



STATE OF MAINE
 DEPARTMENT OF CONSERVATION
 MAINE LAND USE REGULATION COMMISSION
 22 STATE HOUSE STATION
 AUGUSTA, MAINE
 04333-0022

JOHN ELIAS BALDACCI
 GOVERNOR

PATRICK K. McGOWAN
 COMMISSIONER

PERMIT

COMMISSION DECISION IN THE MATTER OF

TransCanada Wind Maine Development, Inc.

Findings of Fact and Decision

DEVELOPMENT PERMIT DP 4830

The Maine Land Use Regulation Commission, at a meeting of the Commission held August 5, 2009, at Bangor, Maine, after reviewing the application and supporting documents submitted by TransCanada Wind Maine Development, Inc. for Development Permit DP 4830, public comments, agency review and staff comments and other related materials on file, pursuant to 12 M.R.S.A. Section 681 *et seq.* and the Commission's Standards and Rules, finds the following facts:

1. Applicant: TransCanada Wind Maine Development, Inc.
 8th Floor, 55 Yonge Street
 Toronto, Ontario M5E 1J4
2. Date of Completed Application: July 7, 2009
3. Location of Proposal: Kibby Township, Franklin County
 Map FR 13, Plan 01, Portions of Lots #1.1 and #2
 Chain of Ponds Township, Franklin County
 Map FR 14, Plan 01, Portion of Lot # 1
4. Zoning: (P-MA) Mountain Area Protection Subdistrict
 (M-GN) General Management Subdistrict
 (P-SL) Shoreland Protection Subdistrict
5. Parcel Ownership: Chain of Ponds Township - Kennebec West Forest, LLC
 Kibby Township - Plum Creek Maine Timberlands, LLC
6. Proposed Accessory Structures: One (1) Meteorological Instrumentation Tower
7. Affected Waterbodies: Clear Brook and Gold Brook, both of which are Class A flowing waters



Administrative History

8. *Development Permits DP 4728 and DP 4728-A.* Development Permits DP 4728 and DP 4728-A granted permit approval for up to eight met towers in Kibby Township. In 2005, TransCanada Energy, Ltd. was granted an easement agreement for a portion of the properties that were originally to have been developed by Kenetech Windpower in the 1990s to pursue development of a windpower facility, including the installation of meteorological instrumentation towers (reference Development Permits DP 4144, DP 4186, DP 4286, and DP 4287; Zoning Petition ZP 536, and Utility Line Permit ULP 352).
9. *Zoning Petition ZP 709 and Preliminary Development Plan.* On March 5, 2008, TransCanada Maine Wind Development, Inc. ("the applicant") was granted approval by the Commission to rezone two parcels in Skinner Twp. and Kibby Twp., Franklin County to a (D-PD) Planned Development Subdistrict for the purpose of constructing a wind energy development. The approval also included the Kibby Wind Power Project Preliminary Development Plan.
10. *Final Development Plan Permit DP 4794, as amended.* On July 9, 2008, the applicant was granted permit approval for Final Development Plan Permit DP 4794 to construct a wind energy facility in Skinner Twp. and Kibby Twp. consisting of 44 turbines in two series, a 27 mile long 115 kV generator lead line connecting the facility to the existing Bigelow Substation in Carrabassett Valley, and various associated facilities and activities. Amendments A through D were subsequently issued for various changes to the layout and design of the project.

Proposal

11. The applicant proposes the installation of one (1) temporary meteorological instrumentation tower ("met tower") on an unnamed peak north of Sisk Mountain. The proposed met tower would be located in Chain of Ponds Township, and the associated access way would be located in Chain of Ponds Township and Kibby Township. The met tower would be placed at approximately the location of Site #3 on Exhibit A of the Special Use License Agreement between the applicant and landowner Plum Creek Maine Timberlands, LLC, within a Mountain Area Protection (P-MA) Subdistrict at an elevation of approximately 2,960 ft above mean sea level. The existing logging road that would provide access to the site is located in a General Management (M-GN) Subdistrict and in a Shoreland Protection (P-SL) Subdistrict where a small stream is crossed. A new access way would be created between the end of the existing log road and the proposed met tower site, in part following an existing skid trail. The new access way would be located within a (M-GN) General Management Subdistrict and P-MA Subdistrict. Approximately ½ of the proposed new access way would be located within an area previously subject to timber harvesting.
12. Collectively with wind resource data gathered by the met towers previously permitted in Kibby Township (reference Development Permit DP 4728), the proposed temporary met tower would collect additional meteorological data to assess the wind resource for the purpose of developing of a wind energy generating facility. The met tower would be left in place for up to four years, and at the end of that time, would be removed if no other permanent installation is proposed.

13. *Description of met tower.*

- A. The met tower would be 197 feet (60 meters) tall, 10 inch diameter monopole structure, consisting of 9 foot long sections, on a 30 inch square steel base and supported by up to 12 guy wires. The guy wires would be anchored into the ground or bedrock at distances from 50 to 150 feet from the tower base. The met tower would support equipment to measure wind speed, wind direction, and ambient air temperature, including telecommunications equipment and sensors.
 - B. Where bedrock is near the surface, the guy wires supporting the met tower would be installed in bedrock, requiring excavation of up to a 5 ft by 5 ft area of soil at each anchor location. Where bedrock is not at or near the surface, a 1 foot wide by 5 foot long by up to 4 foot deep hole would be excavated to install plate or dead-man anchors. Alternatively, screw-in or arrow-head type anchors may be used. All holes would be backfilled and compacted to the original grade. No other excavation is required to install the met tower. Although unlikely, a small amount of blasting may be required to install the guy wires.
 - C. Because the proposed met tower would be less than 200 feet in height, no lighting is required by Federal Aeronautics Administration.
 - D. Equipment proposed to be used to install the met tower would include equipment on tracks such as a small harvester, small excavator/backhoe, and small geotechnical drill rig. A forwarder may be used to transport tower parts to the site to minimize the number of trips up and down the trail. Equipment used would be the same as was used for the met tower installations on Kibby: two of those five met towers were installed during the fall, with no erosion or sedimentation issues occurring.
 - E. The applicant followed U.S. Fish and Wildlife Service (USFWS) guidance for communication tower design and siting to the extent possible to minimize the potential for impacts on birds and bats. However, strict adherence to the guidance is not possible due to the nature and use of the proposed met tower. For example, co-location with existing towers cannot be reasonably proposed due to the lack of other towers at the site where the resource data would be collected. Bird deterrent markers are not proposed for the guy wires because the applicant has found little mortality associated with the Kibby Mtn. met towers during avian surveys of those areas. However, USFWS recommends using a tower that is less than 200 ft tall, which has been proposed here, to avoid lighting. Additionally, the met tower would not be located in areas of known bird concentrations, migratory pathways, or near wetlands. Finally, the minimum number of towers possible has been proposed.
13. *Access way.* An existing logging road and a winter haul road would be used to the extent possible to access the met tower site. Beyond the end of the winter haul road a 12 ft wide access way would be cleared. Soil disturbance would be minimal, and stumps would not be removed but instead would be ground in place. Existing low vegetation would be left in place. The existing

winter haul road would require minimal improvements, including temporary repair of a stream crossing.

- A. Any grading would be limited to rutted areas along the existing winter haul road and any side slopes on the access way to provide for safe use by the tracked equipment. In large part, grading would be avoided, but pre-determining "exact locations and extent of any minor earth work is not possible with any certainty, and it is best determined when walking equipment into the site". The size and extent of such grading is usually small.
 - B. There is an existing unimproved footpath used for field work that does not avoid wetlands, and as such cannot be used to access the met tower site. Likewise, while the existing logging road extends to 2,700 ft in elevation, it does not avoid wetlands and is close to a stream channel. The proposed access way route would avoid and minimize impacts to these resources.
 - C. The total length of the access way would be 1.56 miles, consisting of 0.24 mile of existing gravel logging road, 0.46 mile of existing winter haul road, 0.35 mile of new access way in recently harvested regenerating area, and 0.5 mile of new access way in a forested area. The latter is within the P-MA Subdistrict. A portion of the 0.35 mile segment within the recently harvested area would be along an existing skid trail. To maintain access to the met tower site, woody vegetation taller than 2 ft within a 4 ft wide trail would be trimmed annually. The remainder of the vegetation within the cleared area would be allowed to regenerate naturally. If the met tower needs maintenance requiring mobile equipment such as a backhoe in the future, the 12 ft wide access way would be re-cleared.
 - D. Approximately 2,000 ft of the proposed new access way would be located in Kibby Twp., with the remainder located in Chain of Ponds Twp.
14. *Clearing.* A total of 2.33 acres would be cleared for the proposed project. Above 2,700 ft in elevation, the clearing for the met tower and new access way segment would be 1.79 acres. Below 2,700 ft. in elevation, the total clearing would be 0.54 acre of regenerating clear-cut.
- A. At the met tower site, a diamond-shaped area approximately 1.1 acres in size would be cleared, with low ground cover vegetation and stumps left in place.
 - B. Of the area to be cleared, 1.77 acres would be within Chain of Ponds Twp., and 0.56 acre would be within Kibby Twp.
15. *Schedule.* The applicant proposes the following construction schedule: (a) flag access way route location and the met towers site; (b) clear the existing and proposed access way, install erosion control measures and the temporary stream crossing, and initiate inspections of areas of disturbed soils; (c) initiate geotechnical work along access way as conditions allow; (d) clear the met tower site, install erosion control measures, and initiate on-going inspection of such measures; (e) transport construction materials to site and install the tower; (f) remove the temporary equipment crossing and stabilize any areas of disturbed soil; and (g) continue to inspect erosion control

measures until any disturbed soil is permanently stabilized. During heavy rain, clearing and construction activities would be suspended.

