

# Flood Risk From Snow Melt

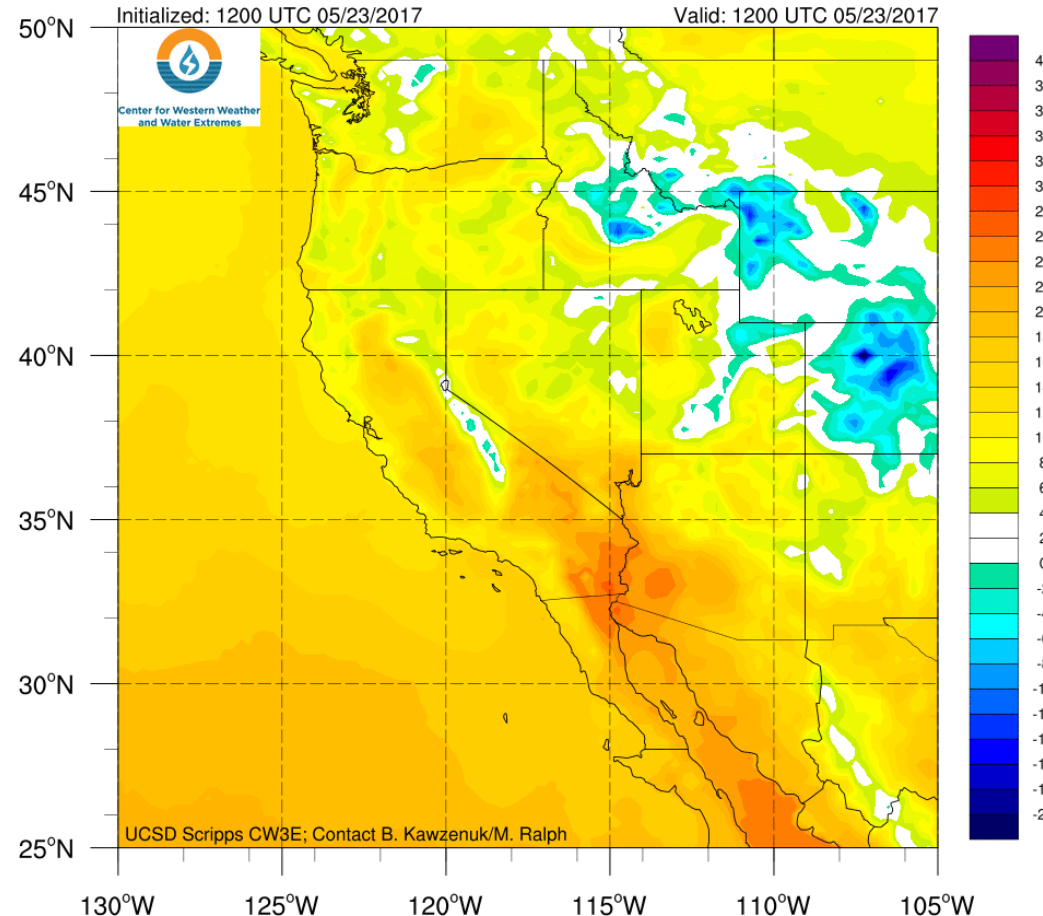
For California DWR's AR Program



## Anomalously Warm Temperatures Expected to Contribute to Melting Snowpack and Elevated Runoff

- High temperatures of 60–80°F (16–26°C) are forecast for the higher elevations of the Sierra Nevada Mountains over the next several days
- The higher than normal water year to date precipitation over much of the West Coast has created snow packs that are much greater than normal over most of the Sierra Nevada Mountains
- The combination of anomalously high temperatures and snow pack is forecast to lead to increased runoff and potential flooding
- The National Weather Service has issued flood watches and warnings for several locations in California

