

Snow Summary: 1-6 February 2019

For California DWR's
AR Program

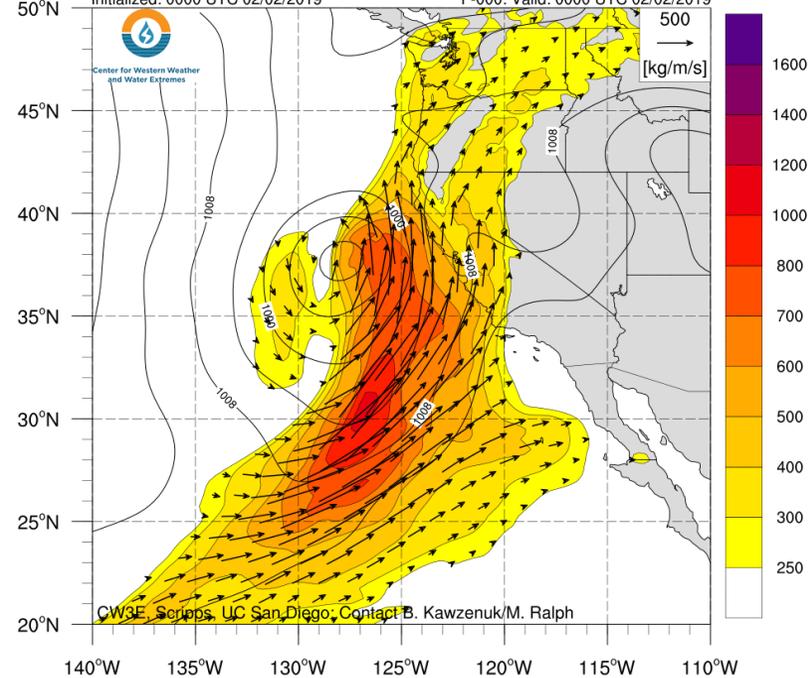


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Overview of Meteorological Conditions

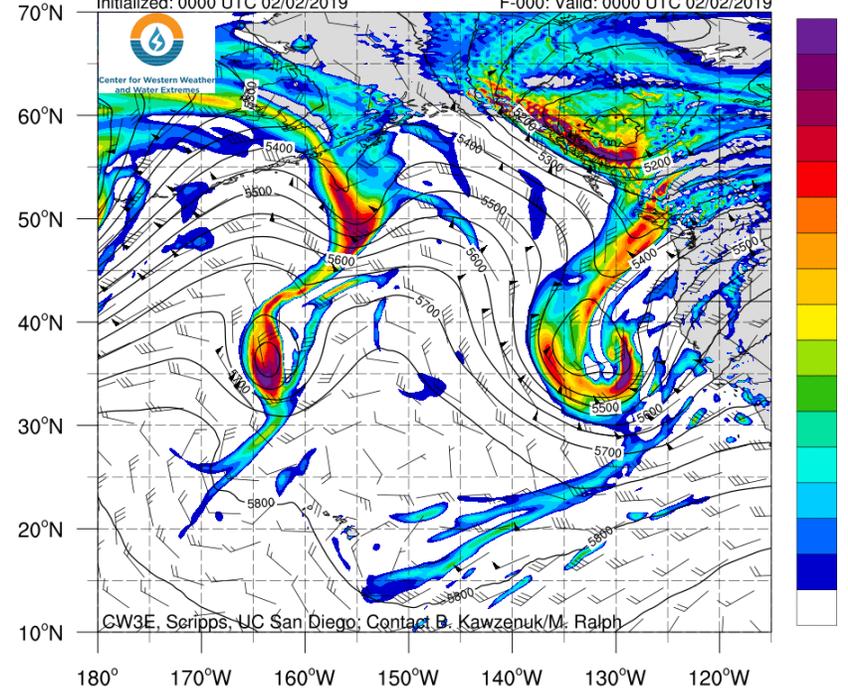
IVT and SLP

NCEP GFS IVT ($\text{kg m}^{-1} \text{s}^{-1}$; shaded), IVT Vector, and SLP (hPa; contours)
Initialized: 0000 UTC 02/02/2019 F-000: Valid: 0000 UTC 02/02/2019



