

MONTHLY REPORT OF HYDROLOGIC CONDITIONS

REPORT FOR:

MONTH

YEAR

March

2021

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

SIGNATURE

Nichole Hammond, Meteorologist /s/

DATE

04/16/2021

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.

Overall, the month of March brought about above normal temperatures and below normal precipitation (**Figure 1**) for the BTV HSA. The month started out dry with slightly below normal temperatures and a significant snowpack still in place. By mid-month, however, the snowpack was confined to the high terrain due to continued dryness and periodic above normal temperatures. Testament to the anomalously warm conditions were the record-breaking high temperatures recorded on three separate occasions and at more than one location. This occurred on March 11th, 23rd, and 25th. Regarding precipitation, only three appreciable precipitation events occurred during the month of March which were all at the very end of the month: March 26th, 28th, and 31st. In each of these events, rainfall amounts generally ranged from 0.25 to 0.75 inches, with locally up to an inch.

The most impactful of these events occurred on March 26th. Widespread rain of 0.50 to 0.75 inches (**Figure 2**) was observed across the HSA in addition to several severe thunderstorms, one of which produced a rare tornado in Middlebury, VT. A daily maximum rainfall record was set at Massena, NY with a total of 0.60 inches breaking the old record of 0.46 inches set in 1953. Together, the rainfall combined with several days of high elevation snowmelt led to area-wide, mainly within bank river rises due to antecedent low flows. The one exception was the Missisquoi River in North Troy which surpassed moderate flood stage late on the 26th (**Table 1**). No other flooding occurred during the month of March.

Despite those few late-month precipitation events, March concluded with below normal precipitation and monthly totals only in the 0.50 to 3.00 inches range (**Figure 3**). This did little to alleviate the ongoing Abnormally Dry to Moderate Drought conditions (**Figure 4**).

Gage ID	Flood Stage	Crest Height	Date	Time
NTYV1	9.0'	11.25'	3/27/2021	02:45z

Table 1: Rivers that reached flood in March 2021 in BTV HSA.

