

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
		REPORT FOR: MONTH YEAR JUNE 2015
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		SIGNATURE /s/ Kimberly G. McMahon, GF WFO BTW /s/ Greg Hanson, SH WFO BTW
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		DATE July 13, 2015

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.

As yearly accumulated precipitation amounts began to recover the end of May, the wet trend continued throughout June. Overall active period with 500mb monthly average heights show zonal flow across the northern latitudes (Fig 1), which allowed low pressure systems/troughs to affect the WFO Burlington HSA frequently, resulting in only 6 completely dry days across the area. A nearly stationary front bisected the forecast area from west to east, providing a focus for rainfall for much of the month. Three separate events produce widespread rainfall with reports over two inches.

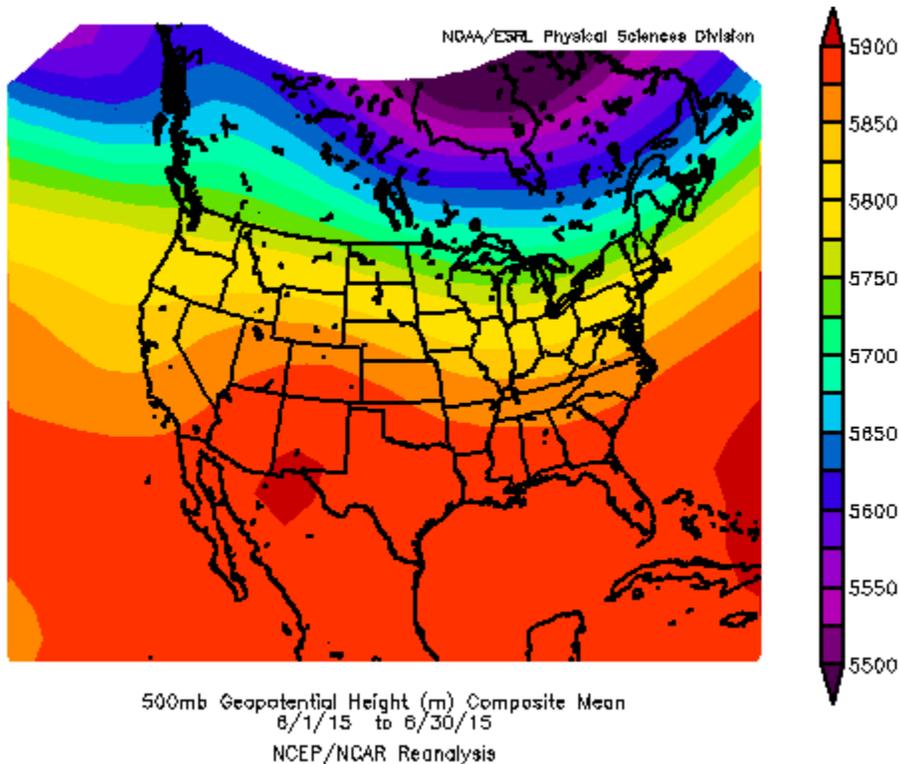


Figure 1

The month began with flood producing rainfall, as warm air overrunning a stationary front to the south produced one to two inches of rain on the first. A flood watch was posted for the region, and a River

Flood Warning was issued for the East Branch Ausable River at Ausable Forks NY. The gage rose above flood stage, and minor flooding was reported in Keene along Hulls Falls Road. An Areal Flood Warning was issued for southern Washington County VT in the Dog and Mad River basins, however no flooding was observed.

The most significant flooding of June occurred on the 9th into the 10th, when heavy rain developed with several waves moving along a stalled front across the Adirondacks and central Vermont (Fig 2). Early morning rainfall of one to two inches set the stage, and an additional inch or more later in the day on the 9th added to the ongoing high flows. Terrain likely influenced rain production as low level flow lifted up the western slopes of the Green Mountains, and an Areal Flood Warning was issued for the afternoon of the 9th for west central Vermont including portions of Chittenden, Lamoille, Washington, and Addison Counties. Flash flooding in the afternoon on the 9th in Richmond and Bolton Vermont washed out Dugway, Wes White Hill, Bolton Notch, Cochran, and Mountain View Roads (Figs 3, 4, 5). Flood waters were also over Route 2 in Jonesville VT, and damage was reported in Weybridge and Starksboro. Preliminary damage estimates tallied nearly \$1.3 Million to public infrastructure in Chittenden County Vermont. Local roads were washed out and closed near Highgate Falls VT early on the 10th.

