STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
106 HOGAN ROAD, SUITE 8
BANGOR, MAINE 04401

PAUL R. LEPAGE
GOVERNOR

WALTER E. WHITCOMB
COMMISSIONER

NICHOLAS D. LIVESAY
EXECUTIVE DIRECTOR

PERMIT

DEVELOPMENT PERMIT DP 4973 ***(Corrected Version)***

The staff of the Maine Land Use Planning Commission (LUPC or Commission), after reviewing the application and supporting documents submitted by GreenMountain Wind, LLC (Applicant or GreenMountain Wind) for Development Permit DP 4973, finds the following facts:

1. *Applicant.* GreenMountain Wind, LLC
   Attn: Aaron MacQueen
   129 Middle Street
   Portland, Maine 04101

2. *Landowner.* Penobscot Forest, LLC
   40 Champion Lane
   Milford, Maine 04461

3. *Agent.* Stantec Consulting Services, Inc.
   Attn: Danielle Tetreau
   30 Park Drive
   Topsham, Maine 04086

4. *Date of Completed Application.* July 9, 2015

5. *Location.* Township 1, Range 5 WELS Aroostook County, Maine
   Maine Revenue Service Map AR023, Plan 01, Lot 1
   Aroostook County Registry of Deeds: Book 5383, Page 161 (Easement)
   MET Tower MOLSMET2BF (45.697219 Latitude; -68.369991 Longitude)
   SODAR Unit MOLSSOD2CF (45.697659 Latitude; -68.370616 Longitude)

6. *Zoning.* General Management Subdistrict (M-GN)

7. *Proposed Structures.* One (1) Temporary Metrological Testing Equipment Tower (MET Tower)
   One (1) Sonic Detections and Ranging Unit (SODAR Unit)

PROPOSAL SUMMARY

8. GreenMountain Wind has submitted an application seeking permit approval to construct and operate a temporary 197-foot meteorological tower and a temporary associated SODAR unit in T1 R5 WELS, Aroostook County, Maine. The tower would support and elevate monitoring equipment that would be used to collect wind and weather data for assessing wind speed, direction and other related factors to determine the viability of wind power in the area.

SUMMARY OF KEY STANDARDS

9. Under the provisions of Section 10.22,A,3,a,(6) of the Commission's *Land Use Districts and Standards* (Standards or *Ch. 10....*), surveying and other resource analysis is a use that shall be allowed without a permit from the Commission within an M-GN subdistrict.

10. Other structures, uses, or services that are essential to the uses listed in Section 10.22,A,3,a through c may be allowed within an M-GN subdistrict upon issuance of a permit from the Commission pursuant to 12 M.R.S. §685-B, and subject to the applicable requirement set forth in Sub-Chapter III *(Ch. 10.22,A,3,c,(26))*.

11. For structures set back at least 500 feet from the normal high water mark of a body of standing water 10 acres or greater or tidal water, "the maximum structure height shall be: 100 feet for commercial, industrial, and other non-residential uses involving one or more structures" (*Ch. 10.26,F,1*). Features of structures which contain no floor area such as chimneys, towers, ventilators and spires, and freestanding towers and turbines may exceed the maximum height with the Commission's approval *(Ch. 10.26,F,3)*.

12. *Evaluation of the Visual Impact, and Alternative Locations and Designs.*

    A. The design of proposed development shall take into account the scenic character of the surrounding area. Structures shall be located, designed and landscaped to reasonably minimize their visual impact on the surrounding area, particularly when viewed from existing roadways or shorelines (*Ch. 10.25,E,1,a*).

    B. To the extent practicable, proposed structures and other visually intrusive development shall be placed in locations least likely to block or interrupt scenic views as seen from traveled ways, water bodies, or public property (*Ch. 10.25,E,1,b*).

    C. If a site includes a ridge elevated above surrounding areas, the design of the development shall preserve the natural character of the ridgeline (*Ch. 10.25,E,1,c*).

