

**MONTHLY REPORT OF HYDROLOGIC CONDITIONS**

REPORT FOR:  
MONTH            YEAR  
October            2019

TO: Hydrologic Information Center, W/OS31  
NOAA's National Weather Service  
1325 East West Highway  
Silver Spring, MD 20910-3283

SIGNATURE  
Maureen Hastings, meteorologist /s/

DATE  
November 17, 2019

*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.

October 2019 ended up being a very wet month. In fact, not only was it the wettest October on record at Burlington, VT, it was the 9<sup>th</sup> wettest month of all time at that site. A total of 8.50 inches fell in Burlington, which was almost 5 inches more than normal. Other notable monthly rainfall totals were Montpelier, VT with 6.69 inches (+3.25); Morrisville, VT with 8.47 inches (+5.36); Saranac Lake, NY with 7.85 inches (+3.80); and Massena, NY with 7.82 inches (+4.51).

Unfortunately, most of this precipitation fell in 4 or 5 heavy events, rather than being spread throughout the month. The first event came early, running from the 1<sup>st</sup> into the 2<sup>nd</sup>, when northern Vermont and portions of the Adirondacks saw widespread totals of 1 to 2 inches, with some locations reporting over 2.50 inches. Rivers rose sharply, some as much as 7-9 ft. This resulted in localized flooding in these areas, including Lyndonville, where Routes 5, 114, and 122 were impacted.

The next heavy rain event came just a week later on the 7<sup>th</sup>. A swath of 1 to 2 inches of rain spanned the region from the central and southern Adirondacks through the central Greens and into the Northeast Kingdom. Locally higher amounts greater than 2.50 inches were noted. Rivers showed modest rises, but no flooding was reported.

Thereafter, we had a brief break in the rainy weather, until the next widespread rainfall on the 16<sup>th</sup> into the 17<sup>th</sup>, when a powerful Nor'easter affected the region. A widespread 1 to 3.5 inches of rain fell across the area, with the highest totals were across the southern Greens and Adirondacks, into far southern VT, where totals in excess of 3.50 inches were common. A Flood Watch was issued prior to the event, followed by a River Flood Warning for Otter Creek at Center Rutland. No flooding was reported, however.

After all these heavy rainfall events, the month finished with a bang. Very anomalous moisture interacted with a strong frontal system, spreading very heavy rain across the region starting on the 31<sup>st</sup> and continuing into November 1<sup>st</sup>. Three separate convective lines crossed the region, some containing rainfall rates in excess of 1.5 inches per hour. The first of these moved through the Champlain Valley and into eastern VT during the evening hours, and produced widespread urban and poor drainage flooding in the Burlington area. Burlington recorded 3.30 inches for the day, which shattered the previous daily record precipitation of 1.16 inches. This ended up being a high-end event, with numerous roads closed and/or damaged, several river gages exceeding flood stage (some even set new record stages), and numerous flood warnings issued. However, this will be covered in next month's report as most impacts occurred after 12 AM November 1<sup>st</sup>.

Monthly rainfall graphics were not available at the time of this writing.

Gage ID	River/Stream	Location	FS	Above Flood Date/Time	Flood Crest	Date/Time
<b>EHVV1</b>	E. Br Passumpsic R.	East Haven, VT	6.5	10/02 0530z	7.23	10/02 0185z
<b>NTYV1</b>	Missisquoi R.	North Troy, VT	9.0	10/02 0915z	10.3	10/02 1415z
<b>CENV1</b>	Otter Creek	Center Rutland	8.0	10/17 1800z	8.56	10/17 2300z

