

# CW3E Event Summary: 19–22 Dec 2019

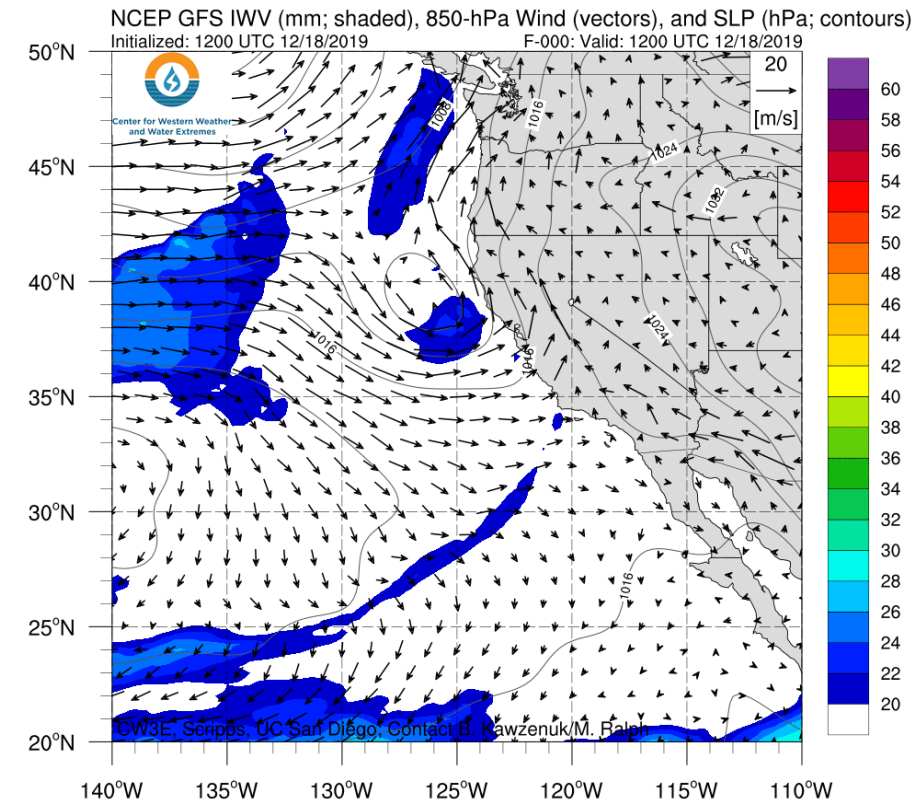
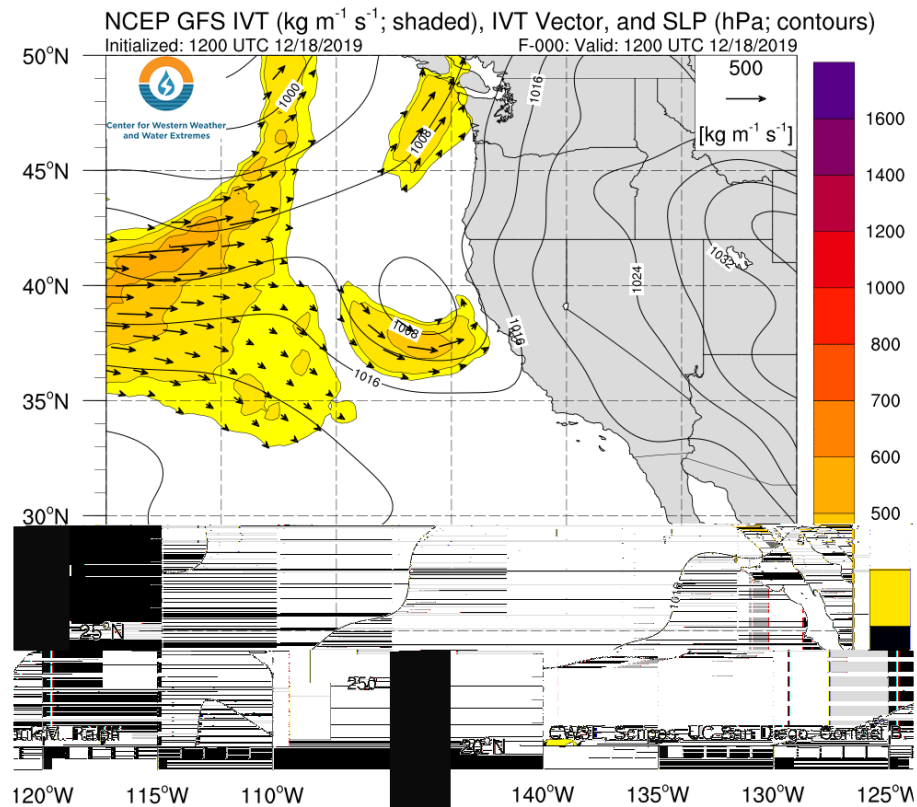


