

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	YEAR 2022
		SIGNATURE <i>/s/ John Goff, Senior Service Hydrologist</i> <hr/> DATE December 13 , 2022	
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283			

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).

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

November 2022 could be characterized as a very mild month with generally normal precipitation across the NWS Burlington HSA. Indeed, positive temperature departures averaged between 2 and 6 degrees for the 30 day period leading to the month being tied for the second warmest November on record (Figure 1). Precipitation was fairly evenly distributed throughout the month as frequent frontal passages and weak low pressure systems brought light to moderate amounts. No flooding was reported. Month-end totals averaged from 3 to 5 inches across the area with some normal variability, leading to departures falling generally within an inch of normal (Figures 2 and 3). The most impactful weather event occurred on evening of the 15th into the morning of the 16th when the season's first significant snowfall occurred. Amounts generally totaled from 2 to 5 inches across the area leading to some travel headaches (Figure 4). However, from a hydrological perspective it was a minor event.

While also minor in nature, the most impactful hydrological event of the month occurred during the 11th and 12th as remnants of former Hurricane Nichole tracked across the northeast. Widespread totals of 0.5 to 1.5 inches were observed from the Adirondack Mountains eastward, with the St. Lawrence Valley receiving between 1.5 and 2.5 inches. While no flooding occurred with this event, it did act to replenish ground/soil moisture significantly in the St. Lawrence Valley such that areas of U.S. Drought Monitor D0 were eliminated thereafter (Figures 5 and 6).