    D. The Commission may not approve an application, unless: "Adequate provision has been made for fitting the proposal harmoniously into the existing natural environment in order to ensure 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" *(12 M.R.S. § 685-B(4)(C), which is incorporated into Ch. 10.24,C)*.

SUMMARY OF PROPOSAL INFORMATION

13. *Current Site Conditions.*

The MOLSMET2BF tower site is located approximately 325 feet west of an unnamed gravel logging access road off Aroostook Road. The area surrounding the MOLSMET2BF met tower site consists of regereating 10-20-foot-tall trees within a previously harvested forest and overgrown skidder trails. Dominant species include beech (*Fagus grandifolia*), yellow birch (*Betula alleghaniensis*), sugar maple (*Acer saccharum*), with red raspberry *(Rubus idaeus)* and blackberry *(rubus alleghaniensis)* in the skiddr trails. Some remaining yellow birch trees are 20-30-feet tall. Topography around the site is relatively flat.

14. *Description, Design and Setbacks.*

The proposed MET tower would be 60 meters (197 feet) tall, 8-inch diameter, gray, pole-style tower. The tower would be situated on an approximately 7.7 square foot base plate that would be supported by four sets of guy wires. It is expected that rock or screw anchors will be used to anchor each of the guy wires. In some instances, ground conditions may require buried concrete dead man anchors. The base of the tower, at an elevation of 610 feet, would be set back at least 325 feet from an unnamed primary land management road that is accessed by the Aroostook Road, approximately 5,550 feet from the nearest property boundary line, 9,125 feet from the nearest lake or pond, 2,575 feet from the nearest river or stream, and 217 feet from the nearest mapped wetland.

15. *Technical and Financial Capacity (Ch. 10.25,C).* GreenMountain Wind L.L.C., is a wholly owned subsidiary of First Wind Holdings, L.L.C. (First Wind), which is now a wholly owned subsidiary of SunEdison, Inc. First Wind has dependably installed numerous met towers throughout Maine and New England in support of potential wind development projects. The staff responsible for installation of these proposed met towers have years of met tower installation experience and have installed over 100 met towers, including numerous towers in Maine. The estimated cost for installation of each met tower site will be approximately $60,000. SunEdison will make available the funds necessary for installation of the met towers. As reflected in the excerpt from the most recent quarterly report filed with the Securities and Exchange Commission and attached as Appendix A to the application for Development permit DP 4972, SunEdison has more than $841 million in cash and cash equivalents and over $10 billion in total assets.

16. *Vehicular Circulation, Access and Parking (Ch. 10.25,D).* Vehicle access to the tower site will be minimal. No new roadway entrances will be constructed and access will utilize existing roads and skidder trails where possible. There are gravel roads within 130 feet of the clearing limits for MOLSMET2BF; the installation does not require the construction of any permanent new roads. The access routes will be approximately 10 feet wide and will not cross any flowing water. Stantec surveyed the proposed access routes for the met tower sites and found that they were firm, dry routes and contained no jurisdictional wetlands. Wetland boundaries within 25 feet of the proposed access routes will be flagged prior to clearing and construction, and any clearing and machine operation will be at least 10 feet from these boundaries. No permanent roads will be constructed to access the

met tower or SODAR unit sites. This installation does not involve development of new parking areas or upgrades to any roads.

17. *Lighting (Ch. 10.25,F,2).* The Applicant has submitted an evaluation for the proposed MET towers by the Federal Aviation Administration (FAA) using the FAA's *Online Notice Criteria Tool*. No additional notification or lighting would be required by the FAA, subsequently, no tower lighting or structure lighting is proposed in connection with the installations.

18. *Soil Suitability, Erosion and Sedimentation Control, Wetland Alterations, Vegetation Clearing, and Soils Disturbance (Ch. 10.25,G, M and P, and Ch. 10.27,B and F).*

    A. Soil Suitability. Soil map unit data were obtained and reviewed using the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service's (NRCS) Soil Geographic database for Aroostook County, Maine, and a wetland scientist visited the site to investigate the possible presence of jurisdictional wetlands or other regulated natural resources associated with the MET tower sites. Results of this review for each MET tower site are included in Section 2 of the application for Development Permit DP 4972.

