



Latest Update on Cutoff Low and Atmospheric River Forecast to Impact California

Updated: 23 February 2023

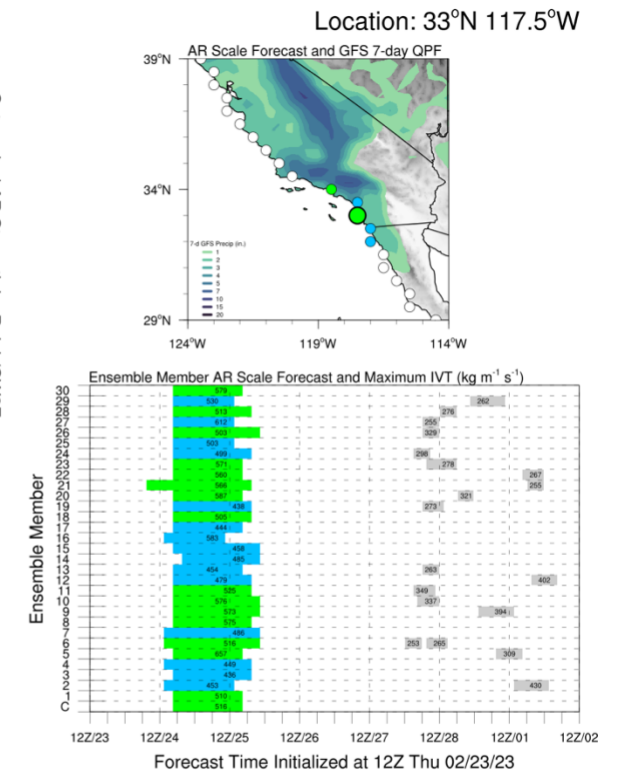
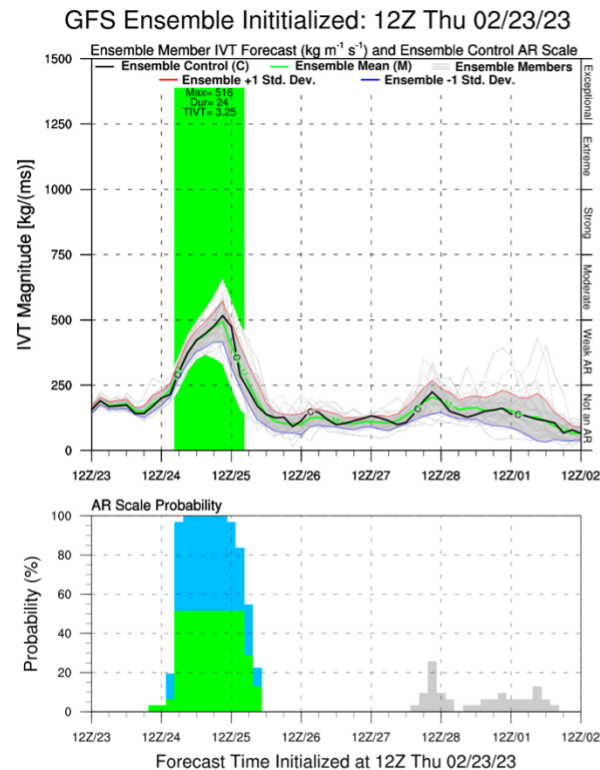