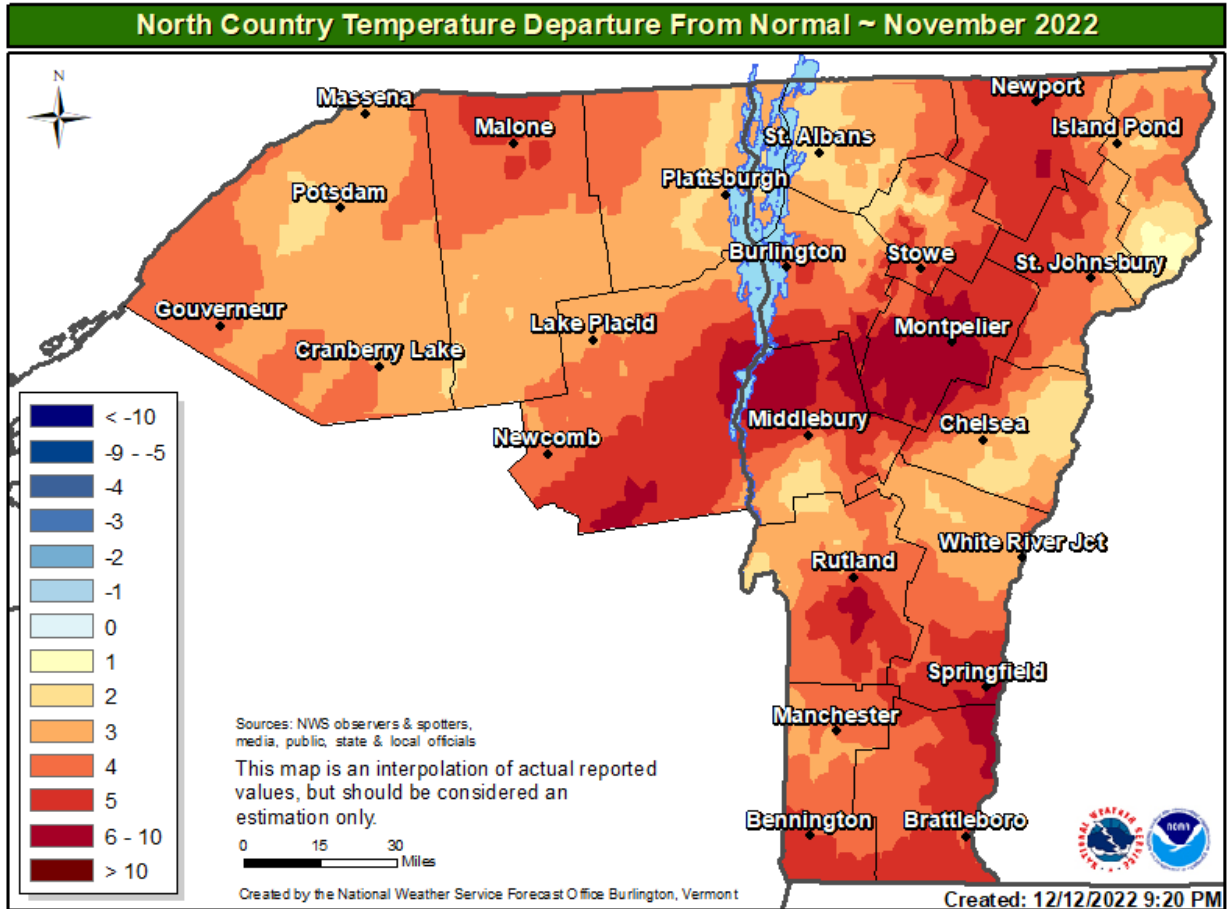


Figure 1: Temperature departures from normal for November 2022 for the NWS Burlington area. Positive departures, generally from +2 to +6 °F were observed, leading to the month being tied for the second warmest November on record.

