

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	
		REPORT FOR: MONTH July	YEAR 2022
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		SIGNATURE <i>/s/ John Goff, Senior Service Hydrologist</i>	DATE August 29, 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.

July 2022 was another rather uneventful month from a hydrological perspective in NWS Burlington's HSA. No large scale systems affected the area, with only a few weak frontal boundaries crossing the region which produced scattered convective rainfall. Monthly precipitation departures, in general averaged within about an inch of normal at available NWS ASOS platforms, with a tendency for slightly drier conditions across Vermont as opposed to northern New York. Portions of central and northeastern Vermont saw slightly greater negative departures, upwards of 2 inches in some cases. (Table 1 and Figure 1). Temperatures ran slightly above normal as a whole. Given the scattered nature of occasional convection, typical during mid-summer, some variability was observed in the overall monthly rainfall pattern. A case in point was a cluster of strong thunderstorms which passed just south of Burlington, VT on the afternoon of July 28, 2022, which dropped a narrow swath of 2 to 3 inch rainfall, boosting monthly totals there (Figure 2). A few other examples like this were noted during the month. Another case occurred during the early morning hours of July 25 when thunderstorms dropped approximately 2 inches of rainfall in the Ogdensburg, NY area. Flash Flood Warnings were issued for the area, and while no high end flooding occurred, several reports of flooded basements were received (Figure 3). While monthly rainfall totals were, in general not overly scant or excessive, lower-end, long term dryness persisted across the eastern portions of Vermont, especially along the Connecticut River where modest drought conditions were introduced by the week of July 26 (Figure 4). No excessive, or widespread impacts resulting from this dryness were noted, however.

Observation site	May precipitation total (in.)	May precipitation departure (in.)
Burlington, VT (KBTV)	4.04	-0.02
Montpelier, VT (KMPV)	3.40	-0.87
Morrisville, VT (KMVL)	3.26	-0.85
St. Johnsbury, VT (K1V4)	M	M
Springfield, VT (KVSF)	3.65	-0.21
Plattsburgh, NY (KPBG)	3.27	-0.34
Saranac Lake, NY (KSLK)	3.81	-0.25
Massena, NY (KMSS)	4.29	+0.83

Table 1: July 2022 precipitation totals and departures (in inches) for selected NWS ASOS platforms in the NWS Burlington HSA.

