Quick Look at the Upcoming ARs and their Impacts Over the US West Coast

Updated: 4 November 2025

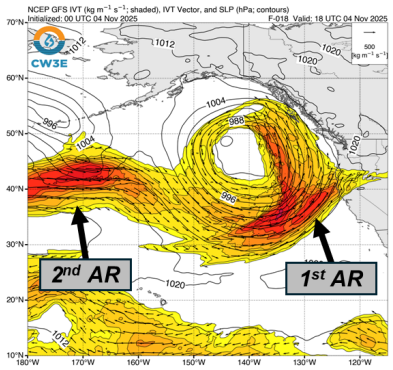
Back-to-back atmospheric rivers are forecast to bring heavy precipitation and coastal impacts to the Pacific Northwest and N. California through this week, with more AR activity this weekend.

Forecast Highlights:

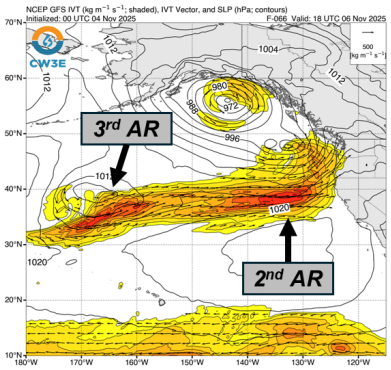
- A strong AR with IVT >1,000 kg m^{-1} s^{-1} is forecast to move onshore over coastal southern Oregon and Northern California today, Tue 4 Nov, and persist for ~40 hours.
- A second, moderate-strength AR is forecast to make landfall on Thu 6 Nov with IVT >500 kg m^{-1} s^{-1} forecast along the Pacific Northwest coast and in Northern California.
- A third AR is forecast to move onshore over British Columbia on Sat 8 Nov, eventually progressing eastward and affecting the Pacific Northwest, although there is still significant uncertainty as to the timing, strength, and orientation of this AR.
- GEFS AR Scale forecasts are indicating AR 4 (90% probability)/AR 5 (40% probability) conditions over coastal southern Oregon during 4–7 Nov in association with the first two ARs and at least AR 2 (60% probability) conditions on Sun 9 Nov with the third AR.
- The NWS Weather Prediction Center (WPC) is forecasting 72-hour precipitation totals of 2–6 in. for the period ending 4 AM Fri 7 Nov over the higher terrain in Washington, Oregon, and Northern California during the first two ARs and an additional 1–2 in. for the 48-hour period ending 4 AM 11 Nov with the third AR.
- 10-day accumulated precipitation forecasts from the 00Z initializations are higher for the EPS ensemble mean as compared to the GEFS mean over watersheds from Washington (e.g. Lewis watershed) to Northern California (e.g. Lower Eel watershed).
- NWS WPC has issued **marginal risk** (**≥ 5%; level 1 of 4**) excessive rainfall outlooks (EROs) in the Klamath Mountains, Northern California Coast Ranges, and Northern Sierra Nevada between 4 AM Tue 4 Nov–4 AM Fri 7 Nov and over the Olympic Peninsula between 4 AM Wed 5 Nov–4 AM Fri 7 Nov.
- Guidance from both the Northwest River Forecast Center (NWRFC) and the California-Nevada River Forecast Center (CNRFC) is indicating a streamflow response from these ARs, with two locations north of Seattle forecast to rise above action/bankfull level.
- Freezing levels are forecast to remain between 6,000–8,000 feet over much of the terrain in the western US, including in watersheds within southern Washington and Northern California, resulting in primarily rain during this period.
- Precipitation from these ARs will likely be beneficial to northern Oregon and Washington, as much of this region is under moderate-to-severe drought based on the US Drought Monitor.
- The NWS has begun issuing watches and advisories for a variety of impacts associated with this event, including a Flood Watch over N. California, Coastal Flood Advisories in the PNW and N. California, and High Wind Watches/Warnings over S. Oregon and N. California.

