

CW3E Event Summary: 30 Nov – 2 Dec 2019

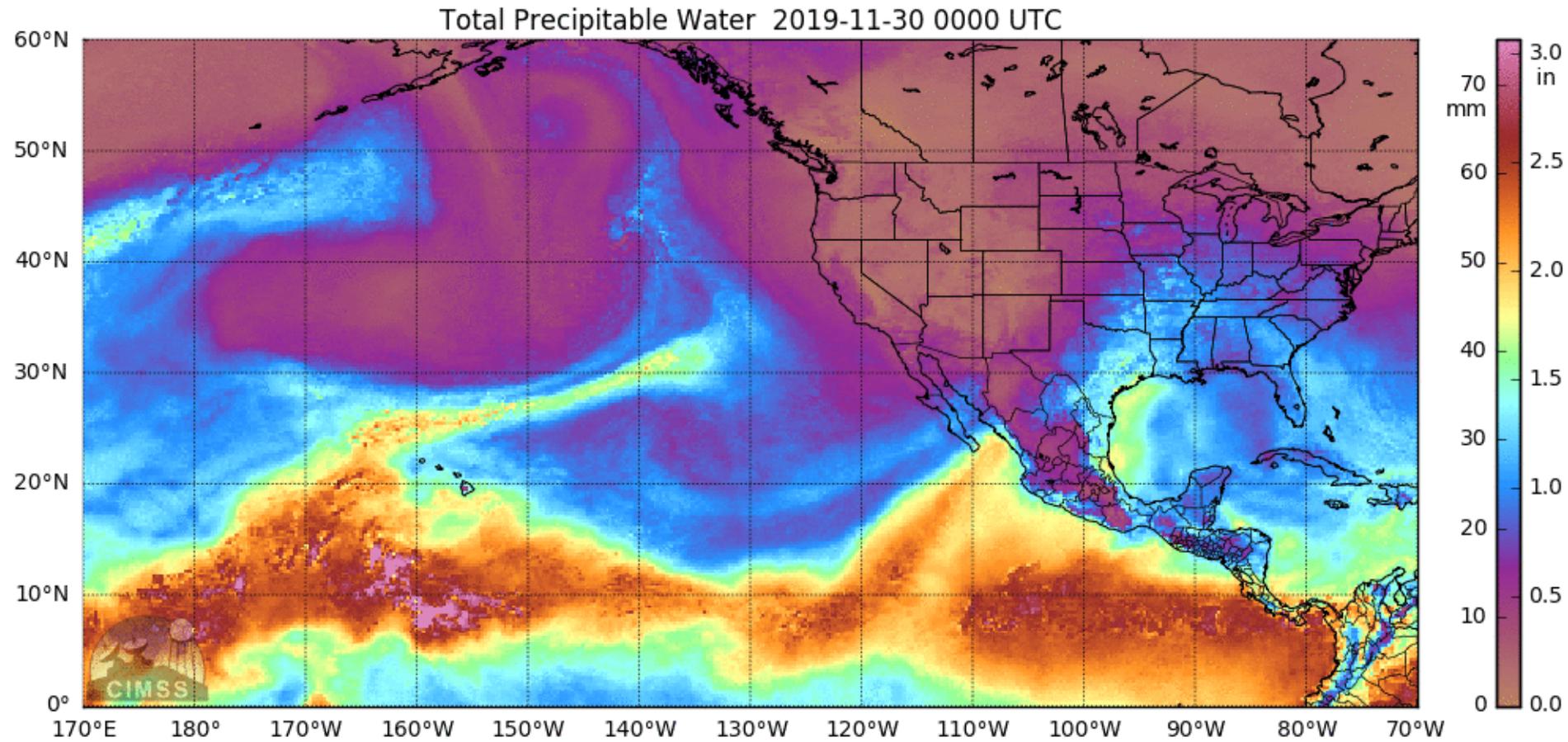


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A long-duration AR helped produce heavy rainfall and mountain snowfall in central and northern CA

- The AR was associated with a midlatitude cyclone that stalled over the Northeast Pacific Ocean
- Precipitation amounts exceeded 5 inches in some parts of the California Coast Ranges and Sierra Nevada
- Higher elevations in the Sierra Nevada received more than 2 feet of snow



