



JANET T. MILLS
GOVERNER

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



MELANIE LOYZIM
ACTING COMMISSIONER

MEMORANDUM

TO: Interested Parties
FROM: Jessica Damon, ME DEP, Bureau of Land Resources
DATE: February 17, 2021
SUBJ: Draft Order, SWEB Development USA, LLC #L-25245-24-E-N

Attached is a draft Departmental Order for the above application.
Any comments on the draft Order should be sent via email to Jessica.Damon@maine.gov
Comments are due by Wednesday, February 24th, 2021 at 5pm.

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DEPARTMENT ORDER

DRAFT
IN THE MATTER OF

SWEB DEVELOPMENT USA, LLC) SITE LOCATION OF DEVELOPMENT ACT
Clifton, Penobscot County)
WIND DEVELOPMENT)
L-25245-24-E-N (approval)) FINDINGS OF FACT AND ORDER

Pursuant to the Maine Wind Energy Act, 35-A M.R.S. §§ 3401–3404, the Expedited Permitting of Grid-Scale Wind Energy Development Law, 35-A M.R.S. §§ 3451–3459, Chapter 382, Wind Energy Act Standards, Site Location of Development Act 38 M.R.S. §§ 481–489-E (Site Law) and Chapters 375 and 500 of Department rules, the Department of Environmental Protection has considered the application of SWEB DEVELOPMENT USA, LLC with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. Summary: The applicant is requesting approval to construct a 5-turbine, 20 megawatt (MW) wind energy development (the Silver Maple Wind Project, Silver Maple, or project), which is an “expedited wind energy development” as defined in the Maine Wind Energy Act (WEA), 35-A M.R.S.A. § 3451(4), adjacent to the Pisgah Wind Project. The Silver Maple Wind Project consists of five Vestas V136 4.0 MW turbines that stand on steel towers either 345 feet in height or 384 feet in height, giving each turbine a total height of 568 feet or 607 feet. The turbines will be constructed on 40-foot by 120-foot gravel crane pads. A 325-foot diameter circle will be cleared of brush at each turbine site to construct the turbine rotors. These cleared areas will be allowed to revegetate once construction is complete. The project also includes a 100-foot by 90-foot substation, a collector line (located partially above ground and partially below ground), switchyard, and approximately 6,000 feet of new associated roads, all as shown on a set of plans the first of which is entitled “Overall Plans, Notes and Legend,” prepared by CES, Inc., and dated July 15, 2019, with a last revision date of August 21, 2020. The project site is located on the Spring Road in the Town of Clifton.

The Department approved Permit-By-Rule #71738 for a stream crossing on January 29, 2021.

B. Current Use of Site: The site of the proposed project is currently undeveloped fields and woodland. There are no structures on the property. The parcel is identified as Lot 5 on Map 1 of the Town of Clifton’s tax maps. The proposed project is adjacent to the existing Pisgah Mountain Wind Project, which includes five Vestas V90 1.8 MW turbines and received approval in Department Order L-25245-ES-A-N /L-25245-NI-B-N

for the stormwater management system and a small-scale wind energy development on March 25, 2011.

C. **Public Comments:** The Department received one request for a Public Hearing, which was denied by the Commissioner because the request did not contain creditable conflicting technical information required to hold a Public Hearing. The Department held a Public Information Meeting on February 3, 2020, attended by Department staff and the Commissioner. At the meeting, the Department heard concerns from attendees. The public comments mostly pertained to potential scenic impacts from the proposed project. The Department has also received numerous written/e-mail comments from interested persons with concerns about scenic impacts to the scenic resources in the vicinity of the proposed project throughout the review of the application. In addition, the Department received comments from an interested person with concerns about soil disturbance in the watershed of Hatcase and Floods Ponds.

2. FINANCIAL CAPACITY:

The total cost of the project is estimated to be \$44,280,000.00. The applicant submitted consolidated financial statements to show evidence that the applicant has the ability to fund the project.

The Department finds that the applicant has demonstrated adequate financial capacity to comply with Department standards.

3. TECHNICAL ABILITY:

The applicant provided resume information for key persons involved with the project and a list of projects successfully constructed by the applicant. The applicant retained the services of the following companies to prepare the application:

- CES, Inc., a professional engineering firm, to assist in the design and engineering of the project
- RSG - noise assessment
- RLC - electrical engineering
- Cianbro Corporation – construction planning
- Strum Engineering – shadow flicker assessment and visual impacts
- Biodiversity Research Institute – wildlife habitat assessments

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

4. NOISE:

To address the Site Law standards pertaining to the control of noise, 38 M.R.S. § 484(3), and the Department's pertinent rule in Chapter 375, § 10, the applicant submitted a sound level assessment entitled "Noise Impact Assessment," completed by RSG, Inc. and dated

July 16, 2019. The sound level assessment was conducted to predict expected sound levels from the proposed project and to compare the model results to the applicable requirements.

As outlined in Chapter 375, § 10(B), when a proposed development is located in a municipality that has duly enacted by ordinance an applicable quantifiable noise standard, which (1) contains limits that are not higher than the sound level limits contained in this regulation by more than 5 dBA, and (2) limits or addresses the various types of noises contained in this regulation or all the types of noises generated by the development, that local standard, rather than this regulation, shall be applied by the Department within that municipality for each of the types of sounds the ordinance regulates.

Section 14.8.6.1 of the Clifton Land Use Ordinance states:

- Within 100 feet of a Sensitive Receptor on non-participating or non-project parcels the average L90A (10 minute) sound limit is 35 dBA.
- At the property line of non-participating or non-project parcels the average L90A (10 minute) sound limit is 45 dBA.
- A 5 dBA penalty is applied for tones as defined in Article 18, tonal penalty, actually measured at a measurement point. The 5 dBA penalty shall be added to any average 10-minute sound level (L90A 10-min) for which a tonal sound occurs.

For the purpose of the Ordinance, a non-participating or non-project parcel would be a parcel not affiliated with the project. A parcel with a noise mitigation waiver is considered a participating parcel.

According to Chapter 375, § 10(B)(1), when a proposed development is located in a municipality that has duly enacted by ordinance an applicable quantifiable noise standard, that (1) contains limits that are not higher than the sound level limits contained in this regulation by more than 5 dBA, and (2) limits or addresses the various types of noises contained in this regulation or all the types of noises generated by the development, that local standard, rather than this regulation, shall be applied by the Department within that municipality for each of the types of sounds the ordinance regulates. The Department determined that the Clifton Land Use Ordinance and its noise standards satisfy the criteria in Ch. 375 that trigger Department application of the municipal standard. Clifton's ordinance also contains specific provisions on the measurement of compliance in Appendix A, which include provisions for monitoring short duration repetitive sound (SDRS). In applying the town's standards, the compliance monitoring is effectively incorporated into these standards. Therefore, the Clifton Land Use Ordinance noise standards, including Appendix A, will apply to this proposal.

To assist with the review of the application, the Department retained an independent noise consultant, Tech Environmental, Inc., to review the applicant's prediction model and associated data as well as other evidence received on the issue of noise.

- A. Sound Level Modeling. The applicant's noise consultant, RSG, Inc., developed a sound level prediction model to estimate sound levels from the operation of the proposed project. The sound model for the project was created using Cadna/A software developed by DataKustik of Germany. Cadna/A allows the consultant to construct topographic surface models of area terrain for calculating sound attenuation from multiple sound sources such as wind turbines. The locations of the proposed turbines, roads, parcels, land uses, and waterbodies were entered into Cadna/A in order to calculate sound levels at various points within the proposed project area. Sound level predictions were calculated in accordance with ISO 9613-2, which is an international standard for calculating outdoor sound propagation.

This computerized model can predict sound levels at specific receiver positions originating from a variety of sound sources. Applicable national or international standards can also be included in the analysis as described above. Cadna/A accounts for such factors as:

- Distance attenuation;
- Geometrical characteristics of sources and receivers;
- Atmospheric attenuation (i.e., the rate of sound absorption by atmospheric gases in the air between sound sources and receptors);
- Ground attenuation (effect of sound absorption by the ground as sound passes over various terrain and vegetation types between source and receptor);
- Screening effects of surrounding terrain; and
- Meteorological conditions and effects.

The model included the sound emissions from both the proposed Silver Maple turbines and the Pisgah Mountain turbines. Two configuration scenarios were modeled. The first included Silver Maple turbines at a hub height of 105 meters and the second included Silver Maple turbines at a hub height of 117 meters. Modeling the sound generated from the operation of the five turbines was conducted using the manufacturer's full rated sound level output. Vestas V136 turbines with STE blades have a full rated sound level output of 103.9 dBA with a manufacturer uncertainty value of 2.0 dBA. The applicant initially included Noise Reduced Operation (NRO) on one turbine in its modeling, but ultimately showed NRO was not needed to meet the Town's ordinance. This was demonstrated through model results that included all five proposed turbines operating at the sound level output of 103.9 dBA with a manufacturing uncertainty value of 2.0 dBA, which resulted in all receptors on non-participating parcels being modeled at 34.0 dBA or less.

The applicant concluded that the proposed project will result in sound levels below the Town of Clifton's Ordinance levels of 35 dBA within 100 feet of a sensitive receptor on a non-participating parcel or 45 dBA at the property line of non-participating or non-project parcels.

- B. Tonal Sound. As defined in Chapter 375, § 10(I)(3), a tonal sound exists if:

at a protected location, the 10-minute equivalent average one-third octave band sound pressure level in the band containing the tonal sound exceeds the arithmetic average of the sound pressure levels of the two contiguous one-third octave bands by 5 dB for center frequencies at or between 500 Hz and 10,000 Hz, by 8 dB for center frequencies at or between 160 and 400 Hz, and by 15 dB for center frequencies at or between 25 Hz and 125 Hz. 5 dBA shall be added to any average 10-minute sound level ($Leq_{A 10\text{-min}}$) for which a tonal sound occurs that results from routine operation of the wind energy development.

In its review of the applicant's sound level assessment on behalf of the Department, Tech Environmental, Inc. stated that an analysis of the sound power level spectrum for the Vestas V136 turbines revealed that they have no potential for creating a tonal sound as defined in the Department's Noise Regulations.

- C. Peer Review and Analysis. Tech Environmental, Inc. reviewed Section 1, Project Description, as well as Section 5, Noise, of the project application. Section 5 contains the report by RSG, Inc., entitled "Noise Impact Assessment." Tech Environmental, Inc. concluded that the Vestas V136 turbine maximum sound power levels with conservative uncertainty factors were used in the analysis; the acoustic models and their assumptions were appropriate; the sound receiver locations are appropriate; the decibel contour maps adequately cover the potential impact area; and the Town of Clifton's Land Use Ordinance requirements have been properly interpreted and applied by the applicant.
- D. Post-construction Monitoring Program. Clifton Land Use Ordinance 14.8A includes requirements for pre- and post-construction sound and vibration monitoring in Appendix A (included with this order as Attachment A). This monitoring is required to determine if the proposed wind energy facility meets the conditions set forth in the ordinance.

The Department finds that the applicant must demonstrate compliance with the Town of Clifton's Noise Regulations once during the first year of operation and every fifth year thereafter until the facility is decommissioned. To ensure compliance, post-construction monitoring must meet all applicable standards of the Clifton Land Use Ordinance, which specifies the methods for measuring sound and the information to be reported to the Town for review. The applicant also must submit all required post-construction monitoring to the Department for review.

- E. Sound Complaint Response and Resolution Protocol. The Clifton Land Use Ordinance 14.8.B contains Community Compliant Evaluation and Response Procedure (Appendix B). This provides a means for local community members to contact the Clifton Town Officials in the event of any perceived or actual noncompliance issues and to provide a structured means to effectively manage any community concerns of complaints.

Based on the applicant's submissions and the review of those submissions by the Department's noise consultant, the Department finds that the proposed project meets all applicable standards of the Town of Clifton's Noise Regulations, thereby satisfying Chapter 375, § 10.

5. SCENIC CHARACTER:

The Site Law, 38 M.R.S. § 484(3) has standards pertaining to scenic impacts that must be satisfied in order to obtain a permit for a wind energy development. The Site Law requires an applicant to demonstrate that the developer has made adequate provision for fitting the development harmoniously into the existing natural environment and that the proposed project will not adversely affect existing uses or scenic character. The WEA further specifies those standards and states that when expedited wind energy developments are being evaluated:

The [Department] shall determine, in the manner provided in subsection 3, whether the development significantly compromises views from a scenic resource of state or national significance such that the development has an unreasonable adverse effect on the scenic character or existing uses related to scenic character... Except as otherwise provided in subsection 2, determination that a wind energy development fits harmoniously into the existing natural environment in terms of potential effects on scenic character and existing uses related to scenic character is not required for approval under... Title 38, section 484, subsection 3. 35-A M.R.S. § 3452(1).

The proposed project contains "generating facilities," including wind turbines, as defined by 35-A M.R.S. § 3451(5) and "associated facilities," such as buildings, access roads, and collection lines as defined by 35-A M.R.S. § 3451 (1). With regard to the associated facilities, the WEA, 35-A M.R.S. § 3452(2), provides in pertinent part that:

The [Department] shall evaluate the effect of associated facilities of a wind energy development in terms of potential effects on scenic character and existing uses related to scenic character in accordance with... Title 38, section 484, subsection 3, in the manner provided for development other than wind energy development if the [Department] determines that application of the standard in subsection 1 to the development may result in unreasonable adverse effects due to the scope, scale, location or other characteristics of the associated facilities. An interested party may submit information regarding this determination to the [Department] for its consideration. The [Department] shall make a determination pursuant to this subsection within 30 days of its acceptance of the application as complete for processing.

