

Burlington VT

MONTHLY REPORT OF HYDROLOGIC CONDITIONS

REPORT FOR:
MONTH YEAR
March 2017

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

SIGNATURE
/s/ John M. Goff, METEOROLOGIST WFO BTV

DATE
April 13, 2017

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.

March 2017 was quite unusual across the Burlington, VT HSA on several levels. Foremost was the fact that the month as a whole was considerably colder than the prior three months of December, January and February by 2 to 2.5 degrees. While record cold was not observed, the sharp pattern change from a generally mild winter led to unusual phenomenon, highlighted by one of the greatest snowstorms on record on the 14th, and an atypical series of late-season freeze-up ice jams from the 15th to the 19th.

Reports of flooding were relatively minor, though some lowland flooding did occur on the 2nd and 3rd as a result of snowmelt from late February record warmth. The only discrete Flood Warning issued during this time was for the Barton River in Coventry, VT (COVV1).

Given the February warmth most area rivers began March as ice-free or mostly free or ice. However, as temperatures trended colder from the 3rd through the middle of the month, ice reformed on most central and northern watersheds in earnest. This led to a few problem areas, particularly in Franklin County, NY where freeze-up jams and resultant flooding occurred along the Salmon River in Malone and the St. Regis River in Hogansburg. In these cases a few homes were evacuated and a water treatment plant affected by higher flows. Areal flood warnings were issued from the 15th through the 19th accordingly.

As slightly milder weather returned by months end, river ice began to rot with overall coverage waning over time. No other reports of flooding were received from the 20th onward through months end. With the colder weather observed through a good portion of the month, the depth and water equivalent of the snowpack increased markedly across the area, setting the stage for a larger-scale melt and resultant flood threat for April (see figures 2 and 3).

River flows overall were near to above normal, primarily due to the lingering effects of high flows from the late February melt (Figure 5). Lake Champlain began March above normal after the February melt, but trended downward to near normal late in the month with the return of colder temperatures (Figure 6).

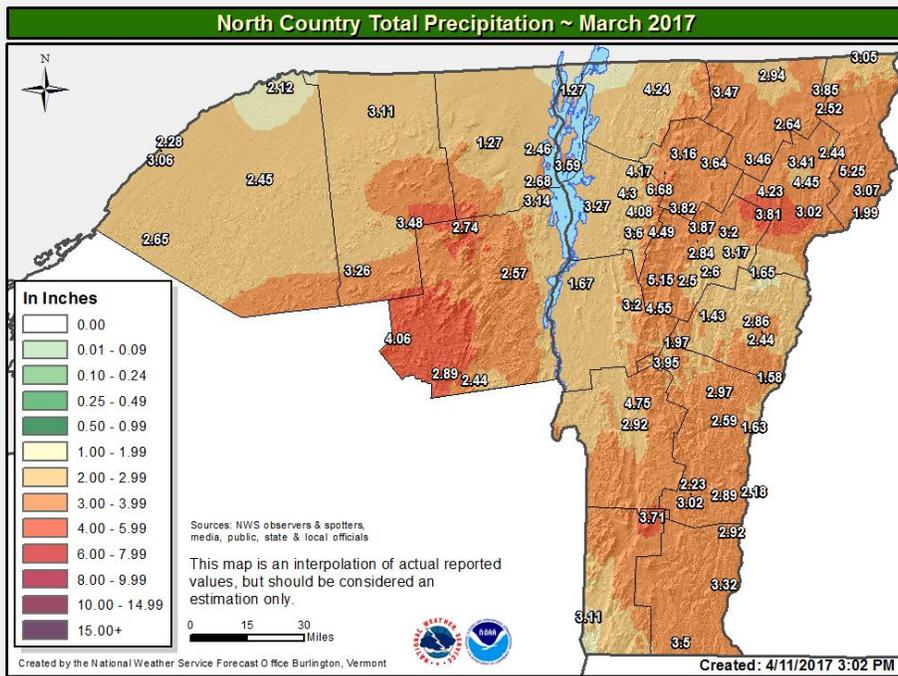


Figure 1. Total monthly precipitation for March 2017 in the NWS Burlington, VT Hydrologic Service Area. Totals generally ranged from 2 to 4 inches and within +/- 2 inches of seasonal monthly norms.

