

Quick Look at the Atmospheric River Impacting Southern California

Updated: 14 November 2025

An atmospheric river (AR) presently impacting California is forecast to bring heavy precipitation to Southern California through Sat 15 Nov.

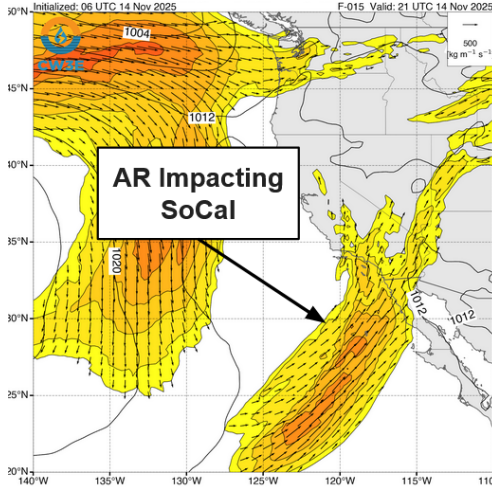
Forecast Highlights:

- The AR that made landfall over Northern California on Wed 12 Nov is forecast to continue propagating down the California coast into Southern California today.
- A mid-level trough currently located off the California coast is forecast to continue deepening and eventually become cut-off today. The low is forecast to remain off the Southern California coast through early tomorrow before moving onshore.
- The low's persistence off the Southern California coast will facilitate additional moisture transport and extend AR conditions through Sat 15 Nov over Southern California.
- IVT magnitudes are forecast to peak early Sat 15 Nov for locations near San Diego due to the southerly moisture transport driven into the region by the low.
- GEFS is forecasting an AR 3 (based on the Ralph et al. 2019 AR Scale) for coastal California south of Santa Barbara County. There is still uncertainty amongst GEFS members in the duration of AR conditions and timing and magnitude of maximum IVT.
- The National Weather Service (NWS) Weather Prediction Center (WPC) is forecasting 2+ inches of additional precipitation for coastal Southern California and the Central to Southern Sierra Nevada for the 48 hours ending 4 AM Sun 16 Nov, including 4+ inches over the Transverse Ranges. Rainfall rates >0.5 inches/hour are expected in the Los Angeles metro area tonight through Saturday, potentially leading to flash flooding and landslides.
- The WPC has issued a **moderate risk** excessive rainfall outlook (ERO) over the Transverse Ranges and coastal Southern California for the 24-hour periods ending 4 AM PT Sat 15 and Sun 16 Nov. They have also issued **slight** and **moderate risk** EROs covering wider areas of coastal Southern California and inland over the Sierra Nevada, California desert regions, western Arizona, and southern Nevada for the same periods.
- The California-Nevada River Forecast Center (CNRFC) is forecasting stream levels to rise across Southern California, including one gauge along the San Diego River in Fashion Valley forecast to exceed **action stage**.
- Models are indicating the potential for a second storm to impact California late Sun 16 Nov through Tue 18 Nov. This system is forecast to bring an additional 1–3 inches of precipitation to California, and the WPC has already issued marginal risk EROs for the periods ending at 4 AM PT Mon 17 and Tue 18 Nov.
- The NWS is forecasting 12+ inches of snowfall over higher elevations of the Central and Southern Sierra Nevada for the 72-hour period ending 4 AM PT Mon 17 Nov. The Winter Storm Severity Index indicates moderate to major impacts in regions experiencing the heaviest snow during this period.

