



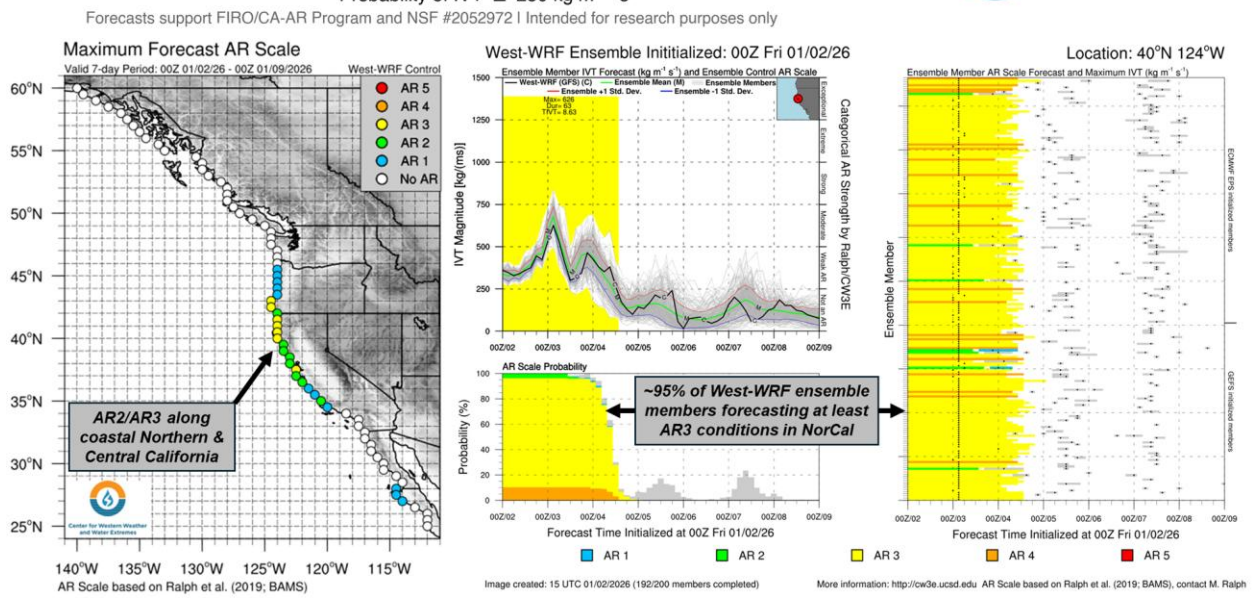
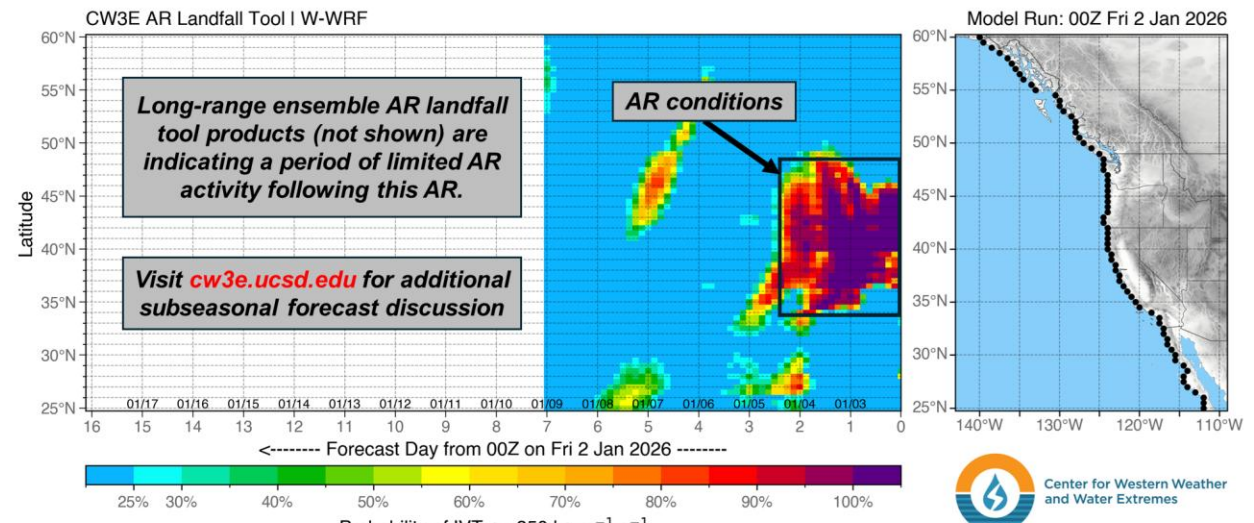
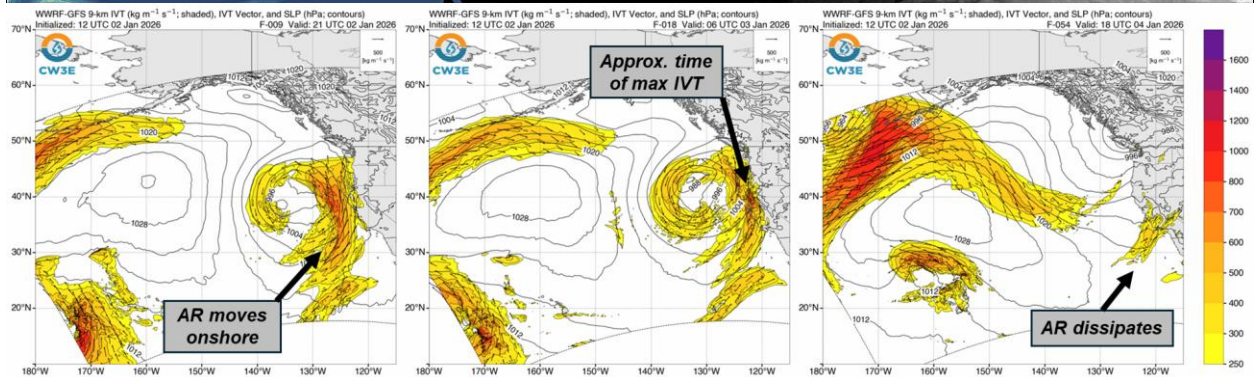
## Quick Look at the AR Forecast to Impact California through this Weekend