    The MET tower site is mapped as Thorndike and Howland doil association which is shallow to very deep soil that ranges from moderately well to somewhat excessively drained soil moderately well-drained soil formed in glacial till. Site investigation revealed very shallow soils with rocky till less than 6 inches below the soil surface. The applicant states that by using standard construction techniques and erosion and sediment controls, the site is suitable for the purpose of installing and operating a MET tower.

    B. Erosion and Sedimentation Control. Erosion control best management practices would be implemented in accordance with the Commission's Standards and the Maine Department of Environmental Protection's, *Maine Erosion and Sediment Control BMP's*. The Applicant would use standard construction techniques and erosion and sediment controls such as mulch, hay bales and silt fence to stabilize disturbed soils and prevent sediment from leaving the site.

    C. Wetland Alterations. A wetland reconnaissance found that the site has no wetlands or streams located within the clearing limits. A 10-foot buffer strip would be retained between the upland edge of any wetland boundary and the site or access clearing. In addition, no S1 or S2 species or communities were located within the vicinity of the site.

    D. Vegetation Clearing. Approximately 4.84 acres of vegetation would be removed for the installation and operation of the tower.

    The vegetative clearing for the tower site would be set back approximately 130 feet from the unnamed land management road, approximately 5,350 feet from the nearest property boundary line, approximately 8,925 feet from the nearest lake or pond, 2,375 feet from the nearest river or stream, and at least 17 feet from the nearest wetland.

E. Filling and Grading. The Applicant anticipates that anchoring each set of guy wires would be achieved by using rock or screw anchors; however, site conditions may require buried dead-man anchors which would require a 4 foot by 4 foot by 1 foot deep hole, each. New or expanded soil disturbance would be less than 100 square feet; the filling and grading would be in the (M-GN) General Management Subdistrict.

19. *Subdivision and Lot Creation and Title, Right and Interest (Ch. 10.25,Q and 12 M.R.S. § 685-B(2)(D), which is incorporated into Ch. 10.24).* On October 30, 2014, the Applicant entered into a Wind Energy Easement Agreement with Penobscot Forrest, L.L.C./BBC Land, L.L.C. for various tracts of land in Aroostook and Penobscot Counties which includes the locations of the proposed tower sites. The Applicant also submitted a 20-year land division history which specified that there have been no non-exempt divisions on the contiguous parcels of land in the past 20 years.

20. *Period of Use*. The Applicant anticipates that the proposed meteorological towers would be in place for no more than seven years.

21. *Visual Impact Assessment.* The installation of the temporary met towers is not anticipated to impact scenic character or natural or historic features. The met tower sites are located in a regenerating forest landscape that has been primarily managed for timber and includes numerous logging roads and laydown areas. The clearing area for the met towers will not significantly alter the current scenic character of the area. The proposed MET towers are pole style, less than 8" in diameter and gray in color. The neutral color and thin profile of the towers will blend with the topographic landscape. As noted above, the proposed towers do not trigger FAA lighting requirements. The nearest improved public road is Aroostook Road, approximately 1,100 feet from the tower site.

SUMMARY OF AGENCY COMMENTS

22. The Maine Natural Areas Program reviewed the proposal and searched the Natural Areas Program's Biological and Conservation Data System files for rare or unique botanical features in the vicinity of the proposed site and indicated that according to their current information there are no rare botanical features that would be disturbed within the project site.

23. The Maine Historic Preservation Commission reviewed the proposal and indicated that the project area is not considered sensitive for archaeological resources and concluded that there are no National Register listed or known National Register eligible properties in the area of potential effects for this project.

24. The Department of Agriculture, Conservation and Forestry's Bureau of Parks and Lands, Leases, Conservation Easements and Acquisitions reviewed the proposal and had no comments on the proposal.

