NWS Form E-5 (04-2006) (PRES. BY NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) Burlington VT
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH FEB YEAR 2016
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		SIGNATURE /s/ Kimberly G. McMahon, GF WFO BTV DATE March 15, 2016

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.

February was a quiet month with most of the month being dry and only three widespread precipitation events: February 3, 15-16 and 23-25. Figure 1 shows the accumulated precipitation at Burlington, VT that demonstrates the stretches of dry weather and a few days of February that had significant precipitation. The February 3 and 15-16 events had temperatures cold enough for precipitation to fall as snow or a wintry mix with liquid equivalent precipitation amounts that ranged from a quarter inch to almost two inches, the region was still running below normal for the year.

Temperatures warmed toward the end of the month, melting most of the snow cover in all but the higher terrain. On February 23-25, a large closed low pressure system (figure 2) brought plentiful moisture and above normal temperatures to the North Country, which resulted in mostly rainfall, as opposed to snow. The NWS Burlington HSA received generally 1.5 to 3 inches of rainfall (figure 3), with the heaviest rainfall occurring over northern Vermont. Little snow cover was available to absorb any rainfall and the ground was still frozen with the frost depth at Burlington of 17 inches with 2 to 3 inches thawed at the surface. The lack of absorption available in the frozen ground converted much of the rainfall to runoff, with some snowmelt in Northern areas increasing river levels more than 6 feet and even up to 15 foot rises (figure 4). These river rises caused river ice to break up and develop ice jam flooding across the North Country.

Ice jams developed on the Lamoille River in Hardwick, flooding Route 15 and a local car dealer, and another jam on the Lamoille flooded local roads between Johnson and Cambridge. Ice jams on the Missisquoi flooded portions of Rte 105, and a jam on the Winooski sent the Winooski at Montpelier briefly to moderate flood stage before moving downstream to cause flooding in Middlesex. The Passumpsic River flooded Lyndonville and St. Johnsbury as ice moved out, and an ice jam on the Great

Chazy at Perry Mills caused flood concerns for nearby residents. Seven River Flood Warnings were issued during this event along with four Areal Flood Warnings.

Although the month of February did not see much activity for most of the month, the month closed out with a significant rainfall event with monthly precipitation amounts of 2.5 to 6 inches (figure 5). This was one to four inches above normal for the month (figure 6) across the North Country, resulting in average streamflow above average (figure 7).