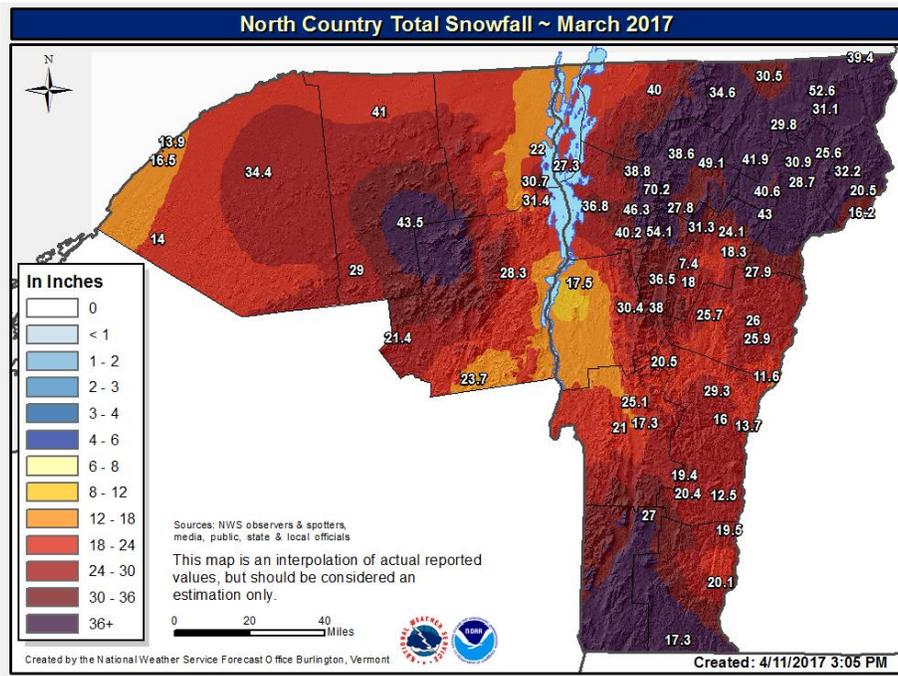


Figure 2. March monthly snowfall across the Burlington HSA. The “Pi-Day” storm on the 14th contributed a large percentage of these totals with widespread reports of 20 to 30 inches received.

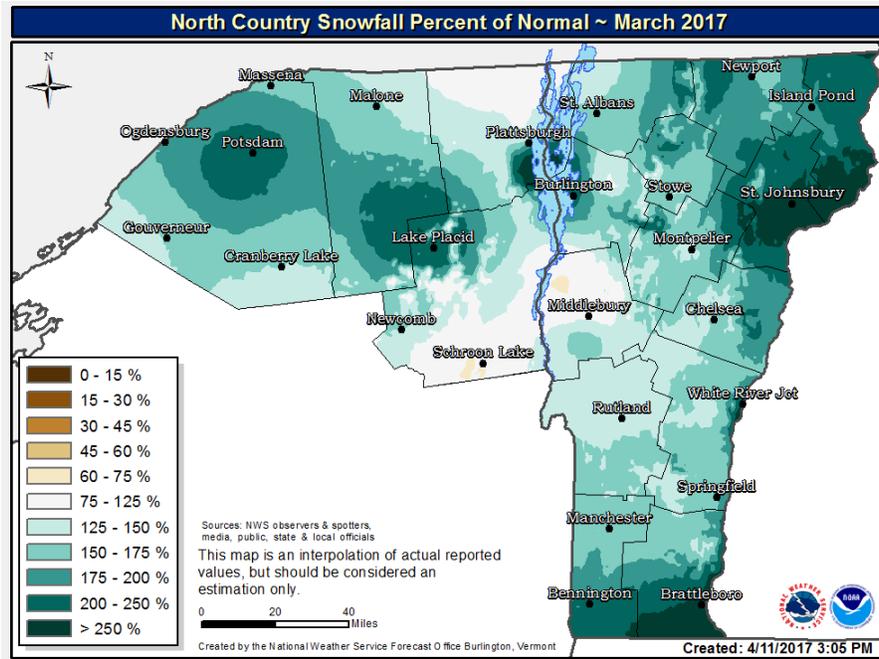


Figure 3. Monthly snowfall percent of normal for March 2017 in the Burlington, VT HSA. Most areas received between 125 and 200 percent of values typically expected.