The Department determined that the associated facilities should be evaluated pursuant to the standards in the WEA as opposed to Title 38, section 484 subsection 3.

The WEA, 35-A M.R.S. § 3452(3), further provides that:

A finding by the [Department] that the development's generating facilities are a highly visible feature in the landscape is not solely sufficient basis for determination that an expedited wind energy project has an unreasonable adverse effect on the scenic character and existing uses related to scenic character of a scenic resource of state or national significance. In making its determination under subsection 1, the [Department] shall consider insignificant the effects of portions of the development's generating facilities located more than 8 miles, measured horizontally, from a scenic resource of state or national significance.

Pursuant to the Department's regulations, Chapter 382, Wind Energy Act Standards, the Department considers evidence regarding the significance of the Scenic Resources of State or National Significance (SRSNS); the existing character of the area surrounding the SRSNS; and the expectations of the typical user of the SRSNS, to inform a rating of the value of the SRSNS as low, medium, or high.

The Department also evaluates the evidence regarding the purpose and context of the proposed wind energy development; the extent, nature and duration of public uses of the SRSNS and the potential effect of the proposed development on that public use and enjoyment; the scope and scale of the potential impacts of the proposed development; and any cumulative impacts on the scenic character or existing uses related to scenic character of the SRSNS, to inform a rating of the significance of the impacts as low, medium, or high. The value of the SRSNS and the significance of the impacts are factors in the determination of the reasonableness of the scenic impacts of a proposed project.

To address the scenic impact criteria, the applicant submitted the following:

- "Visual Impact Assessment," prepared by Strum Consulting and dated September 19, 2020.
- "Silver Maple Wind Project Visual Impact Assessment – Expectation of Viewers" prepared by Strum Consulting and dated November 13, 2019.
- "Re: Report on additional photographs for Visual Impact Assessment," prepared by CES, Inc, and dated April 13, 2020.
- "Visual Impact Assessment Silver Maple Wind Farm," prepared by Strum Consulting dated May 6, 2020.
- "Silver Maple Project Visual Impact Addendum," prepared by the applicant and Strum Consulting, dated July 8, 2020.
- "Re: Visual Impact Assessment Silver Maple Wind Farm," prepared by Strum Consulting and dated January 6, 2021.

Collectively, these documents constitute the applicant's Visual Impact Assessment (the VIA).

The applicant's VIA for the generating facility and associated facilities addressed the criteria set forth in 35-A M.R.S. § 3452(3):

- (A) The significance of the potentially affected scenic resource of state or national significance;
- (B) The existing character of the surrounding area;
- (C) The expectations of the typical viewer;
- (D) The expedited wind energy development's purpose and the context of the proposed activity;
- (E) The extent, nature, and duration of potentially affected public uses of the scenic resource of state or national significance and the potential effect of the generating facilities' presence on the public's continued use and enjoyment of the scenic resource of state or national significance; and
- (F) The scope and scale of the potential effect of views of the generating facilities on the scenic resource of state or national significance, including but not limited to issues related to the number and extent of turbines visible from the scenic resource of state or national significance, the distance from the scenic resource of state or national significance and the effect of prominent features of the development on the landscape.

A. Scenic Resources of State or National Significance. SRSNS are defined in 35-A M.R.S. § 3451(9). The following is a description of what constitutes each type of SRSNS and the applicant's assessment of potential impacts to each of the SRSNS within eight miles of the proposed generating facilities:

- 1) National Natural Landmarks. A federally designated wilderness area or other comparable outstanding natural and cultural features, such as the Orono Bog or Meddybemps Heath.

The applicant identified Bald Mountain Focus Area and Upper Union River Focus Area as areas of statewide ecological significance.

The Upper Union River Focus Area supports habitat for several rare animal species that depend on clean and free-flowing waters. The VIA determined the scenic significance of the area would be moderate because the designation is mostly due to the ecological attributes of the area rather than the scenic importance. There is minimal development along the Union River and the majority of the riparian habitat consists of mature mixed wood forests. The river is crossed three times by roads. The area may be visited to fish or boat or by hikers. The proposed project is located 6.1 miles in the distance. The VIA determined that with the forest screen there would be no visibility of the turbines at hub height. The applicant has determined that the visibility of the project from this location would be low and therefore would have minimal impacts on the viewer's expectation.

Bald Mountain Focus Area is part of the Amherst Mountain Community Forest. It is State-owned and jointly managed by the Town of Amherst and the Maine Department of Agricultural, Conservation and Forestry. The Focus Area is comprised of a 60-acre red pine woodland on the ridges of Bald Mountain. The VIA determined that the scenic significance of the area was high because of the scenic views and recreational opportunities. The closest turbine to the project will be located 6.9 miles in the distance. The VIA determined that with the forest screen, up to 4 turbines would be visible at hub height from 0.7% of the focus area. The VIA determined that the project will have minimal visual impacts and therefore have little impact on the viewer's expectations.

Based on the minimal views of the project from these areas, the applicant concluded that the proposed project impact is Low and should not have an unreasonable adverse effect on the scenic character or existing uses related to the scenic character of either of these focus areas

- 2) Historic Places. Properties listed on the National Register of Historic Places pursuant to the National Historic Preservation Act of 1966, as amended.

The applicant identified five places listed on the National Register of Historic Places located within eight miles of the project. One site, the Lucerne Inn, will have no project visibility. Four of the sites, Harold Allan Schoolhouse, Cliffwood Hall, East Eddington Public Hall, and Holden Town Hall will have views of the project. Harold Allan Schoolhouse, Cliffwood Hall and the East Eddington Public Hall are all located adjacent to Route 9, a heavily traveled road with utility poles along the roadside. The Holden Town Hall is located on Route 1A which is also heavily traveled. The applicant concluded that based on the surrounding landscape of these sites and potential views there would be minimal visual impacts. The applicant rated the significance of the project as Low and determined that the proposed project should not have an unreasonable adverse effect on the scenic character or existing uses related to the scenic character of the four historic places.

- 3) National or State parks.

The applicant did not identify National or State parks within eight miles of the project.

- 4) Great ponds. A great pond is a SRSNS if it is:
 - a. one of the 66 great ponds located in the State's organized area identified as having outstanding or significant scenic quality in the "Maine's Finest Lakes" study published by the Executive Department, State Planning Office in October 1989; or,

- b. one of the 280 great ponds in the State's unorganized or de-organized areas designated as outstanding or significant from a scenic perspective in the "Maine Wildlands Lakes Assessment" (MWLA) published by the Maine Land Use Regulation Commission in June 1987.

There are ten great ponds within eight miles of the generating facilities listed in the "Maine's Finest Lakes" study. The applicant identified the ten SRSNS as Burnt Pond, Chemo Pond, Floods Pond, Halfmile Pond, Hatcase Pond, Hopkins Pond, Jellison Hill Pond, Mountainy Pond, Parks Pond, and Second Pond. According to the applicant's VIA, the project would be visible from seven of these great ponds. The proposed project would not be visible from Halfmile Pond, Jellison Hill Pond and Second Pond.

Burnt Pond

Burnt Pond is a 315-acre pond in the Town of Dedham. It is described in Maine Finest Lakes as having outstanding scenic and shoreline features. Burnt Pond is located within the Bangor Water District's protected drinking watershed, which has been protected since 1959. Public access to the Pond is restricted, and the only access is a gated road. Portions of the access road and collector lines may be visible from portions of the Pond. Five turbines may be visible from 58% of the Pond during leaf off conditions. At hub height, five turbines will be visible from 35% of the Pond. The closest turbine will be one mile from the Pond.

According to 17 M.R.S. § 3860, no person on foot shall be denied access or egress over unimproved land to a great pond except that this provision shall not apply to access or egress over the land of a water company or a water district when the water from the great pond is utilized as a source for public water. Therefore, the public does not have access to this resource; the applicant was unsure if this resource met the definition of a SRSNS.

Chemo Pond

Chemo Pond is a 1146-acre lake located in the communities of Bradley, Clifton, and Eddington. It is located approximately 4.7 miles from the project. The applicant describes it as a popular recreational destination with seasonal and permanent residences. It is listed as having significant scenic resources in Maine Finest Lakes.

The applicant's VIA states that existing turbines that are part of the Pisgah Wind Energy Project are highly visible, and the proposed turbines will also be highly visible throughout the lake. The closest proposed turbine will be 4.7 miles from the lake, while the closest existing Pisgah turbine is located 4.5 miles from the pond. The viewshed analysis indicated that all five turbines may be visible from most of Chemo pond. The cumulative impacts with the existing turbines indicated that all ten turbines from both projects will be visible from 97% of

Chemo Pond. The VIA determined that although the turbines are highly visible, they should not increase any visual impacts beyond the impacts of the existing turbines. The VIA determined there would be no impacts on fishing, swimming, or boating. The applicant concluded that the proposed project should not have an unreasonable adverse effect on the scenic character or existing uses related to the scenic character from Chemo Pond due to the current views of the existing five turbines and rated the significance of the project as Low.

Floods Pond

Floods Pond is a 654-acre pond in the Town of Otis. This pond is used as water supply by the Bangor Water District. It is described in the Maine Finest Lakes as having an outstanding scenic, shoreline, and fishery resources. Floods Pond is located within the Bangor Water District's protected drinking watershed which has been protected since 1959. The only access to the Pond is a gated road. The shoreline is a mixture of forest and boulder shore and is undeveloped. Some access roads for the project may be visible during winter conditions. The project is 1.3 miles from the Pond. The VIA states that at hub height, 4% of the pond will have visibility of one turbine, and at full height turbine blades from five turbines may be visible from 65% of the Pond.

According to 17 M.R.S. § 3860, no person on foot shall be denied access or egress over unimproved land to a great pond except that this provision shall not apply to access or egress over the land of a water company or a water district when the water from the great pond is utilized as a source for public water. Therefore, the public does not have access to this resource; the applicant was unsure if this resource met the definition of a SRSNS.

Hatcase Pond

Hatcase Pond is a 145-acre pond located in the Town of Dedham. It is described in Maine Finest Lakes as having outstanding scenic and shoreline features, and significant fisheries. Hatcase Pond is located within the Brewer Water Department's protected drinking watershed, which protects most of the watershed for Hatcase Pond, and is the water source for the City of Brewer. The pond has two access roads, which are both gated, providing limited access to the public. There is limited development on the southeast shoreline. The VIA determined that the closest turbine would be 3.3 miles in the distance and five turbines may be visible from 3% of the pond during leaf off conditions. Based on the minimal views of the project and limited public access, the applicant concluded that the proposed project impact is Low and should not have an unreasonable adverse effect on the scenic character or existing uses related to the scenic character of Hatcase Pond.

Halfmile Pond

Halfmile Pond is 29 acres and located in the Town of Amherst. It is described in Maine Finest Lakes as having outstanding scenic features. The entire area around the pond is regulated by the Maine Bureau of Public Lands and there are no camps or residences located on the pond. The pond is accessed by a woods road and is open for fishing or carried in boats. There is a public access area and a camping/recreational area on the lower southerly shore.

The proposed project is located to the southwest of the pond and should not be visible from the pond based on the applicant's assessment.

Hopkins Pond

Hopkins Pond is a 442-acre pond in the Town of Mariaville. It is described in Maine Finest Lakes as having outstanding scenic and shoreline features and a significant fishery. Hopkins Pond has seasonal dwellings around the north and the east side of the lake, a public boat launch and a portion of the shorefront is under a conservation easement held by the Forest Society of Maine. The VIA describes it as having an irregular shore and picturesque islands that make the lake highly attractive, and as such places the significance of this pond as high.

The closest turbine to the lake would be located 4 miles away. In the best conditions, one turbine at hub height would be visible from 0.7% of the pond during leaf on conditions and in worst conditions, up to 5 turbines may be visible from 20% of the pond during winter, leaf off conditions. During winter conditions, the majority of the views will be of turbine blades since the VIA demonstrated that the visibility of turbines at hub height would be limited to 0.9% of the pond.

In the VIA the applicant determined the lake is used for recreation by the lakefront owners and daily visitors. The view of the project from Hopkins Pond would consist of partial blades and some hub visibility in the best vantage areas, however, much of the lake would have no visibility. As such, the VIA determined there would be minimal impacts on the use and enjoyment of the pond and concluded that the proposed project impact is Low and should not have an unreasonable adverse effect on the scenic character or existing uses related to the scenic character of the pond.

Jellison Hill Pond

Jellison Hill Pond is a 45-acre pond in the Town of Amherst. It is described as having significant scenic resources in Maine Finest Lakes. The entire area around the pond is privately owned, with a few seasonal camps. The access to the pond is via a gated woods road. The VIA determined there would be no visibility from this project.

Mountainy Pond

Mountainy Pond is a 691-acre pond in the Town of Dedham. It is described in Maine Finest Lakes as having outstanding scenic and shoreline features, and significant fisheries. Mountainy Pond is mostly undeveloped with a forested and boulder shoreline. Due to the outstanding scenic rating, the significance in the VIA is rated as high.

There is one gated road into the lake and much of the lake is owned by the Mountainy Pond Club. The Club is made up of owners of the six camps located on the Pond. Recently, the Brewer Water District signed a conservation easement with the Mountainy Pond Club to protect 514 acres of property along the lake because it is located in the watershed of the City of Brewer's drinking water supply, Hatcase Pond.