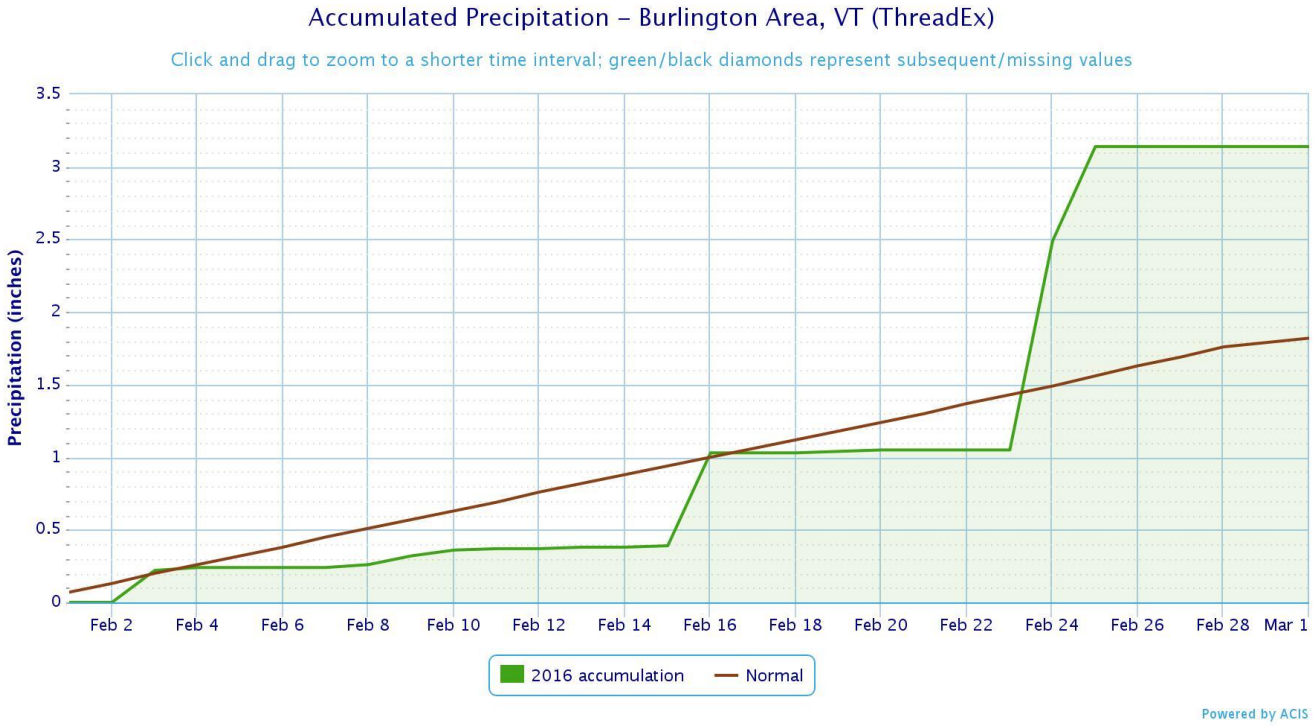

Figure 1. Accumulated Precipitation at Burlington, VT for February 2016.

