

Quick Look at Ongoing Atmospheric River Event in California

Updated: 3 February 2025

A long-duration atmospheric river (AR) event will continue to impact California through Wed 5 Feb, bringing additional rain, mountain snow, and flooding.

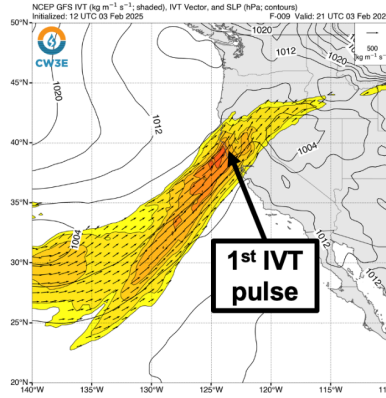
Forecast Highlights:

- As of early morning Mon 3 Feb, the AR was centered over Northern California. Two additional pulses of moisture transport are forecast to move onshore before the AR eventually dissipates on Wed 5 Feb.
- The second moisture pulse may bring a brief period of strong AR conditions ($IVT \geq 750 \text{ kg m}^{-1} \text{ s}^{-1}$) to the Bay Area and Sacramento Valley, but there is still some uncertainty in the magnitude and location of maximum IVT.
- By the time this AR eventually dissipates, some locations in Northern California will have experienced more than 96 hours of continuous AR conditions.
- Another weaker AR is forecast to make landfall over California on Thu 6 Feb and bring additional precipitation to much of the state.
- The ongoing AR has already produced at least 6–10 inches of precipitation in portions of Northern California, with higher amounts observed in the North Fork Feather watershed.
- The NWS Weather Prediction Center (WPC) is forecasting an additional 6–12 inches of precipitation in the Northern Sierra Nevada and 3–8 inches in the Northern/Central California Coast Ranges and Central/Southern Sierra Nevada over the next 7 days.
- The WPC has issued **slight risk ($\geq 15\%$; level 2 of 4)** excessive rainfall outlooks (EROs) for the Northern/Central California Coast Ranges, Bay Area, Sacramento Valley, northern San Joaquin Valley, and Northern/Central Sierra Nevada foothills through early Wed 5 Feb, as well as **marginal risk ($\geq 5\%$; level 1 of 4)** EROs for northeastern California, the southern San Joaquin Valley, the Southern Sierra Nevada foothills, and the Transverse Ranges.
- The WPC has also issued a **marginal risk** ERO for much of Northern and Central California Thu 6 Feb into early Fri 7 Feb due to additional precipitation from the next AR.
- Numerous stream gages in Northern California are forecast to rise above action/monitor stage over the next 5 days. Five gages are forecast to exceed minor flood stage, and one gage (Pit River at Canby) is forecast to reach major flood stage.
- At least 1–3 feet of snow are forecast above 6,000 feet in the Northern Sierra Nevada, above 7,000 feet in the Central Sierra Nevada, and above 8,000 feet in the Southern Sierra Nevada by Thu morning (6 Feb).
- Major-to-extreme winter storm impacts are expected in the higher terrain of the Sierra Nevada due to heavy snow and high winds.

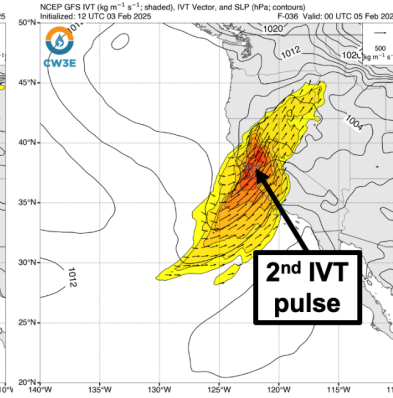
Stay alert to official NWS forecasts, watches, and warnings at [weather.gov](https://www.weather.gov) and follow guidance from local emergency management officials

GFS IVT & SLP Forecasts

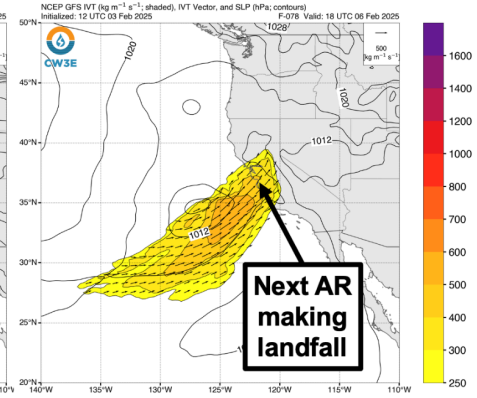
Valid 1 PM PT 3 Feb (F-009)



