NWS Form E-5 (04-2006) (PRES. BY NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) Burlington VT
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH: November YEAR: 2023
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		SIGNATURE: /s/ John Goff, Senior Service Hydrologist DATE: January 2, 2024

When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).

X An X inside this box indicates that no flooding occurred within this hydrologic service area.

Overview

November 2023 was an active month weather-wise across the NWS Burlington HSA, though no flooding was noted during the 30-day period. A rather blocked upper air pattern developed across the Northeastern U.S. into eastern Canada with mean upper troughing and frequent frontal passages producing widespread, though relatively light bouts of precipitation. Temperatures, on average were slightly below normal, but not significantly so with mean departures generally within 3 degrees of the long term climatological mean (Fig. 1). Precipitation distribution followed similar trends, though percentile departures were slightly more significant than those of temperature with many areas observing values from 60 to 80 percent of longer term November climatological means (Figs. 2 and 3). Given the persistent short term dryness observed at the 30, 60 and 90 day time frame, the U.S. Drought Monitor slightly expanded D0, or abnormally dry conditions in the St. Lawrence Valley of New York by month's end (Fig. 4)

Notable Hydrology

By far, the most impactful weather event of November 2023 was the early season snowstorm which affected much of the region during the evening and overnight hours from the 26th to 27th. During this period a vigorous, though relatively small area of low pressure tracked northeastward through the New England coastal plain bringing widespread precipitation to the area. With marginally cold temperatures in place much of this fell as a heavy wet snowfall. By mid-morning on the 27th, 7 to as much as 15 inches of snow was reported across a large swath of the Green Mountains (Fig. 5). This led to significant power disruptions in this region, with nearly 30,000 customers without power at the storm's peak early on the 27th (Fig. 6).

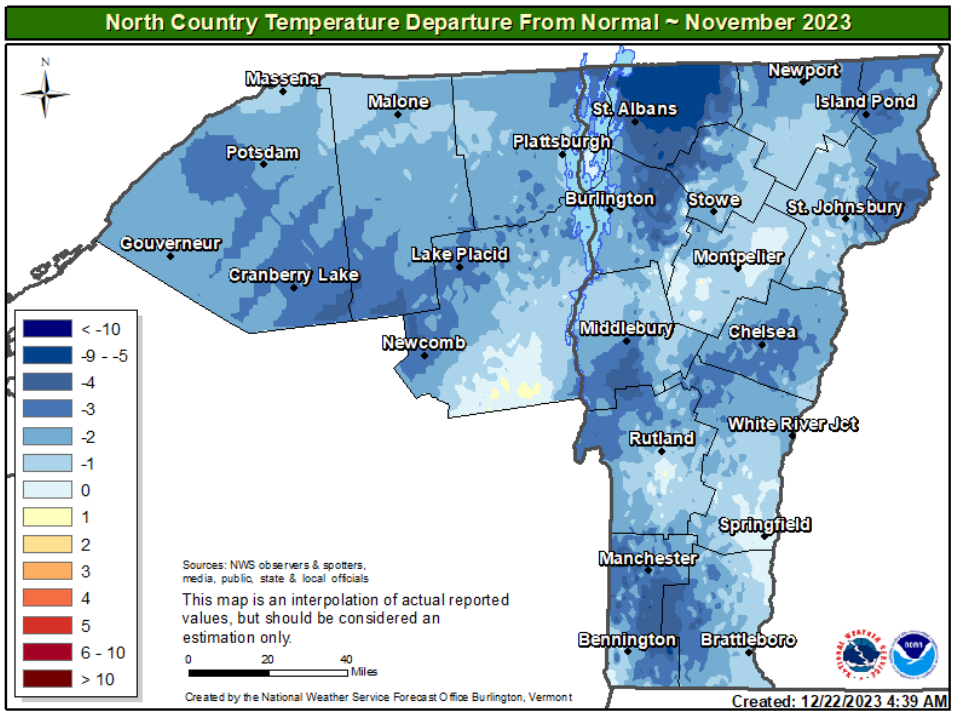

Figure 1: November 2023 monthly temperature departures from normal across the NWS Burlington, VT HSA. On average values ran from -1 to -3°F compared to the long term 30-year mean.