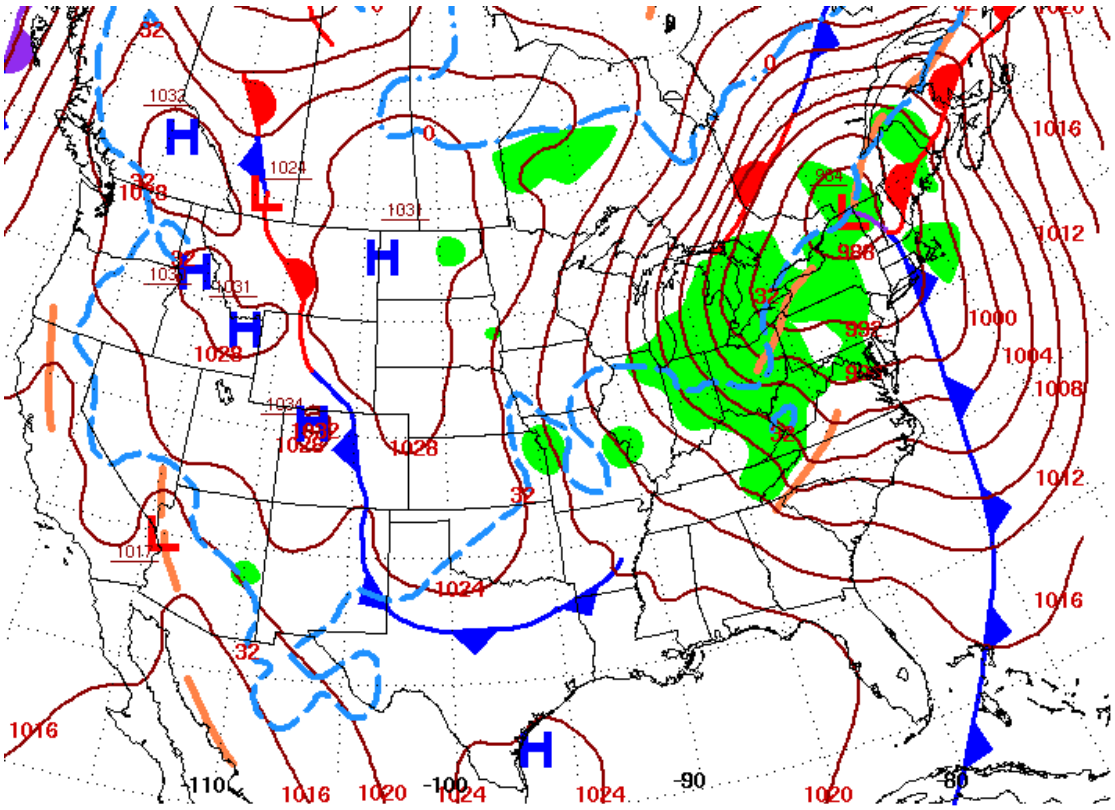

Figure 2. Surface Weather Map for February 25, 2016

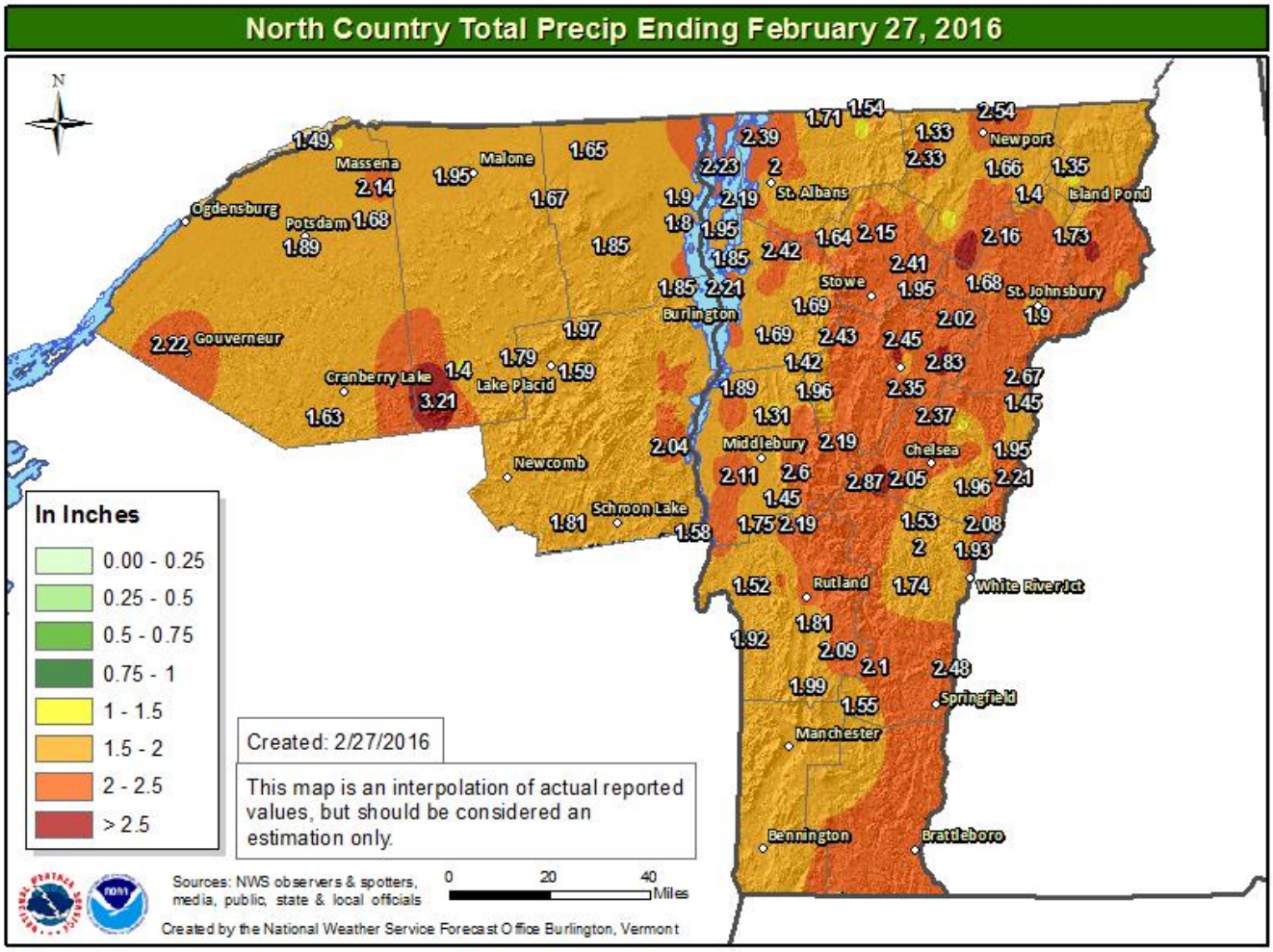

Figure 3. Storm Total Precipitation from February 24-26, 2016.

