be managed for timber.

7. *Proposed structures.*

A. *Wind turbines generators and turbine pads*. The fifteen 3.0 MW turbines would be the Vestas V90 "cold weather" package, or a similar design. The turbine pads would be 200 feet (ft) long by 150 ft wide during construction, reduced to a 70 ft by 70 ft crane pad and a circle 50 ft in diameter around the turbine base permanently. The remaining pad area would be restored using erosion control mix.
(1) The turbine tower height is 263 feet, with a base diameter of 13.5 ft. Each turbine has three 144 ft long blades. The rotor is 295 ft in diameter, with the rotor swept area comprising 68,482 square ft. When in operation, the rotors spin at between 8.6 and 18.4 revolutions per minute. Measuring to the upward turned tip of the blade, the turbines would be 410 ft tall.
(2) Slow on-off red, flashing lights would be installed on approximately half of the turbines in accordance with the Federal Aeronautics Administration requirements.
(3) In response to the review comments supplied by the Maine Department of Inland Fisheries and Wildlife (MDIFW) and the Maine Natural Areas Program (MNAP), the applicant agreed to move the location of Turbine #11 to limit impacts to the Bicknell's thrush/Subalpine Fir-Heart-leaved Birch Forest habitat (see Findings of Fact #22,D(4), #23, #24, and #25,F).

B. *34.5 kV collector line corridor*. The cleared 34 kV collector line corridor would be up 60 ft wide; but less where the line is located along a road. The collector line would be placed adjacent to the proposed ridgeline road and existing roads where possible to minimize the amount of clearing needed. The corridor would be maintained with scrub shrub vegetation.

C. *Kibby Expansion Substation and 115 kV line.* The proposed substation would be located within a 140 ft by 140 ft fenced-in area. A 325 ft long segment of 115 kV generator lead line would connect the proposed substation to existing Kibby Substation.

D. *Temporary activities during construction*. Temporary activities proposed include one 0.6 mile long temporary skid trail, a new 2.5 acre lay-down area along the Mile 5 Road, continued use of an existing 2.4 acre lay-down area approved for the KWP, and expansion of the existing 1.5 acre KWP Construction Control Center approved for the for the KWP by approximately 1 acre.

E. Elevations within the development area range from 1,720 feet above mean sea level (ft msl) at the collector line near the proposed KEP Substation to 3,414 ft msl near Turbine #12. For comparison, the elevation at the existing KWP O&M building located at the intersection of Gold Brook Road and Route 27 is at 1,400 ft msl, and the KWP turbines range from elevation 2,507 ft msl to 3,210 ft msl., with 32 of the 44 turbines located above 2,700 ft msl. Project components of the proposed KEP that would be located above 2,700 ft msl in a P-MA Subdistrict include all 15 turbines, 3.6 miles of crane path along the ridgeline, 3.6 miles of 34.5 kV collector line, 0.6 miles of access road, and 0.6 mile of temporary skidder trail.

F. *Disturbed area.* "Disturbed area" includes both areas of soil disturbance and areas that would be cleared but with the shrub and/or herbaceous layer left in place. The total area to be disturbed would be 161.5 acres, of which 106 acres would be temporary, and 55.5 acres would be permanently maintained as open area. Of the 161.5 acres disturbed, 90 acres would be in the P-MA Subdistrict, with a permanent alteration of approximately 27 acres above 2,700 ft msl in the P-MA Subdistrict. For comparison, the clearing for the KWP in the P-MA Subdistrict was 217 acres, to be reduced to approximately 43 acres to remain permanently cleared after construction is complete.

*Areas to be disturbed for the KEP (acres)*

| | *Total* | *Temporary* | *Permanent* |
|---|---|---|---|
| Turbines | 17.8 | 13.4 | 4.4 |
| Ridgeline road (includes "crane path") | 57.7 | 49.3 | 8.4 |
| New access road | 13.2 | 10.2 | 3 |
| Mile 5 Road improvement | 10.5 | 9.5 | 1.3 |
| Wahl Road improvement | 1.5 | 1.4 | 0.1 |
| 34.5 kV collector line (including temporary access ways) | 31.1 | 0 | 31.1 |
| Substation, 325 ft long 115 kV line, and access road | 1.2 | 0 | 1.2 |
| Met towers and access ways | 8 | 2 | 6 |
| Temporary skidder trail and lay-down area | 19.5 | 19.5 | 0 |
| Construction Control Center and parking | 1 | 1 | 0 |
| *Total* | *161.5* | *106* | *55.5* |

8. *Use of surrounding area; and title, right, and interest.* The land proposed to be developed for the KEP in Kibby Twp. is owned by Plum Creek Maine Timberlands, LLC (PC), and in Chain of Ponds Twp. is owned by Kennebec West Forest, LLC (KWF). Both landowners have granted to the applicant easements to develop this site with a wind energy generating facility. The land surrounding the proposed development area is actively managed forest land.

9. *Tangible benefits.*

A. *Applicant's tangible benefits proposal.* The applicant noted that the proposed KEP would generate up to 45 MW of clean, renewable energy, or up to 120 million kilowatt hours

per year, equivalent to the power used by 17,000 Maine homes per year. The applicant further asserted as follows:

(1) *Economic benefits.* The proposed KEP would provide significant economic benefits for Maine and the region, similar to the benefits resulting from the KWP. To date, the KWP has resulted in $109 million spent in Maine ($9 million in Franklin and Somerset Counties). During peak construction, 315 workers were employed, of which 80% were from Maine. The actual construction period data from the KWP are consistent with predictions by the State economist (*see* Zoning Petition ZP 709).
   (a) Direct and indirect employment during construction consists of temporary construction industry jobs, indirectly supporting local businesses. Maine construction and environmental companies were used for the KWP, and would be used for the KEP.
   (b) Nine people from Maine were hired to operate for the KWP, with several more to be hired in fall of 2010. One additional permanent employee would be added for the proposed KEP.
   (c) The KEP will sell to New England market, but market stability is affected by world fossil fuel markets and cannot be easily analyzed. However, wind energy tends to stabilize energy prices.
   (d) *Real property taxes and local benefits*.
      (i) The community benefits package to Eustis/Stratton would be increased from $132,000 to $177,000 for the additional 45 MW ($1,000 per MW), or $900,000 over a 20-year period;
      (ii) Additional property revenues would be paid to the State's General Fund over the life of the project. An estimated $500,000 per year in property taxes would be paid for the KEP.
      (iii) Additional State income tax revenues would be paid over the life of the project, estimated to be at least $25 million over a 25-year period.
      (iv) Over a 20-year period, an estimated $40 million in taxes would be paid.

(2) Although LD 1504 (*see* PL 2009, Ch. 642, Section A-7) is not applicable to this proposal, in its testimony, the applicant proposed several additional tangible benefits consistent with LD 1504:
   (a) $150,000 for green job education and training in Franklin County through the Maine Department of Labor;
   (b) $150,000 to the High Peaks Alliance for land conservation and trail corridor acquisition in Franklin County;
   (c) $100,000 to the Arnold Expedition Historical Society for use in land protection surrounding the Arnold Trail north of the Chain of Ponds or other projects; and
   (d) $100,000 to the Bicknell's Thrush Habitat Protection Fund, which was established in 2007 to conserve this species' wintering grounds in the Caribbean.

B. *Agency review and other comments.*

(1) *State Planning Office/Maine Department of Labor (SPO/DOL)*. SPO and DOL reviewed the application, and provided the following comments:
   (a) "The proposed development will undoubtedly have economic benefits to the State of Maine."

(b) "The [applicant's] proposed increase to the 'community benefits package' (an additional $45,000 annual payment distributed to the communities of Eustis and Stratton)" is "a unique benefit that would not naturally result from a wind power development."

(c) The application "would be stronger if it ensured additional tangible benefits, to a broader population of Maine residents, with stronger guarantees, and for a longer period of time. For example, the DOL continues to advocate for a portion of dedicated community benefits (*e.g.*, 10% of$ 45,000) to be applied to a statewide green jobs scholarship fund to ensure the future workforce for Maine's evolving energy sector." In response, the applicant approached DOL "to make a contribution of $150,000 to the DOL in support of training Maine workers in the new green and clean job skills".

(2) *Maine Public Utilities Commission (PUC).* PUC reviewed the application and offered the following comments:

The applicant's statements regarding benefits to the electricity market and pricing, energy diversification, reducing dependence on fossil fuels, reducing the level and volatility of electricity prices in the region, and assisting Maine in reaching its renewable energy portfolio standards are assumed by the Wind Energy Act and do not constitute tangible benefits. PUC suggested the "sale of a significant amount of the output [of the KEP] to customers (particularly commercial and industrial) within the area or to the utility under PUC's long-term contracting authority at fixed process projected to below market prices or at a stated discount off of market prices." PUC noted, however, that the Wind Energy Act does not require a project to provide tangible benefits from each category listed in the definition [*see* 35-A M.R.S., Ch 34-A, section 3451(10)] to meet the overall requirement for a "significant tangible benefit".

(3) *Maine Bureau of Parks and Land (BPL).* BPL reviewed the application and offered the following comments:

(a) BPL opined that recreation or land conservation benefits should have been included in the applicant's proposal.

(b) Because the legislative and regulatory intent of the tangible benefits provision is to mitigate the negative effects of the turbines on the host community, benefits should have been offered to the Chain of Ponds area rather than Eustis/Stratton.

(c) One-time cash settlements to NGOs do not suffice unless accompanied by credible demonstration and affirmative reporting requirements of measurable results.

C. *Friends of the Boundary Mountains (FBM), testimony.*

(1) Tangible benefits must be "attributable to the construction, operation and maintenance" of the expedited wind project, not the applicant, and must actually benefit the community. The tangible benefits test cannot be satisfied by cash payments to stakeholders in the hope of lessening opposition to the project. For example, the $100,000 payment to the Arnold Expedition Historical Society, or the purchase of solar panels for the private owners of Natanis Campgrounds, does not qualify as "tangible benefits".

(2) The Commission must consider the public costs of the project as well as its benefits. If public costs exceed the public benefits provided by the project, the public receives a net loss *not* a net benefit from the project.
(3) "The residents of Chain of Ponds must be considered when calculating whether this project will provide a net value of real tangible benefits.

**Environmental Assessment**

10. *Applicant's soils mapping, erosion and storm water control; and geotechnical assessment*.

A. *Soils mapping*. During the summer of 2009, the applicant conducted a Class L Soil Survey (as requested by the State Soil Scientist (SSS)) for the proposed KEP. The results were included with the application, but at the request of the SSS the soils mapping was overlaid on the engineered plans, and the revised plans were submitted on January 13, 2010.

B. *Erosion/sedimentation and storm water control*. Based on the site conditions, experience gained during the construction of the KWP, and the results of the soils mapping, the applicant developed an erosion and storm water control plan (E&S Plan). The E&S Plan employs, in addition to specific measures, a 'toolbox' approach allowing on-site decisions to be made as needed during construction should conditions warrant a change to the measure being used at a particular location. The details of the E&S Plan were included on the engineered plans so the contractor will have the benefit of the specifications on-site during construction.