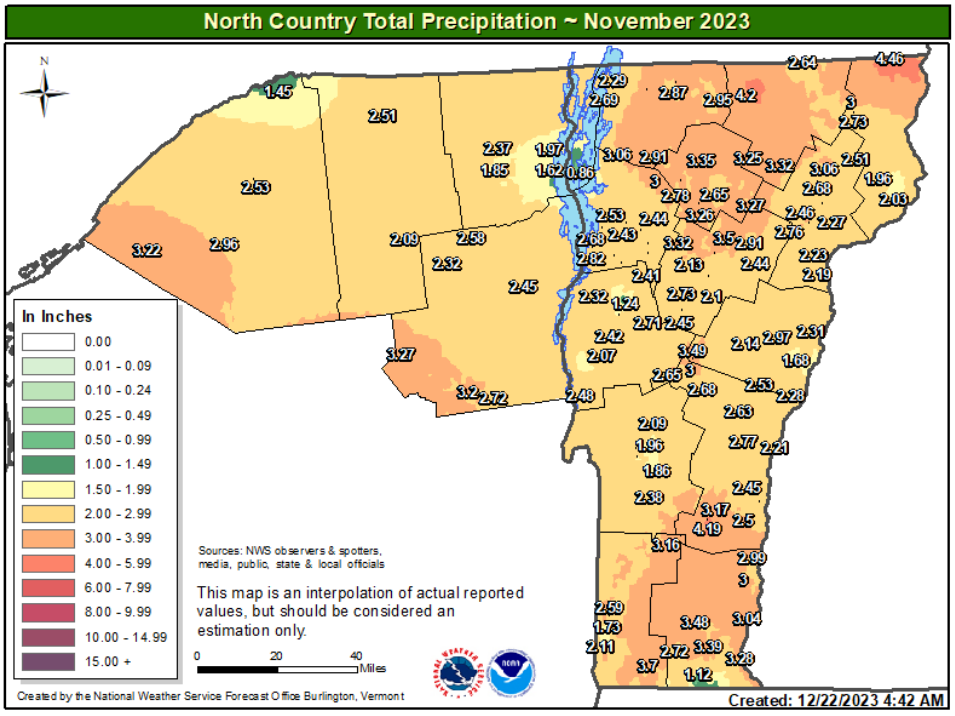

Figure 2: Monthly precipitation totals for November 2023 across the NWS Burlington, VT HSA. Observed values generally ranged from 2 to 3.5 inches with some variability.

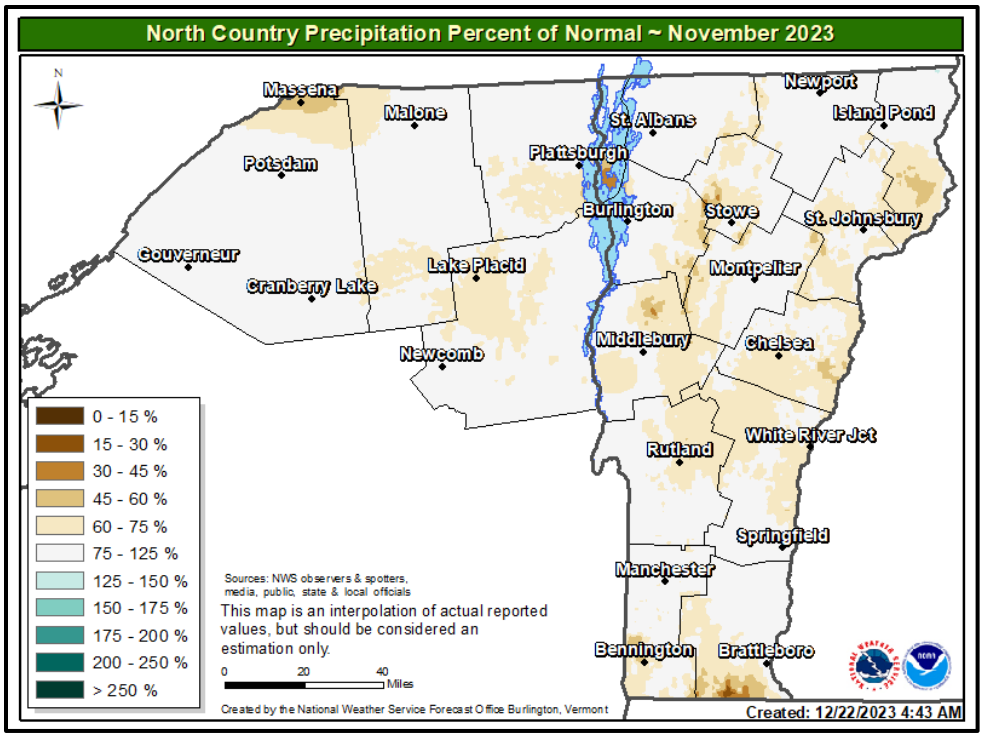

Figure 3: November 2023 monthly precipitation percent of normal for the NWS Burlington, VT HSA. On average values ran from 60 to 80 percent of the long term 30-year mean.