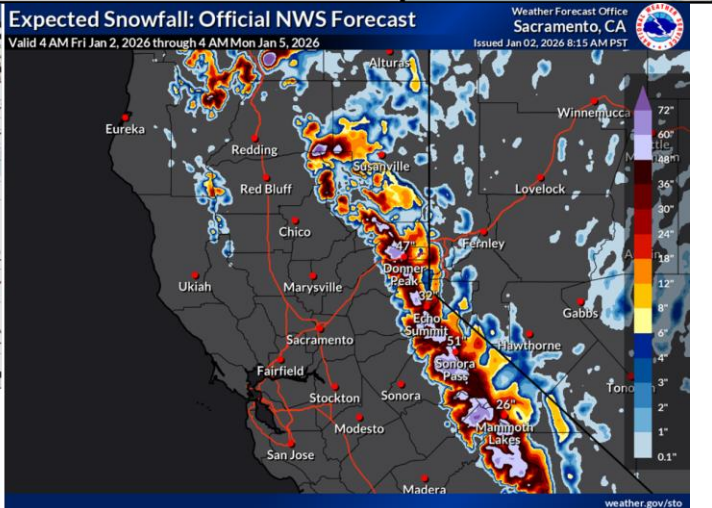
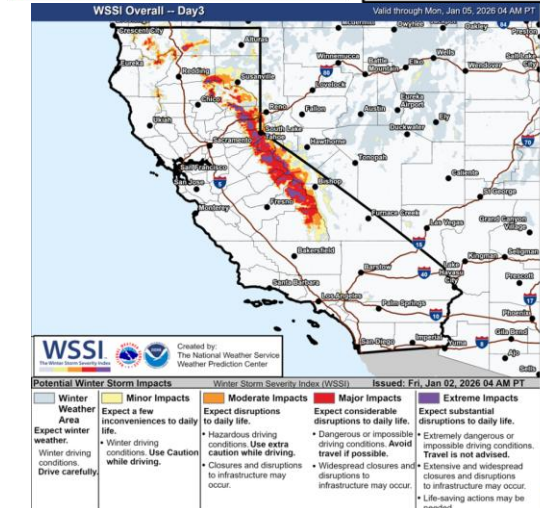
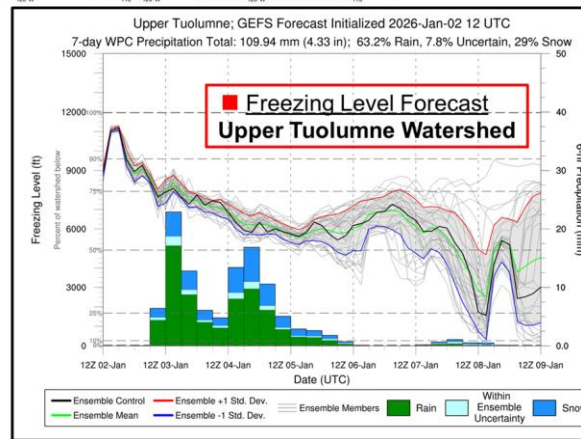
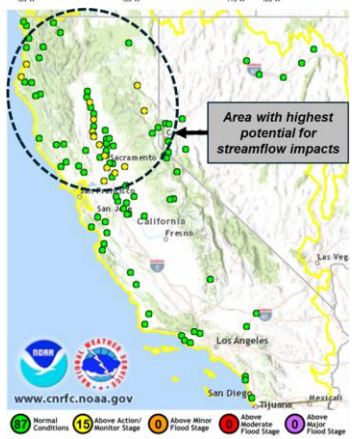
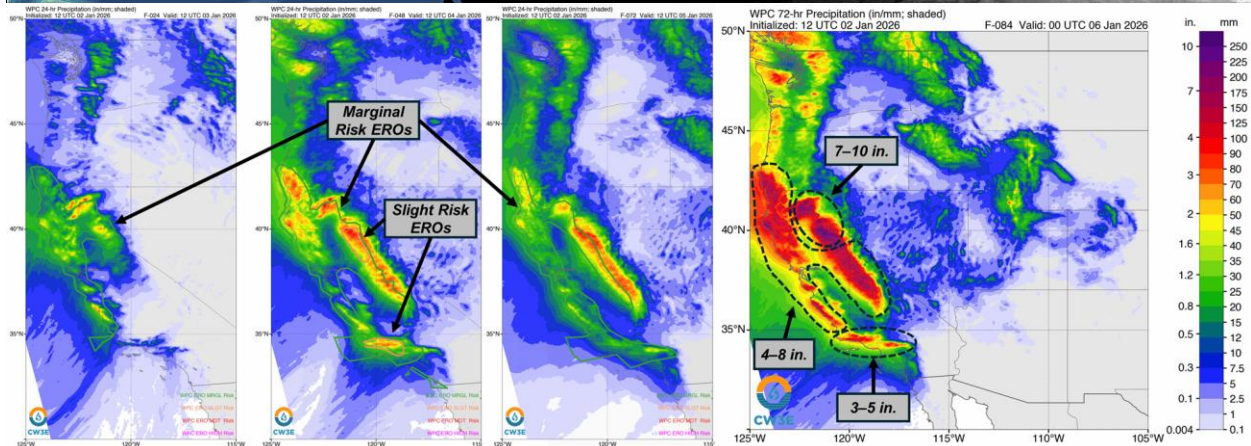
*Updated: 2 January 2026*