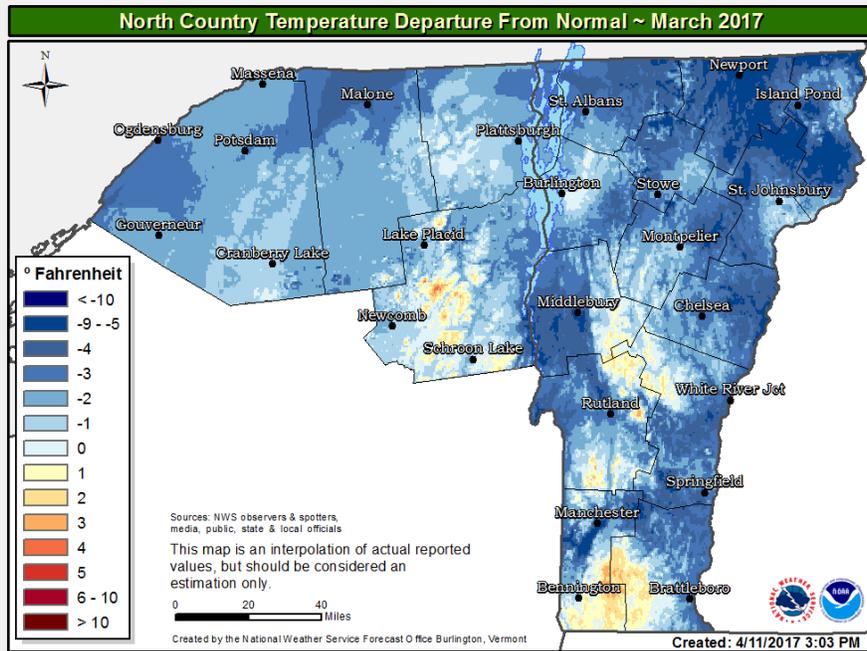


Figure 4. Temperature departures for March 2017 in the Burlington, VT HSA. Most areas saw departures range from 2 to 8 degrees below normal. This was a stark difference from the prior three months of winter when overall positive departures were observed.