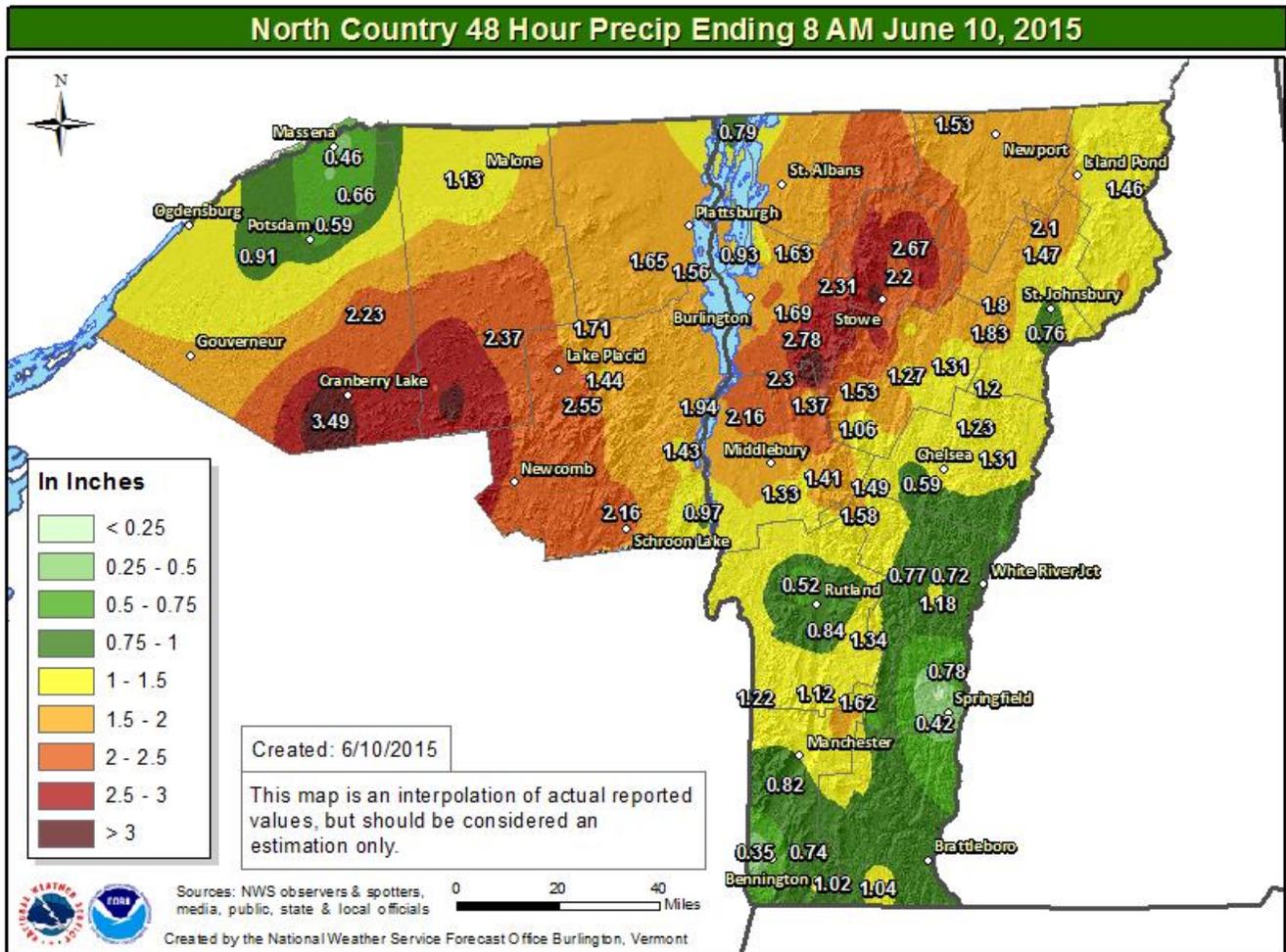


Figure 2

Rainfall from the 9th and 10th event also caused the Barton River near Coventry Vermont to exceed flood stage of 8 feet for the first of three times during June (Fig 6), and a River Flood Warning was issued.

River Flood Warnings were also issued late on the 9th and early on the 10th for the East Branch of the Ausable River at Ausable Forks NY (ASFN6) and Winooski at Essex Junction VT (ESSV1), however no flooding resulted.



Figure 3, Parked car washed down Dugway Rd.



Figure 4, Washed out section of Dugway Rd



Figure 5, Cochran Road washout.