In the VIA the applicant determined that there would be little to no views of the project from Mountainy Pond. The closest turbine to the project is 3.5 miles away. At best case, there would be views of one turbine at hub height from 2% of the pond. At worst case, using bare terrain and assuming no vegetation, there would be views of up to 5 turbines from 13% of the pond, however, these views would be mostly limited to blade tips. Based on the minimal views of the project, the applicant concluded that the proposed project impact is Low and should not have an unreasonable adverse effect on the scenic character or existing uses related to the scenic character of either of the pond.

Parks Pond

Parks Pond is a 124-acre pond located in the Town of Clifton. It is described in Maine's Finest Lakes as having significant scenic resources. The lake is developed with residences and a campground. The VIA determined that the significance of this resource is moderate to high.

The closest turbine to the project is located 2.8 miles away. In best case (leaf on) the project will have no visibility. During the winter (leaf off), five turbines may be visible from 9% of the lake; only 0.01% of this visibility will be at hub height so the view will be mainly restricted to blade tips. The VIA determined that the turbines would be minimally visible so the project would have a low impact to viewer experience. Based on the minimal views of the project from this pond, the applicant concluded that the proposed project impact is Low and should not have an unreasonable adverse effect on the scenic character or existing uses related to the scenic character of the pond.

Second Pond

Second Pond is a 64-acre pond located in the Town of Dedham. It is described in Maine Finest Lakes as having outstanding scenic resources.

The entire pond is privately owned and there are no camps or residences located on the pond. The pond also serves as water source for the local community. Use of the Pond is highly regulated, and no swimming or camping is permitted. The VIA determined that the project would not be visible from this resource.

- 5) Scenic Rivers or Streams. A segment of a scenic river or stream is a SRSNS if it is identified as having unique or outstanding scenic attributes listed in the 1982 “Maine Rivers Study” by the Department of Agriculture, Conservation and Forestry.

The applicant identified a segment of the West Branch of the Union River (from Graham Lake to Great Pond) and the Middle/East Branch of the Union River as SRSNS.

The West Branch of the Union River includes a winding river channel that travels from the southerly end of Great Pond to the northerly end of Graham Lake. The shoreline is characterized as mature forest with tree heights of 40 feet and greater. In the VIA the applicant determined there should not be any views of the project.

The Middle/East Branch of the Union River flows from the southerly end of Lower Middle Brook Pond to the northerly end of Graham Lake. In the VIA the applicant determined that the existing vegetation should block any views of the project.

- 6) Scenic Viewpoints. A scenic viewpoint is a SRSNS if it is located on state public reserved land or on a trail that is used exclusively for pedestrian use, such as the Appalachian Trail, that the Department of Agriculture, Conservation and Forestry designates by rule adopted in accordance with 35-A M.R.S. § 3457.

There are no qualifying scenic viewpoints from which turbines would be visible for this project.

- 7) Scenic Turnouts. A scenic turnout is a SRSNS if it has been constructed by the Department of Transportation pursuant to 23 M.R.S. § 954 on a public road designated as a scenic highway.

There were no qualifying scenic turnouts from which the turbines would be visible for this project.

- 8) Coastal Scenic Viewpoints. To qualify as a SRSNS, a scenic viewpoint located in the coastal area, as defined by 38 M.R.S. § 1802(1), must be ranked as having state or national significance in terms of scenic quality in:

(a) one of the scenic inventories prepared for and published by the Executive Department, State Planning Office: “Method for Coastal Scenic Landscape Assessment with Field Results for Kittery to Scarborough and Cape Elizabeth to

South Thomaston,” Dominie, et al., October 1987; “Scenic Inventory Mainland Sites of Penobscot Bay,” Dewan and Associates, et al., August 1990; or “Scenic Inventory: Islesboro, Vinalhaven, North Haven and Associated Offshore Islands,” Dewan and Associates, June 1992; or

(b) a scenic inventory developed by or prepared for the Executive Department, State Planning Office in accordance with 38 M.R.S. § 3457.

The applicant did not identify any coastal scenic viewpoints within eight miles of the turbines.

- B. Peer Review of the Visual Impact Assessment. The Department hired Scenic Quality Consultants (SQC), an independent scenic consultant, to assist in its review of the evidence submitted on scenic character. SQC reviewed the VIA for adequacy and provided the Department with comments dated January 21, 2020. In its comments, SQC asked for additional information and pointed out SRSNS that were misidentified in the VIA. SQC reviewed additional material submitted on May 6, 2020. SQC provided the Department with additional comments on May 20, 2020 which stated that the applicant correctly presented the SRSNS, viewshed analysis and photosimulations. However, the applicant needed to further define the indicators that measure the WEA and Chapter 382 evaluation criteria, and thresholds that describe how to distinguish adverse from unreasonable adverse visual impacts. The applicant provided additional information on July 8, 2020 in response to these concerns. SQC visited the project site on July 29, 2020.

SQC provided the Department with additional comments on September 11, 2020. In these comments, SQC determines the greatest impacts from the project will be to Chemo Pond, Burnt Pond, and Floods Pond. SQC also commented on potential impacts to Hopkins Pond. SQC noted it is aware that the public should not have access to Burnt and Floods Pond, but that there are still people using these resources. SQC stated it is unable to determine if these ponds should be considered SRSNS based on the public not having a legal right to access these ponds. SQC considered the potential visual impact to Hopkins Pond, incorporating the potential impacts from night lighting into its evaluation. SQC stated the turbines could attract visual attention, but will not dominate the view find at Hopkins Pond, unlike at Chemo Pond. The Pisgah project visibility does not add to any cumulative impacts at Hopkins Pond. SQC determined that the Silver Maple project with night lighting impacts may have a medium-high scenic impact. SQC determined that on Chemo Pond the existing turbines from the Pisgah Wind Energy Project are the dominate view with impacts both during the day and night, and the addition of five more turbines would increase the scenic impacts to this resource. SQC suggested a possible mitigation for the increased impacts would be to install Federal Aviation Administration (FAA) radar assisted lighting to the existing 5 turbines.

- C. Cumulative Impact. Pursuant to Chapter 382, the Department takes into consideration the cumulative scenic impact or effect of the proposed development under both daytime and nighttime conditions in conjunction with scenic impacts from other wind energy developments located within eight miles of each SRSNS addressed by the applicant's VIA. The Department takes into consideration projects that are existing, approved, or pending review and within eight miles of any portion of any SRSNS addressed by the applicant's VIA. The Department determined that the following resources may have cumulative scenic impact from Pisgah Wind Energy Project and the proposed project based on the application submissions, the site visit, and documentation from users of the resources.
- 1) Burnt Pond. All ten turbines from the existing Pisgah project and the proposed project may be visible from 67% of the pond, 42% of the pond may have visibility at hub height.
 - 2) Chemo Pond. The ten turbines from the existing Pisgah project and the proposed project will be visible from 97 to 99% of the pond.
 - 3) East Eddington Town Hall. The existing Pisgah turbines and proposed turbines will be visible from this location.
 - 4) Floods Pond. All ten turbines from the existing Pisgah project and the proposed project may be visible from 63% of the pond. With forest screening, 20% of the pond would have visibility at hub height.
 - 5) Hatcase Pond. All ten turbines from the existing Pisgah project and proposed project may be visible from 9% of Hatcase Pond, although this drops to 3% at hub height, indicating the majority of the visibility would be blade tips.
 - 6) Hopkins Pond. The VIA determined that up to nine turbines (five Silver Maple turbines and four Pisgah turbines) may be visible from .04% of the pond, and at least one turbine will be visible from 34 % of the pond, although most views are of rotors or turbine blades as they pass the horizon/tree line.
 - 7) Union River Focus Area. The VIA determined with forest screening up to five turbines may be visible from 0.3%, of this area. In an analysis using bare terrain, 20% of the area may have visibility of 10 turbines.
- D. Night Lighting. To reduce scenic impacts of night lighting on the SRSNS, the applicant proposes to install a radar-assisted lighting (RAL) system upon receiving Federal Aviation Administration (FAA) approval at the proposed project. With RAL, safety lights remain off until activated by aircraft operating in the vicinity of the turbines. To mitigate the cumulative impact of the proposed project and the existing Pisgah project, the applicant proposes to install RAL or another lighting mitigation approved by the Department to the existing five turbine Pisgah Wind Project.

- E. Department Analysis and Findings. In its analysis, the Department considered the evidence pertaining to scenic impacts submitted by the applicant, information gathered during the public meeting, public comments, the comments of its independent scenic consultant, and the evidence gathered by Department staff. The Department visited the project area on July 29, 2020. During this site visit, Department staff visited Chemo Pond, Hopkins Pond, East Eddington Public Hall, and the Holden Town Hall. The Department compared the current views of the project area from the scenic resources to the projected views depicted in the photosimulations.

Members of the public expressed concerns over scenic impacts from the proposed turbines, including concerns about night lighting and noted that the Maine Finest Lakes Study discusses an area 10 miles east of Bangor with 11 lakes clustered around a small series of mountains and large hills as being an area with especially scenic lakes. The Department recognizes that this area has been identified as an important area in this study and evaluated the proposed impacts to individual SRSNSs and cumulatively in the area.

In making its determination of whether the proposed project will cause an unreasonable adverse effect on scenic character or existing uses related to scenic character, the Department evaluated the relevant evidence in the record regarding each of the statutory criteria in 35-A M.R.S. § 3452(3) for each of the SRSNS. For the Lucerne Inn, Halfmile Pond, Jellison Hill Pond, Second Pond, the West Branch of Union River, and the Middle/East Branch of Union River the Department considered the evidence in the record that there will be no visibility of the generating facilities from these SRSNS. On that basis, the Department finds the proposed project will not cause an unreasonable adverse effect on scenic character or existing uses related to scenic character for any of those six SRSNS.

The Department determined that the scenic impacts will be Low to the Harold Arnold Schoolhouse, Cliffwood Hall, and the Holden Town Hall based on the existing adjacent road and views from these locations. The East Eddington Public Hall has visibility of the existing Pisgah project and will have some cumulative scenic impacts due to the visibility of the proposed wind turbines. The Department visited this site on July 29, 2020 and determined that based on the existing views from these locations, which include the road and utility lines and the intended uses of these facilities, the scenic impacts would be minimal. The Department concluded that the overall scenic impact will be Low and will not constitute an unreasonable adverse effect on scenic character or existing uses related to scenic character for any of these SRSNS.

The Department determined that the scenic impacts to the Bald Mountain Focus Area and the Union River Focus Area will be minimal due to the distance from the project and low visibility, especially when considering forest screening. The Department concluded that the overall scenic impact will be Low and will not constitute an

unreasonable adverse effect on scenic character or existing uses related to scenic character for any of these SRSNS.

The Department noted that Hopkins Pond is not highly developed and has limited or no views of the Pisgah project. The Department received many comments from users of Hopkins Pond concerned with scenic impacts to the pond from the proposed turbines. The Department determined Hopkins Pond is a Medium/High value SNRNS based on the site visit, typical viewer expectation, and comments from users of the resource. The photosimulations showed that the views of the project would mainly consist of turbine tips at least 4.0 miles in the distance and would not be visible from much of the pond. The applicant has agreed to use RAL in order to further minimize any scenic impacts from night lighting on the pond. Based on the photosimulations indicating limited views of the turbine tips and proposed RAL lighting for the proposed turbines, the Department determined the overall impact to the pond will be minimal. Therefore, the Department finds that the overall scenic impact will be Low and will not constitute an unreasonable adverse effect on scenic character or existing uses related to scenic character for any of these SRSNS.

The Department determined that based on the information submitted in the application, the impacts to Mountainy Pond will be minimal and mostly consists of turbine blades in the areas where there may be visibility. The Department concluded that the overall scenic impact will be Low and will not constitute an unreasonable adverse effect on scenic character or existing uses related to scenic character for any of these SRSNS.

The Department has documentation from the Brewer Water District that there is limited public access to Hatcase Pond. Due to the limited public access and the minimal views of the project the Department finds that the overall scenic impact will be Low and will not constitute an unreasonable adverse effect on scenic character or existing uses related to scenic character for any of these SRSNS.

The Department's assessment is that the greatest scenic impacts will be to Chemo Pond, Burnt Pond, and Floods Pond. With regard to Burnt and Flood ponds, by virtue of being great ponds they are publicly owned; they also are accessed by the public. Unlike most great ponds, however, the access to these great ponds is fundamentally different in that these ponds are not legally accessible to the public. In evaluating the significance of scenic impacts, the Department considers the extent, nature, and duration of the public use of the resource. Here, the Department finds the nature of the use of these two ponds, unauthorized use, is particularly significant in evaluating the significance of the impact and finds the scenic impact at Burnt and Floods ponds will not be unreasonable.

With regard to Chemo Pond, the existing Pisgah project is highly visible from almost the entirety of the pond and the orientation of the pond leads one's eye to the Pisgah turbines due to the shape of the pond and the turbine location above the pond. The overall scenic impact of the Pisgah project is the combination of its impact during the

daytime and at night as a result of the lighting. The impact of this existing project on the scenic character of the pond is significant. SQC estimates the Pisgah Pproject reduced the scenic quality of the resource from High to Medium. The proposed construction of the Silver Maple project will have an additional, incremental impact, although this incremental impact will not be as great as the impact of the Pisgah project. One reason is that the existing character of the area has been affected by the existing wind power project. Another reason that the proposed Silver Maple will have a smaller, incremental impact is that the applicant proposes to use RAL at Silver Maple. In addition, the applicant proposes to coordinate installation of RAL at the existing Pisgah project as a form of mitigation. This will decrease the visual impacts associated with the Pisgah project and the cumulative impact of the two projects – Pisgah and Silver Maple.