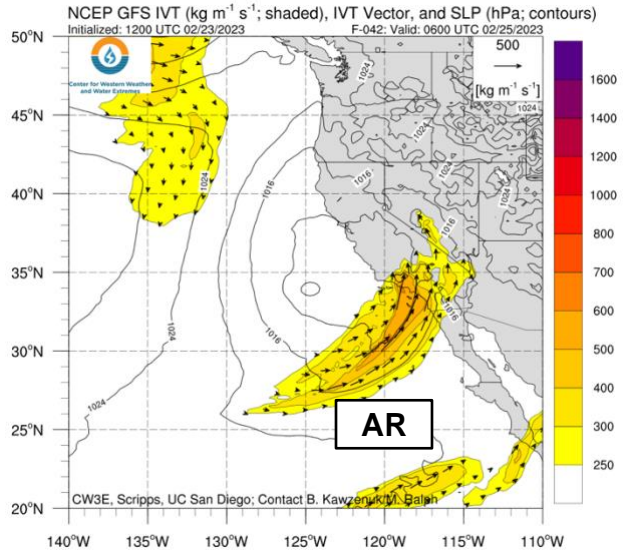
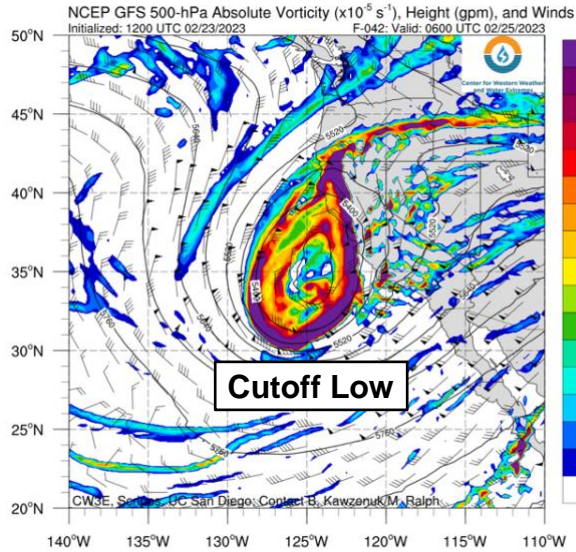
A quick look at a major winter storm forecast to impact California tonight into Saturday.