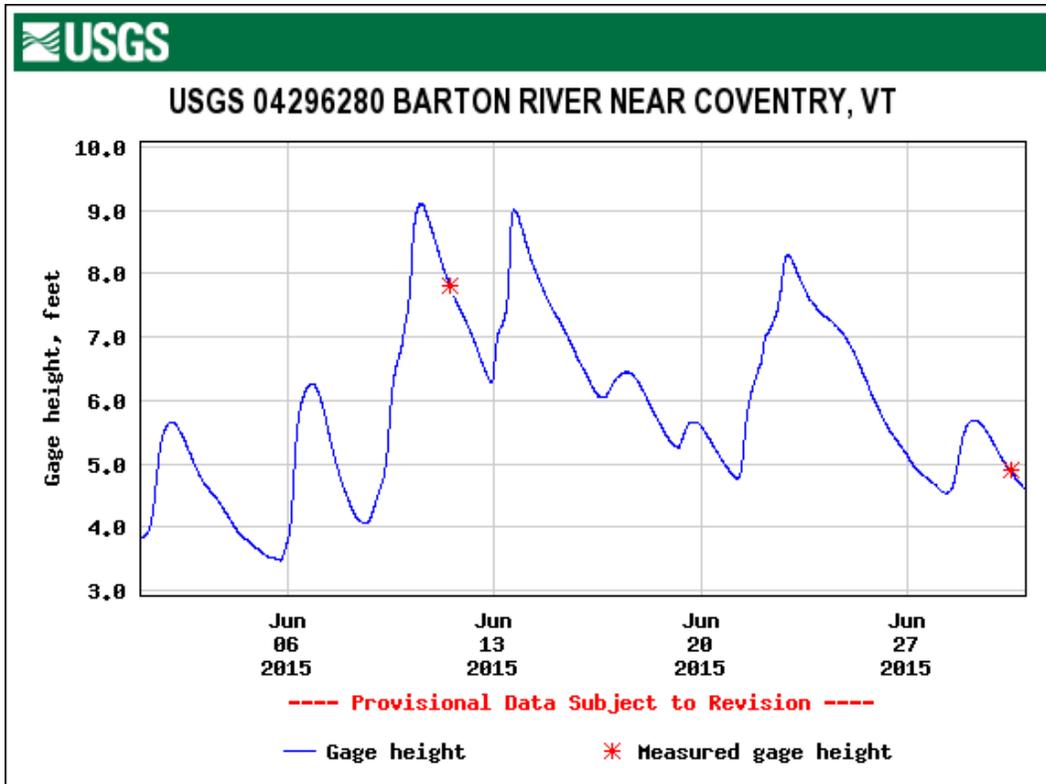


Figure 6

Additional rainfall of 1 ½ inches on June 12 (Fig 7) along a stationary front added to the continuing runoff from the June 10 event, and minor flooding on slower response rivers was seen. The Barton River at Coventry Vermont rose above flood stage on the 13th, cresting near 9 feet, and a River Flood Warning was issued. The Browns River flooded Pettingill Road and approached Route 128 in Essex Vermont on the 13th, and Miller Run flooded Center Street in Lyndonville VT. An Areal Flood Warning was issued early in the morning of June 13 for areas mainly in the Lamoille Basin including portions of Lamoille, Chittenden, Orleans, and Caledonia Counties.

