

19.0 FLOODING

19.1 Potential Flooding Impact

The Site Location of Development Law standard related to flooding states 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 Weaver Wind Project (project) is comprised of 23 wind turbines constructed on hills located to the south of Route 9, including Een Ridge, Little Bull Hill, and other unnamed hills. The power from each turbine will be collected in approximately 24.5 miles of 34.5-kV collector lines. Lines will connect separate project components and will transmit power to an interconnection facility adjacent to the Bull Hill substation in T16 MD, where it will tie into the existing electrical grid. The majority of collector lines will be underground, though above-ground lines will also be installed. The majority of underground collector lines will be buried alongside project roads.

Approximately four miles of existing access roads will be upgraded to provide construction and maintenance access to the project areas and to connect turbine locations. Additionally, roughly six miles of new roads will be constructed to further connect turbine locations. The project will use the existing Operations and Maintenance (O&M) building permitted as part of the Hancock Wind Project.

Construction of the collector line segments will not alter the hydrology of the project area (Section 12.0). The new pole structures will occupy minimal surface area, thus there will not be an unreasonable effect on runoff infiltration relationships. The project will be designed, constructed, and maintained to satisfy the following: flooding extent will not increase; frequency of flooding of downstream waterbodies will not increase; and 100-year flood elevations will not be adversely impacted. Forest clearing will occur along the collector line segments, resulting in the conversion to scrub-shrub or early successional cover. Over time, an increase in shrub density and low-growing vegetation will result in a higher concentration of root mass associated with the vegetative cover. Therefore, there will be no long-term or significant change in runoff.

Based on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), no project components will be constructed within any mapped 100-year

floodplains (Figure 19-1). Thus, the proposed project will not cause or increase flooding or cause a flood hazard to any existing structure. The project will not have an unreasonable effect on runoff/infiltration relationships in accordance with the No Adverse Environmental Effect Standard of the Site Location Law 06-096 CMR 375.4 (No Unreasonable Effect on Runoff/Infiltration Relationships).

19.2 Federal Emergency Management Agency (FEMA) Mapping

FEMA identifies flood hazards, assesses flood risks, and partners with states and communities to provide accurate flood hazard and risk data. This is accomplished through the Flood Hazard Mapping Program, which is an important component of the National Flood Insurance Program. FEMA maintains and updates data through Flood Insurance Rate Maps (FIRMs) and risk assessments. FIRMs include statistical information such as data for river flow, storm tides, hydrologic/hydraulic analyses, and rainfall and topographic surveys. FEMA uses the best available technical data to create the flood hazard maps that outline flood risk areas.

Data provided by FEMA classifies T16 MD, T22 MD, and Osborn as “No Special Flood Hazard Area – All Zone C”¹. Zone C designations are for areas of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level². Also according to FEMA, the Town of Aurora does not contain any Special Flood Hazard Areas³.