25. The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the proposal and in consideration of the proposal's probable effect on the environment and on the agencies programs and responsibilities, provided concerns and recommendations. The Applicant subsequently responded to

the concerns, followed by MDIFW restating its recommendations. *The comments, concerns and recommendations are summarized below:*

A. Wildlife Considerations.

1. *Significant Wildlife Habitat*

At this time, MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of SWHs within the project area, which include Waterfowl and Wading Bird Habitats, Deer Wintering Areas, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. Therefore, surveys for vernal pools will need to be conducted within the project boundary prior to final project design to determine whether there are Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential impacts to off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. It is unclear from the applications if this was done at each tower project area. Once surveys are completed, our Department will need to verify vernal pool data sheets prior to final determination of significance.

2. *Reduction of Bird/Bat Collision and Wildlife Entanglement.*

There is potential for increased bird collisions with the construction of tall meteorological towers. We recommend that the proposed bird diverters be of the "flapper" variety, which research has shown to be effective at reducing avian collisions. The diverters should be placed at the manufacturer's suggested rate and spacing for each guy wire. During placement of these diverters, the technician should stagger them on the guy wires so they are not directly under the prior one. As diverters can be prone to damage or loss from ice build- up, as a condition of the permit MDIFW also recommends that the bird diverters are annually maintained for the life of the tower. The diverters should be installed and properly functioning during both the Spring (April 1 to June 7) and Fall (August 7 – November 7) migration periods. These dates capture approximately 90% of the annual avian migration volume.

The applicant's biologist discussed general concerns related to bird diverters and ice build-up at MET towers, as the applicant has recently lost several MET towers to unusually high ice- loading on the guy wires. MDIFW indicated that this may have been a rare, localized climatic event, and if it is an ongoing concern it is likely more of a structural design issue for towers in Maine in general, not a bird diverter issue. R esearch shows that diverters are effective mitigation methods.

Wildlife Entanglement Concerns

MDIFW also recommends that the sleeves over the guy wires extend from the ground level up to approximately 12-15 feet in height. The intent is to make sure that there is plastic sleeve on the guy wire up to a vertical height of 12-15 feet from the

ground/snowpack to help reduce entanglement. This height is to accommodate ungulates under variations in terrain and snow pack—depending on topography, average annual snow depth, and angle of the wires this could mean upwards of 30 feet or more of length of sleeve up the wire. All loops of excess wire should be eliminated, but if excess wire is required for future removal of the tower then loops of excess wire should be tied off at a height of 20-25 feet above the ground (well above snowpack) instead of near ground level to isolate it from wildlife. These recommendations are made to aid wildlife in detection of wires and help to prevent or reduce entanglement of mammalian wildlife, especially ungulates. Similarly, we recommend that all construction materials (i.e., cable, rope, loose fencing) is either cleaned up and removed from the site, or adequately stored and secured to prevent/reduce entanglement of wildlife.

An alternative to MDIFW's ungulate entanglement prevention method was suggested by the applicant's biologist, and it was agreed that further evidence (photographs and other documentation) of the effectiveness of this method would be submitted to MDIFW for review. If this information is reviewed and deemed a viable protective measure prior to the installation of the towers, MDIFW will submit a letter of approval to LUPC; otherwise, current recommendations stated above will stand.

Ultimately, the burden of securing the wire and preventing mortality belongs to the applicant, who is put on notice to ensure that the taking of a big game species or a listed species, such as Canada lynx (Special Concern in Maine and also federally-protected), does not occur.

In response to MDIFW's concerns related to Reduction of Bird/Bat Collisions and Wildlife Entanglement, the Applicant responded stating: The Applicant agrees to complete VP assessments within 250' of our impact area on land under their control prior to final project design. The Applicant's MET tower installation crew has suggested keeping the corkscrew diverters, as they typically deploy them on an installation. They will add 3-4 FireFly (flapping) diverters per guy wire. The corkscrews will help keep the FireFly diverters in place. The Applicant's MET tower installation crew will continue with the same method to eliminate ungulate entanglement as on previous, recent installations, and will place two sleeves at the bottom of all guy wires.

