



Latest Update on Storms Forecast to Impact the Western US

Updated: 26 March 2024

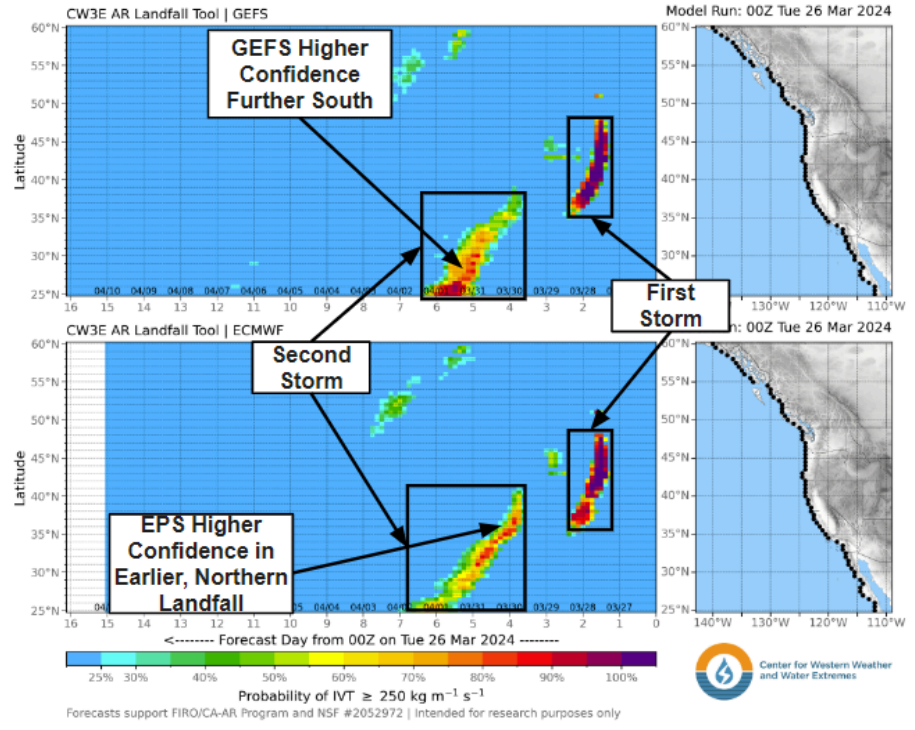
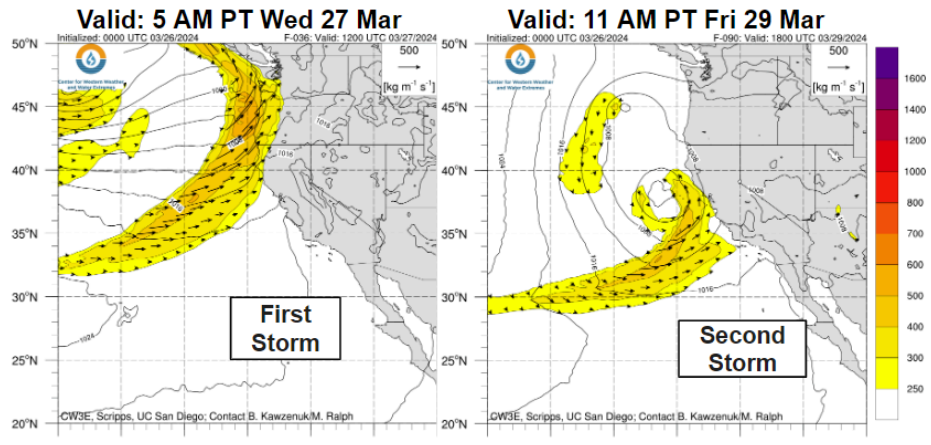
A pair of storms are forecast to impact the Western US through the weekend. These storms are likely to bring widespread precipitation, including potential for significant snowfall in the mountains.