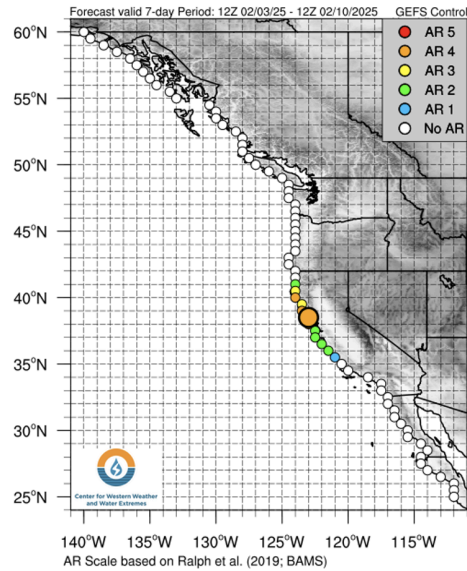
Valid 4 PM PT 4 Feb (F-036)



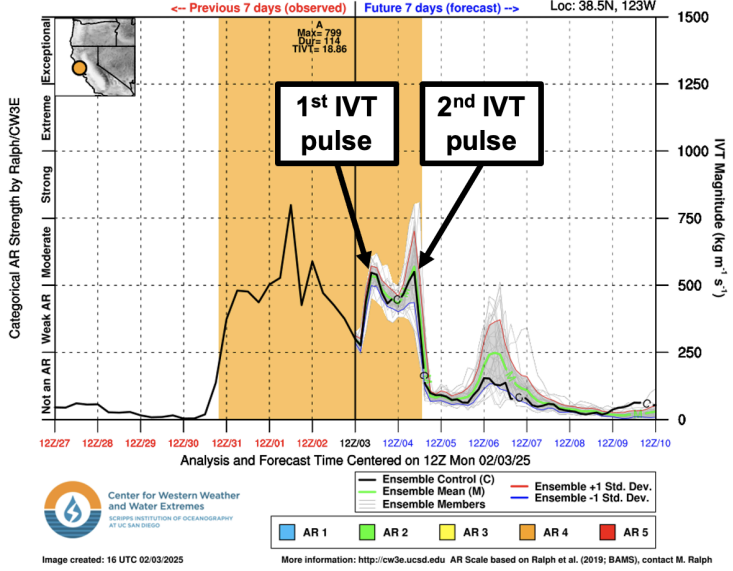
Valid 10 AM PT 6 Feb (F-078)