Stay alert to official NWS forecasts, watches, and warnings at weather.gov

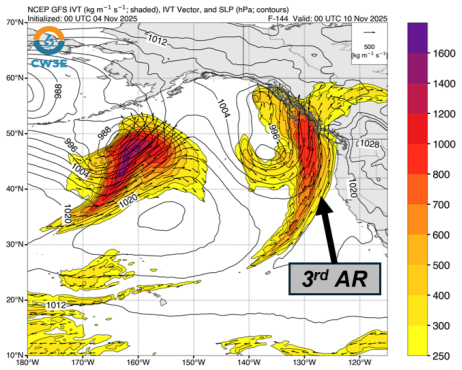
GFS IVT & SLP: 10 AM Tue 4 Nov



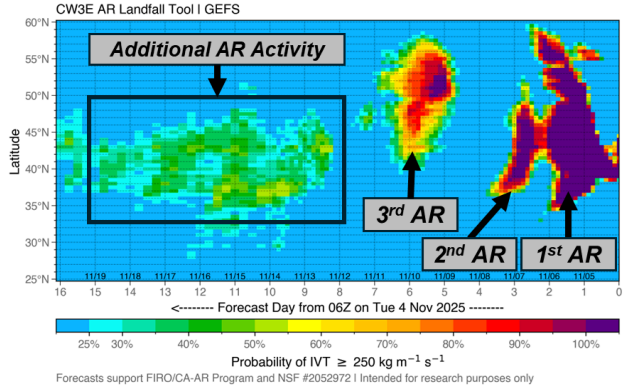
GFS IVT & SLP: 10 AM Thu 6 Nov



GFS IVT & SLP: 4 PM Sun 9 Nov

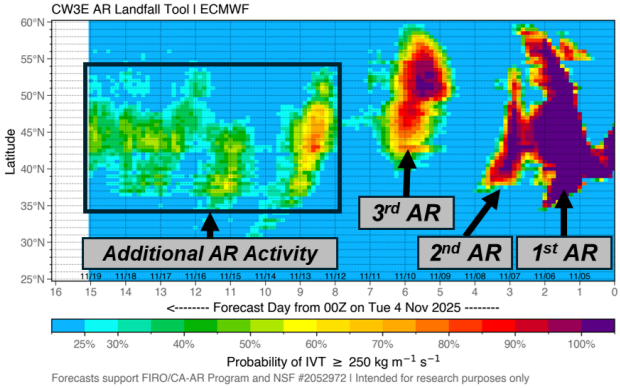


CW3E AR Landfall Tool | GEFS



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

CW3E AR Landfall Tool | ECMWF



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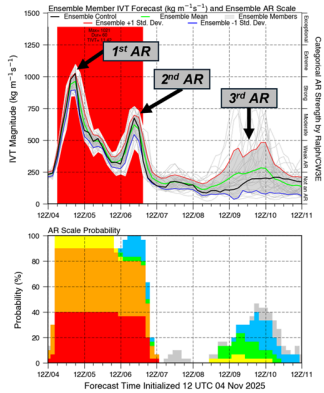
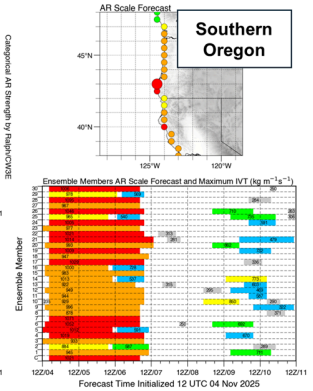
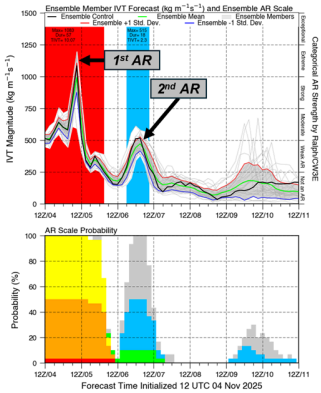
GEFS Ensemble Initialized 12 UTC 04 Nov 2025



Location: 43.0°N, 124.5°W



GEFS Ensemble Initialized 12 UTC 04 Nov 2025



Location: 40.0°N, 124.0°W

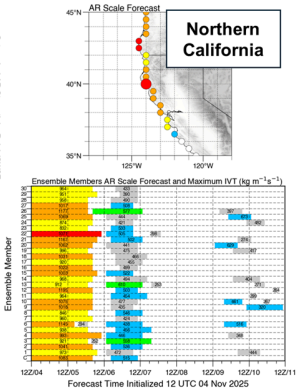


Image created 17 UTC 04 Nov 2025

AR 1 AR 2 AR 3 AR 4 AR 5

More information: https://cw3e.ucsd.edu AR Scale based on Ralph et al. (2019; BAMS)