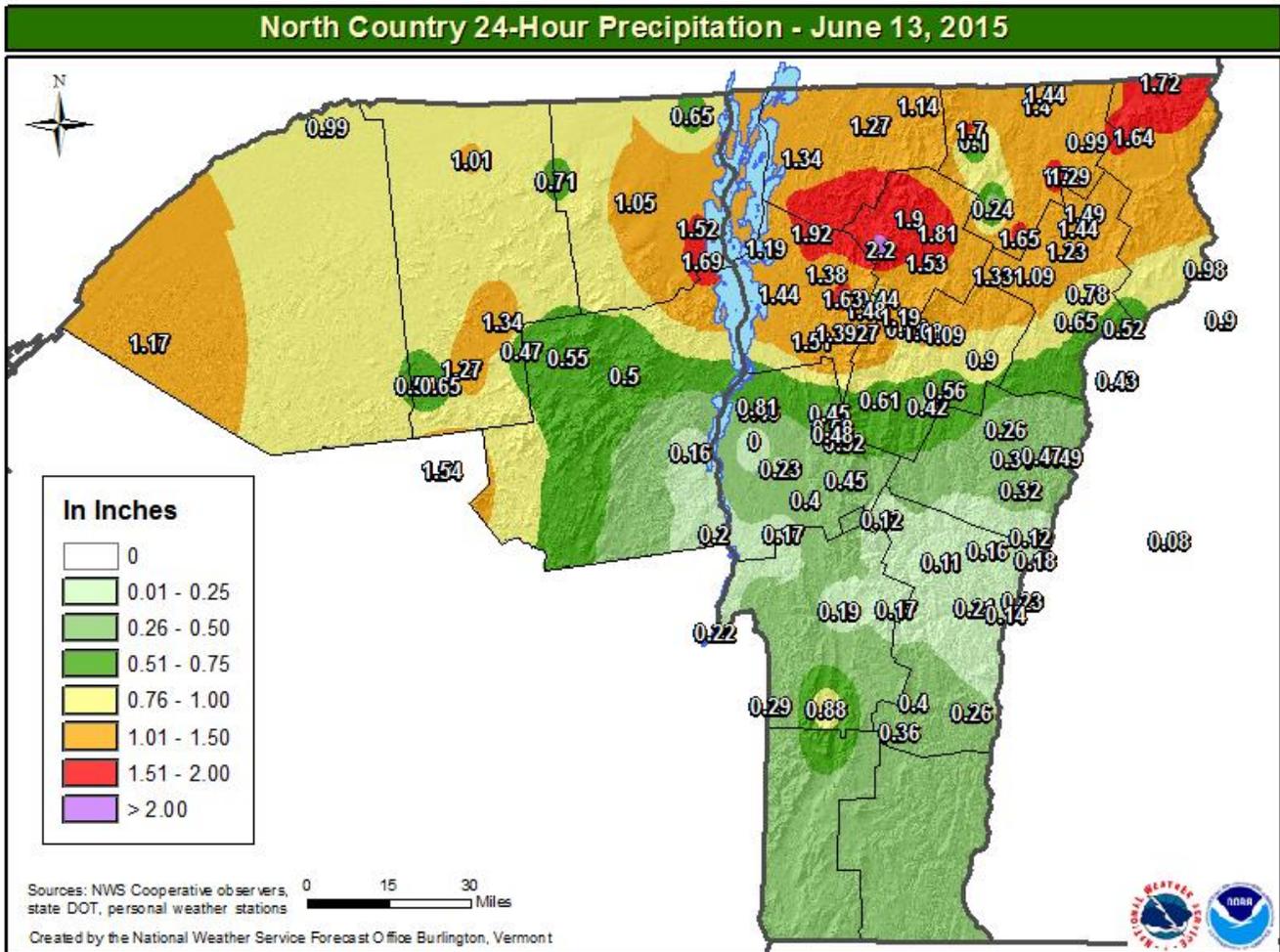


Figure 7

Additional rain fell in the third week of June, but no flooding occurred. One to two inches of rain fell over Saint Lawrence County NY, and an Areal Flood Warning was issued for the evening of June 21 for the threat of flooding along small streams.

Flooding rainfall returned on June 22 and 23, when a stationary front provided a focus for several waves of rain. One to three inches of rain from a thunderstorm caused localized flooding of streets and basements in Swanton Vermont early on the 10th. The Barton River at Coventry exceeded flood stage and a River Flood Warning was issued for the final time of June late on the 22nd into the 23rd, and a Flash Flood Warning was issued for southern St. Lawrence County in northern New York on the 23rd.

During the final week of June the month-long rainfall finally caught up with the slower responding river systems in the northern Adirondacks in New York. River flows along the Raquette and upper reaches of the Saranac were much above normal, causing town officials and utility companies to release more water than usual. Outflow from Lake Flower in Saranac Lake Village New York caused minor flooding of riverside buildings in the village and on Moose Pond Road downstream in Bloomingdale, and an Areal Flood Warning was issued on June 23 through mid-day June 25. Along the Raquette River levels were unusually high for early summer, with some nearby lowlands inundated by flows usually seen in the spring freshet.

The monthly rainfall total map shows the area where stalled fronts focused heavy rainfall, with some areas receiving a foot of rain during June. Those areas were six to eight inches above normal, and over 250% of normal (Figs 8, 9, 10, & 11).