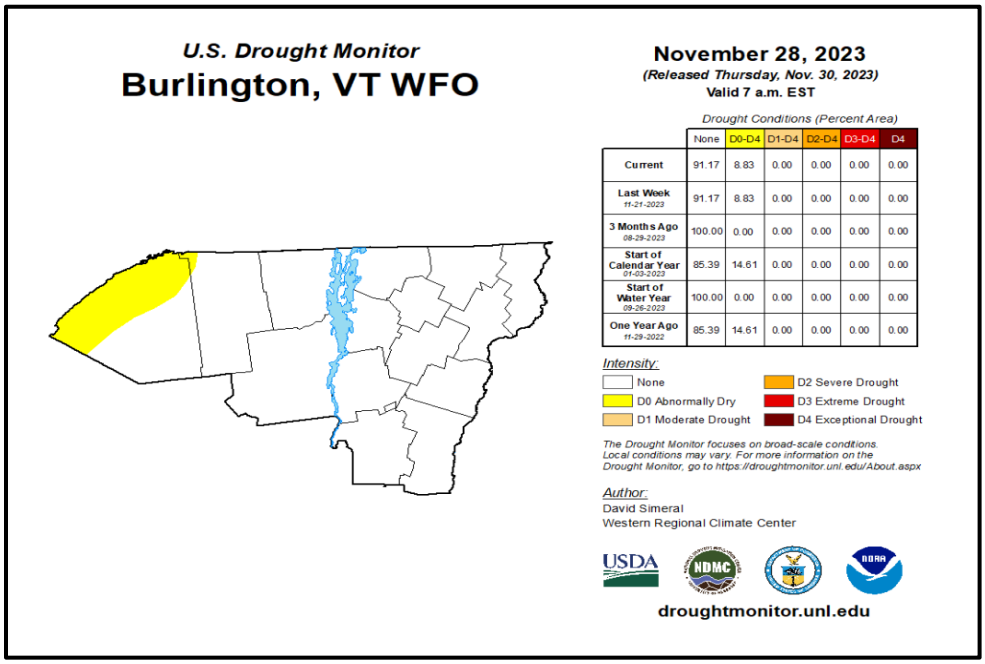

Figure 4: U.S. Drought Monitor map for the week of November 28, 2023. Persistent dryness in the September to November time frame led to the U.S. Drought Monitor to slightly expand D0, or abnormally dry conditions across the St. Lawrence Valley.