Forecast Highlights:

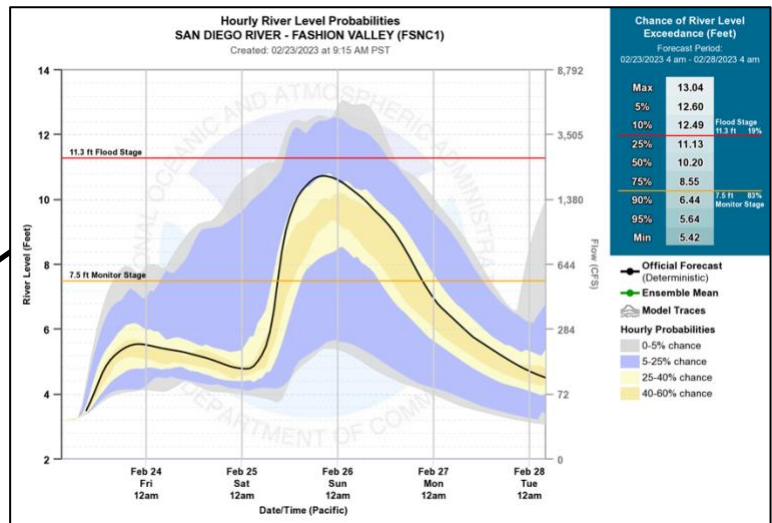
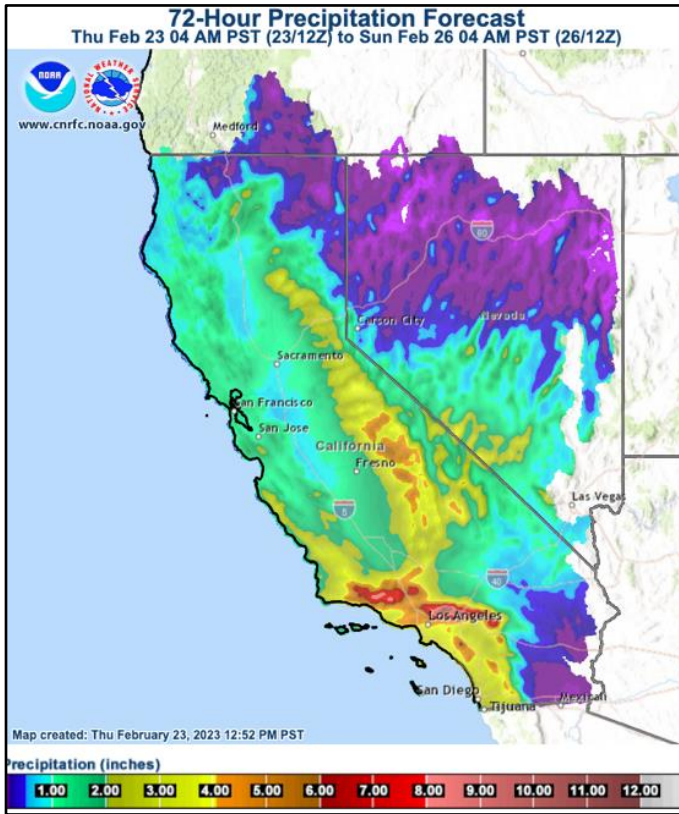
- A low-pressure system over the Pacific Northwest has brought strong winds and low-elevation snow to much of the US West Coast over the past few days
- Over the next 48 hours, a cutoff low is forecast to develop and slowly move down the California coast
- Strong dynamical forcing for ascent near the cutoff low and upslope moisture flux within an intensifying atmospheric river (AR) will combine to produce heavy rain and snow across Central and Southern California tonight into Saturday
- AR 2 conditions (based on the Ralph et al. 2019 AR Scale) are currently forecast over coastal San Diego County, with maximum IVT magnitudes exceeding $500 \text{ kg m}^{-1} \text{ s}^{-1}$
- The NWS California–Nevada River Forecast Center is forecasting 2–5 inches of additional precipitation in the Sierra Nevada and the lower elevations of coastal Southern California by Sunday morning
- The heaviest precipitation amounts (5–10 inches) are expected in the Transverse Ranges, where southerly upslope moisture flux will support orographic enhancement of precipitation
- The NWS Weather Prediction Center has issued a moderate risk of rainfall exceeding flash flood guidance for portions of coastal Southern California (including the Santa Ana River watershed) Friday through Saturday morning
- One stream gage is forecast to exceed flood stage over the next 5 days, and 3 other stream gages are forecast to exceed monitor/action stage in Southern California
- The San Diego River at Fashion Valley is forecast to crest near flood stage on Saturday, with a 19% probability of exceeding flood stage, and an 83% probability of exceeding monitor/action stage
- Portions of the Sierra Nevada and Transverse Ranges are forecast to receive at least 4–6 feet of additional snowfall through Saturday
- Low freezing levels will allow for significant snowfall accumulations below 3,000 feet in Northern/Central California and below 5,000 feet in Southern California
- The combination of heavy snow and high winds is expected to produce extremely dangerous travel conditions and widespread disruptions to infrastructure, particularly in the Sierra Nevada and Transverse Ranges

Stay alert to official NWS forecasts, watches, and warnings at [weather.gov](https://www.weather.gov) and follow guidance from local emergency management officials