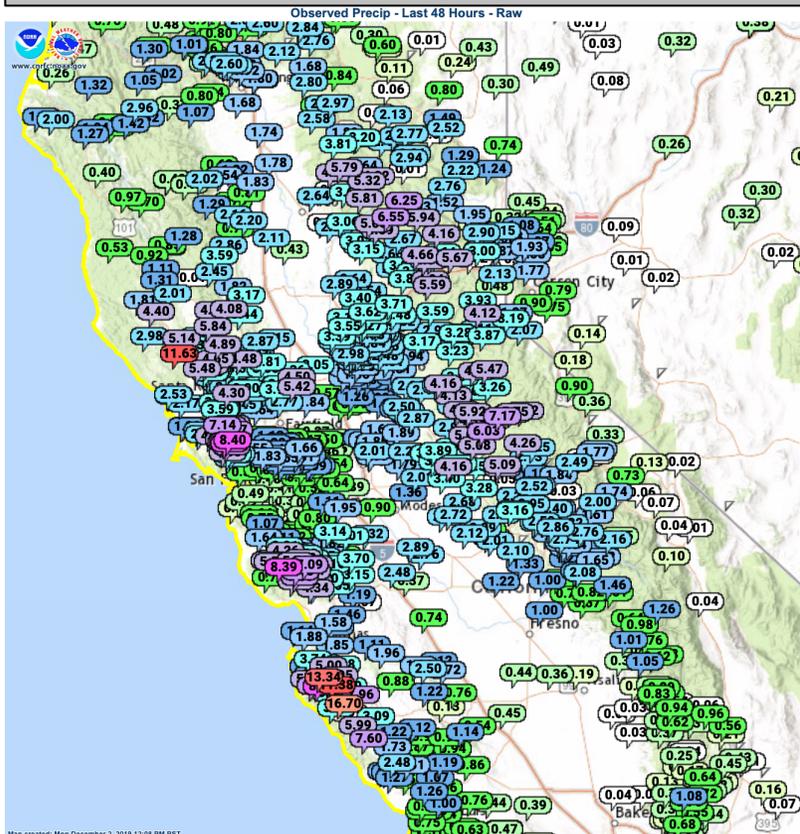
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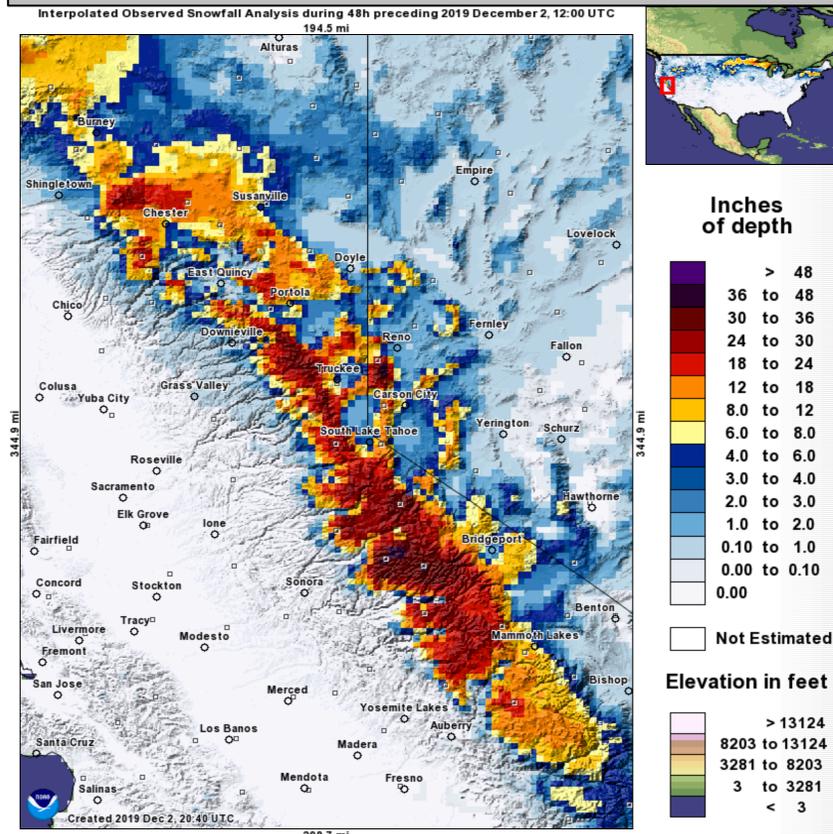
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48-h Observed Precipitation (Raw): Valid 1200 UTC 30 Nov – 2 Dec



