

Burlington VT

**MONTHLY REPORT OF HYDROLOGIC CONDITIONS**

REPORT FOR:  
MONTH YEAR

July 2013

SIGNATURE

/s/ Jessica A. Neiles, Meteorologist WFO BTW

DATE

August 15, 2013

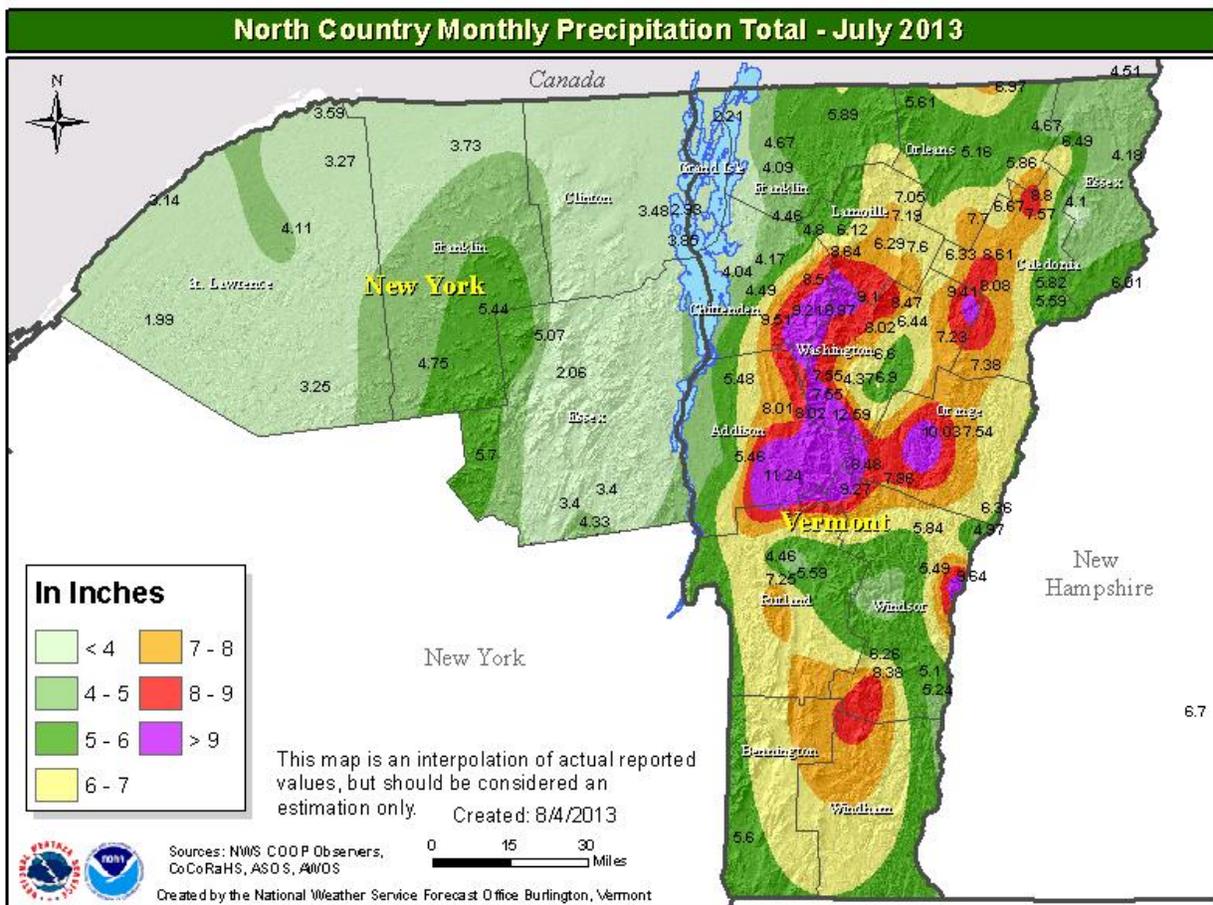
TO: Hydrologic Information Center, W/OS31  
NOAA's National Weather Service  
1325 East West Highway  
Silver Spring, MD 20910-3283

*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.