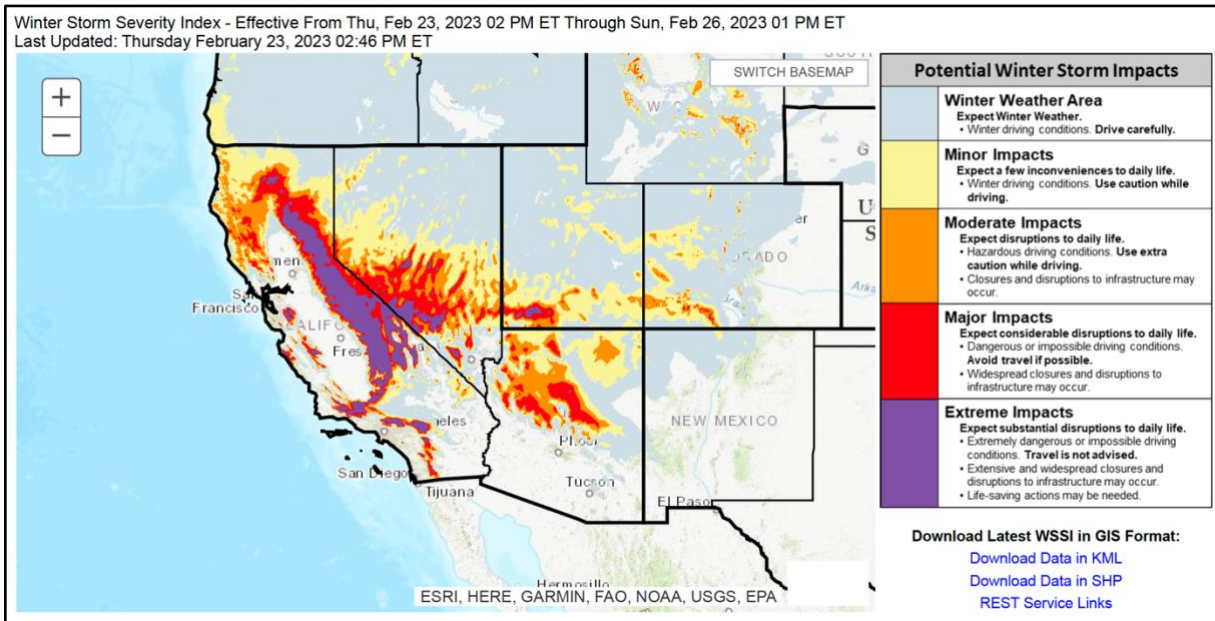
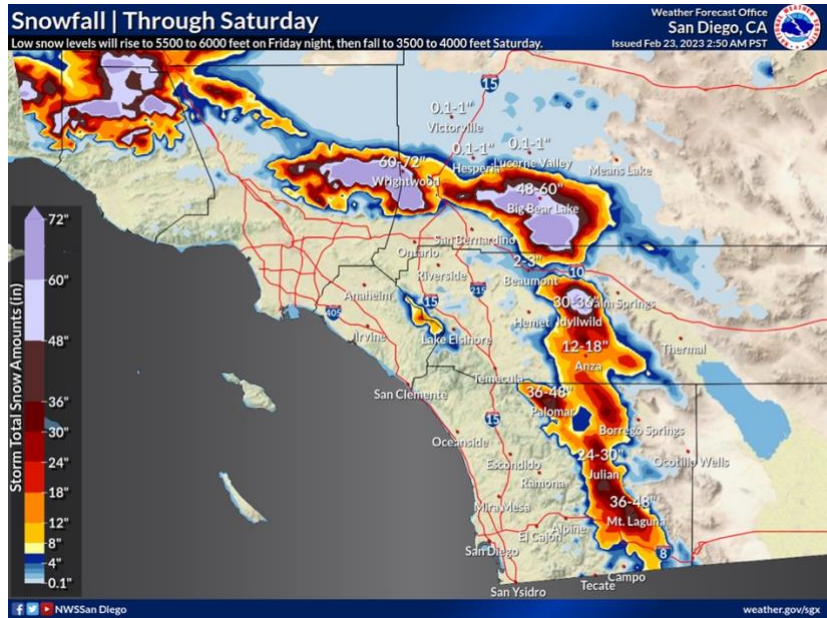
Stay tuned to the CW3E webpage for a full AR Update



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Additional Considerations:

- Visit cnrfc.noaa.gov for specific river and stream forecasts and weather.gov for point-specific watches, warnings, and forecasts.

In-depth AR forecasts products can be found here:

<http://cw3e.ucsd.edu/iwv-and-ivt-forecasts/>

Update provided by C. Castellano

c1castellano@ucsd.edu

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