a) MDIFW reviewed the Applicants responses and concerns outlined above and reiterated the same recommendations commenting that:

   In relation to guy wires and entanglement: The proposed method appears acceptable so long as all loops at the other (upper) end are eliminated as well or tied off at a height of 20-25 feet above the ground (well above snowpack). Also, the sleeves need to cover the guy wire up to a vertical height of 12-15 feet from the ground/snowpack, which means that depending on the varying terrain at individual towers, average annual snow depth, and angle of the wires this could mean upwards of 30 feet or more of length of sleeve up the wire

In relation to diverters and detectors: The flapping diverters should be placed at the manufacturer's suggested rate and spacing for each guy wire and not in lieu of the corkscrew diverters. During placement of the flapper diverters, the technician should stagger them on the guy wires so they are not directly under the prior one. As diverters can be prone to damage or loss from ice build-up, as a condition of the permit MDIFW also recommends that the bird diverters are annually maintained for the life of the tower. The diverters should be installed and properly functioning during both the Spring (April 1 to June 7) and Fall (August 7 – November 7) migration periods. The flapper diverters should be inspected prior to each migration season to ensure they are functioning properly during these periods

b. The applicant reviewed the additional comments by the MDIFW and replied that: Regarding the bird diverters and annual maintenance: SunEdison will install the flap-style diverters to the manufacturer's specifications and will arrange them so they are not in line with each other. The corkscrew diverters will be placed below or around the flap-style diverters to keep the flap-style diverters in place. MET towers will be visited annually and diverters will be maintained as needed. Having worked in the vicinity of MET towers for the last 10 years, the applicant's agents have observed that the flap-style diverters do not stay on the guy wires without support; which the applicant's agents believe will be provided by the corkscrew-style diverters. The applicant understands that MDIFW prefers only the flap-style but also wants the diverters to be effective.

Regarding entanglement prevention, SunEdison agrees to place 2 sleeves at the base of each guy wire and will use sleeves long enough to cover the entirety of the wire loops, taking into consideration the snowpack, moose antler height, and also allow for proper bird diverter installation.

B. Fisheries Considerations. MDIFW state there are no inland fisheries concerns associated with these projects.

26. The facts are otherwise as represented in Development Permit application DP 4973 and supporting documents.

ANALYSIS AND CONCLUSIONS

Based upon the above FINDINGS and the following ANALYSIS, the Commission CONCLUDES:

1. The MET tower and SODAR unit is an allowed use within the M-GN subdistrict in which they are proposed. The MET tower structure is necessary to support and elevate the wind and weather data collection and surveying equipment, and as such, is a structure essential to an allowed use (*Ch. 10.22,A,3,a,(6) and Ch. 10.22,A,3,c,(26)).*

2. The MET tower may exceed the Commission's maximum 100-foot structure height restriction because the proposed tower does not contain floor area and is not attached to another structure (*Ch. 10.26,F,1 and Ch. 10.26,F,3)*.

3. *Impact to Scenic and Natural Character.* In the case of a MET tower proposal, components with the potential to impact scenic and natural character may include tower location, color, type, width, height, lighting and setbacks, and project vegetative clearing and setbacks. The potential undue adverse impacts to the scenic and natural character for this proposal have been minimized with: the rural setting of the proposal inside a forest management landscape consisting of numerous logging roads, skidder trails, cleared log yards, and laydown areas; a neutral, gray colored tower with a thin profile which will allow the tower to blend with the hilly topographic landscape; the lack of daytime or nighttime lighting due to a height under 200 feet; and the setbacks from, and subsequent limited opportunity for clear tower views from, recreational resources, the nearest property lines, State Route 2A, and Aroostook Road. While visibility is unavoidable, the MET tower is temporary in nature and when viewed is expected to be perceived as a subordinate element against a backdrop of trees, mountains, forest clear cuts, and forested areas. Therefore, the proposal meets the scenic and natural character requirements set forth in Ch. 10.25,E,1,a; Ch. 10.25,E,1,b; Ch. 10.25,E,1,c; and the scenic character portion set forth in 12 M.R.S. § 685-B(4,C), which are incorporated into Ch. 10.24, C.