C. *Geotechnical assessment and "Acidic Rock Testing and Management Plan"*. Because the soil located at the KEP is expected to be very similar to the adjacent KWP, the applicant proposed to use the same "Acidic Rock Testing and Management Plan" (ARTM Plan) (revised May 24, 2010) for the KEP as the one reviewed and approved for the KWP, with modifications to accommodate as appropriate. The applicant's on-going geotechnical investigation provides data to refine the ARTM Plan.

11. *State Soil Scientist (SSS) review comments.* The SSS reviewed the application, offering suggestions for the design and construction of various components of the E&S Plan and the ARTM Plan, with particular emphasis on the BMPs for handling seepage and wetland areas, and how to stabilize high mountain areas after disturbance. The SSS emphasized that on-site flexibility is needed during construction.

A. On April 9, 2010, the applicant responded to the SSS' January 29th comments, generally revising the E&S Plan and ARTM Plan as recommended. The applicant stated that the proposed ARTM Plan is the same Plan approved for, and used successfully during construction of the KWP. The revised E&S Plan incorporating the requested clarifications and corrections would be prepared prior to construction.

B. *SSS Response to the Commission's Sixth Procedural Order (see Finding of Fact #5,B(7)(a))*. The SSS stated that his primary concerns for the construction of wind power

facilities are the instability and fragility of high mountain soils, and the potential alteration of the natural hydrology in the mountains, developing the Class L Soil Survey specifically to be used in such areas. The applicant's soil survey, combined with training of contractors and third party inspectors on both the "tool box" approach to using BMPs, and on the use of blasted rock for the roads and turbine pads, is an approach that has been used successfully on three wind farm projects in Maine so far. The "tool box" approach is critical for successful construction in high mountain areas because it is not possible to predict exactly where each erosion control measure should be used. In addition, blasted rock provides a stable, porous road base material even when wet, and rock sandwiches are used to re-connect the natural hydrology where appropriate. The Sisk Mountain soils are typical of high mountain areas and are not any more unstable than the Kibby Range or Redington Range soils.

12. *Wetlands and Vernal Pools.*

A. *Proposed* w*etland alteration.* A total of 4.36 acres of wetland would be altered, of which 3.49 acres would be permanently cleared for the collector line corridor, 0.09 acre would be temporarily cleared, and 0.78 acre would be filled for stream crossings. The permanently cleared areas would be maintained as a scrub shrub wetland. The temporarily cleared areas would be allowed to fully revegetate. Of the wetlands proposed to be filled, 0.06 acre is P-WL1 wetland (includes stream channels), and 0.72 acre is P-WL2/3 wetland. All of the proposed P-WL1 wetland fill impact is for stream crossings. Of the wetlands proposed to be permanently cleared, 0.94 is P-WL1 wetland, and 2.55 acres is P-WL2/3 wetland. For the temporarily cleared areas, 417 sq ft of P-WL1 wetland would be affected.

B. *Vernal pool site survey.* The proposed development area was searched for vernal pools during wetland delineation surveys from July though October of 2009. Fourteen (14) potential vernal pools are located along an existing logging road/skidder trail (Mile 5 Road). All fourteen pools are man-made, and as such do not meet the MDEP/MDIFW definition of a significant vernal pool (SVP). Nevertheless, none of the identified pools would be impacted, and impacts to buffer areas within 250 ft and 750 ft of each pool would be minimized.

C. *MDIFW review comments on vernal pools; and response to the Commission's Sixth Procedural Order (see Finding of Fact #5,B(7)(a)).*
   (1) MDIFW concluded that all 14 of the surveyed potential vernal pools are of unnatural origin and do not qualify as SVPs; as such, no further survey work was recommended.
   (2) MDIFW responded to the Commission's Sixth Procedural Order, stating that it uses the Natural Resources Protection Act - Significant Vernal Pools standards, regardless of actual regulatory jurisdiction (DEP NRPA Chapter 335 Rules; Section 9, Significant Vernal Pools). The applicant consulted with MDIFW and applied the DEP NRPA standards to identify, map and characterize all vernal pools proximate to the proposed development area. Under NRPA rules, only SVPs are subject to habitat management standards.

D. *Friends of the Boundary Mountains (FBM).* FBM expressed "concern about the impact of the of the proposed Kibby expansion on the breeding habitat for several rare and endangered species in the Northeast, such as the Blue-Spotted Salamander, Blanding's Turtle and Eastern Ribbon Snake that breed in vernal pools". FBM asserted that "MDIFW's recommended surveying and mapping procedure for locating significant vernal pools must be done during certain precise time periods, depending on geography and altitude", and that the applicant "did not follow these recommendations". FBM contended that "the lack of an appropriately timed and full vernal pool survey conducted for this project jeopardizes the breeding of these species." Because there was never a vernal pool field survey done during the appropriate spring periods when wood frog and spotted salamander egg masses (May 5 to May 20 for wood frogs, May 15th to June 5th for salamanders) are present, then pools with open canopy, and shorter hydroperiods could have been missed."

13. *Avian and bat surveys (pursuant to the Wind Energy Act); State and federally listed species.*

A. *Applicant's surveys and assessment.*

(1) *Surveys conducted*. In consultation with MDIFW and USFWS, the applicant conducted (1) rare raptor nesting surveys (bald eagle, golden eagle, and peregrine falcon, 2005 to 2009); (2) spring and fall daytime migrant surveys (2009); (3) spring and fall nighttime migrant surveys (2009); and breeding bird surveys (2009).

(2) *Survey results*.

(a) No rare raptor nesting activity was detected in the vicinity of the proposed development area, although occasional individuals were seen flying over the area.

(b) Eleven species (83 individuals) of hawks were documented, with an average daily passage rate of 0.38 to 0.39 birds per unit effort. Overall passage rates were consistent with the 2005/2006 surveys done for the KWP, and low compared to other hawk count sites in the northeast.

(c) The spring 2009 nighttime radar surveys showed the mean passage rates for avian migrants in the project area to be 207, as compared to 456 for Kibby Mountain, 197 for the Kibby Project Series A, and 512 for the Kibby Project Series B in 2005. The fall 2009 surveys showed the mean passage rates to be 458, as compared to 565 for Kibby Mountain and 201 for Kibby Range in 2005. Flight height for the nighttime migrants was estimated to be between 200 and 300 meters.

(d) The bat radar surveys detected low use of the project area, similar to the bat activity detected for the KWP. All of the eight species of bat on MDIFW's Species of Special Concern list have the potential to occur in the project area.

(e) During the 2009 breeding bird survey, thirty-two (32) species were detected in the project study area during the study period. Seven of these species are listed by MDIFW as Species of Special Concern.

(3) The applicant assessed the development area for the presence of the following State and federally listed wildlife species:

(a) *Canada lynx.* Canada lynx is federally endangered, and listed by Maine as a Species of Special Concern.

(b) *Golden and bald eagle.* Both species are federally threatened; the golden eagle is state endangered, and the bald eagle is not state listed.

(c) As a part of the federal Section 404 wetlands permitting process, the applicant has had on-going dialogue with USFWS and the Corps, and has conducted a risk assessment regarding the potential impacts to the federally threatened golden eagle and bald eagle (in accordance with the federal Golden and Bald Eagle Protection Act), and the federally endangered Canada lynx (in accordance with the federal Endangered Species Act). On June 4th, at the request of USFWS, the applicant submitted a project information/habitat modeling/assessment for Canada lynx, and an assessment for golden and bald eagle.

(d) *Roaring Brook mayfly.* This invertebrate is listed by MDIFW as endangered. The applicant identified suitable habitat in the project area, and consulted with MDIFW to determine the best methods to avoid impacts.

(e) *Spring salamander.* This amphibian is listed by MDIFW as a Species of Special Concern. One recent occurrence of this species is known from Gold Brook. MDIFW requested the applicant assess suitable habitats likely to be affected by the proposed project. Four sites in Kibby Stream were searched, but this species was not present.

(f) *Northern bog lemming.* Northern bog lemming is listed by MDIFW as threatened. The applicant identified three wetlands in the project footprint with the potential to support this species. Evidence was found that this species might be present, but its presence was not verified. The applicant designed the project to avoid these wetlands and the surrounding upland watersheds.

(4) *State listed plant species.* The applicant surveyed the proposed development area for State or federally listed plant species, but none were found. However, of the State-listed boreal bedstraw and lesser wintergreen were found outside the development area at several locations on Sisk Mountain.

B. *MDIFW review comments*. MDIFW submitted the following review comments:

(1) "The findings presented in the application for development of the Sisk Mountain-Kibby Wind Expansion are consistent with other pre-construction studies conducted for wind power projects MDIFW has reviewed in Maine. As the project is currently proposed, MDIFW believes that additional pre-construction studies at this site are not necessary." A detailed post-construction monitoring plan should be developed in consultation with MDIFW. "Considerations relative to federal law (Migratory Bird Treaty Act, U.S. Endangered Species Act, or Bald Eagle – Golden Eagle Protection Act) are under the jurisdiction of the U.S. Fish and Wildlife Service."

(2) No negative impacts to northern bog lemming are expected. The KEP has been designed to protect the wetlands and surrounding uplands that provide suitable habitat for this species.

(3) The applicant's surveys for Roaring Brook mayfly and spring salamander in the Kibby Stream Watershed found suitable habitat for both species. However, while neither species was found within the survey area, the applicant proposed to follow MDIFW management guidelines for these species.

C. *CP closing brief.* Regarding avian and bat monitoring, CP asserted that impacts to migratory birds and bats would be adverse as a result of the proposed KEP, contending that even a permit for a smaller project consisting of the northern eight turbines would need to incorporate conditions to mitigate for adverse impacts to migratory birds and bats. CP asserted that "a relatively high number of birds and bats would be expected to pass through the rotor swept area during fall migration. Even though the passage rate is only moderate, the average flight height is one of the lowest recorded in the northeast for forested ridges resulting in an overall high number of targets passing through the rotor swept area each hour." CP further asserted that although "the passage rates may not rise to the level of creating an undue adverse impact, the low altitude of flights over the project area is a concern in terms of the potential for direct mortality. As a result, rigorous post-construction studies should be required, and should be developed by [MDIFW] in consultation with [USFWS]. Strong adaptive management language addressing turbine operations would also be needed in the event that the post-construction studies find high mortality for either breeding birds or migrating birds and bats."

D. *FBM closing brief.* In its closing brief, FBM asserted that the proposed KEP will create undue adverse effects on natural resources such as wildlife and wildlife habitat due to permanent industrial road building, turbine noise, and loss of breeding habitat. Impacts include "direct habitat loss; facilitated invasion of weeds, pests, and pathogens; fragmentation and isolation of wildlife populations; animal behavioral modifications and a variety of edge effects".

**Scenic Resources Impact Assessment**

14. *Applicant's scenic assessment.* The applicant conducted a scenic assessment of the scenic resources of state or national significance (hereinafter "scenic resources") located within 8 miles of the proposed KEP development area that would be affected: the Chain of Ponds (Long Pond, Natanis Pond, and Bag Pond), the Arnold Trail, Kibby Stream, Arnold Pond, and Crosby Pond. Scenic resources located within 8 miles, but having no view of the project turbines were noted: Sarampus Falls Picnic Area, Natanis Pond Overlook, Round Pond and Lower Pond of the Chain of Ponds, the North Branch of the Dead River, and Spencer Stream.

