



## Latest Update on Atmospheric River Forecast to Impact California

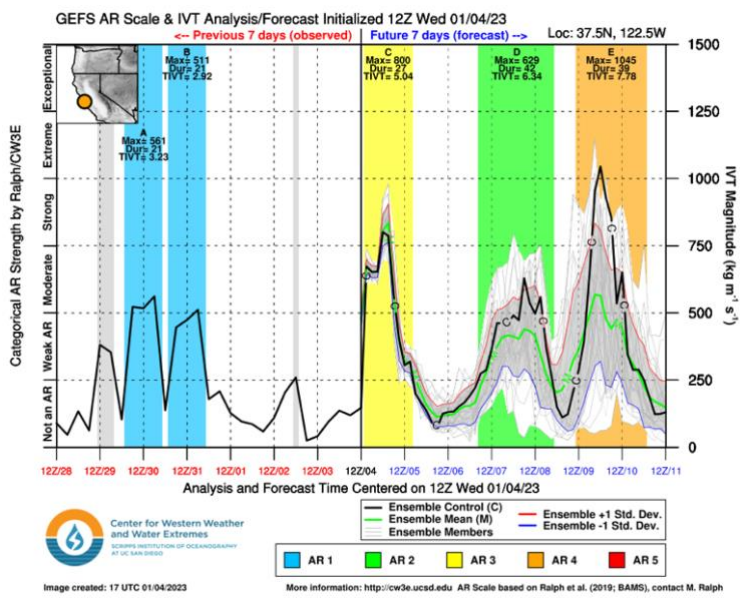
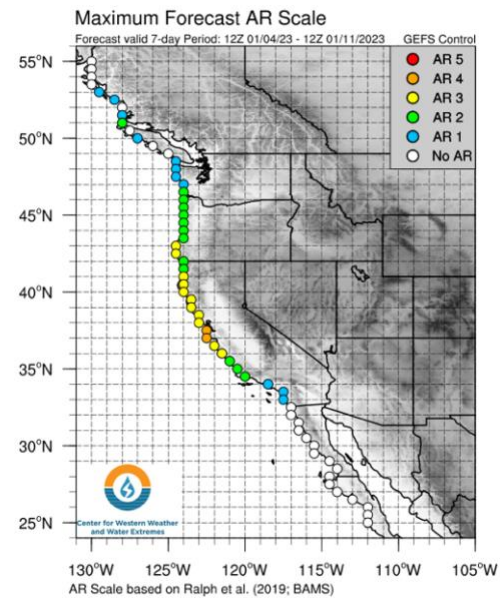
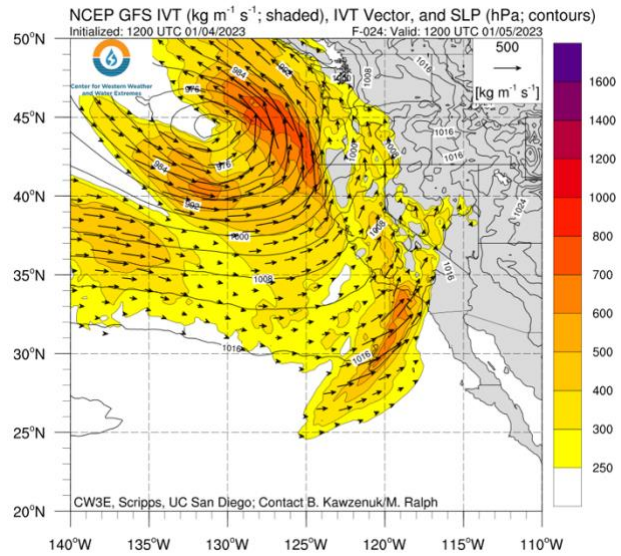
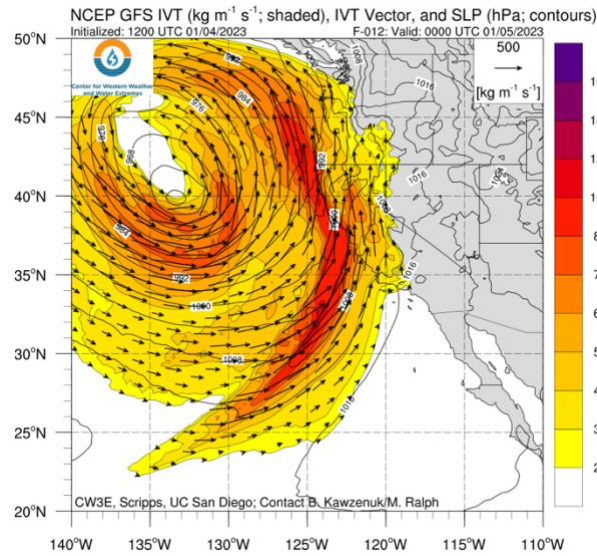
*Updated: 4 January 2023*

A quick look at the atmospheric river that will impact California through Thursday.