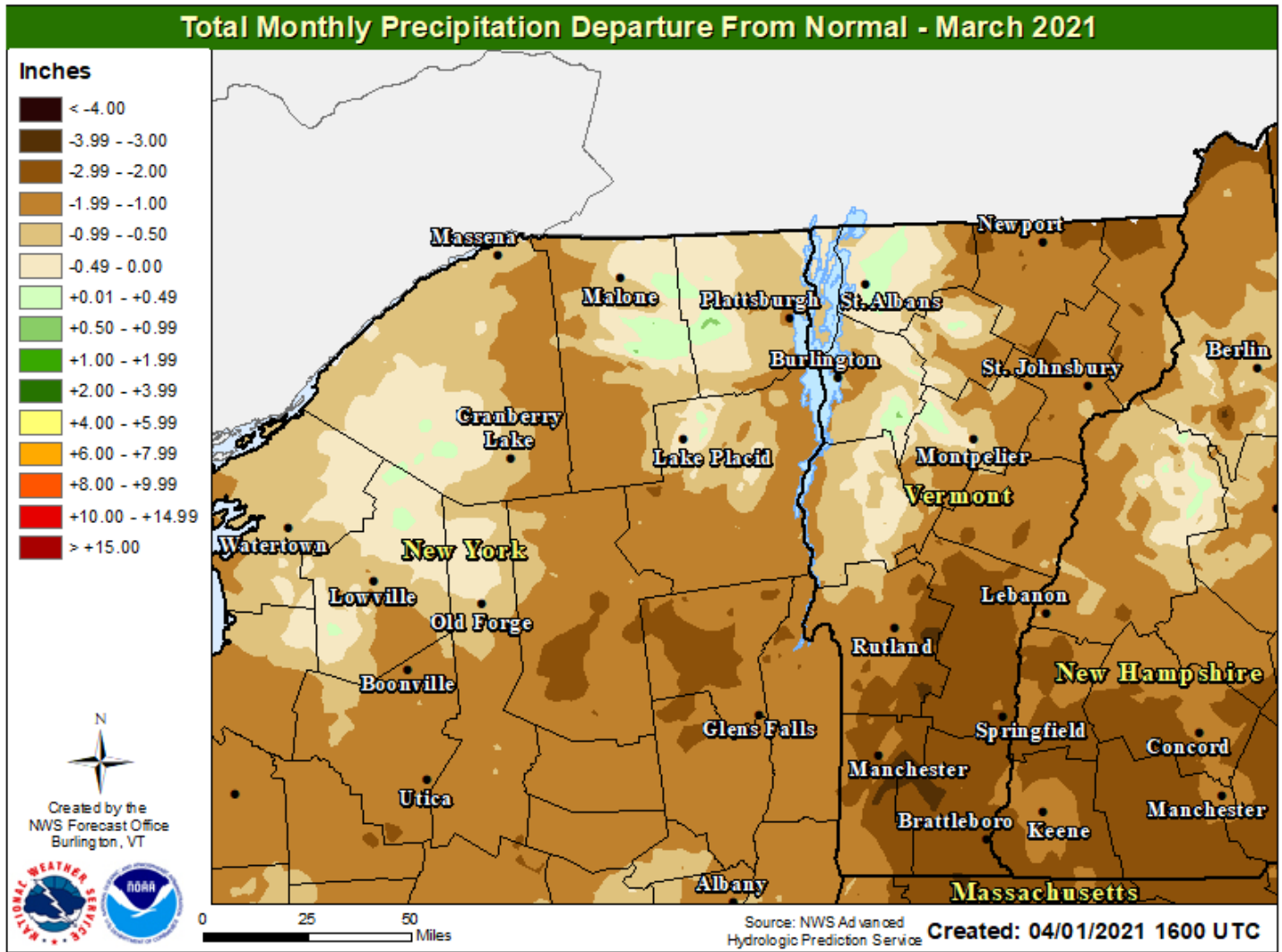
