



Quick Look at Storms Forecast to Impact Western US

Updated: 7 March 2025

A pair of atmospheric rivers and a low-pressure system are forecast to bring precipitation to the US West Coast over the next 7 days (8-14 Mar).

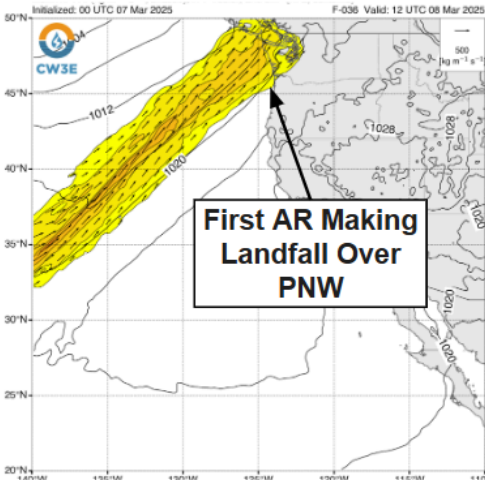
Forecast Highlights:

- An atmospheric river (AR) is forecast to make landfall over the Pacific Northwest tomorrow, Sat 8 Mar, and slowly propagate down the coast through the end of Sun 9 Mar.
- After the AR makes landfall, a trough is forecast to dig behind the AR and propagate toward the US West Coast through Sun 9 Mar, bringing precipitation to Southern California Mon 10 Mar into Tue 11 Mar.
- A second AR is forecast to make landfall along the US West Coast on Wed 12 Mar and propagate down the California coast through Thu 13 Mar.
- CW3E's Landfall Tool based on the EPS shows very high confidence (>95% confidence) in AR conditions ($\geq 250 \text{ kg m}^{-1} \text{ s}^{-1}$) along the PNW coast for 8-9 Mar with the first AR and high confidence (70-80% chance) in AR conditions along the USWC for 12-13 Mar with the second AR.
- The Weather Prediction Center (WPC) is forecasting 3-5 inches over the Olympic Peninsula and 2-3 inches over the northern Washington Cascades for 4 AM PT 8-10 Mar with the first AR. 1-2 inches of precipitation are forecast with the low-pressure system impacting Southern California for 4 AM PST on 10-12 Mar.
- The WPC is also forecasting 4+ inches of precipitation over California's Coast Ranges, the Transverse Ranges and the Sierra Nevada for 4 AM PST 12-14 Mar with the second AR.
- As shown by CW3E's watershed precipitation tool, >50% of GEFS and EPS ensemble members are forecasting 10-day mean areal precipitation totals exceeding 5% of normal annual precipitation over the Upper Yuba Watershed, and nearly 50% of EPS members are forecasting 10-day precipitation totals exceeding 10% of normal annual precipitation in the Santa Ana Watershed.
- There is significant uncertainty amongst ensemble members in the 10-day mean areal precipitation over both the Upper Yuba (~2-9 in.) and Santa Ana (~0.5-3.5 in.) watersheds.
- Freezing levels are forecast to fall throughout the week from ~10-12,000 feet over the Sierra Nevada to < 6,000 feet as the second AR makes landfall over California, showing increasing likelihood of heavy snowfall over Sierra Nevada with the high forecast precipitation.
- This pattern of unsettled weather along the USWC is forecast to continue into early March. The Climate Prediction Center (CPC) Days 8-14 Hazard Outlook shows a moderate risk of heavy snow, heavy precipitation, high winds and flood risk for Northern California and Western Oregon for 14-16 Mar.

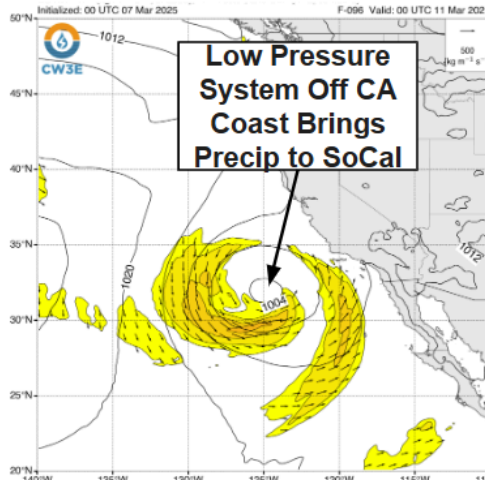
Stay alert to official NWS forecasts, watches, and warnings at [weather.gov](https://www.weather.gov) and follow guidance from local emergency management officials