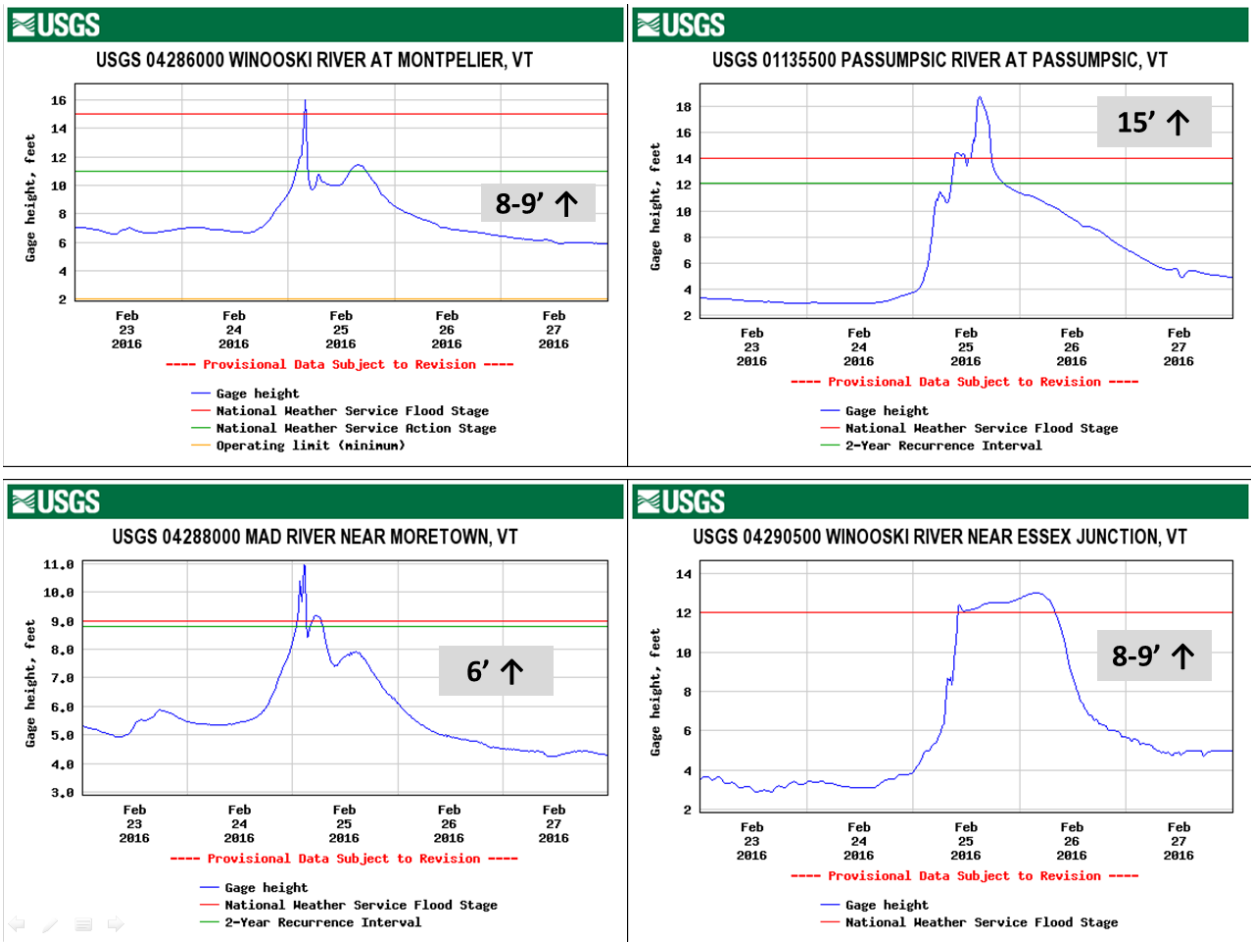

Figure 4. River level rises across Northern Vermont February 24-26, 2016.

