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GOVERNOR

STATE OF MAINE  
DEPARTMENT OF  
INLAND FISHERIES & WILDLIFE  
284 STATE STREET  
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AUGUSTA ME 04333-0041



JUDITH CAMUSO  
COMMISSIONER

December 11, 2019

Ms. Jessica Damon  
Bureau of Land Resources – Eastern Maine Regional Office  
Maine Department of Environmental Protection  
106 Hogan Road  
Bangor, Maine 04401

**RE: Silver Maple Wind Project, Clifton, Maine, (MDEP #L-25245-24-E-N)**

Dear Jessica,

Per your request received November 19, 2019, the Maine Department of Inland Fisheries and Wildlife (MDIFW) has reviewed the Site Location of Development application for Silver Maple Wind in Clifton, Maine submitted by SWEB Development USA, LLC (SWEB). Silver Maple Wind is a proposed 20 MW wind project consisting of five, 4.0 MW V136 turbines with blade tips extending to heights of 173 m (567.6 ft) to 185 m (607 ft). The project will directly abut and share common ownership with the existing 9.0 MW Pisgah Mountain Wind project, which consists of five, 1.8 MW V90 turbines.

MDIFW staff previously reviewed draft project materials, conducted resource surveys, met with, and corresponded with SWEB and its representatives. Several important resources have been identified and recommendations provided in relation to the proposed Silver Maple Wind project. The application makes note of MDIFW's preliminary review of June 8, 2019, but not of several subsequent communications and Department recommendations related to those resources. Please see the attached letters of June 28, 2019 and August 28, 2019.

1. Migrating Passerines, Project Location in the Downeast Coastal Plain. The application indicates, the proposed project area is "*outside of the coastal plain as defined by MDIFW...*".

As noted in MDIFW's Avian Resources in Maine's Coastal Plain guidance (March 5, 2018), "*The best available science on bird migration patterns across Maine, data from recent radar studies, information on predominant weather conditions that cause lower migration flight heights and knowledge of migratory stopovers / staging areas used by bird guilds have helped determine regions of greater risk to migratory birds (MDIFW unpublished data). These factors and post-construction wind project fatality monitoring data have demonstrated that Maine's coastal plain is principal among them, and thus an area of significant concern to the Department.*" The location of the proposed project in relation to the area referred to as the Downeast Coastal Plain was the subject of much discussion and consideration. MDIFW definitively addressed this issue in the August 28, 2019 letter, "*MDIFW has further reviewed the proposed location of Silver Maple Wind and the boundaries of the region described as the "Downeast Coastal Plain". MDIFW finds that the proposed project location falls within this region as described both narratively and graphically...*". "*Accordingly, MDIFW reiterates its earlier recommendation that, after it demonstrates avoidance and minimization of anticipated impacts to the extent practicable, SWEB will need to provide*

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*compensation for impacts to migrating songbirds. MDIFW is available to meet with your representatives to discuss these issues. As also previously discussed, if SWEB wishes to further explore this issue, it can undertake MDIFW-approved nocturnal radar studies for songbird migration patterns and trends to formally determine if/that the proposed project site experiences similar elevated numbers and lower flight heights of migrating songbirds as other project sites in the Downeast Coastal Plain.” MDIFW believes this issue has not been adequately addressed, as the application contains no provisions to offset impacts to migrating passerines.*

**2. Bat Habitats and Protective Operational Measures.** The application indicates, *“Recent evidence suggests that bats might be attracted to rocky outcrops and talus slopes as roosting habitats. Such features were investigated beginning with reviewing existing maps and examining high resolution aerial photographs of the project area for all lands within one-half mile of the project site.”* The applicant notes that they identified one talus slope east of the project site and existing access road *“that may provide suitable habitat for bats”* and one potential bat maternity roost tree.