Stay tuned to the CW3E webpage for a full AR Update

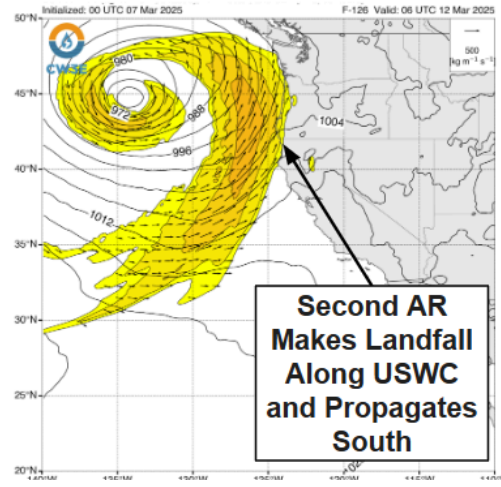
Valid: 4 AM PT Sat 8 Mar



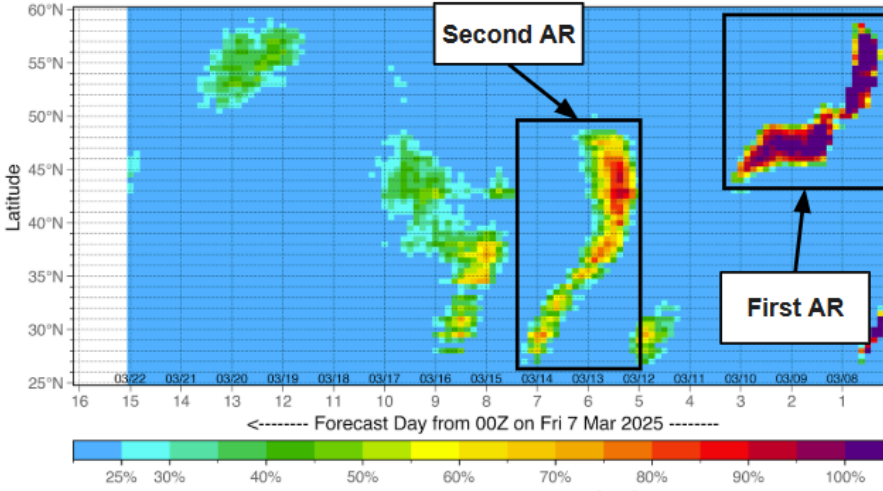
Valid: 5 PM PT Mon 10 Mar



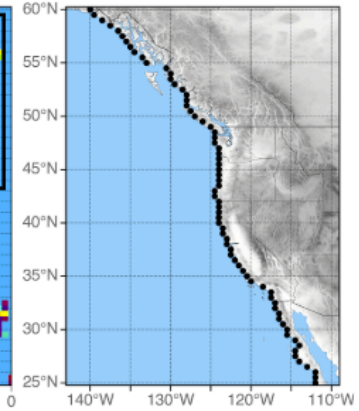
Valid: 11 PM PT Tue 11 Mar



CW3E AR Landfall Tool | ECMWF

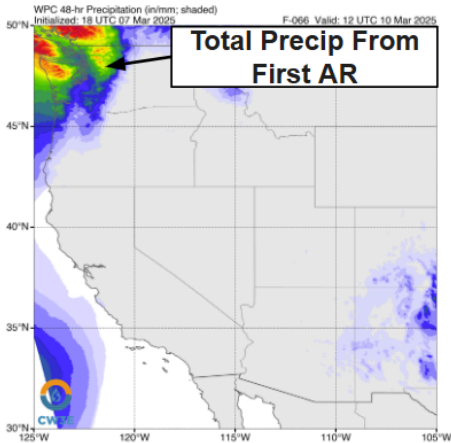


Model Run: 00Z Fri 7 Mar 2025

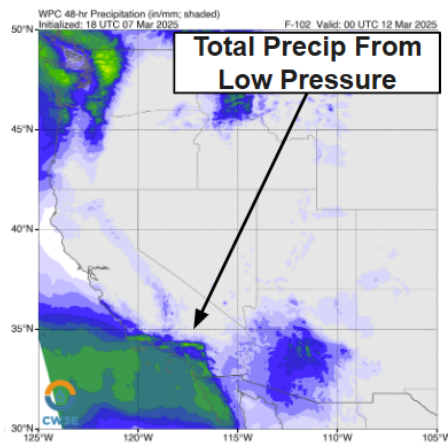


Forecasts support FIRO/CA-AR Program and NSF #2052972 | Intended for research purposes only