A. *Scenic resources of state or national significance*. The applicant noted that the Wind Energy Act states "[a] finding by [the Commission] that the development's generating facilities are a highly visible feature in the landscape," is not by itself a "sufficient basis for a determination that the proposed wind development has an unreasonable adverse effect on scenic character or existing uses related to scenic character." (*see* 35-A M.R.S. § 3452 (3)).

B. *Chain of Ponds*. Chain of Ponds is a great pond rated by the *Maine Wildlands Lakes Assessment* (1987) as having outstanding scenic value. The applicant's assessment determined there would be visibility of the proposed KEP at distances ranging from 2.8 miles to 3.5 miles from 31% of the ponds' area. The most extensive view of the turbines would be from the southeastern portion of Long Pond.

(1) *Natanis Pond*. From the southeastern-most shore of Natanis Pond, the tops of 1 to 4 turbines would be visible. No turbines would be visible from the remaining portion of Natanis Pond, including from the Natanis Pond Campground, which is part of the BPL public reserve land located at the western end of Natanis Pond, and all of the State's primitive campsites. There also will be no visibility of the Project when looking south toward the very distant peaks of the Bigelow range.

(2) *Long Pond*. Portions of up to 14 turbines would be visible from the southwestern side of Long Pond, primarily from points on the lake itself and from the shore. During and immediately after construction, areas of cut and fill may also be visible, although such visibility would be reduced upon re-vegetation of these areas. Portions of up to 9 turbines would be visible from one viewpoint on the northeastern shore, but the project would not be visible from the majority of the shoreline on that side of the lake.

(3) *Bag Pond*. Portions of up to 12 turbines would be visible from the western part of Bag Pond, but no turbines would be visible from the eastern shore or from Route 27. The KEP would not be visible from roughly two thirds of Bag Pond.

(4) The applicant noted that from Bag, Natanis, and Long Ponds, views of the KEP would "include the more dominant landforms of Mount Pisgah and/or Sisk Mountain, making the project turbines appear more distant, lower in elevation, and less prominent."

(5) The applicant noted that "Chain of Ponds is designated as having outstanding scenic values primarily due to its scenic foreground features, including very dramatic relief, cliffs, ledges, beaches, boulders, diverse shoreline, and excellent water quality, rather than for views of distant mountains or other scenery." (*see* Maine State Planning Office Critical Areas Program, 'Maine's Finest Lakes, The Results of the Maine Lake Study' (Oct. 1989) at p. 86).

(6) The applicant asserted that the existing viewer experience along Chain of Ponds already includes human development, including the constant presence of Route 27 and its heavy traffic, several privately-owned camps, the developed campground at Natanis Point, and motorized recreational use of the water and adjacent land.

C. *Arnold Trail.* The proposed KEP would be visible from the Arnold Trail at a distance of from 2.7 miles to 4 miles where the trail is over water along the length of the Chain of Ponds; and at a distance of 7 miles where the Trail is over water along Arnold Pond (see Section C, below). The distance along the 184 mile long Trail from which the turbines would be visible along Chain of Ponds is 1.6 miles, or 0.8% visibility.

(1) Listed on the National Register of Historic Places in 1969, the Arnold Trail to Quebec extends from Coburne Shipyard in Pittston, Maine to Quebec City. The Trail roughly follows Route 27 from just north of Stratton to Arnold Pond, but is over water within the North Branch of the Dead River, Chain of Ponds, Horseshoe Pond, and Arnold Pond sections. Within 8 miles of the development area, the Trail follows the North Branch of the Dead River and then continues north through Chain of Ponds, along Horseshoe Stream to Horseshoe Pond, and then to Arnold Pond.

(2) The Arnold Trail is listed as an historic and cultural resource in the "Flagstaff Region Management Plan" (Maine BPL/DOC, 2007), and includes a 100 ft wide Special

Protection Area buffer along the Trail within BPL land on the northeast side of the Chain of Ponds.

(3) The Arnold Trail shares much of the route in the study area with Chain of Ponds and, for this reason, the visual impacts are similar.

D. *Arnold Pond*. The applicant's assessment of the visibility of the project from Arnold Pond, as submitted in its pre-filed testimony, found that portions of up to 9 of the northernmost turbines may be visible to the north of Mt. Pisgah at a distance of approximately 8 miles. Views of the southerly turbines will likely be blocked by Mt. Pisgah.

E. *Kibby Stream*. Portions of up to 9 turbines may be visible from Kibby Stream at a distance of approximately 3 to 4 miles, depending on the extent of canopy cover from any particular viewpoint. Within 3 miles of the proposed KEP, Kibby Stream runs through forestland, but beyond 3 miles it runs through open marshland with views of the turbines. Most of the KEP turbines would also be visible from an open wetland area at a distance of approximately 5 to 6 miles.

F. *Crosby Pond*. Crosby Pond is a great pond rated by the "Maine Wildlands Lakes Assessment" as having outstanding scenic value. Portions of 1 to 3 turbines would be visible at a distance of 7.5 miles from Crosby Pond.

15. *Historic Arnold Trail: Applicant's assessment and consultation with the Maine Historic Preservation Commission (MHPC).*

A. A summary of the applicant's assessment of the impacts to historic and archaeological resources as a result of the proposed KEP, and its "Architectural Survey Report and Finding of Effect Report", dated November 25, 2009 were submitted with the application. The National Register of historic places database identified 42 historic resources in Franklin County, including the Arnold Trail.

(1) The visibility of the proposed KEP from the Arnold Trail was assessed as a part of the applicant's scenic impact assessment. Other than the Arnold Trail, the next closest listed historic resources are located 15 to 20 miles southwest of the development area. Sixteen structures older than 50 years are located within 8 miles of the site, but none meet the criteria for listing on the National Register of Historic Places.

(2) Both Kibby Mountain and Sisk Mountain have been previously surveyed for archaeological resources. It was determined in consultation with the MHPC that no known archaeological sites would be affected.

B. MHPC reviewed the applicant's November 25th report, and made – pursuant to the federal Advisory Council on Historic Preservation's regulations found at 36 CFR Part 800 - a finding of adverse effect, which is the first step of the federal Section 106 consultation process that may be undertaken by the U.S. Army Corps of Engineers (Corps) as a part of its wetland (Section 404) permitting process. MHPC requested the applicant submit to

MHPC additional information pursuant to (federal) Section 106 of the National Historic Preservation Act for review.

C. On April 9, 2010, the applicant submitted to MHPC and the Corps the requested additional materials for review; which were subsequently also submitted to LURC on June 7, 2010. After review of the April 9th materials and in a letter dated May 6, 2010 to the applicant and the Corps, MHPC re-iterated its earlier finding of adverse effect, which was made at stated above pursuant to its regulations. (*see* 36 CFR Part 800.5(a)(1)). Based upon application of its own legal authority, MHPC determined that the KEP would have an adverse effect on an approximately 1.6 mile section of the Arnold Trail.
   (1) MHPC's determination of adversity is not a finding that the development significantly compromises views or has an unreasonable adverse impact under the Commission's (or any other State review) criteria.
   (2) MHPC stated that although the reasons for listing the Trail in 1969 were not well documented, documentation since that time identifies the character of the surrounding physical environment, consisting of mountains, lakes, and forest that appear to be nearly pristine and unspoiled, as being important to the integrity of the Trail as a historic resource.

16. *LURC third party peer review by James F. Palmer.* James F. Palmer was contracted by the Commission to conduct a third party peer review of the applicant's scenic impact assessment, entitled "Kibby Expansion Wind Project Aesthetic Impact Assessment". Mr. Palmer offered the following observations, conclusions, and recommendations:

A. The Wind Energy Act, criteria and standards can be integrated into a standard visual impact assessment process, and establishes some useful limits: only impacts to eight types of state or nationally significant scenic resources are considered, and turbines seen from more than 8 miles away are not considered. However, the Act also requires consideration of information that is not readily available: the extent, nature and duration of affected public uses of the scenic resources and viewer expectations. The standard of "harmonious fit" is abandoned, and a new undefined standard of "unreasonably adverse" is introduced. While some aspects of the visual assessment process are simplified and clarified, questions about how to fulfill both the letter and the spirit of the law are raised.

B. While Mr. Palmer concluded the applicant's visual assessment does not misrepresent the scenic impacts of the project, he concluded that many visual aspects of the proposed KEP are not fully described by the applicant, and the landscape character description is more a list of landscape elements than a description of visual character. The visibility analysis assumes harvested areas will have the same screening effect as an undisturbed forest canopy. The viewshed map combines the results of two separate analyses, and does not indicate if a blade tip or a whole turbine would be visible. The assessment does identify all significant scenic resources within 8 miles of the wind turbines, as specified by law, but it does not always identify the basis of their scenic value. The public use of the scenic resources and how viewer expectations may be impacted are not documented. No systematic approach to evaluating potential scenic impacts is presented, even though the conclusion is reached that "the proposed KEP would not significantly compromise views

from scenic resources of state or national significance, or have an unreasonable adverse effect on the scenic character of the area or uses related to this scenic character."

C. Mr. Palmer's independent fieldwork and additional analyses determined that the primary visual impacts would be to Chain of Ponds and the Arnold Trail (which runs over water along the Chain of Ponds), and to Kibby Stream. Mr. Palmer asserted that Kibby Stream has the potential for large cumulative impacts due to visibility of both the proposed KEP and the existing KWP, although the extent of the impact was not fully investigated by the applicant. The applicant's visualizations were generally accurate, although the turbines in several of the simulations had lower contrast than would be indicated under the principle of representing the "worst case" view. However, the simulation viewpoints submitted with the application for the Chain of Ponds provide a good representation of the "worst case" conditions.

D. Mr. Palmer's review of the applicant's visual assessment did not find any serious errors or misrepresentations. He noted that the public use of the scenic resources and how viewer expectations may be impacted were not documented, but this information is not readily available for scenic resources in this area.

17. *Maine Bureau of Parks and Lands (BPL) review comments.* BPL reviewed the applicant's scenic impact assessment, and offered the following comments. BPL stated that it does not oppose the KEP, but noted that the proposed KEP would have a more significant scenic impact on BPL's land than previous wind power projects. BPL also noted several on-site mitigation opportunities that should be pursued to ameliorate its visual impacts and set a precedence to mitigate for impacts to scenic resources due to wind energy development.

A. *Arnold Trail*. BPL asserted that the historic significance of the Arnold Trail was not adequately addressed. BPL has an interest in the Trail due to its landownership along the Trail outside of the project area. BPL noted that its management plan for this area does not address views because it does not own the views. Nevertheless, BPL asserted that the Trail and the Chain of Ponds are synonymous, and should have been addressed jointly. BPL further asserted that the applicant's analysis of the visual impacts to the Arnold Trail should have included consideration of key historic points along the Trail. Because of the significance of the Trail, on-site mitigation should be required.

B. *Chain of Ponds*. BPL contended that the applicant did not adequately describe the extent of the visual impact to the Chain of Ponds. BPL disagreed with the applicant that mobile campers, which are visible along Route 27, compromise views on a scenic byway.