16. *Removal of the met tower.* The applicant anticipates leaving the temporary met tower in place for four years, or until a permanent met tower is installed, whichever is less. If permit approval for a permanent installation is not pursued, then the proposed temporary met tower would be removed in a timely fashion. The anchors would either be completely removed, which would involve soil disturbance, or the rods could be cut several inches below the ground surface.
17. *Geotechnical borings.* The applicant proposes to conduct geotechnical work within the cleared access way and at met tower site. Equipment for the geotechnical survey would include an excavator, a track mounted drill rig, a tracked vehicle to transport water, and an all-terrain vehicle. All borings would be done within the area to be cleared for the access way and the met tower, and would not require additional clearing. Ground disturbance for the geotechnical borings would be minimal, consisting of soil disturbance in an area slightly larger than the diameter of the drill bit.
18. *Title, right, interest.* The applicant entered into a license agreement with Kennebec West Forest, LLC (KWF) on December 22, 2008 for the use of KWF's land in Chain of Ponds Twp. where the proposed met tower and access way would be located. The applicant entered into a Special Use License Agreement with landowner Plum Creek Maine Timberlands, LLC for a 36 month period starting on March 30, 2009 for the use of the land in Kibby Twp. where a portion of the access way would be located. A summary of the land ownership and transfers was provided in Attachment A of the application. Copies of both documents were included in Exhibit B of the application.
19. *Development costs and financial capacity.* The total estimated cost to install and remove the tower, construct the access way, and conduct the geotechnical investigation is \$125,000. Financing would be provided by TransCanada Corporation, which in 2008 had a net income of \$1.44 billion, a cash flow from continuing operations of \$2.84 billion, and an asset base of \$39.4 billion. The applicant submitted a copy of TransCanada Corporation's 2008 Annual Report as supporting documentation.
20. *Technical capacity.* TransCanada Maine Wind Development is a wholly owned subsidiary of TransCanada Corporation, an established Canadian company with a proven track record in developing large infrastructure projects, including several large ongoing windpower projects in Canada, and the Kibby Wind Power Project in Kibby and Skinner Townships. TRC Engineers, LLC has been retained to provide environmental consulting and licensing support. After a permit is issued, a contractor experienced in installation and analysis of the wind data would be selected.

Natural resources assessment

21. *Soils, slopes, erosion/sedimentation control, and wetlands.* The soils along the access way route and at the met tower site were surveyed and the wetlands were mapped.

- A. *Soils.* Soils at the proposed met tower site and access way above 2,700 ft. in elevation were identified as Colonel, Lyman Tunbridge, and Abrams in upland areas; and Peachum in wetland areas. Below 2,700 ft. in elevation in areas of the new access way, soils series were identified as Colonel, Tunbridge, and Abram in upland areas; and Brayton and Peachum in wetlands. Distances to bedrock in areas above 2,700 ft in elevation ranged from 3 to 21 inches. At the met tower site the depth to bedrock was 7 inches.
- B. *Slopes.* The slope along the proposed access way ranges from 5% to 20%, and in the area of the met tower ranges from 0% to 5%. The route of the new access way segment was chosen to avoid wetlands and areas steeper than 15% to the extent possible. Where wetlands or steeper slopes could not be avoided, measures would be taken to protect these areas. Any improvements along the existing logging road would be treated in the same manner.
- C. *Erosion and sedimentation control.* The applicant proposed an Erosion and Sedimentation Control Plan ("Plan") for the construction of the access way and the installation of the met tower. The Plan is based on the Maine Forest Service's *Best Management Practices for Forestry: Protecting Maine's Water Quality*, dated 2004, and was further supplemented using the Commission's Land Use Standards and the Maine Department of Environmental Protection's *Maine Erosion Control and Sediment Control BMPs*, dated March 2003. The Plan includes a typical met tower site plan, access way profile, stream crossing using a log/timber mat bridge, wetland timber mat crossing or padding with brush, silt fence installation, mulch anchoring, slope stabilization, water bar installation, seeding plan, and provisions for construction during fall or winter, defined as September 15th to May 15th.

In consultation with the State Soil Scientist, the applicant agreed to follow his recommendations for erosion control measures to be used above 2,700 ft in elevation (see Finding of Fact #38).

- D. *Wetlands and crossings.* Two P-WL2 scrub shrub wetlands located within the regenerating clear cut area would be crossed using timber mats. The total area of P-WL2 wetlands affected would be 276 square ft or 0.006 acre. A culvert at the existing stream crossing was removed after previous timber harvesting was completed. The applicant proposes to use a temporary timber mat bridge to span the 6 ft wide stream. The stream at the crossing point has steep banks, so 16 ft to 20 ft mats would be used to span the distance from upland to upland. Equipment access would be restricted during saturated conditions.
22. *Natural plant communities.* Sisk Mtn. is approximately 3,500 ft in elevation. From lowest to highest elevations, plant communities present include some of the vegetative components of Spruce-Northern Hardwoods Forest (up to 2,700 ft), Spruce-Fir Wood Sorrel-Feathermoss Forest (up to 3,500 ft), and Fir-Heart-leaved Birch Subalpine Forest (above 3,200 ft), but due to harvesting the latter in particular is not present as a well-defined community. Much of the forest below 2,700 ft in elevation has been cut repeatedly, and areas above 2,700 ft in elevation have been subjected to timber harvesting in the past. Nevertheless, the applicant stated that it plans to continue to confer with the Maine Natural Areas Program (MNAP) to map any areas with

components of a Fir-Heart-leaved Birch Subalpine forest that are identified as surveys of the area progress.

23. *State-listed plant species.* MNAP identified three rare or exemplary botanical features within four miles of Sisk Mtn.: lesser wintergreen (S2, *Pyrola minor*), boreal bedstraw (S2, *Galium kamtschaticum*), and giant rattlesnake plantain (S1, *Goodyeara oblongifolia*). Of these, one occurrence of lesser wintergreen and one of boreal bedstraw occur on the east slope of Sisk Mtn. Both occurrences are at least 1,000 meters from the area to be affected.
24. *Protected wildlife habitat.* The project area is not associated with known essential wildlife habitat, deer wintering areas, inland waterfowl/wading bird habitat, or vernal pools. No significant natural communities (S1 or S2) or Significant Wildlife Habitat, including Waterfowl and Wading Bird Habitat, were identified within the proposed project area, although a historic golden eagle nest that has not been in use since the 1970s was identified on the southern summit of Sisk Mtn. at a distance of 1.5 miles. The nest has been visited over a period of years by the applicant's consultant, and no use of the nest has been documented. The applicant has on-going consultation with the Maine Department of Inland Fisheries and Wildlife (MDIFW) regarding this site. The applicant has also consulted with USFWS regarding the presence of bald or golden eagle in the area, and employed that agency's guidelines for communication towers to minimize avian impacts where its provisions are applicable to a met tower.
25. *Visual impact assessment.* The applicant provided a visual impact assessment of the proposed met tower, which described the characteristics of the site and the surrounding areas, the key visual elements of the proposed activities, and mitigation measures used to minimize the potential for visual impacts. The proposed project is within a forested region on one high elevations peak in an area primarily used for logging. Clear-cuts, gravel pits, logging roads, and other indications of commercial harvesting activities are visible in the viewshed. The region surrounding the project also includes the Kibby Wind Power Project to the east.

Aspects of the project that would mitigate visual impact include: (a) the use of an existing logging road; (b) the retention of low vegetation in the cleared areas; (c) the light color and thin profile of the met tower; and (d) the type of terrain and the distance between viewers and the met tower. The distance from Route 27 to the met tower would be more than 1 mile, with Sisk Mtn. partly obstructing the view from Route 27. At distances greater than one mile, the met tower would be only minimally visible, if at all, from any public vantage point.