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## Landfalling AR brings heavy rainfall and mountain snowfall to the Pacific Northwest

- AR conditions persisted for 24–48 hours over coastal and interior sections of the Pacific Northwest
- Some locations along the coast of Oregon and Northern California experienced AR conditions for more than 48 hours
- Storm total precipitation exceeded 5 inches over much of western Oregon and western Washington
- More than 2 feet of snow fell in the highest elevations of the North Cascades



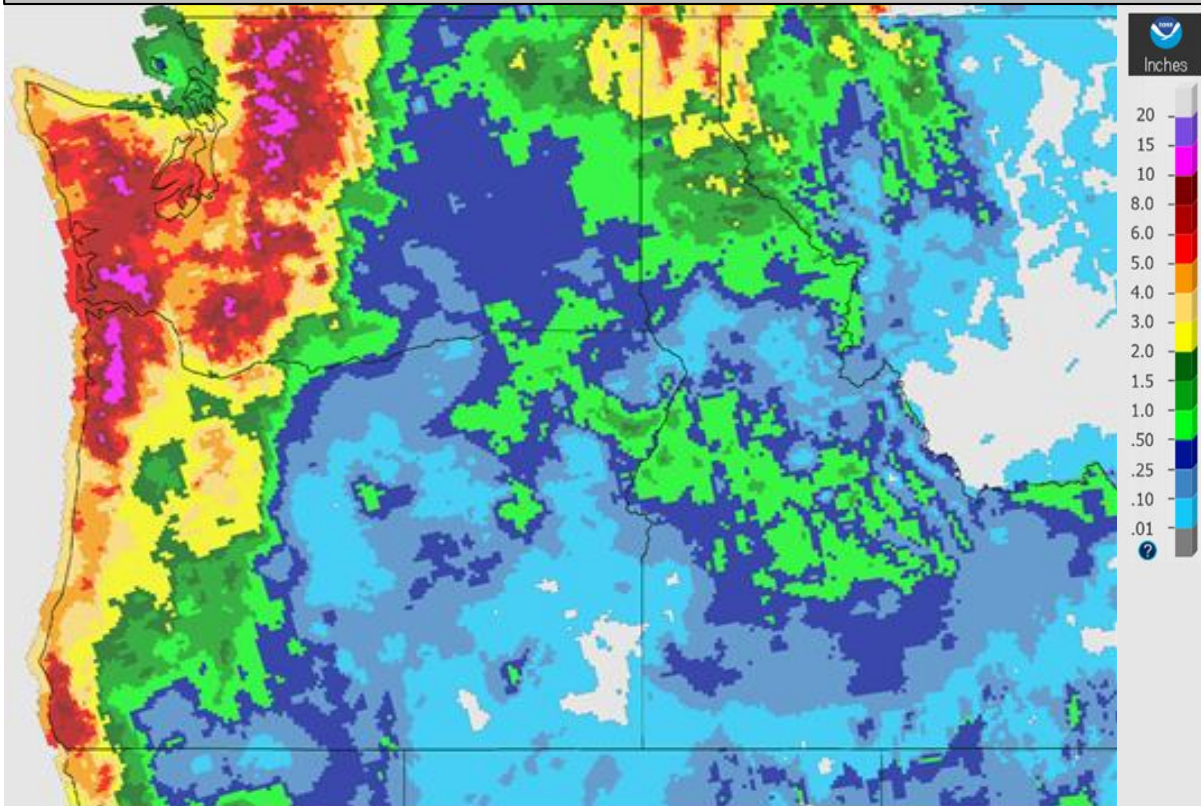
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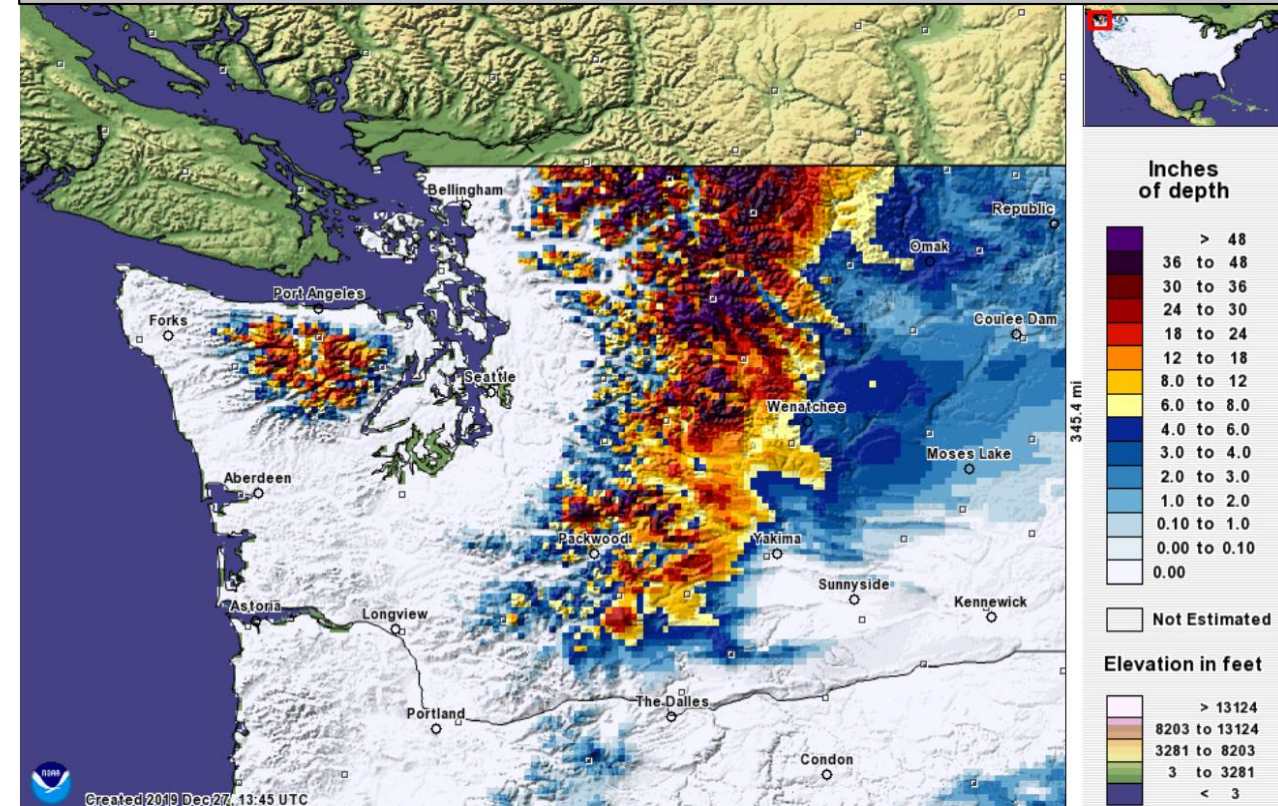
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## 7-day Stage IV Precipitation: Valid 1200 UTC 25 Dec



Source: NOAA/NWS Advanced Hydrologic Prediction Service, <https://water.weather.gov/ahps/>