**NCEP GFS Surface Temperature (°C)**

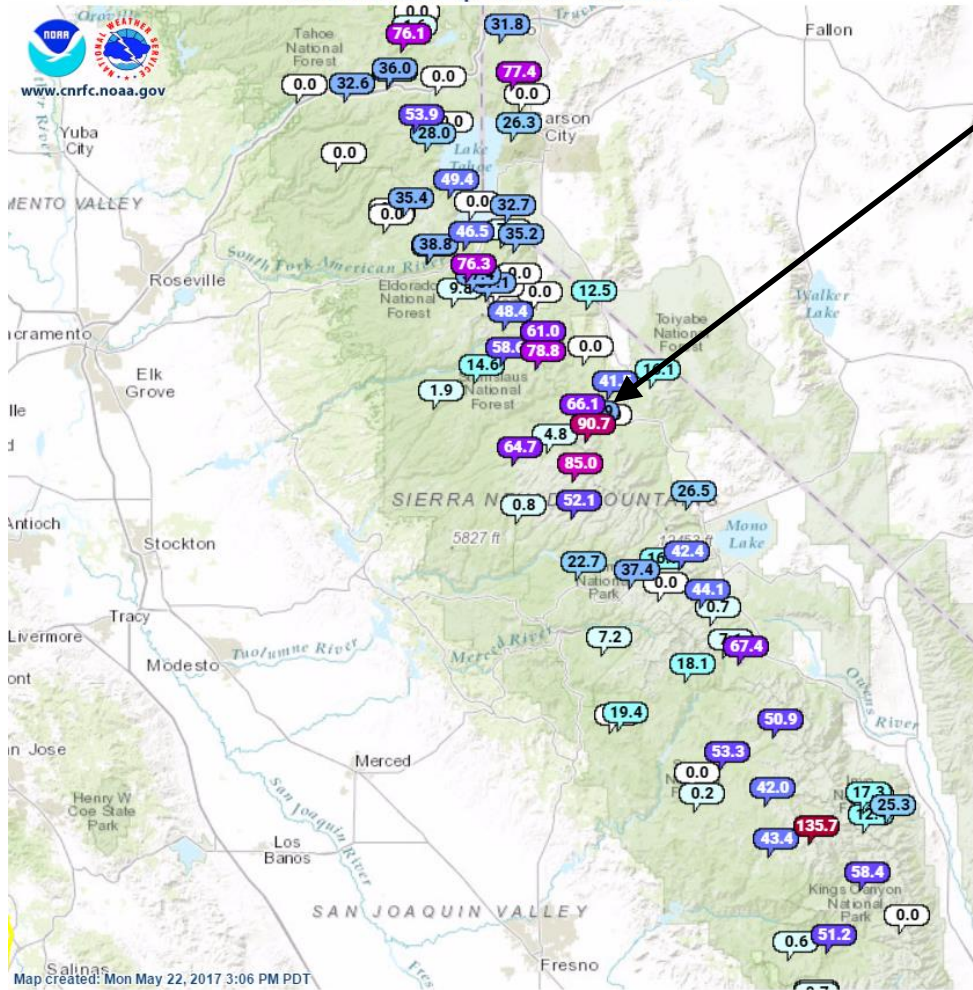


*Summary by C. Hecht and B. Kawzenuk  
12 PM PT Tuesday 23 May 2017*

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Snow Water Equivalent - Mon 5/22

