NWS Form E-5 U.S. DEPARTMENT OF COMMERCING (04-2006) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (PRES. BY NWS Instruction 10-924) NATIONAL WEATHER SERVICE				HYDROLOGIC SERVICE AREA (HSA)	
		- Due			
MONTHL	Y REPORT OF HYDR	OLOGIC CONDITIONS	REPORT FOR: MONTH	YEAR	
			September	2023	
TO:	Hydrologic Information Center, W/OS31 NOAA's National Weather Service		SIGNATURE /s/ John Goff, Se	SIGNATURE /s/ John Goff, Senior Service Hydrologist	
	1325 East West Highway Silver Spring, MD 20910-3283	DATE	ber 17, 2023		

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.

Overview

September 2023 was a relatively quiet month from a hydrological perspective across the NWS Burlington HSA with only one Flood Warning issued. This was much welcomed given the terrible flooding experienced in portions of the region during July and August. After some lingering unsettled weather during the first half of the month, high pressure generally dominated sensible conditions from the 15th onward with long stretches of warm and dry weather. Total monthly precipitation averaged from one to three inches across the St. Lawrence Valley and Adirondack Mountains of New York, and from three to five inches from the Champlain Valley east across Vermont. This allowed month-end precipitation departures to average on the negative side for most areas, especially across northern New York counties (Figs. 1 and 2). However, given the extreme wetness of the prior two months, average streamflows across the HSA remained well-above normal, especially in Vermont (Fig. 3).

Notable Hydrology

The most notable hydrological event occurred during the afternoon of September 6 when a weak cold front produced scattered strong to locally severe thunderstorms, mainly across Vermont. Scattered rainfall totals of one to two inches occurred, including areas around the Burlington metro area where the Burlington International Airport received over an inch in less than one hour. This prompted forecasters to issue a Flood Warning for the downtown urban areas of Burlington where poor drainage minor flooding issues can prove problematic during short bursts of intense rainfall (Fig. 4).

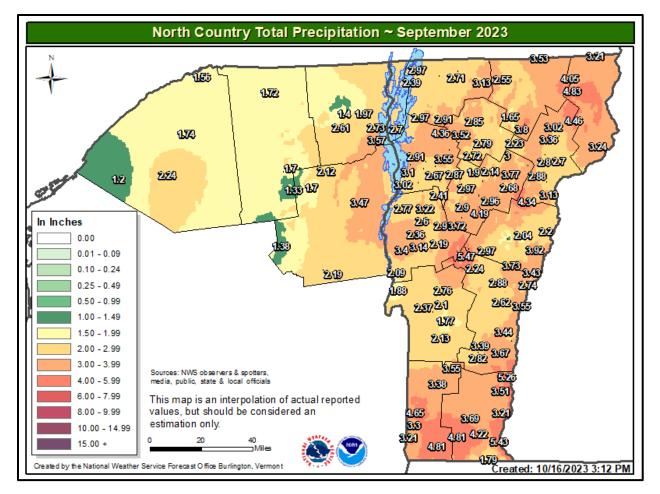


Figure 1: September 2023 monthly precipitation totals across the NWS Burlington, HSA. Amounts generally averaged from one to three inches across New York and from three to five inches across Vermont where rainfall was more plentiful during the first half of the month.