We have discussed the dire statuses of bat populations in Maine. Of the eight species of bats that occur in Maine, three *Myotis* species are afforded special protection under Maine’s Endangered Species Act<sup>1</sup>: the little brown bat (*M. lucifugus*, State Endangered); northern long-eared bat (*M. septentrionalis*, State Endangered); and eastern small-footed bat (*M. leibii*, State Threatened). The five remaining bat species are designated as Species of Special Concern: red bat (*Lasiurus borealis*), hoary bat (*L. cinereus*), silver-haired bat (*Lasionycteris noctivagans*), tri-colored bat (*Perimyotis subflavus*), and big brown bat (*Eptesicus fuscus*). MDIFW’s June 28, 2019 letter notes, *“At the June 12<sup>th</sup> meeting, we discussed the presence of rocky outcrops, talus and steep slopes, and a potential bat maternity roost tree near the project site as described in SWEB’s November 8, 2018 report. We also discussed that winter activity has been confirmed for little brown bats (Myotis lucifugus) and eastern small-footed bats (M. leibii) at Eagle Bluff in Dedham, located approximately 2.5 miles away. These bats are categorized as Endangered and Threatened Species respectively, pursuant to the Maine Endangered Species Act (12 M.R.S., §12801 et. seq.). Based on the above, MDIFW anticipates that other at-risk bat species are also likely present in the vicinity. It is MDIFW’s position that the only adequate protection for bats at wind power facilities at this time is seasonal curtailment of turbines under appropriate conditions, though continuing research may lead to other avoidance measures in the future. As discussed, MDIFW’s Wind Power Guidance describes general turbine curtailment recommendations and notes that the presence of habitats such as those described above in proximity (within 3 miles) ‘may increase risks and thus possibly necessitate additional safeguards, such as extended timeframes (earlier and/or later) and/or higher wind speeds’ for curtailment.”* Resource maps of wildlife habitats/ecological systems drawn from the Northeastern

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<sup>1</sup> The Maine Endangered Species Act (MESA; 12 M.R.S, §12801 et. seq.) identifies all inland fish and wildlife species that are listed as Endangered or Threatened in Maine and provides the Commissioner of MDIFW with the authority to implement MESA. Pursuant to MESA, listed species are afforded special protection against activities that may cause “take” (kill or cause death), “harassment” (create injury or significantly disrupt normal behavior patterns), and other adverse actions. Further, the No Adverse Environmental Effect Standard of the Site Location Law (06-096, CMR 375) provides for the preservation of *“unusually important wildlife habitats, particularly those of rare or endangered species”*, as well as protection of *“wildlife and fisheries by maintaining suitable and sufficient habitat”* and avoiding adverse effects on *“wildlife and fisheries lifecycles”*. Rare or “Special Concern” species are defined by MDIFW as species that do not meet the criteria as Endangered or Threatened, but are particularly vulnerable and could easily become Endangered, Threatened, or Extirpated due to restricted distribution, low or declining numbers, specialized habitat needs or limits, or other factors.

Terrestrial Habitat Classification System<sup>2</sup> indicate the presence of at least 18 areas of talus slopes and rocky outcrops of varying size within a three-mile radius of the proposed Silver Maple Wind project site (see attached map). To date, only one of these areas has been investigated and bat activity was confirmed at that site. As noted above, *“MDIFW anticipates that other at-risk bat species are also likely present in the vicinity.”*

In its June 28, 2019 letter, SWEB proposed a bat curtailment regimen. In its August 28, 2019 letter, MDIFW requested clarification of the proposed curtailment regimen, as some details were not clear. As was also noted, *“MDIFW is open to discussing alternate proposals that can be demonstrated to be appropriately protective of at-risk bat species.”* As example, MDIFW provided details on curtailment regimens for two recent wind projects, which had been discussed previously. In its application, SWEB appears to have amended its earlier curtailment regimen to only address shadow flicker and does not appear to propose any curtailment measures for protection of bats. MDIFW believes this issue has not been adequately addressed, as the application contains no provisions for the protection of these Rare, Threatened, and Endangered species through common and available industry practices.