26. *Historic/archaeological assessment.* The applicant searched the National Register of Historic Places for Franklin County, and identified Arnold Trail, which follows Route 27, as the closest historic resource to the proposed project. Views of the project from Arnold Trail would be limited by intervening topography, winding nature of the road, and tree cover along Route 27.
 - A. In 2009, the applicant conducted a Pre-contact period cultural resources management investigation of the project area, which included consultation with MHPC. The investigation concluded that Sisk Mtn. is not an area that is sensitive for Pre-contact period archaeological

resources, there are no known archaeological sites in this area, and no further archaeological investigation is warranted (see Finding of Fact #42).

- B. Based on the search of the database and the Phase 0 survey conducted in 1993 for the Kenetech Windpower project (see Finding of Fact #8, above) and a 2009 investigation conducted in the general vicinity of the development area, the applicant asserted that the project area (which overlaps with a portion of the Kenetech project area) does not contain sensitive historic or archaeological resources; and the closest historic resource to the project area would not be adversely affected.

Review Criteria

- 27. A goal of the Commission's Comprehensive Land Use Plan, Chapter 5,I,E, is to provide for the environmentally sound and socially beneficial utilization of indigenous energy resources where there are not over-riding, conflicting public values which require protection. Policies #1 and #7 guide the Commission to:
 - A. Encourage energy conservation and diversification and the use of indigenous renewable resources to increase the state's energy self-sufficiency.
 - B. Allow new or emerging energy technologies which do not have an undue adverse impact on existing uses and natural resources.
- 28. In relevant part, the Commission's statute, section 685-B,4, and the Commission's Land Use Districts and Standards, Section 10.24, provide that "The Commission shall approve no 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; and
 - B. 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; and
 - C. The proposal will not cause unreasonable soil erosion or reduction in the capacity of the land to absorb and hold water."
- 29. Pursuant to the Commission's Land Use Districts and Standards, Section 10.23,G,3,a(5), surveying and other resource analysis are uses allowed without a permit in a (P-MA) Mountain Area Protection Subdistrict.
- 30. Pursuant to the Commission's Land Use Districts and Standards, Section 10.23,G,3,c(13), other structures, uses, or services that are essential for exercise of uses listed in Section 10.23,G,3,a through c are allowed with a permit in a (P-MA) Mountain Area Protection Subdistrict.

31. Pursuant to Section 10.23,G,3,b(1) of the Commission's Land Use Districts and Standards, Level A Mineral Exploration activities, excluding associated access ways, are a use allowed without a permit, subject to standards, in a (P-MA) Mountain Area Protection Subdistrict.
32. Pursuant to Section 10.23,G,3,c(1) of the Commission's Land Use Districts and Standards, access ways for Level A mineral exploration activities, and Level A mineral exploration activities which are not in conformance with the standards of Section 10.27,C are a use requiring a permit in a (P-MA) Mountain Area Protection Subdistrict.
33. Pursuant to Section 10.02,87 of the Commission's Land Use Districts and Standards, the definition of "Level A Mineral Exploration Activities" states:

"Mineral exploration activities engaged in for purposes of determining the location, extent and composition of mineral deposits, provided that such activities are limited to test boring, test drilling, hand sampling, the digging of test pits having a maximum surface opening of 100 square feet, or other test sampling methods which cause minimum disturbance to soil and vegetative cover. Level A mineral exploration activities shall not include bulk sampling of mineral deposits.

"Access ways for Level A mineral exploration activities shall include only access ways the creation of which involves little or no re-contouring of the land or ditching, and does not include the addition of gravel or other surfacing materials. Clearing of the vegetative cover shall be limited to the minimum necessary to allow for the movement of equipment."
34. Pursuant to Section 10.23,L,3,b(7) of the Commission's Land Use Districts and Standards, Level A Mineral Exploration activities, including associated access ways, are a use allowed without a permit subject to standards in a (P-SL) Shoreland Protection Subdistrict.
35. Pursuant to Section 10.22,A,3,b(9) of the Commission's Land Use Districts and Standards, Level A Mineral Exploration activities, including associated access ways, are a use allowed without a permit subject to standards in a (M-GN) General Management Subdistrict.
36. Pursuant to the Commission's Land Use Districts and Standards, Sections 10.23,L,3,b(15) and 10.23,N,3,b(13), respectively, water crossings of minor flowing waters are a use allowed without a permit, subject to standards, in a (P-SL2) Shoreland Protection Subdistrict and a (P-WL) Wetland Protection Subdistrict.
37. Pursuant to Section 10.23,N,3,b(4) of the Commission's Land Use Districts and Standards, filling, grading, draining, dredging or otherwise altering less than 4,300 square feet of a P-WL2 or P-WL3 Subdistrict is a use allowed without a permit subject to standards.

Review Comments

38. *Maine State Soil Scientist*. The State Soil Scientist reviewed the application and had no objection to the proposal, offering the following recommendations:

A. Based on the initial application, which included four met towers, proposed work to be done in the winter on frozen ground, and did not include a site specific soil survey, the State Soil Scientist commented as follows:

- (1) If one or more sections of trail are encountered where stumps would need to be removed and excavations made to level the trail, a site specific soil survey for those areas or a site visit are recommended to determine the best methods to minimize alteration of the natural hydrology and to minimize erosion/sedimentation.
- (2) The applicant proposed (a) clearing along the trail and at the met tower site using a harvester or other logging equipment, such as a skidder; (b) to use a backhoe to erect the tower; and (c) to use a tracked vehicle towing a sled or trailer to transport the tower sections to the site. Because large pieces of equipment on slopes with soils susceptible to rutting may pose a problem at times other than the driest summer months or in the winter, a mower/grinder should be used to make the new section of the access way; part of the stumps and the roots should be left in place; and the ground trees and upper part of the stumps should be used to protect sensitive soils below from rutting.
- (3) Rather than seeding disturbed wetland soils with winter rye, these areas should be covered with erosion control mix, bark mulch, or compost to stabilize the soils and provide a more natural substrate for natural re-vegetation.
- (4) Any disturbance of soils in the higher elevation area should be minimized to the extent possible, particularly since the trail may only be temporary. Temporary sediment barriers of erosion control mix or brush berms should be used instead of silt fence.

B. After reviewing the amended proposal for only one met tower, which included a site specific soil survey, the State Soil Scientist recommended that silt fence not be used above 2,700 ft in elevation, commenting that due to the significant stoniness, thick organic horizons and shallow rooting, it is highly unlikely that sediment will be transported off-site in disturbed areas. He noted that installing silt fence can cause sediment to be transported off-site, and that in general no sediment barriers will be needed in these areas. Alternatively, he recommended using turn-outs to limit the distance for runoff to travel in disturbed areas. The tracked vehicles proposed to be used to carry equipment to the mountain top should present minimal potential for soil disturbance if care is taken on soft ground or when the water table in the soils is high. A 1' x 5' trench should not cause significant erosion/sedimentation. Brush or grindings should be placed down-gradient of the trenches to control the small potential for erosion. The measures used on soft ground to prevent rutting should include the use of mats, slash, or grindings.

39. *Maine Department of Inland Fisheries and Wildlife (MDIFW)*. MDIFW reviewed the proposal, and found no Significant or Essential Habitat, or habitats or species of special concern, in the project area. MDIFW recommended the placement of bird diverters on the guy wires to eliminate/reduce bird strikes; and placement of a sleeve over the guy wires from ground level up

to approximately 12 to 15 feet to aid wildlife in detection of the wires and help prevent/reduce entanglement of mammals, especially ungulates. MDIFW also recommended that all equipment and guy wires be removed at the end of the proposed study. With respect to fisheries resources, MDIFW commented as follows: "Gold Brook is a tributary to the North Branch of Dead River and supports wild brook trout. Clear Brook is tributary to Chain of Ponds and supports wild brook and slimy sculpins. Both streams provide temperature refuge for brook trout and landlocked salmon residing in the North Branch and Chain of Ponds. Activities associated with this project should not result in significant soil disturbance, and only one temporary stream crossing is anticipated. We do not anticipate negative impacts to fisheries resources."

40. *Maine Natural Areas Program (MNAP)*. MNAP reviewed the proposal, finding no records of significant natural features mapped for the project area. MNAP identified three state-listed plant species in the general vicinity of the project: Boreal Bedstraw (special concern, S2) Giant Rattlesnake Plantain (endangered, S2), and Lesser Wintergreen (special concern, S2). Two of these species are located on the eastern lower slope of Sisk Mountain, but the locations are sufficiently removed from the areas of proposed activity so as not to be of concern.

MNAP also stated, "In reviewing the aerial photography of the project site, it was noted that the site has a high probability of supporting a Fir - Heart-leaved Birch Subalpine Forest Natural Community. This community type is characteristic of the higher elevations of Maine's taller mountains, generally occurring at elevations greater than 2,900 ft to 3,000 ft. Due to the scarcity of sites for this community type, it is considered rare in Maine (state rank = S3, 19 documented occurrences). The application notes the presence of Fir - Heart-leaved Birch Subalpine Forest at the site in the section titled Natural Resource Description. [MNAP] does not consider the proposed activity"...."as detrimental to the Fir - Heart-leaved Birch Subalpine Forest Natural Community. [MNAP] recommended that the Fir - Heart-leaved Birch Subalpine Forest Natural Community be mapped prior to any subsequent applications for construction at the site."