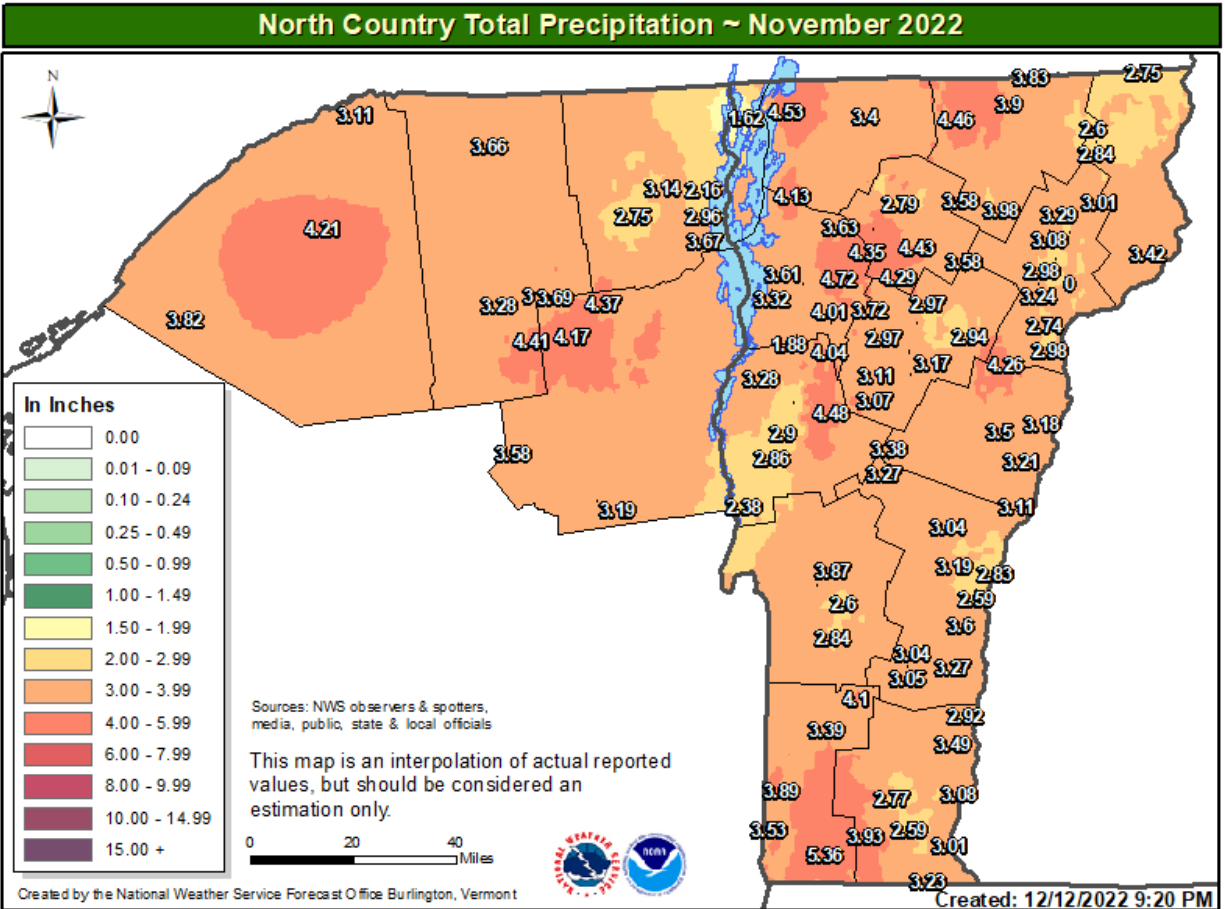


Figure 2: Monthly precipitation totals for November 2022 across the NWS Burlington, VT area. Amounts averaged from two to six inches across the area with some slight variability.

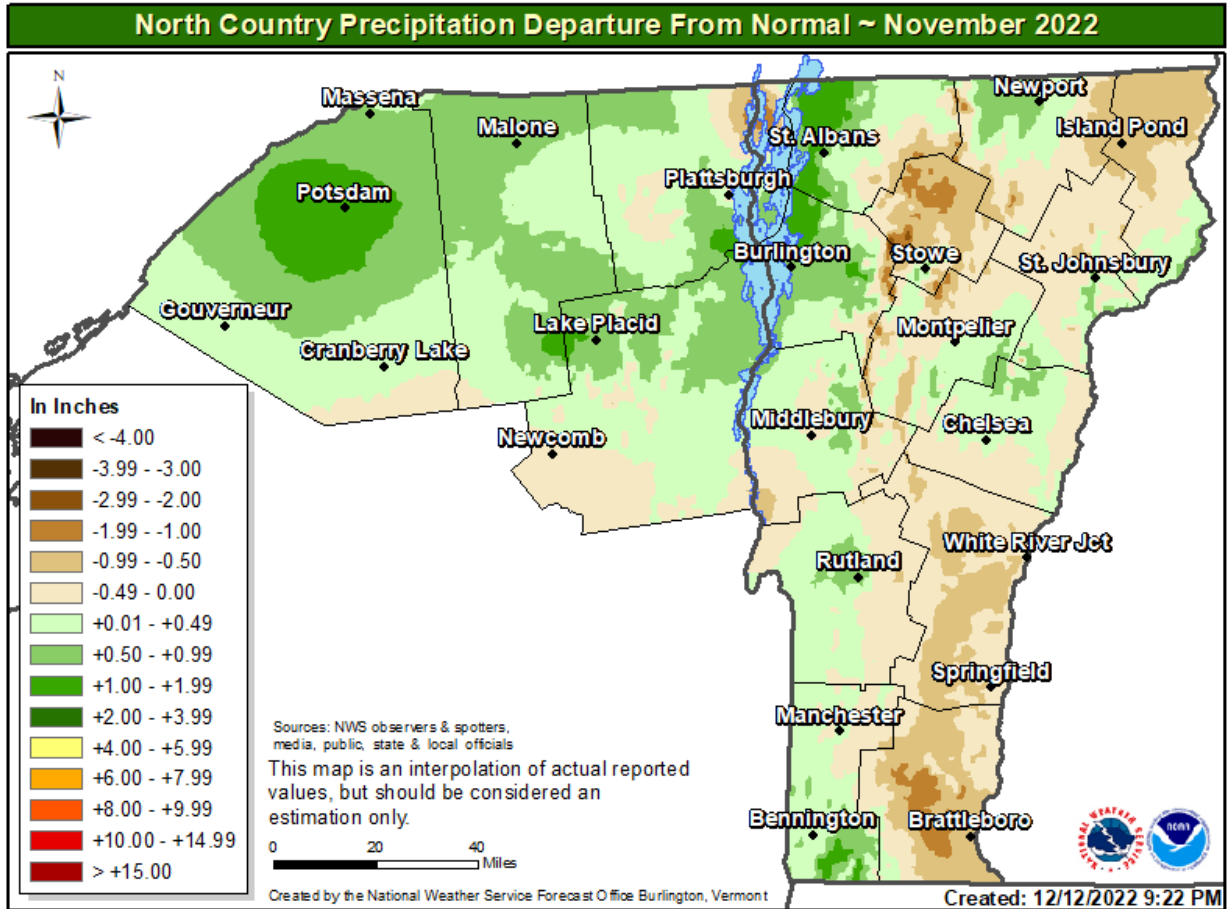


Figure 3: Monthly precipitation departures for November 2022 for the NWS Burlington, VT area. Departures, on average ran within an inch of normal with slightly higher positive departures in the northern Champlain and St. Lawrence Valleys.

