Stormwater Management Project TECHNICAL REVIEW MEMORANDUM

TO: Jessica Damon, Project Manager

FROM: Ken Libbey, Engineer

DATE: May 26, 2020

RE: Silver Maple Wind

APPLICANT: Silver Maple Wind Energy

DEP#: 25245-24-E-N

Town: Clifton

Engineer who prepared application: CES

Parcel Size: 132 acres Site Description: woods

Size of impervious area: 1.45 acres

Project description: Construct roads and 5 turbines **Amount of developed area created:** 19.23 acres new **Watershed (waterbody): Springy pond/Floods pond**

Watershed type: Not at risk

QUANTITY:

Flooding Standard: Yes

BMPs to meet stormwater quantity standards: None needed- no change in CN value

Requesting a variance from the quantity standards? No

Significant increase? NO

OUALITY:

BMPs used to meet stormwater quality standards: Buffer-Roadside forested(5), Buffer with berm(5), Buffer ditch turnout(4)

Level of quality treatment: Phosphorus in Lake watershed: Phosphorus

Budget(PPB)=3.21 lbs P/yr, Project Phosphorus Export(PPE)=2.43 lbs P/yr.

PPB>PPE meets standard with buffer treatments.

Pretreatment: No Buffers: Yes Phosphorus: Yes

Urban Impaired Stream: No

\$ or off-site mitigation: No

OTHER ISSUES:

- 1. Is maintenance of the stormwater management system necessary? YES, the applicant must maintain all components of the stormwater management system.
- 2. Will stormwater be discharged to freshwater or coastal wetlands? Yes
- 3. In the same manner as pre-development conditions? **YES**
- 4. Project area in a wellhead protection area of a public water supply? NO
- 5. Project runoff discharges into a cold water fishery? NO
- 6. Stormwater analysis involves off-site watersheds? NO
- **7.** As-built required? **Yes**
- **8.** Revised the Erosion and Sediment Control Plan during review? Yes
- **9.** Revised the Maintenance Plan during review? NO
- 10. Revised the Stormwater General Standards Plan during review? Yes

STORMWATER MANAGEMENT

After a final review, the proposed design meets the Chapter 500 Basic and General Standards. 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.

EROSION CONTROL

Based on the BLR'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).

Minimum erosion control measures will need to be implemented during construction and the applicant will be responsible to maintain all components of the erosion control plan until the site is fully stabilized. However, based on site and weather conditions during construction, additional erosion control measures may need to be implemented. All areas of unstability and erosion must be repaired immediately during construction and need to be maintained until the site is fully stabilized or vegetation is established.

The Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices as published in 1991 by the Cumberland County Soil and Water Conservation District and the Maine Department of Environmental Protection has been changed to the Maine Erosion and Sediment Control BMPs published by the Maine DEP in 2003. Please change all references to the new manual: http://www.maine.gov/dep/blwg/docstand/escbmps/index.htm

MAINTENANCE:

The applicant will be responsible for the maintenance of all proposed stormwater management structures, i.e. swales, dry swales, culverts and level spreaders.. The DEP may request to inspect the site at a future date.

DESIGN REVIEW RESPONSIBILITY

This review only ensures that the proposed plan is meeting the minimum standards set by the department for erosion control management and for stormwater management. It does not guarantee that the design is appropriate for the level of work suggested and for the functionality of the facility.

If you have any question concerning this project, please call me at (207) 299-4823.