C. *Scenic road turnout*. BPL disagreed with the applicant that the sound of traffic on Route 27 adversely affects the overall experience of those using the area.

D. *Kibby Stream*. BPL asserted that, while BPL does not manage lands associated with this stream, it appears that the applicant's discussion of Kibby Stream is too vague, and more information should be submitted. BPL did not agree that the existing visual impact to Kibby Stream due to the KWP justifies the additional impacts of the proposed KEP.

E. *Arnold Pond*. BPL asserted that mitigation for visual impacts to Arnold Pond should be considered.

F. *Cumulative impacts*. BPL asserted that the applicant's scenic assessment did not assess the cumulative impacts in terms of both the existing KWP and the proposed KEP. BPL asserted that cumulative scenic impacts due to wind energy development must be assessed to help prevent Maine from unintentionally subjecting its scenic resources to views impacted by multiple sequential decisions.

18. *Applicant response to BPL*. The applicant responded to BPL's review comments, as summarized below:

A. *Scenic impact from the Arnold Trail*.
(1) The purpose of a visual impact assessment is not to provide a history of the Trail, but to examine the extent of compromise to its historical significance and the experience of users interested in the historical context by the proposed KEP. Whether the surrounding landscape is documented as a critical part of the historic context was considered. Route 27 and its scenic turnout, parking areas, and facilities; the commercial campground; and private residences along Chain of Ponds did not exist at the time Arnold made his journey and have altered the "vast wilderness" the Arnold company encountered on its northward march. The historic significance of the Trail and the environs immediately surrounding it could continue to be enjoyed in the same manner it is today with the distant and limited views of wind turbines several miles away, receding well behind the foreground features.
(2) The historical documentation of the Trail does not identify the northern Sisk Mountain ridgeline as a critical part of the Arnold Trail, and does not provide specific information about Chain of Ponds or Arnold Pond. There is no evidence to suggest that wind turbines located 3 to 8 miles away and behind the more prominent foreground peaks would compromise the historical experience.
(3) The Arnold Trail and Chain of Ponds were addressed separately in the application because a visual impact assessment and a historic/cultural impact assessment are conducted separately, and the features addressed individually. The Trail is inextricably related to Chain of Ponds, and the application included a thorough assessment of the aesthetic impacts from Chain of Ponds.

B. *Scenic impact to Chain of Ponds*. In response to BPL, the applicant noted the visual assessment states the project would be visible from approximately 31% of Chain of Ponds, and includes significant written text, photographs and visual simulations detailing how the project would impact the surrounding scenic resources.
(1) The applicant's assessment was informed by the new evaluative guidelines developed by MDEP under 35-A M.R.S.A. § 3451 to address unique aspects of wind turbines: wind energy projects cannot be screened; are a relatively new technology; and their color, form, line and texture differ from most existing built landscape elements. These differences do not, on their own, make wind turbines visually incompatible with all landscapes, but require us to think differently about their aesthetic impacts,

such as considering if they are the only human-made objects in the surrounding landscape, and the scale of the visible portions of the turbines compared to the surrounding landscape.

(2) Visual impact assessment is a rational and systematic process, and numerical associations cannot adequately convey the degree of impact. For example, although 31% of Chain of Ponds is in the viewshed of the proposed KEP, this number includes even when only a tip of a single blade is visible. The narrative discussion and visual simulations illustrate how the major foreground focal points of Mt. Pisgah and Sisk Mountain dominate the view; and that from the majority of the ponds there is no or very little visibility of the turbines. Where there is visibility, the turbines appear lower in elevation/height than the mountains in the foreground.

(3) The evaluative criteria in the Wind Energy Act state that because a wind turbine is "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 impact." 35-A M.R.S. § 3452 (3). The statute and associated regulations protect against an unreasonable adverse impact, but do not require a total absence of impact.

(4) The mobile seasonal campers are a part of the visual context of the setting, and compromise the views. The existing landscape includes structures, roads, and other facilities, and is not a wild landscape with little evidence of man.

C. *Scenic impacts from a road turnout.* Although the law requires evaluation of visual impacts to scenic turnouts on the State's scenic highways, but *not* to the highway itself, the application included information about visibility along Route 27 generally. The applicant asserted that the KEP "would not be visible from any of the numerous locations along Route 27 overlooking Chain of Ponds or Arnold Pond, and the scenic overlook by Natanis Pond would remain unchanged". The wind turbines would not be visible from the Natanis Pond overlook due to the foreground ridges located to the rear of the viewer.

D. *Kibby Stream*. "Kibby Stream is not addressed in great detail because the viewshed map and aerial photographs indicated a lack of significant visibility. Kibby Stream is small and heavily wooded, except near where it is crossed by Gold Brook Road and along the wetlands east of the Kibby Range. The area where the stream passes under the logging road is not scenic, with logging equipment frequently stored in the open areas nearby. Although the entire stream was not inventoried for potential views, and small openings might occur in the tree canopy, otherwise, the stream banks are heavily wooded such that there would be at most limited or infrequent visibility of the proposed KEP. At about 7 to 8 miles, east of Kibby Range and Kibby Mountain, views would be possible where open wetlands border the stream. The mitigation suggested by BPL to "salvage the aesthetic angling experience" is not necessary.

E. *Scenic mitigation*. BPL objected that "[t]he applicant makes no attempt whatsoever to mitigate admitted scenic impacts," and stated that visibility of a project likely requires some offsetting mitigation. This position is not supported by the regulatory requirements or by the principles of visual assessment analysis. The law clearly states that visibility, alone, is not sufficient basis to determine that a project has an unreasonable adverse impact. Likewise, both LURC and MDEP regulations distinguish between absolute impacts and unreasonable impacts.

F. *Cumulative impacts.*

(1) The applicant responded that it considered cumulative impacts in the context of existing conditions, specifically, the existing KWP turbines within which the proposed KEP would be viewed. The applicant considered the number of turbines within each view; the overall area of the view occupied; if scenic views not impacted by turbines are available; and the sequential experience of adding additional visual impacts to demonstrate that the combined impact of the KWP and KEP would not result in unreasonable visual impacts.

(2) The applicant conducted additional studies of the extent of visibility of the existing KWP turbines from Chain of Ponds and Arnold Pond, and how the two projects might be seen in combination, submitting the results with its pre-filed testimony.

(a) *Bag Pond*. The most significant combined impact would be in a small portion of the southwest bay of Bag Pond where portions of 10 KEP turbines would be visible, as well as portions of up to 6 existing KWP turbines. Far fewer turbines would be visible from the rest of Bag Pond.

(b) *Lower Pond*. None of the proposed KEP turbines would be visible from Lower Pond. The upper portions of 13 existing KWP turbines can be seen from the small southeast corner of Lower Pond where Kibby Range is visible. Moving north along Lower Pond the number visible will decrease, with portions of only 1 to 3 turbines visible at the northern end.

(c) *Long Pond*. From Long Pond portions of up to 15 KEP turbines would be visible along the south shore at the east end, decreasing to 1 to 4 turbines at the northern end. No turbines would be visible from the narrows or the northern shore. At most, portions of 1 to 3 existing KWP turbines may be visible from Long Pond at a limited area at the southern end.

(d) *Natanis Pond*. Visibility of turbines from Natanis would be minimal, with the tops of 4 KEP turbines visible from a small area at the southeast end, and possibly the tips of the blades of 1 to 2 existing KWP turbines visible from a limited area.

(e) *Arnold Pond and Chain of Ponds*. At a distance of 7 to 8 miles, the KEP turbines would be visible along portions of Arnold Pond. Existing KWP turbines would be visible at a distance of 10.7 miles. At both Arnold Pond and Chain of Ponds, only a few turbines would be visible from most areas, with each project occupying a relatively narrow angle of view. The turbines would always be seen behind the prominent foreground mountains.

19. *Parties' pre-filed testimonies and post-hearing comments.*

A. *Consolidated Parties (CP).* The CP opposed the project as proposed, and asserted the following in support of its position:

(1) *Scenic resources of state or national significance*.

(a) Seven ponds (Round, Natanis, Long, Bag, Lower, Crosby, and Arnold) rated Class 1A indicating that they have two or more "outstanding" values of statewide significance are within 8 miles of the proposed project.

(b) Seven ponds (Round, Natanis, Long, Bag, Lower, Crosby, and Arnold) are rated "outstanding" for their scenic value by the Wildlands Lakes Assessment.

(2) *Chain of Ponds*.

(a) Chain of Ponds is used by the public for camping, fishing and paddling.

(b) Chain of Ponds is known for its "highly scenic character" including its "rugged landscape" and "mountain summits and ridges surround[ing] the narrow ribbon of water." "Other than Route 27 and adjacent logging roads and a few camps along Chain of Ponds, the only major man-made features in the area are the [KWP] wind turbines and their associated road system." In NRCM's testimony, they stated that there is "minimal evidence of human activity" when describing this area. Route 27 is not visible from Long and Bag Ponds.

(c) "The proposed turbines would be most certainly prominent by any definition from the southern end of Long Pond." (reference *Review of the Kibby Expansion Wind Project Aesthetic Impact Assessment*, James F. Palmer, April 16, 2010, p. 8)

(d) The proposed turbines would be prominent from the southern end of Natanis Pond, all of Long Pond and the western half of Bag Pond.

(e) CP asserted that "the southern seven turbines would be within three miles of the Chain of Ponds, the Arnold Trail, and the Bureau of Public Lands Unit." "The road connecting the seven southern turbines would cross slopes up to 45% and would require significant blasting of bedrock above the road level and fill below the road level.", and "would be highly visible to users of Chain of Ponds" due to "the un-revegetated cut and fill areas"….. being "as much as 100 vertical feet". CP further asserted that "the scars caused by the blasting and filling" ….. "cannot be re-vegetated and will be permanently visible to users of Chain of Ponds."

(f) CP asserted that "the northern eight turbines would be visible from only about 10% of the Chain of Ponds and would be further from the Chain of Ponds than the southern seven turbines." "Adverse scenic effects from the northern eight turbines would be significantly less than from the southern seven turbines."

(3) *Arnold Trail*. The undeveloped wilderness character and the mountains, bodies of water, and forested landscapes of the Chain of Ponds region through which the Arnold Trail passes are important aspects in determining the "integrity" of the historic trail.

B. *FBM testimony*. FBM opposes the proposed KEP, asserting the following in support of that position:

(1) FBM cited the relevant criteria for evaluation of a wind energy development in the expedited permitting area, (*see* 35-A M.R.S., § 3402(2)(C) and § 3451 *et seq*.). However, FBM noted that "this aspect of the [law] only affects review of scenic impacts; the traditional 'harmonious fit' criteria in 12 M.R.S. § 685-B (4)(C) on existing uses, ... natural and historic resources remains intact."

(2) The proposed KEP will create an undue adverse effect on natural resources such as the Chain of Ponds and the Arnold Trail. The adverse visual impact of the proposed project would be significant from the Chain of Ponds, an outstanding scenic resource of statewide significance. The public purposefully travels to the region specifically to boat on Chain of Ponds. There would be significant undue adverse scenic impacts and to the traditional uses of the area, that would be particularly acute on Long Pond and Bag Ponds. The KEP would impact 31% of the Chain of Ponds and would "collectively dominate" the views from Long and Bag Ponds. An adverse impact on

31% of the length of the ponds is unacceptable, particularly in an environment with little other human visual impact.