Forecast Highlights:

- CW3E's Atmospheric river (AR) landfall tool shows two distinct periods of higher probabilities of AR conditions ($IVT \geq 250 \text{ kg m}^{-1} \text{ s}^{-1}$) along the US West Coast in the next seven days, however the GEFS and the EPS landfall tools are showing differences in the second storm's landfall location.
- The first of these periods is forecast to begin tomorrow, Wednesday 27 Mar, alongside a low-pressure system that will bring subtropical moisture to Oregon/Northern California that progresses down the California coast.
- The Weather Prediction Center (WPC) is forecasting at least 2 to 3 inches of precipitation over the Olympic Peninsula and California/Oregon border for the 48-hour period ending 5 AM Friday 29 Mar.
- While significant hydrologic impacts are not expected, WPC has issued a marginal risk (level 1 of 4) for flooding in the Excessive Rainfall Outlook (ERO) along the Northern CA/Southern OR Coast Ranges for the 24-hour period ending 5 AM PT Thu 28 Mar.
- The second storm is forecast to begin late Friday 29 Mar and continue through Sunday 31 Mar.
- The EPS is showing higher likelihood of AR conditions over California Friday into Saturday, while the GEFS is showing higher confidence in AR conditions over the Baja Peninsula Saturday into Sunday.
- CW3E's watershed precipitation tool is highlighting these forecast differences, where the ECMWF and EPS are forecasting at least 1 inch more precipitation over Southern CA watersheds than the GFS and GEFS. In the Santa Ana watershed, the majority of EPS members are forecasting the storm-total precipitation to exceed 10% of the normal annual precipitation.
- The WPC is forecasting 4+ inches of precipitation over the Transverse Ranges for the 72-hour period ending 5 AM PT Monday 1 Apr.
- The WPC is indicating a slight risk (level 2 of 4) in the ERO over the Transverse Ranges and Southern CA coast for the 24-hour period ending 5 AM PT Sun 31 Mar.
- The ECMWF's Extreme Forecast Index (EFI) is indicating a 70%+ chance for precipitation to be above record levels for this time of year across Southern CA.
- WPC's Day 3-7 Hazards Outlook is Highlighting this risk for heavy rainfall along the Central and Southern CA coast for Mar 29-31 as well as the risk for heavy snow over the Sierra Nevada on Mar 29 and 30.

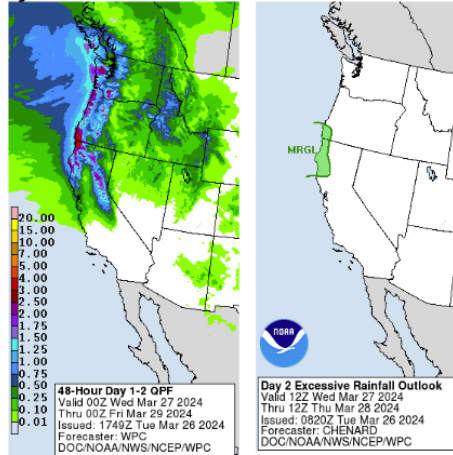
Stay alert to official NWS forecasts, watches, and warnings at [weather.gov](https://www.weather.gov) and follow guidance from local emergency management officials