Table 1: Rivers which reached flood in the month of April 2019

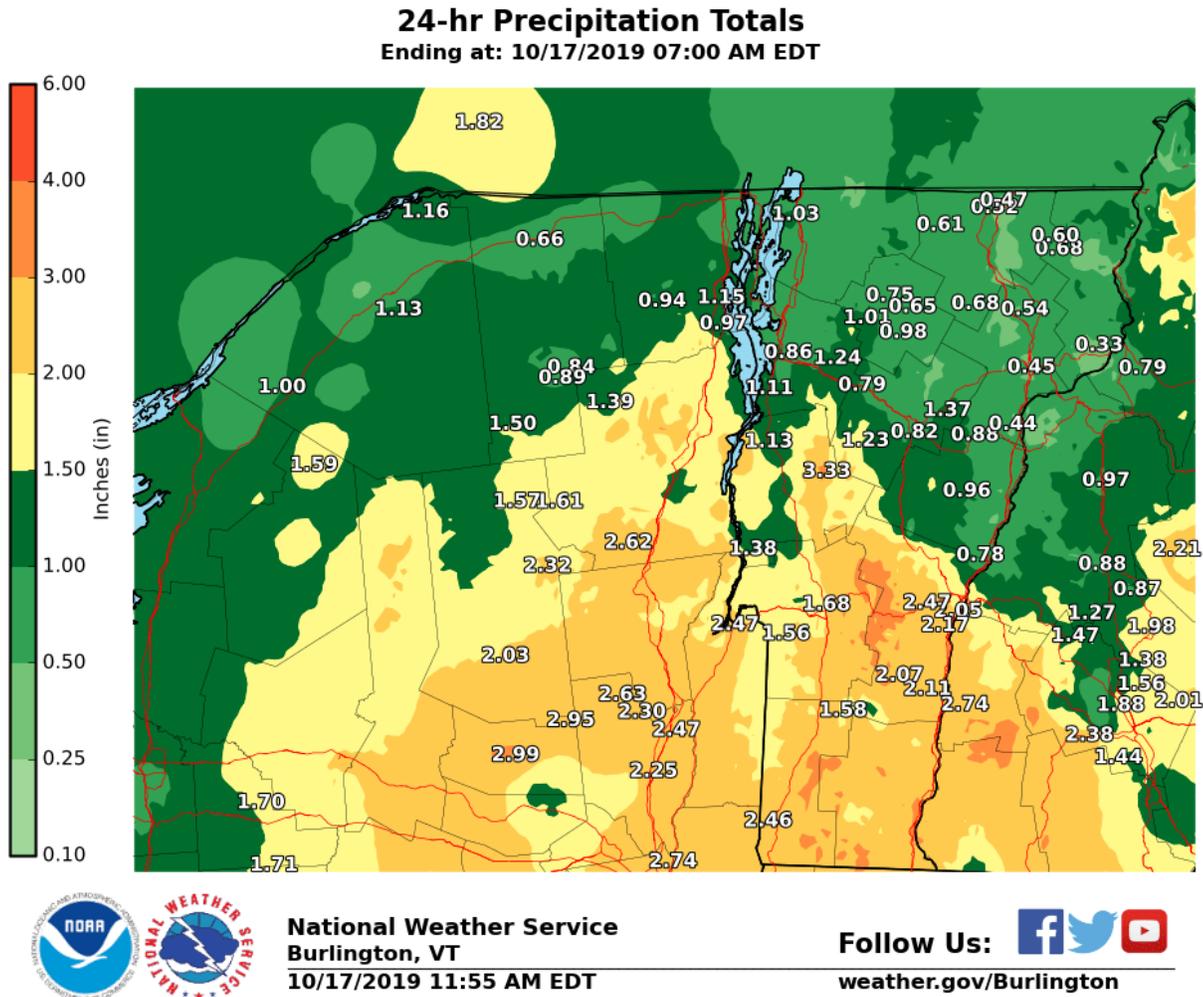
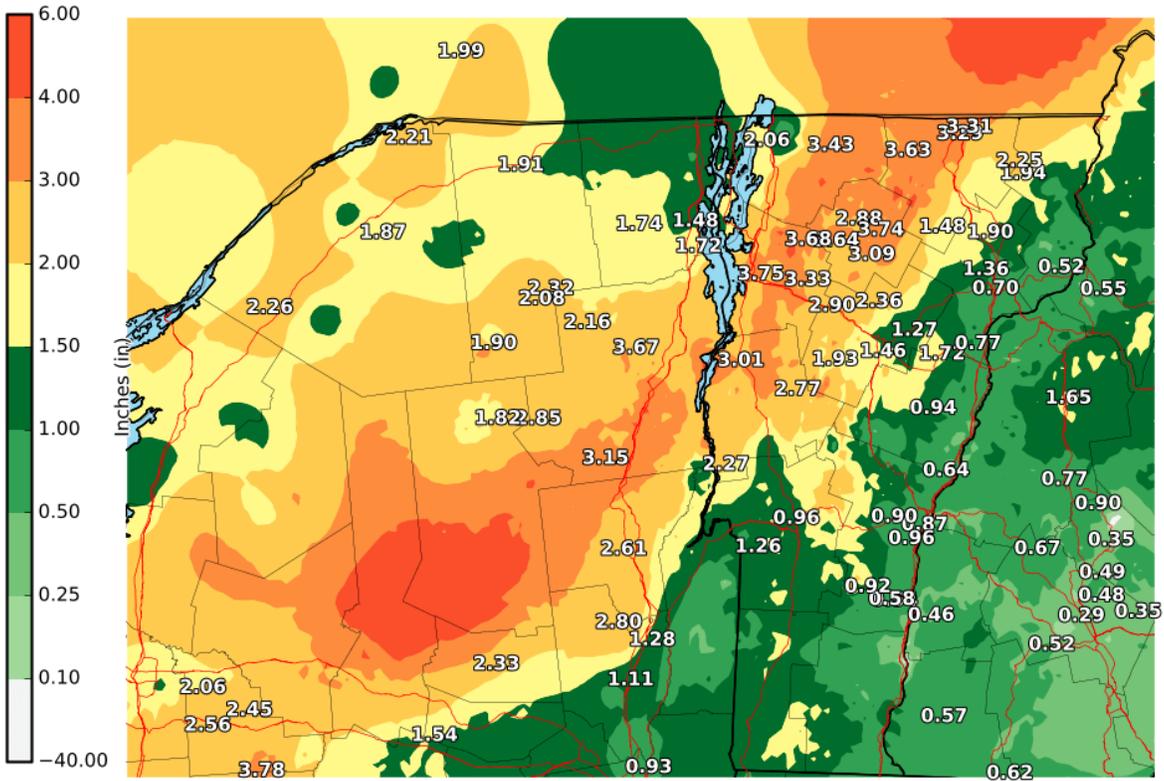


Figure 1: 24 hour precipitation totals ending on October 17<sup>th</sup>, 2019

**24-hr Precipitation Totals**  
 Ending at: 11/01/2019 07:00 AM EDT



National Weather Service  
 Burlington, VT

11/01/2019 11:26 AM EDT

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Figure 2: 24 hour precipitation totals ending on November 1<sup>st</sup>, 2019: Includes rainfall after midnight 11/1