SQC notes that with this mitigation the resulting cumulative impact of the two projects may be lower than the existing impact of just the Pisgah project. To evaluate whether a net cumulative impact improvement may result from the use of RAL at both projects, SQC notes a professionally conducted survey of affected users might be helpful. The requirement for the applicant, however, is not to demonstrate that its project will result in a net improvement, but rather that its project will not have an unreasonable adverse effect on the scenic character or existing uses related to scenic character of a scenic resource of state or national significance. Thus, the Department finds a user survey is not essential in this instance.

Chemo Pond currently is impacted by the existing Pisgah wind power development during the daytime and nighttime. This impact affects the existing character of the surrounding area. Provided the applicant installs RAL at the Silver Maple project to minimize night lighting impacts and coordinates with the owners of the Pisgah project to install RAL at that project to mitigate existing and potential cumulative visual impacts, the Department finds the incremental scenic impact of the Silver Maple project on Chemo Pond will be Low and that the cumulative impact on the pond of the Pisgah and Silver Maple projects will be comparable to the existing scenic impact and, as suggested by SQC, may even result in an overall reduction in the cumulative impact of the two projects on Chemo Pond. The Department finds that there will not be an unreasonable adverse effect on the scenic character or existing uses of Chemo Pond.

Additionally, the installation of RAL at the Pisgah project will mitigate potential cumulative impacts at all other SRSNS where the existing project's night lighting is visible.

In sum, based on the evidence in the record and for the reasons discussed above, the Department finds that the proposed project will not have an unreasonable adverse effect on scenic character or existing uses related to scenic character of the SRSNS within eight miles of the generating facilities, nor will the project pose an unreasonable cumulative impact, provided:

- Prior to operation of the project, the applicant must install and operate RAL on all project turbines;
- The applicant coordinates with the owners of the Pisgah project and prior to operation of the Silver Maple project RAL must be installed and operating at the five Pisgah project turbines; and
- Once RAL is installed and Silver Maple and Pisgah, the applicant must notify the Department within 72 hours if the system at either project is rendered inoperable due to malfunction or damage and is anticipated to be inoperable for a period of longer than 15 days.

6. WILDLIFE AND FISHERIES:

Applicants for grid scale wind energy permits are required to demonstrate that the proposed project will adequately provide for the protection of wildlife and fisheries and will not cause unreasonable harm to any significant wildlife habitat; freshwater plant habitat; threatened or endangered plant habitat; aquatic or adjacent upland habitat; travel corridor; freshwater, estuarine or marine fisheries; or other aquatic life pursuant to the Site Law Rules, Chapter 375, § 15.

The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the proposed project. In preliminary comments dated June 8, 2019, MDIFW noted it has not mapped any essential habitats that would be directly affected by the project. MDIFW also commented on potential impacts to bats, avian resources, and fisheries habitat. With respect to bats, MDIFW stated that they have recently recommended that turbines operate only at cut-in wind speeds exceeding 6.0 meters per second each night (from at least ½ hour before sunset to at least ½ hour after sunrise) during the period April 15 to September 30, whenever the ambient air temperature is at or above 32 degrees Fahrenheit, measured at both ground level and nacelle hub height. Additionally, based on higher bat mortality during July to September, MDIFW has recommended increased curtailment wind speeds during this period. With respect to avian resources and migratory birds, MDIFW expressed initial concerns about potential impacts to songbirds, if it were determined the project was located in the Downeast coastal plain, an area in the coastal vicinity that is utilized by migratory. MDIFW indicated mitigation may be appropriate for potential impacts to migratory birds if the coastal plain included the project area. MDIFW subsequently confirmed its determination that the project is located in the Downeast coastal plains and recommended avoidance and minimization and compensation for impacts to migrating songbirds. MDIFW also recommended that any upgraded crossing be constructed to allow full aquatic flow.

After proposing and discussing several different curtailment options with the Department and MDIFW, in a letter dated March 24, 2020, the applicant agreed to curtailment from April 1 to October 31, a half hour before sunset to a half hour after sunrise, at a cut-in speed of 6.0 meters per second when temperatures are above 32 degrees Fahrenheit measured at ground level and nacelle hub height. The applicant agreed to a cut-in speed of 6.5 meters per second from July 15 to September 30. The following day, MDIFW clarified that it recommends operating at cut-in wind speeds exceeding, not of, 6.0 meters

per second and 6.5 meters per second and that it recommends that the period of increased curtailment from 6.0 meters per second to 6.5 meters per second should run from July 15 through September 15. The applicant agreed to these revisions to the curtailment plan. The Department finds, after considering comments of MDIFW, that this curtailment regime will be sufficiently protective of bats by tailoring the operation of the project turbines to the times and conditions when bat activity is expected to be lower.

On May 6, 2020, the applicant submitted a letter from Frenchman Bay Conservancy (FBC) that outlined the applicant's proposed mitigation for potential impacts to migratory birds. The applicant proposes to contribute \$100,000 to FBC to help with the purchase of a 1,400-acre parcel, to be named the Frenchman Bay Community Forest, located in Hancock County in the Downeast coastal plain (the conservation parcel). The conservation parcel is located adjacent to another 3,100-acre conservation parcel. FBC stated that the contribution from the applicant would be necessary for FBC to be able to purchase the parcel. Although the applicant and FBC initially indicated limited forest management may occur in the early years after acquisition of the parcel, they ultimately proposed that the parcel would be managed as an ecological reserve with a forever wild conservation easement. Thus, the parcel would not be subject to active management or timber harvesting, with existing forests allowed to mature into old growth forests and the conservation easement remaining in place in perpetuity.

MDIFW reviewed the proposed compensation for potential impacts to migratory birds and expressed concern that the applicant was not proposing active management of the conservation parcel and that the applicant's financial contribution was not large enough. MDIFW noted that through active management of the parcel shrub and open areas could be maintained and a more focused effort could be made to help provide energy-dense fruit and mast bearing trees and scrubs, native plant species that support fall insect populations, and necessary cover for migrants. MDIFW estimates that optimal stopover habitat likely represents mosaics with 66-75% of the parcel providing high quality habitat. With regard to the size of the conservation parcel, MDIFW noted that the applicant's proposed contribution accounted for only a fraction of the overall purchase price for the entire 1,400-acre parcel and suggested that a corresponding fraction was appropriate to view as compensation for the project's potential impacts. Pointing to another wind power project where the Department approved land conservation as compensation for potential impacts to migratory birds and using that other project as a rough benchmark, MDIFW noted the applicant was proposing less conservation in terms of acres or dollars per kilowatt, or acres or dollars per turbine.

Recognizing these concerns, the applicant retained the Biodiversity Research Institute (BRI) to more closely examine the proposed conservation parcel and assess its habitat value. On July 28, 2020, the applicant submitted a report prepared by BRI, *A Survey of Breeding Birds at the Silver Maple Wind Project Mitigation Parcel in Hancock Maine*. This report summarized the results of a survey for breeding birds at the Silver Maple mitigation parcel in Hancock, Maine. The goal of the survey was to provide information on the value that the property provides to breeding birds by collecting baseline data. Two biologists visited the property on July 2-3 to evaluate species diversity and abundance on

the property by using point counts. They detected 63 species and found that, overall, there was a high bird density and species richness. The data suggested the property is valuable for breeding and migrating birds.

MDIFW reviewed the report and responded on August 28, 2020, expressing uncertainty about the association between breeding habitat for songbirds and habitat for migrant communities. They also reiterated concerns that if the forest on the parcel is allowed to mature, as opposed to being actively managed, the conservation parcel may only be valuable for migratory birds for a few years. After that time, as the community forest continues to mature, MDIFW anticipated that habitat for migrating songbirds for stopover and refueling will be suboptimal. MDIFW noted the forever wild approach proposed by the applicant and FBC would benefit some forms of wildlife and songbirds in general, but did not anticipate the conservation parcel would benefit migrant songbird communities specifically or over the long term.

Informed by these comments, BRI looked more closely at the habitat types on the proposed conservation parcel, estimated, in general, how these might reasonably be expected to change over time, and reviewed available literature to understand the relative value of these habitat types to migratory birds. BRI also offered its assessment of the value of the proposed conservation parcel for migratory birds, looking both at the extrinsic and intrinsic value of the property. This assessment was presented in the report, *An Assessment of Frenchman Bay Forest for Migratory Birds*, prepared by BRI and dated December 22, 2020. BRI also prepared a follow-up memorandum, *Frenchman Bay Community Forest Use by Migrating Birds*, January 20, 2021, that further explained the contents of the earlier assessment.

BRI noted the proposed conservation parcel is located in an important area for migrating birds. The broader landscape context of the property, the weather patterns, position relative to migratory routes and barriers, and energetic condition of migrants, all combine to describe the extrinsic value. With regard to the proposed parcel, they state geography is the primary consideration. Specifically, through its proximity to the Gulf of Maine, the parcel offers habitat for migrants before and after crossing the gulf, an area with medium to high passage rates in the context of the entire U.S. Proximity to adjacent conservation lands also adds to the extrinsic value of the parcel. Because the Gulf of Maine will remain an important constraint to Atlantic coast migrants, BRI stated that it does not expect the extrinsic value of the parcel to change over time.

With regard to the intrinsic value or habitat quality of the parcel, BRI's assessment aligned with MDIFW's and also provided additional detail about the range of habitats present on the parcel and their expected value to migratory birds over time. For example, based on the literature reviewed by BRI, as early successional forest areas on the property age the relative value of these areas to migratory birds likely will decrease. This is reflected in concerns expressed by MDIFW, as well. BRI's assessment goes further, noting the relative value of forest habitat again increases as the forest grows from intermediate to mature and that through all stages of forest life, even as relative value changes, overall the parcel is expected to remain intrinsically valuable due to its habitat.

This due to the forested areas on the property, even when intermediate in age, being predominantly deciduous or mixed forest (as opposed to evergreen). BRI's review of literature indicated that these forest types have the highest migrant use. Additionally, the BRI assessment highlights that the parcel is not monolithic in land cover. The parcel consists of approximately 50 acres of mowed fields (mowed as recently as 2020) that will become early successional forest over the lifetime of the project; contains 18 acres of open water wetland; 161 acres of woody wetland; and 3.5 miles of stream shore associated open heath, and includes Egypt Stream and Kilkenny Stream. The woody wetland that constitutes 11% of the parcel is considered high-quality habitat for migrating birds. The parcel also has approximately four miles of 25-foot wide road, with fruit-bearing shrubs on both sides of the road. Finally, BRI noted that while Neotropical migratory birds are going to use the property differently during migration and breeding, individuals of many of the species that will stop at the parcel during migration also will breed on the property; many of the frequently detected species during the breeding bird survey also are common migratory species identified on the property.

In evaluating whether the applicant has made adequate provision for the protection of wildlife, and specifically migratory birds, the Department recognizes the project is located in the Downeast coastal plain, an area with higher passage rates where the risk to migrants from wind power development is greater. While there is no single map that delineates this plain and, as MDIFW's comments indicate, the existing data and science would not support such a definitive demarcation, the project is located nearer the edge of this higher passage rate area where the number of migrants is expected to be lower than other areas within the coastal plain closer to the coast. Still, based on the project's location the Department finds the risk to migratory birds sufficiently significant, as indicated by MDIFW, to warrant compensation to mitigate the potential impact to migrants.

The applicant's compensation proposal centers around the 1,400-acre parcel in Hancock County. As MDIFW appropriately points out, the applicant is not proposing to purchase the entire parcel; the applicant proposes a \$100,000 contribution to FBC, which FBC has stated is necessary for it to be able to close on the transaction. Apportioning the applicant's proposed contribution to a corresponding fraction of the overall parcel, and pointing to another wind power project as a reference point, MDIFW notes that on a per turbine or per megawatt basis, a larger contribution by the applicant would be necessary to achieve the same ratios as the other project permitted by the Department. The Department agrees that it is not appropriate to consider the compensation proposed by the applicant to be the equivalent of purchasing and conserving the entire 1,400-acre parcel. While valuable to consider how comparable impacts were addressed in other permitting matters to ensure applicants are treated equitably, ultimately the Department must evaluate the present proposal on the record before it. The Department notes that a compensation formula was not used by the applicant when developing its compensation proposal in the other matter pointed to by MDIFW, nor was such a formula intended to be developed from the compensation ultimately approved in that separate matter. There, the Department evaluated the data, science, comments and other record material related

to that specific project and evaluated whether applicable permitting standards were met; this is the same approach the Department applies here.

Considering the limited number of turbines proposed as part of the Silver Maple project (5); the location of the project on the edge of the Downeast coastal plain; the extrinsic value of the proposed conservation parcel due to its location proximate to the Gulf of Maine and other conserved lands; the range of habitat types and the overall habitat value of this parcel to migratory birds, both during and after the life of the project, as noted in BRI's assessment, while recognizing the value to migratory birds could be even higher if the applicant has proposed active management; the Department finds the applicant's proposed financial contribution to the acquisition of the proposed conservation parcel adequately compensates for the potential impacts to migratory birds, provided FBC completes acquisition of the property and executes the proposed forever wild conservation easement. With this mitigation, the Department further finds the applicant has made adequate provision for the protection of migratory birds.

