Quick Look at the AR Impacting the Pacific Northwest

Updated: 18 March 2026

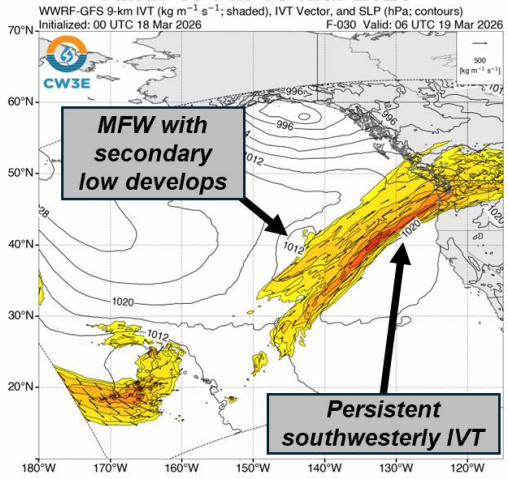
A long-duration atmospheric river will continue to impact the Pacific Northwest through early Saturday, with flooding expected in western Washington.

Forecast Highlights:

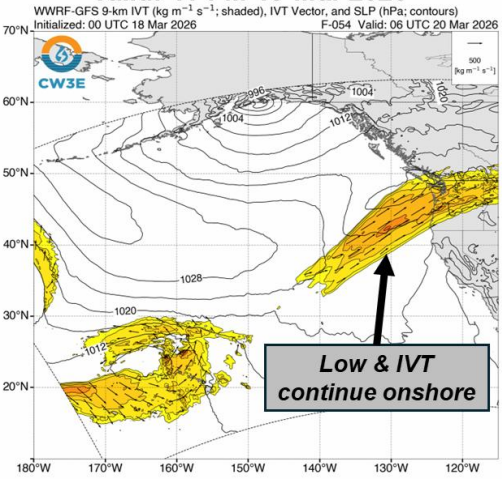
- The atmospheric river (AR) that made landfall over British Columbia and the Pacific Northwest (PNW) on Sun 15 Mar is forecast to continue bringing precipitation to the PNW through early Sat 21 Mar. A mesoscale frontal wave (MFW) is forecast to extend the duration of the AR.
- The MFW is forecast to develop along the AR in association with a mid-level shortwave to the west of the broad ridge positioned over the Western US. The MFW will facilitate an additional pulse of IVT >500 kg m^{-1} s^{-1} over the PNW into Fri 20 Mar.
- CW3E's West-WRF ensemble mean forecast has IVT remaining above 500 kg m^{-1} s^{-1} through Fri 20 Mar, with the control member forecasting an AR 4 ranking (out of 5 based on the Ralph et al. 2019 AR Scale) and the total duration of AR conditions expected to last >72 hours over the PNW.
- CW3E's West-WRF ensemble-based AR landfall tool is indicating 60–80% probability of another AR landfall between central Washington and northern California early Tue 24 Mar into Wed 25 Mar.
- The NWS Weather Prediction Center (WPC) is forecasting an additional 3–5 in. of precipitation over the Olympic Peninsula and 5–7 in. over the northern Washington Cascades for the 3-day period ending 5 AM Sat 21 Mar.
- NWS WPC has issued **marginal risk** (level 1 of 4) excessive rainfall outlooks (EROs) over the Olympic Peninsula and the northern/central Washington Cascades and Cascade foothills between Wed 18 Mar and early Sat 21 Mar due to the multi-day rainfall totals, embedded heavy precipitation, and snowmelt during this long-duration, warm AR.
- The NWS Northwest River Forecast Center (NWRFC) is forecasting river and stream rises in western and central Washington due to a combination of rainfall from this long-duration AR and snowmelt associated with high freezing levels during this storm. Currently, 2 stream gages are forecast to rise above **moderate flood**, 8 to rise above **minor flood**, and 14 to rise above **action/bankfull** level over the next 10 days.
- Anomalously warm temperatures are forecast to persist over much of the Western US through early next week, likely accelerating snowmelt in areas currently experiencing well-below normal snowpack.