## 72-hour Interpolated Snowfall: Valid 1200 UTC 22 Dec



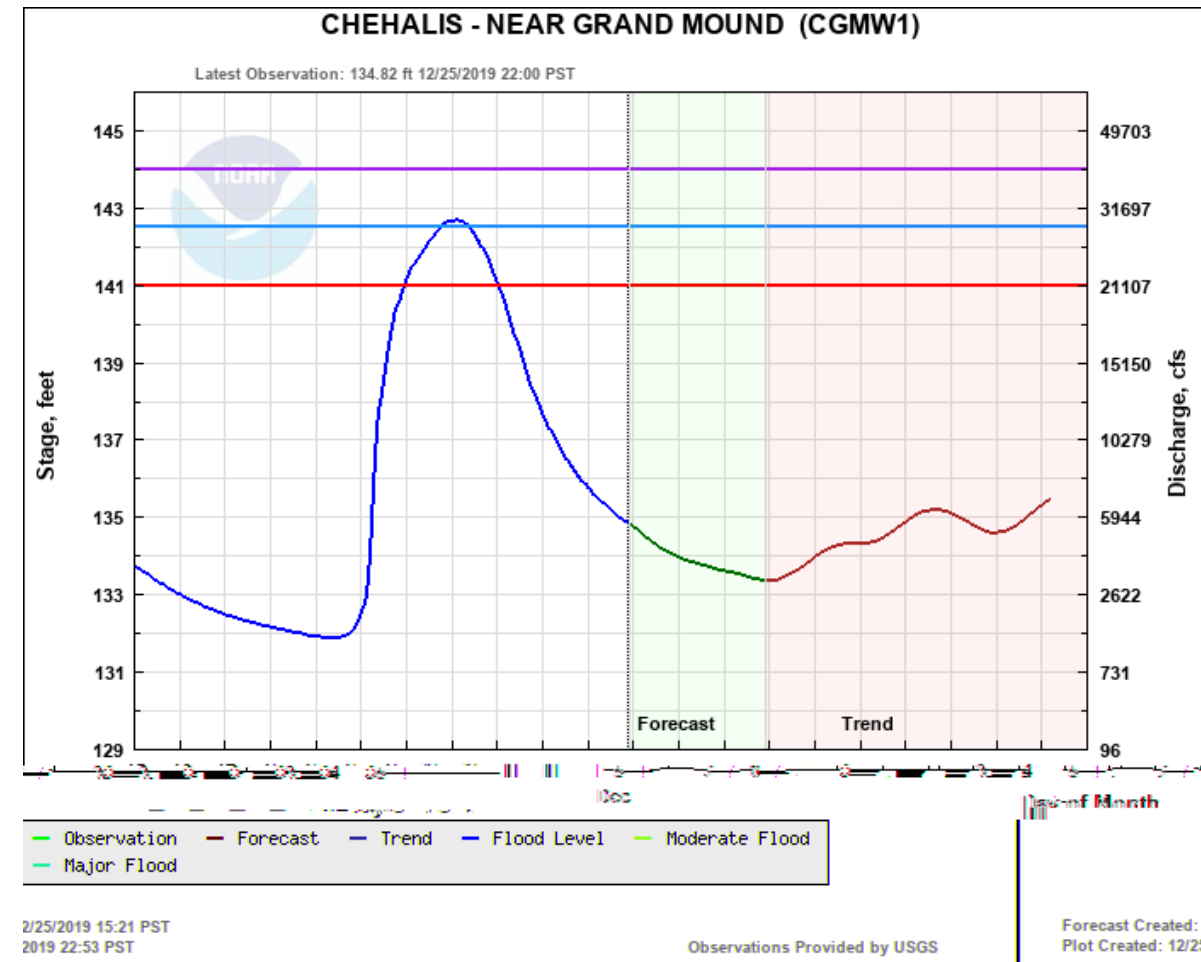