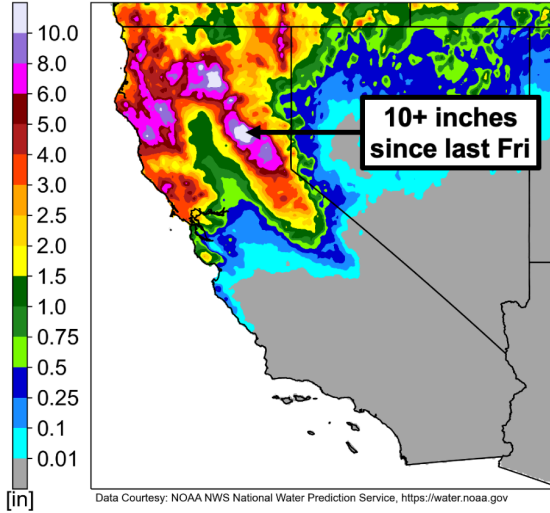
Maximum Forecast AR Scale



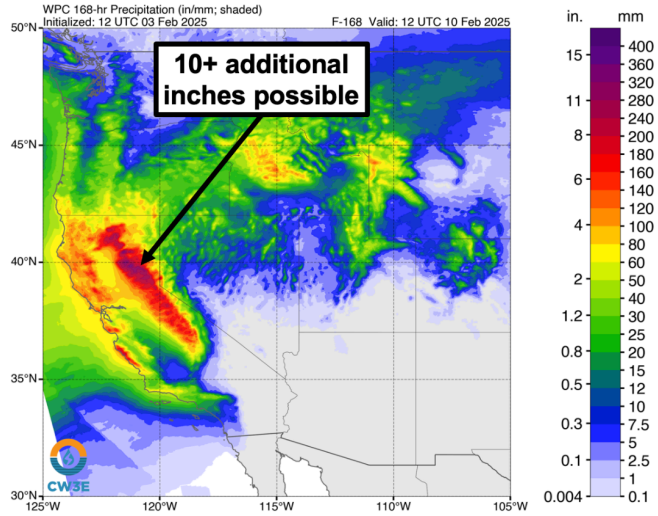
GEFS AR Scale & IVT Analysis/Forecast Initialized 12Z Mon 02/03/25



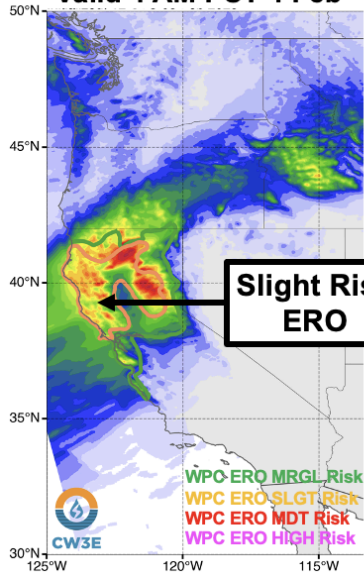
NWS Stage IV 72-h QPE
Valid: 4 AM PST 3 Feb 2025



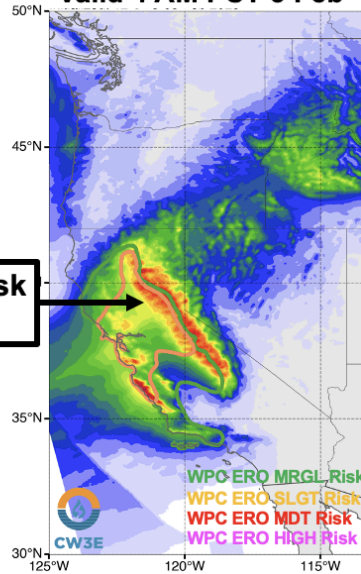
WPC 7-day QPF
Valid 4 PM PST 10 Feb



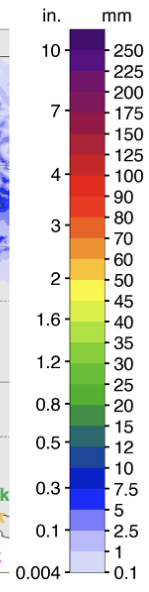
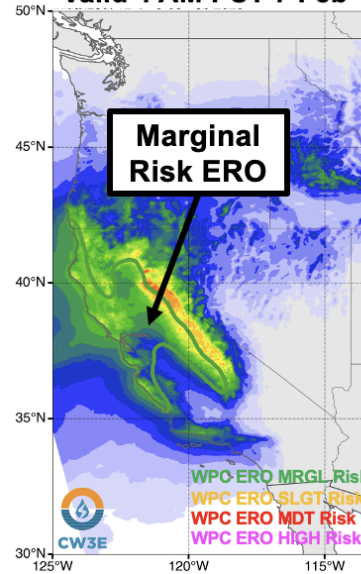
WPC Day 1 24-h QPF
Valid 4 AM PST 4 Feb