(3) FBM encourages the Commission to give great weight to the MHPC finding under its regulations of adverse effect. The Arnold Expedition Historical Society, in its Jan. 8, 2010 letter from its President Steve Clark to LURC states, "We are particularly concerned with the visual impact of the huge proposed industrial power production facility will have on a generally pristine area, of great National Historical significance. The importance of this historical route has been recognized by the designation of a protective zone from the end of the Chain of Ponds to the U.S./Canadian border in Coburn Gore. The proposed development would visually impact the entire Chain of Ponds and this protective zone, as it is approximately 3 miles or less from this area".

(4) In addition to the evidence submitted by FBM, the conclusion that the project has unacceptable effects on the Chain of Ponds is supported by the pre-filed testimony and rebuttal testimony of NRMC (*see* Section A, above), the review comments submitted by BPL (*see* Finding of Fact #17), a May 6, 2010 letter from MHPC, and a January 8th letter from the Arnold Expedition Historical Society.

20. *Public comments specific to the Arnold Trail.* Letters from the public were received both in opposition to the KEP and in support with respect to the potential for a change to the character of the Trail. While those opposed felt the KEP would greatly impact the character of the area, those in support did not feel the affect would be unreasonable. For example, the president of the Arnold Trail Snowmobile Club stated that the club supports the KEP, and in a letter dated June 1, 2010, the treasurer of the Arnold Expedition Historical Society stated support for the KEP.

**Subalpine Fir Forest and Bicknell's Thrush**

21. *Applicant's site survey of Fir-Heart-leaved Birch Subalpine Forest.* The applicant surveyed the proposed development area and identified an approximately 358-acre Fir-Heart-leaved Birch Subalpine Forest (hereinafter Subalpine Fir Forest) natural plant community. The applicant stated that the KEP would result in the clearing of 39 acres of this mapped natural community, or approximately 10%. Based on the final layout of the turbines, the applicant determined that 39 acres would be impacted by the project footprint, 25 adjacent acres would be affected (50 ft "buffer'), and 38 acres would be fragmented. Including direct and indirect impacts (*i.e.,* "edge effects" and fragmentation), the total impact from the KEP would be 102 acres. For comparison, the impact to Subalpine Fir Forest due to the KWP was determined to be inconsequential by MNAP because of the very small size of the habitat affected (reference Zoning Petition ZP 709).

A. To identify this community, the applicant applied the MNAP definition and definitions in the literature (Hudson et al. 1983; Thompson and Sorenson 2000; Sperduto and Nichols 2004; NatureServ 2004). The Subalpine Fir Forest on Sisk Mountain in the area of the proposed development is dominated by balsam fir, with a minor component of heart-leaved birch, and frequent wind-throw disturbances. The summit of Sisk Mountain is

well below the elevation where "fir-waves"[1] typically occur, although this occurrence was beginning in some areas. This Subalpine Fir Forest is rated as S-3 (*i.e*, 20 to 100 occurrences of this community in Maine) by MNAP. Downslope from Fir-Heart-leaved Birch Forest, the forest grades into the S-4 rated Spruce-Fir-Wood Sorrel-Feathermoss Forest.

B. The applicant noted that, according to MNAP, approximately 40,000 acres of mapped Subalpine Fir Forest exists in Maine. The total impacts of the KEP would constitute an impact to 0.25% of the mapped Subalpine Fir Forest in Maine. Because there exists subalpine forest in Maine that has not been mapped by MNAP, the actual percentage of impact due to the KEP would be less than one quarter of one percent. The applicant further stated that there is approximately 3,000 acres of additional unmapped subalpine forest in the immediate area of Sisk Mountain. The applicant noted that MDIFW's "Maine Comprehensive Wildlife Conservation Strategy" (p. 7) states that the Subalpine Fir Forest community in Maine [are] "relatively stable in overall extent and are extensive on Maine's higher mountains", "major occurrences are well protected within public lands or private conservation lands", and "recreation and windpower generation could locally degrade other minor sites, but these uses are unlikely to present a significant threat to the integrity of these forests."

22. *Applicant's site survey for Bicknell's thrush.* As a part of its breeding bird survey in 2009 (also *see* Finding of Fact #13), the applicant surveyed and assessed the site for the presence of Bicknell's thrush (*Catharus bicknelli*) between June 4 and July 24, 2009. Bicknell's thrush is recognized by MDIFW as a "Species of Special Concern", but is not ranked as threatened or endangered. This species, which until 1993 was considered a subspecies of grey-cheeked thrush, generally uses a specialized high-elevation habitat and has limited distribution in Maine, although it also breeds to the north and east in Canada.

A. Previous surveys for Bicknell's thrush in the vicinity of the proposed KEP were conducted in 1992 (for U.S. Windpower), and in 2005 to 2006 (for the KWP). The results of these studies revealed Bicknell's thrush to be present in ridge top areas on Kibby Mountain and the Kibby Range ridgeline (1992 and 2006), and in a balsam fir dominated regenerating clear-cut at a lower elevation (2006).

B. The applicant contracted the BioDiversity Research Institute (BRI) to conduct the surveys in the KEP study area. The 2009 Breeding Bird Survey results were submitted on May 6, 2010. Bicknell's thrush survey protocols were approved in advance by Maine IF&W, and are consistent with the protocols approved by Maine Audubon in the KWP. BRI noted that Bicknell's thrush were most abundant where the Subalpine Fir Forest was most abundant, with two nests found, although individuals of the species were also observed elsewhere. BRI further noted that a conservative estimate of density is 0.33 individuals/hectare (ha). The report also stated: "Within a one mile or 1.6 kilometer (km)

[1] A "fir wave" is a set of alternating bands of fir trees in sequential stages of development, observed in forests on exposed mountain slopes in several areas, including northeastern North America and Japan. Fir waves develop by wave-regeneration following wind disturbance, and is one of various types of patterned vegetation. (from Wikipedia)

buffer around Sisk Mountain there was 357.3 ha of potentially suitable habitat [for this species]. As the buffer widens we see increased hectares of habitat." "While habitat may be patchier than the model suggests, both the model and breeding bird data suggest that Sisk Mountain is part of a larger complex of breeding Bicknell's thrush habitat in Maine."

C. The assessment of the proposed impacts to on Bicknell's thrush habitat and potential direct effects of the proposed KEP were also discussed in the applicant's pre-filed testimony, submitted on April 21, 2010. In its pre-filed testimony (Christine Cinnamon and Dana Valleau, p 22; and Peter Vickery, p 7), the applicant identified approximately 88 acres in the project area as Bicknell's thrush preferred habitat, of which approximately 8 acres would be directly altered by clearing. Including a 25 ft wide area for the so-called "edge effect", a total of 39 acres of Subalpine Fir Forest would be affected permanently, leaving 317 acres of the Subalpine Fir Forest natural community at this site. The applicant asserted that, based on the known habitat needs of Bicknell's thrush, the proposed impact would potentially affect one female home range. The applicant also noted that the total area of this Subalpine Fir Forest is 358 acres, so any displaced birds may be able to use the adjacent 317 acres of forest. The applicant also included in its pre-filed testimony an analysis of the potential for Bicknell's thrush to be directly impacted by the proposed turbines, in particular collisions of displaying males during the breeding season. The applicant concluded that the males' display flight would largely be below the height of the blades, and as such the potential for impact is low. The risk is also reduced because the flight displays are not as likely when the wind is blowing (the females cannot hear the males' songs), and the blades don't start rotating until the winds are 9 mph or greater.

D. The applicant contended that the Bicknell's thrush population is approximately 40,000 individuals and the population is not declining in Maine. In 2007, when Maine IF&W evaluated whether to add Bicknell's thrush to this state list of threatened or endangered species, it did not add the species to the list largely because of its population size and the large number of sites where it occurs in Maine.
   (1) At least 83,000 acres of Bicknell's thrush habitat exist in Maine, spread over 60 mountain peaks. Regenerating timber harvest clear cuts, ski trails, and other areas impacted by human activity provide potential breeding habitat for Bicknell's thrush. "If regenerating clear-cut areas are added as potential breeding habitat, this increases Bicknell's thrush habitat in Maine by approximately 98,000 additional acres.
   (2) Within a one mile radius of Sisk Mountain, there are approximately 882 acres of potential Bicknell's thrush habitat, and within a five mile radius there are approximately 14,811 acres of potential habitat.
   (3) The applicant has identified actual breeding Bicknell's thrush in regenerating clear cuts, below 2,700 feet, on Kibby Mountain.
   (4) In response to comments from MDIFW, the applicant moved Turbine #11 out of the Bicknell's thrush habitat, reducing the clearing impacts from 12.4 to 8 acres. Dr. Vickery, the applicant's expert witness, concluded that the direct loss of 8 acres due to clearing of habitat is of no significance biologically to Bicknell's thrush, but that

loss of Bicknell's thrush wintering habitat is the greatest threat to the species' long-term viability (*see* Findings of Fact #7,A,(3); #23, #24; and #25,F).

23. *Maine Department of Inland Fisheries and Wildlife.* MDIFW reviewed the application, and on March 3, 2010 offered the following comments on Bicknell's thrush:

"As currently proposed, this project has 5 turbines that will occur within Bicknell's thrush habitat. Of those 5 turbines, Turbine #11 and its access road are of greatest concern to MDIFW, because this development would essentially bi-sect the habitat block. Therefore, we recommend the following options (in order of preference) (1) the applicant relocate Turbine #11 and its access road, or (2) the applicant implement a set of operational restrictions for Turbine #11, during nesting and brood rearing periods for this species. The specific details of these restrictions should be developed between LURC, MDIFW and the applicant. Also under option (2), a post-construction monitoring protocol needs to be implemented for this species with at least the same rigor and scope as the pre-construction studies." (*see* Findings of Fact #7,A,(3); #22,D(4); #24, and #25,F)

24. *Applicant response to MDIFW comments.* On April 9, 2010, the applicant responded to MDIFW's review comments regarding Bicknell's thrush and post-construction monitoring by relocating Turbine #11 and the associated access road down-slope and to the west, moving it to the edge of suitable Bicknell's thrush habitat, as recommended by MDIFW. The applicant stated that it "will continue to work with MDIFW to scope the post-construction work to be performed at wind power projects with the benefit of results of on-going work at other projects. At a minimum, the post-construction plan, which is yet to be finalized, will include mortality searches for two years, and agency consultation and adaptive management will be incorporated into the plan." The relocation of Turbine #11 would reduce the impact to Bicknell's thrush habitat from 12.4 acres to 8 acres (*see* Findings of Fact #7,A,(3); #22,D(4); #23, and #25,F).