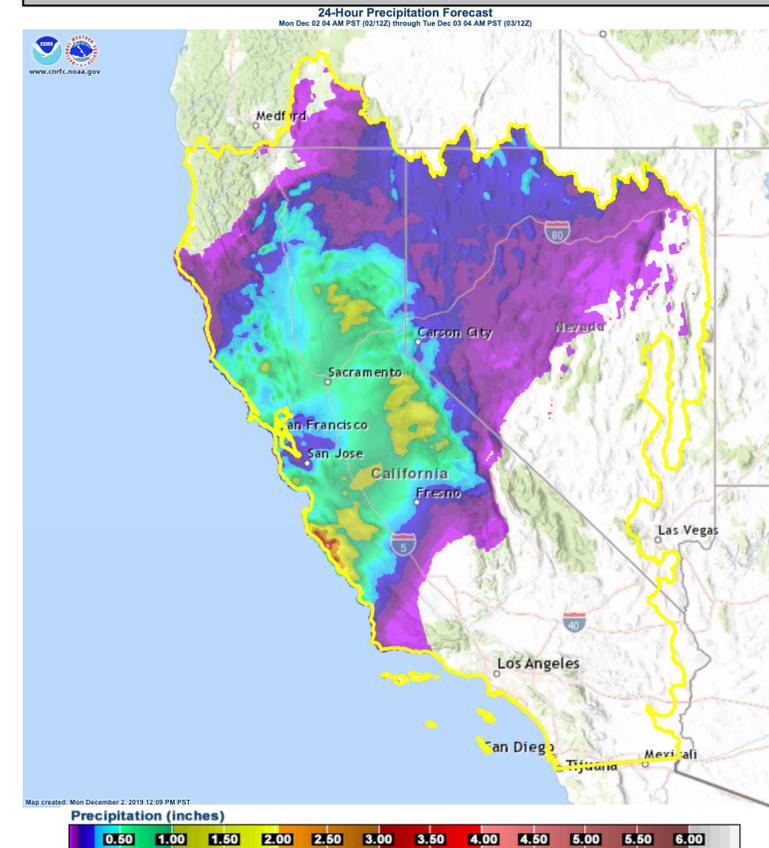
Source: NOAA/NWS CNRFC, <https://www.cnrfc.noaa.gov/>

48-h Interpolated Snowfall: Valid 1200 UTC 30 Nov – 2 Dec



Source: NOAA/NWS NOHRSC, <https://www.nohrsc.noaa.gov/>

CNRFC 24-h QPF: Valid 1200 UTC 2–3 Dec



- Sections of the central CA Coast Range and Sierra Nevada have received > 5 inches of precipitation during the past 48 hours
- A few stations in central CA have recorded > 10 inches of rainfall
- An estimated 2-3 feet of snow has fallen over parts of the Sierra Nevada (primarily above 8,000 feet)
- Additional precipitation amounts of 0.5 – 2 inches are expected throughout much of central and northern CA