Stay alert to official NWS forecasts, watches, and warnings at [weather.gov](https://www.weather.gov)

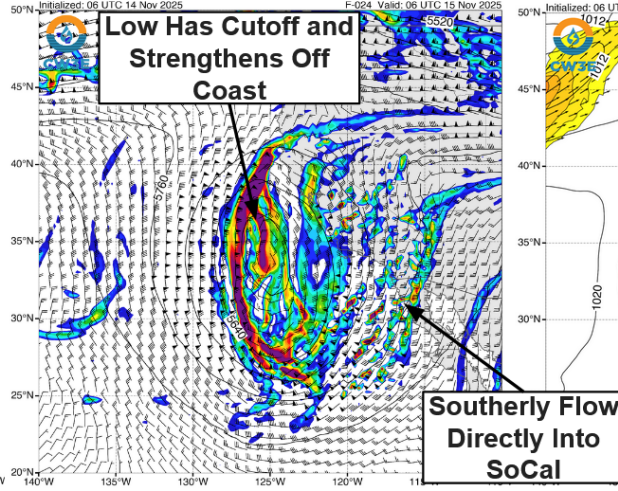
GFS IVT

Valid: 1 PM PT Fri 14 Nov



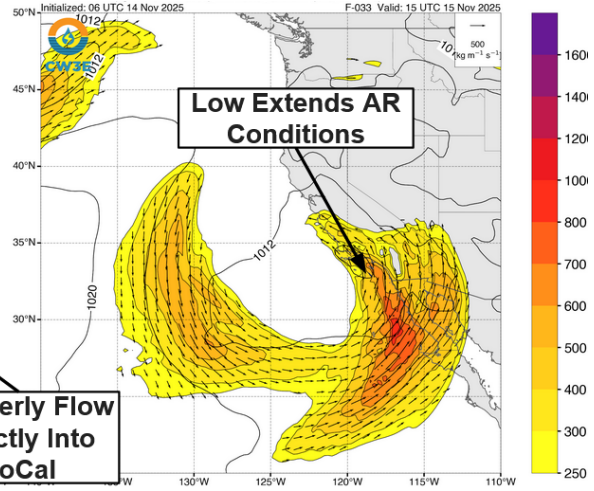
GFS 500-mb Abs. Vort

Valid: 10 PM PT Fri 14 Nov

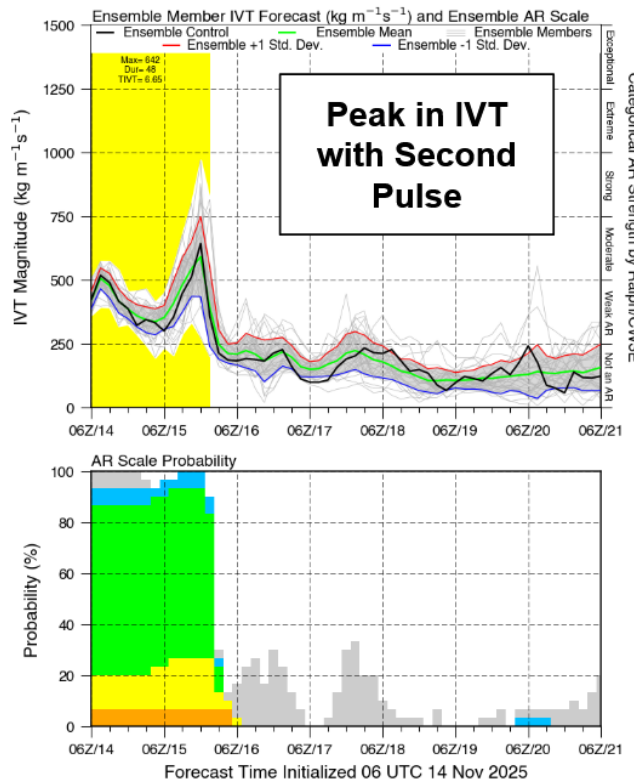


GFS IVT

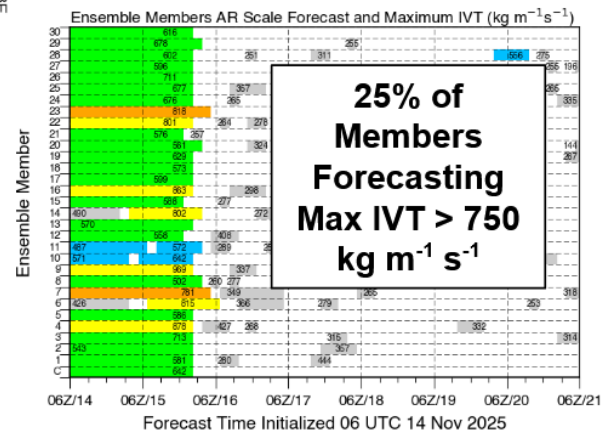
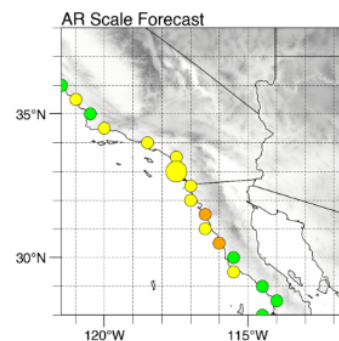
Valid: 7 AM PT Sat 15 Nov