25. *Maine Natural Areas Program.* MNAP reviewed the application, and commented regarding the Subalpine Fir Forest, as summarized below:

A. The applicant mapped the Subalpine Fir Forest natural plant community in August 2009, and MNAP verified the community during a site visit. The criteria used by MNAP for the Subalpine Fir Forest are based on "Natural Landscapes of Maine: A Classification of Vegetated Natural Communities and Ecosystems" (Gawler and Cutko 2010). In November 2009, MNAP again visited the site. MNAP found the Subalpine Fir Forest to be 358 acres in size, with an element occurrence rank of B ("good viability"; element ranks range from A to D). Element occurrence ranks are based on the size of the community relative to other known examples in Maine, condition (presence of representative species, maturity, and human disturbance), and landscape context (land uses and/or condition of surrounding area and ability of the community to be protected from effects of adjacent uses).

B. This plant community, rated S-3, is not common in Maine, with 19 known sites currently documented for a total of approximately 40,000 acres. The Subalpine Fir Forest on Sisk Mountain covers 358 acres; and has an element occurrence rank of B, based on its largely

undisturbed and mature condition, high elevation position in the landscape surrounded by managed forest lands, and size relative to other known occurrences. The Subalpine Fir Forest on Sisk Mountain ranks eleventh in size of the 19 known occurrences of this community state-wide, and has not been subjected to extensive recent timber harvesting.

C. The Subalpine Fir Forest community type is commonly found above 2,700 ft in elevation, and is dominated by balsam fir (or sometimes birch), with a dense canopy and somewhat stunted trees. Heart-leaved birch and mountain ash are found occasionally, with a dense shrub layer of ash, fir, or hobblebush where wind, fire, or landslides create openings. The herbaceous layer is sparse. "Fir waves" are a variant of the community. The mineral soil is thin and rocky. Recurring natural disturbances are a characteristic of this community, and exert a lasting influence on community dynamics.

D. The proposal to permanently clear 42 acres[2] of this Subalpine Fir Forest will fragment portions of the northern part of this community, isolating some areas and eliminating their value. The clearing will create unnatural edges, and alter the habitat adjacent to the edge by increasing light and wind, removing moisture, and damaging trees.

E. In February of 2010, prior to the final proposed layout of the turbines becoming available, MNAP estimated that approximately 80 acres of Subalpine Fir Forest would be impacted. MNAP included a 50 ft wide area to account for the edges that will be created. MNAP considered the impacts due to clearing, edge effect, and fragmentation, in particular to assess the core habitat that would remain.

F. MNAP recommended impacts to the Subalpine Fir Forest be minimized, and requested the removal of Turbine #11 because it would fragment the core of the northern portion of the Subalpine Fir Forest into two smaller areas. MNAP stated: "removal of Turbine #11 would considerably decrease impacts to the Subalpine Fir Forest and result in a northern core of approximately 62 contiguous acres." MNAP estimated that the overall impact due to clearing and the edge effect would be reduced to 75 acres[3], and "fragmentation of the remaining northern portion of the natural community" would be reduced (*see* Findings of Fact #7,A(3); #22,D(4); #23; and #24).

26. *Applicant's response to MNAP comments.* The applicant responded to MNAP's comments, including the statements that Turbine #11 has been moved to the west and down-slope from the original site, reducing both impacts to the Subalpine Fir Forest. The project design reduces overall footprint to the minimum needed for the proposed project. The file contains the detail of the applicant's response to MNAP.

27. *Parties' pre-filed testimony and post-hearing submittals***.**

A. *Consolidated Parties*. CP asserts the following:
(1) *Subalpine Forest Natural Community*

[2] Reduced to 39 acres when Turbine #11 was moved.
[3] As provided by the applicant, the impact of the KEP, as finally amended, on the Subalpine Fir Forest would be 102 acres

(a) The Subalpine Fir Forest natural community is ranked S3 (rare) by the Maine Natural Areas Program, with only 19 documented occurrences in the state encompassing 40,000 acres in total, or just 0.2% of the State's land area. Eighty-six percent of this total is found in just five areas (Mount Katahdin, the Mahoosuc Range, Bigelow Mountain, Redington/Crocker and Baker/Lily Bay). The MNAP states that this community "should not be considered common anywhere in Maine (*see* MNAP review comments dated February 24, 2010).

(b) The southern portion of the proposed KEP, encompassing Turbines #8 through #15, and the associated access roads, lies predominantly within an occurrence of this rare natural community documented by the MNAP.

(c) The occurrence of the Subalpine Fir Forest on Sisk Mountain encompasses 358 acres, making it the eleventh largest of the 19 documented occurrences in the state. It falls within the middle of the size range of documented occurrences outside of the state's largest mountain ranges. The Sisk occurrence is larger than eight of the 19 documented occurrences and more than twice as large as 7 of them.

(d) Dr. Hudson, the applicant's expert witness, opined that there are fifteen additional potential but undocumented areas where this community may occur and estimated that they encompass an additional 8,000 acres. Inclusion of these additional potential but undocumented areas would bring the total extent of this community to 0.24% of the state – a minor increase that does not diminish the rarity of this community. Inclusion of these potential areas would increase the number of occurrences to 34, which is at the low end of the range of 20-100 occurrences that are part of the standard for an S3 classification. Eight of the 15 potential but undocumented occurrences are smaller than the one on Sisk Mountain, which does not change the position of Sisk relative to other occurrences.

(e) "The occurrence on Sisk Mountain was assigned an Element Occurrence Rank of "B", or "Good", by MNAP. Of the three elements that go into this ranking (condition, size and landscape context), the occurrence on Sisk Mountain was given the highest ranking for condition, with MNAP noting its undisturbed and natural condition. Other examples of this community in Maine have been impacted by timber harvesting, which reinforces the value of the occurrence on Sisk Mountain as an undisturbed and natural example. The size and natural condition of the occurrence of this rare natural community on Sisk Mountain are such that it should be considered an ecologically significant occurrence.

(f) As documented by the applicant, the project would eliminate, fragment or indirectly impact 102 of the 358 acres of this rare community occurrence, or nearly 30% of its extent. The applicant's estimate of project impacts assumes an indirect impact ("edge effect") zone of only 50 feet around the actual project footprint. This estimate is conservative. Maine's *Beginning with Habitat Program* uses a buffer of 250 ft around developed areas and roads of similar scale to those in the project. Using this state-published and approved methodology would result in an estimate of total direct and indirect impact of 144 acres, or about 40% of the mapped extent of the community.

(g) "The fragmenting impact of the southernmost 4 turbines (Turbines #12 to #15) and their access road would be the same as Turbine #11 at its originally proposed

location (*see* Findings of Fact #7,A(3); #22,D(4); #23; #24; and #25,F). Significant adverse impacts to this rare natural community are limited to the southernmost 7 turbines and the associated access road. The northern 7 turbines would lay outside the mapped extent of the community, and Turbine #8 and its associated access road impact only a small area at the northern tip of the mapped occurrence.

(h) CP asserted that "the southern portion of the proposed project, encompassing Turbines #8 through #15, and the associated access roads, lies predominantly within the mapped Subalpine Fir Forest. CP further asserted that "the fragmenting impact of the southernmost four turbines (Turbines #12 through #15), and their access road, would be the same as Turbine #11 [where it was] originally proposed." "Significant adverse impacts to this Subalpine Fir Forest are limited to the southernmost seven turbines and the associated access road. The northern seven turbines would lie outside the mapped extent of the community, and Turbine #8 and its associated access road [would] impact only a small area at the northern tip of the mapped occurrence."

(2) *Bicknell's Thrush.* The CP asserted the following regarding Bicknell's thrush:

(a) Bicknell's thrush is one of the highest conservation priorities in our region and is listed by multiple conservation organizations and government agencies as a species of highest conservation concern. The applicant's breeding bird survey report states that Bicknell's thrush is among North America's most rare, range-restricted breeding passerines, at greatest risk of extinction and therefore of highest continental conservation concern. The northeastern United States and southeastern Canada are the only places in the world where Bicknell's thrush breeds.

(b) Bicknell's thrush is a species of global conservation concern and is at substantial risk of being listed under the Endangered Species Act, if appropriate measures are not taken. Within our region, Bicknell's thrush is limited to high elevation, stunted spruce-fir forest. Despite a few isolated observations of Bicknell's thrush in regenerating clear-cuts at lower elevations, there is no peer-reviewed scientific evidence that Bicknell's thrush breed successfully in Maine in this habitat type.

(c) Experts have urged caution to avoid development in high quality Bicknell's thrush breeding habitat. Chris Rimmer of the Vermont Center for Ecostudies, has recommended that "habitat alterations should be avoided in areas where natural disturbance, either chronic or random, could maintain suitable habitat for Bicknell's thrush. Such areas include west-facing slopes, ridgelines, fir waves, and areas adjacent to fir waves.

(d) The applicant underestimated the amount of direct breeding habitat loss to Bicknell's thrush at 8 acres, and has made questionable assumptions about Bicknell's thrush observations on the edges of the search areas. Search areas for spot-mapping efforts were limited to 10 ha plots around each of six point count locations, providing no information about Bicknell's thrush use of habitat beyond these plots. Where the Bicknell's thrush's territory falls relative to the point it was observed changes the amount of habitat impacted by the project. If the applicant's assumptions are wrong and any observed Bicknell's thrush actually

uses habitat beyond the search area, then the impact to the Bicknell's territory would be significantly greater than the applicant asserts.

(e) Bicknell's thrush defends one patch of ground for their territory, not disjunct patches in multiple locations on the landscape. The loss of direct habitat would impact multiple Bicknell's thrush territories.

(f) The applicant failed to acknowledge the well-studied and well-documented impacts from edge effects. Disturbance caused by edge effects would be much different and much more dramatic than that caused by a typical small-scale logging road or by a natural disturbance. The applicant's expert admitted that the habitat directly adjacent to the clearings would change, and that the applicant's estimate of habitat degradation failed to include habitat degradation due to edge effects.

(g) The applicant grossly overestimated the amount of potential Bicknell's thrush habitat available on the landscape. The applicant's expert's assertion that there are 98,000 acres of additional available habitat in Maine is based on a study that advises using caution when applying the habitat model in areas north of 45 degrees latitude. Sisk Mountain is north of 45 degrees latitude. The applicant's expert admitted that only a portion of the 98,000 acres would be available as potential habitat.

(h) Studies the applicant's expert referenced to support the claim that Bicknell's thrush use regenerating clear-cuts were conducted in Canada where Bicknell's thrush is known to breed at lower elevations than in Maine. The applicant's expert admitted that there is no documentation of Bicknell's thrush breeding successfully in Maine in regenerating clear-cuts. Even if some of the "available" habitat is truly available potential habitat, it's very likely that it would provide lower quality habitat compared to naturally disturbed forests. Lower quality bird habitat often attracts singing males with little or no chance of successful breeding.

(i) Protection of Species of Special Concern is important. This designation is a red flag that the species is at risk and, if appropriate measures are not taken, we may soon find the species facing extinction. MDIFW's Comprehensive Wildlife Conservation Strategy identified Bicknell's thrush as one of the only 12 bird species of very high priority on the list of Species of Greatest Conservation Needs, which indicates high potential for state extirpation without management intervention and/or protection.

