

Vermont Electric Cooperative Substations in 100 and 500 Year Flood Plains

1.a Introduction

VEC reviewed effective Flood Insurance Rate Maps (FIRMs) available through the Flood Map Service Center (MSC) for each substation location and any amendments or revisions that apply. The FIRM maps are the official public source for flood hazard information produced in support of the National Flood Insurance Program (NFIP). Unfortunately VEC was unable to find FRIM maps for all 38 of its substations (7 locations did not have FIRM maps).

For locations where a FEMA flood map was available each location was mapped using a street addressing and or coordinate based search to find the most current (if available) flood map (FIRM panel or FIRMette) for the local area. An evaluation of each location was completed to determine if the site was located within the 100 or 500-year floodplain.

Where no FEMA flood map data was available, VEC performed an analysis using the local VT DEC Flood Ready Atlas to confirm local flood data.

1.b FHA Zone Definitions

Flood Hazard Areas (FHA) are categorized into the following zones:

- **Zone AE:** Areas that have a 1% probability of flooding every year (also known as the "100-year floodplain"), and where predicted flood water elevations above mean sea level have been established.
- **Zone A:** Areas that have a 1% probability of flooding every year (also known as the "100-year floodplain"), and where predicted flood water elevations above mean sea level have NOT been established.
- **Zone B and X (SHADED):** Areas between limits of 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one foot.
- **Zone C and X (UNSHADED):** Area of minimal flood hazard, usually depicted as above the 500-year flood level. Zone C may have ponding or drainage problems that are not designated as flood plains. Zone X is the area determined to be outside the 500-year floodplain

1.c Determination using FIRM Maps

The table below lists VEC substations, whether or not they fall within the 100 and 500 year flood plains and the FHA associated with each of these locations:

#	Substation Name	100 Year	500 Year	FHA Zone
1	FAIRFAX 1	No	No	C
2	EDEN	No	No	C
3	CAMBRIDGE	No	No	C
4	UNDERHILL	No	No	X
5	LOWELL	No	No	C
6	ST ROCKS	No	No	C
7	MONTGOMERY	No	No	X
8	RICHMOND	No	No	X
9	WILLISTON	No	No	X
10	JERICO	No	No	X
11	WESTFORD	No	No	X
12	FAIRFAX 12	No	No	C
13	PLEASANT VALLEY	No	No	C
14	JOHNSON	No	No	X
15	MADONNA	NA	NA	NA
17	JAY 17	No	No	X
19	HINESBURG	No	No	X
20	ST ALBANS	No	No	X
24	BELVIDERE	NA	NA	NA
27	HIGHGATE SPRINGS	No	No	C
28	SOUTH ALBURGH	No	No	C
29	SOUTH HERO	No	No	C
30	EAST BERKSHIRE	No	No	C
31	RICHFORD	No	No	C
32	SHELDON	No	No	C
35	ENOSBURG	No	No	C
39	JAY TAP	No	No	X
40	JAY PEAK	No	No	X
41	NORTH TROY	No	No	C
42	IRASBURG	NA	NA	NA
43	BURTON HILL	No	No	X
44	NEWPORT	NA	NA	NA
45	DERBY	NA	NA	NA
46	ISLAND POND EAST	No	No	X
47	ISLAND POND WEST	No	No	X
48	CHARLESTON	NA	NA	NA
50	NORTON	NA	NA	NA
51	CANAAN	No	No	C

1.d Substations without FIRM Maps

As stated in the section above there are 7 substation locations where FIRM maps were not available. Based on available information VEC has determined that these 7 substations are not in the 100 and 500 year flood plain. Further analysis would require additional resources to make a more accurate determination.

1.e Conclusion

VEC has utilized available information to analyze all 38 of its substations and has determined that none are in the 100 or 500 year flood plain.