41. *U.S. Army Corps of Engineers (ACOE)*. ACOE reviewed the proposal, and determined that if the wetland impacts are less than 4,300 square feet; stream crossings are done between July 15 and October 1; and no vernal pools, federal endangered species or their critical habitat would be impacted, then the project would qualify for Category 1 (non-reporting) of the Programmatic General Permit and no further action is needed.
42. *Maine Historic Preservation Commission (MHPC)*. MHPC reviewed the initial proposal for four met towers, concluding that "the project area possibly contains one or more prehistoric archaeological sites based on our predictive model of archaeological site location", and requesting a Phase I archaeological survey (specifically inspection for bedrock outcrops and possible Native American quarries) prior to any ground disturbance. However, MHPC did not express concern for the installation of a met tower alone. If the development of a wind energy development proceeds, MHPC requested the applicant submit a determination of the Area of Potential Effect (APE) for visual impacts to determine if an above-ground architectural survey will be necessary.

The applicant consulted with MHPC and conducted the requested a site investigation (see Finding of Fact #26). MHPC reviewed the archaeology report and concurred with its findings. MHPC

concluded that it will look forward to continuing consultation with LURC regarding historic properties if the development of the wind project proceeds.

43. *Maine Department of Environmental Protection (MDEP)*. MDEP reviewed the initial proposal for four met towers, and commented that the project is acceptable but offered the following recommendations:

- A. The applicant should apply the petroleum use and storage and blasting plans developed and approved Kibby Mountain on this site, as applicable.
- B. The applicant has proposed to construct an access way to allow installation of the proposed met tower and other monitoring devices, and to conduct additional soils and geotechnical investigations to evaluate the potential use of the site for installation of wind turbines. The proposed improvement of the existing access trail and logging road does not appear to require blasting or extensive placement of fill, but some blasting may be necessary to remove rock during installation of the met tower. Also, temporary improvement of an existing stream crossing will be required. The project as proposed does not appear to specifically require assessment of water use or wastewater disposal.
- C. Provided that the construction of this project follows all standards for use and storage of petroleum products, control of adverse impacts of ground vibration, airblast, and flyrock, and management of any potentially reactive rock developed for use for the Kibby Project, there should be relatively little risk of unreasonable adverse impact from those aspects of this phase of the Sisk Mountain project. It is expected that more detailed review will be required for construction and operation of wind turbines at this site, in the event that the project proceeds to that stage.

44. *U.S. Fish and Wildlife Service (USFWS)*. USFWS reviewed the proposal, and after receiving clarification that the project had been scaled down to a single met tower, offered the following comments:

- A. "Habitat disturbance will consist of clearing a small area around the tower and a small road to access the site, which will be allowed to re-vegetate after the [met] tower has been constructed. In our April 20, 2009 letter, we conveyed our concerns about potential impacts to Canada lynx and lynx critical habitat as protected under the Endangered Species Act. Based on the more detailed information you provided today, I believe that this action is not likely to adversely affect lynx or lynx critical habitat."
- B. "I also believe that this single met tower, with bird diverters and wildlife entanglement protectors is not likely to negatively impact golden or bald eagles that may be in the area."
- C. "The USFWS remains concerned about the impacts of wind turbines on bald and golden eagles and other migratory birds, and species listed under the Endangered Species Act. We look forward to working with you and LURC to avoid and minimize these impacts as wind power development continues to expand throughout the state."

45. *Public comment, requests for public hearing and applicant response.*

A. *Friends of the Boundary Mountains (FBM).* The FBM commented on the proposal as summarized below:

- (1) Because this is the first proposal to site a met tower in the non-expedited area of LURC jurisdiction, FBM asserted that full plenary consideration by the Commission is warranted. FBM further asserted that the met tower and access way will damage the high mountain area, and FBM questions the need for a met tower at this site. Chain of Ponds Twp. possesses extraordinary beauty, containing five deep mountain ponds that were classified by the "Wildlands Lakes Assessment" as management class 2, resource class 1A. Both Sisk Mtn. and Snow Mtn. abut the Chain of Ponds. State Route 27, a Scenic Highway that is a major entry into Maine from Canada, is the only public road in Chain of Ponds Twp., borders the ponds on the northeast side for five miles, and was cut out of the mountains. Chain of Ponds is frequented by tourists, and the Historic Arnold Trail (listed on the National Register of Historic Places) passes through Chain of Ponds. A wind energy facility on Sisk Mtn. would probably be visible from Rt. 27 and from Arnold Trail.
- (2) FBM asserted that this met tower permit should not be delegated to staff because the proposal is not routine and raises significant public policy issues. The Commission did not consider a met tower application to be routine under the previous regulatory regime. The passage of P.L. 2007, ch. 661 created the expedited permitting area where siting of wind power is encouraged, leaving other areas as Unexpedited Permitting Areas where wind energy development should not be encouraged. The Commission should use this application to set policy to prohibit met towers outside the expedited permitting area.
- (3) FBM asserted that wind energy development is not an allowed use in a P-MA Subdistrict, and in the past would require a rezoning. The CLUP largely prohibits wind energy development in high mountain areas, recommending that a comprehensive study of appropriate and inappropriate areas should be conducted.
- (4) The cumulative effect of incremental impacts to high mountain areas is contrary to the intent of the Natural Resources Protection Act [Title 38, Section 480-A].
- (5) Wind energy development in the areas of the jurisdiction not designated for expedited permitting by legislature under P.L. 2007, ch. 661 should be prohibited. Furthermore, the delegation of authority by legislature to the Commission to expand the expedited permitting area is unlawful.

B. *Public comment in opposition.* Interested parties expressing opposition to the proposal commented as summarized herein:

- (1) Industrial wind turbines should not be constructed on Sisk Mtn.;
- (2) The cumulative impacts to sensitive high elevation natural habitats, rare species, and surface water resources due to constructing an industrial wind power facility must be carefully and thoroughly assessed;
- (3) The proposed development may cause landslides and erosion;
- (4) The development area contains habitat for the federal endangered Canada lynx and [historically for] the Golden Eagle;
- (5) The development may adversely affect down-gradient drinking water sources;

- (6) The development would result in unacceptable visual impacts to Arnold Trail, listed in the Natural Register of Historical Places;
- (7) Met towers are a first step toward an industrial wind farm;
- (8) The development will change the character of the area;
- (9) The development will involve a vast area of disturbance;
- (10) The State is shifting to off-shore wind energy development, and mountain tops should not be developed;
- (11) Due to its historic character, Chain of Ponds Twp. should not be developed; and
- (12) The proposed development would not be located within the expedited permitting area for wind energy facilities.

C. *Public comment in support.* Interested parties in support of or not expressing an opinion specific to the proposal stated: (1) concern that those in opposition do not understand the implications of energy depletion, population squeeze, and the resulting fiscal disaster; and (2) that Sisk Mtn. should definitely be considered for wind energy development, urging LURC to support such a proposal.

D. *Request for public hearing.* FBM and other interested parties requested a public hearing on the proposal for DP 4830. A number of interested parties submitting separate comments have also previously identified themselves as members or affiliates of FBM. In summary, FBM and other interested parties asserted that the issues cited above in Sections A and B necessitate holding a public hearing; that the proposal is of significant public interest; and that the application is deficient. FBM asserted that:

- (1) The on-the-ground field work conducted was minimal and incomplete.
- (2) Although the applicant states the project is routine and minimal and therefore would not cause an undue adverse effect, it does not supply sufficient detail to allow the assertion to be properly evaluated. FBM also contests the applicant's position that a public hearing is not needed because of the minimal and routine nature of the project.
- (3) The applicant's conclusions and conditional statements do not allow a proper review and evaluation of the proposal.
- (4) The application is incomplete and internally inconsistent. The natural and historic resources not properly assessed include: high elevation soils, Canada lynx, golden eagle, State listed plant species, and the Fir-Heart-leaved Birch Subalpine Forest natural plant community.
- (5) The application does not supply adequate information regarding erosion control measures, blasting plans, compliance with USFWS Tower Siting Guidelines (Sept. 14, 2000), and construction of a road and the use of heavy equipment in a high elevation location.

