

Seasonal Climate Forecast Verification

Dec. 2025 – Feb. 2026

Issued: March 20, 2026

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S. Prichard

Format and Purpose:

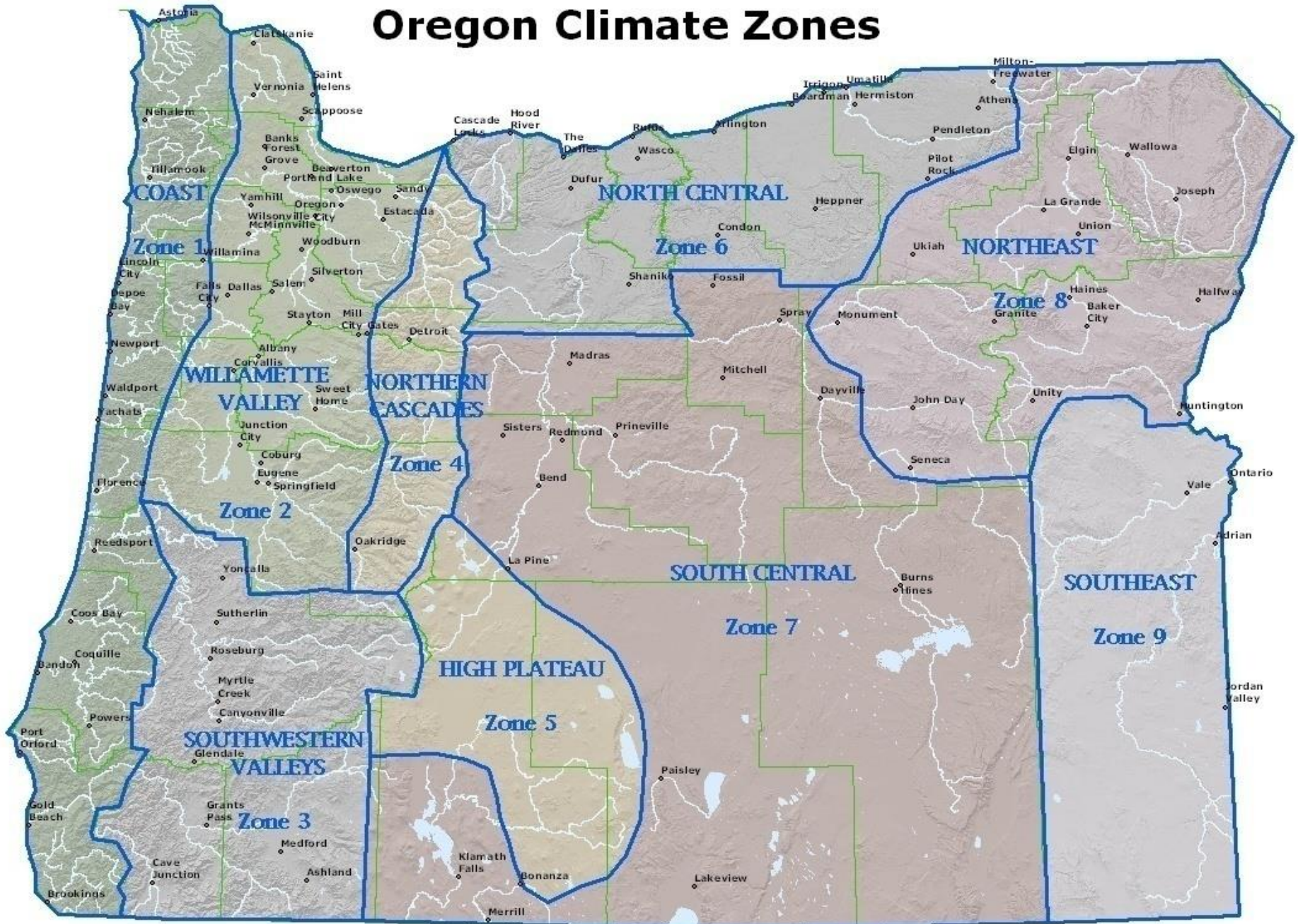
- A side-by-side comparison of the “**Seasonal Climate Forecast**” vs. what (**Actually Occurred**) is done for both the 1-month & 3-month forecasts.*
- The accuracy of each forecast is reviewed, and the need for analog-year updates is examined.
- This is part of an ongoing assessment of the utility of this forecast method.**