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Kingvale to Donner Lake



Source: Caltrans, <https://dot.ca.gov>

US-50 near Echo Summit



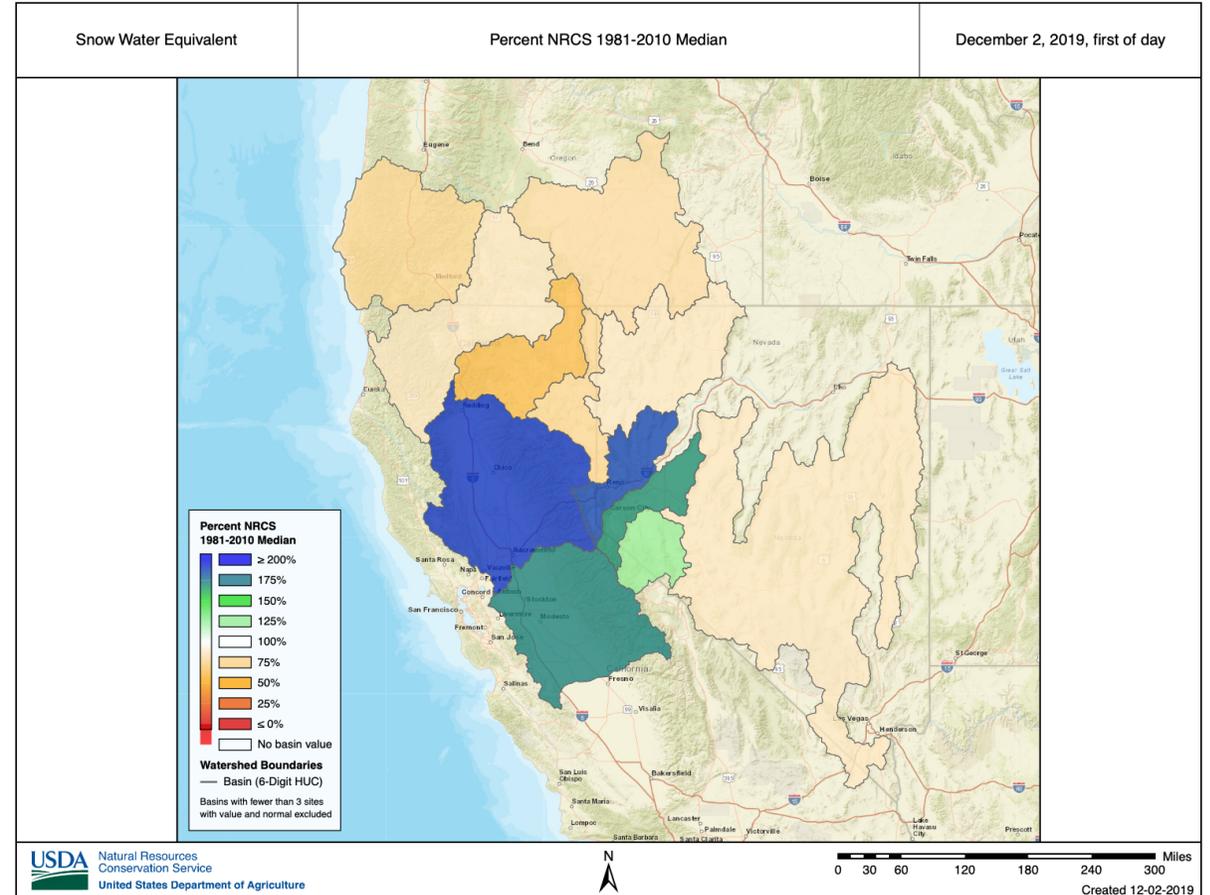
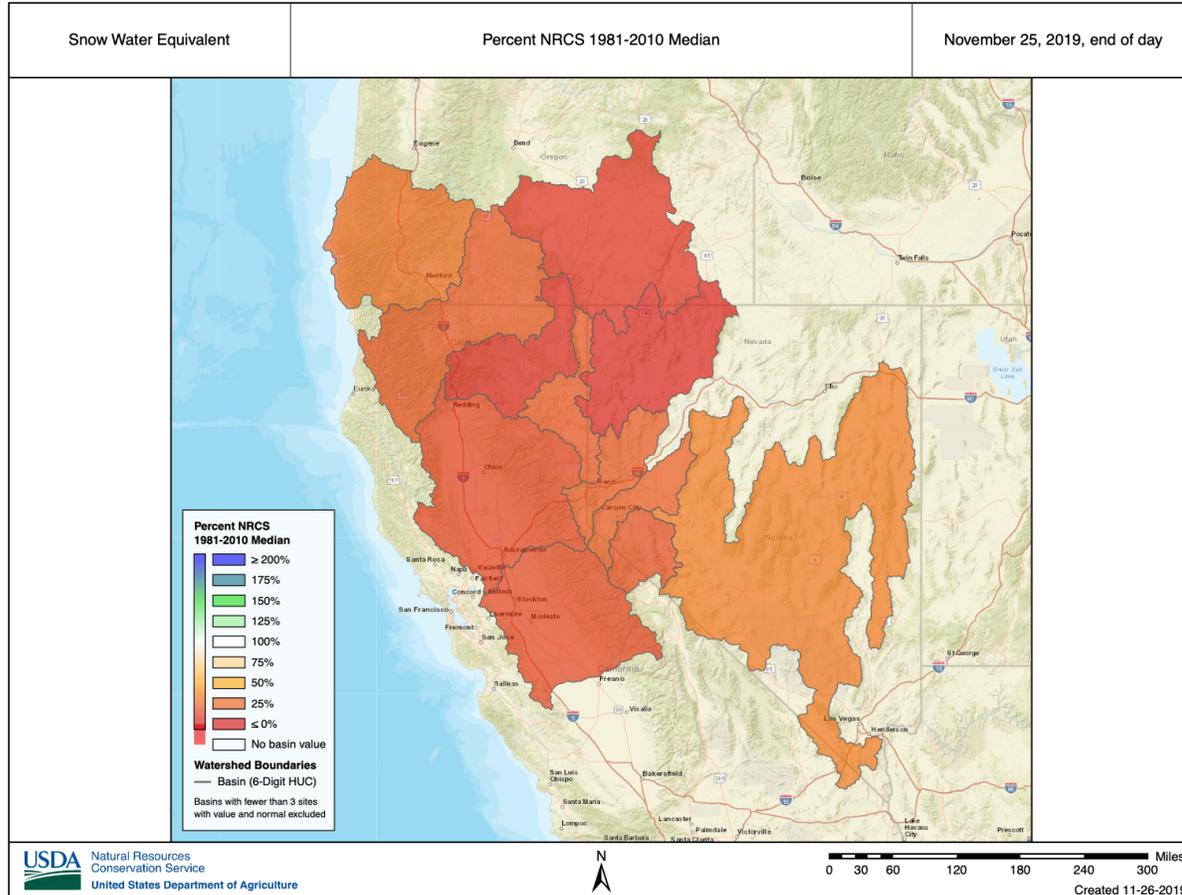
Source: Caltrans, <https://dot.ca.gov>