The month of July had several bouts of flash flooding with monthly rainfall totals exceeding ten inches in parts of Vermont.

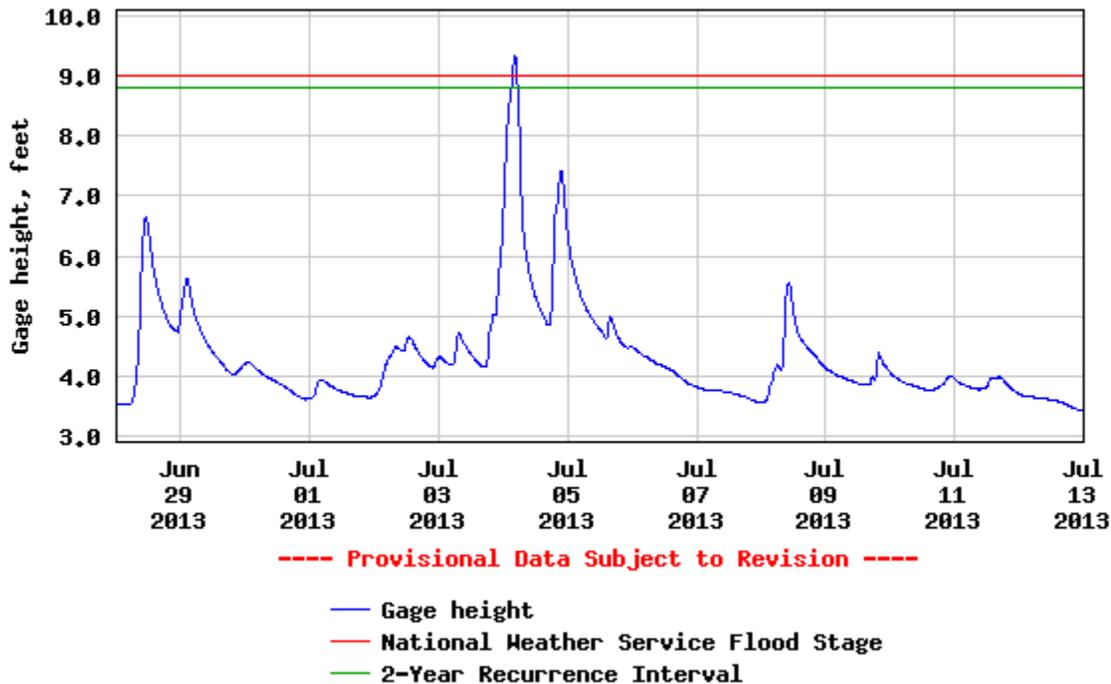


The first wet period which produced river flooding and flash flooding was July 2-5. Warm moist air over the northeast provided the ingredients for heavy rainfall along with saturated ground from record rainfall in May and June made the region vulnerable to flooding. Showers and thunderstorms during the afternoon of July 2<sup>nd</sup> produced heavy rainfall with repeatedly moved across southeast Vermont, isolated flash flooding resulted. Two to three inches of rain fell in two hours over eastern Windsor County, washing out local roads.