E. *Applicant response to requests for a public hearing.* In response to the requests for a public hearing, the applicant asserted that the hearing should be denied, for the reasons summarized below:

- (1) The hearing is at the discretion of the Commission if it decides one is warranted, based on "the degree of public interest and the likelihood that information presented at the hearing will be of assistance to the Commission in reaching its decision." (reference Section 4.04(5)(b) of the Commission's rules)

- (2) With respect to the provision of the Commission's rules regarding information presented at the hearing:
 - (a) Many of the comments are concerned with the implications of siting a temporary met tower in advance of a larger wind energy development at the site, not specifically the met tower alone.
 - (b) Installation of a temporary met tower has previously been treated by LURC as a structure allowed in a P-MA Subdistrict, and since November of 2007 has been handled at the staff level.
 - (c) The impacts due to the met tower and access way would be minimal, and are similar to previously authorized met towers.
 - (d) The issues that have been raised by the opposing parties fall into four categories: general policy toward wind power development, impacts due to construction of a wind energy facility, impacts due to the proposed met tower and access way, and inconsistencies in the application materials. The latter two are issues related to this met tower permit application, while the first two are related to a wind energy development permit, which would be filed and subject to review, including appropriateness of the area for a wind energy project. However, such a proposal has not yet been made.
 - (e) The resource impact issues raised specific to the met tower proposal were addressed in the application and have been reviewed during the permit review, and no agency reviewers expressed opposition to the project. The perceived inconsistencies noted by the opposing parties typically are, and have been in this case addressed during the permit review process.

46. The facts are otherwise as represented in Development Permit Application DP 4830 and supporting documents.

Based upon the above Findings, the Commission concludes that:

1. *Consistency with the Comprehensive Plan.* The proposed met tower for collection of wind resource and other environmental data meets the goals and policies of the Commission's Comprehensive Land Use Plan, chapter 5, I, E (1) and (7) to encourage the development of indigenous energy sources in the state, such as hydropower and wind power. To develop a wind energy facility, the wind resource and other pertinent data at a potential site must be assessed. The proposed met tower would serve that purpose, but would not cause an undue adverse effect on the other resources in the area. No Essential Habitat, Significant Wildlife Habitat, or species of Special Concern have been identified as currently present within the proposed project area, and no concerns for this met tower proposal relative to these resources were expressed by the agency reviewers. In addition, the project has been designed and laid out in a manner that would minimize or eliminate impacts to all protected natural resources present in the project area.
2. *Financial capacity.* In accordance with Section 685-B(4) of the Commission's statutes, the applicant has provided adequate evidence of financial capacity to comply with the state's pollution control and environmental laws and the regulations and standards adopted thereto. The applicant showed that the funds to develop the site as proposed, including removal of the met

tower after the data collection has been completed, are available at this time, and would reasonably be expected to be available in the future.

3. *Harmonious fit and no undue adverse impact.* In accordance with Section 685-B(4) of the Commission's statute, the applicant has provided evidence that the project would fit harmoniously with the existing natural environment, and that minimization of impacts was considered in the siting and design of the proposed tower and access way. The applicant has further provided evidence that the project would not have an undue adverse effect on existing uses, scenic character, and natural and historic resources. No agency reviewers, including MDIFW and USFWS, have expressed opposition to the met tower proposal. Specifically, the applicant proposes one temporary pole-type met tower with no lighting; has consulted and applied USFWS guidance for tower design and location wherever the specifics of those guidelines can reasonably be met or are applicable; the access way and clearing for the met tower would have a limited and temporary effect on the high elevation area; the tower would largely be shielded from public viewpoints or not be discernible at all due to distance and topography; and there are no historic and archaeological resources in the project area that would be adversely affected.
 - A. *Visual assessment.* The applicant's visual assessment is adequate for the type of project proposed, *i.e.* a temporary met tower to be used for resource evaluation, and was based on the four met tower proposal rather than the revised one met tower proposal. The assessment showed that any visual impact from areas used for recreation, including roads and waterbodies, and from residential areas would be minimal due to the proposed site location and distance to public viewing points. Although it may be minimally visible from Route 27 in Chain of Ponds Township, the met tower's size, design and color would cause any visual impact to be minimal. The met tower is not expected to be visible from Arnold Trail.
 - B. *Avian and bat impacts.* The proposed met tower is not likely to significantly impact migrating birds or bats because it would not be lighted, does not contain moving parts, and would be of a small dimension. Neither USFWS nor MDIFW expressed concern for this proposal. Because the 2000 USFWS guidelines for siting towers were largely designed for communication phone towers, not for met towers or wind turbines, some of the guidance points are not applicable to siting a met tower. MDIFW routinely recommends bird diverters and wildlife entanglement protectors on guy wires, which LURC in turn routinely includes in permit conditions. This permit condition would be included in this permit, as well.
 - C. *Natural communities and wildlife.* The applicant has been in communication with MNAP, MDIFW, and USFWS to identify and respond to any concerns. The applicant assessed the proposed met tower site and access way route for habitat likely to support the two known rare plant species occurring near the project vicinity, and gathered information on known records of species occurring near the project area. The habitats likely to support these two species (stream shores and wetlands) were inspected for the presence of these species, and none were found. The applicant consulted with MNAP regarding the Fir - Heart-leaved Birch Feathermoss natural plant community even though this community in the proposed development area has been previously impacted by timber harvesting. MNAP did not express concerns for the proposal, but advised that the existing conditions be carefully mapped for any

future wind energy projects involving this site. MDIFW and USFWS reviewed the project area with regard to Significant Wildlife Habitat, Essential Habitat, Canada lynx, and golden and bald eagle, and no concerns for the met towers proposal were expressed.

- D. *Historic and archaeological resources.* After review of the proposal, consultation with the applicant, and an additional assessment of the site for sensitive archaeological resources, MHPC did not express concern for the met tower proposal.

4. *Temporary meteorological tower, geotechnical borings, and access way.*

- A. The proposed met tower, access way, and geotechnical borings constitute resource analysis, structures essential to an allowed use, Level A Mineral Exploration, and an access way to conduct Level A Mineral Exploration. The proposed met tower is necessary to extend wind and other environmental data collection equipment to the height needed to assess the wind resource. The proposed access way would provide access to the site for installation, maintenance, and removal of the met tower, and to collect wind measurement and other environmental data. As such, the access way is necessary for the proposed project.
- B. Although the proposed met tower, access way, and geotechnical boring work are subject to the Commission's Land Use Districts and Standards, the provisions of these rules relevant to the expedited permitting area for wind energy development are not applicable. The expedited permitting area is specifically for wind energy development, which is defined as "a development that uses a windmill or wind turbine to convert wind energy to electrical energy for sale or use by a person other than the generator. A wind energy development includes generating facilities and associated facilities." [reference P.L. 2007, ch. 661; see Title 35-A, c. 34-A, Section 3451(11)]
- C. In accordance with Sections 10.23,G,3,a(5) and 10.23,G,3,c(13) of the Commission's Land Use Districts and Standards, surveying and resource analysis is an activity allowed without a permit, and structures essential to resource analysis are allowed in a P-MA Subdistrict with a permit, respectively.
- D. The proposed temporary met tower would not create an intrusive presence in the area if the applicant complies with the conditions of this permit and otherwise proceeds as proposed. The potential for avian impacts has been minimized by following USFWS guidance on tower installation where such guidance is applicable to the proposed met tower, including eliminating the need for lighting, using the smallest number of towers possible, and employing bird deterrents on guy wires. Permanent soil and vegetation disturbance will be minimized to the greatest extent possible by allowing vegetation to grow back, by careful planning in the selection of the site location and the access way route, and by the proposed construction and erosion control methods. The applicant's visual assessment is sufficient for the Commission to conclude that, because of the distance from and topography between roads and other frequently used public recreational areas and the proposed met tower location, the visual impact due to the met tower will be low.

- E. The proposed 12 ft wide access way would only involve minimal grading or filling, but would not include construction of a road surface; would be allowed to naturally re-vegetate to only 4 ft wide after installation of the met tower; and would be sited and constructed in a fashion that would minimize impacts in the P-MA Subdistrict.
- F. In accordance with Section 10.23,G,b(1) of the Commission's Land Use Districts and Standards, as a Level A Mineral Exploration the proposed geotechnical borings are a use allowed without a permit, subject to standards, in a P-MA Subdistrict. However, in accordance with Section 10.23,G,c(1), the access way for the geotechnical borings is a use requiring a permit in a P-MA Subdistrict. The geotechnical boring activities must be conducted in a manner that will meet the standards of Section 10.27,C,1. The proposed access way must be constructed as defined in Section 10.02,87 for an access way for Level A Mineral Exploration.
5. *Erosion and sedimentation control.* The proposed Erosion and Sedimentation Control Plan is adequately protective of, and minimizes the impacts to, the P-MA Subdistrict and P-WL Subdistricts, and meets the Erosion and Sedimentation Control standards of Section 10.27,M of the Commission's Land Use Districts and Standards. In addition, the State Soil Scientist has reviewed the erosion control measures proposed and made several recommendations that should be incorporated into the applicant's Erosion and Sedimentation Control Plan.
6. *Wetlands and water crossing.* The proposed temporary water crossing meets the standards of Section 10.27,D,2 of the Commission's Land Use Districts and Standards for water crossings of minor flowing waters. The proposed stream crossing would not cause an impact to the stream or any fringing wetland. The applicant has surveyed the wetlands along the proposed access way route and at the met tower site. The proposed 276 square foot P-WL2 wetland impact would be less than 4,300 square feet, and as such is an activity allowed without a permit subject to standards, pursuant to Section 10.23,N,3,b(4) of the Commission's Land Use Districts and Standards. As proposed, the wetlands in the project area will be adequately protected.
7. If carried out in compliance with the Conditions below, the proposal will meet the Criteria for Approval, Section 685-B(4) of the Commission's Statutes, 12 M.R.S.A.