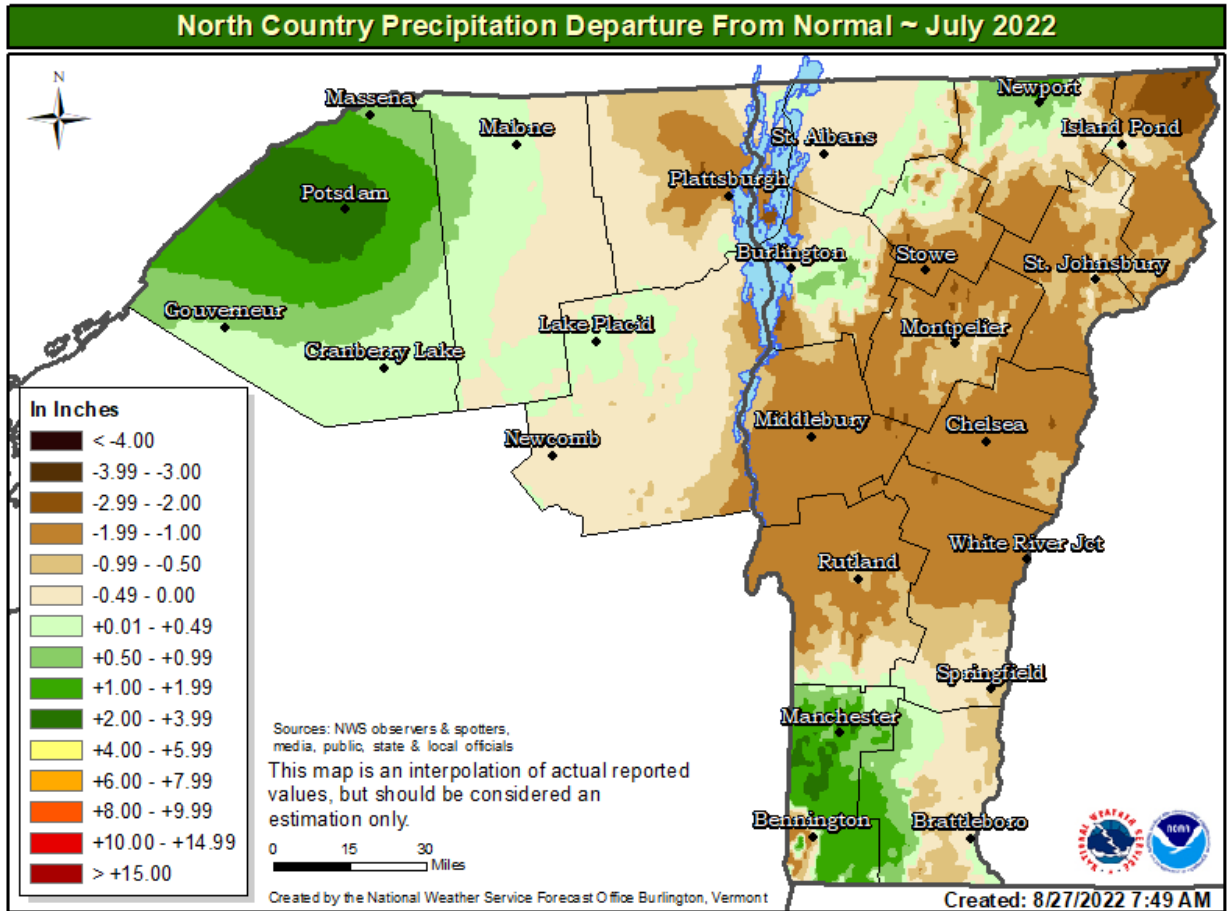


Figure 1: Monthly precipitation departures for July 2022 for the NWS Burlington, VT HSA. Departures, on average ran within an inch of normal, though with some degree of variability, not uncommon during mid-summer when scattered convective precipitation is the dominant precipitation type. The driest areas were in portions of central and northeastern Vermont where some departures approached two inches, while the wettest were across west central St. Lawrence County, NY.