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

West-WRF GFS IVT
Valid: 11 PM 18 Mar 2026



West-WRF GFS IVT
Valid: 11 PM 19 Mar 2026



West-WRF GFS IVT
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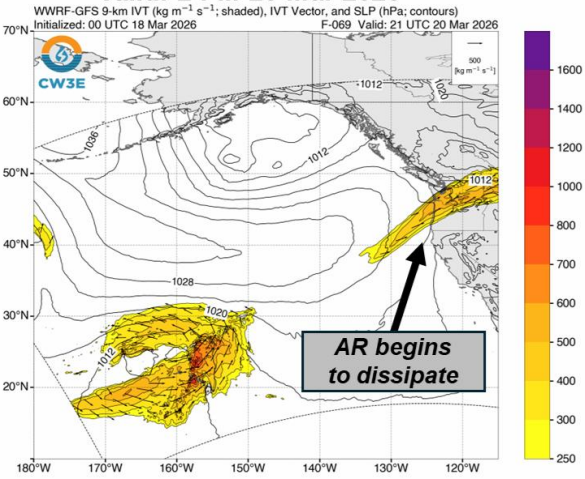
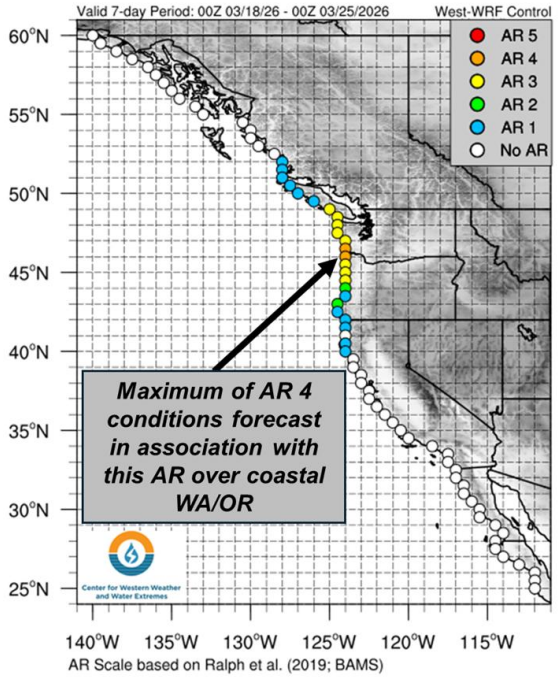
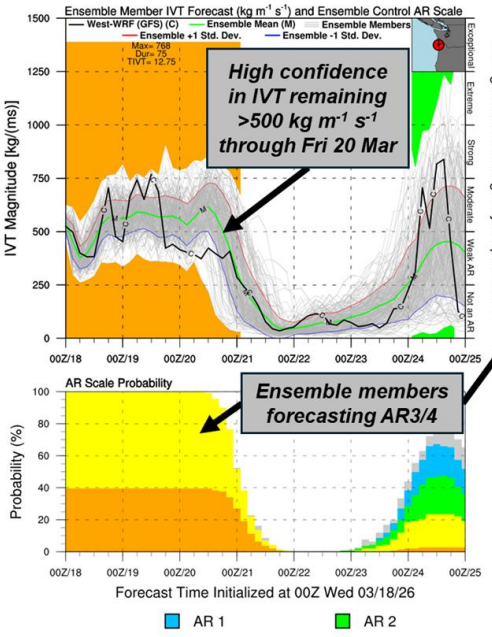