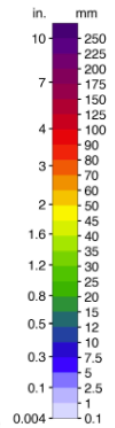
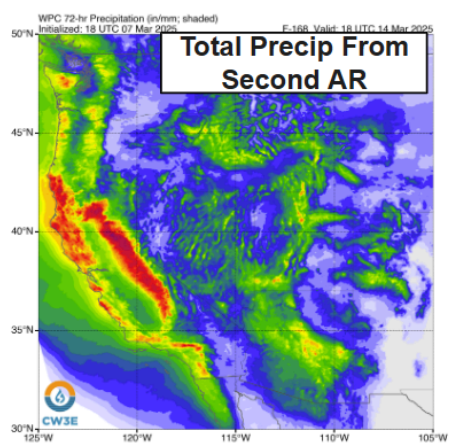
WPC 3-Day QPF: Period Ending 5 AM PT 10 Mar



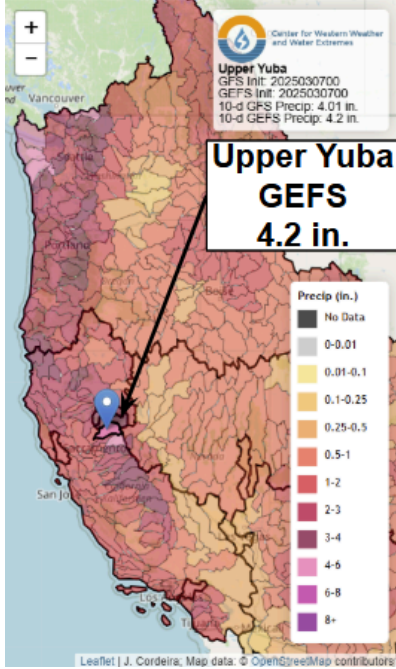
WPC 3-Day QPF: Period Ending 5 PM PT 11 Mar



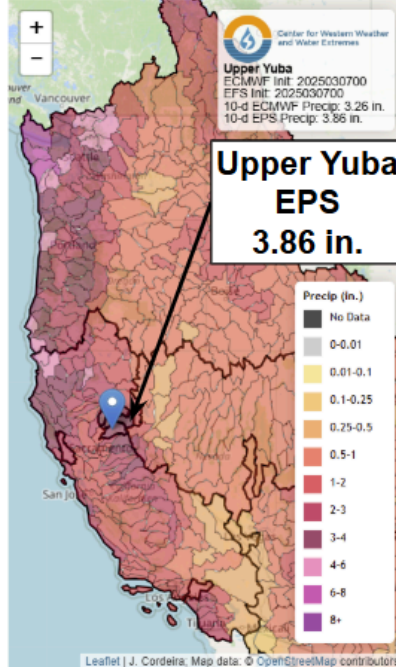
WPC 3-Day QPF: Period Ending 11 AM PT 14 Mar