4. *With regard to the statutory criteria for approval in 12 M.R.S. § 685-B(4,C), which is incorporated into Ch. 10.24,C.* The Applicant's visual impact assessment on recreational resources and nearby development, in combination with the MET tower's location, design, height, setbacks and temporary nature, supports the conclusion that the proposal will not have an undue adverse impact on scenic character (*see Conclusion #3, above*). Additionally, timber harvesting, the current use of the area, will continue such that the proposal will not have an undue adverse impact on existing uses. Further, the Applicant will install bird and bat diverters per manufacturer specifications and secure loose wires with sleeves to prevent ungulate entanglement mortality as requested by the Maine Department of Inland Fisheries and Wildlife. No wetlands, streams, or significant vernal pools will be impacted by the proposal and there are no rare or unique botanical features which would be disturbed in the area. Therefore, as long as the wildlife considerations are completed and maintained, the project will not have an undue adverse impact on natural resources. Lastly, the proposal was reviewed by the State Historic Preservation Office which indicated no concerns regarding sensitive archaeological resources and it has been concluded that the proposal will not have an undue adverse impact on historic resources. In conclusion, the Applicant has made adequate provision for fitting the proposal harmoniously into the existing natural environment in order to ensure 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, satisfying 12 M.R.S. §685-B(4)(C).

5. The proposal complies with all other applicable and relevant standards contained in Ch. 10.25, Ch. 10.27, and the Commission's Statute, specifically: Ch. 10.25,C, D, F.2, G, M, P, and Q; Ch. 10.27,B and F; and12 M.R.S. § 685-B(2)(D), which is incorporated into Ch. 10.24.

Therefore, the Commission APPROVES Development Permit DP 4973, submitted by GreenMountain Wind, LLC for one 197-foot temporary Meteorological Tower and associated temporary SODAR unit, as proposed with the following CONDITIONS.

1. The Standard Conditions for Development Permits, version 04/2004, a copy of which is attached.

2. Notwithstanding Standard Conditions for Development Permits, Condition #3, prior to seven years from the date of issuance of this permit (the permit expiration), if the MET tower and SODAR unit are proposed to remain on site, and if no permanent meteorological reference tower associated with a commercial wind energy development has been proposed, the permittee shall submit a new permit application and obtain approval from the Commission to extend the time period to the expiration date of this permit.

3. Should the easement or lease expire or be terminated, should the tower be vacant or abandoned for more than two years, should the data collection period end, or should the permit expire, the permittee shall lower the MET tower and remove it and all other associated equipment from the parcel. All solid waste and other debris shall be disposed of in accordance with Maine Solid Waste Disposal Rules.

4. Excluding areas actively used for forest management activities or existing access roads or skidder trails, where soil is proposed to be disturbed, erosion and sedimentation control structures, including but not limited to silt fences, must be installed prior to commencement of construction. Measures to control erosion during and after construction, including but not limited to hay mulch, re-seeding and water bars, must be employed. Once implemented or put in place, erosion control devices and measures must be maintained to insure proper functioning. Disturbed areas reseeded and stabilized with mulch, shall achieve and maintain 85% vegetative cover; in areas where re-vegetation is not initially successful, additional measures to control erosion and sedimentation must be undertaken as often as necessary to be effective.

5. If weather permits, the clearing must be conducted when the ground is frozen. Installation of the MET tower, and SODAR unit must be avoided when the soil is saturated; or if unavoidable, slash, wood chips, or mats must be used to drive heavy equipment over where the soil is soft enough to rut. However, work that will disturb soils must not be conducted if conditions are such that significant erosion and sedimentation with the potential to damage a stream, vernal pool or wetland will occur. For the development proposed, no clearing or other disturbance may occur within any wetland areas, vernal pools, or streams. Should any erosion or sedimentation impacting wetland areas, vernal pools, or streams occur during construction, the permittee shall contact the Land Use Planning Commission staff immediately, or as soon as possible if the event occurs outside of regular business hours, notifying staff of the problem and describing all proposed corrective measures.

