NWS Form E-5 (04-2006) NATIONAL OCEAN (PRES. BY NWS Instruction 10-924)		U.S. DEPARTMENT OF COMMERC ID ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVIC	HYDROLOGIC SERVICE AREA (HSA)  Burlington VT		
MONTHL	Y REPORT OF HYDROLO	OGIC CONDITIONS	REPORT FOR: MONTH	YEAR	
			September	2022	
TO:	Hydrologic Information Cent NOAA's National Weather S 1325 East West Highway Silver Spring, MD 20910-32	Service	DATE	/s/ John Goff, Senior Service Hydrologist	
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 i	nside this box indicates that no	flooding occurred within this hyd	Irologic service area.		

For the NWS Burlington HSA, September 2022 dramatically reversed precipitation trends of recent spring and summer months in being anomalously moist, with several moderate to heavy rainfall events observed. Frequent frontal passages, some tapping rich Atlantic and Gulf of Mexico moisture allowed monthly rainfall totals to average between 4 ½ and 10 inches for nearly all points from the Adirondack Mountains of New York east into Vermont. This led to positive monthly departures in these areas, with the greatest exceedance observed in portions of central and north central/northwestern Vermont where values ran some 2 to 5 inches above normal. The only exception to these trends were in the immediate St. Lawrence Valley of northern New York where values ran slightly below normal (Figures 1 and 2). The heaviest of these events occurred on the 13th and 19th when several Flood Warnings were issued for minor, nuisance level flooding. In particular, local totals of between 2.5 and 4 inches fell on the afternoon/evening of the 13th across portions of Chittenden and Lamoille Counties in northwestern Vermont with the automated (ASOS) station at Burlington, VT recording 2.56 inches (Figure 3). Some minor, nuisance level flooding occurred in the City of Burlington during that time. However, given the longer term antecedent dryness across the area through the late spring and summer, no large scale flooding issues were observed during these and other events over the course of the month.

Not surprisingly, running short and long term dryness across the HSA, stemming from a rather dry spring and early summer, showed significant improvement by month's end. In general, all areas of D1 (moderate drought) were alleviated, and coverage of D0 (abnormal dryness) shrunk to encompass only portions of east central Vermont, and a small area of the lower St. Lawrence Valley (Figure 4).

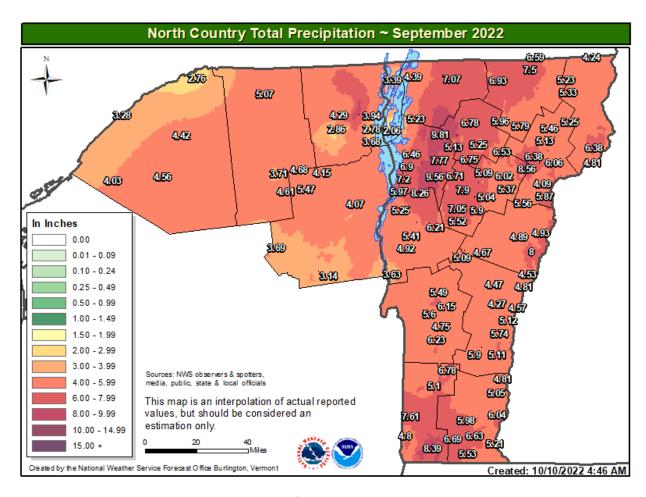


Figure 1: September 2022 precipitation totals for the NWS Burlington, VT HSA. In general, amounts ranged from 4 to 10 inches from the northern Adirondack Mountains eastward into Vermont, with only the St. Lawrence Valley of New York observing slightly lower totals.

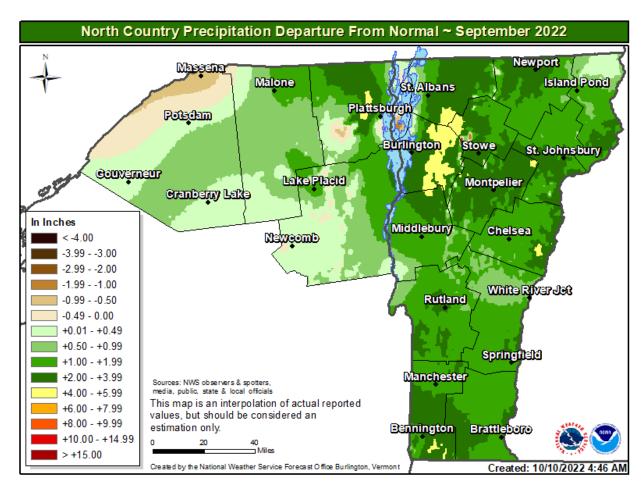


Figure 2: September 2022 precipitation departures (in inches) for the NWS Burlington, VT HSA. The greatest positive departures were observed in portions of central and northern Vermont where some locations saw an excess of nearly 5.00 inches. Only portions of the St. Lawrence Valley in northern New York saw negative departures for the month.

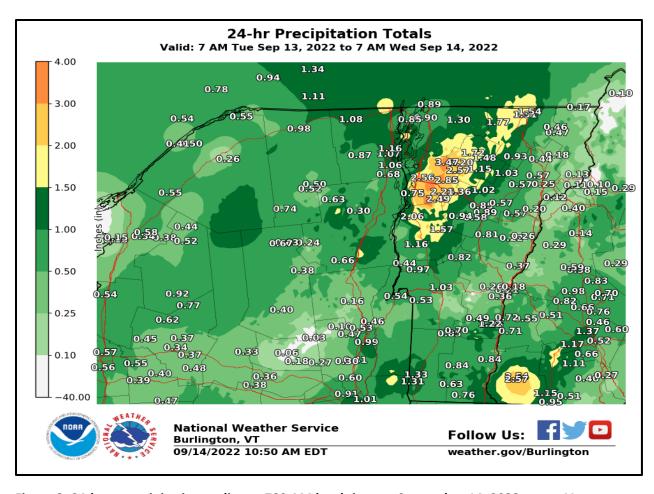


Figure 3: 24-hour precipitation ending at 700 AM local time on September 14, 2022 across Vermont and northern New York. Note the heavier totals across portions of northwestern Vermont where between 2.5 and 4 inches were observed. Some minor urban flooding issues were noted during the evening of the 13<sup>th</sup> in the city of Burlington, VT.

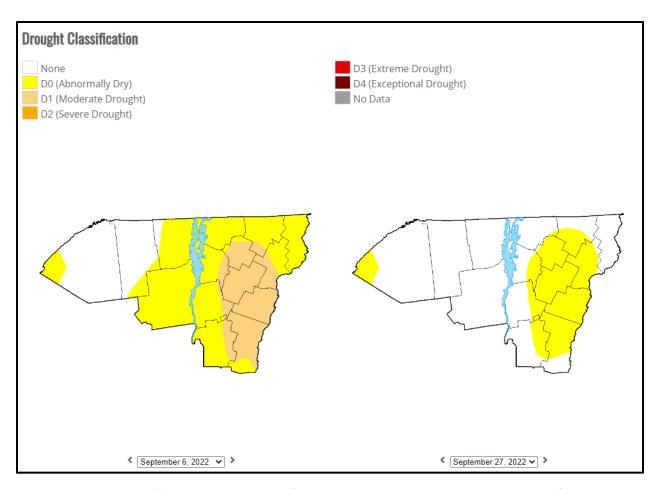


Figure 4: Comparison of USDM drought classification across the NWS Burlington, VT HSA from the beginning to the end of September 2022. Given the moderate to heavy rainfall observed across the region, substantial improvement to short/long term dryness was observed.