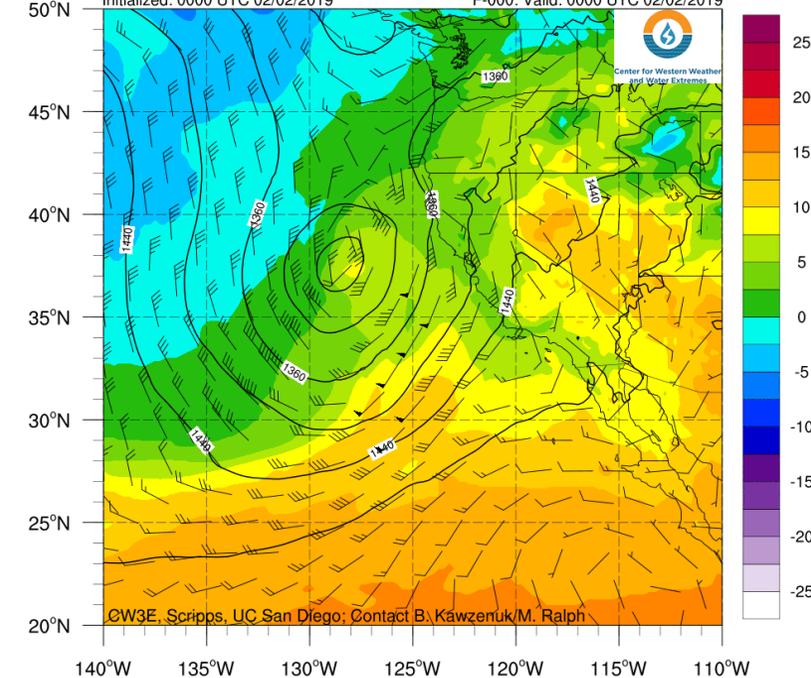
500-hPa Heights and Abs. Vorticity

NCEP GFS 500-hPa Absolute Vorticity ($\times 10^{-5} \text{s}^{-1}$), Height (gpm), and Winds
Initialized: 0000 UTC 02/02/2019 F-000: Valid: 0000 UTC 02/02/2019



850-hPa Heights, Temp. and Winds

NCEP GFS 850-hPa Temperature ($^{\circ}\text{C}$), Height (gpm), and Winds
Initialized: 0000 UTC 02/02/2019 F-000: Valid: 0000 UTC 02/02/2019



- An Atmospheric River and concomitant low-pressure system made landfall over CA on 02 February 2019
- Once AR conditions ended over CA on the 2nd, the low-pressure system became cut-off and remained over CA for several days
- Numerous 500-hPa shortwave troughs developed downstream of an Eastern Pacific ridge, providing successive “pulses” of positive vorticity advection, conducive to rising motion and the production of precipitation
- Strong cold air advection associated with this event led to cold 850-hPa temperatures of 10 to -10°C across the West Coast
- These conditions led to an extended period of snow over the Sierra resulting in considerable snow accumulations