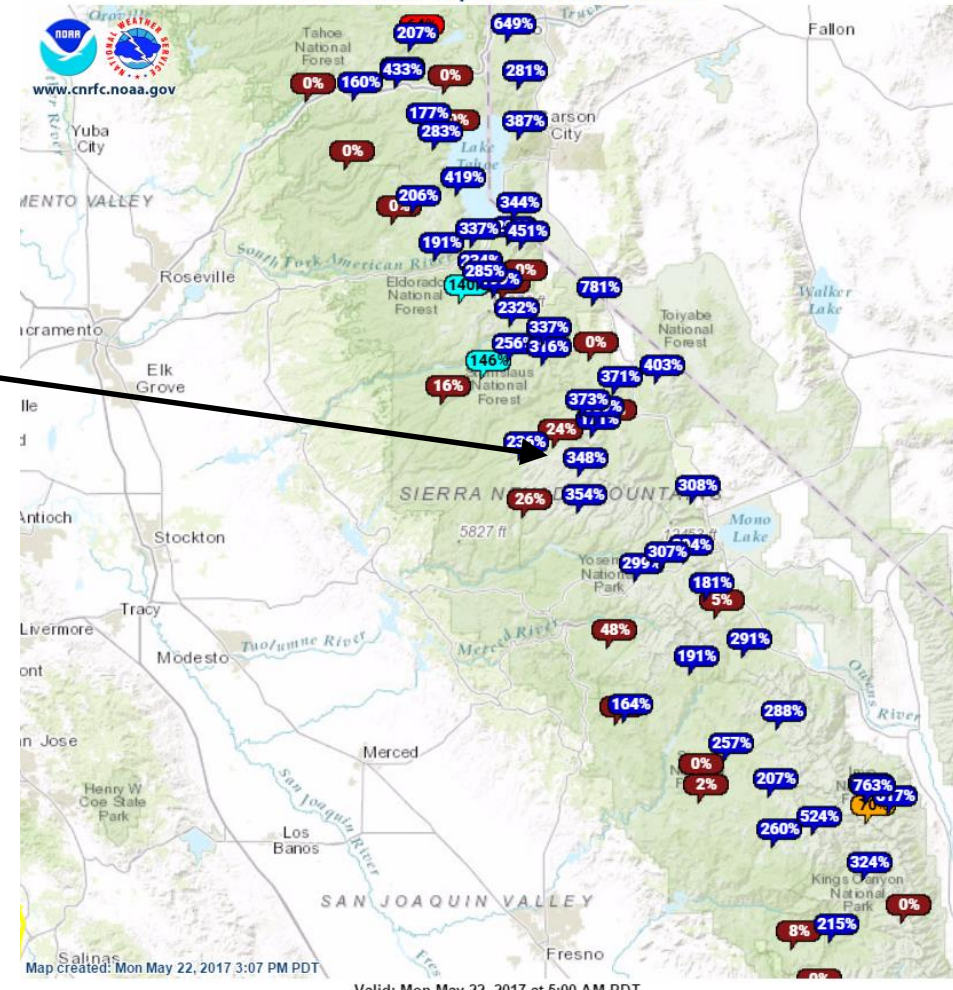


Locations in the High Sierras currently have 30–90 inches of snow water equivalent

Most of the stations in the High Sierras are currently much above (130–150%) or extremely above normal (>150%)

With the anomalously warm temperatures currently impacting and forecast to impact most of California, the melting snow will contribute to rising river and stream levels

Snow Water Equivalent % of Normal



For official NOAA-NWS CNRFC Snow Observations see [cnrfc.noaa.gov](http://cnrfc.noaa.gov)  
Data from CA DWR and NRCS snow pillow network