- Heavy snowfall resulted in treacherous road conditions and chain controls on Interstate 80 and US-50 over mountain passes
- Travel on US-50 was reduced to one-way traffic for several hours on 2 Dec due to a rock slide near Echo Summit

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- Heavy precipitation during the past 7 days has resulted in a significant increase in SWE across northern CA and western NV
- On 25 Nov, SWE was less than 25% of the 1981–2010 median value
- As of early morning 2 Dec, SWE was more than 100% of the 1981–2010 median over the San Joaquin, Lower Sacramento, Truckee, Carson, and Walker Basins

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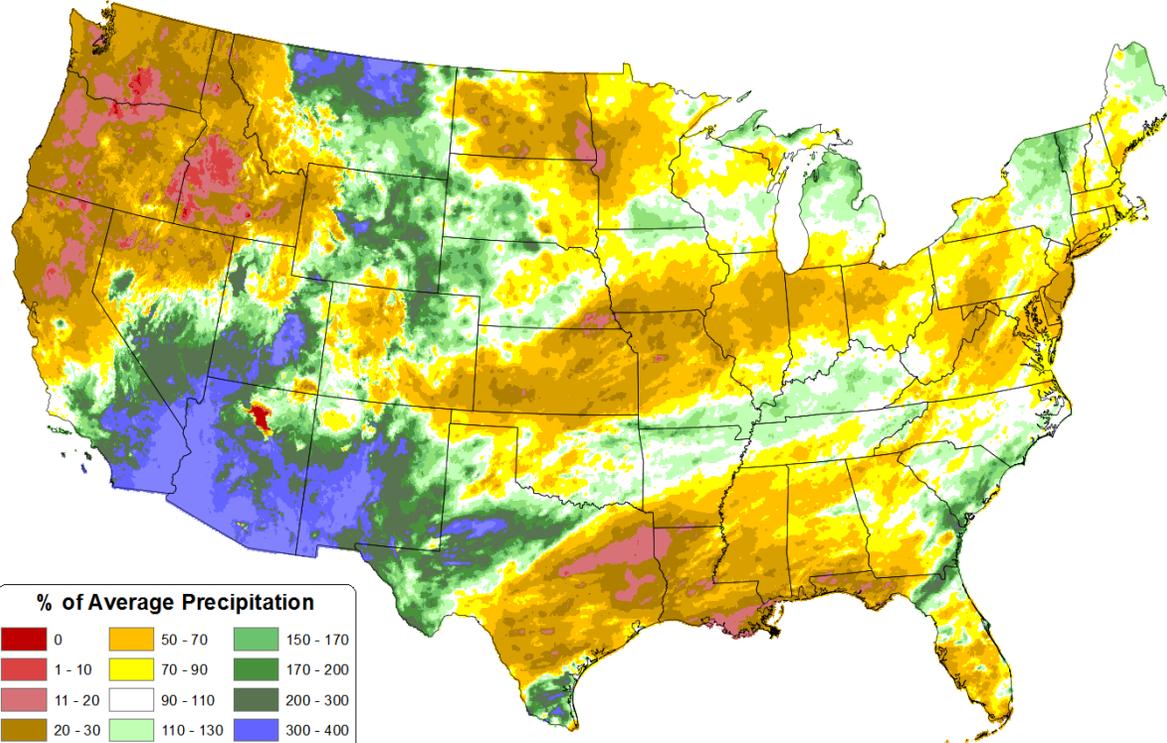


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Total Precipitation Anomaly: Nov 2019

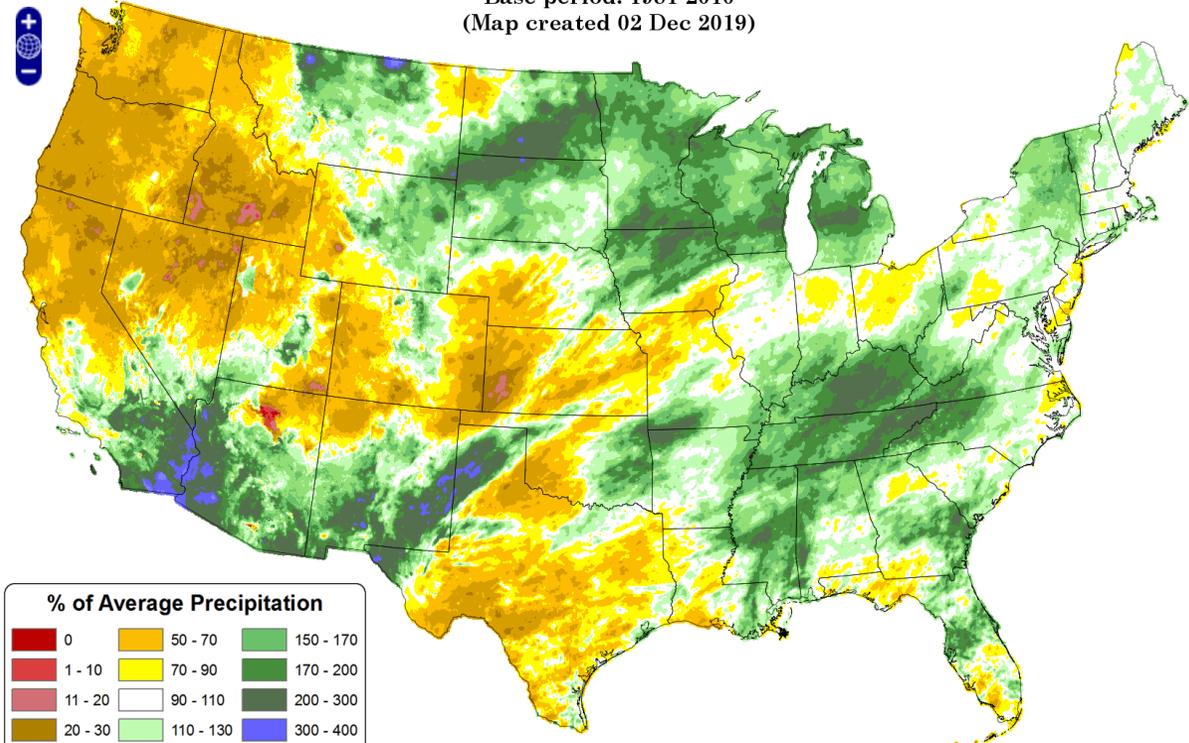
Period ending 30 Nov 2019
Base period: 1981-2010
(Map created 02 Dec 2019)