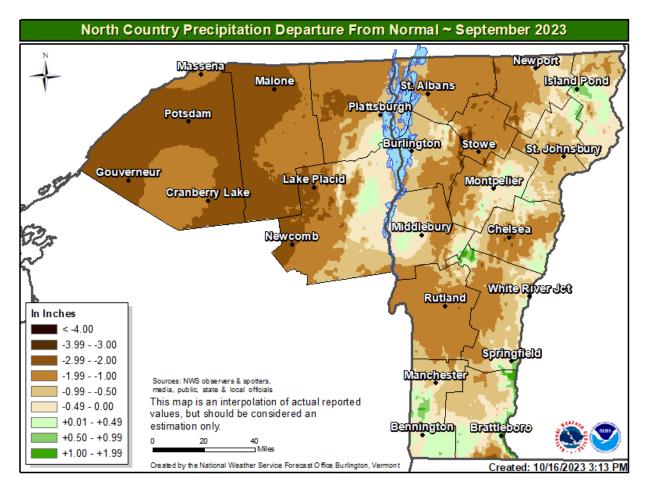


Figure 2: Monthly precipitation departures for September 2023 across the NWS Burlington, VT HSA. Values were generally on the negative side, especially across the Adirondacks and St. Lawrence Valley of northern New York which largely missed out on heavier precipitation events early in the month.

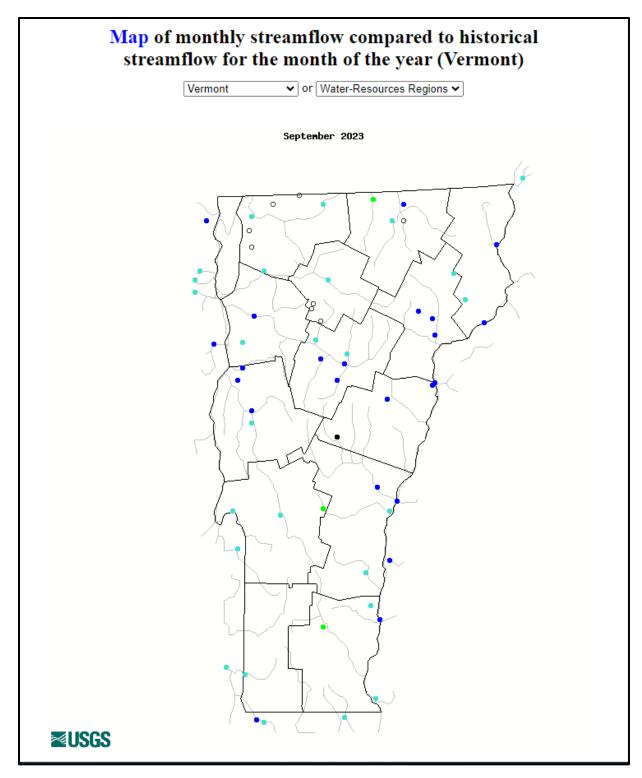


Figure 3: Monthly streamflow departures for the state of Vermont for September 2023, courtesy the United States Geological Survey. Despite below normal monthly rainfall in most areas, departures continued to run on the positive side given the extremely wet conditions observed in July and August.



US National Weather Service Burlington VT @ September 7 · 🕤

>>> This warning has expired <<<

Flood warning in effect until 6:45 PM EDT this evening for the city of Burlington.

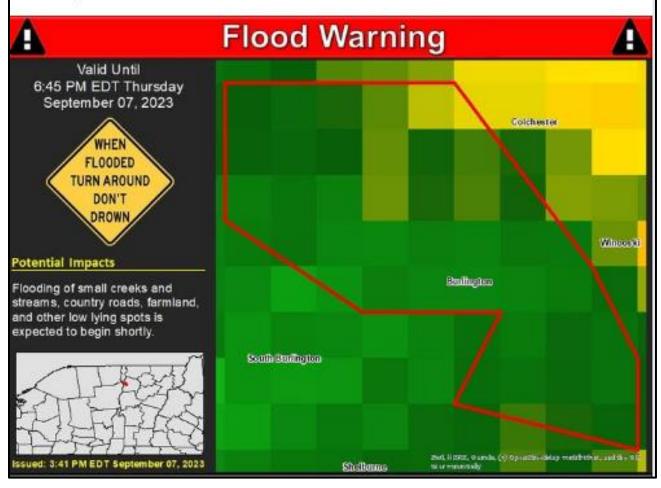


Figure 4: A short burst of heavier rainfall on the order of one to two inches on September 6, 2023 prompted the issuance of a Flood Warning for the City of Burlington where poor drainage flooding can be problematic during such episodes.