An atmospheric river is forecast to make landfall this afternoon and bring heavy precipitation and winter weather to California through the beginning of next week.

### Forecast Highlights:

- An atmospheric river (AR) will make landfall today (Fri 2 Jan) over California. This AR developed near a deep mid-level trough within a plume of subtropical moisture.
- This AR is forecast to bring southwesterly moisture transport to terrain in California (favorable for orographic precipitation) which will combine with forcing for ascent from the trough and its associated shortwaves to support significant precipitation for the region.
- Although the AR is forecast to dissipate late on Sat 3 Jan, the persistent mid-level trough and onshore moisture transport are forecast to extend precipitation through early next week.
- The AR is forecast to bring moderate AR conditions ( $IVT > 500 \text{ kg m}^{-1} \text{ s}^{-1}$ ) to much of coastal California, with CW3E's West-WRF ensemble AR landfall tool indicating high probabilities (>80%) of AR conditions along coastal CA through late Sat 3 Jan.
- The West-WRF control member is currently forecasting AR2/AR3 conditions (based on the Ralph et al. 2019 AR Scale) over coastal southern Oregon, Northern, and Central California.
- The NWS Weather Prediction Center (WPC) is forecasting 72-hour precipitation totals of 7–10 in. for the Klamath Mountains and Northern Sierra Nevada, 4–8 in. over the Central/Southern Sierra Nevada and Coast Ranges, and 3–5 in. for the Transverse Ranges.
- NWS WPC has issued a **slight risk** (level 2 of 4) excessive rainfall outlook (ERO) for Sat 3 Jan into Sun 4 Jan over the northern Sierra Nevada and Transverse Ranges and **marginal risk** (level 1 of 4) EROs over the Klamath Mountains, California Coast Ranges, Transverse Ranges, northern Sacramento Valley, and Sierra Nevada between Fri 2 Jan and Tue 6 Jan.
- The NWS California-Nevada River Forecast Center (CNRFC) is indicating 15 locations are forecast to rise to the action/monitor stage over the next five days from this AR.
- Freezing levels over the Sierra Nevada are forecast to fall from 8,000–10,000 feet to 5,000–7,000 feet through the weekend, leading to the potential for significant snowfall at higher elevations along the Sierra Nevada from this AR.
- Following this AR, a shift towards a drier weather pattern over the US West Coast is expected, with medium-range ensemble and long-range subseasonal forecasts showing limited AR activity during the second week of January. Stay tuned to CW3E's website for additional forecast updates.





**Additional Considerations:**

Visit <https://www.cnrfc.noaa.gov/> for specific hydrologic 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 S. Bartlett  
 smbartlett@ucsd.edu