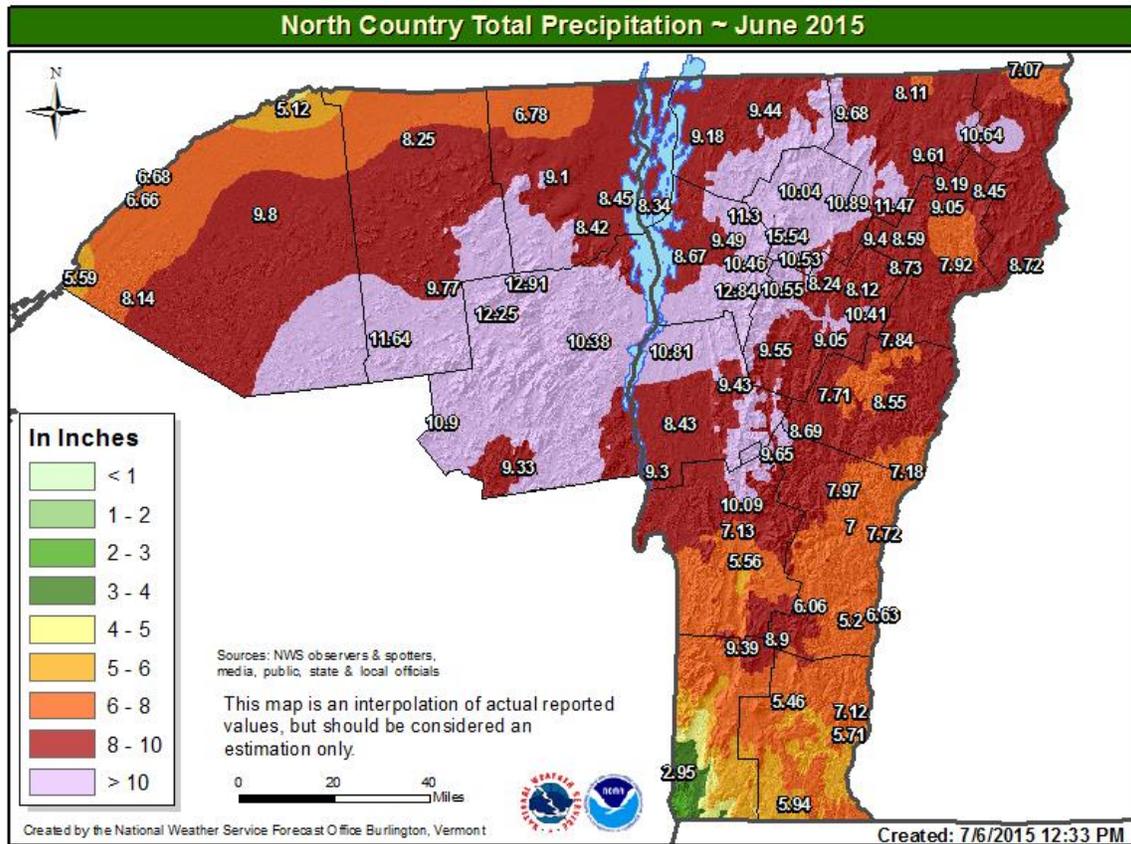


Figure 8

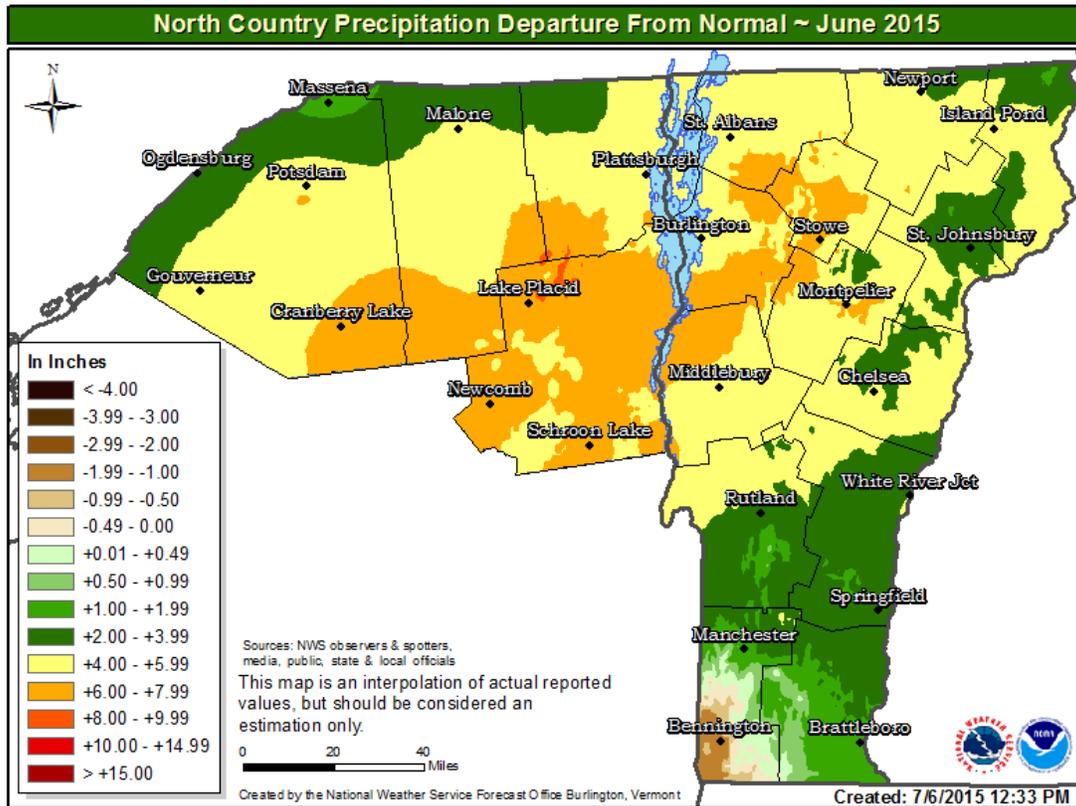


Figure 9