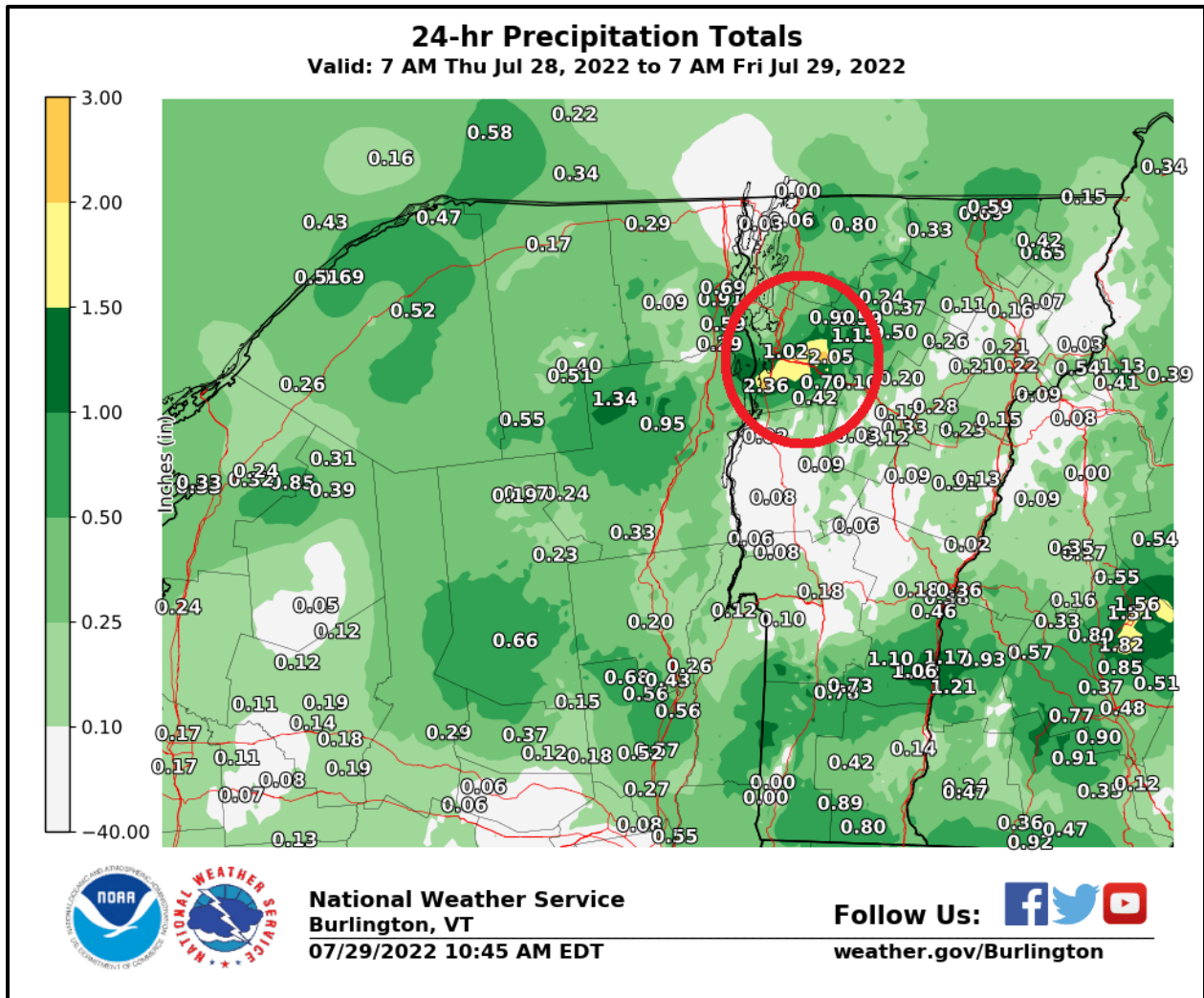


Figure 2: 24-hour rainfall ending at 7:00 AM local time on July 29, 2022. Scattered thunderstorms developed on the afternoon of July 28, 2022, dropping, in some cases, narrow swaths of heavier rainfall as noted in the red circle centered just south of Burlington, VT.

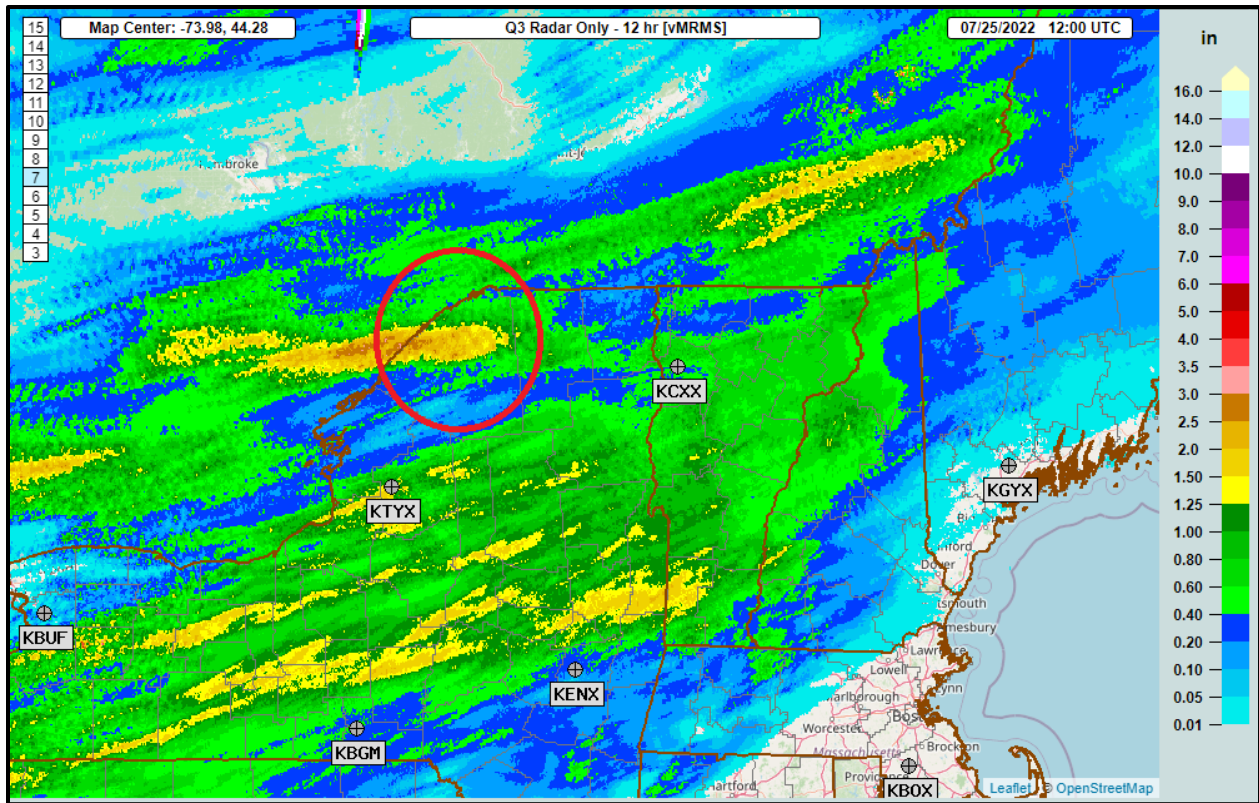


Figure 3: MRMS Q3 12-hour rainfall ending at 8:00 AM local time on July 25, 2022. Note the area of heavier rainfall across St. Lawrence County, NY (red circle). The City of Ogdensburg, NY received a burst of approximately 2 inches of rainfall during the early morning hours of the 25th, leading to several reports of basement flooding.