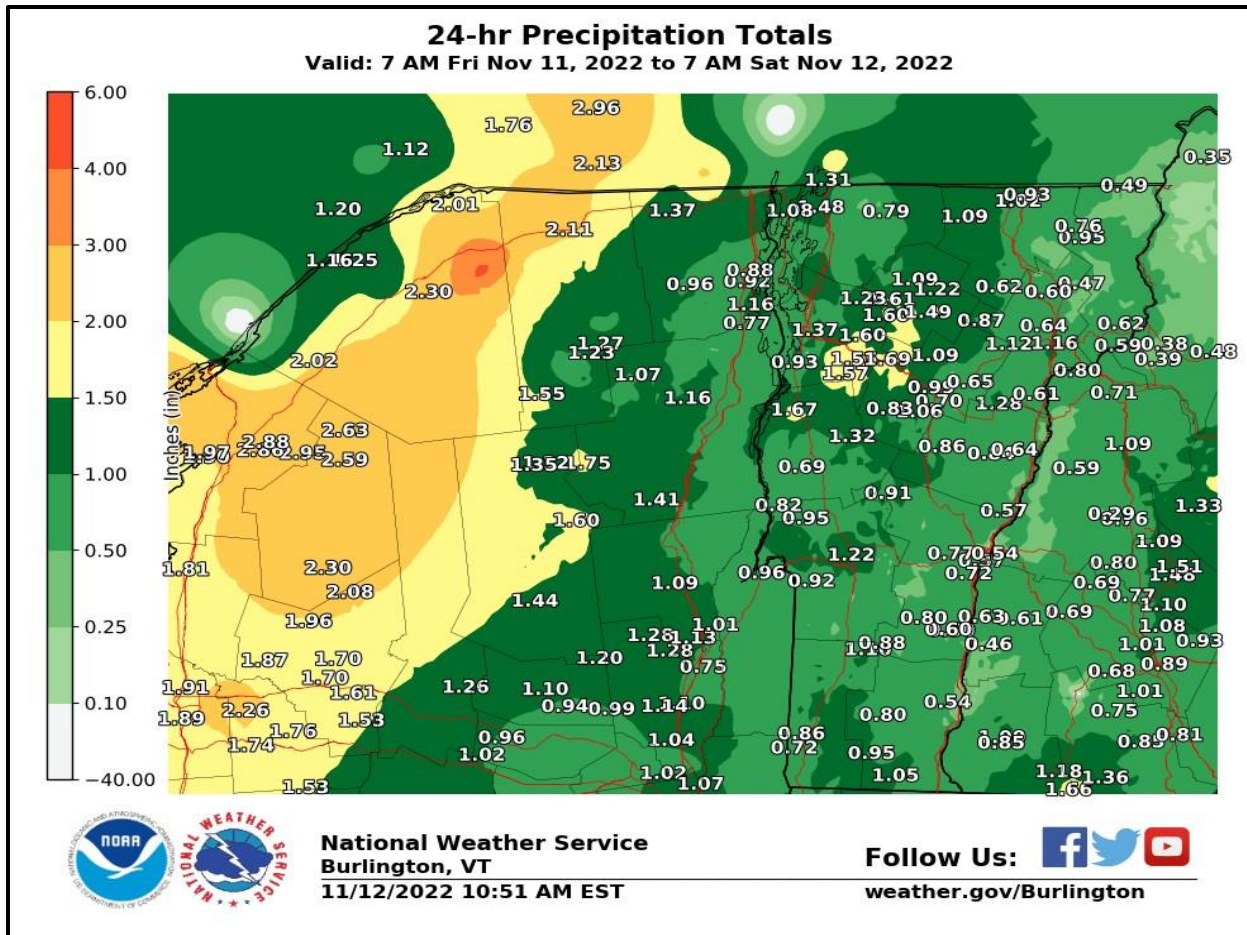


Figure 4: Storm total rainfall ending at 7:00 AM local time on November 12, 2022. Moderate to locally heavy rainfall from the remnants of Hurricane Nichole streamed northward across the region, producing amounts from 1.5 to 2.5 inches in the St. Lawrence Valley.