**Utilizes 1991-2020 long-term averages*

**See “Forecasting Methods...” at:

<https://www.oregon.gov/oda/natural-resources/pages/weather.aspx>

Oregon Climate Zones

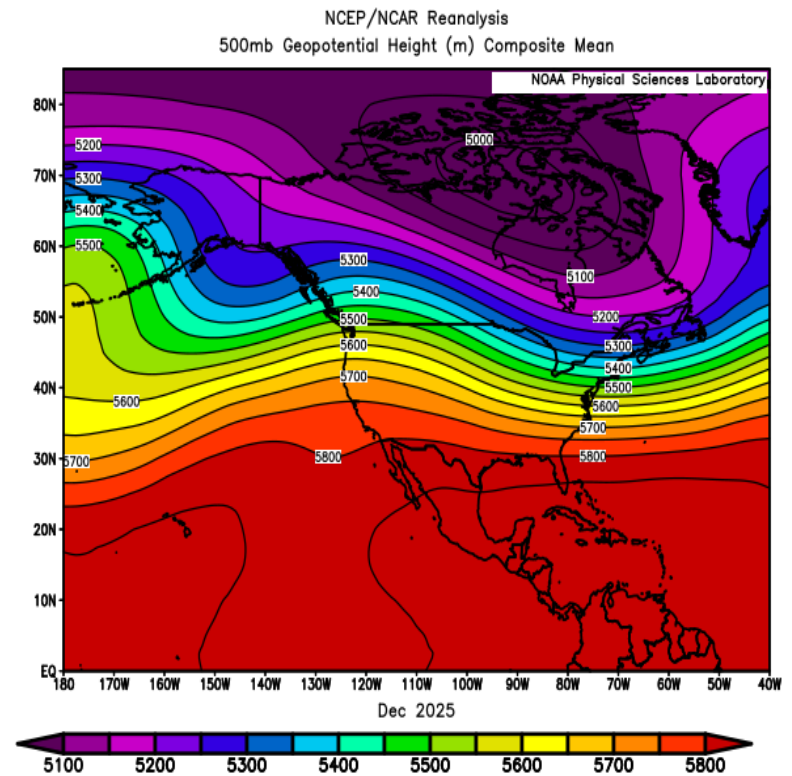
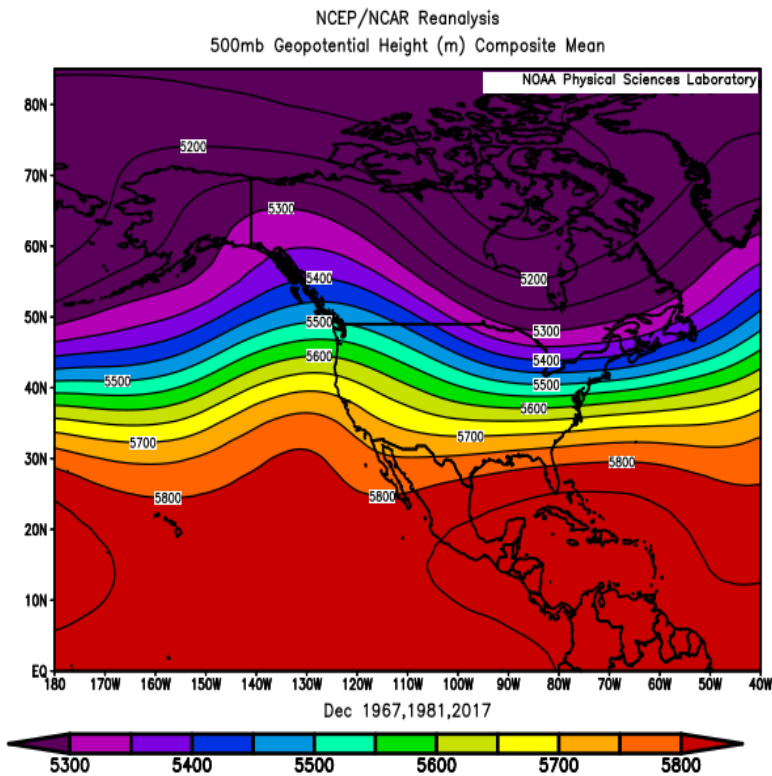