Maximum Forecast AR Scale



West-WRF Ensemble Inititialized: 00Z Wed 03/18/26



Location: 46°N 124°W

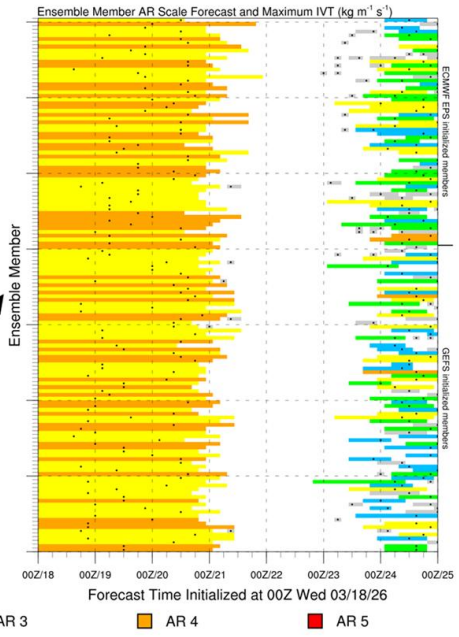
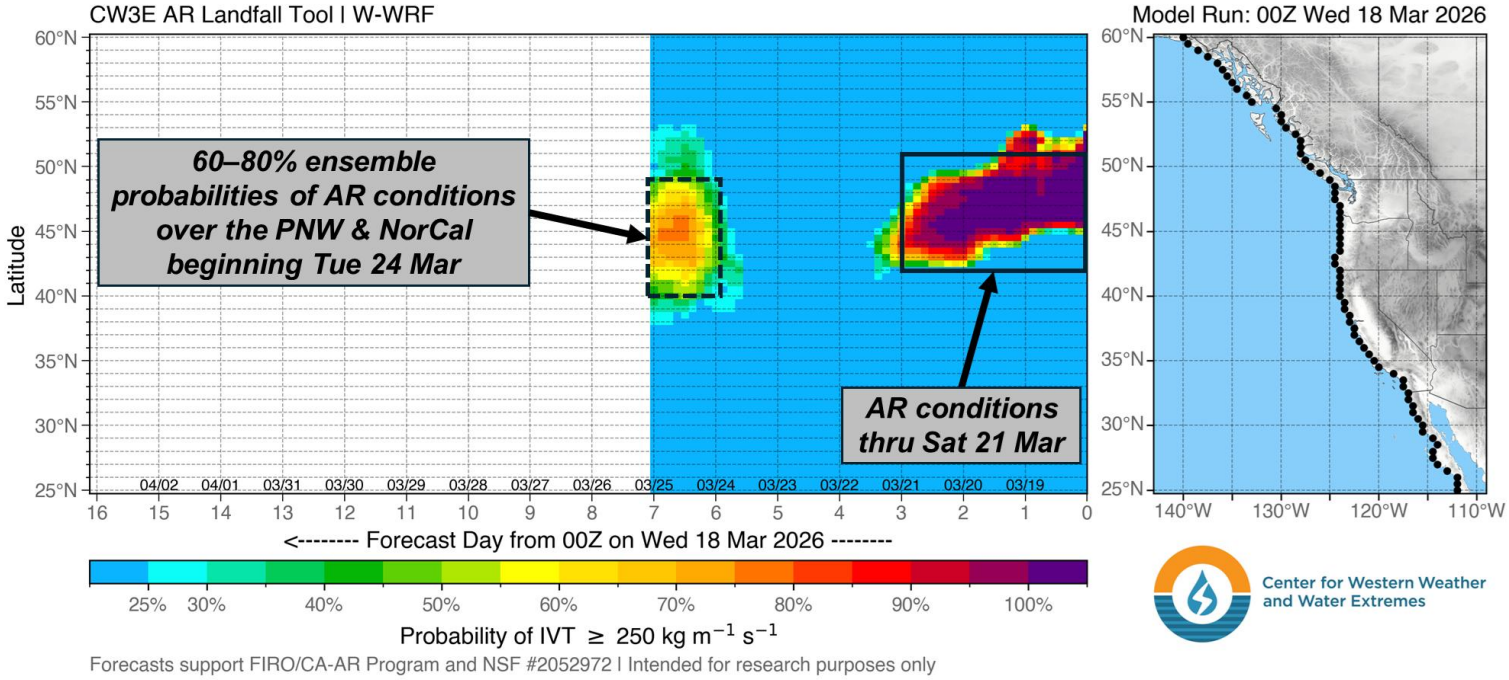