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Center for Western Weather
and Water Extremes
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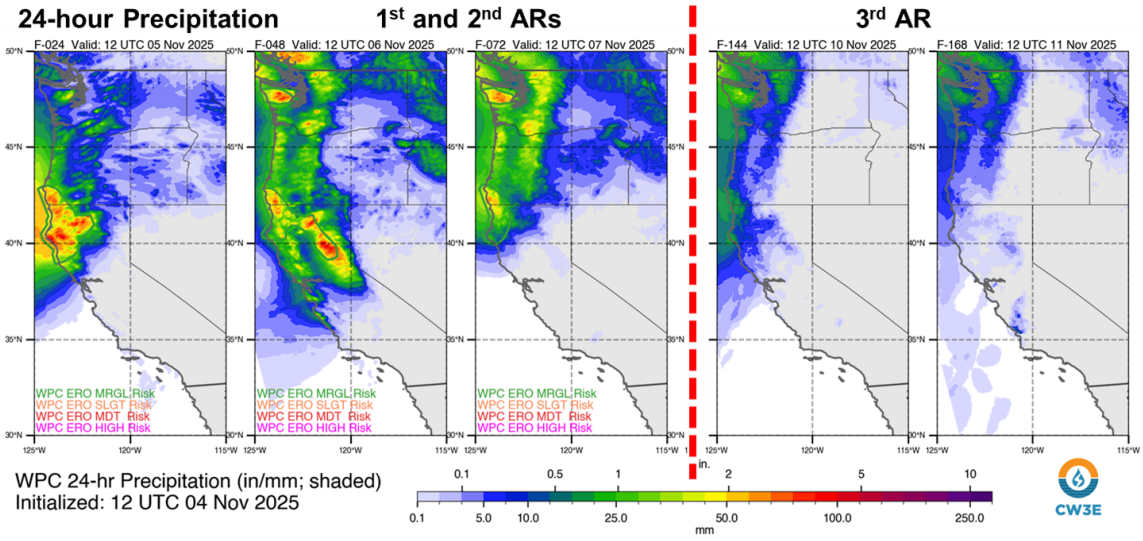
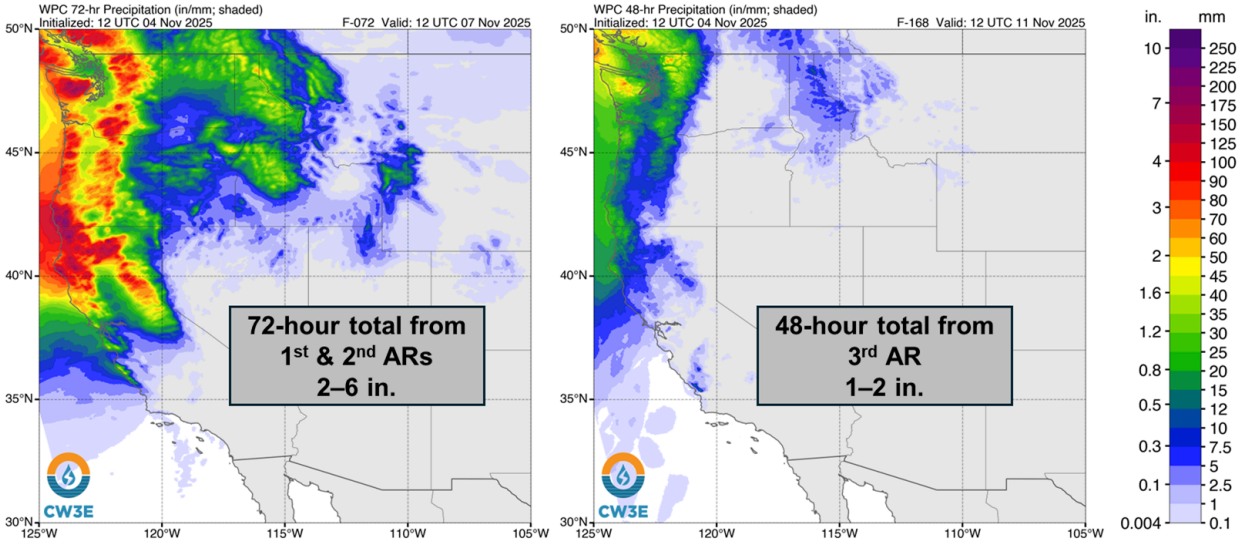
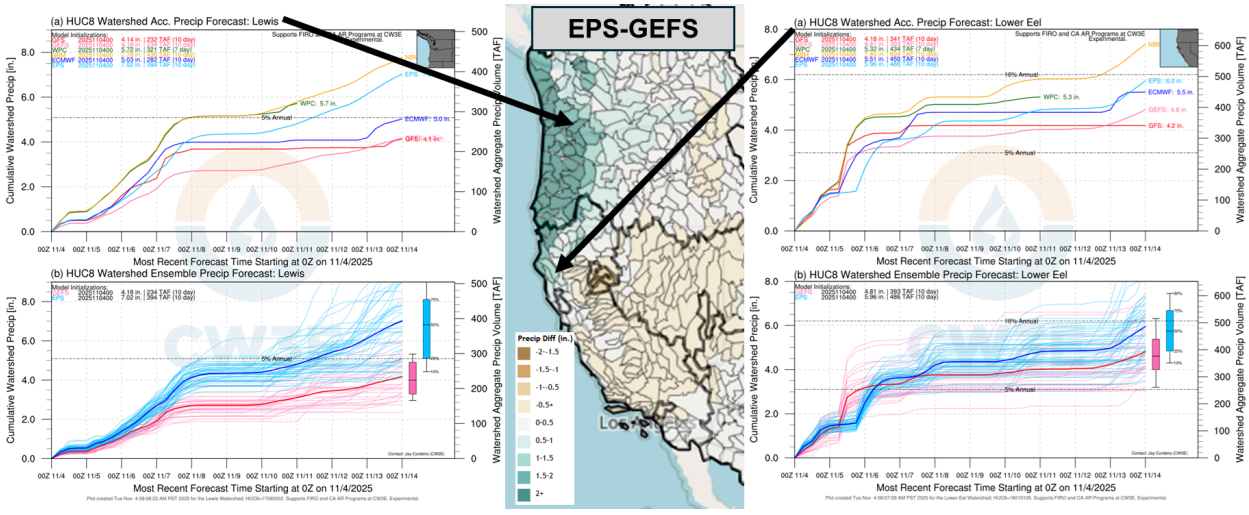