Stay tuned to the CW3E webpage for a full AR Update

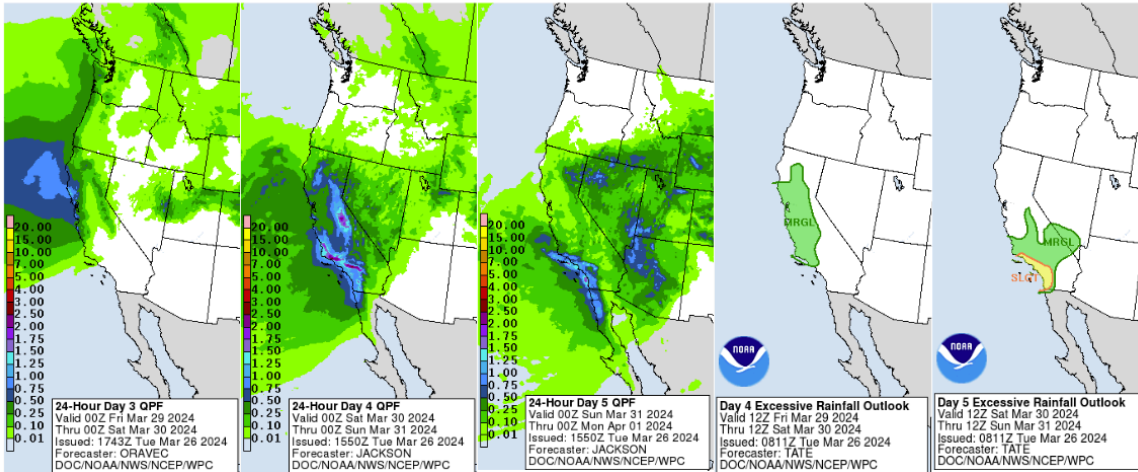


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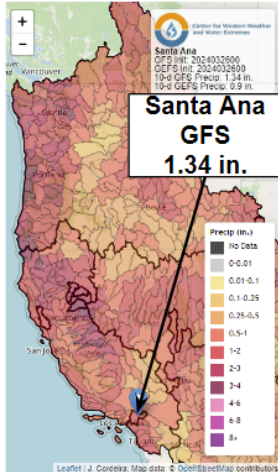
National Weather Service Day 1-2 QPF and Day 2 Excessive Rainfall Outlook



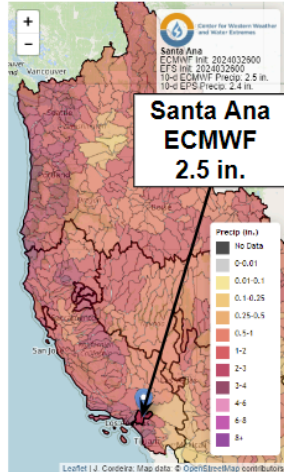
National Weather Service Day 3-5 QPF and Day 4 and 5 Excessive Rainfall Outlook



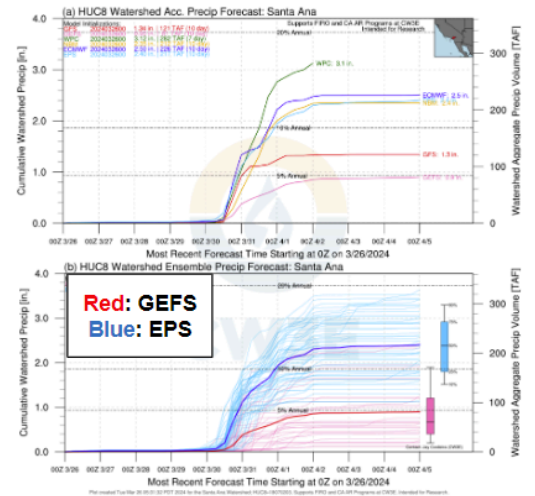
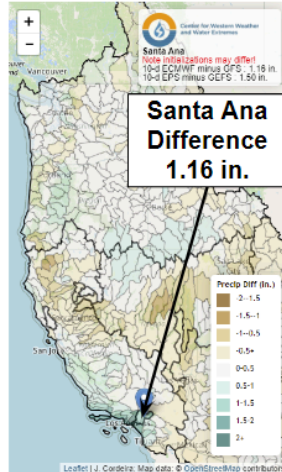
10-day GFS/GFS Precipitation Forecasts