Therefore, the Commission approves the application of TransCanada Maine Wind Development, Inc., with the following conditions:

1. The Standard Conditions (ver. 10/90), a copy of which is attached, notwithstanding Special Condition #11, below.
2. The Standards for Vegetative Clearing, Section 10.27,B of the Commission's Land Use Districts and Standards, a copy of which is attached. (ver. 01/09)
3. The Standards for Filling and Grading, Section 10.27,F of the Commission's Land Use Districts and Standards, a copy of which is attached. (ver. 01/09)

4. The Standards for Level A Mineral Exploration, Section 10.27,C,1 of the Commission's Land Use Districts and Standards, a copy of which is attached. (ver. 01/09)
5. *Temporary meteorological tower.*
 - A. The permittee shall be limited to no more than one (1) temporary met tower to be used for collecting wind resource data and for other environmental studies, located at or near the site stated in Finding of Fact #11, and represented on Exhibit A (received by LURC July 7, 2009) in the amended permit application as met tower site #3. If additional towers or a significantly altered location or configuration is found to be necessary, the permittee shall submit a request for a permit amendment for review and approval prior to the installation of the additional or altered met towers.
 - B. The met tower must be a pole-type structure less than 200 feet in height and be unlighted.
 - C. Excavation for installation of each met tower guy wire anchor must be limited to no more than as described in Finding of Fact #13.
 - D. Visual markers to deter bird impacts, and sleeves up to a height of 15 feet to protect wildlife from entanglement, must be placed on the guy wires.
 - E. The pole must be set back at least 500 feet from all bodies of standing water 10 acres or greater in size, 100 feet from any streams and P-WL1 wetlands of special significance, 75 feet from the traveled portion of all roadways, and 25 feet from side and rear property lines.
6. *Access way and stream crossing.* The access way must be located at or near the location indicated on Exhibit A of the amended permit application, must be no longer than 0.5 mile in the P-MA Subdistrict, and no wider than 12 feet during the installation of the met tower. After installation of the met tower and completion of the geotechnical borings, the 12 ft wide access way must be allowed to become re-vegetated such that only a trail no wider than 4 feet with non-woody vegetation up to 2 ft tall remains. Any grading or filling must be limited to repair of rutted areas on the existing logging road, and minimally as needed to provide for safe passage by the equipment. The temporary stream crossing must span the stream channel from upland bank to upland bank, must consist of timber or log mats, and must be removed immediately after the met tower has been installed and the Level A Mineral Exploration activities completed.
7. *Geotechnical borings.* The geotechnical boring activities must be conducted in a manner that will meet the standards of Section 10.27,C,1 of the Commission's Land Use Districts and Standards. The activity must be conducted, and the access way must not exceed the definition in Section 10.02,87, Level A Mineral Exploration Activities:

“Mineral exploration activities engaged in for purposes of determining the location, extent and composition of mineral deposits, provided that such activities are limited to test boring, test drilling, hand sampling, the digging of test pits having a maximum surface opening of 100 square feet, or other test sampling methods which cause minimum disturbance to soil and

vegetative cover. Level A mineral exploration activities shall not include bulk sampling of mineral deposits.

Access ways for Level A mineral exploration activities shall include only access ways the creation of which involves little or no re-contouring of the land or ditching, and does not include the addition of gravel or other surfacing materials. Clearing of the vegetative cover shall be limited to the minimum necessary to allow for the movement of equipment.”

8. *Clearing in the P-MA Subdistrict.*

- A. No more than a total of 1.8 acres in the P-MA subdistrict may be cleared. At the met tower site, a no more than 1.2 acres may be cleared. Stumps, ground cover, and forest duff must not be removed during clearing of the met tower site and installation of the met tower, except minimally for the areas of the tower base and anchors
- B. Brush and waste wood generated during clearing activities must be removed from the site, used as padding along the access way, scattered in the woods in a natural-appearing fashion, or stacked in piles no more than 18 inches high and 25 feet long. If stacked, the piles must be no closer than 25 feet apart.

9. *Soil disturbance, erosion and sedimentation control.*

- A. During construction and use of the access way, soil disturbance must be kept to a minimum. Soil disturbance involved with the Level A Mineral Exploration activities must be limited to the description of that activity in Section 10.02,87 of the Commission’s Land Use Districts and Standards.
- B. All construction, including the access way and the met tower installation must employ the Erosion and Sedimentation Control Plan (Exhibit H of the application) (see Finding of Fact #21), as amended in accordance with review comments by the State Soil Scientist (see Finding of Fact #38). Above 2,700 ft in elevation, silt fencing must not be used, but instead any runoff from areas of disturbed soils must be controlled employing frequent turn-outs to direct the runoff to forested upland areas as sheet flow, or temporary sediment barriers of erosion control mix or brush berms. To construct the new section of the access way, except under dry summer conditions, a mower/grinder must be used; stumps and the roots must be left in place; and the brush, ground trees, and stumps must be used to protect sensitive soils from rutting. Above 2,700 ft in elevation, winter rye must not be used to stabilize disturbed soils; these areas must be stabilized using erosion control mix, bark mulch, or compost.
- C. Once implemented or put in place, erosion control devices and measures must be maintained to ensure proper functioning. If a major erosion event occurs, the permittee shall immediately implement additional measures as needed and inform LURC staff of the event within 48 hours, including describing all corrective measures taken.

- D. Any areas of disturbed soil must be promptly stabilized with seed and/or mulch, as appropriate, and maintained in a vegetated state to prevent soil erosion. Disturbed soils areas above 2,700 ft in elevation must be stabilized with mulch or erosion control mix only, and conservation seed mixes must not be used in these areas. In areas where soils stabilization and re-vegetation are not initially successful, additional measures to control erosion and sedimentation, and to re-vegetate as applicable, must be undertaken as often as necessary to be effective.
- E. If steep slopes or soft soil areas would have to be crossed to access the met tower site, where it can be used safely, a small tracked backhoe must be used in lieu of a rubber-tired heavy vehicle.
- F. If heavy equipment becomes necessary for any maintenance activity, the permittee shall contact the Commission prior to such activity, and must submit a plan for review and approval.
10. The permittee shall implement the provisions of the Blasting, Spill Prevention Control and Countermeasures, and Acidic Rock Management Plans approved for the Kibby Project (reference Development Permit DP 4794). If blasting is found to be necessary for installation of guy wires, the permittee shall inform the Commission of the date the blasting will occur.
11. Unless a permit including permanent met towers at this site has been accepted for processing, or a permit amendment request for a time extension has been submitted, notwithstanding Standard Condition #3 of Condition #1 of this permit, after the wind resource and other environmental data collection has been completed and no later than four years following the date of this permit the permittee shall remove the met tower and all other equipment from the site. Prior to removal of the met tower, the permittee shall submit plans for Commission review and approval. When removing the tower, disturbance to soil and vegetation must be limited to the greatest extent possible. The permittee shall remove the pole from the site and dispose of any waste materials in accordance with Maine Solid Waste Disposal Rules.

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 5th DAY OF AUGUST, 2009.

By: Catherine M. Carroll
Catherine M. Carroll, Director



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

STANDARD CONDITIONS OF APPROVAL FOR ALL DEVELOPMENT PERMITS

1. The permit certificate must be posted in a visible location on your property during development of the site and construction of all structures approved by this permit.
2. This permit is dependent upon and limited to the proposal as set forth in the application and supporting documents, except as modified by the Commission in granting this permit. Any variation therefrom is subject to the prior review and approval of the Maine Land Use Regulation Commission. Any variation from the application or the conditions of approval undertaken without approval of the Commission constitutes a violation of Land Use Regulation Commission law.
3. Construction activities permitted in this permit must be begun within two (2) years of date of issue and completed within five (5) years from date of issuance of this permit. If such construction activities are not begun and completed within this time limitation, this permit shall lapse and no activities shall then occur unless and until a new permit has been granted by the Commission.
4. The recipient of this permit ("permittee") shall secure and comply with all applicable licenses, permits, and authorizations of all federal, state and local agencies including, but not limited to, natural resources protection and air and water pollution control regulations and the Subsurface Wastewater Disposal Rules of the Maine Department of Environmental Protection and the Maine Department of Human Services.
5. Setbacks of all structures, including accessory structures, from waterbodies, roads and property boundary lines must be as specified in conditions of the permit approval.
6. In the event the permittee should sell or lease this property, the buyer or lessee shall be provided a copy of the approved permit and advised of the conditions of approval. The new owner or lessee must contact the Land Use Regulation Commission to have the permit transferred into his/her name and to reflect any changes proposed from the original application and permit approval.
7. The scenic character and healthful condition of the area covered under this permit must be maintained. The area must be kept free of litter, trash, junk cars and other vehicles, and any other materials that may constitute a hazardous or nuisance condition.
8. The permittee shall not advertise Land Use Regulation Commission approval without first obtaining Commission approval for such advertising. Any such advertising shall refer to this permit only if it also notes that the permit is subject to conditions of approval.
9. Once construction is complete, the permittee shall notify the Commission that all requirements and conditions of approval have been met. The permittee shall submit all information requested by the Commission demonstrating compliance with the terms of the application and the conditions of approval. Following notification of completion, the Commission's staff may arrange and conduct a compliance inspection.