24-hour Precipitation
1st and 2nd ARs
3rd AR
F-024 Valid: 12 UTC 05 Nov 2025
F-048 Valid: 12 UTC 06 Nov 2025
F-072 Valid: 12 UTC 07 Nov 2025
F-144 Valid: 12 UTC 10 Nov 2025
F-168 Valid: 12 UTC 11 Nov 2025
WPC ERO MRGL Risk
WPC ERO SLGT Risk
WPC ERO MDT Risk
WPC ERO HIGH Risk
WPC 24-hr Precipitation (in/mm; shaded)
Initialized: 12 UTC 04 Nov 2025
in.
mm
CW3E


WPC 72-hr Precipitation (in/mm; shaded)
Initialized: 12 UTC 04 Nov 2025
F-072 Valid: 12 UTC 07 Nov 2025
72-hour total from
1st & 2nd ARs
2–6 in.
WPC 48-hr Precipitation (in/mm; shaded)
Initialized: 12 UTC 04 Nov 2025
F-168 Valid: 12 UTC 11 Nov 2025
48-hour total from
3rd AR
1–2 in.
in.
mm
CW3E


EPS-GEFS
(a) HUC8 Watershed Acc. Precip Forecast: Lewis
(b) HUC8 Watershed Ensemble Precip Forecast: Lewis
(a) HUC8 Watershed Acc. Precip Forecast: Lower Eel
(b) HUC8 Watershed Ensemble Precip Forecast: Lower Eel
Cumulative Watershed Precip [in.]
Watershed Aggregate Precip Volume [TAF]
Most Recent Forecast Time Starting at 0Z on 11/4/2025
Precip Diff (in.)