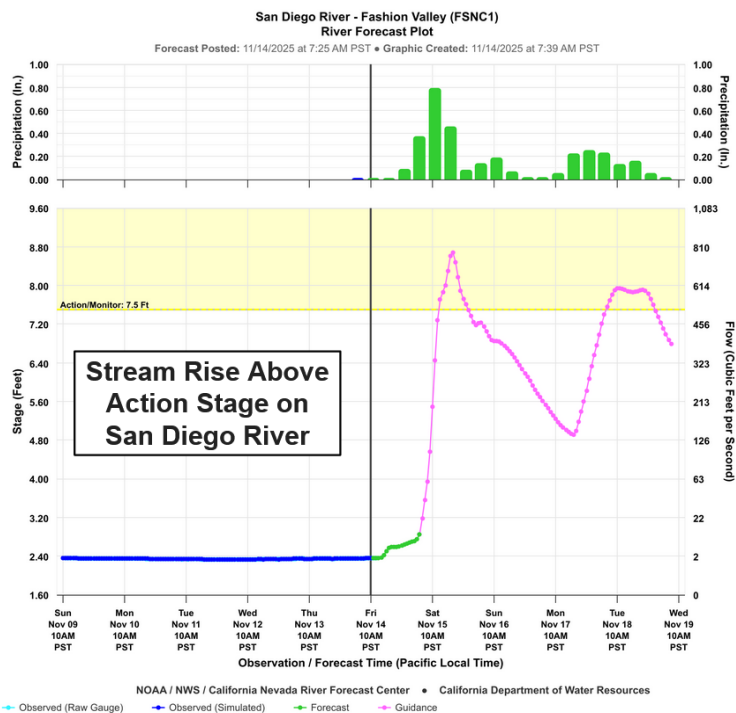


GEFS Ensemble Initialized 06 UTC 14 Nov 2025

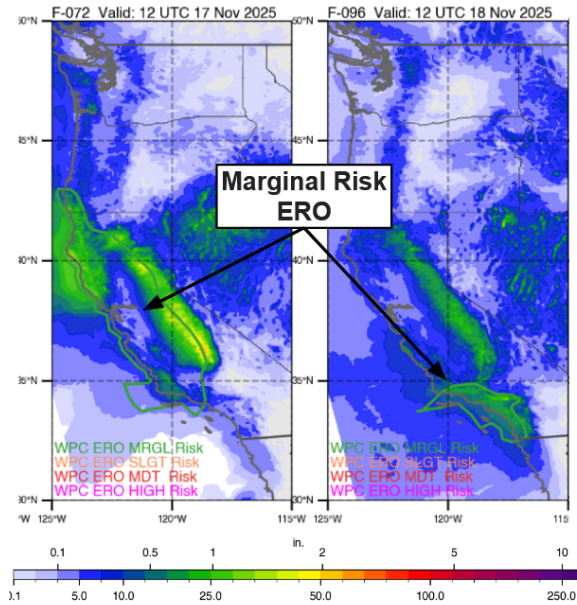


Location: 33.0°N, 117.5°W

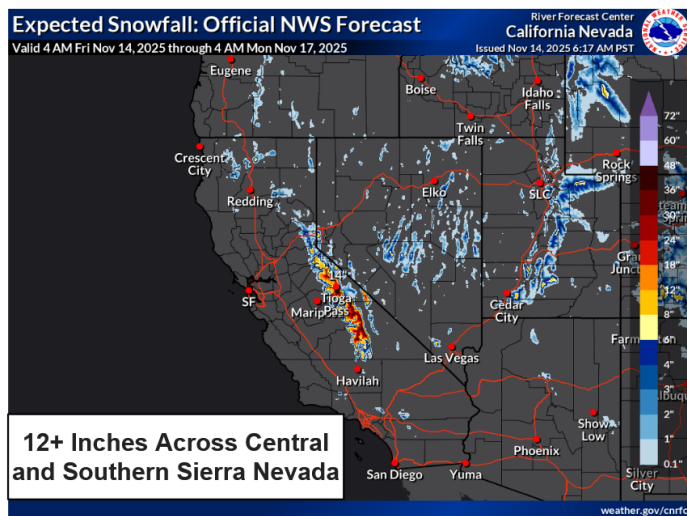




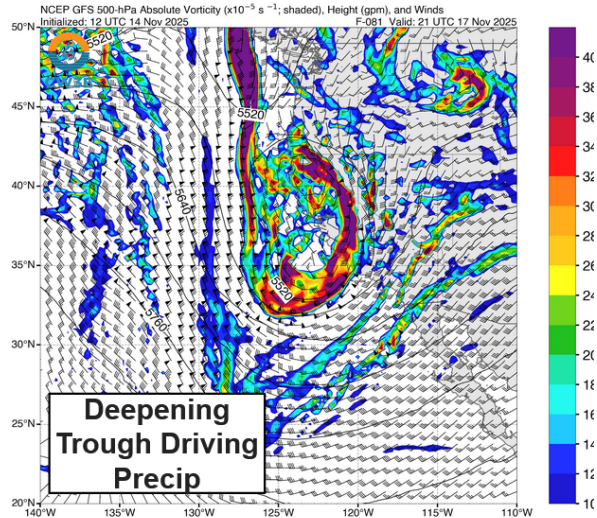
WPC Days 3-4 QPF: Periods Ending 4 AM PT 17-18 Nov



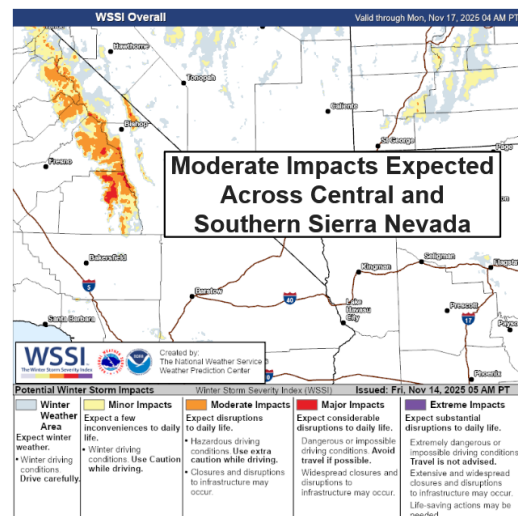
WPC 72-Hour Snowfall: Period Ending 4 AM PT 17 Nov



GFS 500-mb Abs. Vort: Valid 1 PM PT 17 Nov



WPC Winter Storm Severity Index: Period Ending 4 AM PT 17 Nov



Additional Considerations:

Visit <https://www.weather.gov/cnrfc/> for specific river and stream forecasts and

<https://www.weather.gov/> for point specific forecasts.

In-depth AR forecasts products can be found here:

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

Update by M. Steen
msteen@ucsd.edu