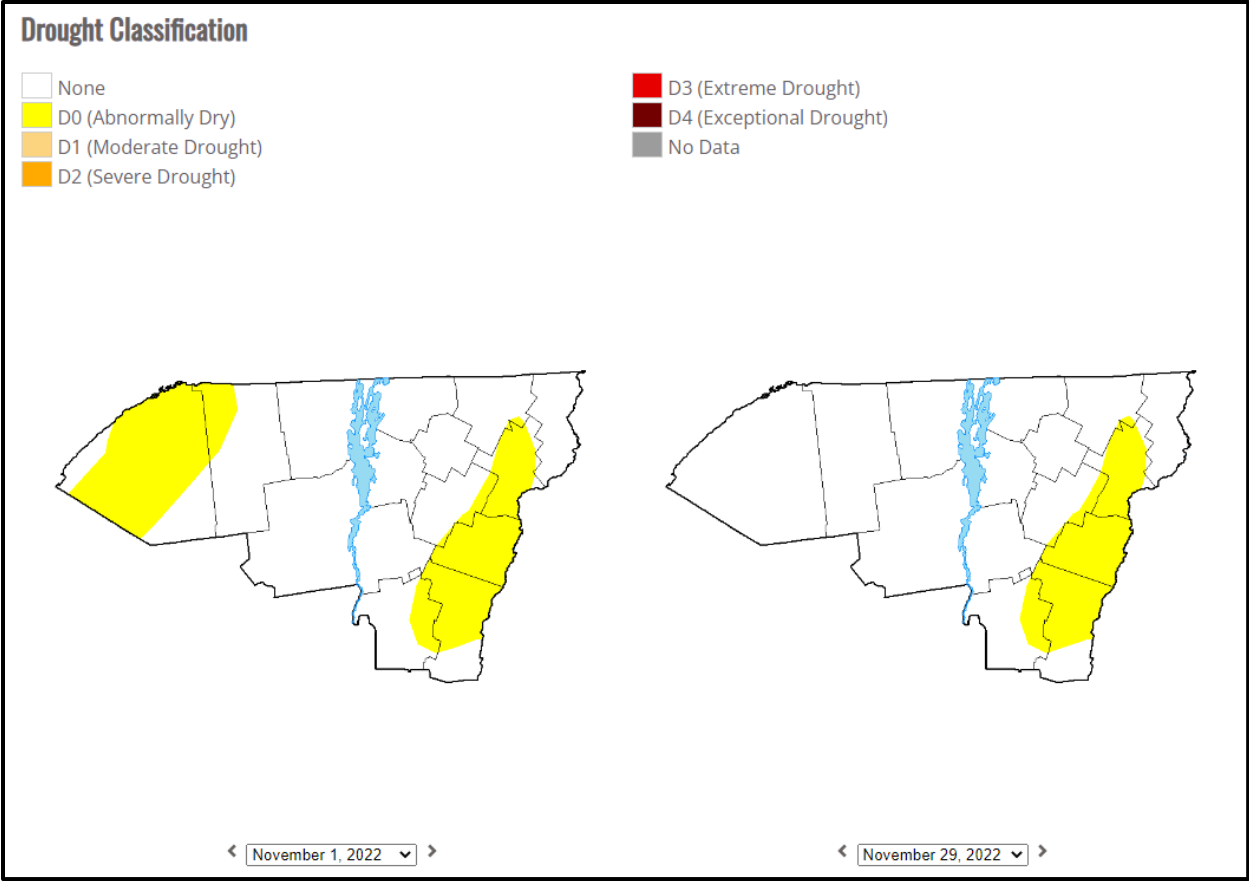


Figure 5: U.S. Drought Monitor maps from November 1, 2022, and November 29, 2022, showing changes in longer-term dryness across the NWS Burlington, VT HSA. Portions of eastern Vermont saw no change in areal coverage of abnormally dry conditions (D0), while portions of the St. Lawrence Valley in New York saw an improvement in overall conditions with areas of D0 removed.