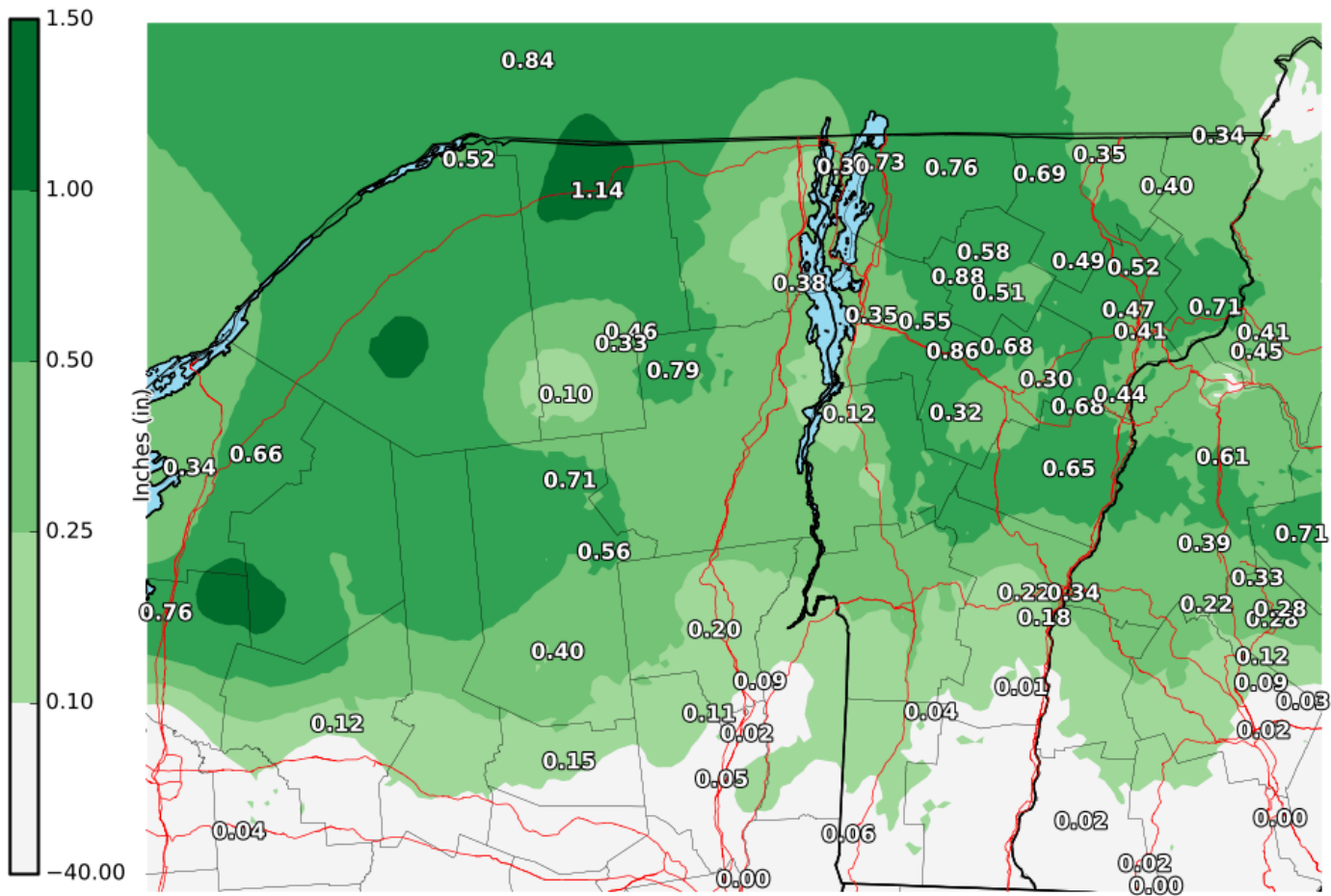