(j) CP asserted that "the northern part of the project area, consisting of turbines #1 through #8, does not contain high-quality Bicknell's thrush habitat, is not now in use by Bicknell's thrush, and it not likely potential future habitat. Concern over habitat loss and risk of collisions with turbines during the breeding season is minimal." CP further asserted that "with five of the seven southern turbines in or within 100 meters of potential Bicknell's thrush habitat, there is a significant risk of collision [with turbine blades] and mortality." CP's expert witness contended that "flight songs for male Bicknell's thrush typically consist of 10 to 15 second flights, 25 to 75 meters (82 to 246 feet) above the ground often in large circles as large as 100 meters. The turbine blades are 119 feet and higher off the ground. Even if the Bicknell's thrushes don't fly higher than 150 feet off the ground"…..

"there is still considerable opportunity for collision with the turbine blades causing direct mortality."

(k) Even though the migration passage rate for birds and bats over the project area is only moderate, the average flight height is one of the lowest recorded in the northeast for forested ridges, resulting in an overall high number of targets passing through the rotor swept area per hour.

(l) Though the migration passage rates do not rise to the level of creating an undue adverse impact, the low altitude of flights over the project area is a concern in terms of the potential for direct mortality. As a result, rigorous post-construction studies should be required and should be developed by the Department of Inland Fisheries and Wildlife in consultation with the U.S. Fish and Wildlife Service.

(3) The CP asserted the following in its testimony (Publicover, p. 5): "LURC's 1997 Comprehensive Land Use Plan contains numerous references to the values and sensitivity of high mountain areas:

(a) 'Mountain areas' are specifically listed among the 'unique, high-value natural resources' included in the principal values of the jurisdiction. Throughout the document mountains are consistently listed as one of the specific resources that give the jurisdiction is special character.

(b) The goal and both policies pertaining to mountain resources emphasize the protection of their significant values:

- Goal: 'Conserve and protect the values of high-mountain areas from undue adverse impacts.'
- Policy 13: 'Regulate high-mountain areas to preserve the natural equilibrium of vegetation, geology, slope, soil and climate, to reduce danger to public health and safety posed by unstable mountain areas, to protect water quality, and to preserve *scenic value, vegetative communities, unique wildlife communities* and low-impact recreational opportunities.' [italics added]
- Policy 14: 'Protect high-mountain resources with particularly high natural resource values or sensitivity which are not appropriate for most development.'"

B. *Friends of the Boundary Mountains (FBM)*. The following summarize the FBM's assertions with regard to Bicknell's thrush and the Subalpine Fir Forest community:

(1) FBM asserted that the proposed KEP will create undue adverse effects on natural resources such as the Subalpine Fir Forest which provides breeding habitat for Bicknell's thrush.

(2) "The adverse effects of the proposed [KEP] on the 358 acres of Subalpine Fir Forest on Sisk Mountain, combined with the existing impacts due to the KWP, "demonstrates that the tipping point in being able to fit such industrial development harmoniously into the natural environment has been reached."

(3) FBM concurs with the conclusions reached by the CP, who argued that this "level of impact on a significant rare natural resource clearly rises to the level of an undue adverse impact, calculating the direct and indirect impact of the proposed KEP to be on 40% of the Subalpine Fir Forest on Sisk Mountain alone. FBM also concurs with the CP's assertion that timber harvesting in this community does not justify its further destruction, but makes protection of remaining undisturbed occurrences more imperative. Past impacts in other areas do not justify additional cumulative impact,

and would be contrary to the intent of LURC's third principle goal to "Maintain the natural character of certain areas within the jurisdiction having significant natural values…"

(4) FBM agrees with the CP that "this important habitat faces risks from timber harvests and wind power development" which "strengthens the reason why larger intact, undisturbed examples like Sisk [Mountain] should be protected as an important and well-recognized part of the State's climate change strategy. Protecting habitats that will have an important role in allowing the region's species to adapt to future climate change is as much needed as is wind power."

(5) FBM asserted the following with respect to the CLUP:

(a) "Goal #2 in the new 2010 CLUP vows to, 'prevent the degradation of natural and cultural values resulting from cumulative impacts of incremental development' (2010 CLUP, p. 8; also 1997 CLUP, p. 142)." "The Commission must review the expanded project as a whole and ask whether the expanded development can fit harmoniously into the natural environment." "It is the position of FBM that the industrial development of Sisk [Mountain]"…. "will 'tip the balance' too far by creating an industrial cluster whose cumulative undue adverse impacts cannot meet the applicable standards."

(b) "The 2010 CLUP, in its 'Mountain and Soil Resources', confirms that one of the greatest threats to the fragile environment above 2,700 feet is the impact of erosion from road construction (*see* also 1997 CLUP Ch. 3, p. 56). "This proposed expansion is not consistent with the Commission's new adopted CLUP, with required regulations and statutes. The cumulative impacts, from the road construction, pad placement and electrical corridor, will cause an undue adverse impact to the project footprint area and beyond."

**Conclusions**

Based on the above, with respect to the Kibby Expansion Project proposal, the Commission finds and concludes that:

1. Wind power projects must be evaluated on the basis of the provisions of the Commission's statute, as revised in accordance with provisions of PL 2007, Ch. 661 (the Wind Energy Act). The applicant has not carried its legal burden of proof in showing that the criteria of the Commission's statute, 12 M.R.S., § 685-A(4), or the criteria of 35-A M.R.S., Ch. 34-A, § 3452 have been met.

2. The record in this proceeding contains argument to the effect that the scenic impacts caused by the KEP are sufficiently significant such that mitigation is required. And, presumably the argument goes, if such impacts were appropriately mitigated, the KEP could be properly permitted. While the Wind Energy Act requires an applicant to demonstrate a project will provide "significant tangible benefits" to the host and neighboring communities, *see* 12 M.R.S. § 685-B(4-B)(D) & 35-A M.R.S. § 3451(10), there is no provision in the Act for mitigation. In other words, if the applicant fails to demonstrate the applicable scenic standard has been met, the project is not approvable through resort to compensation intended to redress the unreasonable scenic impact.

3. *Scenic and historic impact*.

A. Based upon the record before it, the Commission finds that the factual concerns raised by the Maine Historic Preservation Commission, the Maine Bureau of Parks and Lands, and the opposing intervening parties regarding the unreasonable adverse effects on scenic resources of state or national significance are well founded. In particular, the scenic impacts to the Chain of Ponds and the Arnold Trail demonstrate that the KEP would not meet the standards of 35-A M.R.S. § 3452.

B. The Chain of Ponds and surrounding area is a recreational and historic destination known for its scenic character, with a natural landscape of mountains, lakes and forest important to the existing uses of the area, including use of the area by those interested in experiencing the historic and federally listed Arnold Trail. Although development in the Chain of Ponds area has occurred, Route 27 is not visible from Chain of Ponds (Long Pond and Bag Pond), and structural development is scattered, and thus visibility of it is minimal. Accordingly, the unique historic and scenic character of the distinctive Chain of Ponds area has generally not been compromised with respect to the integrity of the historic Arnold Trail.

C. The KEP would be visible from four scenic resources of state or national significance, namely: the Chain of Ponds (Long Pond, Bag Pond, and Natanis Pond); the Arnold Trail; Arnold Pond; and Kibby Stream, from distances of approximately 3 miles for the Chain of Ponds and Arnold Trail, and 7 miles for Arnold Pond and Kibby Stream. The existing KWP is, or will be once Series B is fully constructed, visible from the Arnold Trail and Chain of Ponds (Round Pond, Natanis Pond, Long Pond, Bag Pond, and Lower Pond). Both Series A and Series B of the KWP can be viewed from Kibby Stream. Thus, the KEP would be visible from Arnold Pond, and in combination with the KWP would increase the extent of the views of turbines on Chain of Ponds, the Arnold Trail, and Kibby Stream.

D. Applying the standard set forth in the Wind Energy Act, the Commission finds that the proposed KEP, and—in part, in combination with the existing scenic impacts from the KWP—would significantly compromise views from the four scenic resources of state or national significance such that the development would have an unreasonable adverse effect on scenic character or existing uses related to scenic character. The KEP, and the KEP in combination with the KWP where both are visible, have the potential to significantly impact the existing historic and recreational uses related to the scenic character of the Chain of Ponds and the historic Arnold Trail, which runs over water along the length of the Chain of Ponds and Arnold Pond. Approximately a third of the length of the Chain of Ponds would be impacted by the view of portions of several turbines, with a view of up to 14 of the KEP's turbines situated between Mt. Pisgah and Sisk Mountain when viewed from Long Pond. Because the Arnold Trail coincides with the Chain of Ponds, it would also be similarly affected. From Arnold Pond, portions of 9 of the northernmost turbines would be visible at a distance of 7 to 8 miles. From Kibby Stream, up to 9 of the KEP's turbines would be partly visible at a distance of

approximately 7 to 8 miles. From the same vantage point, both the Series A turbines and the Series B turbines of the KWP would be visible at a distance of approximately 1.5 to 3 miles.

E. While the KEP, and the KEP in combination with the KWP where both are visible, would significantly compromise views, the unreasonable adverse impact to the scenic character of the Chain of Ponds and the Arnold Trail would result from the cumulative impact of the southernmost 7 turbines, in the aggregate, and the associated access road. The northernmost 8 turbines would only be visible from approximately 10% of the Chain of Ponds, and would be located further from the Chain of Ponds and the Arnold Trail than the southernmost turbines. The access road associated with the southernmost turbines would be on slopes up to 45% and would require cut and fill areas up to 100 vertical feet that are not likely to be screened by re-vegetation.

4. *Subalpine Fir Forest and Bicknell's thrush.*

A. Based upon the record before it, the Commission finds that the concerns raised by the MNAP and the opposing intervening parties regarding significant impacts to the protected Subalpine Fir Forest and to Bicknell's thrush in the KEP development area are well founded. Although the applicant revised its project design as recommended by MNAP and MDIFW by relocating Turbine #11, the remaining impact to a documented rare, high value natural plant community, in combination with the potential for an adverse affect on the Bicknell's thrush, a Species of Special Concern dependent upon the Subalpine Fir Forest and documented at this site, would constitute an undue adverse effect on natural resources in the area affected.

B. The likelihood of impacts to the Subalpine Fir Forest natural community and to Bicknell's thrush must be considered jointly in this case because of the high value quality of the community and the documented occurrence during the breeding season of Bicknell's thrush at the site. The Commission acknowledges that MDIFW has rated the Bicknell's thrush as a Species of Special Concern, not as threatened or endangered. Nevertheless, impacts to this species must be scrutinized because of its limited breeding range in the northeastern U.S. and Canada, and its typical breeding habitat in high elevation areas. Because this species is largely dependent upon the Subalpine Fir Forest, direct and indirect impacts to 102 acres (or one third) of this 358 acre high value natural community would constitute an undue adverse impact. This impact is additionally underscored by this particular natural plant community being rated by MNAP as having "good viability".

C. The undue adverse impact to the Subalpine Fir Forest due to this project would be as a result of the cumulative impact of the southern seven turbines, in the aggregate. Turbines #1 through #7 are not proposed to be located within the mapped Subalpine Fir Forest, and Turbine #8 would affect only a small area of this natural community. Because this plant community provides the Bicknell's thrush habitat, the potential for an undue adverse impact to this species would also largely result from the southern seven turbines. The

additional risk of direct impact with the blades, in particular Turbines #12 through #15, only increases the potential for an undue adverse impact to occur.