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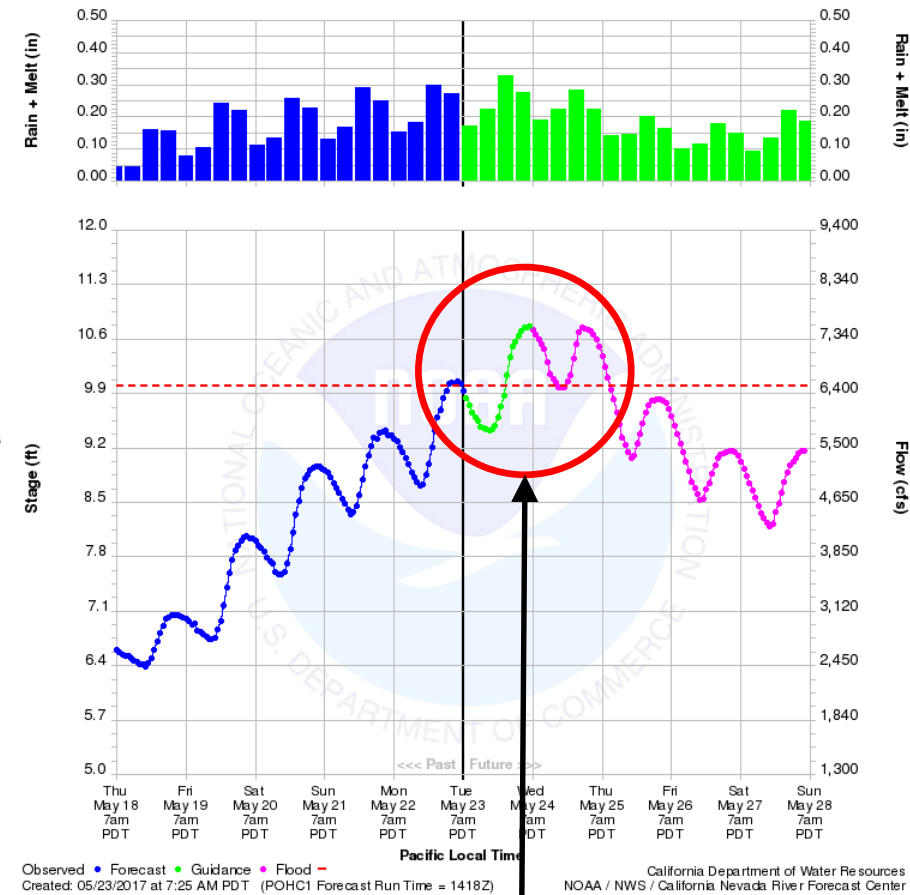
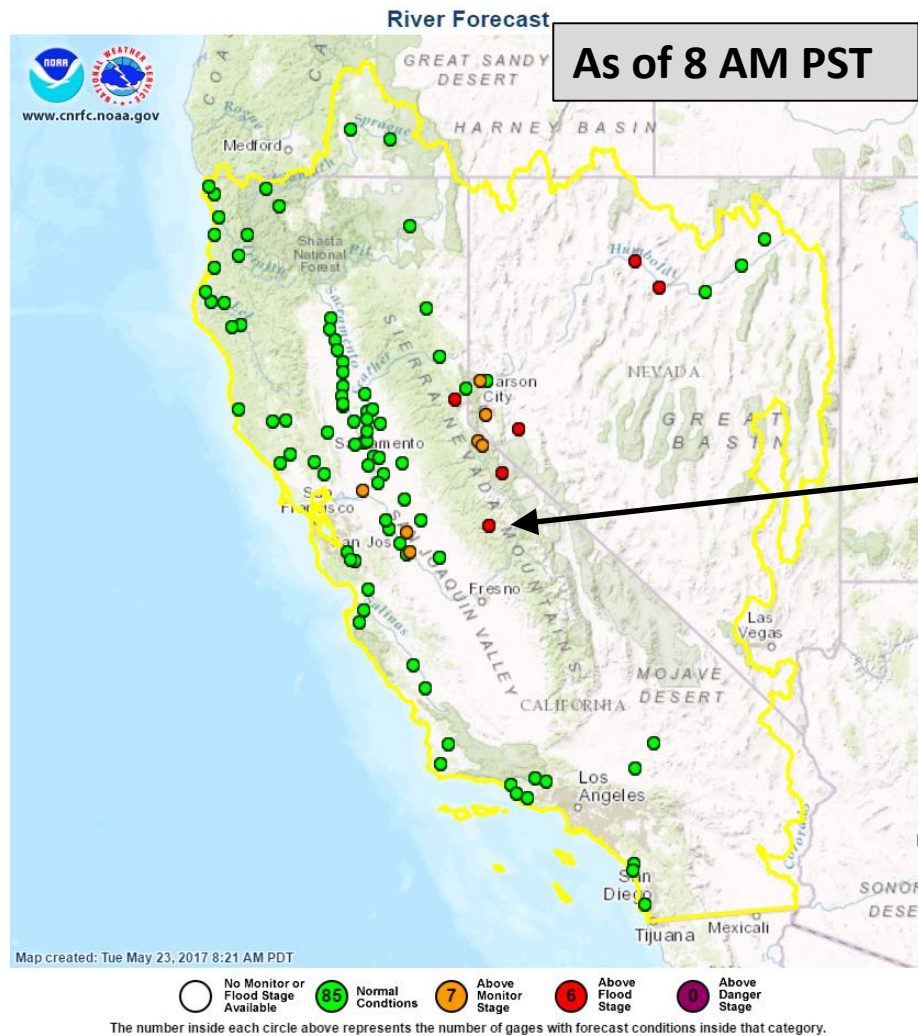
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With the rising temperatures and increased snowmelt runoff, there are 6 rivers that are forecast to rise above flood stage