December 2025

(Forecast Issued November 20, 2025)/ (Actual)

Forecast Upper-Air Pattern

Actual Upper-Air Pattern



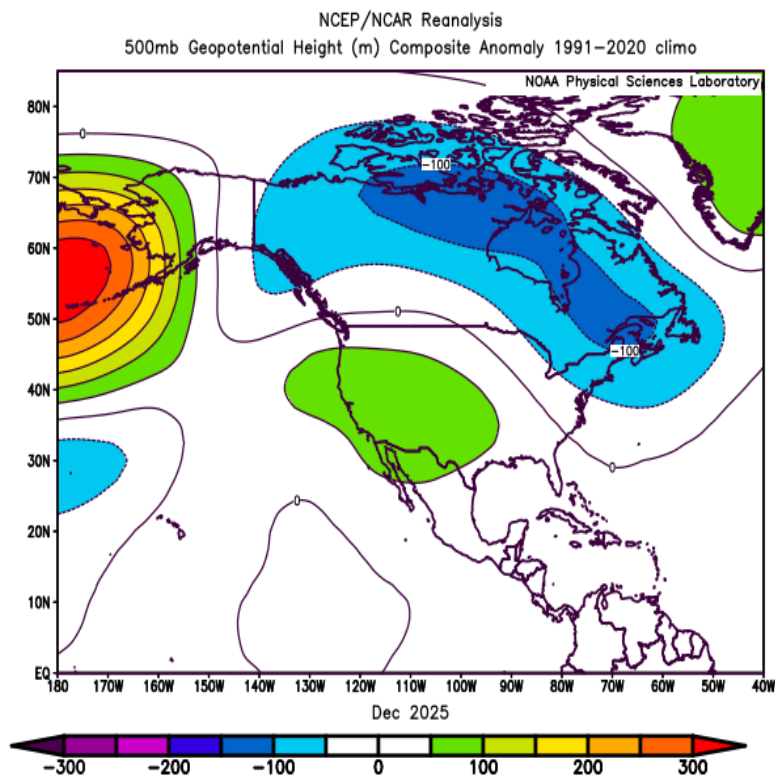
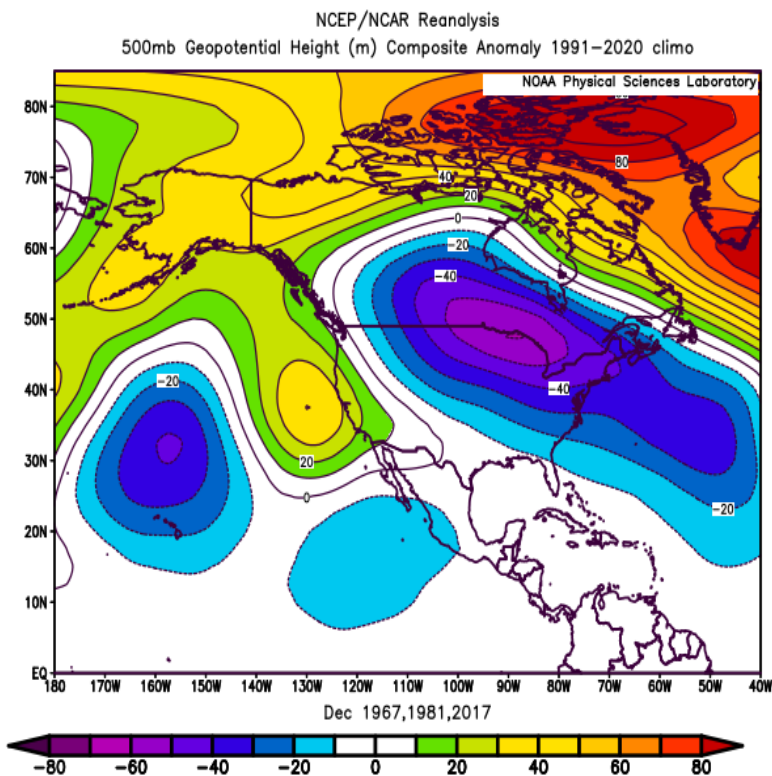
- Analogs had varied upper-air patterns. Their blend (left) centered upper-level ridging along the Pacific Coast. The resultant pattern (right) had ridging centered over the Pacific NW with strong troughing in the Gulf of Alaska. A “partial forecast hit.”