6. Except as provided for in this permit, all activities shall be in conformance with the Standards for: *Erosion and Sedimentation Control (Ch. 10.25,M)*; *Vegetation Clearing, (Ch. 10.27,B)*; *Filling and Grading, (Ch. 10.27,F)*; and the *Guidelines for Vegetative Stabilization*, Appendix B of the Commission's Standards, revised September 01, 2013, copies of which are attached.

7. The MET tower must be placed at the identified location. The base of the tower must be set back at least one tower height from any public road, any private road open for public use, and any other property boundary line, 500 feet from all bodies of standing water 10 acres or greater in size, 150 feet from the nearest major flowing water, and 100 feet from the nearest minor flowing water and upland edge of wetlands designated as a (P-WL1) wetland of special significance.

8. The SODAR unit must be placed at the identified location and must be set back at least 75 feet from any public road and any private road open for public use, 150 feet from all bodies of standing water 10 acres or greater in size and the nearest major flowing water, 100 feet from the nearest minor flowing water and P-WL1 wetland of special significance, and 25 feet from the nearest property boundary line.

9. The total cleared area must not exceed the amount of proposed clearing for the MET tower and associated SODAR unit. The cleared area must not impact any area meeting the description of a (P-GP) Great Pond Protection Subdistrict, a (P-SL) Shoreland Protection Subdistrict or (P-WL) Wetland Protection Subdistrict.

10. Access to the temporary MET tower and SODAR unit must be by existing logging roads and skidder trails, or overland; no new access roads shall be created.

11. To prevent injury to avian species, flapper bird diverters shall be placed at the manufacturer's suggested rate and spacing for each guy wire and not in lieu of the corkscrew diverters. During placement of the flapper diverters, they shall be staggered on the guy wires so they are not directly under the one above. Bird diverters shall be annually maintained for the life of the tower. The diverters shall be installed and properly functioning during both the Spring (April 1 to June 7) and Fall (August 7 – November 7) migration periods. The flapper diverters shall be inspected prior to each migration season to ensure they are functioning properly during these periods. In relation to guy wires and entanglement, all guy wire loops at the upper end shall be eliminated or tied off at a height of 20-25 feet above the ground (well above snowpack). Guy wire sleeves shall cover the guy wire up to a vertical height of 12-15 feet from the ground/snowpack. Depending on the varying terrain at individual towers, average annual snow depth, and angle of the wires, wire may be required to be sleeved 30 feet or more up the wire.

12. The permittee shall secure and comply with all other applicable licenses, permits, and authorizations of all federal, state and local agencies including but not limited to: the Federal Aviation Administration, the US Army Corps of Engineers, and the Maine Department of Environmental Protection.