3. Streams and Wetlands. The application indicates, *“two narrow, intermittent streams and associated wetlands were identified in and adjacent to the project area”*. The first stream has one existing road crossing associated with the Pisgah Mountain Wind project but, the applicant indicates, *“there should not be any additional improvements needed for the Silver Maple Wind Energy Project”*. The second stream *“is currently crossed by an existing logging road that will be upgraded as part of the proposed access road construction”*. *“The only regulated wetlands identified in and adjacent to the project area were associated with the intermittent streams described above. These wetlands are adjacent to the stream channels, and are briefly inundated during heavy rains, and would be considered wetlands of special significance under Maine’s Natural Resources Protection Act (NRPA)”*. The application includes a Permit by Rule application to extend two 24-inch culverts on an intermittent drainage feature.

As referenced in the June 8, 2019 preliminary comments, during our June 12, 2019 meeting, and in the June 28, 2019 letter, MDIFW recommends maintaining 100-foot undisturbed, vegetated buffers from the upland edge of all intermittent and perennial streams and any contiguous wetlands. Maintaining and enhancing buffers along these resources is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support conditions required by coldwater fish and other aquatic species. Riparian buffers also provide critical habitat and important travel corridors for a variety of wildlife species. After resource impacts have been avoided and minimized to the extent practicable, if full recommended buffers are not possible, these resource impacts should be offset through compensation.

Stream crossings should be avoided but, if a stream crossing is necessary or an existing crossing needs to be modified, it should be designed to provide full aquatic passage. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis. Undersized crossings may inhibit these functions. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bank-full width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e. natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat

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<sup>2</sup> Ferree, C and M. G. Anderson. 2013. A Map of Terrestrial Habitats of the Northeastern United States: Methods and Approach. The Nature Conservancy, Eastern Conservation Science, Eastern Regional Office. Boston, MA.

connectivity for fish but also for other aquatic organisms. MDIFW believes these stream-related issues and recommendations have not been adequately addressed in the application.

As you know, and as communicated to SWEB, MDIFW's concerns and recommendations typically relate to Rare, Threatened, and Endangered species occurrences and habitats; Significant Wildlife Habitats; and Protected Natural Resources. Locating a project in or in proximity to certain habitats can result in adverse impacts to those habitats and the species that utilize them and, in those situations, MDIFW often recommends increased siting and design considerations, operational measures, monitoring practices, and/or other efforts in attempt to avoid, minimize, and possibly mitigate for such impacts. MDIFW finds that its recommendations for Silver Maple Wind to avoid, minimize, and mitigate impacts to migrating passerines; rare, threatened, and endangered bats; and aquatic resources have not been adequately addressed by SWEB. As such, MDIFW finds that the Silver Maple Wind project as currently proposed is anticipated to result in substantial detrimental impacts to these resources.

MDIFW remains ready and willing to work with the applicant to address these issues. If you have any questions or concerns, please feel free to contact me at [robert.d.stratton@maine.gov](mailto:robert.d.stratton@maine.gov) or (207) 287-5659.

Sincerely,

A handwritten signature in black ink that reads "Bob Stratton" with a small "IFW" written below the name.

Robert D. Stratton  
Environmental Program Manager  
Maine Department of Inland Fisheries & Wildlife

cc: Michael Carey (SWEB)  
Tim Brochu (CES)  
Paul Fuller (Silver Maple Wind, Pisgah Wind)  
Jim Beyer (MDEP)  
John Perry, Charlie Todd, Josh Matijas, Carl Tugend, Steve Dunham (MDIFW)  
Wende Mahaney (USFWS)

encl: MDIFW letters of June 28, 2019, August 28, 2019  
Map of Talus Slopes and Rocky Outcrops in Vicinity of Silver Maple Wind