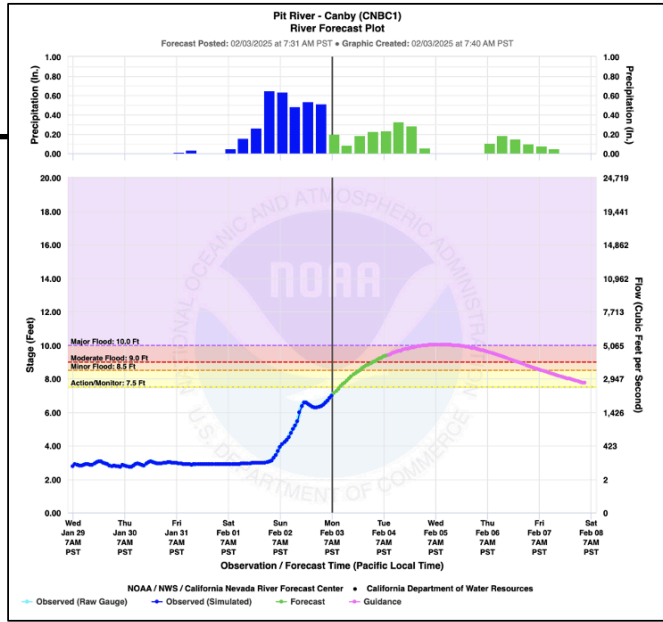
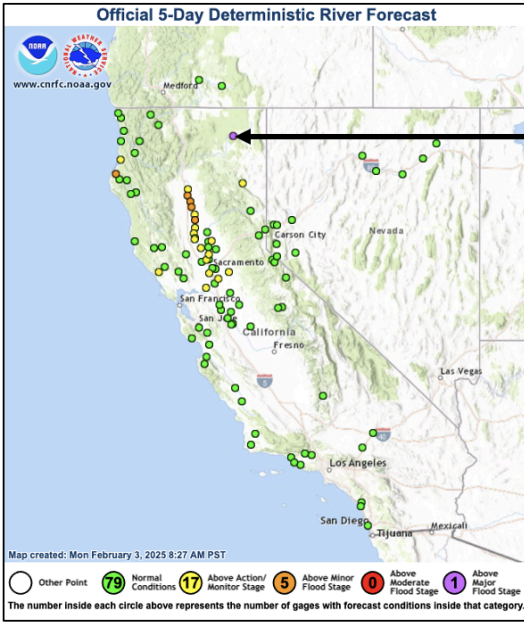


WPC Day 2 24-h QPF
Valid 4 AM PST 5 Feb

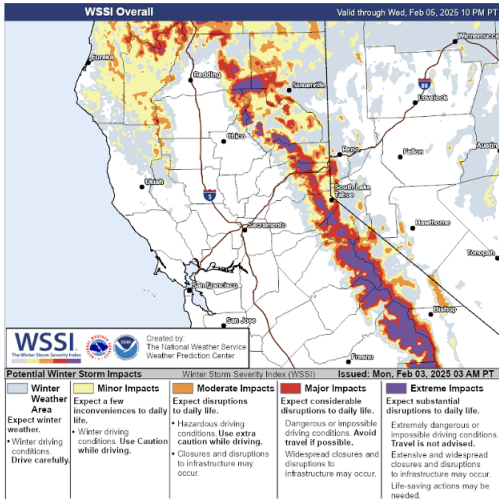


WPC Day 4 24-h QPF
Valid 4 AM PST 7 Feb

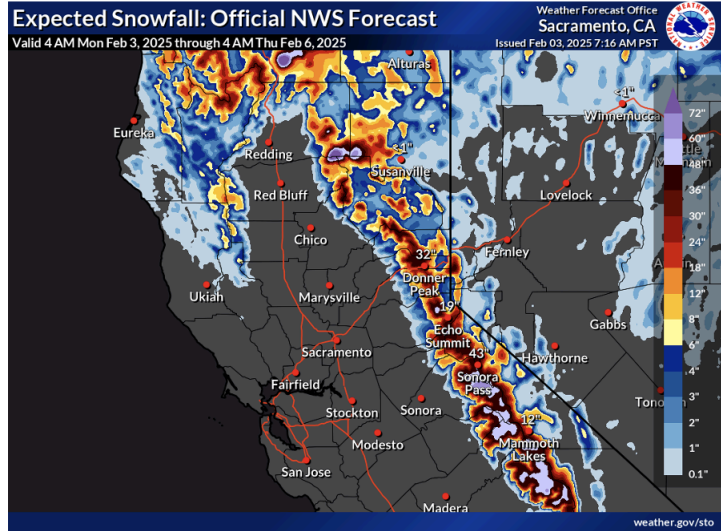




WPC Winter Storm Severity Index Valid through 10 PM PST 5 Feb



Total Snowfall: Valid through 4 AM PST 6 Feb



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:

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

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