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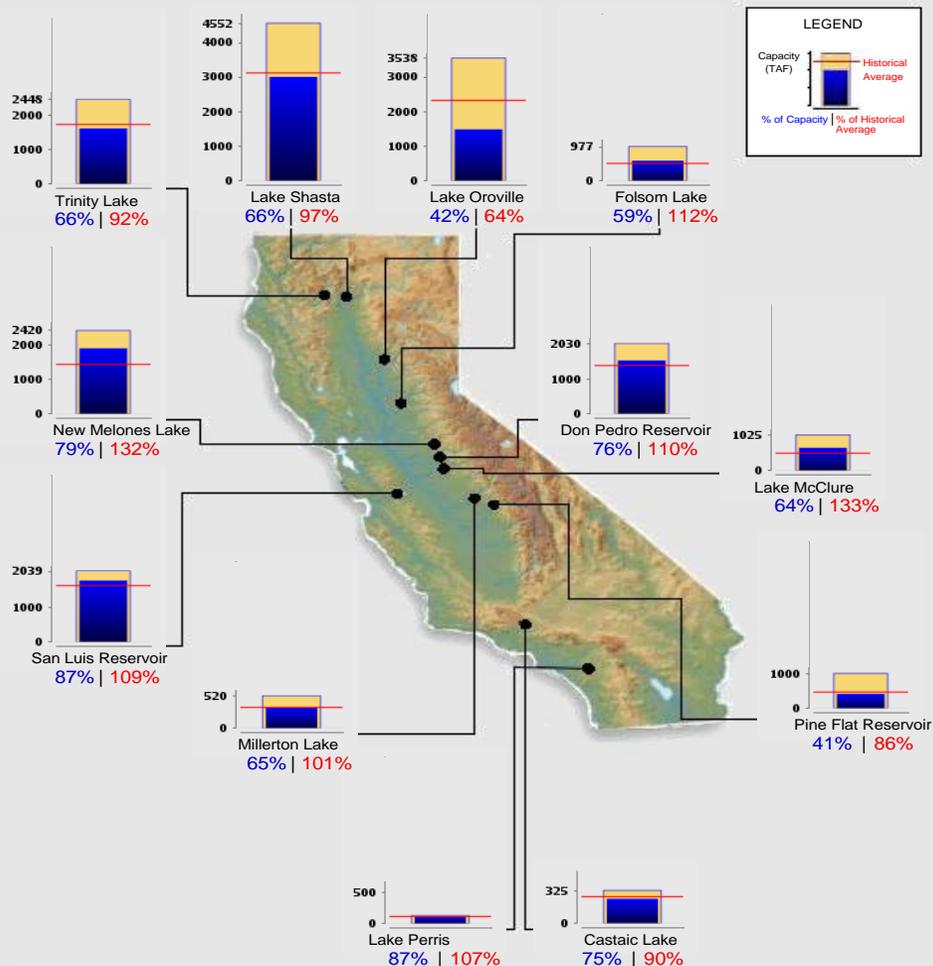


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Reservoir Conditions

Ending At Midnight - February 4, 2019

CURRENT RESERVOIR CONDITIONS



Graph Updated 02/05/2019 11:48 AM

Lake Shasta, the largest reservoir in CA, rose 5 feet between Tuesday and Thursday, reaching 66% full or 97% of its historical average for this time of year.

Smaller reservoirs around the state are now above their historical average including Lake McClure, Folsom Lake, Don Pedro Reservoir, Lake Perris, Millerton Lake, San Luis Reservoir and New Melones Lake.

The snowpack is also above average to date in the Northern Sierra (111.0%), Central Sierra (128.0%) and Southern Sierra (133.0%), after the passing of this atmospheric river.

Reported Sierra Snow Totals

February 5, 2019 at 7:00 AM PST

24 hour Snow Totals

Homewood	38"
Heavenly	36"
Squaw Valley	35"
Alpine Meadows	35"
Northstar	34"
Diamond Peak	34"
Kirkwood	34"
Sugar Bowl	34"
Mammoth Mountain	21"
Mt Rose	12"

Reported Snow Totals

February 6th, 2019 at 9:30 AM PST

Storm Total Since Feb. 2nd

Mammoth Mtn.	132"
June Mountain	130"
Kirkwood Ski	92"
Squaw Valley Ski	84"
Homewood Ski	82"
Sugar Bowl	80"
Northstar Ski	78"
Mt Rose Ski	78"
Heavenly Ski	75"
Diamond Peak Ski	67"
Incline Village	49"

