

19.0 FLOODING

19.1 Introduction

This portion of the Application describes the relationship of the proposed NECEC Project's transmission line components and associated facilities to the 100-year flood zone and local watersheds.

19.2 100-Year Flood Zones

19.2.1 Transmission Lines

Throughout the NECEC Project there are a total of 30 new transmission line structures that will be installed in a 100-year flood zone; the number of structures per transmission line component is listed in **Table 19-1** below. Because of the limited additional impervious surface associated with each transmission line structure, construction and maintenance of the proposed transmission lines will not cause or increase flooding or cause an unreasonable flood hazard to any neighboring structures. Furthermore, the Project will not negatively affect runoff infiltration relationships. Flood zone determinations were derived from Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Map ("FIRM") data, however it should be noted that portions of the Project are located in unmapped areas. Flood zone maps that intersect the transmission line corridor are provided in **Attachment 4**. **Table 19-1** provides the map series identification within **Attachment 4** for those structures within a FEMA 100-year flood zone.

Table 19-1: NECEC Transmission Line Structures within mapped FEMA 100-Year Flood Zone

Component	Number of Structures within 100-year Floodplain
Segment 1 ^a	0
Segment 2	0
Segment 3	3
Segment 4	22
Segment 5	5

19.2.2 Substations

Surowiec Substation and the proposed Fickett Road Substation are partially located within FEMA-designated 100-year flood zones. The Coopers Mills Substation, Larrabee Road Substation, Maine Yankee Substation, and the proposed Merrill Road Converter Station are not located within a FEMA-designated 100-year flood zone. As with transmission line data, this information was derived from FIRM and FEMA data. The Merrill Road Converter Station and the Fickett Road Substation will be designed and constructed at a final elevation such that their equipment will not be inundated during a 100-year flood event.

19.3 Watersheds

19.3.1 Transmission Lines

The NECEC Project is located within six different watersheds as defined by the United States Geological Survey (“USGS”) at the 8-digit hydrologic unit code or sub-basin level. This includes the Upper Kennebec, Dead, St. George-Sheepscot, Presumpscot, Lower Kennebec and Lower Androscoggin watersheds. Defined watersheds associated with each of the Project transmission line components are listed in **Table 19-2. Attachment 4** of the Site Law Application contains maps which illustrate the proposed transmission line segments and their relationship to the watersheds listed in **Table 19.2**. These maps were originated from Hydrological Unit Codes (“HUC”) published by the MEGIS. Original data were derived from the U.S. Department of Agriculture Natural Resources Conservation Service (“USDA-NRCS”). The NECEC transmission line development will not alter the existing watersheds; any grading or other construction activity will not permanently modify natural contours or drainage ways in such a way that natural drainage patterns will be changed.

Table 19-2: Watersheds Associated with Proposed NECEC Transmission Line Components

Component	Watersheds
Segment 1	Dead, Upper Kennebec, Lower Kennebec, Lower Androscoggin
Segment 2	Upper Kennebec, Lower Kennebec
Segment 3	Lower Kennebec, Lower Androscoggin
Segment 4	Lower Androscoggin, Presumpscot
Segment 5	St. George-Sheepscot

Source: HUC data derived from USDA and NRCS.

19.3.2 Substations

USGS-defined watersheds that are associated with the proposed construction and modification of NECEC substations are listed in **Table 19-2**. **Attachment 4** contains maps which illustrate the substations and their relationships to watersheds listed in **Table 19-2**. These maps were originated from HUC data published by the MEGIS. Original data were derived from the USDA-NRCS. The proposed substation and converter substation will not alter or cause negative impacts to the existing watersheds. The impacts due to grading or other construction activities on the site are discussed in Section 12 of the Site Law Application.

Table 19-3: Watersheds Associated with Proposed NECEC Substation Facilities

Component	Watersheds
Merrill Road Converter Station	Lower Androscoggin
Fickett Road Substation	Presumpscot
Crowley Road	Lower Androscoggin
Larrabee Road	Lower Androscoggin
Raven Farm	Presumpscot
Surowiec	Presumpscot
Maine Yankee	St. George - Sheepscot
Coopers Mills	St. George - Sheepscot

Source: HUC data derived from USDA and NRCS.