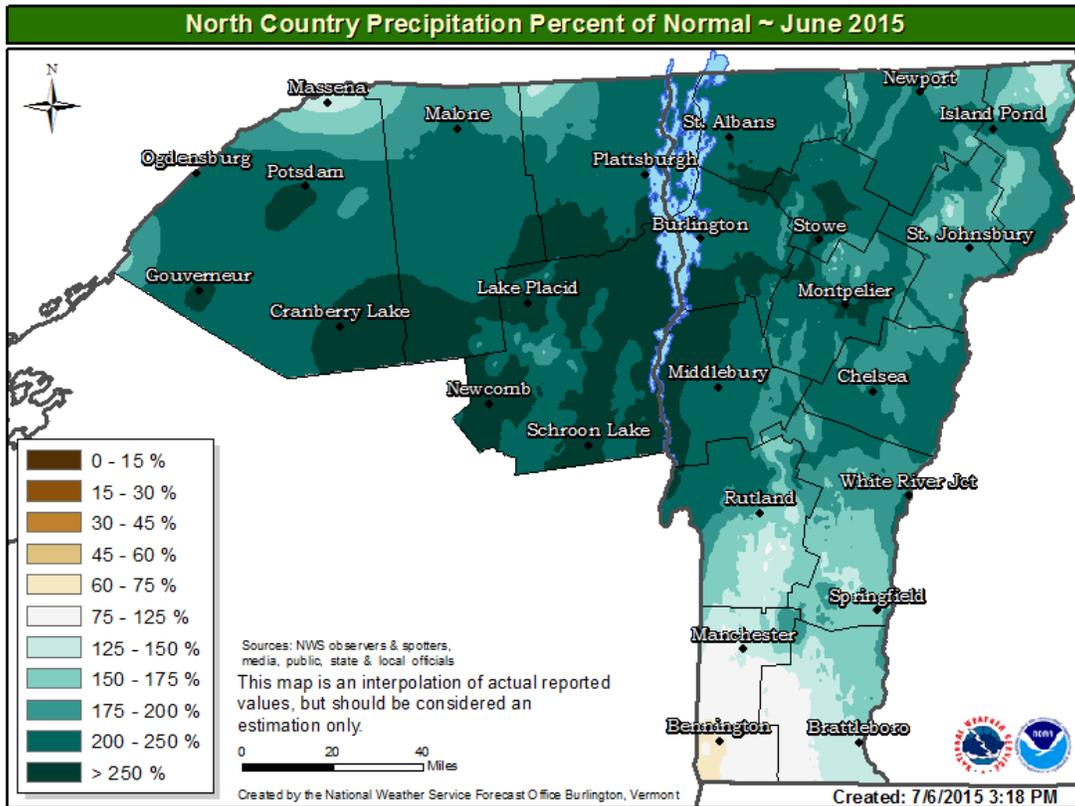


Figure 10

Accumulated Precipitation – Burlington Area, VT (ThreadEx)