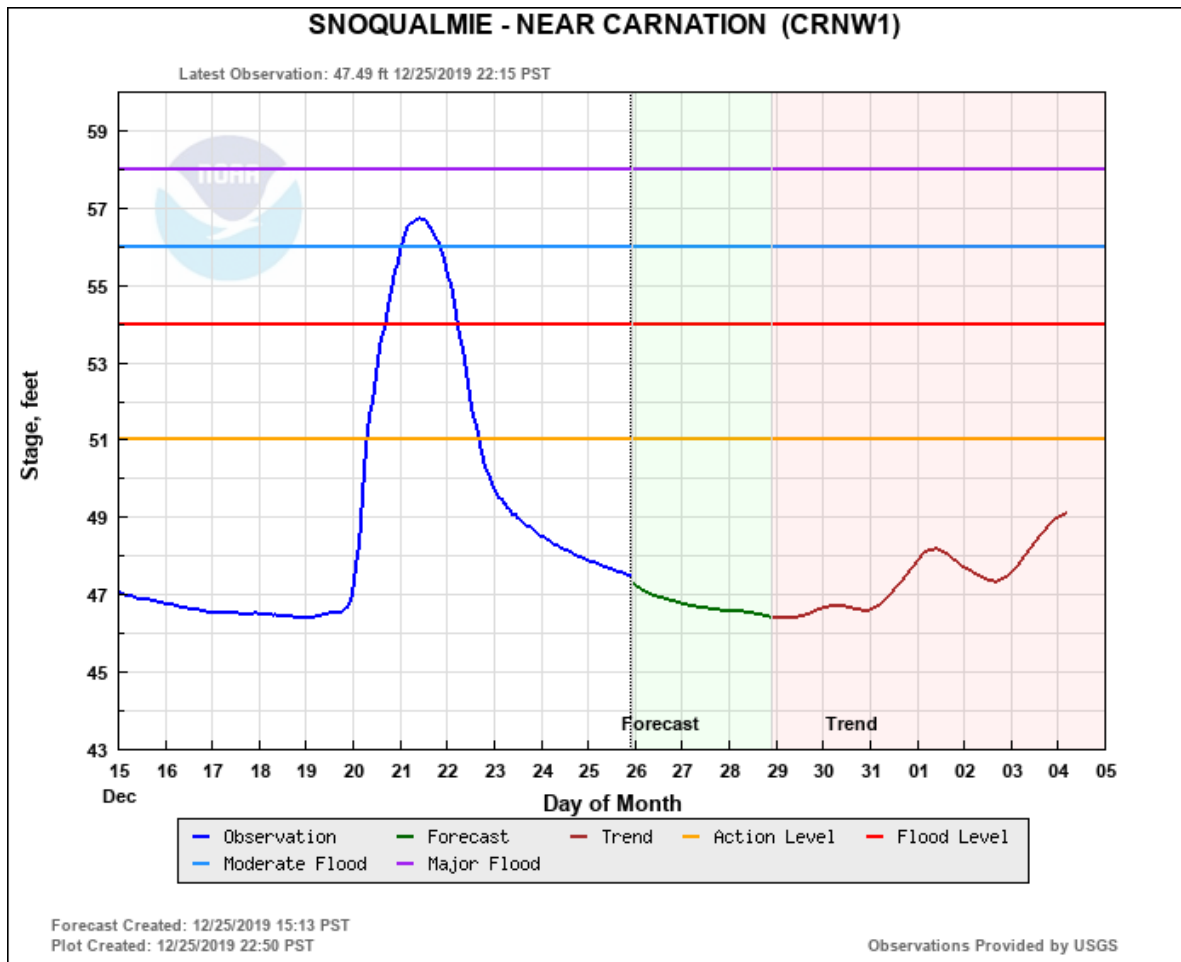
Source: NOAA/NWS NOHRSC, <https://www.wrh.noaa.gov/map/>