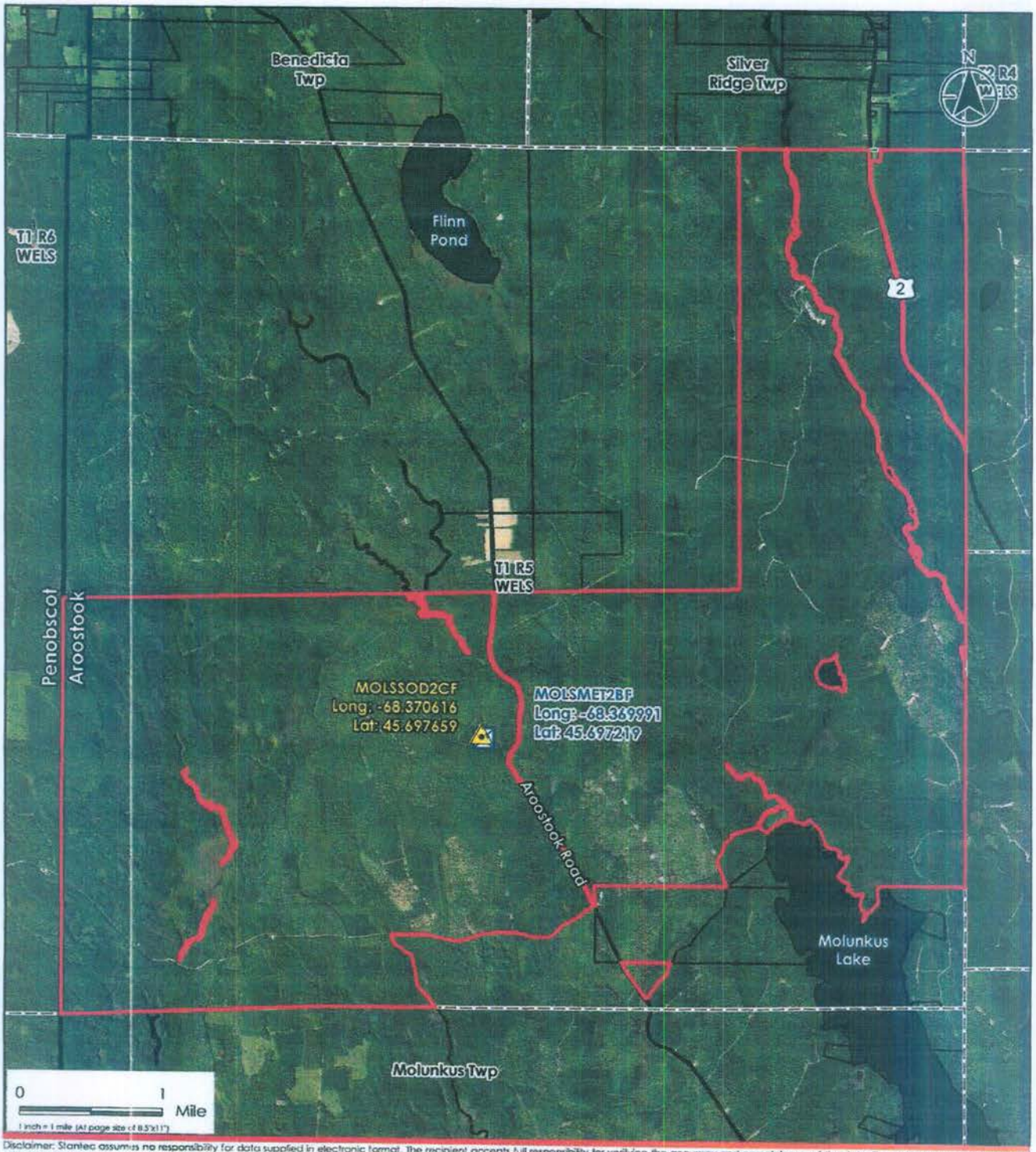
13. Once construction is complete, the permittee shall submit to LUPC staff photos of the site showing the completed work at each meteorological tower including: the wildlife protection techniques; the tower site; the SODAR unit site; and along the skidder trail, accompanied by a brief narrative of the erosion and sedimentation controls employed.

This permit is approved upon the proposal as set forth in the application and supporting documents, except as modified in the above stated conditions, and remains valid only if the permittee complies with

all of these conditions. Any variation from the application or the conditions of approval is subject to prior Commission review and approval. Any variation undertaken without Commission approval constitutes a violation of Land Use Planning Commission law. In addition, any person aggrieved by this decision of the staff may, within 30 days, request that the Commission review the decision.

DONE AND DATED AT EAST MILLINOCKET, MAINE, THIS 11th DAY OF September, 2015.

By: _____
for Nicholas D. Livesay, Executive Director



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Stantec

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Prepared by DLJ on 2015-01-26
Reviewed by TT on 2015-02-06

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Legend

- Proposed Met Tower (1/13/15)
- Proposed Sodar Location (1/13/15)
- Subject Parcel Boundary
- LUPC Parcel
- County Boundary
- Town Boundary

Client/Project
GreenMountain Wind, LLC
Molunkus Wind Project
Penobscot & Aroostook Counties, Maine

Figure No.
1

Title
Location Map
2/6/2015