December 2025

(Forecast Issued November 20, 2025)/ (Actual)

Forecast Upper-Air Anomalies

Actual Upper-Air Anomalies



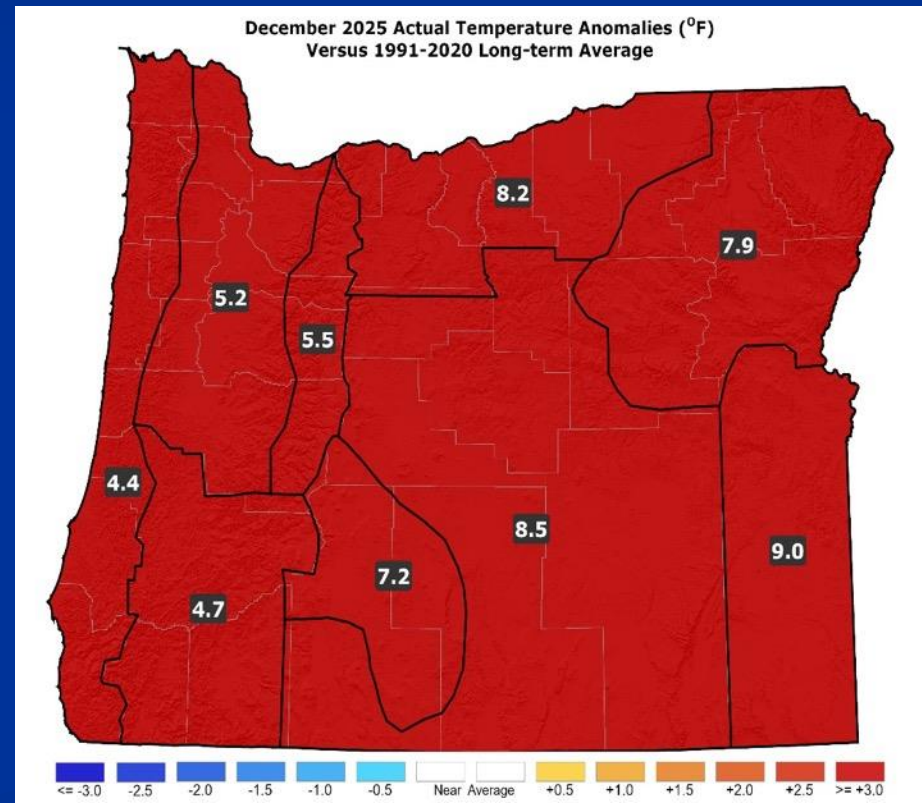
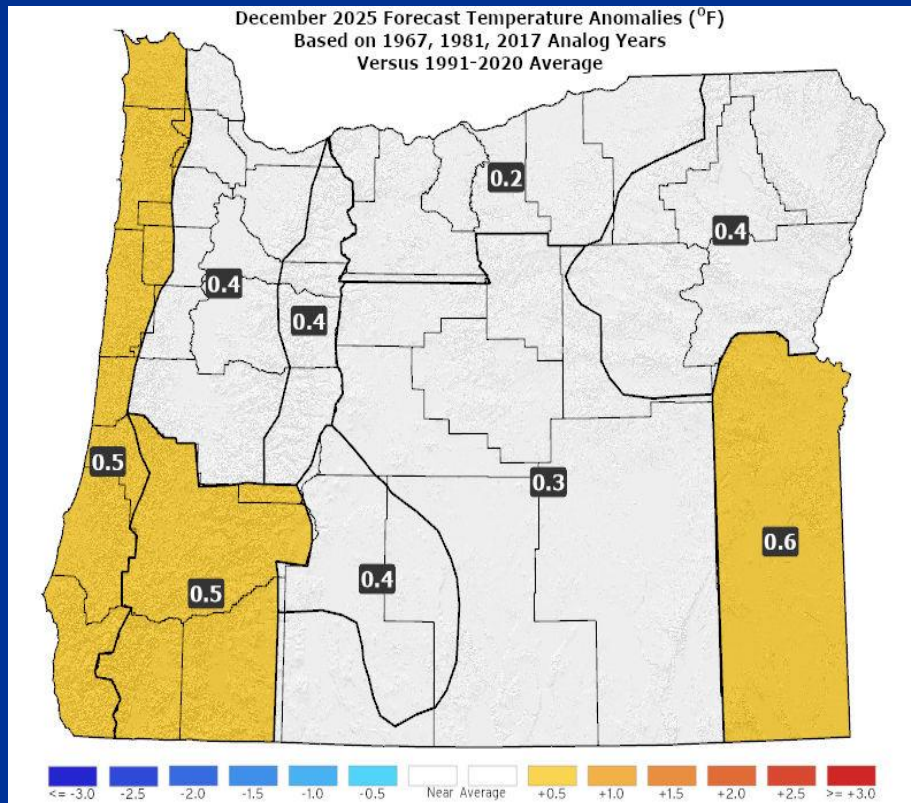
- Both the analog forecast (left) and the “actual” December 2025 pattern (right) had anomalous ridging over Oregon, but anomaly centers and magnitudes differed. A *“partial forecast hit.”*

December 2025

(Forecast Issued November 20, 2025) / (Actual)