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Total Precipitation Anomaly: Oct 2019 - 01 Dec 2019

Period ending 7 AM EST 01 Dec 2019
Base period: 1981-2010
(Map created 02 Dec 2019)



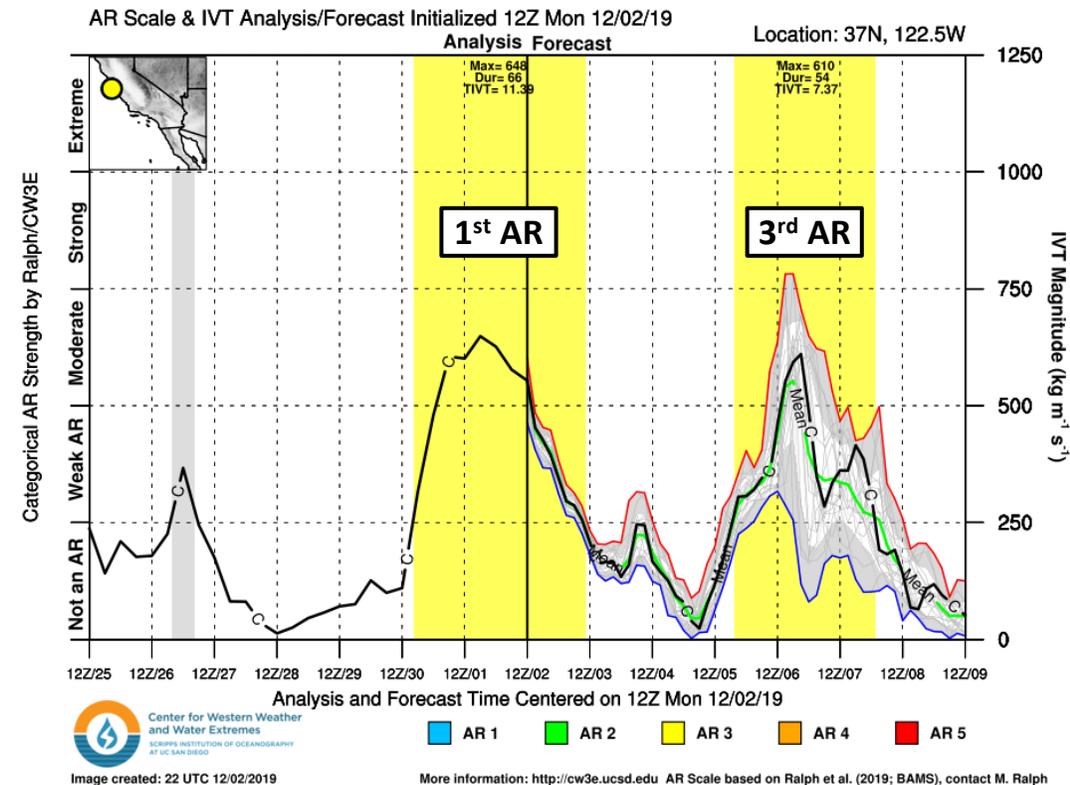
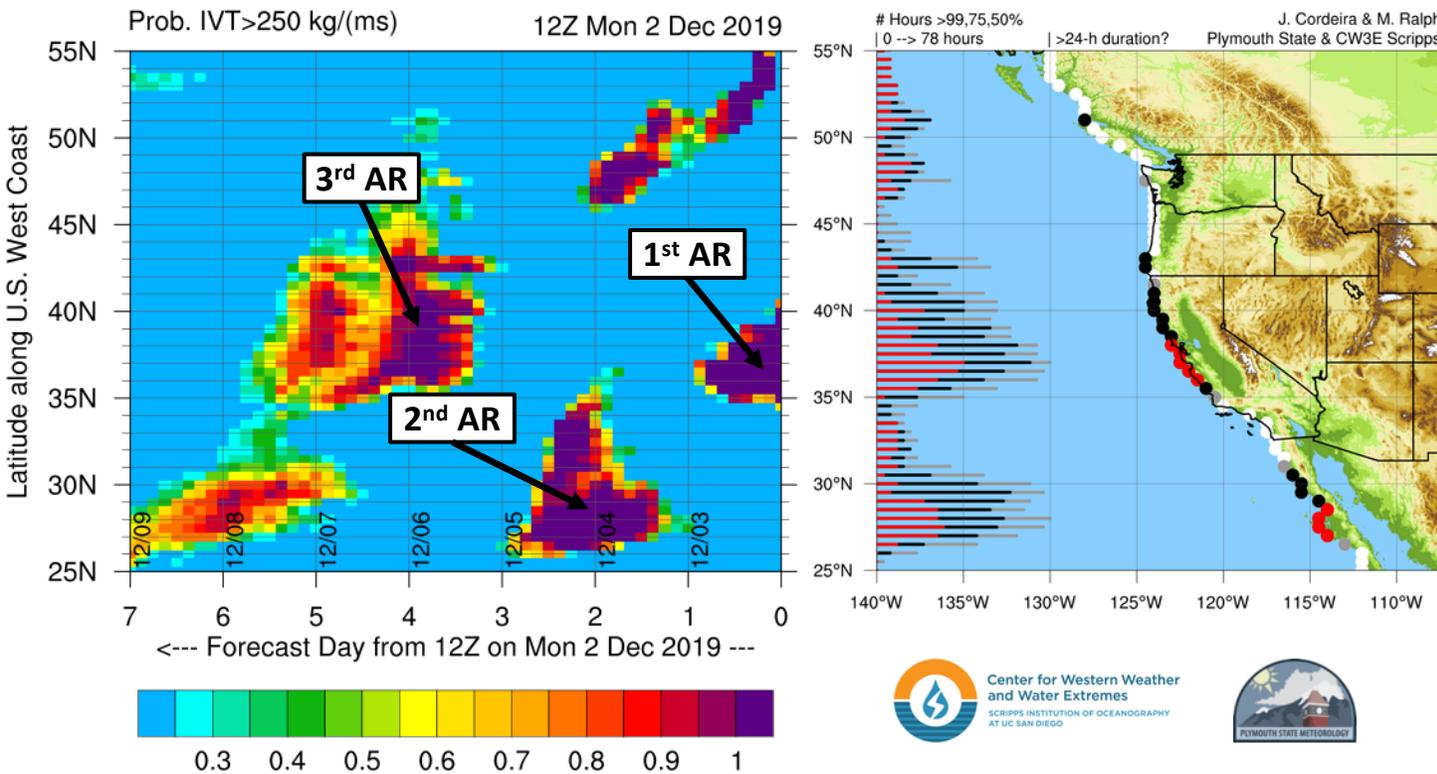
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- Total monthly precipitation in November was $> 200\%$ of normal across much of the southwestern U.S., with amounts $> 400\%$ of normal over the Sonoran Desert
- Despite the recent wet period, November was abnormally dry ($< 50\%$ of normal monthly precipitation) in northern CA
- As of 1 Dec, total water year precipitation remains below normal over northern CA, northern NV, and the Pacific Northwest

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- The AR currently impacting CA will verify as an AR3 (based on the *Ralph et al. (2019)* AR Scale) near Monterey Bay, CA
- Looking ahead, multiple landfalling ARs are very likely to impact California and the Baja Peninsula over the next 5 days
- The 3rd AR is currently forecast to bring AR3 conditions (max IVT > 500 kg m⁻¹ s⁻¹; duration > 48 hours) once again to central CA