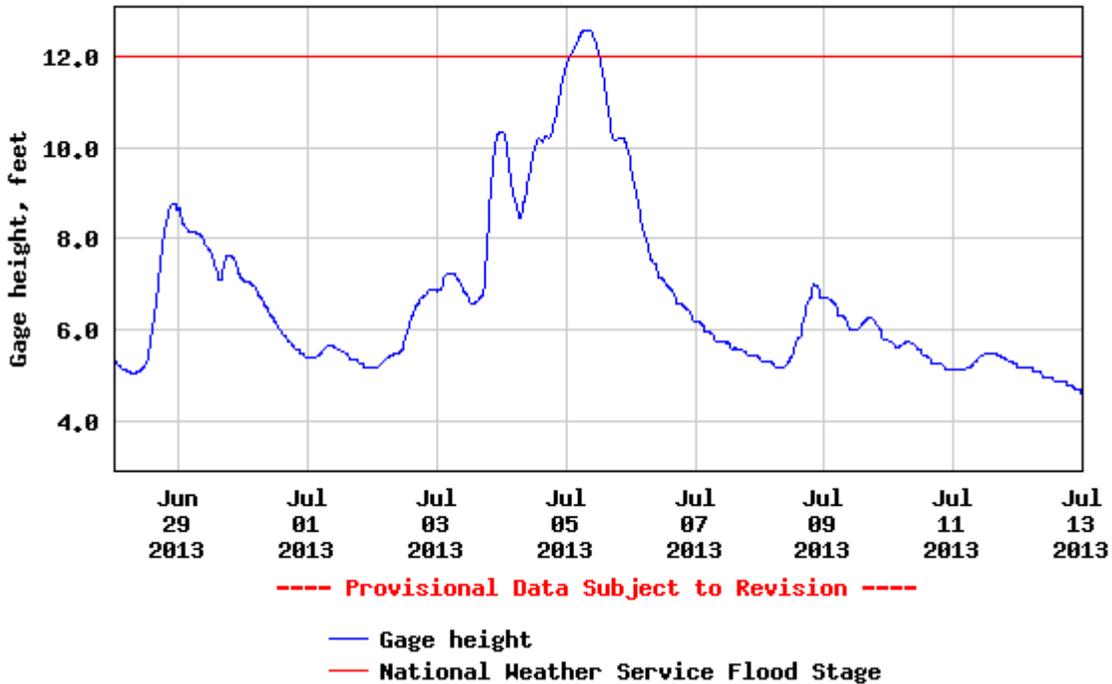
On July 3 showers and thunderstorms developed again in tropical moisture feeding along a stationary boundary. Some storms produced over two inches of rain in one to two hours, more flash flooding resulted. Areas that were particularly hard hit this day included northeast Essex County in NY, southern Chittenden County, Addison County, and Washington County. The town of Huntington in Chittenden County Vermont had many road washouts, and Route 100 in Granville Notch was washed out some areas. Routes 12 and 12A in Northfield and Roxbury flooded. Train travel was impacted in both New York and Vermont this day.

Heavy rain returned again on July 4 when a weak mid-atmospheric disturbance moving across a stationary surface boundary within an unstable, tropical air mass led to numerous showers and thunderstorms with torrential rains across the area. Clinton County, Washington County, Chittenden County, and Lamoille County were particularly hard hit this day. Huntington Vermont was hit for a second time in as many days with more road washouts, and in Stowe VT Route 108 was inundated. The flash flooding evolved into river flooding in southern Washington County with flooding on the Mad River near Moretown, VT. The flash flooding on July 4<sup>th</sup> in Chittenden County evolved into river flooding on the Winooski River at Essex Junction on July 5<sup>th</sup>. Both rivers met minor flood stages.

**USGS 04288000 MAD RIVER NEAR MORETOWN, VT**



USGS 04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT



The second wet period which produced more flash flooding Vermont was July 7<sup>th</sup> – 10<sup>th</sup>. Southerly deep layer flow in the atmosphere provided a feed for abundant tropical moisture from the Gulf of Mexico to the northeast. Showers and thunderstorms developed on a daily basis in the summertime heat and rainfall rates as high as two to three inches in an hour were observed. Flash flooding resulted in several areas where storms remained stationary or repeatedly moved across the same area. On July 7 an Isolated thunderstorm with very heavy rain produced minor flash flooding in Rutland County late in the evening. Excessive runoff from heavy thunderstorm rainfall caused more flash flooding during the overnight hours of July 8 into July 9 in Williamstown, where the Jail Branch flooded local homes and businesses, Routes 14 and 64, and other local roads. Later on July 9<sup>th</sup>, flash flooding inundated and washed debris onto state highways in Rutland and Orleans Counties. July 10<sup>th</sup> flash flooding include Addison County, Windsor County, Rutland County, and Orange County, flooding state highways and washing out portions of local roads.

After this second period of wet weather there has been no other significant flooding through the end of the month. The break in heavy rains has allowed the area to become less vulnerable to flash flooding after an extended dry period.