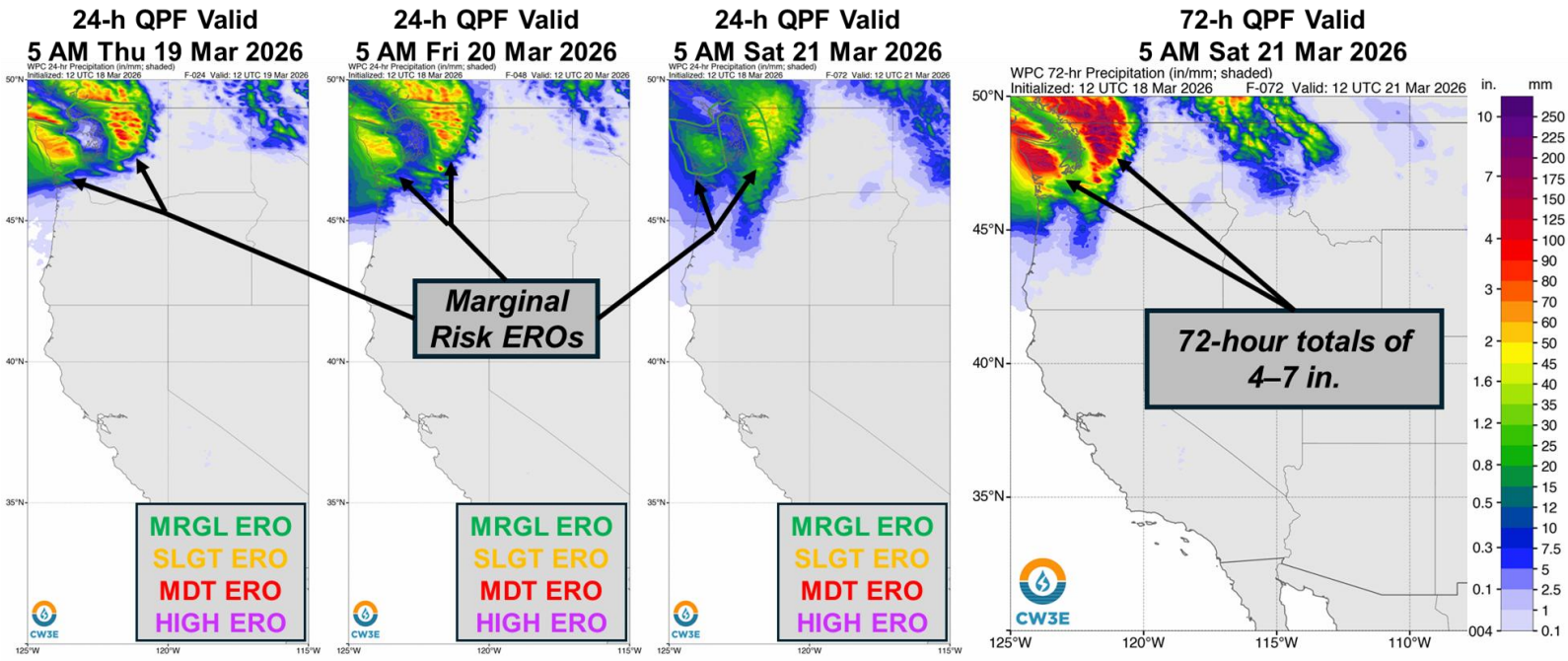
Image created: 13 UTC 03/18/2026 (140/200 members completed)