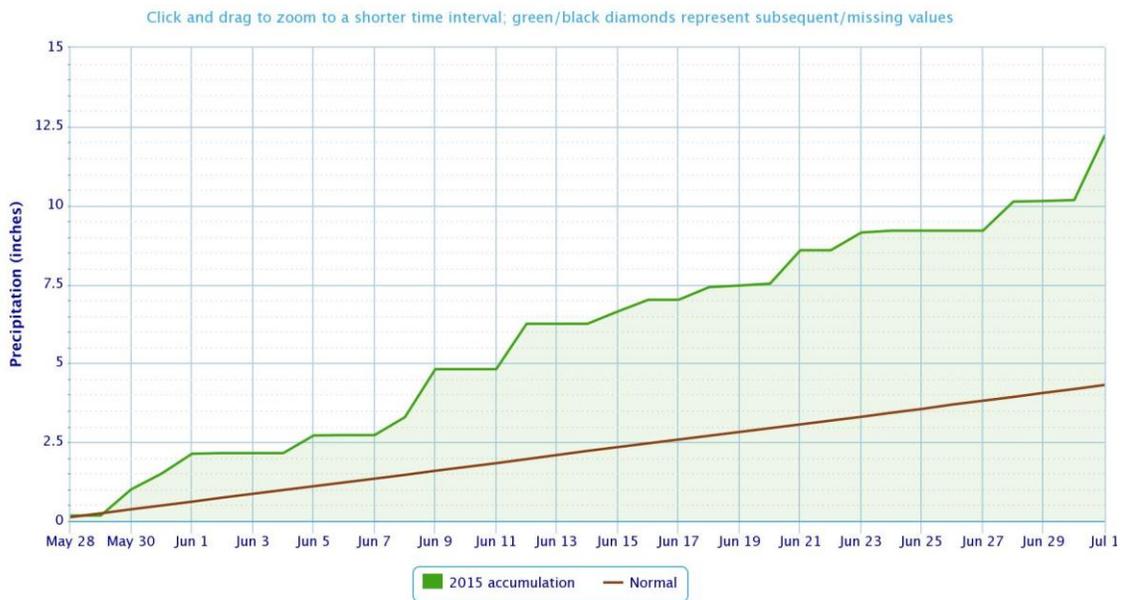


Figure 11

Powered by ACIS

Average river flows were well above normal, and some locations set record high flows for the month (Fig 12).

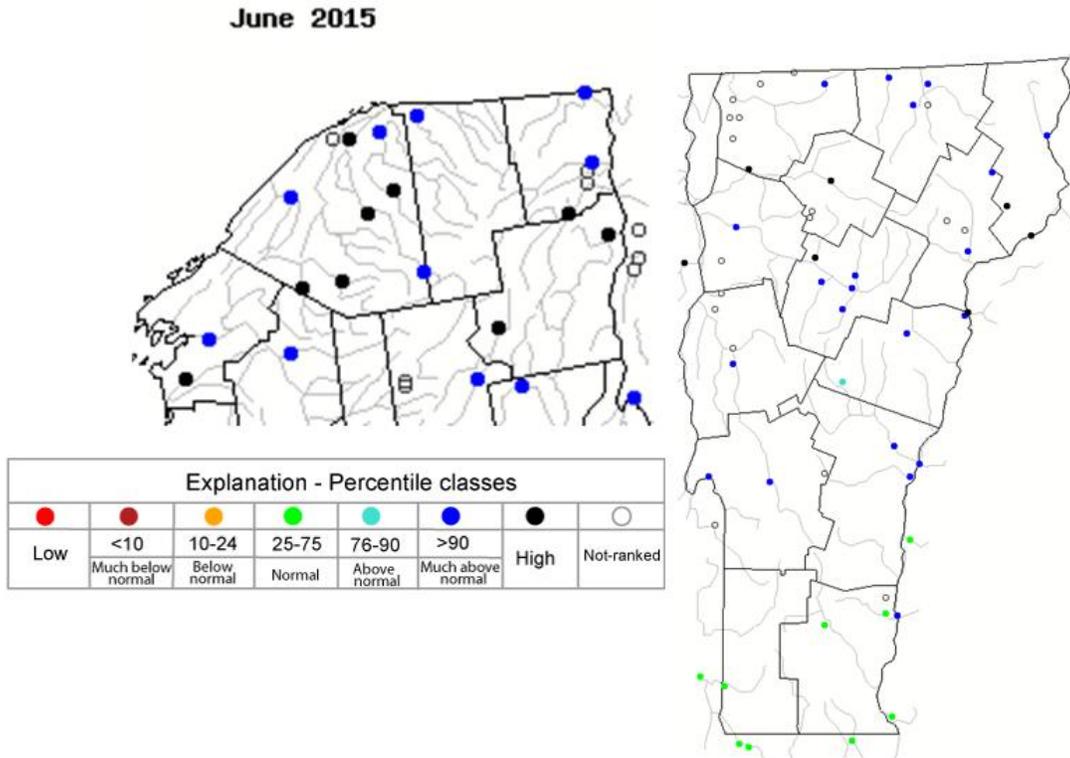
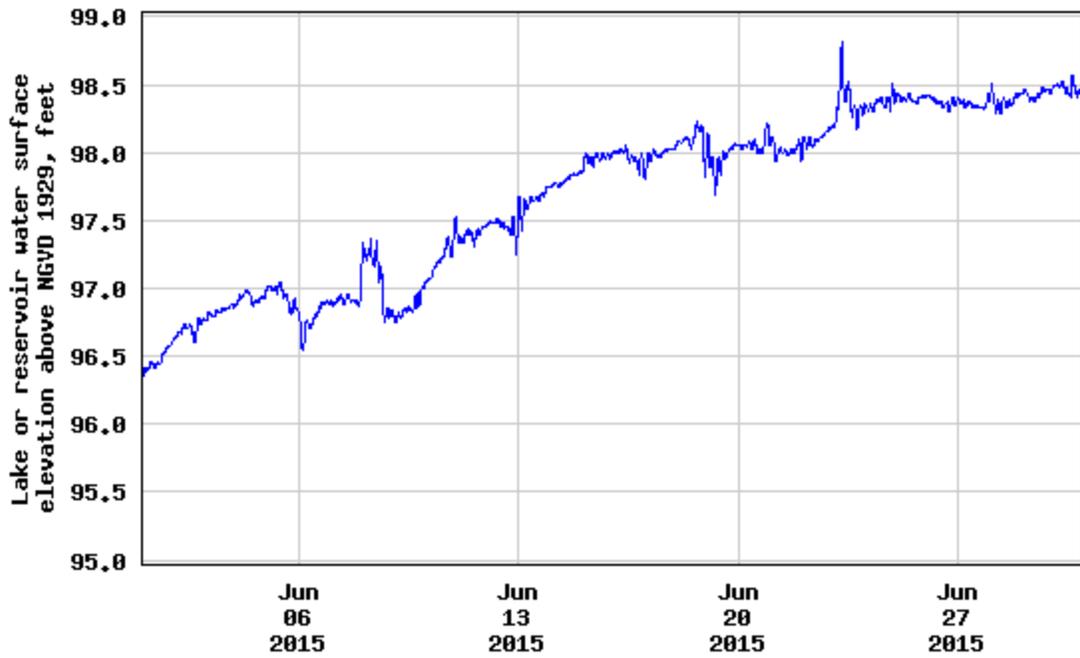