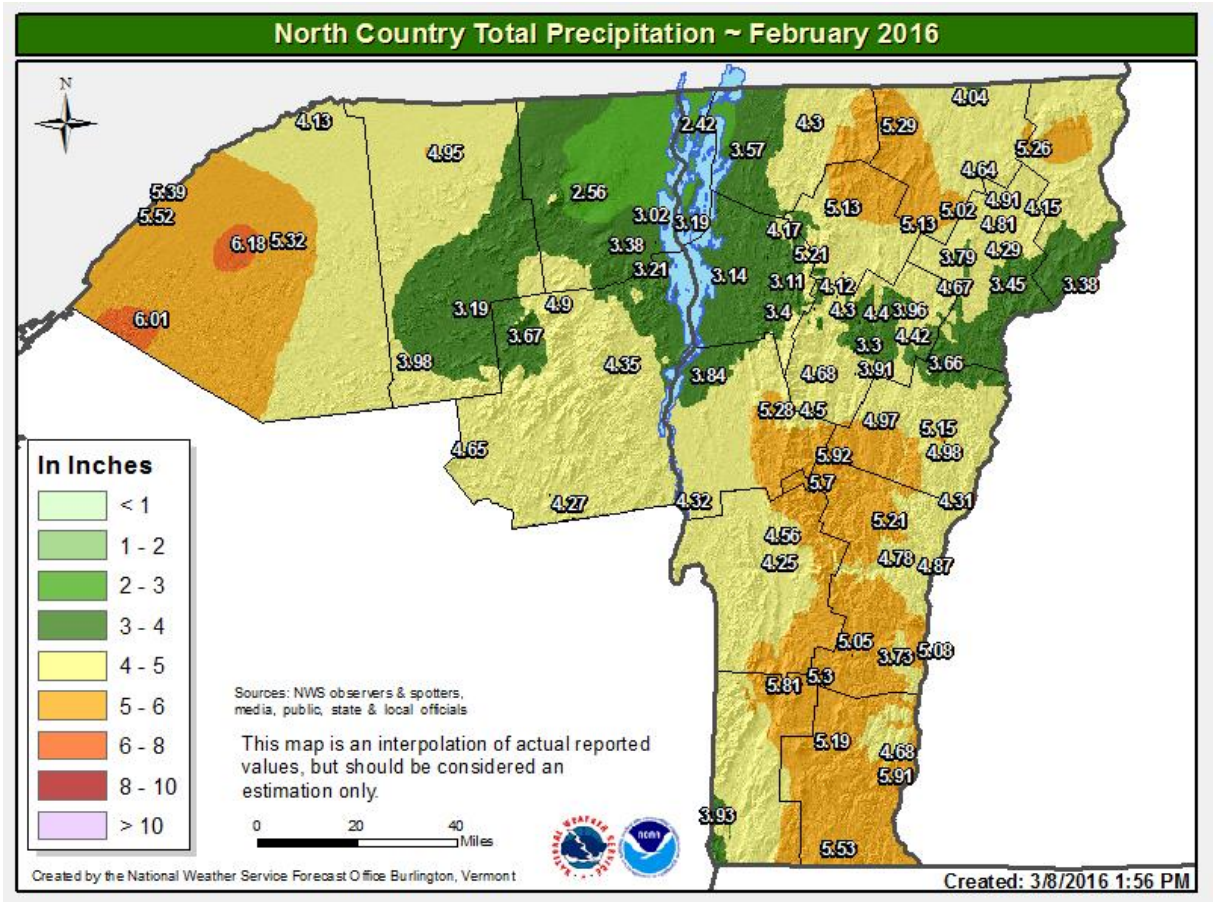

Figure 5. Monthly Total Precipitation for February 2016.