With regard to potential impacts to concerns raised over the proposed stream crossing and impacts to aquatic resources, the applicant initially applied proposed to replace an existing culvert to upgrade an existing road. In comments dated December 11, 2019, MDIFW commented that if a crossing is upgraded it should be done to allow full aquatic passage and span 1.2 times the bank-full width with an open bottom. In a letter dated March 24, 2020, the applicant agreed to use open bottom crossing at the watercourse crossing. With the proposed open bottom crossing, the Department finds the applicant has made adequate provisions for aquatic resources.

In conclusion and as discussed above, the Department finds that the applicant has made adequate provision for the protection of wildlife and fisheries provided:

- From April 1 to October 31, a half hour before sunset to a half hour after sunrise, the applicant curtails the turbines cut-in speed to exceed 6.0 meters per second when temperatures are above 32 degrees measured at ground level and at nacelle hub height; and from July 15 to September 15 curtails the turbines cut-in speed to exceed 6.5 meters per second;
- The applicant contributes \$100,000 to FBC to preserve 1,400 acres in Hancock County and provides documentation of this contribution to the Department for review prior to the start of construction; and
- The applicant submits evidence to the Department that FBC has completed acquisition of the 1,400-acre parcel and executed the conservation easement for this parcel prior to operation.

7. HISTORIC SITES AND UNUSUAL NATURAL AREAS:

The Maine Historic Preservation Commission reviewed the proposed project and stated that it will have no effect upon any structure or site of historic, architectural, or archaeological significance as defined by the National Historic Preservation Act of 1966.

The Maine Natural Areas Program database does not contain any records documenting the existence of rare or unique botanical features on the project site.

The Department finds that the proposed development will not have an adverse effect on the preservation of any historic sites or unusual natural areas either on or near the development site.

8. BUFFER STRIPS:

Buffers for stormwater management are discussed in Finding 10.

The Department finds that the applicants have made adequate provision for buffer strips.

9. SOILS:

The applicant initially submitted a medium-intensity soil report based on the Natural Resources Conservation Services data and soils found at the project site. This report was reviewed by staff from the Division of Environmental Assessment (DEA) of the Bureau of Water Quality (BWQ). DEA stated that the report did not contain sufficient information to determine if the soils on-site were suitable for the proposed use.

The Department also received public comments stating that the submitted information was insufficient and that higher intensity soil mapping would be appropriate given the proximity to the Floods Pond watershed.

In response to DEA's comments, the applicant submitted Class B and Class L soil surveys. DEA reviewed the new information and stated that significant areas of bedrock outcrop are likely to be encountered during construction. DEA also reviewed a Blasting Plan submitted by the applicant and outlining the proposed procedures for removing bedrock. If a rock crusher is being utilized on site, the applicant must ensure that the crusher is licensed by the Department's Bureau of Air Quality and is operated in accordance with that license. DEA also commented that the applicant will need to submit for review and approval prior to construction any geotechnical reports or similar documents describing work performed to support specific locations of turbine towers and other structures associated with this operation.

The Department finds that, based on these reports and Blasting Plan, and DEA's review, the soils on the project site present no limitations to the proposed project that cannot be overcome through standard engineering practices, provided the applicant submits geotechnical reports or similar documents describing work performed to support specific locations of turbine towers and other structures associated with this operation to the Department for review and approval prior to construction.

10. STORMWATER MANAGEMENT:

The proposed project includes approximately 21.39 acres of new developed area, of which 1.64 acres is impervious area. The project site lies within the watershed of Springy Pond and Floods Pond. The applicant submitted a stormwater management plan based on the Basic, Phosphorus, and Flooding Standards contained in Chapter 500 Stormwater Management rules (06-096 C.M.R. ch. 500, effective August 12, 2015). The proposed stormwater management system consists of five roadside forested buffers, seven forested buffers with berms, and four forested buffer ditch turnouts.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan (Section 14 of the application) that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by the Department.

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor.

(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short and long-term maintenance requirements. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. This plan was reviewed by the Department. The applicant will be responsible for the maintenance of all common facilities including the stormwater management system.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on the Department's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500, § 4(B).

B. Phosphorus Standards:

Because of the proposed project's location in the watersheds of Springy Pond and Floods Ponds, stormwater runoff from the project site will be treated to meet the phosphorus standard outlined in Chapter 500, § 4(D). The applicant's phosphorus control plan was developed using methodology developed by the Department and outlined in "Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development." For this project, the Permitted Phosphorus Export is 3.21 pounds of phosphorus per year. The applicant proposes to remove phosphorus from the project's stormwater runoff by utilizing buffers, as shown on the set of plans referenced in Finding 1.

The predicted phosphorus export for the project site based on the applicant's model is 2.56 pounds/per year. The proposed stormwater treatment will be able to reduce the export of phosphorus in the stormwater runoff below the maximum permitted phosphorus export for the site.

The stormwater buffers will be protected from alteration through the execution of a deed restriction. The applicant proposes to use the deed restriction language contained in Appendix G of Chapter 500 and submitted a draft deed restriction that meets Department standards.

Within 60 days of the completion of construction, the location of the stormwater buffers must be permanently marked on the ground and the applicant must execute and record all required deed restrictions. The applicant must submit a copy of the recorded deed restrictions to the Department within 60 days of its recording.

The stormwater management system proposed by the applicant was reviewed by, and revised in response to comments from, the Department. After a final review, the Department commented that the proposed stormwater management system is designed in accordance with the Phosphorus Standards contained in Chapter 500, § 4(D) and recommended the design Engineer be retained to oversee the installation of the Stormwater Best Management Practices. At least once per year or 30 days after completion, the applicant must submit an update or as-built plans for a completed project.

Based on the stormwater system's design and the Department's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Phosphorus Standards contained in Chapter 500, § 4(D).

C. Flooding Standard:

The applicant is proposing to utilize a stormwater management system based on estimates of pre- and post-development stormwater runoff flows obtained by using Hydrocad, a stormwater modeling software that utilizes the methodologies outlined in Technical Releases #55 and #20, U.S.D.A., Soil Conservation Service and detains stormwater from 24-hour storms of 2-, 10-, and 25-year frequency. The post-development peak flow from the site will not exceed the pre-development peak flow from the site and the peak flow of the receiving waters will not be increased as a result of stormwater runoff from the development site.

The Department commented that the proposed system is designed in accordance with the Flooding Standard contained in Chapter 500, § 4(F).

Based on the system's design and the Department's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Flooding Standard contained in Chapter 500, § 4(F) for peak flow from the project site, and channel limits and runoff areas.

The Department further finds that the proposed project will meet the Chapter 500 standards for easements and covenants.

11. GROUNDWATER:

The project site is not located over a mapped sand and gravel aquifer. The proposed project does not propose any withdrawal from, or discharge to, the groundwater. DEA reviewed the application and commented that the applicant must submit a Spill, Prevention, Control and Countermeasures Plan (SPCC) for construction activities for review and approval prior to construction. The applicant must submit an operational SPCC plan to the Department for review and approval prior to operation.

The Department finds that the proposed project will not have an unreasonable adverse effect on ground water quality provided that the applicant submits to the Department for review and approval the SPCC for construction activities prior to construction and the operational SPCC prior to operation.

12. WATER SUPPLY:

Water will be used for dust control during construction. Specific withdrawal locations have not been determined. DEA commented that the use of water for dust control during construction is acceptable provided that any sources of water are specifically identified to ensure that they will have adequate volume during the construction season and access is via a stable location, such as a bridge, culvert crossing, boat ramp, or similar feature so that the water truck does not need to cross erodible soil areas to reach the water source.

No water supply is needed for the project once operational.

The Department finds that the applicant has made adequate provision for securing and maintaining a sufficient and healthful water supply, provided the applicant meets the requirements of DEA as outlined above and submits any source of water for dust control to the Department for review prior to use of that source.

13. WASTEWATER DISPOSAL:

No wastewater will be discharged from the project.

14. SOLID WASTE:

When completed, the proposed project is anticipated to generate approximately 10 tons of general solid waste per year. All general solid wastes from the proposed project will be disposed of at Penobscot Energy Recovery Corporation, which is currently in substantial compliance with the Maine Solid Waste Management Rules.

The proposed project will generate approximately 2,000 cubic yards of stumps and grubblings. All stumps and grubblings generated will be disposed of on site, in a

designated disposal area as shown on Plan Sheet C101, in compliance with the Maine Solid Waste Management Rules.

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

15. FLOODING:

The proposed project is not located within the 100-year flood plain of any river or stream.

The Department finds that the proposed project is unlikely to cause or increase flooding or cause an unreasonable flood hazard to any structure.

16. SHADOW FLICKER:

In accordance with 38 M.R.S. § 484(10) and Chapter 382, § 4, an applicant must demonstrate that a proposed wind energy development has been designed to avoid unreasonable adverse shadow flicker effects. Shadow flicker means alternating changes in light intensity caused by rotating wind turbine blades casting shadows on the ground or a stationary object. Shadow flicker occurs as the shadows of the blades move past the observation point, when the rotor is directly between the observer and the sun, and the rotor is spinning. An applicant must demonstrate that the project will not generate more than 30 hours per year of shadow flicker on any occupied building on property not owned by the applicant or subject to an easement for shadow flicker.

The applicant submitted a shadow flicker analysis with its application. The applicant used WindPRO, a wind modeling software program, to model expected shadow flicker effects on adjacent properties from the five proposed turbine locations. The applicant assumed a worst-case scenario, that all receptors have a direct in-line view of the incoming shadow flicker sunlight and did not take into account any existing vegetative buffers.

The Department generally recommends that applicants conduct a shadow flicker model out to a distance of 1,000 feet or greater from a residential structure, and the applicant's model did so. The applicant modeled 271 building and vacant residential lot receptors. Additionally, the applicant modeled 23 road points. The applicant's WindPRO analysis concludes that none of these receptors will receive shadow flicker in excess of 30 hours per year.

The Department finds the shadow flicker modeling conducted by the applicant is credible. Based upon the proposed project's location and design, the distance to the nearest shadow flicker receptor, and results of the shadow flicker analysis, the Department finds that the proposed project will not unreasonably cause shadow flicker to occur over adjacent properties.

17. PUBLIC SAFETY:

Pursuant to the Department's Chapter 382 Rules, applicants for wind energy developments must demonstrate that the project will be constructed with setbacks and other considerations that are adequate to protect public safety.

The applicant proposes to use Vestas V136 4.0-MW wind turbines. The turbines' conformity with International Electrotechnical Commission standards has been certified by Germanischer Lloyd Industrial Services GmbH. The applicant provided a copy of the certification.

The Department recognizes that locating wind turbines a safe distance away from any occupied structures, public roads, or other public use areas is important for public safety. Pursuant to the Department rules, Chapter 382, § 5, the Department established the minimum setback for generating facilities. The Department requires that all wind turbines be set back from property lines, occupied structures, or public areas, a minimum of 1.5 times the sum of the hub height plus the rotor diameter, or the normal setback requirement for the local zoning classification as dictated by local municipal zoning ordinance or the LUPC, whichever is greater. Based on the Department setback specifications, the minimum setback distance to the nearest property line must be 1,245 feet. A review of the application shows that all turbines are set back more than 1,265 feet from the nearest non-participating landowner and approximately 3,248 feet from the nearest private residence.

The turbines are equipped with smoke detection systems. The applicant proposes to monitor the turbines remotely 24 hours a day and states that the turbines will automatically stop in the event of a fire, smoke detection, or failure of the detection system. The applicant submitted a Fire Safety Plan that details fire prevention protocol and standard operating procedures for a fire event. The Bangor and Eddington Fire Departments have been notified about the project and have been informed on access ways and water sources. The applicant must notify the Department within 48 hours of any fire event that causes one or more turbines to cease generating electricity.

Based on the information submitted in the application, the proposed continuous monitoring of the turbines, and the requirement of a timely notification of any fire event, the Department finds that the applicant has demonstrated that the development will not adversely impact public safety.

The Department finds that the applicant provided adequate documentation for the turbines to demonstrate that they comply with applicable industry safety standards. The Department further finds that the applicant has demonstrated that the proposed project will be sited with appropriate safety setbacks from adjacent properties and existing uses, provided that the applicant notifies the Department in the event of a fire as described above.

18. DECOMMISSIONING PLAN:

Pursuant to P.L. 2007, Ch. 661, § B-13(6) and Department Rule Chapter 382, § 7, the applicant must demonstrate adequate financial capacity to decommission the proposed wind energy development if required at any time during construction or operation of the development, or upon termination of development operations. This must include a demonstration that this financial capacity will be unaffected by any future changes in the applicant's financial condition. The obligation to decommission the development must be transferred to any future owner of the development in the event of a transfer of title. The financial capacity demonstrated must be sufficient to fully fund any necessary decommissioning costs commensurate with the wind energy development's scale, location and other relevant considerations, including but not limited to those associated with site restoration and turbine removal.

The applicant submitted a decommissioning plan which includes a description of the trigger for implementing the decommissioning, a description of the work required, and an estimate of decommissioning costs.

- A. Trigger for implementation of decommissioning. The proposed wind turbine generators are designed and certified by independent agencies for a minimum expected operational life of 25 years, however, other factors may trigger the requirement for decommissioning before 25 years have passed.