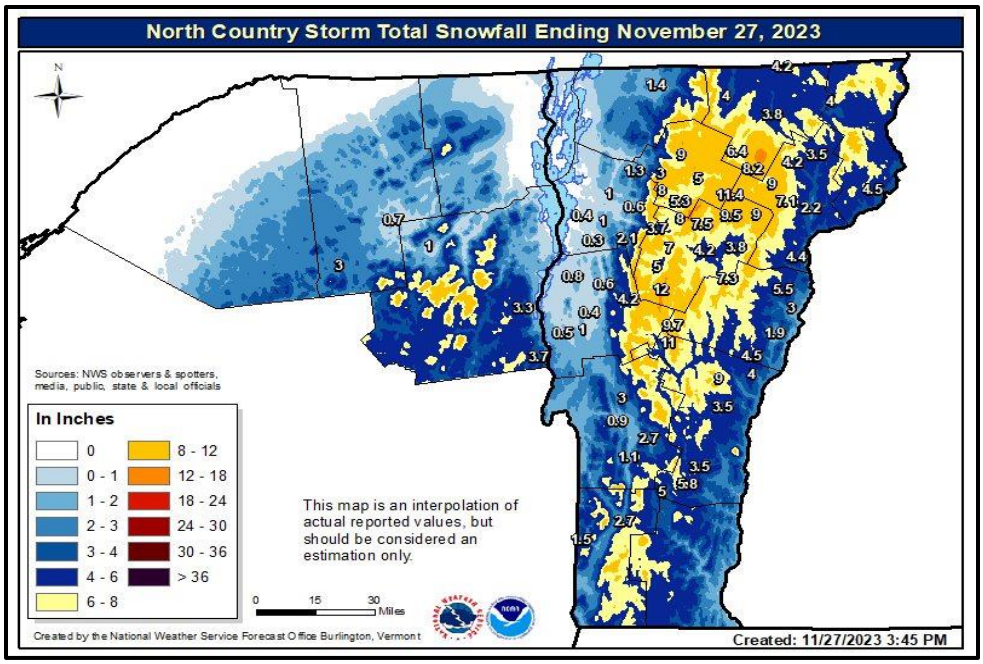

Figure 5: Storm total snowfall from the early season snowstorm which affected the NWS Burlington HSA during the evening and overnight hours on November 26-27, 2023. Many areas in the Green Mountains received between 7 and 15 inches of heavy wet snowfall, leading to widespread power outages in the region.

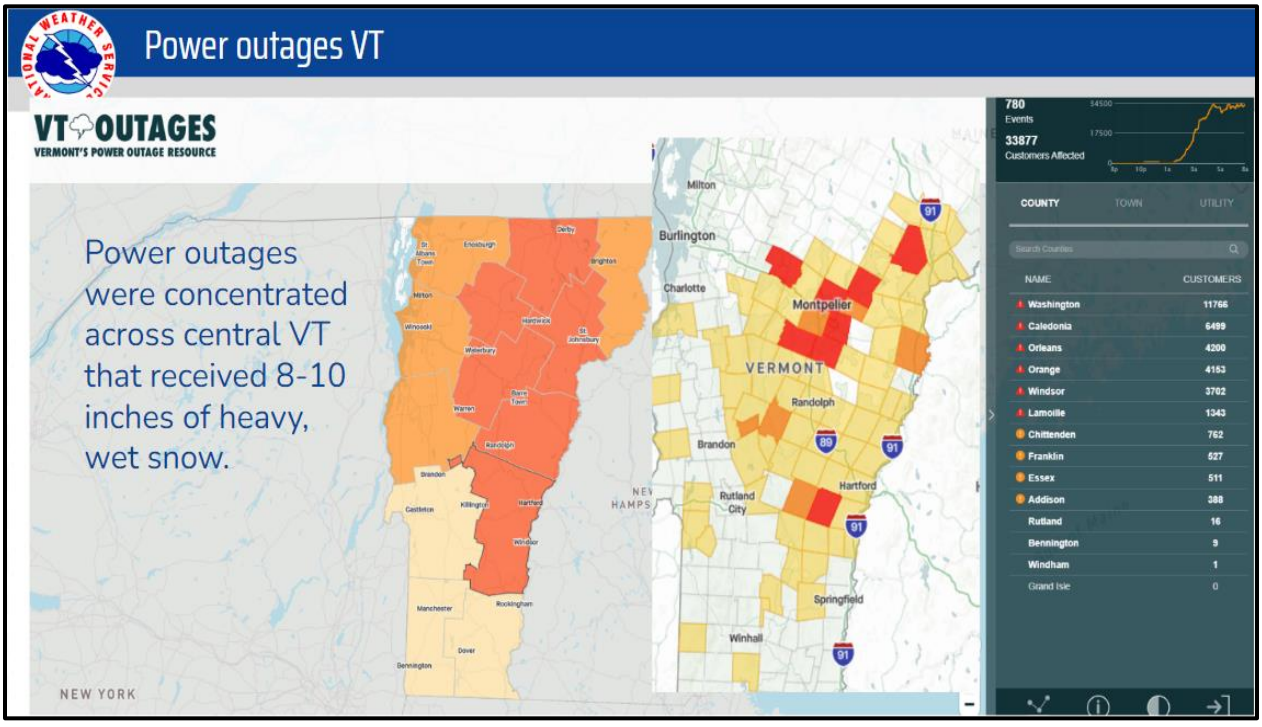

Figure 6: Vermont power outages during the morning of November 27, 2023. Over 30,000 customers were affected by the early season, heavy, wet snowfall.