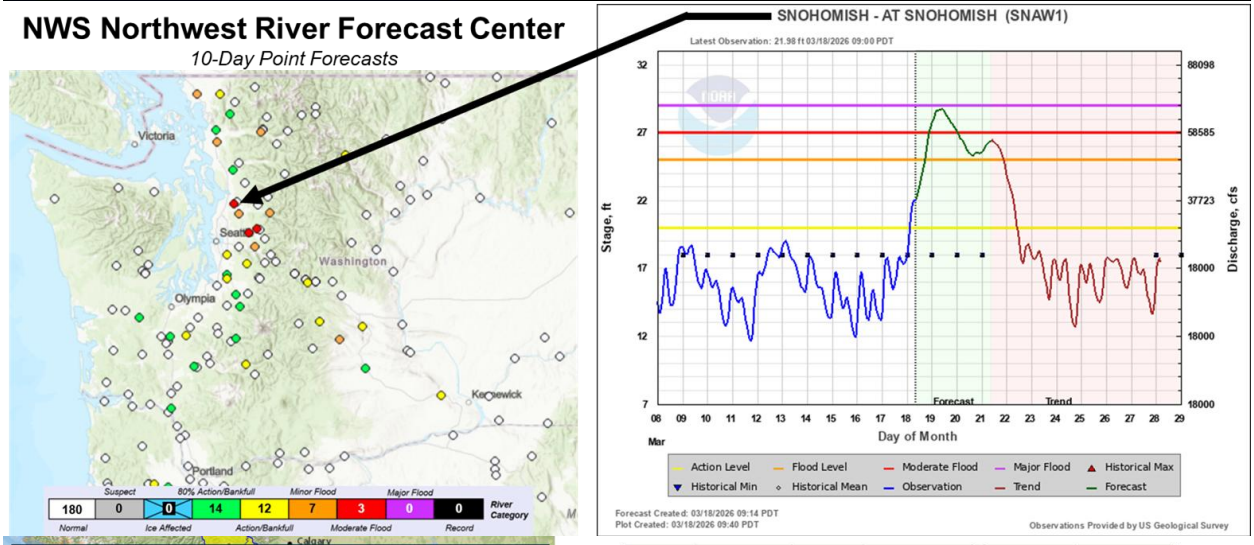
More information: http://cw3e.ucsd.edu AR Scale based on Ralph et al. (2019; BAMS), contact M. Ralph

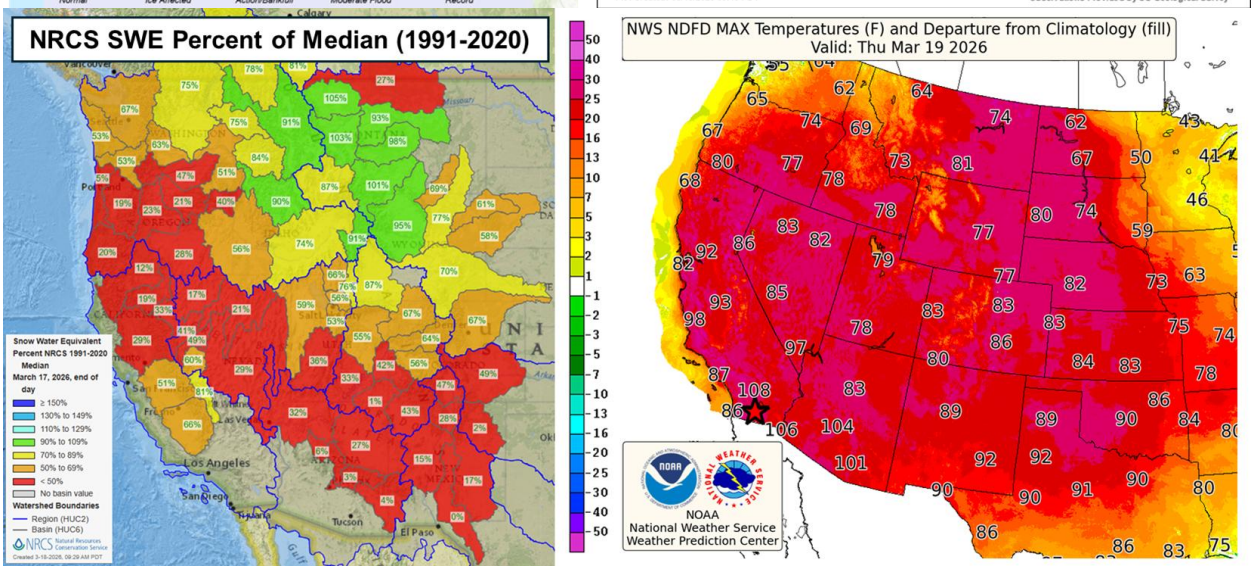


Center for Western Weather and Water Extremes

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







Additional Considerations:

Visit https://www.nwrfc.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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