Snow totals
reported from
NWS Reno
twitter

Photo credit: Nevada Seismo Lab - Heavenly Ski Area

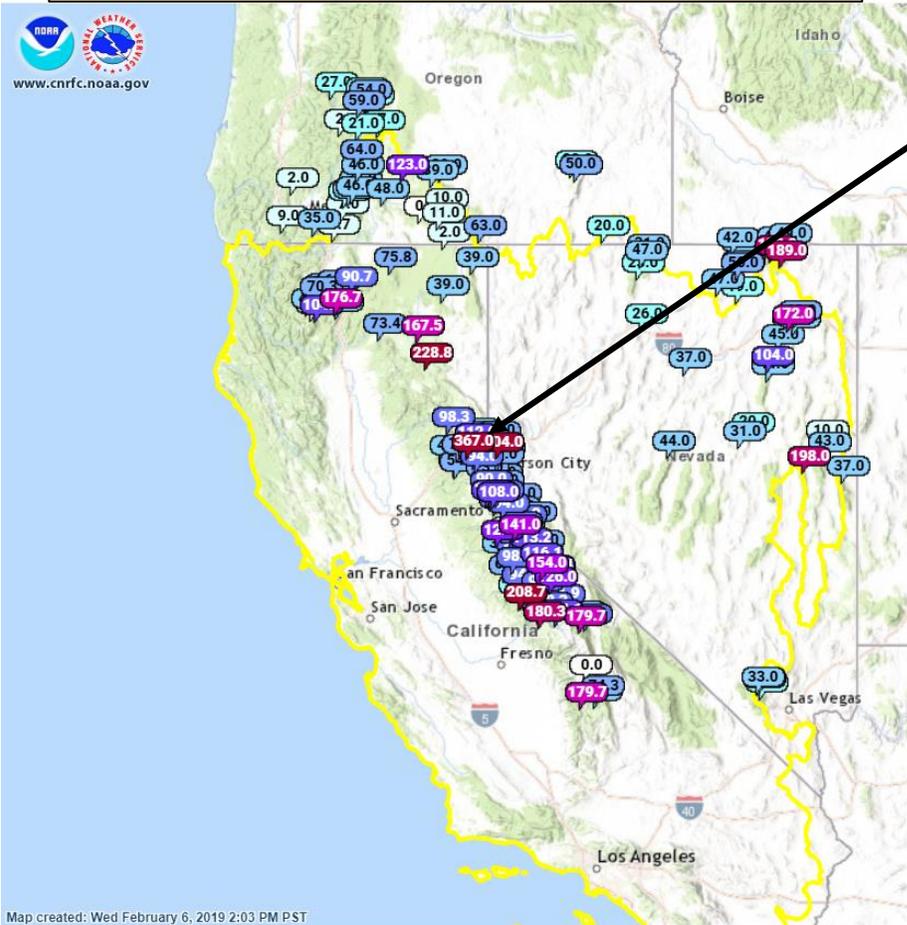
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CNRFC Current Snow Depth (as of 2/4)