March 2017

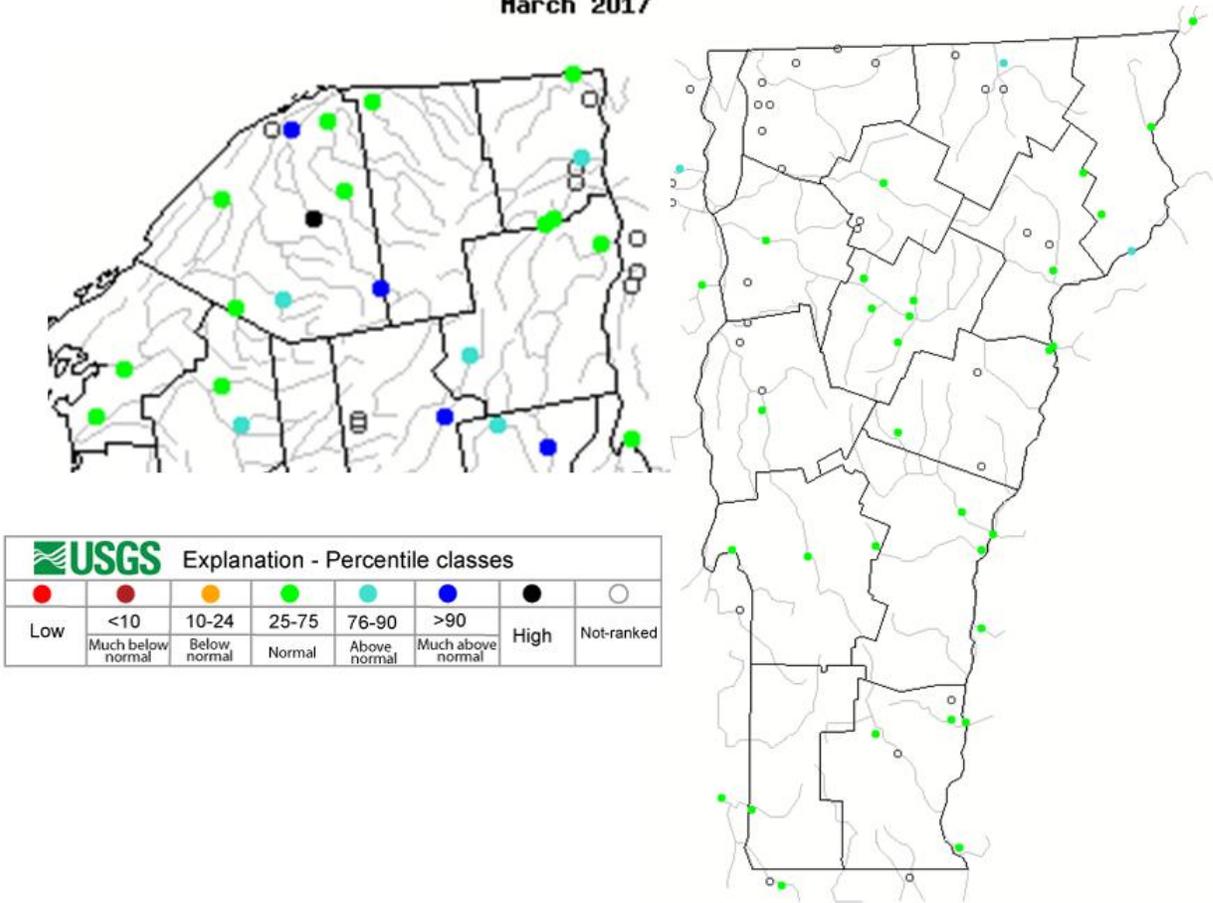
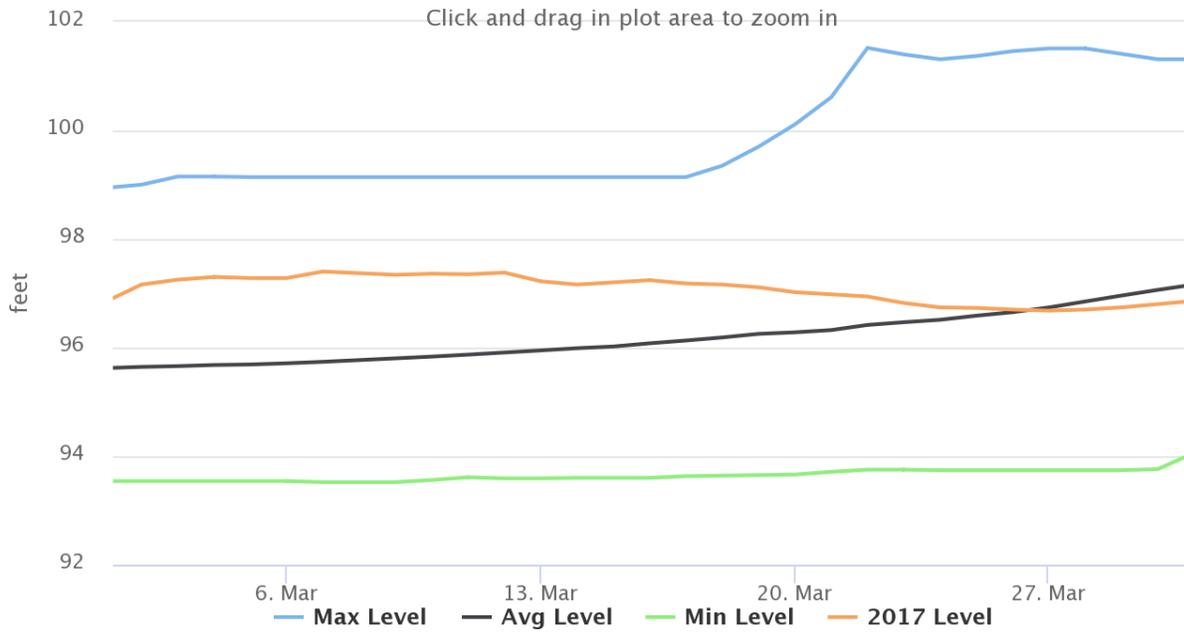


Figure 5, Mean monthly streamflows for March 2017

Lake Champlain Extremes and 2017 Level



Highcharts.com

Figure 6