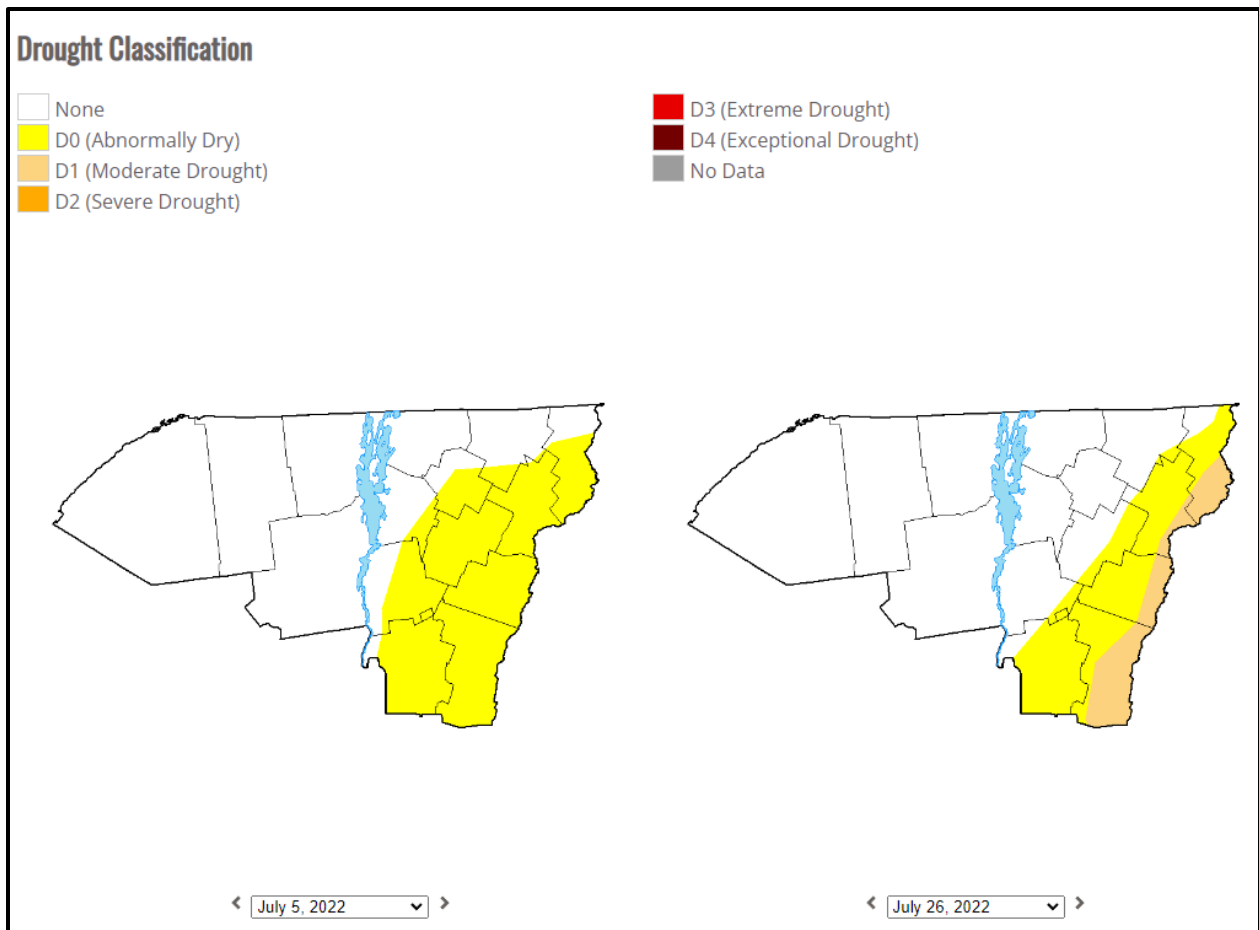


Figure 4: U.S. Drought Monitor maps from July 5, 2022, and July 26, 2022, showing changes in longer-term dryness across the NWS Burlington, VT HSA. The eastern portions of Vermont, especially along the Connecticut River saw a deterioration to moderate drought conditions (D1) by month's end.