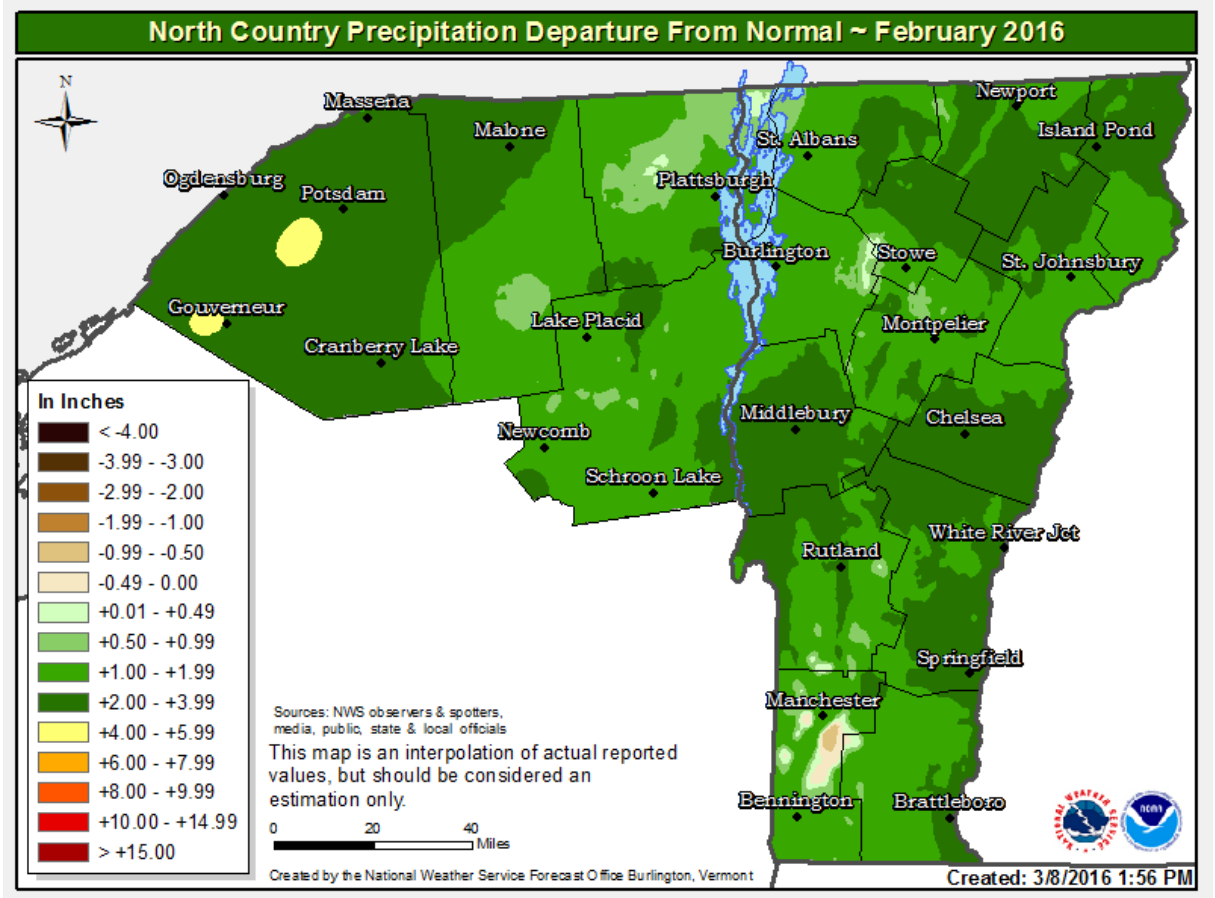

Figure 6. Monthly Precipitation for February 2016 was generally 1 to 4 inches above normal.