10-day ECMWF/EFS Precipitation Forecast

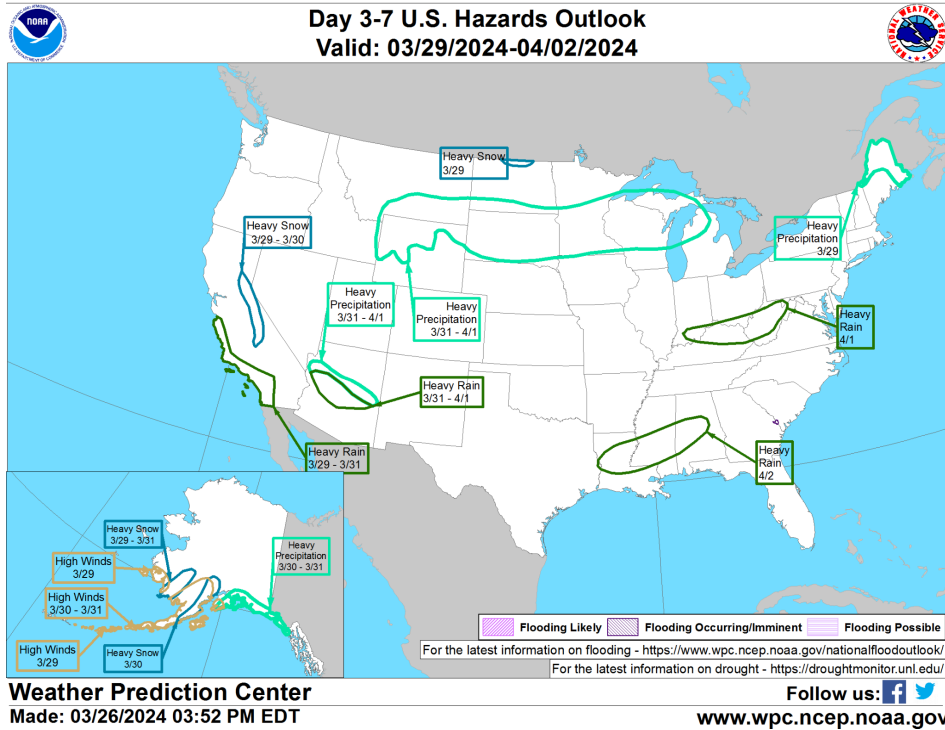
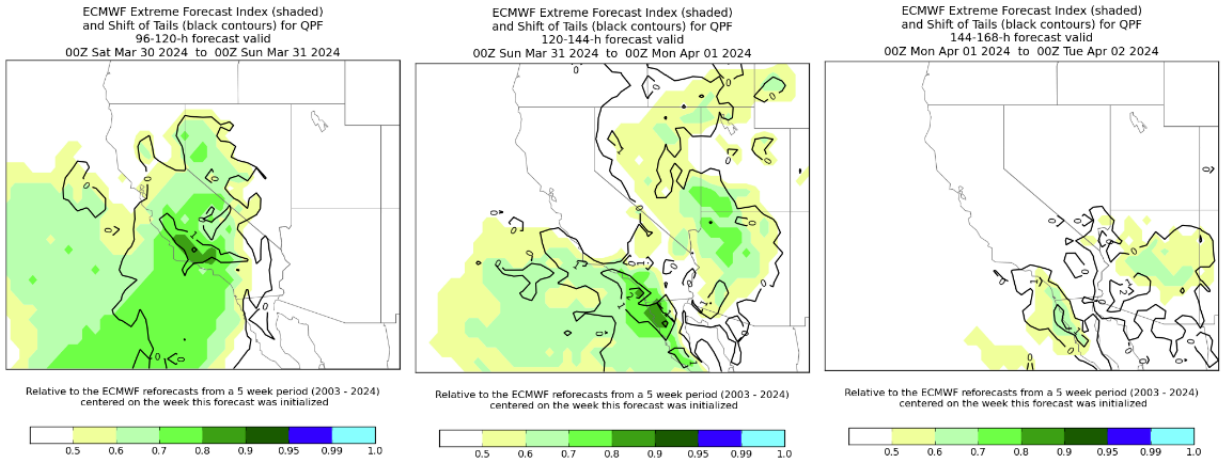


10-day Difference Precipitation Forecast



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ECMWF Extreme Forecast Index (EFI) for QPF During Second Storm



Additional Considerations:

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