After the commencement of commercial operations, decommissioning of the entire facility will begin if no generation occurs for a period of twelve consecutive months. Decommissioning of one or more individual turbine must begin if 12 consecutive months of no generation occurs at that turbine. The exception is if one or more turbines are rendered inoperable by unanticipated mechanical or structural failures, or by fire, earthquake, flood, tornado, or other natural disaster; or war, civil strife or other similar violence, and if it will take more than twelve months to repair or replace the inoperable turbine(s). In that instance, the applicant may request an additional twelve months to accomplish the repair or replacement without triggering the decommissioning requirement. The applicant must request an extension within six months of the event that renders the turbine(s) inoperable. To obtain an extension, the applicant must submit to the Department, for review and approval, a plan establishing a reasonable assurance that the turbine(s) will be brought back into operation within 24 months of the event. If the extension request is denied, the decommissioning of the inoperable turbine(s) must be initiated within 18 months of the event.

- B. Description of work. The description of work contained in the application outlines the applicant's proposal for the manner in which the turbines and other components of the proposed project will be dismantled and removed from the site. Subsurface components will be removed to a minimum of 24 inches below grade, generating facilities will be removed and possibly salvaged, and disturbed areas will be re-seeded. At the time of decommissioning, the applicant must submit a plan for

continued beneficial use of any wind energy development components proposed to be left on-site to the Department for review and approval.

- C. Financial Assurance. The applicant proposes to provide financial assurance prior to the start of construction. The decommissioning funds must be in the form of (i) a performance bond, (ii) a surety bond, or (iii) an irrevocable letter of credit, or other acceptable form of financial assurance. The applicant estimates that the current cost for decommissioning the entire project will be \$780,000. Proof of acceptable financial assurance must be submitted to the Department for review and approval prior to the start of construction. The applicant must reevaluate the decommissioning costs at least once every two years to account for price fluctuations and submit a report and updated financial assurance to the Department for review. The cost estimate for decommissioning the entire development must also be reevaluated, and a report submitted to the Department for review, after any decommissioning of one or more individual turbines occurs.
- D. Notification. The applicant must notify the Department within two business days of any catastrophic turbine failure. Catastrophic turbine failure shall include the voluntary or involuntary shut-down of a turbine due to a fire event, structural failure or accidental event resulting in a turbine collapse, a force majeure event, or any mechanical breakdown the applicant anticipates will result in a turbine being off-line for a period greater than six months.

Based on the applicant's proposal outlined above, the Department finds that the applicant's proposal will adequately provide for decommissioning, provided the applicant submits evidence of financial assurance for decommissioning costs as set forth above; and, at the time of decommissioning, submits a plan for continued beneficial use of any wind energy development components proposed to be left on-site.

19. TANGIBLE BENEFITS:

Pursuant to 35-A M.R.S. § 3454 and Department rules Chapter 382, § 7, an applicant must demonstrate that a proposed wind energy development will establish environmental and economic improvements or benefits to the citizens of Maine attributable to the construction, operation, and maintenance of the proposed development.

In its application, the applicant described tangible benefits that the project will provide to the State of Maine and to host communities, including economic benefits and environmental benefits.

- A. Job Creation. The applicant states that its proposal will benefit the host communities and surrounding areas through construction-related employment opportunities. The applicant has indicated that they will hire local firms and individuals whenever possible. The applicant estimates the project will create approximately 30-40 part-time construction jobs, two long-term part-time jobs for security and snow removal,

and three permanent jobs for the operation and maintenance of the facility after construction.

- B. Generation of Wind Energy. The applicant estimates that the proposed project will provide an approximate average output of 60,000 megawatt-hours per year.
- C. Property Tax Payments. The applicant estimates that the project will result in annual tax payments of approximately \$852,276 to the Town of Clifton. The applicant must submit a copy of any finalized Tax Increment Financing (TIF) for the project to the Department for review within 60 days of approval of such TIF by the Department of Economic and Community Development. Additionally, the applicant must report on taxes paid on the project as part of its annual tangible benefits report.
- D. Community Benefits Agreement. The applicant proposes a community benefit agreement with the Town of Clifton for \$2,250 per MW per year (\$45,000 annually). The above payment will be made yearly for 20 years.
- E. Tangible benefit reporting. The applicant proposes to report to the Department regarding the tangible benefits realized from the project. The applicant proposes that no later than 90 days following commencement of commercial operation, the applicant will report on the tangible benefits realized from the construction of the project and provide documentation of any payments made to the Town of Clifton at the time of reporting. The applicant will submit information annually on the tangible benefits realized from the operation and maintenance of the project, including but not limited to reporting on payments made in connection with the community benefits package requirements set forth in 35-A M.R.S. § 3454.

Based on the predicted employment opportunities, energy generation, property tax revenue and the community benefits agreements proposed by the applicant, the Department finds that the applicant has demonstrated that the proposed project will provide significant tangible benefits to the State, host communities and surrounding area pursuant to 35-A M.R.S. § 3454, provided that annual payment is made to the Town of Clifton and that the applicant submits annual reports on the tangible benefits, all as described above.

20. BEST PRACTICAL MITIGATION:

Title 35-A, section 3459 requires applicants to submit information on best practical mitigation for all aspects of construction and operation of generating facilities. The Department must consider the following:

- A. The existing state of technology;
- B. The effectiveness of available technologies or methods for reducing impacts; and
- C. The economic feasibility of the type of mitigation under consideration.

The applicant designed the project to avoid any permanent fill in freshwater wetlands and to minimize intrusion into significant wildlife habitats. Detailed erosion and sediment control plans have been developed to minimize soil erosion in and near resources during and after construction.

The applicant proposes to curtail the project to minimize impacts to bat populations and proposes a mitigation package to offset impacts to migrating birds.

Radar-assisted lighting is proposed to minimize the visual impacts from the project on nearby scenic resources. The applicant located the proposed turbines to minimize visual impacts to the scenic resources and submitted a detailed analysis of scenic impacts.

Based on the applicant's project design, natural resource impact mitigation, and scenic analysis, the Department finds the applicant has mitigated project impacts to the best practical extent.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. §§ 481–489-E:

- A. The applicant has provided adequate evidence of financial capacity and technical ability to develop the project in a manner consistent with state environmental standards.
- B. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities provided the applicant meets the requirements outlined in Finding 4, 5 and 6.
- C. The proposed development will be built on soil types which are suitable to the nature of the undertaking and will not cause unreasonable erosion of soil or sediment nor inhibit the natural transfer of soil provided that the applicant meets the requirements outlined in Finding 9.
- D. The proposed development meets the standards for storm water management in 38 M.R.S. § 420-D and the standard for erosion and sedimentation control in 38 M.R.S. § 420-C provided that the applicant meets the requirements outlined in Finding 10.
- E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur provided that the applicant meets the requirements outlined in Finding 11.
- F. The applicant has made adequate provision of utilities, including water supplies, sewerage facilities and solid waste disposal required for the development and the development will not have an unreasonable adverse effect on the existing or proposed utilities in the municipality or area served by those services provided the applicant meets the requirements outlined in Finding 12.

- G. The activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure.
- H. The activity will not present an unreasonable safety hazard to adjacent properties or adjacent property uses provided that the applicant meets the requirements of Finding 17.
- I. The applicant has made adequate provisions to achieve decommissioning of the wind power facility provided that the applicant meets the requirements of Finding 18.
- J. The applicant has made adequate provision for tangible and community benefits, provided the applicant meets the requirements in Finding 19.

THEREFORE, the Department APPROVES the application of SWEB DEVELOPMENT USA, LLC to construct a wind generating facility as described in Finding 1, SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.
2. In addition to any specific erosion control measures described in this or previous orders, the applicant shall take all necessary actions to ensure that their activities or those of their agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.
3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
4. Within 60 days of the completion of construction, the location of the stormwater buffers shall be permanently marked on the ground and the applicant shall execute and record all required deed restrictions. The applicant shall submit a copy of the recorded deed restrictions to the Department within 60 days of its recording.
5. The design engineer shall be retained to oversee the installation of the stormwater Best Management Practices. At least once per year or 30 days after completion, the owner shall submit an update or as-built plans for a completed project to the Department for review.
6. The applicant shall notify the Department within 48 hours of any fire event that causes one or more turbines to cease generating electricity.
7. The applicant shall submit all required post-construction noise monitoring as required by the Clifton Town Ordinance and specified in Appendix A, to the Department for review.

The applicant shall have RAL lighting installed and operational at the proposed Silver Maple project and the existing five turbine Pisgah project prior to operation of the Silver Maple project.

8. The applicant shall notify the Department within 72 hours if the RAL system is rendered inoperable due to malfunction or damage and is anticipated to be inoperable for a period of longer than 15 days.
9. The applicant shall submit the final sources of water for dust control, prior to use, to the Department for review.
10. Prior to the start of construction, the applicant shall provide financial assurance for decommissioning in the amount of \$780,000 in the form of (i) a performance bond, (ii) a surety bond, or (iii) an irrevocable letter of credit, or other acceptable form of financial assurance to the Department for review and approval.
11. The cost estimate for decommissioning the entire development shall be reevaluated, and a report submitted to the Department for review, after any decommissioning of one or more individual turbines occurs.
12. Turbines shall be curtailed nightly between April 15 and September 30 each year from at least ½ hour before sunset to at least ½ hour after sunrise when ambient temperatures are above 32 degrees Fahrenheit, subject to the following ambient wind speeds. Turbines shall only operate at cut-in wind speeds exceeding 6.0 meters per second (m/s) from April 15 through July 15, as well as from September 15 through October 31st. Turbines shall only operate at cut-in wind speeds exceeding 6.5 m/s from July 15 through September 15. Turbines shall be feathered during curtailment and allowed to turn at no more than one revolution per minute.
13. The applicant shall notify the Department within two business days of any catastrophic turbine failure which will result in a turbine being off-line for a period greater than six months.
14. The applicant shall reevaluate the decommissioning costs at least once every two years to account for price fluctuations and submit a report and updated financial assurance, if necessary, to the Department for review.
15. The applicant shall provide documentation that they contributed \$100,000 to FBC to preserve 1,400 acres in Hancock County prior to the start of construction.
16. The applicant shall submit evidence to the Department that FBC has completed acquisition of the 1,400-acre parcel and executed the conservation easement prior to operation.

- 17. The applicant shall submit a copy of any finalized Tax Increment Financing (TIF) for the project to the Department for review within 60 days of approval of such TIF by the Department of Economic and Community Development.
- 18. The applicant shall submit a Spill, Prevention, Control and Countermeasures (SPCC) plan for construction activities for review and approval prior to construction.
- 19. The applicant shall submit an operational SPCC plan to the Department for review and approval prior to operation.
- 20. No later than 60 days after the first December 31 following commencement of commercial operation (denoted as Year 1 of operation), the applicant shall report on the tangible benefits realized from the construction of the project and provide documentation of the project’s community benefits packages and any payments made pursuant to such packages at the time of reporting. The applicant shall submit annual information on the tangible benefits realized from the operation and maintenance of the project to the Department for review.
- 21. Prior to construction, the applicant shall submit for review and approval to the Department, geotechnical reports or similar documents describing work performed to support specific locations of turbine towers and other structures associated with this operation.
- 22. At the time of decommissioning, the applicant shall submit a plan for continued beneficial use of any wind energy development components proposed to be left on-site to the Department for review and approval.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS ____ DAY OF _____, 2021.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
 For: Melanie Loyzim, Acting Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

JD/L25245EN/ATS#85218

Department of Environmental Protection
SITE LOCATION OF DEVELOPMENT (SITE)
STANDARD CONDITIONS

- A. Approval of Variations from Plans.** The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation. Further subdivision of proposed lots by the applicant or future owners is specifically prohibited without prior approval of the Board, and the applicant shall include deed restrictions to that effect.
- B. Compliance with All Applicable Laws.** The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Compliance with All Terms and Conditions of Approval.** The applicant shall submit all reports and information requested by the Board or the Department demonstrating that the applicant has complied or will comply with all preconstruction terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- D. Advertising.** Advertising relating to matters included in this application shall refer to this approval only if it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- E. Transfer of Development.** Unless otherwise provided in this approval, the applicant shall not sell, lease, assign or otherwise transfer the development or any portion thereof without prior written approval of the Board where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval shall be granted only if the applicant or transferee demonstrates to the Board that the transferee has the technical capacity and financial ability to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant.
- F. Time frame for approvals.** If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the Board for a new approval. The applicant may not begin construction or operation of the development until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- G. Approval Included in Contract Bids.** A copy of this approval must be included in or attached to all contract bid specifications for the development.
- H. Approval Shown to Contractors.** Work done by a contractor pursuant to this approval shall not begin before the contractor has been shown by the developer a copy of this approval.

