19.0 FLOODING

19.1 POTENTIAL FLOODING IMPACT

The Site 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). Based on a review of FEMA Flood Map data, the Project solar arrays, access roads, Collector, collection substation, and O&M building are not located within FEMA floodplains.

As described in detail below, electrical poles associated with the Genlead are the only permanent structures to be constructed within mapped floodplains. These structures have very small footprints and will not consume flood storage capacity. Therefore, the Project is not expected to cause or increase flooding or cause a flood hazard to any existing structure. Furthermore, the electrical poles will not have an unreasonable effect on runoff infiltration relationships in accordance with the "No Adverse Effect Standards" of the Site Law.

Forest cover in some floodplain areas will be cleared along the Project, resulting in some conversion of forested areas to scrub-shrub or early successional cover, as discussed in Section 10.0. Generally, this conversion to dense shrub and grass growth will improve the ability of the land to absorb runoff due to the increased density of the root mass associated with the resultant vegetative cover.

19.2 FLOOD ZONE 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. In addition to FEMA mapping, LUPC zoning maps were reviewed to identify any Flood Prone protection subdistricts (P-FP). No P-FP subdistricts were identified within the Project area.

19.2.1 Solar Array Area

Data provided by FEMA classifies the Project solar array area, including the arrays, Collector, collection substation, and O&M building, as Zone C, "Areas outside 500-year flood". Zone C designations are for areas of minimal flood hazard.[1] FEMA flood map data is depicted on Figure 19-1.

19.2.2 Genlead

In Benton, the Genlead crosses two areas that are mapped as Zone A by FEMA and a total of four poles are proposed in areas mapped as Zone A. The first area is located between Bog Road and on either side

[1] Federal Emergency Management Agency. National Flood Insurance Program (NFIP) Floodplain Management Requirements: A Study Guide and Desk Reference for Local Officials, Appendix D. Available at: https://www.fema.gov/pdf/floodplain/nfip_sg_appendix_d.pdf (Accessed October 1, 2021).

of Fifteenmile Stream. Two poles are proposed within this area, one on either side of Fifteenmile Stream. The second area is located to the southwest of East Benton Road and is associated with a large wetland complex (W32) and an unnamed tributary to the Sebasticook River. Two poles are proposed within this area in the forested wetland portion of wetland W32.

Figure 19-1

FEMA Flood Mapping

Inset 1

Inset 2

Clinton

Benton

Unity Twp

Unity

Albion

Winslow

Albion

Fifteenmile Stream

Kennebec County

Waldo County

Inset 1

Inset 2

Stantec

Legend

- Pole Location
- Project Area
- River/Stream
- Municipal Boundary
- County Boundary

National Flood Hazard Layer (NFHL)

- NFHL 100-Year Flood Zone
- NFHL Floodway

N

0 3,000 Feet

(At original document size of 11x17)
1:36,000

Notes

1. Coordinate System: NAD 1983 UTM Zone 19N
2. Sources: FEMA, NHD
3. Background: The USGS National Map

QC NB PE ME NS NY VT NH

Project Location
Benton, Clinton, Unity Twp, Maine

Prepared by HT on 2022-01-06
TR Review by GC on 2022-01-07
IR Review by EB on 2022-01-10

Client/Project
Three Corners Solar Project

195601453

Figure No.
19-1

Title
FEMA Flood Zones

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