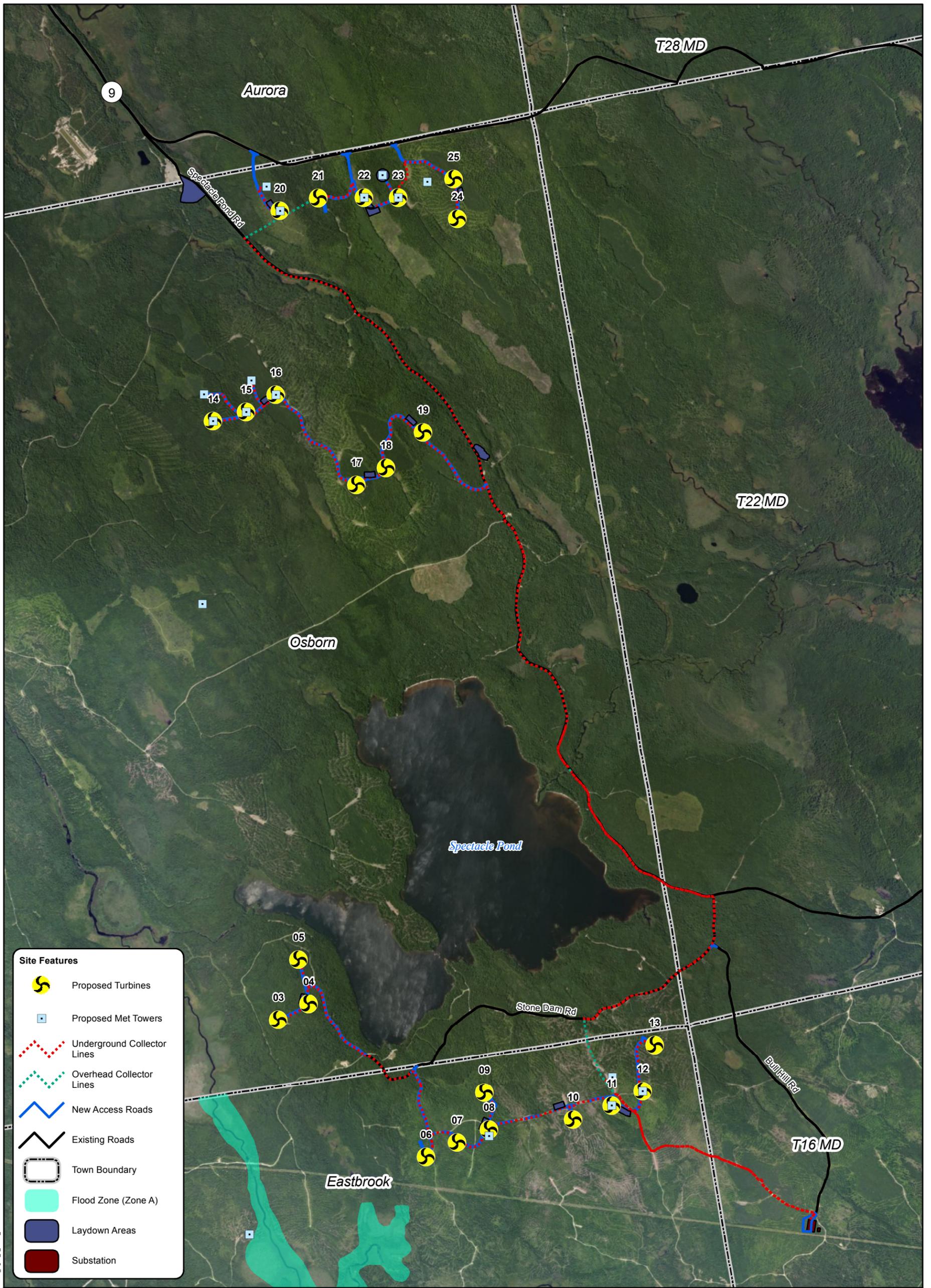
19.3 Land Use Planning Commission Flood Prone Areas

Land Use Guidance Maps created by the Land Use Planning Commission were reviewed for T16 MD, T22 MD, and Osborn. There are no Flood Prone Area Protection Subdistricts (P-FP) within the project area (Section 31.0).

¹ Federal Emergency Management Agency. Community Status Book Report, Maine. Available at: <http://www.fema.gov/cis/ME.pdf> (Accessed September 10, 2014).

² Federal Emergency Management Agency. Managing Floodplain Development through the National Flood Insurance Program. Available at: http://www.fema.gov/pdf/floodplain/is_9_complete.pdf (Accessed September 10, 2014).

³ Federal Emergency Management Agency. Flood Insurance Study, Hancock County, Maine. Available at: http://floodmaps.fema.gov/prelim/PrelimData/Maine/Hancock%20County/prelim_issue_date-2014-04-24/FIS%20Reports/23009CV001A.pdf (Accessed September 10, 2014).



Site Features

-  Proposed Turbines
-  Proposed Met Towers
-  Underground Collector Lines
-  Overhead Collector Lines
-  New Access Roads
-  Existing Roads
-  Town Boundary
-  Flood Zone (Zone A)
-  Laydown Areas
-  Substation

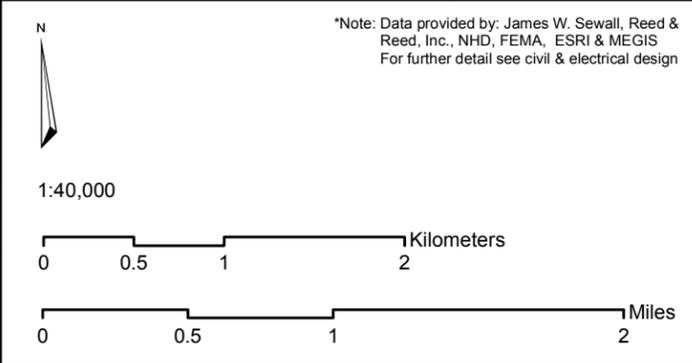
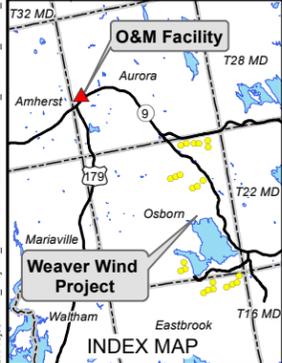


Figure 19-1
FEMA Flood Zones

*Weaver Wind Project
Hancock County, Maine*



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