

MONTHLY REPORT OF HYDROLOGIC CONDITIONS

REPORT FOR:
MONTH YEAR
February 2014

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
February 13, 2014

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.

January was an unusual month for the NWS Burlington, VT HSA, characterized by large fluctuations in temperatures, and a significant 5 day thaw during which moderate rainfall and significant ice breakup were observed across many central and northern watersheds. Despite the large swings in temperature, the mean monthly temperature averaged only slightly below normal and by months end a return to colder weather allowed ice thickness to resume the slow rebuilding process. Precipitation in general was evenly distributed across the state with observed month-end totals averaging from 1 to 2.5 inches which was slightly below normal.

The most significant period from a hydrological perspective occurred from the 11th to the 15th in which observed temperatures ranged from 15 to as much as 25 degrees above normal. During this stretch significant thawing conditions were observed along with a moderate rainfall event. This combination was enough to cause partial breakup and significant movement of ice on many streams and rivers, leading to areas of ice jam flooding. However, most of the flooding was minor and generally focused along river stretches historically prone to jams or poor drainage issues. Among these included the Winooski River from Williston to Richmond, VT, the Lamoille River in Hardwick, VT, the Ausable River at Ausable Forks, NY, and the Passumpsic River at Lyndonville, VT. A mixture of flood advisories and warnings were issued accordingly, primarily from late on the 11th to early on the 13th when observed impacts were greatest.

**Monthly Precipitation Totals and Departures
For Selected Automated Observing Sites
January 2014**

Location	ID	Total	Normal	Departure	% of Normal
Burlington, VT	KBTV	2.45	2.06	+0.39	119
Montpelier, VT	KMPV	1.85	2.45	-0.65	76
Springfield, VT	KVSF	2.29	2.92	-0.63	78
St. Johnsbury, VT	K1V4	1.94	2.51	-0.57	77
Morrisville, VT	KMVL	2.41	2.54	-0.13	96
Rutland, VT	KRUT	2.03	n/a	n/a	n/a
Plattburgh, NY	KPBG	0.64	n/a	n/a	n/a
Saranac Lake, NY	KSLK	1.55	2.13	-0.58	73
Massena, NY	KMSS	1.46	2.18	-0.72	70

**Significant River Crests
January 2014
WFO Burlington VT****

Location	ID	Date	Time (UTC)	Crest Stage (ft)	Flood Stage (ft)
East Br. Ausable R. near Ausable Forks, NY	ASFN6	01/12/14	0345	6.22 (ice)	7.0
Missisquoi R. at E. Berkshire, VT	EKBV1	01/13/14	0545	11.24 (ice)	13.0
Missisquoi R. at North Troy, VT	NTYV1	01/12/14	1815	8.15 (ice)	9.0
Barton R. at Coventry, VT	COVV1	01/13/14	0345	7.82 (ice)	8.0
Winooski R. at Essex Jct., VT	ESSV1	01/12/14	1745	10.97 (ice)	12.0
Otter Creek at Ctr. Rutland, VT	CENV1	01/12/14	2300	9.04 (ice)	8.0

** River levels affected by ice

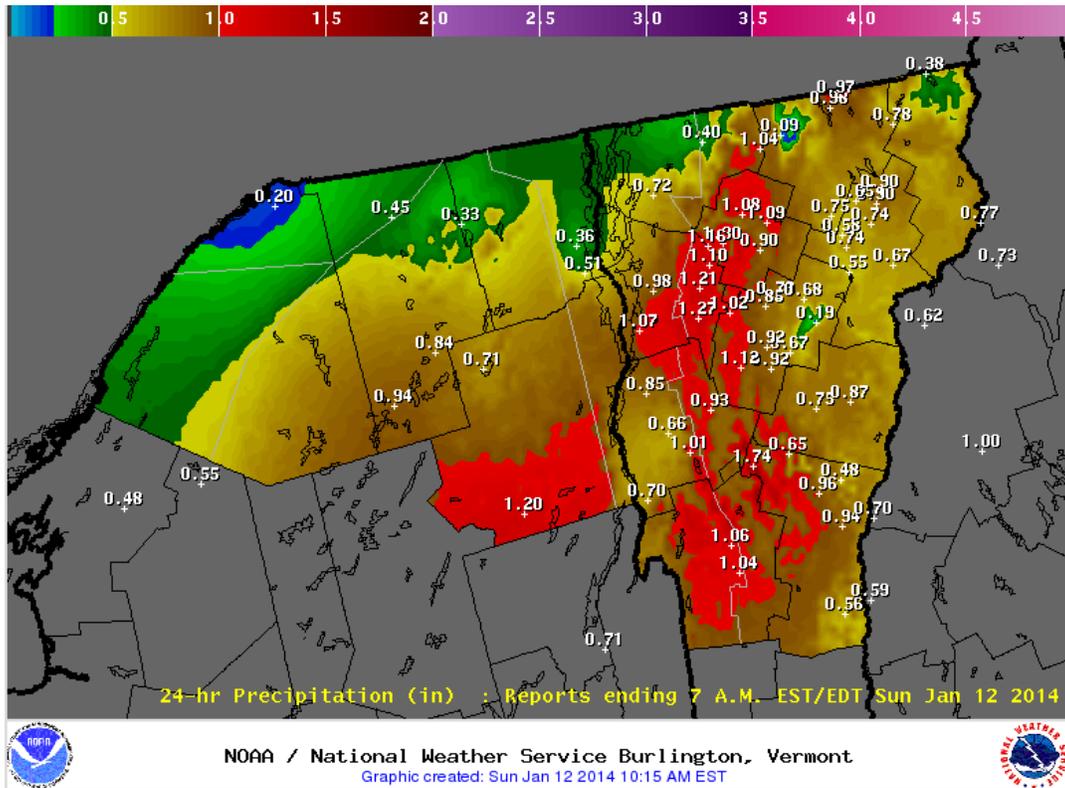


Figure 1. 24 hour liquid precipitation totals across the NWS BTV HSA ending 7 A.M. EDT January 12, 2014. The precipitation fell mostly as rainfall and was one part of a multi-day thawing event which saw significant ice breakup and localized ice jam flooding.



Figure 2. Ice jam at the East Georgia, VT gage along the Lamoille River on January 13, 2014. This site is a favored location for ice jam formation as the river slows entering Lake Arrowhead and is obstructed by a local bridge. While no flooding is typically seen at this location, the jam is similar to many that formed during the ice breakup event of 11-13 January 2014 during which extended thawing conditions were observed across the NWS Burlington HSA.