Figure 12, USGS mean flow for June 2015

Lake Champlain rose steadily throughout June in response to the rainfall. The lake level increased by roughly two feet, from near 96.5 feet on June 1 to near 98.5 feet on June 30 (Fig 13).



USGS 04295000 RICHELIEU R (L CHAMPLAIN) AT ROUSES POINT NY



----- Provisional Data Subject to Revision -----

**Significant River Crests
June 2015
WFO Burlington, VT**

River	Location	NWSLI	Flood Stage	Above Flood	Below Flood	Crest (ft)	Time (UTC)
East Branch Ausable River	Ausable Forks NY	ASFN6	7.0	01 Jun 16:53	01 Jun 18:30	7.03	01 Jun 18:00
Ausable River	Ausable Forks NY	AUSN6	7.0	01 Jun 19:00	01 Jun 21:15	7.03	01 Jun 19:45
Raquette River	Piercefield NY	PIEN6	12.5	NA	NA	9.42	26 Jun 12:30-18:45
Barton River	Coventry VT	COVV1	8.0	10 Jun 08:12	11 Jun 12:15	9.10	10 Jun 15:30
Barton River	Coventry VT	COVV1	8.0	13 Jun 15:58	14 Jun 14:15	9.01	13 Jun 19:45
Barton River	Coventry VT	COVV1	8.0	22 Jun 22:33	23 Jun 11:00	8.31	23 Jun 02:45
Missisquoi River	North Troy VT	NTYV1	9.0	NA	NA	8.7	13 Jun 16:45-17:30
Lamoille River	Johnson VT	JONV1	13	NA	NA	11.97	10 Jun 11:15
Lamoille River	Johnson VT	JONV1	13	NA	NA	12.33	13 Jun 13:45
Lamoille River	Jeffersonville VT	JVLV1	450	NA	NA	449.37	10 Jun 17:45
Lamoille River	Jeffersonville VT	JVLV1	450	NA	NA	449.90	13 Jun 21:45
Winooski River	Essex Junction VT	ESSV1	12.0	NA	NA	10.59	02 Jun 01:30-01:45
Winooski River	Essex Junction VT	ESSV1	12.0	NA	NA	11.81	10 Jun 11:45-12:45
Winooski River	Waterbury VT	WATV1	419.0	NA	NA	417.86	01 Jun 16:45
White River	West Hartford VT	WEHV1	18.0	NA	NA	9.84	23 Jun 21:45-22:00