STORMWATER STANDARD CONDITIONS

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

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

- (1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the permittee. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S. §420-D(8) and is subject to penalties under 38 M.R.S. §349.
- (2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- (3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- (4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.
- (5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- (6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the permittee, and the permittee and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

- (7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the Department. If maintenance responsibility is to be transferred from the permittee to another entity, a transfer request must be filed with the Department which includes the name and contact information for the person or entity responsible for this maintenance. The form must be signed by the responsible person or agent of the responsible entity.
- (8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.
- (a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
 - (b) All aspects of the stormwater control system are operating as approved, have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system, as necessary.
 - (c) The stormwater maintenance plan for the site is being implemented as approved by the Department, and the maintenance log is being maintained.
 - (d) All proprietary systems have been maintained according to the manufacturer's recommendations. Where required by the Department, the permittee shall execute a 5-year maintenance contract with a qualified professional for the coming 5-year interval. The maintenance contract must include provisions for routine inspections, cleaning and general maintenance.
 - (e) The Department may waive some or all of these recertification requirements on a case-by-case basis for permittees subject to the Department's Multi-Sector General Permit ("MSGP") and/or Maine Pollutant Discharge Elimination System ("MEPDES") programs where it is demonstrated that these programs are providing stormwater control that is at least as effective as required pursuant to this Chapter.
- (9) Transfer of property subject to the license. If any portion of the property subject to the license containing areas of flow or areas that are flooded are transferred to a new property owner, restrictive covenants protecting these areas must be included in any deeds or leases, and recorded at the appropriate county registry of deeds. Also, in all transfers of such areas and areas containing parts of the stormwater management system, deed restrictions must be included making the property transfer subject to all applicable terms and conditions of the permit. These terms and conditions must be incorporated by specific and prominent reference to the permit in the deed. All transfers must include in the restrictions the requirement that any subsequent transfer must specifically include the same restrictions unless their removal or modification is approved by the Department. These restrictions must be written to be enforceable by the Department, and must reference the permit number.
- (10) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

ATTACHMENT A

14.8.A. Sound Assessment Protocol (Appendix A)

14.8.A.1. Context of References. Various portions of this appendix reference standards from international, scientific, and engineering organizations. The most current approved final version of the standard is to be used. If there is a conflict between a standard referenced and a specific standard stated in this appendix, the specific standard stated in this appendix shall be used.

CLIFTON LAND USE ORDINANCE 7 November 2017 SPECIFIC PROJECT STANDARDS

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14.8.A.2. Introduction. The purpose of this Appendix is to describe the requirements for pre-construction and post-construction sound and vibration monitoring. Determining the sound and vibration impacts is a highly technical undertaking and requires a serious effort in order to collect reliable and meaningful data for both the public and decision-makers. This protocol is based in part on criteria published in **American National Standards S12.9 - Quantities and Procedures for Description and Measurement of Environmental Sound**, and **S12.18** for the measurement of sound pressure level outdoors. Where there are differences between the procedures and definitions of this document and **ANSI** standards, this document shall apply.

14.8.A.3. Instrumentation. All instruments and other tools used to measure audible, inaudible and low frequency sound shall meet the requirements for **ANSI** or **IEC Class 1 Integrating Averaging Sound Level Meter** with one-third octave band analyzer with frequency range from 12.5 Hz to 20k Hz. The instrument must also be capable of measuring low level background sounds down to 20 dBA, and must conform, at a minimum, to the requirements of **ANSI S1.43-1997**. Measurements shall only be made with a 7 inch or larger weather-treated windscreen to extend the relevant range of valid data. A compatible acoustic field calibrator is required with certified ± 0.2 dB accuracy. Portable meteorological measurement requirements are outlined in **ANSI S12.9 Part 3** and are required to be located within 5 meters of the sound measuring microphone. The microphone shall be located at a height of 1.2 to 1.5 meters for all tests unless circumstances require a different measurement position. In that case, the reasons shall be documented and include any adjustments needed to make the results correspond to the preferred measurement location.

14.8.A.4. Pre-construction Ambient Sound and Predictive Sound Assessment. An assessment of the sound environment in the area surrounding the proposed wind energy facility is necessary in order to predict the impact of a proposed project. The following guidelines shall be used in developing an estimate an area's pre-construction sound environment and predicting post-construction sound levels. Measurements and assessment are to be conducted by a Qualified Independent Acoustical Consultant chosen by the applicant. The pre-development ambient sound assessment measurement period must be when the majority of deciduous tree leaves have fallen to the ground and leaf and insect noise is minimal (late fall through early spring represent optimal time frames).

The Planning Board may file objections detailing any concerns it may have with the applicant's selection. These concerns will be addressed in the assessment. Objections to the applicant's selection must be filed prior to the start of the sound assessment.

Measurements and detailed analysis of the existing pre- and modeled post-construction sound environments will be submitted to the Planning Board.

The purpose of the assessment is first, to establish a consistent and scientifically sound procedure for evaluating existing background levels of audible and low frequency sound; and second, to determine whether the proposed wind energy facility will meet the conditions set forth in the Ordinance. The characteristics of the proposed wind energy facility and the features of the surrounding environment will influence the design of the assessment. Site layout, types of wind turbines and wind systems selected and the existence of other significant local audible and low frequency sound sources and Sensitive Receptors should be taken into consideration.

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14.8.A.4.1. Location of Measurement Points for Pre-construction Sound

Measurement. Sites to be used as Measurement Points shall be selected as follows.

- (i) Sites should not be located near large objects, such as buildings. The distance to buildings or other structures should be twice the largest dimension of the structure, if possible.
- (ii) The sites shall include those locations anticipated to have the highest sound immissions of the proposed wind energy facility.
- (iii) The sites shall include those locations where the background soundscape is not unduly influenced by local noise sources, whether natural or man-made, such as streams, roads, logging activities, etc.
- (iv) The sites shall include locations selected to represent the sound level at all Sensitive Receptors located within 1.5 miles of each proposed wind turbine.
- (v) Sites shall be located with the assistance of the Planning Board and property owner(s) where measurements are proposed to occur.
- (vi) Additional sites may be chosen by the consultant conducting the assessment if these sites will improve the accuracy of the assessment's conclusions.
- (vii) At least one 10 meter weather reporting station must be located on the proposed wind turbine site.

14.8.A.4.2. Conditions Under Which Measurements Are To Be Taken. At each Measurement Point, information will be gathered under the conditions specified.

- (i) The duration of each measurement shall be ten continuous minutes for each quantity listed in Subsection **14.8.A.4.3.**, below, at each location. Monitor in continuous ten minute intervals for a period of at least 7 days to capture a wide variety of wind and weather conditions. All raw data will be supplied to the board. The raw data will be separated into daytime, (7 a.m. to 7 p.m.), and nighttime, (7 p.m. to 7 a.m.), levels to see if it is significantly quieter at night. The actual numbers used as representing the site will be the average of all measurements taken after eliminating the highest 10% and lowest 10% of all valid measurements.
- (ii) Measurements must be taken at 1.2 to 1.5 meters above the ground and at least 15 feet from any reflective surface, following **ANSI S12.9** protocol together with any other requirements found in this Ordinance.
- (iii) A 7 inch or larger weather-treated windscreen to extend the relevant range of valid data must be used for all data collection.

14.8.A.4.3. Quantities to be Measured. At each Measurement Point, the following information will be gathered, at a minimum, and provided as part of the assessment.

(i) Leq, L10 and L90, each to be given in dBA and in dBC. L90 is the value for the quietest one continuous minute of a continuous ten minute period, L10 is the value for the loudest one continuous minute of a continuous ten minute period, and Leq is the average value over the entire ten minute period. To distinguish these values from

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their post-construction counterparts, these values may be denoted Leq(pre), L10(pre) and L90(pre), with an “A” or a “C”, depending on the weight. For instance, L10A(pre) means the A-weighted preconstruction measurement of L10.

(ii) A general narrative description of the steady sounds that form the background soundscape at each measurement point.

(iii) Digital recording of all data, sampled at a rate of at least 44,100 Hz with signed 16 bit Pulse Code Modulation, as described in **IEC 60908**, and measured using a recording instrument meeting **ANSI S1.4**. This may be augmented with audio and video recordings.

(iv) Wind speed and direction, humidity and temperature, together with the corresponding information from the nearest ten meter weather reporting station.

14.8.A.4.4. Pre-Construction Predictive Sound Assessment Elements

(i) Determining whether the proposed wind energy facility will meet the conditions set forth in this Ordinance requires that the consultant predict the post construction sound level of the proposed wind energy facility. At each Measurement Point, the consultant must estimate values for Leq, both A-weighted and C-weighted, for a total of two values at each Measurement Point. These pre-construction estimates of the post-construction sound level will be denoted Leq(post), each of which may have an “A” or a “C” to indicate the method of weighting. In the event that there are several pending permit applications, or preexisting wind energy facility(s), the estimated post-construction values shall be the combined predicted output of all proposed or existing wind energy facility(s). All of these wind energy facility(s) will be treated using the same methodology to arrive at combined value for the predicted postconstruction sound level. Each additional wind energy facility adds to the soundburden of a community. If the contribution to sound levels of a proposed wind energy facility, together with the sound generated by pre-existing wind energy facility(s) would raise sound levels beyond the limits of this Ordinance, then the proposed wind energy facility will not be approved.

(ii) The assessment may be based on computer models using certified use of the ISO 9613-2 or equivalent standard as approved by the Planning Board working with their independent Acoustical engineer, and shall include a description of all assumptions made in the model’s construction and algorithms. This description must be sufficient to allow an independent third party to verify the conclusions of the assessment. If the model does not consider the effects of wind direction, operating conditions, geography of the terrain, and/or the effect of reinforcement from coherent sounds or tones from the turbines, then these shortcomings must be identified. In all cases predictions shall be based on the highest levels of sound power produced

by the wind turbines including the highest uncertainties of the method used and manufacture's warranted specifications as reflected in an IEC 61400-11 2nd edition test or compliance tests of the same make and model under conditions similar to the site conditions proposed for the WEF.

14.8.A.4.5. Elements To Be Included in Submissions. In addition to any and all previous required submissions to the planning board the following elements are required
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(i) The minimum and maximum distance between any Measurement Points.

(ii) The distance between each Measurement Point and any significant local sound sources.

(iii) For each measurement point the following data shall be provided, preferably in in tabular form. The measured Leq, L10 and L90, each to be given in dBA and in dBC as determined in **Article 14.8.A.4.3.** above, The percentage of valid 10 minute data measurements, the percentage of invalid data measurements due to wind or weather and the predicted LeqA(post) and LeqC(post) estimated in **Article 14.8.A.4.4** above. *The following section of this ordinance, 14.8. Sound Assessment Protocol (Appendix A), 14.8.A.4.5. (iv) shall apply retroactively to all proceedings, applications, and petitions pending or commenced on and after June 8, 2010 notwithstanding the provisions of 1 MRSA § 302.*

(iv) One iso-contour map shall be included showing the level of post-construction sound, as given by LeqA(post) contributed by the WEF. The scale shall be such as to allow individual Measurement points and sensitive receptors to be distinguished. In the event that there are several pending permit applications, or preexisting wind energy facility(s), the estimated post-construction values shall be the combined predicted output of all proposed or existing wind energy facility(s). All of these wind energy facility(s) will be treated using the same methodology to arrive at combined value for the predicted post-construction sound level. Each additional wind energy facility adds to the sound-burden of a community. If the contribution to sound levels of a proposed wind energy facility, together with the sound generated by pre-existing wind energy facility(s) would raise sound levels beyond the limits of this Ordinance, then the proposed wind energy facility will not be approved.

(v) All maps shall use a contour interval of no more than one (1) dB, and shall extend out, at a minimum, to distance sufficient to show the 30 dBA boundary, or 1.5 miles from any turbine, whichever is greater.

(vi) Maps shall show the location of Measurement Points, sources of any significant local non-WEF sound or vibration, and the location of all Sensitive Receptors.

(vii) Any additional information that the Planning Board and /or its consultant reasonably believe will aid in making a more informed decision as to whether the proposed Wind Energy Facility will meet the requirements of this Ordinance.

14.8.A.5. Post-Construction Sound Measurement and Assessment

14.8.A.5.1. Measurement instrumentation shall be the same as specified in **Article 14.8.A.3** above.

14.8.A.5.2. The post-construction sound assessment measurement period must be when the majority of deciduous tree leaves have fallen to the ground and leaf and insect

noise is minimal (late fall through early spring present optimal time frames).

14.8.A.5.3. Post-construction sound studies require two sets of measurements. One set of these measurements will be referred to as the “WEF-Off Measurements.” The second

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set of measurements shall be gathered as set forth in this Section 5, and will be referred to as the “WEF-On Measurements”. The WEF-On Measurement Points shall be the same as those used as WEF-Off Measurement Points. Measurements and study are to be conducted by a Qualified Independent Acoustical Consultant chosen by the applicant. The Planning Board may file objections detailing any concerns it may have with the applicant's selection. These concerns will be addressed in the study. Objections to the applicant's selection must be filed prior to the start of the sound assessment.

Measurements and detailed analysis of the Post-construction Sound Assessment shall be submitted to the Planning Board.

(i) If there have been any valid complaints as determined by protocols in **Article 14.8.B. (Appendix B)** about wind energy facility sound or low frequency sound by any resident of an occupied dwelling, then a location or locations on that property will be included in the WEF-OFF and WEF-ON Measurement Points.

(ii) This location(s) will be selected jointly by the complainant, the planning board, and Consultant. In addition, the Consultant and Planning Board may include additional Measurement Points where they reasonably believe that doing so will improve the accuracy of the assessment.

(iii) The WEF-On Measurements shall be taken under the conditions listed below, and the quantities measured shall be as specified in **Article 14.8.A.4.3** above.

Measurements must be taken at 1.2 to 1.5 meters above the ground and at least 15 feet from any reflective surface, following **ANSI S12.9** protocol together with any other requirements found in this Ordinance.

14.8.A.5.4. A minimum of 12, 10 minute periods, when the turbines are generating power concurrent with their maximum sound output the turbines will be shut down. A comparison will be made between the L90As during operations in a one hour period on either side of the shutdown, and the L90 during shutdown. Shutdowns will be synchronized to start at a multiple of 10 minutes on the hour, (e.g. 12:00, 12:10, 12:20,) and no more than one shutdown will occur in any eight-hour period to minimize the impact on potential valid periods.