Administrative Policy
Revised 10/90

MAINE LAND USE REGULATION COMMISSION



PHONE: (207) 287-2631

FAX: (207) 287-7439

B. VEGETATION CLEARING

10.27,B

Vegetation clearing activities not in conformance with the standards of this section may be allowed upon issuance of a permit from the Commission provided that such types of activities are allowed in the subdistrict involved. An applicant for such permit shall show by a preponderance of the evidence that the proposed activity, which is not in conformance with the standards of this section, shall be conducted in a manner which produces no undue adverse impact upon the resources and uses in the area.

The following requirements shall apply to vegetation clearing activities for any purpose other than road construction, road reconstruction and maintenance, wildlife or fishery management, forest management, agricultural management, public trailered ramps or hand-carry launches:

1. A vegetative buffer strip shall be retained within:
 - a. 50 feet of the right-of-way or similar boundary of any public roadway,
 - b. 75 feet of the normal high water mark of any body of standing water less than 10 acres in size, or any tidal water or flowing water draining less than 50 square miles, and
 - c. 100 feet of the normal high water mark of a body of standing water 10 acres or greater in size or flowing water draining 50 square miles or more.
2. Within this buffer strip, vegetation shall be maintained as follows:
 - a. There shall be no cleared opening greater than 250 square feet in the forest canopy as measured from the outer limits of the tree crown. However, a footpath is permitted, provided it does not exceed six (6) feet in width as measured between tree trunks, and, has at least one bend in its path to divert channelized runoff.
 - b. Selective cutting of trees within the buffer strip is permitted provided that a well-distributed stand of trees and other natural vegetation is maintained.

For the purposes of this section a "well-distributed stand of trees" adjacent to a body of standing water 10 acres or greater in size shall be defined as maintaining a rating score of 24 or more in a 25-foot by 50-foot rectangular area as determined by the following rating system.

Near other water bodies, tributary streams and public roadways a "well-distributed stand of trees" shall be defined as maintaining a rating score of 16 or more per 25-foot by 50-foot (1250 square feet) rectangular area as determined by the following rating system.

Diameter of Tree at 4-1/2 feet Above Ground Level (inches)	Points
2.0 to < 4.0	1
4.0 to < 8.0	2
8.0 to < 12.0	4
12.0 +	8

Table 10.27,B-1. Rating system for a well-distributed stand of trees.

The following shall govern in applying this rating system:

- (1) The 25-foot x 50-foot rectangular plots shall be established where the landowner or lessee proposes clearing within the required buffer;
- (2) Each successive plot shall be adjacent to but not overlap a previous plot;
- (3) Any plot not containing the required points shall have no vegetation removed except as otherwise allowed by these rules;
- (4) Any plot containing the required points may have vegetation removed down to the minimum points required or as otherwise allowed by these rules; and
- (5) Where conditions permit, no more than 50% of the points on any 25-foot by 50-foot rectangular area may consist of trees greater than 12 inches in diameter.

For the purposes of this section, "other natural vegetation" is defined as retaining existing vegetation under 3 feet in height and other ground cover and retaining at least 5 saplings less than 2 inches in diameter at 4½ feet above ground level for each 25-foot by 50-foot rectangular area. If 5 saplings do not exist, the landowner or lessee may not remove any woody stems less than 2 inches in diameter until 5 saplings have been recruited into the plot. In addition, the soil shall not be disturbed, except to provide for a footpath or other permitted use.

- c. In addition to Section 10.27,B,2,b above, no more than 40% of the total basal area of trees 4.0 inches or more in diameter, measured at 4½ feet above ground level, may be removed in any ten (10) year period.
 - d. Pruning of live tree branches is prohibited, except on the bottom 1/3 of the tree provided that tree vitality will not be adversely affected.
 - e. In order to maintain a buffer strip of vegetation, when the removal of storm-damaged, diseased, unsafe, or dead trees results in the creation of cleared openings in excess of 250 square feet, these openings shall be established with native tree species.
3. At distances greater than one hundred (100) feet, horizontal distance, from the normal high water mark of a body of standing water greater than 10 acres, no more than 40% of the total basal area of trees four inches or more in diameter, measured at 4½ feet above ground level, may be removed in any ten (10) year period. In no instance shall cleared openings exceed, in the aggregate, 10,000 square feet, including land previously cleared. These provisions apply to areas within 250 feet of all bodies of standing water greater than ten (10) acres, and to the full depth of the P-AL zone. This requirement does not apply to the development of uses allowed by permit.
 4. Cleared openings legally in existence as of June 7, 1990 may be maintained, but shall not be enlarged except as permitted by these regulations.

In all subdistricts where natural vegetation is removed within the required vegetative buffer strip of a flowing water, body of standing water, tidal water, or public roadway, it shall be replaced by other vegetation (except where the area cleared is built upon) that is effective in preventing erosion and retaining natural beauty.

F. FILLING AND GRADING

10.27,F

The following requirements for filling and grading shall apply in all subdistricts except as otherwise provided herein.

Filling and grading activities not in conformance with the standards of this section may be allowed upon issuance of a permit from the Commission provided that such types of activities are allowed in the subdistrict involved. An applicant for such permit shall show by a preponderance of the evidence that the proposed activity, which is not in conformance with the standards of this section, shall be conducted in a manner which produces no undue adverse impact upon the resources and uses in the area.

These standards do not apply to filling or grading activities which constitute forest or agricultural management activities, the construction, reconstruction and maintenance of roads, or the construction of public trailered ramps, hand-carry launches, or driveways. Such activities are separately regulated.

1. Within 250 feet of water bodies and wetlands, the maximum size of a filled or graded area, on any single lot or parcel, shall be 5,000 square feet. This shall include all areas of mineral soil disturbed by the filling or grading activity; and
2. Beyond 250 feet from water bodies, the maximum size of filled or graded areas, as described above, shall be 20,000 square feet, except that there shall be no limit to the size of filled or graded areas in M-GN subdistricts which are greater than 250 feet from water bodies and wetlands. In such M-GN subdistrict areas, the provisions of Section 10.27,F,4 and 6 shall apply; and
3. Clearing of areas to be filled or graded is subject to the clearing standards of Section 10.27,B; and
4. Imported fill material to be placed within 250 feet of water bodies shall not contain debris, trash, rubbish or hazardous or toxic materials. All fill, regardless of where placed, shall be free of hazardous or toxic materials; and

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5. Where filled or graded areas are in the vicinity of water bodies or wetlands such filled or graded areas shall not extend closer to the normal high water mark of a flowing water, a body of standing water, tidal water, or upland edge of wetlands identified as P-WL1 subdistrict than the distance indicated in the following table:

Average Slope of Land Between Exposed Mineral Soil and Normal High Water Mark or Upland Edge (Percent)	Width of Strip Between Exposed Mineral Soil and Normal High Water Mark or Upland Edge (Feet Along Surface of the Ground)
10 or less	100
20	130
30	170
40	210
50	250
60	290
70	330

Table 10.27,F-1. Unscarified filter strip width requirements for exposed mineral soil created by filling and grading.

6. All filled or graded areas shall be promptly stabilized to prevent erosion and sedimentation.

Filled or graded areas, including all areas of disturbed soil, within 250 feet of water bodies and wetlands, shall be stabilized according to the Guidelines for Vegetative Stabilization contained in Appendix B of this chapter.

APPENDIX B. GUIDELINES FOR VEGETATIVE STABILIZATION

Areas of disturbed soil, including but not limited to areas that are filled, graded or otherwise disturbed during construction projects, should be stabilized according to the following guidelines. These guidelines do not apply to forest management activities and are not strict regulations, and therefore alternative methods of stabilizing soil may be used. However, whenever soil stabilization or stabilization of disturbed areas is required by regulation or by the terms of individual permits, individuals must assure that either these guidelines, or measures equally effective in stabilizing disturbed areas of soil are employed.

The goals to be achieved by proper stabilization are the avoidance of accelerated soil erosion and the avoidance of sedimentation or pollution of water bodies. All stabilization measures must be maintained so that grass or other vegetation remains intact and healthy, otherwise these measures will be ineffective.