Center for Western Weather and Water Extremes
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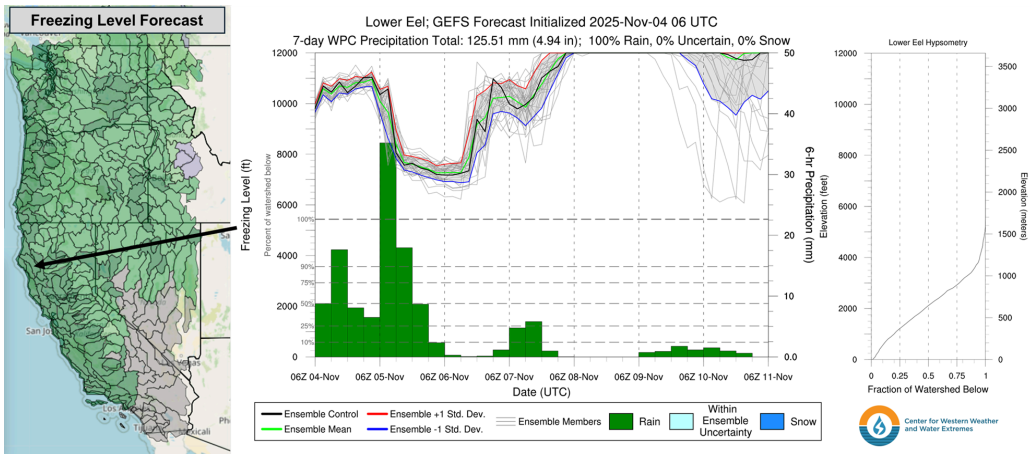
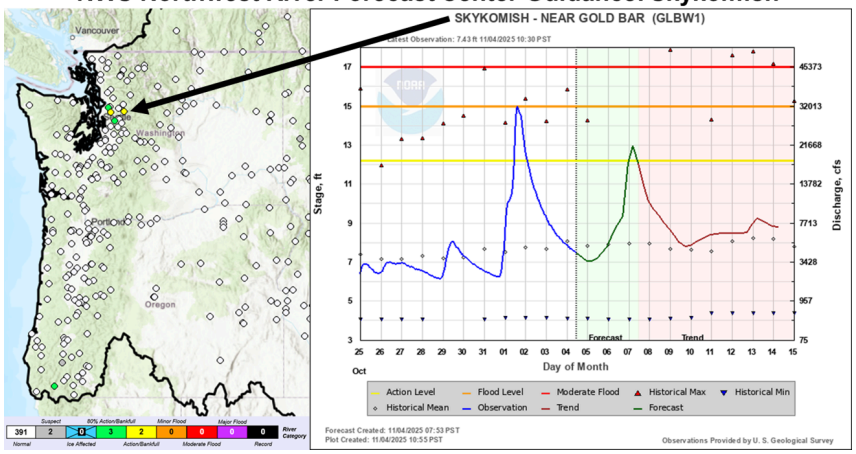
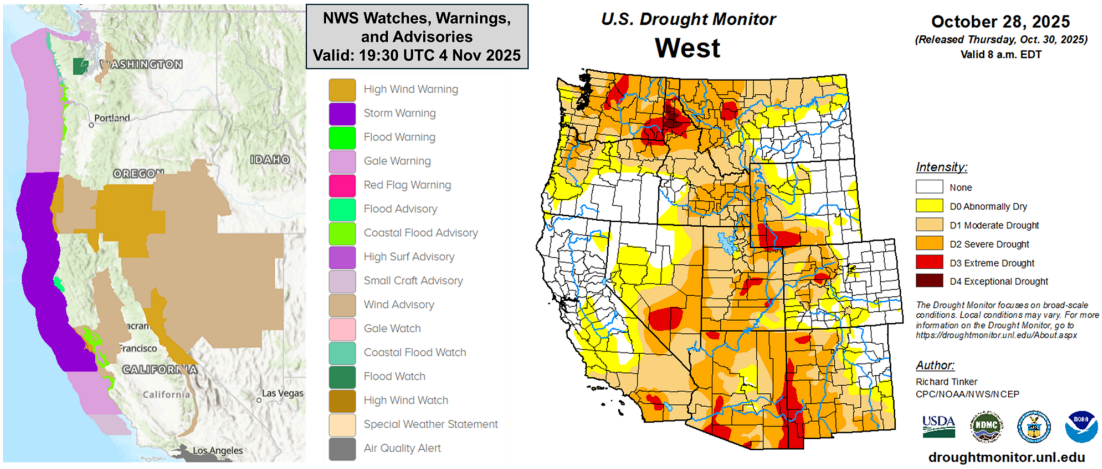
AT UC SAN DIEGO



NWS Northwest River Forecast Center Guidance: Skykomish





Additional Considerations:

Visit https://www.nwrfc.noaa.gov/ or https://www.cnrfc.noaa.gov/ for specific river and stream 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/

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