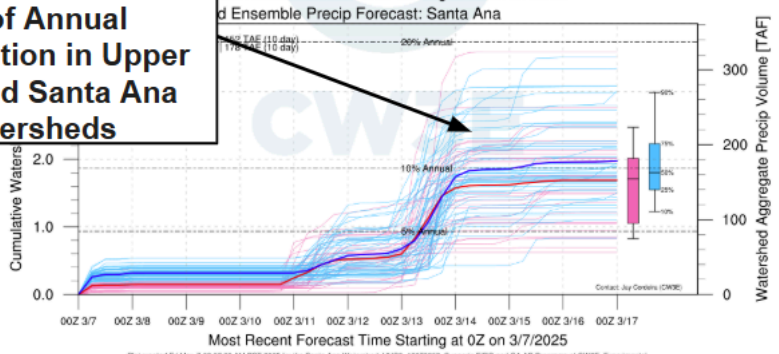
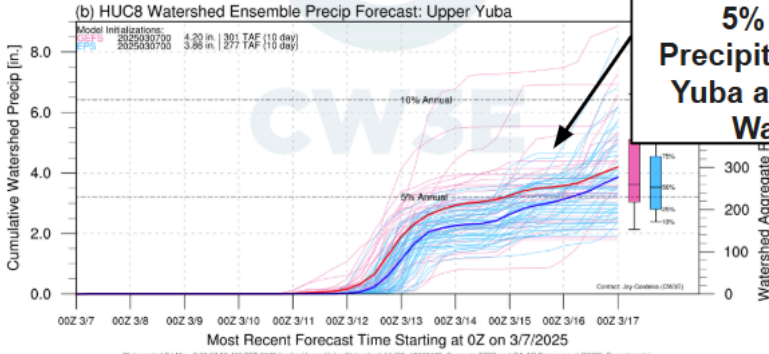
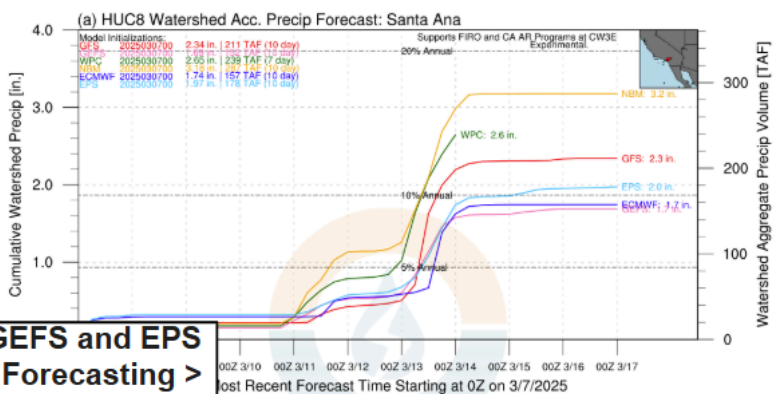
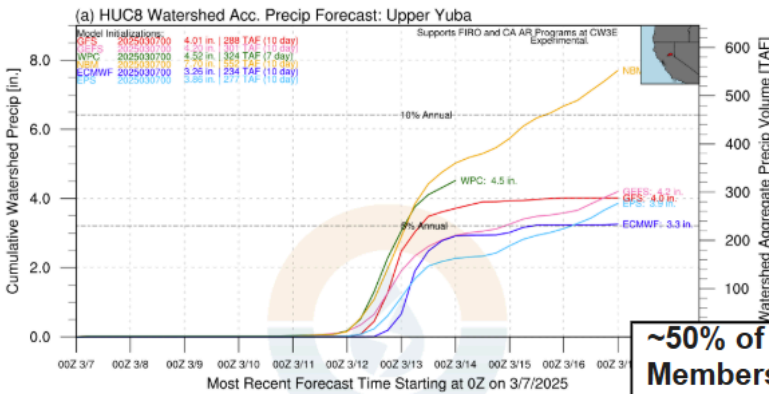
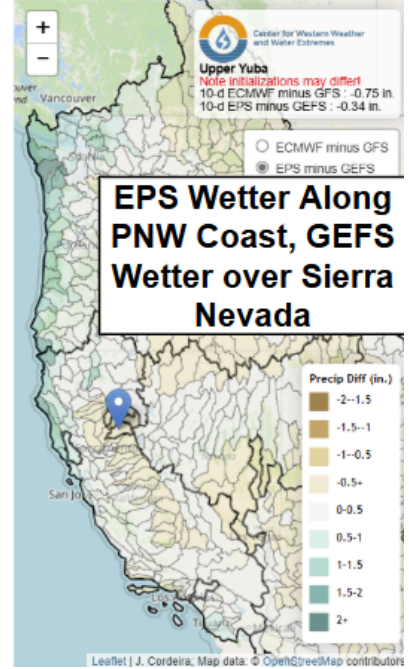
10-day GFS/GEFS Precipitation Forecasts