D. For the reasons cited in these Conclusions, based upon the record before it, the Commission finds that the proposed KEP would not fit harmoniously into the existing natural environment, and would constitute an undue adverse impact on existing uses and natural resources, specifically the Subalpine Fir Forest and Bicknell's thrush, in the areas likely to be affected by the proposal, in contravention of § 685-B(4)(C) of the Commission's statute.

5. The applicant has failed to show that the KEP is in conformance with the Commission's Comprehensive Land Use Plan (CLUP). While this matter is governed by the Wind Energy Act, at the time the Commission accepted the applicant's application as complete for processing, the 1997 CLUP remained effective. The Commission adopted and the Governor approved the 2010 CLUP in March of 2010.

A. The 1997 CLUP provides for the environmentally sound and socially beneficial utilization of indigenous energy resources where there are not overriding, conflicting public values that require protection. It encourages energy conservation and diversification and the use of indigenous renewable resources to increase the State's energy self-sufficiency. It does, however, prohibit energy developments and related land uses in areas identified as environmentally sensitive where there are overriding, conflicting environmental and other public values requiring protection (p. 136). To that end, the CLUP sets policies of identifying and protecting high mountain resources with particularly high natural resource values or sensitivity that are therefore not appropriate for most development. The CLUP further seeks regulation of high mountain areas to preserve the natural equilibrium of vegetation, geology, slope, soil, and climate, to reduce danger to public health and safety posed by unstable mountain areas, to protect water quality, and to preserve scenic values, vegetative communities, and low-impact recreational opportunities (pp. 137-38). Finally, the CLUP sets policies of regulating land uses generally in order to protect natural aesthetic values and prevent incompatibility of land uses, and protecting the scenic values of, among others, mountain areas (pp. 139-40).

B. While the 2010 CLUP expressly recognizes the statutory changes made by the Wind Energy Act with respect to wind energy development in the expedited permitting area, the CLUP is clear that "[g]iven the finite number of high mountain areas and the value of their scenic, recreational and natural resources, it is unlikely that the Commission will consider all mountain areas in the jurisdiction suitable for wind power development or comparable uses" because "wind turbines and associated infrastructure have the potential to compromise the resources the P-MA Subdistrict is designed to protect." (p. 223). The CLUP continues to provide for the environmentally sound and socially beneficial utilization of indigenous energy resources where there are not overriding public values that require protection, and it clarifies that it seeks to accommodate energy generation installations that are consistent with the State's energy policies, are suitable for the proposed location(s), and minimize intrusion on natural and cultural resources and

values. The CLUP continues to prohibit energy developments and related land uses in areas identified as environmentally sensitive when there are overriding environmental and other public values requiring protection (p. 13). And the CLUP continues to indentify policies of protecting high-mountain resources with particularly high natural resource values or sensitivity that are therefore not appropriate for most development, and it continues to seek regulation of high-mountain areas to preserve the natural equilibrium of vegetation, geology, slope, soil and climate, to reduce danger to public health and safety posed by unstable mountain areas, to protect water quality, and to preserve scenic values, vegetative communities, unique wildlife communities and low-impact recreational opportunities (p. 16). Finally, the CLUP reflects the Wind Energy Act in setting the policy of identifying and protecting areas that possess scenic features and values of state or national significance (p. 18).

While it appears the 1997 CLUP is applicable to this proceeding, *see* 1 M.R.S. § 302, the Commission does not reach the issue as the KEP is not in conformance with either the 1997 CLUP - as read in light of the Wind Energy Act - or the 2010 CLUP. For all the reasons stated in these Conclusions and based upon the record before it, the Commission finds the KEP, with respect to scenic and historic impacts, Subalpine Fir Forest, and Bicknell's thrush would not be in conformance with the above-identified goals and polices of the 1997 CLUP and 2010 CLUP.

6. While a number of other issues were raised concerning conformity of the project proposal with applicable provisions of the Commission's Standards and its statute, because of the above conclusions that require it to deny the application, the Commission does not reach those additional issues.

**Therefore, the Commission DENIES Development Permit DP 4860 submitted by TransCanada Maine Wind Development, Inc. for the Kibby Expansion Project, as proposed.**

In accordance with 5 M.R.S.A. section 11002 and Maine Rules of Civil Procedure 80C, this decision by the Commission may be appealed to Superior Court within 30 days after receipt of notice of the decision by a party to this proceeding, or within 40 days from the date of the decision by any other aggrieved person.

DONE AND DATED AT BANGOR, MAINE THIS 4th DAY OF AUGUST, 2010.

By:_____
Catherine M. Carroll, Director

# APPENDIX A
# REVIEW CRITERIA

TITLE 12

1. *12 M.R.S.A., Section 685-B,4*. "Criteria for approval. In approving applications submitted to it pursuant to this section, the commission may impose such reasonable terms and conditions as the commission may consider appropriate.

"The commission may not approve an application, unless:

A. Adequate technical and financial provision has been made for complying with the requirements of the State's air and water pollution control and other environmental laws, and those standards and regulations adopted with respect thereto, including without limitation the minimum lot size laws, sections 4807 to 4807-G, the site location of development laws, Title 38, sections 481 to 490, and the natural resource protection laws, Title 38, sections 480-A to 480-Z, and adequate provision has been made for solid waste and sewage disposal, for controlling of offensive odors and for the securing and maintenance of sufficient healthful water supplies;"

"B. Adequate provision has been made for loading, parking and circulation of land, air and water traffic, in, on and from the site, and for assurance that the proposal will not cause congestion or unsafe conditions with respect to existing or proposed transportation arteries or methods;"

"C. Adequate provision has been made for fitting the proposal harmoniously into the existing natural environment in order to assure there will be no undue adverse effect on existing uses, scenic character, and natural and historic resources in the area likely to be affected by the proposal. In making a determination under this paragraph regarding development to facilitate withdrawal of groundwater, the commission shall consider the effects of the proposed withdrawal on waters of the State, as defined by Title 38, section 361-A, subsection 7; water-related natural resources; and existing uses, including, but not limited to, public or private wells, within the anticipated zone of contribution to the withdrawal. In making findings under this paragraph, the commission shall consider both the direct effects of the proposed withdrawal and its effects in combination with existing water withdrawals."

"In making a determination under this paragraph regarding an expedited wind energy development, as defined in Title 35-A, section 3451, subsection 4, the commission shall consider the development's effects on scenic character and existing uses related to scenic character in accordance with Title 35-A, section 3452;"

"D. The proposal will not cause unreasonable soil erosion or reduction in the capacity of the land to absorb and hold water and suitable soils are available for a sewage disposal system if sewage is to be disposed on-site;"

"E. The proposal is otherwise in conformance with this chapter and the regulations, standards and plans adopted pursuant thereto; and"

"F. In the case of an application for a structure upon any lot in a subdivision, that the subdivision has received the approval of the commission."

"The burden is upon the applicant to demonstrate by substantial evidence that the criteria for approval are satisfied, and that the public's health, safety and general welfare will be adequately protected. Except as otherwise provided in Title 35-A, section 3454, the commission shall permit the applicant and other parties to provide evidence on the economic benefits of the proposal as well as the impact of the proposal on energy resources."

TITLE 35-A, CHAPTER 34-A, §§ 3451 AND 3452 (PL 2007, CH. 661)

2. *35-A M.R.S., Ch 34-A, § 3452. Determination of effect on scenic character and related existing uses.*
   (1) "*Application of standard*. 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 12, section 685-B, subsection 4 or Title 38, section 484, subsection 3 or section 480-D, the primary siting authority shall determine, in the manner provided in subsection 3, whether the development significantly compromises views from a scenic resource of state or national significance such that the development has an unreasonable adverse effect on the scenic character or existing uses related to scenic character of the 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 either Title 12, section 685-B, subsection 4, paragraph C or Title 38, section 484, subsection 3."
   (2) *"Exception; certain associated facilities.* The primary siting authority 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 12, section 685-B, subsection 4, paragraph C or Title 38, section 484, subsection 3, in the manner provided for development other than wind energy development, if the primary siting authority 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 primary siting authority for its consideration. The primary siting authority shall make a determination pursuant to this subsection within 30 days of its acceptance of the application as complete for processing."
   (3) *"Evaluation criteria.* 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 primary siting authority 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 primary siting authority 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."

(4) *"Visual impact assessment; rebuttable presumption.* An applicant for an expedited wind energy development shall provide the primary siting authority with a visual impact assessment of the development that addresses the evaluation criteria in subsection 3 if the primary siting authority 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 primary siting authority 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. Information intended to rebut the presumption must be submitted to the primary siting authority by any interested person within 30 days of acceptance of the application as complete for processing. The primary siting authority shall determine if the presumption is rebutted based on a preponderance of evidence in the record."

3. *Definitions: 35-A M.R.S., Ch 34-A, § 3451*

(1) *Section (9). "Scenic resource of state or national significance*. "Scenic resource of state or national significance" means an area or place owned by the public or to which the public has a legal right of access that is:

(a) A national natural landmark, federally designated wilderness area or other comparable outstanding natural and cultural feature, such as the Orono Bog or Meddybemps Heath;

(b) A property listed on the National Register of Historic Places pursuant to the National Historic Preservation Act of 1966, as amended, including, but not limited to, the Rockland Breakwater Light and Fort Knox;

(c) A national or state park;

(d) A great pond that is:

(i) One of the 66 great ponds located in the State's organized area identified as having outstanding or significant scenic quality in the "Maine's Finest Lakes" study published by the Executive Department, State Planning Office in October 1989; or

(ii) One of the 280 great ponds in the State's unorganized or deorganized areas designated as outstanding or significant from a scenic perspective in the "Maine Wildlands Lakes Assessment" published by the Maine Land Use Regulation Commission in June 1987;

(e) A segment of a scenic river or stream identified as having unique or outstanding scenic attributes listed in Appendix G of the "Maine Rivers Study" published by the Department of Conservation in 1982;

(f) A scenic viewpoint located on state public reserved land or on a trail that is used exclusively for pedestrian use, such as the Appalachian Trail, that the Department of Conservation designates by rule adopted in accordance with section 3457;

(g) A scenic turnout constructed by the Department of Transportation pursuant to Title 23, section 954 on a public road that has been designated by the Commissioner of Transportation pursuant to Title 23, section 4206, subsection 1, paragraph G as a scenic highway; or

(h) Scenic viewpoints located in the coastal area, as defined by Title 38, section 1802, subsection 1, that are ranked as having state or national significance in terms of scenic quality in:

(i) One of the scenic inventories prepared for and published by the Executive Department, State Planning Office: "Method for Coastal Scenic Landscape Assessment with Field Results for Kittery to Scarborough and Cape Elizabeth to South Thomaston," Dominie, et al., October 1987; "Scenic Inventory Mainland Sites of Penobscot Bay," Dewan and Associates, et al., August 1990; or "Scenic Inventory: Islesboro, Vinalhaven, North Haven and Associated Offshore Islands," Dewan and Associates, June 1992; or

(ii) A scenic inventory developed by or prepared for the Executive Department, State Planning Office in accordance with section 3457."