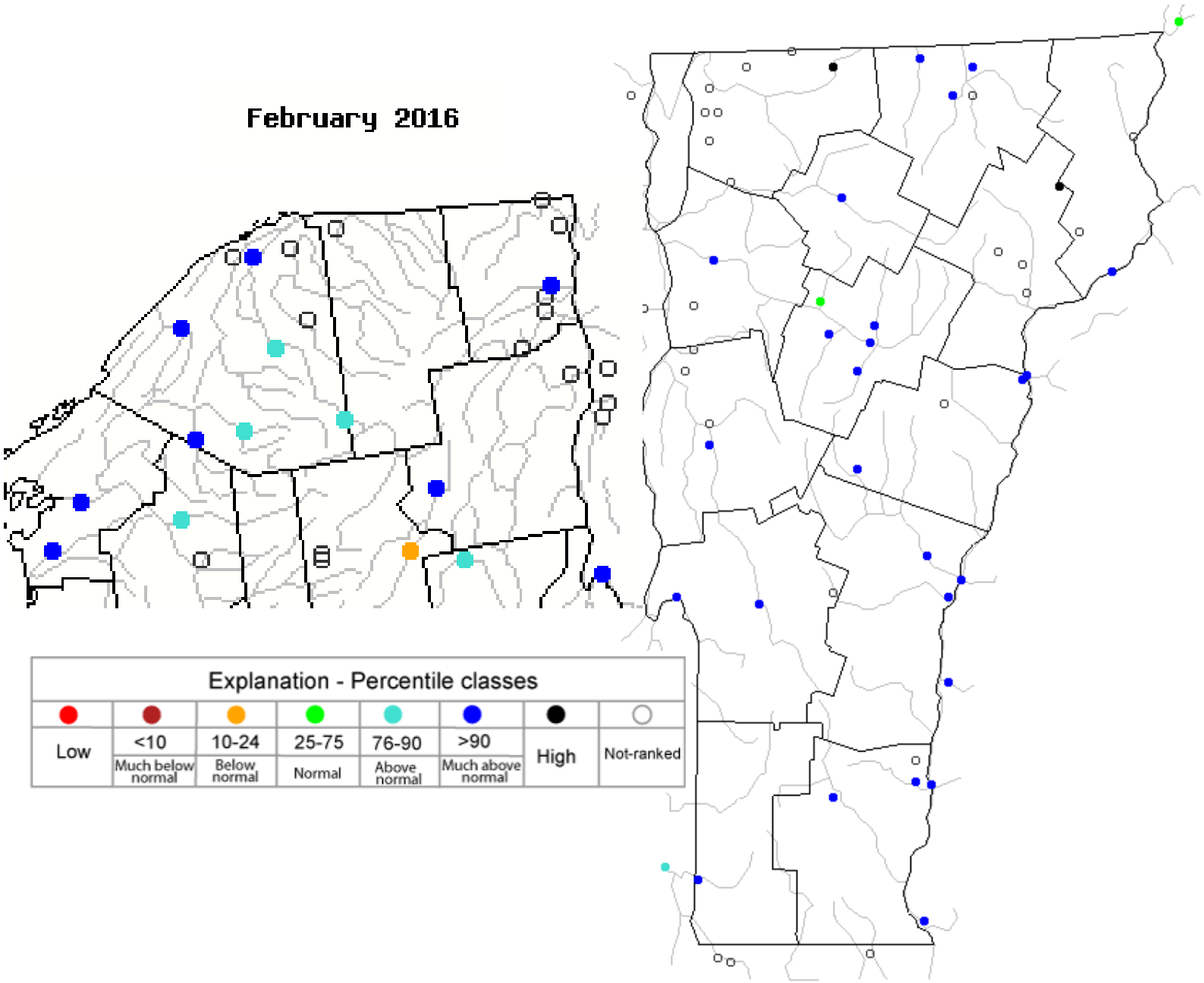

Figure 7. Average Streamflow for February show most areas above normal.

Significant River Crests

FLD STG ABOVE FLOOD - BELOW FLOOD CREST TIME

BASIN: CHAMPLAIN

RIVER: Ausable River

Ausable Forks, NY (ASFN6)
7.0 17 Feb 07:04 - 17 Feb 07:26 9.54 17 Feb 07:15
7.0 25 Feb 14:52 - 25 Feb 17:05 7.07 25 Feb 15:30

Ausable R Nr Au, NY (AUSN6)
7.0 17 Feb 07:27 - 17 Feb 07:34 7.48 17 Feb 07:30
7.0 25 Feb 18:15 - 25 Feb 18:37 7.07 25 Feb 18:30

RIVER: Otter Creek

Center Rutland, VT (CENV1)
8.0 25 Feb 19:27 - 26 Feb 21:48 9.32 26 Feb 06:15

RIVER: Great Chazy River

Perry Mills, NY (CZRN6)
9.0 25 Feb 08:25 - 26 Feb 21:23 11.03 25 Feb 22:15

RIVER: Winooski River

Essex Junction, VT (ESSV1)
12.0 25 Feb 15:07 - 26 Feb 12:56 13.00 26 Feb 08:30

Waterbury, VT (WATV1)
419.0 25 Feb 21:05 - 26 Feb 02:54 420.41 25 Feb 22:30

Montpelier, VT (MONV1)
15.0 25 Feb 08:35 - 25 Feb 08:55 16.01 25 Feb 08:45

RIVER: Lamoille River

Jeffersonville, VT (JVLV1)
450.0 25 Feb 23:45 - 26 Feb 12:45 450.39 26 Feb 07:30

Johnson, VT (JONV1)
13.0 NA 12.92 26 Feb 03:45, 04:30-04:45

RIVER: Mad River

Moretown, VT (MOOV1)
9.0 25 Feb 06:07 - 25 Feb 11:23 10.96 25 Feb 07:30

RIVER: Dog River

Northfield Falls, VT (NFFV1)
8.0 NA 6.01 25 Feb 10:00-10:15

RIVER: Missisquoi River

North Troy, VT (NTYV1)
9.0 25 Feb 19:54 - 26 Feb 02:09 10.13 25 Feb 21:00

East Berkshire, VT (EBKV1)
13.0 NA 12.41 25 Feb 06:15

BASIN: MEMPHREMAGOG

RIVER: Barton River

Coventry, VT (COVV1)
8.0 25 Feb 16:53 - 27 Feb 23:45 10.12 26 Feb 01:15

BASIN: CONNECTICUT

RIVER: Passumpsic River

Passumpsic, VT (PASV1)
14.0 25 Feb 14:23 - 25 Feb 16:48 14.45 25 Feb 15:00
14.0 25 Feb 17:30 - 25 Feb 22:43 18.76 25 Feb 20:00