10-day ECMWF/EFS Precipitation Forecast

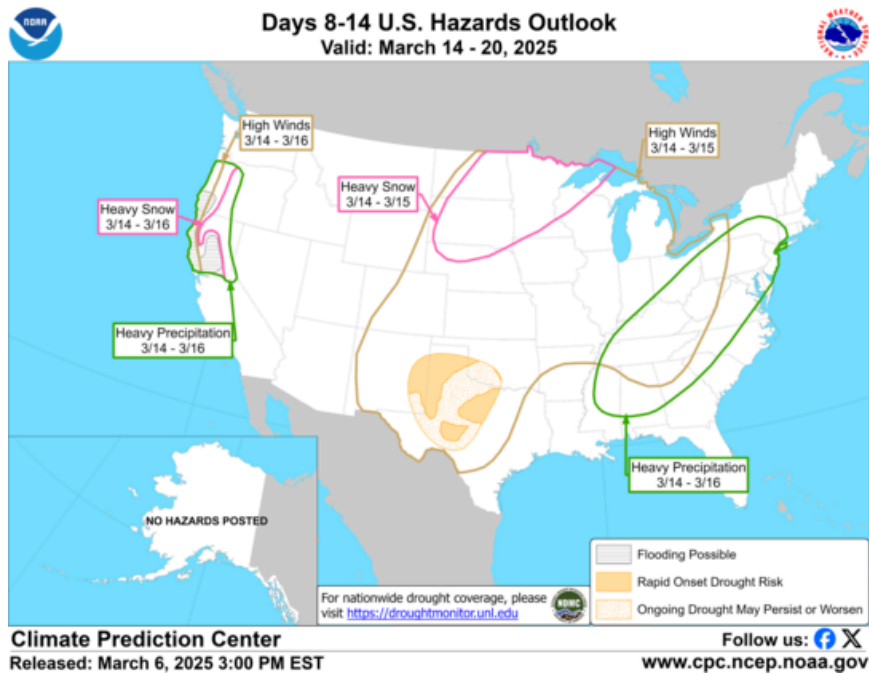
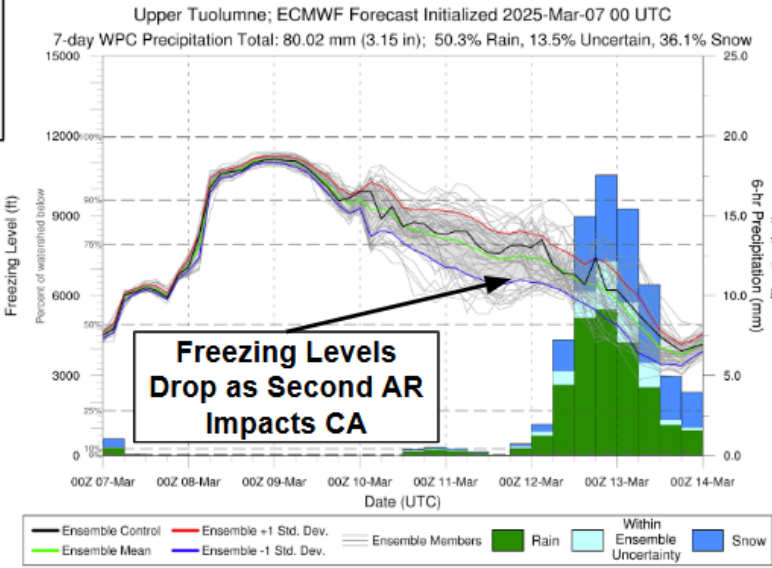
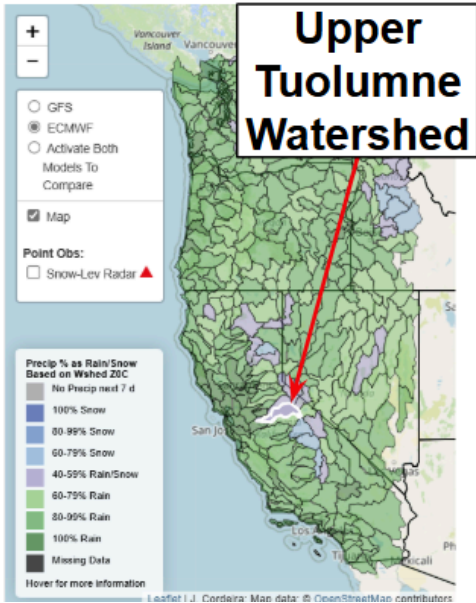


10-day Difference Precipitation Forecast



~50% of GEFS and EPS Members Forecasting > 5% of Annual Precipitation in Upper Yuba and Santa Ana Watersheds

Stay tuned to the CW3E webpage for a full AR Update



Additional Considerations:

- Visit cnrfc.noaa.gov and nwrfc.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 by M. Steen

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