Figure 1: Total monthly precipitation departure from normal for March 2021.

24-hr Precipitation Totals

Valid: 7 AM Friday March 26, 2021 to 7 AM Saturday March 27, 2021



National Weather Service
Burlington, VT
03/27/2021 10:34 AM EDT

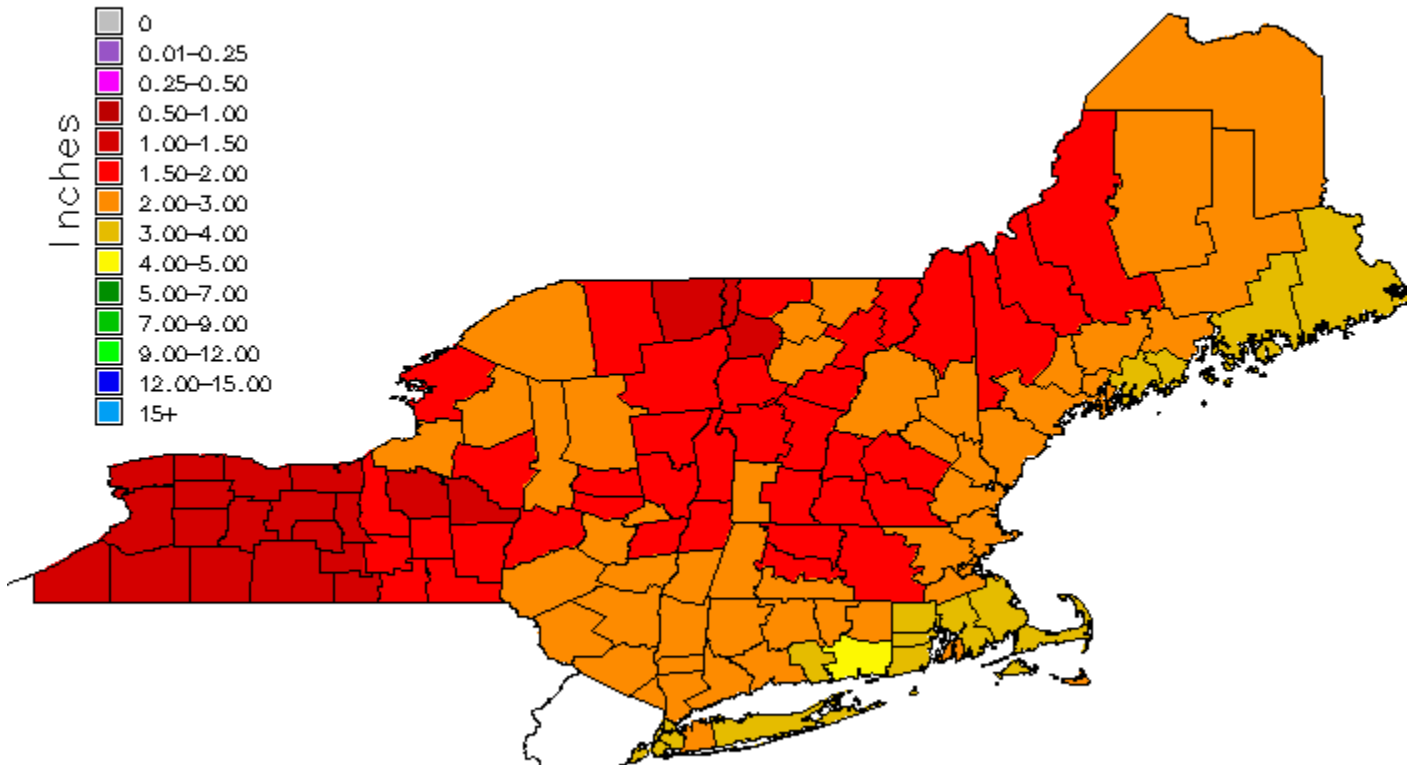
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Figure 2: Rainfall totals occurring on March 26th.



Monthly County Precipitation

March 2021

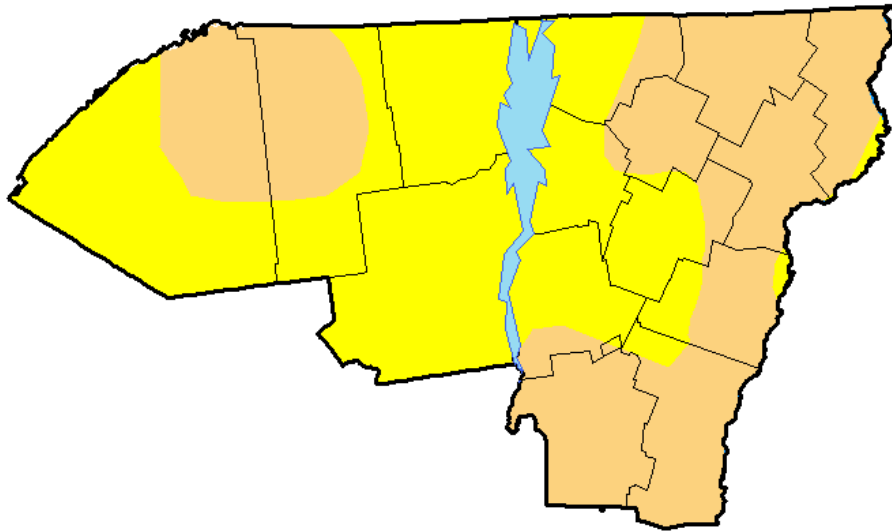


Source: NOAA Northeast River Forecast Center, Norton, MA





Figure 3: Total monthly precipitation by county for March 2021.

U.S. Drought Monitor
Burlington, VT WFO

March 30, 2021
(Released Thursday, Apr. 1, 2021)
Valid 8 a.m. EDT



Intensity:

-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Brad Pugh
CPC/NOAA



<http://droughtmonitor.unl.edu/>

Figure 4: Drought monitor on March 30, 2021 for BTV CWA.