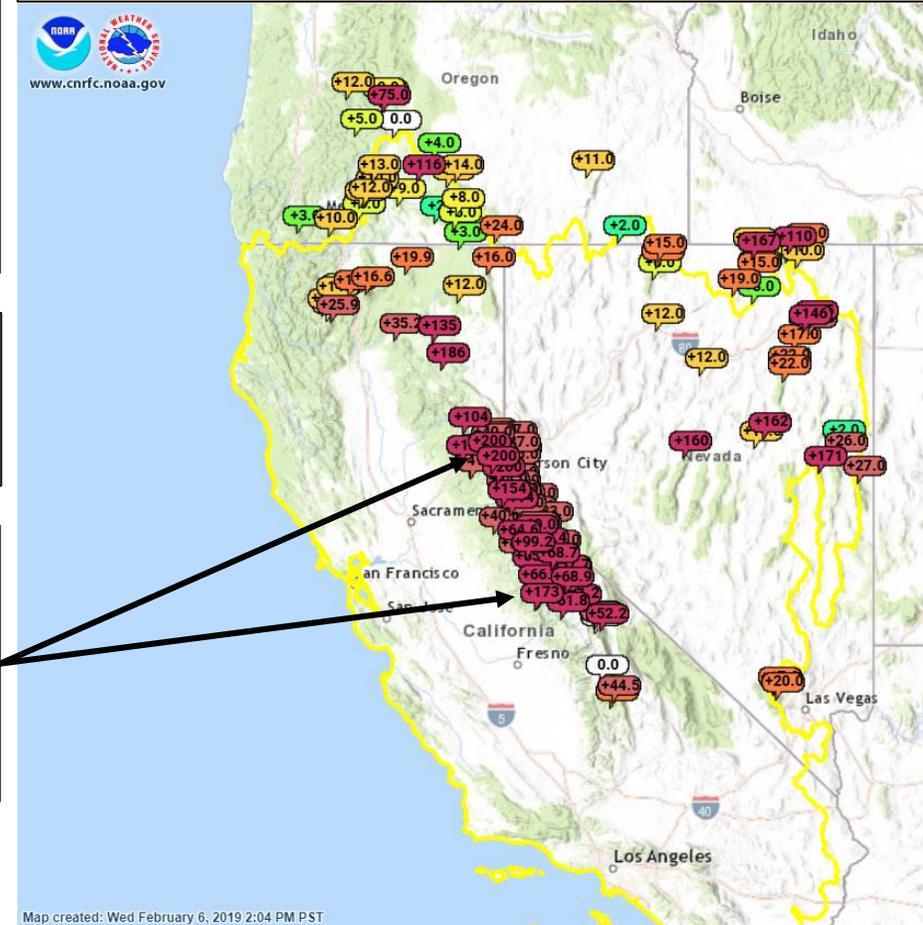
CNRFC 5-Day Snow Depth Change (1-6 Feb)



Much of the northern Sierra Nevada Mountains currently have over 100 inches of snow depth with the highest observation of 367" at the Central Sierra Snow Lab.

Over the past days the heavy snow has fallen over the majority of the Sierra Nevada Mountains.

Several locations have received over 150 inches of snow in the past 5 days, with widespread accumulations greater than 100 inches.