14.8.A.5.4.1. At least 50% of WEF-OFF periods shall be between 7:00 PM and 7:00 AM, (Nighttime).

14.8.A.5.4.2. Valid 10 minute periods for WEF-ON measurements are within 1 hour before and 1 hour after a WEF-OFF period, and when the wind turbines are generating power concurrent with their maximum sound output and the measurement intervals are not affected by increased biological activities, leaf rustling, traffic, high water flow, aircraft flyovers or other extraneous ambient noise sources that affect the ability to demonstrate compliance.

14.8.A.5.4.3. Measurement intervals affected by increased biological activities, leaf rustling, traffic, high water flow, aircraft flyovers or other extraneous ambient noise sources that affect the ability to demonstrate compliance shall be reported but

excluded from valid compliance report determination. The intent is to obtain 10-minute measurement intervals that entirely meet the specific criteria.

14.8.A.5.4.4. The WEF-only level can then be deduced by logarithmically subtracting the (L90) background level from the total (L90) measured level with the **CLIFTON LAND USE ORDINANCE 7 November 2017**

project running so long as the WEF-ON level is at least 3 dBA higher than the WEF OFF level. If the differential is less than 3 dBA the sound emissions from the project shall be considered indeterminate and negligible relative to the natural background level.

14.8.A.5.4.5. A 5 dB penalty is applied for tones as defined in Article 18, **tonal penalty**, actually measured at a measurement point. The 5 dB penalty shall be added to any average 10-minute sound level (L90A 10-minute) for which a tonal sound occurs.

14.8.A.6. Compliance with the Sound Level Limits. A wind energy development shall determine compliance at a measurement point with the sound level limits as set forth in **Article 14.8.6.** of this ordinance in accordance with the following procedure:

14.8.A.6.1 Compliance at a measurement point will be demonstrated when the arithmetic average of the sound level of, at a minimum, 48, valid 10-minute WEF-Only measurement intervals as determined in **Article 14.8.A.5.4** is less than or equal to the sound level limit set forth in **Article 14.8.6.**

14.8.A.6.2. If after 12 WEF-OFF shutdown periods there are no valid periods where the WEF-only level can be determined, the WEF will be declared in compliance. This can only happen if for all valid periods the sound contributed by the WEF is lower than or within 3 dBA of the WEF-OFF L90 and therefore is indeterminate. This means that the WEF sound cannot be heard over and cannot be distinguished from the background sound at the measurement point.

14.8.A.6.3 If after 12 WEF-OFF shutdown periods there are fewer than 48 valid WEF Only levels and the arithmetic average of the sound level of the valid samples is less than or equal to the sound level limit set forth in **Article 14.8.6** the WEF will be declared in compliance.

14.8.A.7. Reporting of Compliance Measurement Data

Compliance data from the operation of a wind energy development shall be submitted to the Planning Board, at a minimum:

14.8.A.7.1. Once during the first year of facility operation;

14.8.A.7.2. All operational, sound and meteorological data collected shall be turned over to the Code Enforcement Officer within 30 days of collection for record retention through decommissioning plus three years.

14.8.A.7.3. A narrative description of the sound from the wind energy development for the compliance measurement period result;

14.8.A.7.4. The dates, days of the week and hours of the day when measurements were made;

14.8.A.7.5. The wind direction and speed, temperature, and humidity

14.8.A.7.6. Identification of all measurement equipment by make, model and serial number;

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14.8.A.7.7. All meteorological, sound, windscreen, video and audio instrumentation specifications and calibrations;

14.8.A.7.8. All A-weighted equivalent sound levels for each 10-minute measurement interval;

14.8.A.7.9. All LA10 and LA90 percentile levels for each 10-minute measurement interval ;

14.8.A.7.10. All 10 minute 1/3 octave band linear equivalent sound levels (dB);

14.8.A.7.11. All short duration repetitive events characterized by event amplitude. Amplitude is defined as the peak event amplitude minus the average minima sound level immediately before and after the event, as measured at an interval of 50 milliseconds (“ms”) or less, A-weighted and fast time response, i.e. 125 ms. For each 10-minute measurement interval short duration repetitive sound events shall be reported by number for each observed amplitude integer above 5 dBA.

14.8.A.7.12. Audio recording devices shall be time stamped (hh:mm:ss) and at a minimum 16 bit digital, recording the sound signal output from the measurement microphone at a minimum sampling rate of 24 thousand (k) samples per second to be used for identifying events. Audio recording and compliance data collection shall occur through the same microphone/sound meter and bear the same time stamp. Should any sound data collection be observed by a trained attendant, the attendant’s notes and observations may be substituted for the audio files during the compliance measurement period;

14.8.A.7.13. All concurrent time stamped turbine operational data including the date, time and duration of any noise reduction operation or other interruptions in operations if present; and

14.8.A.7.14. Supervisory Control And Data Acquisition (SCADA) data for all wind turbines shall be provided for all measurement periods, both WEF-ON and WEF-OFF. Failure to provide SCADA data will be a violation of this ordinance.

14.8.A.7.15 All other information determined necessary by the Planning Board.

14.8.B. Community Complaint Evaluation and Response Procedure (Appendix B)

The complaints process provides means for local community members to contact Clifton Town Officials in the event of perceived or actual non compliance issues and to provide a structured means to effectively manage any community concerns or complaints. The CEO and/or the Planning Board shall be responsible for responding to and assessing the validity of community concerns or complaints.

14.8.B.1 Method of Complaint. Complaints shall be submitted in writing on a form provided by the CEO and/or town office The form shall include at a minimum the date, time, and location of complaint including details of said complaint.

Failure to allow the CEO and/or a Planning Board approved sound consultant access to the location of the complaint for purposes of investigation to determine non-compliance with the standards of the CLUO will result in the dismissal of the complaint without prejudice.

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14.8.B.2 Background. Unlike most industrial or commercial noise sources, the sound

emissions from wind turbines occur during wind conditions that typically induce significant levels of background noise due to the wind itself. The background sound levels during conditions when the wind turbines are in operation near its rated generating capacity are comparable to the sound levels emitted by the wind turbines themselves. Consequently, determination of compliance is challenging and it is necessary to have an accurate account of the contribution from each source. An additional challenge is that conventional acoustic instrumentation, normally used for the measurement of industrial noise sources, is prone to produce erroneous signals due to the interaction of wind blowing over the microphone (including a windscreen), particularly at winds speeds at 4 m/s and higher. Consequently, in order to accurately measure the sound levels due to wind turbines alone, a specialized technique is necessary. It is important to note that although wind turbine sound levels may be audible it does not necessarily mean that it is out of compliance.

14.8.B.3. Site Visit, Interview, and Initial Complaint Screening. The CEO will obtain a full description of the nature of complaint including specific details about the noise from the complainant. The purpose is to identify from the complainant specific details about the problem that would assist in determining further action. Take note from site observations of any other noise sources within the complainant's property and in the immediate vicinity (i.e. dryers, coolers, fans, generators, etc). Also take note of any unusual features such as trees, shrubbery, water features, hills, ancillary buildings, etc. The purpose is to identify noise sources and features that will have an impact on the background noise and possibly on acoustic measurements if needed.

If there has been a previous complaint within 100 feet of this same location and SCADA data from the WEF for the time period in question demonstrates that the % of electric power and % of sound power produced during that period is less than or equal to data that has previously been shown to be in compliance within 100 feet of the complaint location as per either **Article 14.8.A.5. Post-construction Sound Measurement and Assessment** , or **Article 14.8.B.4**, or **Article 14.8.B.5**, then the complaint is to be dismissed and the complainant notified of the investigative result.

14.8.B.4. Qualitative Screening Process. The initial screening is a qualitative assessment to focus on compliance issues related to conditions and parameters used in the approval process. Based on the results from the qualitative screening, a decision can be made whether to perform quantitative screening or carry out detailed acoustic measurements at the site of the complainant. In some cases, based on any screening result in this protocol, the wind farm operator may decide to voluntarily undertake actions to reduce the noise impact.

The quantitative screening (accomplished by the Town Approved Consultant) involves shortterm attended acoustic measurements and/or acoustic recording at the complaint receptor to determine if detailed acoustic measurement is needed to assess compliance with noise limits.

14.8.B.4.1. Attended Screening Measurements. The objective is to determine the wind turbine L90A sound level at a point of reception. It is recommended that the attended screening measurements be carried out when the times and meteorological conditions are as close to those described by the complainant as possible. Supervisory Control And Data Acquisition (SCADA) data for the complaint period will be compared to data during the measurement period to determine if meteorological and power levels are

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comparable. If this is not possible then it is recommended that the attended screening measurements be carried out at times when the background sound level is very low. To the extent possible, the measurements should be performed at times when wind turbines operate near maximum output capacity.

14.8.B.4.2. Sound Level Measuring Instrumentation. Measurement instrumentation shall be the same as specified in **Article 14.8.A.3** above.

14.8.B.4.3 Measurement Procedure. Measurements for the purposes of complaint assessment should be performed at a point as close as possible to the site where the complaint originates. Notwithstanding, measurements must be taken at 1.2 to 1.5 meters above the ground and at least 15 feet from any reflective surface.

14.8.B.4.4. Wind Speed and Direction. The wind speed and direction as recorded by the nacelle anemometer on the nearest turbine during the sound testing shall be obtained from the WEF and included in the test report.

14.8.B.4.5. Acoustic Measurements. The objective of the measurements is to determine the overall L90A(10-minute) sound level when the turbines are operational under the following conditions.

14.8.B.4.6. Extraneous Noise Sources. Measurement needs to be inhibited when the sound level is affected by noise from extraneous sources such as vehicle noise, dogs barking and wind gusts, i.e. other than wind turbines.

14.8.B.4.7. Duration of Measurement. Noise measurements need to be performed over a minimum period of one hour. The actual accumulated time period of the measured L90A(10-minute) needs to be at least 2, 10 minute periods. This should represent the worst-case equivalent sound level L90A(10-minute) during the one hour period, following the inhibition of the measurements due to extraneous sources.

14.8.B.4.8. Compliance with Limits. If the result is higher than the limits given in **Article 14.8.6** and the project is clearly discernible then further measurements using the WEF-On, WEF-Off technique outlined **Article 14.A.5** shall be taken in an effort to quantify the WEF-only sound level and determine compliance.

14.8.B.4.9. Documentation and Reporting. The following information should be reported by the Town Approved Consultant to the CEO, Planning Board, and the complainant:

(i) Conditions during the measurement, including but is not limited to:

- time and dates of the measurement
- temperature and humidity
- weather conditions
- range of wind speeds encountered
- wind direction
- confirmation that the wind turbines were operating and at what % of electric power and % of sound power.

(ii) Results of measurements in terms of the L90A(10-minute) sound level.

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(iii) Diagram/drawing showing the location of instrumentation, location of buildings and

other local features, and location of turbines.

(iv) Supervisory Control And Data Acquisition (SCADA) data for the wind turbines for both the time of the complaint and the time of the measurements in **Article 14.8.B.4.7.**

14.8.B.5 Complaint Assessment – Detailed Acoustic Measurements. If after the above assessments it appears that the WEF may be in violation of compliance then the procedure under **Article 14.8.A.5, Post-construction Sound Measurement and Assessment** must be followed for determining compliance at the complaint location.

DRAFT



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: November 2018

Contact: (207) 287-2452

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S. §§ 341-D(4) & 346; the *Maine Administrative Procedure Act*, 5 M.R.S. § 11001; and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed more than 30 calendar days after the date on which the Commissioner's decision was filed with the Board will be dismissed unless notice of the Commissioner's license decision was required to be given to the person filing an appeal (appellant) and the notice was not given as required.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017. An appeal may be submitted by fax or e-mail if it contains a scanned original signature. It is recommended that a faxed or e-mailed appeal be followed by the submittal of mailed original paper documents. The complete appeal, including any attachments, must be received at DEP's offices in Augusta on or before 5:00 PM on the due date; materials received after 5:00 pm are not considered received until the following day. The risk of material not being received in a timely manner is on the sender, regardless of the method used. The appellant must also send a copy of the appeal documents to the Commissioner of the DEP; the applicant (if the appellant is not the applicant in the license proceeding at issue); and if a hearing was held on the application, any intervenor in that hearing process. All of the information listed in the next section of this information sheet must be submitted at the time the appeal is filed.

INFORMATION APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time the appeal is submitted:

1. *Aggrieved Status.* The appeal must explain how the appellant has standing to maintain an appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error.* The appeal must identify the specific findings of fact, conclusions regarding compliance with the law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing requirements that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for public hearing must be filed as part of the notice of appeal, and must include an offer of proof in accordance with Chapter 2. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed evidence must be submitted with the appeal. The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered in an appeal only under very limited circumstances. The proposed evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Specific requirements for supplemental evidence are found in Chapter 2 § 24.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made easily accessible by the DEP. Upon request, the DEP will make application materials available during normal working hours, provide space to review the file, and provide an opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer general questions regarding the appeal process.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a license holder may proceed with a project pending the outcome of an appeal, but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, and will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, any materials submitted in response to the appeal, and relevant excerpts from the DEP's application review file will be sent to Board members with a recommended decision from DEP staff. The appellant, the license holder if different from the appellant, and any interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. The appellant and the license holder will have an opportunity to address the Board at the Board meeting. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see 38 M.R.S. § 346(1); 06-096 C.M.R. ch. 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452, or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.