- Total estimated precipitation over the 7-day period ending 1200 UTC (4 AM PST) 25 Dec exceeded 5 inches in portions of northwestern Oregon and western Washington, with the highest amounts (> 10 inches) over the Coast Ranges and Washington Cascades
- More than 2 inches of precipitation was also observed in northeastern Washington, northern Idaho, and northwestern Montana
- More than 6 inches of snow fell over the Olympic Mountains and Washington Cascades, with the highest amounts (> 2 feet) in the North Cascades

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Source: NOAA/NWS Advanced Hydrologic Prediction Service, <https://water.weather.gov/ahps/>

- Heavy rainfall on 19–20 Dec resulted in moderate flooding along the Snoqualmie River (near Carnation, WA) and the Chehalis River (near Grand Mound, WA)
- The Chehalis River near Grand Mound remained above flood stage for 48 hours

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## Street Flooding in Bellevue, WA



Source: City of Bellevue

## Landslide in Des Moines, WA



Source: South King Fire & Rescue

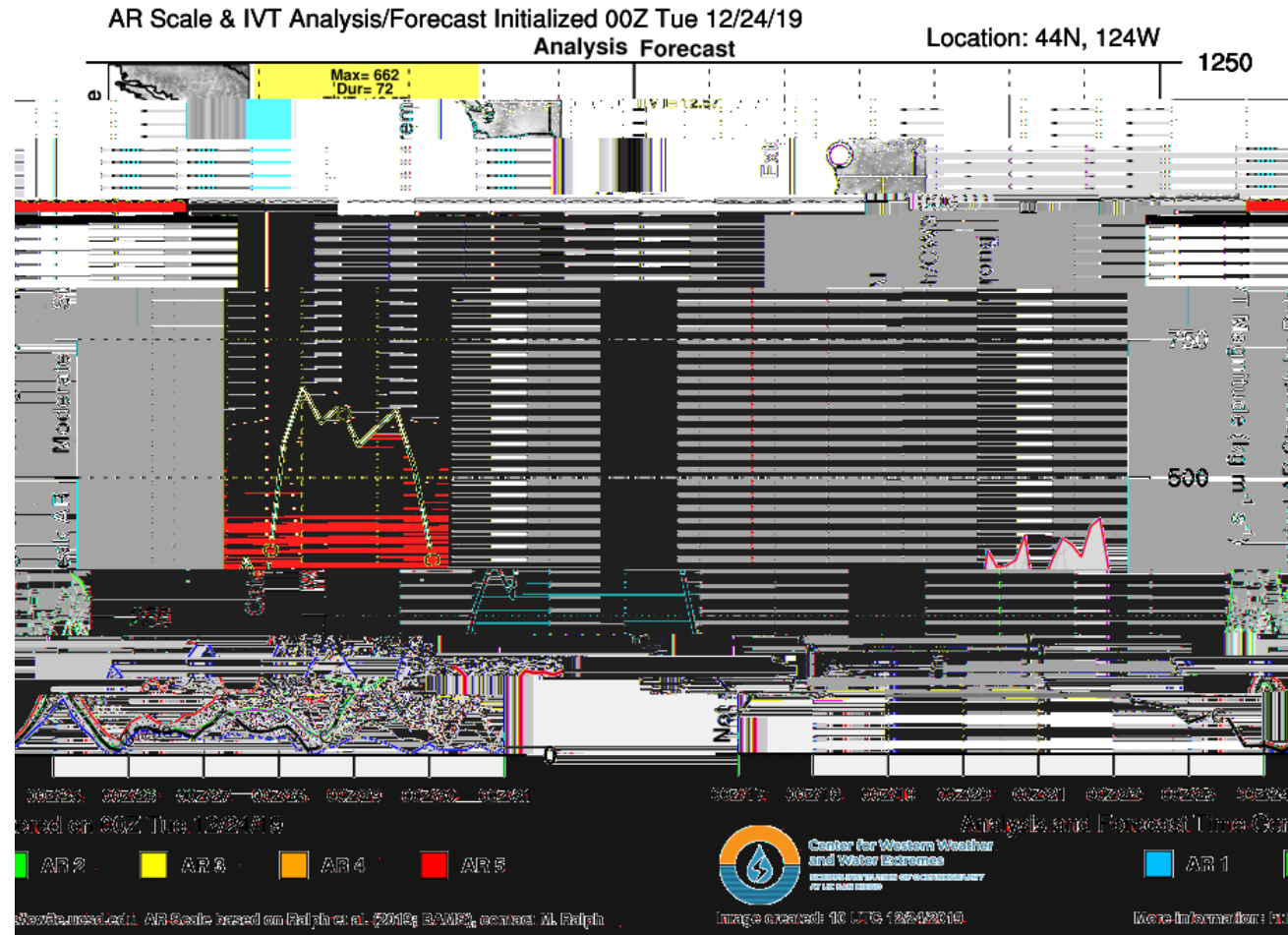
- NWS Seattle received several reports of flooded roadways and landslides in King and Pierce Counties on 20 Dec
- A landslide near Tacoma, WA, disrupted Amtrak rail service between Seattle and Tacoma

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- Some locations along the coast of Oregon and Northern California experienced weak-to-moderate AR conditions for more than 48 hours (AR3 based on the *Ralph et al. (2019)* AR Scale)
- AR conditions were observed for 72 consecutive hours near Florence, OR