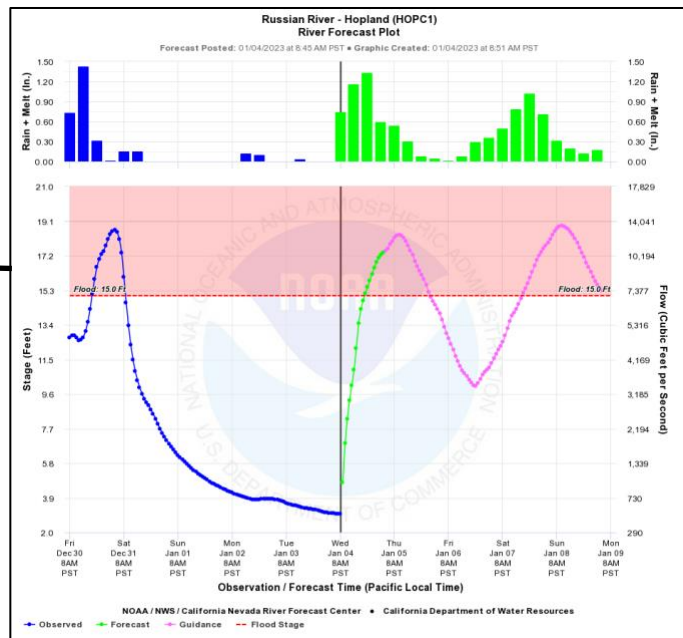
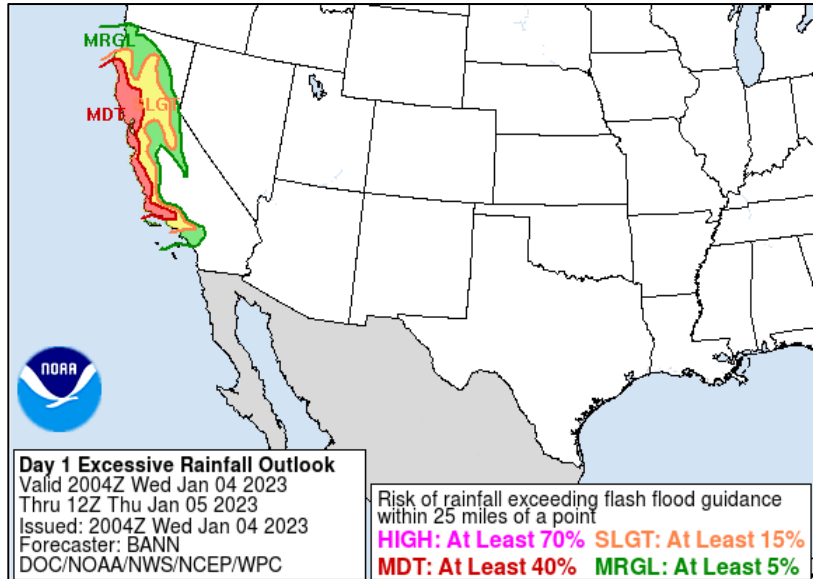
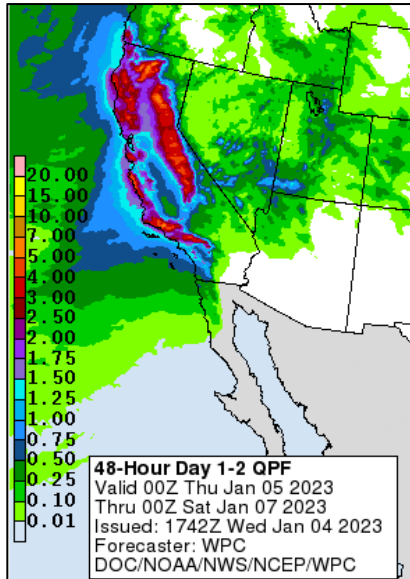
### Forecast Highlights:

- A strong atmospheric river (AR) associated with a powerful extratropical cyclone is currently making landfall in California
- The core of the AR will weaken as it rapidly moves through the state, bringing moderate-to-strong AR conditions (i.e., IVT 500–1000 kg m<sup>-1</sup> s<sup>-1</sup>) to coastal Northern and Central California, and weak-to-moderate AR conditions (i.e., IVT 250–750 kg m<sup>-1</sup> s<sup>-1</sup>) to Southern California
- AR 3 conditions (based on the Ralph et al. 2019 AR Scale) are currently expected in the San Francisco Bay Area
- Additional landfalling AR activity is forecast over California during 6–8 Jan and 9–10 Jan
- GEFS is showing the potential for AR 4 conditions in the Bay Area during the third period of landfalling AR activity (9–10 Jan), but there is large uncertainty in the AR timing, magnitude, and duration given the longer forecast lead time
- The first AR and associated low-pressure system is forecast to produce at least 3–7 inches of precipitation in the southern Cascades, Sierra Nevada, Coast Ranges, and Transverse Ranges
- The NWS Weather Prediction Center has issued a moderate risk of rainfall exceeding flash flood guidance over much of coastal California, as well as a slight risk of rainfall over exceeding flash flood guidance in the Sacramento Valley
- The combination of heavy rainfall from this AR and antecedent soil moisture and streamflow conditions will likely result in riverine flooding over the Northern California Coastal and Lower Sacramento Basins
- Statewide, 4 stream gages are forecast to exceed flood stage over the next 3 days, and 19 other stream gages are forecast to exceed monitor/action stage
- The Russian River at Hopland is forecast to rise above flood stage later today and again on 7–8 Jan following another AR landfall
- The National Weather Service has issued numerous watches, warnings, and advisories for coastal and flash flooding, heavy mountain snow, and damaging 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**

**Stay tuned to the CW3E webpage for a full AR Update**



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### Additional Considerations:

- Visit [cnrfc.noaa.gov](http://cnrfc.noaa.gov) for specific river and stream forecasts and [weather.gov](http://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/>

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