For CNRFC products visit:
<https://cnrfc.noaa.gov/>

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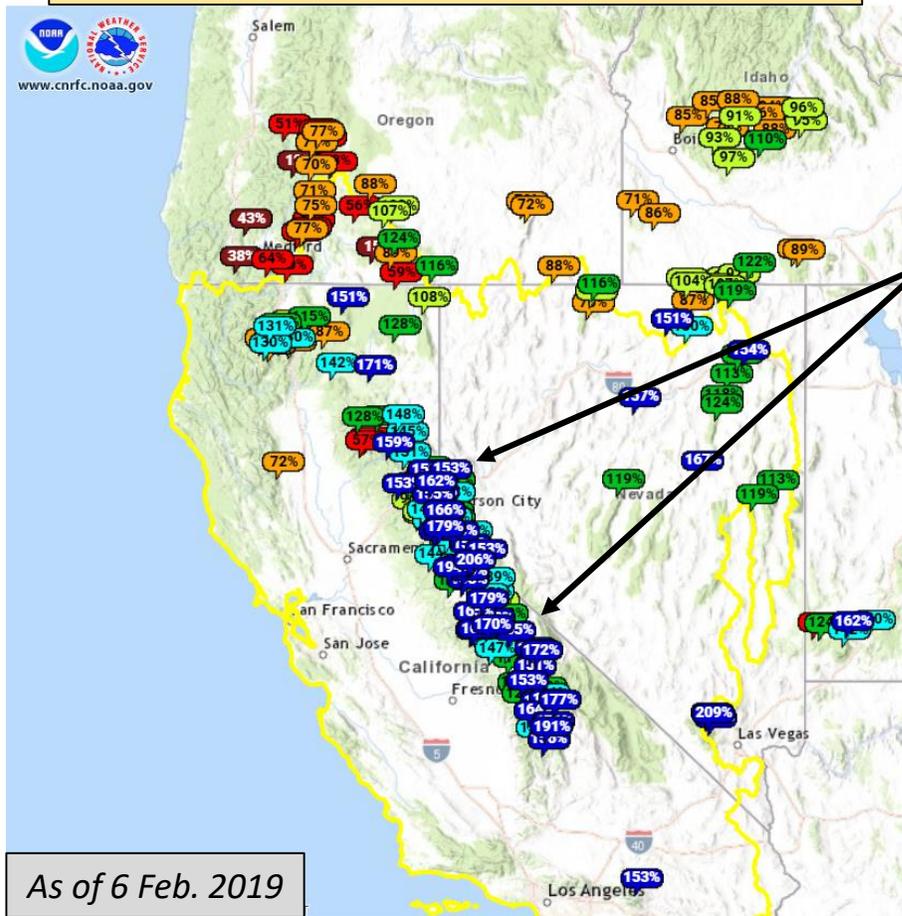
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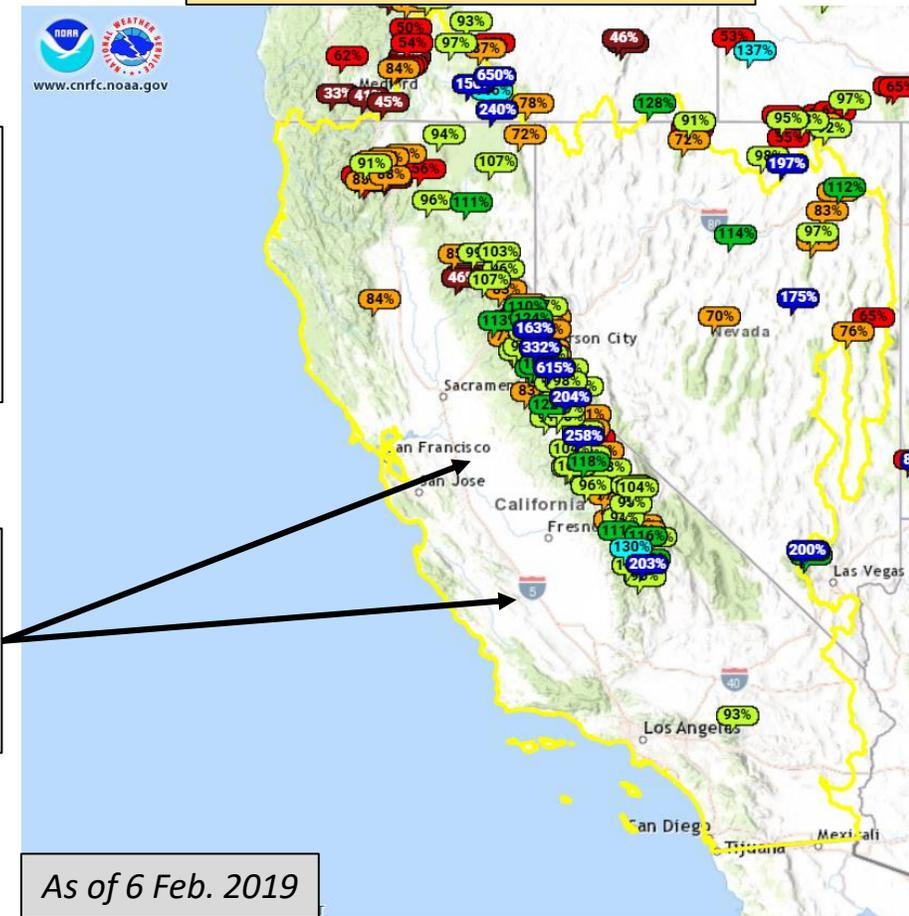
CNRFCC Current SWE % of Normal

CNRFCC % of Ave Apr 1 SWE



After this event, most of the Sierra Nevada Mountain snow pack is between 150–200 % of normal snow water equivalent (SWE) for this time of year.

