

Section 19. FLOODING

19.1. POTENTIAL FLOODING IMPACTS

The Site Location of Development Law standard relating to flooding requires that 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 (38 M.R.S.A. §484).

The Project facilities include 30 wind turbines with a total capacity of 126 MW, two temporary power performance meteorological (met) towers, a permanent met tower, a substation, a switchyard, an Operations and Maintenance (O&M) building, underground collection lines, access roads, and a temporary laydown area.

The Project area is divided into two distinct sections: one comprises seven turbines, a permanent meteorological (met) tower, a switchyard, and a substation located in the town of Columbia, southeast of Schoodic Lake. The remaining twenty-three turbines, two temporary power performance towers, and the temporary laydown area are sited to the north of Schoodic Lake, arrayed to the north and west of the Great Heath. There are approximately 26 miles of underground collection lines maintained in a 60-foot wide corridor that will be kept clear of large vegetative growth. The Project features no new transmission lines. An O&M facility will be located on US Hwy 1 in the town of Columbia.

As indicated in Exhibit 19-1, Project facilities are sited outside of flood-prone areas identified by LUPC and FEMA. The construction of turbine pads, erection of turbines, and installation of collection cables will not significantly impact the hydrology of the Project area. Rather, upgrades to culverts, stream crossings, and roadways will facilitate more natural and efficient drainage. Additionally, successional growth in cleared areas will result in increased root mass and enhanced drainage. The installation of Project facilities will not adversely affect the 100-year flood elevation or create added flood risk or hazard to existing structures.

19.2. FEDERAL EMERGENCY MANAGEMENT AGENCY MAPPING

FEMA's National Flood Insurance Program includes the Flood Hazard Mapping Program, which identifies flood hazards, assesses risk, and works with state agencies and local communities to produce and update data in support of emergency management planning and response. Flood insurance risk maps (FIRMs) include statistical data on river flow, storm tides, rainfall, topography, and hydrology, and provide risk assessments with a great degree of geographic accuracy.

Data provided by FEMA classifies the town of Columbia, T18 MD, and T24 MD as "No Special Flood Hazard – All Zone C." ¹⁵ Zone C designations are defined as areas with minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. ¹⁶

¹⁵ Federal Emergency Management Agency. Community Status Book Report, Maine. Available at <https://www.fema.gov/cis/ME.pdf> (accessed February 5, 2021).

¹⁶ Federal Emergency Management Agency. National Flood Insurance Program (NFIP) Floodplain Management Requirements: A Study Guide and Desk Reference for Public Officials, Appendix D. Available at https://www.fema.gov/pdf/floodplain/nfip_sg_appendix_d.pdf (accessed February 5, 2021).

19.3. LAND USE PLANNING COMMISSION (LUPC) FLOOD PRONE AREAS

Land Use Guidance Maps created by the Land Use Planning Commission (LUPC) were reviewed for T18 MD and T24 MD.¹⁷ There are no Project turbines sited in Flood Prone Area Protection Zones (P-FP) and no areas in which project construction will create flood risk to existing structures. One crane path passes through a P-FP between Turbines 7 and 9 near Hawk Hill Road.

¹⁷ LUPC Digital Maps and Data. https://www.maine.gov/dacf/lupc/plans_maps_data/digital_maps_data.html (accessed February 5, 2021).

EXHIBIT 19-1: FEMA FLOOD MAP



Downeast Wind

Maine Land Use Planning Commission

-  P-FP: Flood Prone
-  FEMA Flood Map (23029C)
1% Annual Flood Risk (100yr)
-  Area of Minimal Risk

Layout 39

-  Turbine - Primary
-  Turbine - Spare
-  Point of Interconnect
-  Project Substation
-  Project Boundary
-  Township
-  Parcel Boundary

Date: 2/5/2021 Author: OB
Coordinate System: NAD 1983 UTM Zone 19N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter

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