An additional 8 river gauges are forecast to rise above monitor stage in the High Sierras and CA Central Valley

For official NOAA-NWS CNRFC Streamflow Forecasts see [cnrfc.noaa.gov/rfc\\_guidance.php](http://cnrfc.noaa.gov/rfc_guidance.php)

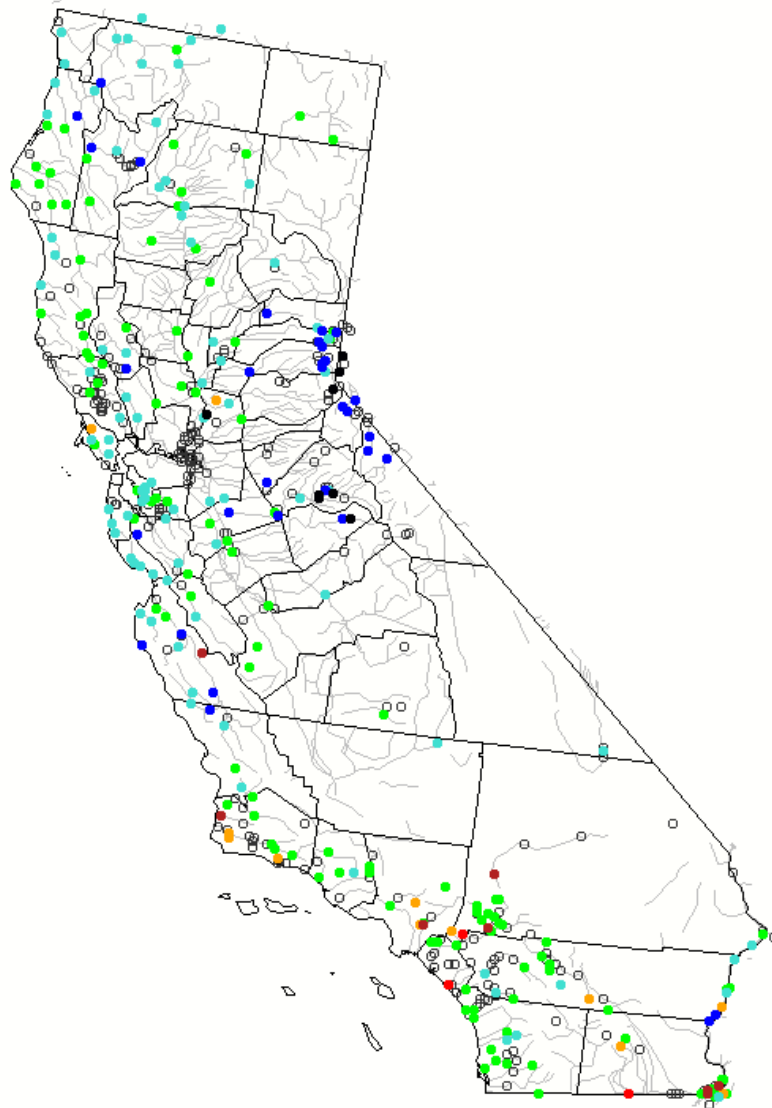


The stage of Merced River in Yosemite at Pohono Bridge oscillates due to the diurnal temperature cycle and is currently above flood stage. The maximum forecast stage is 10.8 feet, .8 feet above flood stage, at ~6 AM on 24 May 2017.

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Tuesday, May 23, 2017 10:30ET

For California DWR's AR Program



While the CNRFC forecast river stage heights showed several rivers and streams that are forecast to rise above flood stage, real-time data from the US Geological Survey (USGS) highlights the numerous additional rivers that currently have high flows in the Sierras

Currently, there are >10 rivers or streams that have flows that are much above normal (>90% normal) and several others that are above normal (76–90% above normal)

With the warmer temperatures expected over the next couple of days and already high flows, flooding becomes a concern

For official and current USGS streamflow observations visit <https://waterwatch.usgs.gov/?m=real&r=ca>

For official and point specific National Weather Service flood watches and warnings visit [weather.gov](http://weather.gov)



Explanation - Percentile classes							
Low							
	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

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