The current SWE represents ~90-110% of April 1 normal for most locations throughout the Sierra Nevada.



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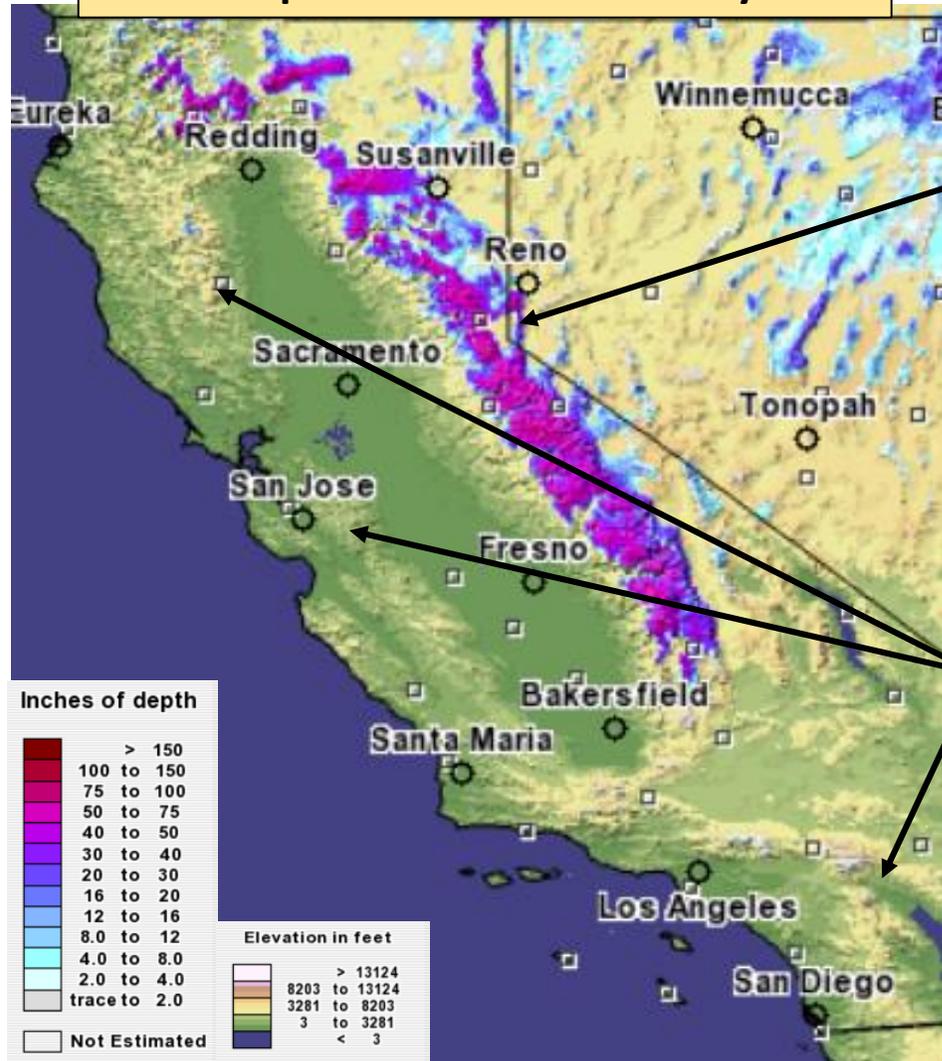
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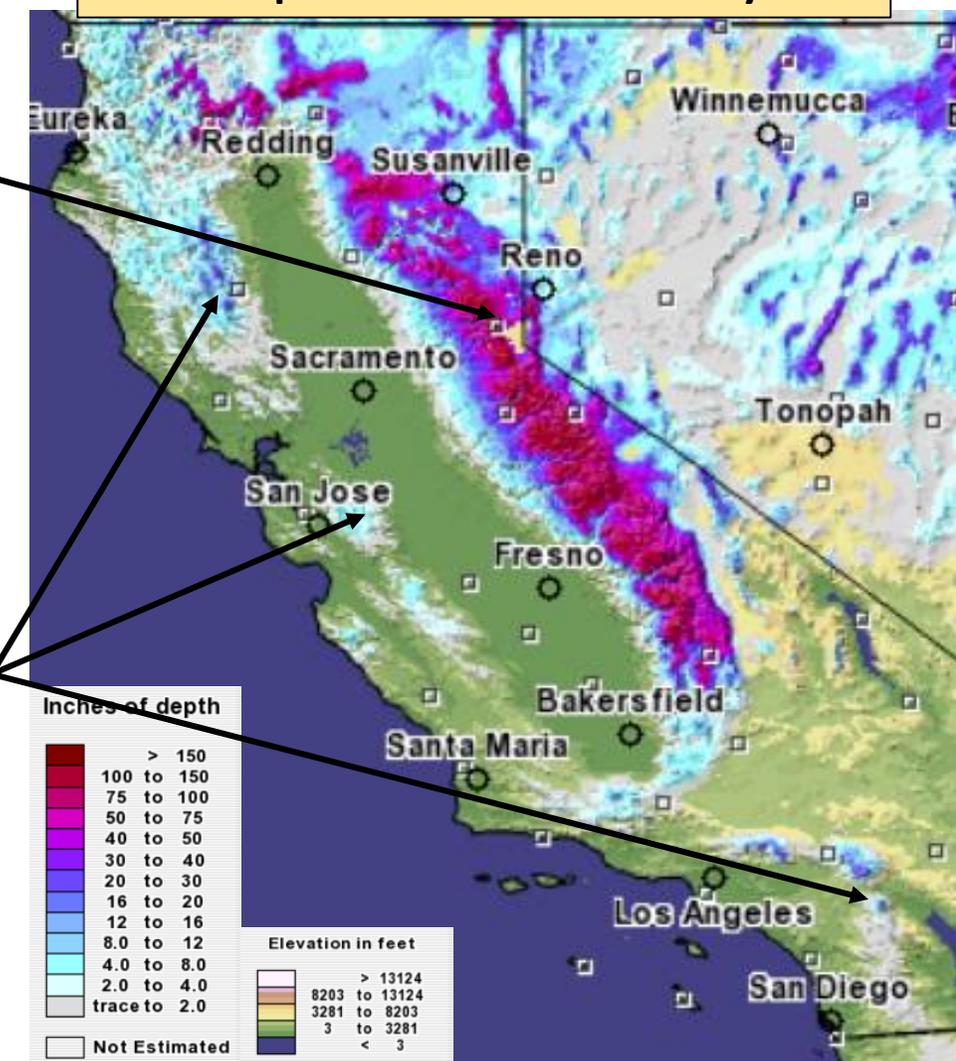
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National Operation Hydrologic Remote Sensing Center Modeled Snow Depth

Snow Depth as of 00Z 1 February 2019



Snow Depth as of 00Z 7 February 2019



Snow depth and coverage across much of the Sierra Nevada has doubled over the previous 6 days.

Prior to this series of systems there was little to no snow in CA outside of the Sierra Nevada. Currently many of the high elevations in the Coastal Ranges have measurable snow, even in southern CA.

For NOHRSC products visit:
<https://www.nohrsc.noaa.gov/>

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Blue Ridge, San Bernadino Mountains.
NWS San Diego Twitter



Mammoth Mountain Twitter



Squaw Valley Alpine Meadows Twitter