In General:

1. Sterile soils such as sands and gravels should be covered with 2 to 4 inches of soil medium that will support vegetative growth.
2. Disturbed soil areas should be graded such that runoff water is either minimized or eliminated from running over the site.
3. Disturbed areas which can be seeded between May 1 and September 15 should be prepared and seeded during that period.
4. Disturbed areas which cannot be seeded between May 1 and September 15 should be mulched with hay, straw or some other suitable material to keep them as stable as possible over the winter, and particularly during spring runoff the following year. For over-wintering, mulch must be tacked down, as it is easily blown around on frozen ground, leaving areas of soil exposed. Mulch hay should be applied at a depth of 4 inches, or between 150 to 200 lbs. per 1000 square feet, over the disturbed site. Mulched over-wintered areas should be prepared and seeded the following spring as soon as conditions allow.

It is not recommended that disturbed areas be seeded after September 15th ("dormant seeding") for a number of reasons. Among the reasons, seeding rates are doubled, which is more expensive; timing is critical to ensure that germination does not occur before the following spring; there is an increased risk of sedimentation because sites are generally wetter in the fall; the thicker mulch must be removed in the spring in order to allow the germinating seed to survive; and the application of fertilizer during this time increases the risk of leaching or runoff loss of nutrients into water bodies.
5. Seeding preparation, in addition to providing a soil medium that will support vegetative growth if the site is sterile, includes the application of lime and fertilizer, which should be lightly raked prior to seeding. After the area is seeded, it should be lightly watered and then mulched with 70 to 90 lbs. (2 standard bales) per 1,000 square feet of weed free hay or straw to protect the seed. Keep the site stable and moist, and allow the seed to germinate and grow.
6. For accurate liming as well as fertilization, it is recommended that you have the soil analyzed to determine the specific nutrient requirements of your site.

Lime should be applied at a rate of approximately 140 pounds to 1000 square feet of area. This rate may vary depending on the natural conditions of the soil on the site. 10-5-20 fertilizer should be applied at a rate of 18.5 lbs. per 1000 square feet of area. Following the establishment of vegetation, non-phosphorous fertilizer should be used in accordance with the Department of Environmental Protection's recommendations.

7. In shoreland areas in particular, fertilizers should be of the "quick release" low phosphorus type, such as 12-4-8 mixtures applied at a rate of 8 pounds per 1000 square feet of area. If you are near water bodies, it is important not to apply more than approximately this amount of fertilizer, as excess may be washed into streams or lakes and contribute to lowering water quality and such things as algae blooms in lakes.

Following the establishment of vegetation, non-phosphorous fertilizer should be used in accordance with the Department of Environmental Protection's recommendations.

Fertilizers should never be applied right before thunder storms or before spring runoff, because the great amounts of water running over the land will wash the fertilizer, particularly phosphorus, into water bodies. However, a light watering after the fertilizer is applied will help bind the phosphorus to the soil.

8. There are many combinations of grasses that can be used. One combination particularly good for providing soil stability, generally referred to as the Soil Conservation Mixture, consists of:
(Proportions, by weight)

Creeping Red Fescue	35%	Kentucky Bluegrass	25%
Annual Rye Grass	15%	Perennial Rye Grass	10%
Red Top	10%	White Dutch Clover	5%
* Oats - See Below			

This seed would be applied at a rate of 1 pound per 1000 square feet. These particular grasses do best if mowed no closer than 2-1/2 to 3 inches from the ground. Of course, other seed mixtures are available.

It is important, in choosing a mixture, to choose one suitable for the site being stabilized. There are many different types of seeding mixtures designed for particular site conditions such as shade, sun, and drainage. Any mix should contain some seed which germinates rapidly to provide the quickest stabilization possible while awaiting the germination of the remaining types.

- (*) For quick germination, oats are very good. They germinate in 7 to 10 days. They should be planted at a rate of approximately 1 to 1-1/2 bushels per acre, in addition to the basic grass mixture. Oats should be mowed when they reach knee height to allow the germinating grasses to receive sunlight.

Alternatives:

As indicated above, other stabilization programs may be used, provided they are equivalently effective in stabilizing disturbed areas and preventing accelerated soil erosion and sedimentation of water bodies. Further assistance may be obtained, including in some cases site-specific recommendations, as follows:

- Local Soil and Water Conservation Districts
- The USDA Natural Resource Conservation Service
- Maine Department of Environmental Protection, Lakes Program
- Landscaping Professionals
- Reputable Lawn and Garden Supply Dealers

The following documents may provide valuable assistance to those developing a soil stabilization plan:

Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices (Cumberland County Soil & Water Conservation District and Maine Department of Environmental Protection, 1991)

Strategy for Managing Nonpoint Source Pollution From Agricultural Sources and Best Management Guidelines (NPS Agricultural Task Force, 1991)

Erosion and Sediment Control Handbook for Maine Timber Harvesting Operations, Best Management Practices (Maine Forest Service, 1991)

C. MINERAL EXPLORATION AND EXTRACTION

10.27,C

Mineral exploration and extraction activities not in conformance with the standards of this section may be allowed upon issuance of a permit from the Commission provided that such types of activities are allowed in the subdistrict involved. An applicant for such permit shall show by a preponderance of the evidence that the proposed activity, which is not in conformance with the standards of this section, shall be conducted in a manner which produces no undue adverse impact upon the resources and uses in the area.

The following requirements for mineral exploration and extraction activities shall apply in all subdistricts except as otherwise hereinafter provided:

1. Mineral Exploration: The following requirements shall apply to mineral exploration activities:

- a. All excavations, including test pits and holes, shall be promptly capped, refilled or secured by other equally effective measures so as to reasonably restore disturbed areas and to protect the public health and safety.
- b. Mineral exploration activities or associated access ways where the operation of machinery used in such activities results in the exposure of mineral soil, shall be located such that an unscarified filter strip of at least the width indicated below is retained between the exposed mineral soil and the normal high water mark of a flowing water, body of standing water, tidal water, or wetland identified as a P-WL1 subdistrict:

Average Slope of Land Between Exposed Mineral Soil and Normal High Water Mark (Percent)	Width of Strip Between Exposed Mineral Soil and Normal High Water Mark (Feet Along Surface of the Ground)
0	25
10	45
20	65
30	85
40	105
50	125
60	145
70	165

Table 10.27,C-1. Unscarified filter strip width requirements for exposed mineral soil created by mineral exploration activities or associated access ways.

The provisions of Section 10.27,C,1,b apply only on a face sloping toward the water, provided, however, no portion of such exposed mineral soil on a back face shall be closer than 25 feet; the provisions of Section 10.27,C,1,b do not apply where access ways cross such waters.

- c. Except when surface waters are frozen, access ways for mineral exploration activities shall not utilize stream channels bordered by P-SL2 subdistricts except to cross the same by the shortest possible route; unless culverts or bridges are installed in accordance with Section 10.27,D,2 and 5, such crossings shall only use channel beds which are composed of gravel, rock or similar hard surface which would not be eroded or otherwise damaged.

- d. Access way approaches to stream channels shall be located and designed so as to divert water runoff from the way in order to prevent such runoff from directly entering the stream.
 - e. In addition to the foregoing minimum requirements, when conducting mineral exploration activities and creating and maintaining associated access ways, provision shall be made to effectively stabilize all area of disturbed soil so as to reasonably avoid soil erosion and sedimentation of surface waters. These measures shall include seeding and mulching if necessary to insure effective stabilization.
2. Mineral Extraction: The following requirements shall apply to mineral extraction activities in all subdistricts:
- a. A vegetative buffer strip shall be retained between the ground area disturbed by the extraction activity and:
 - (1) 75 feet of the normal high water mark of any body of standing water less than 10 acres in size, any flowing water draining less than 50 square miles, tidal water, or wetland identified as a P-WL1 subdistrict; and
 - (2) 100 feet of the normal high water mark of any body of standing water 10 acres or greater in size or flowing water draining 50 square miles or more.
 - b. No portion of any ground area disturbed by the extraction activity shall be closer than 250 feet from any public roadway, or 250 feet from any property line in the absence of the prior written agreement of the owner of such adjoining property.
 - c. Within 250 feet of any water body the extraction area shall be protected from soil erosion by ditches, sedimentation basins, dikes, dams, or such other control devices which are effective in preventing sediments from being eroded or deposited into such water body.
Any such control device shall be deemed part of the extraction area for the purposes of Section 10.27,C,2,a, above;
 - d. A natural vegetative screen of not less than 50 feet in width shall be retained from any facility intended primarily for public use, excluding privately owned roads; and
 - e. If any mineral extraction operation located within 250 feet of any property line or public roadway or facility intended primarily for public use, excluding privately owned roads, is to be terminated or suspended for a period of one year or more, the site shall be rehabilitated by grading the soil to a slope of 2 horizontal to 1 vertical, or flatter.