Forecast Temperatures

Actual Temperatures

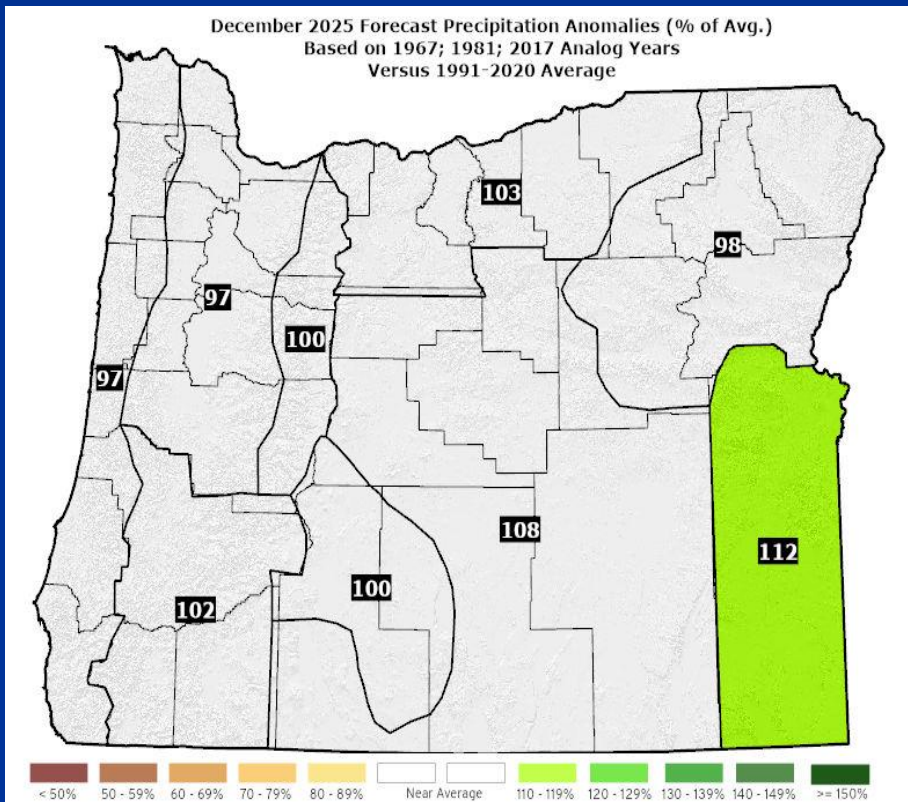


Data courtesy of the National Centers for Environmental Information (NCEI)

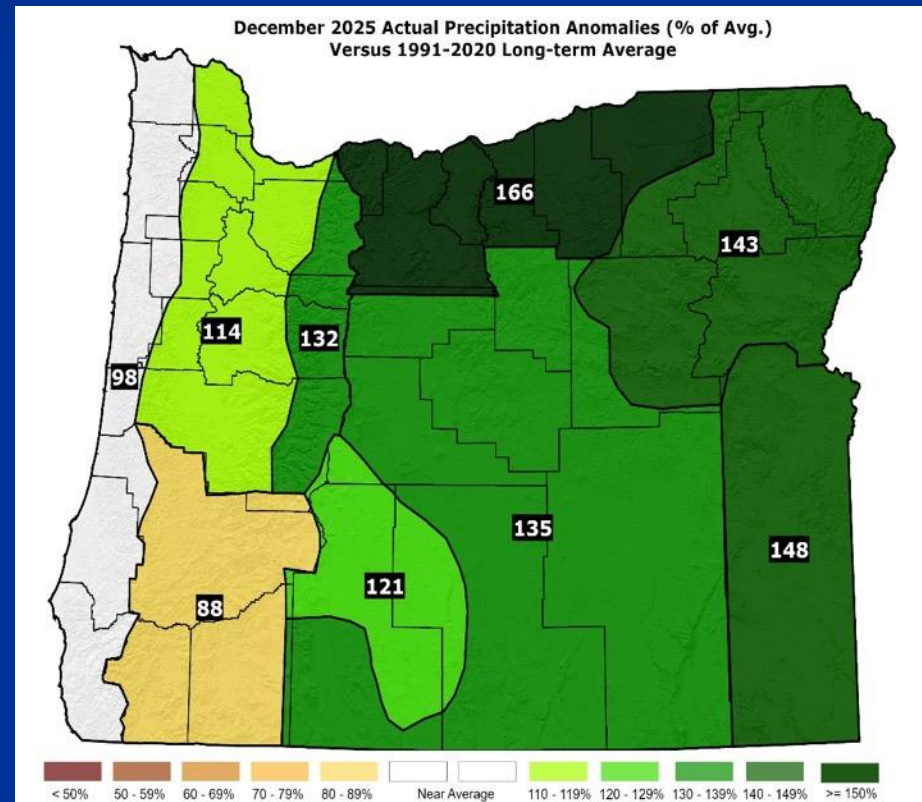
December 2025

(Forecast Issued November 20, 2025) / (Actual)

Forecast Precipitation



Actual Precipitation



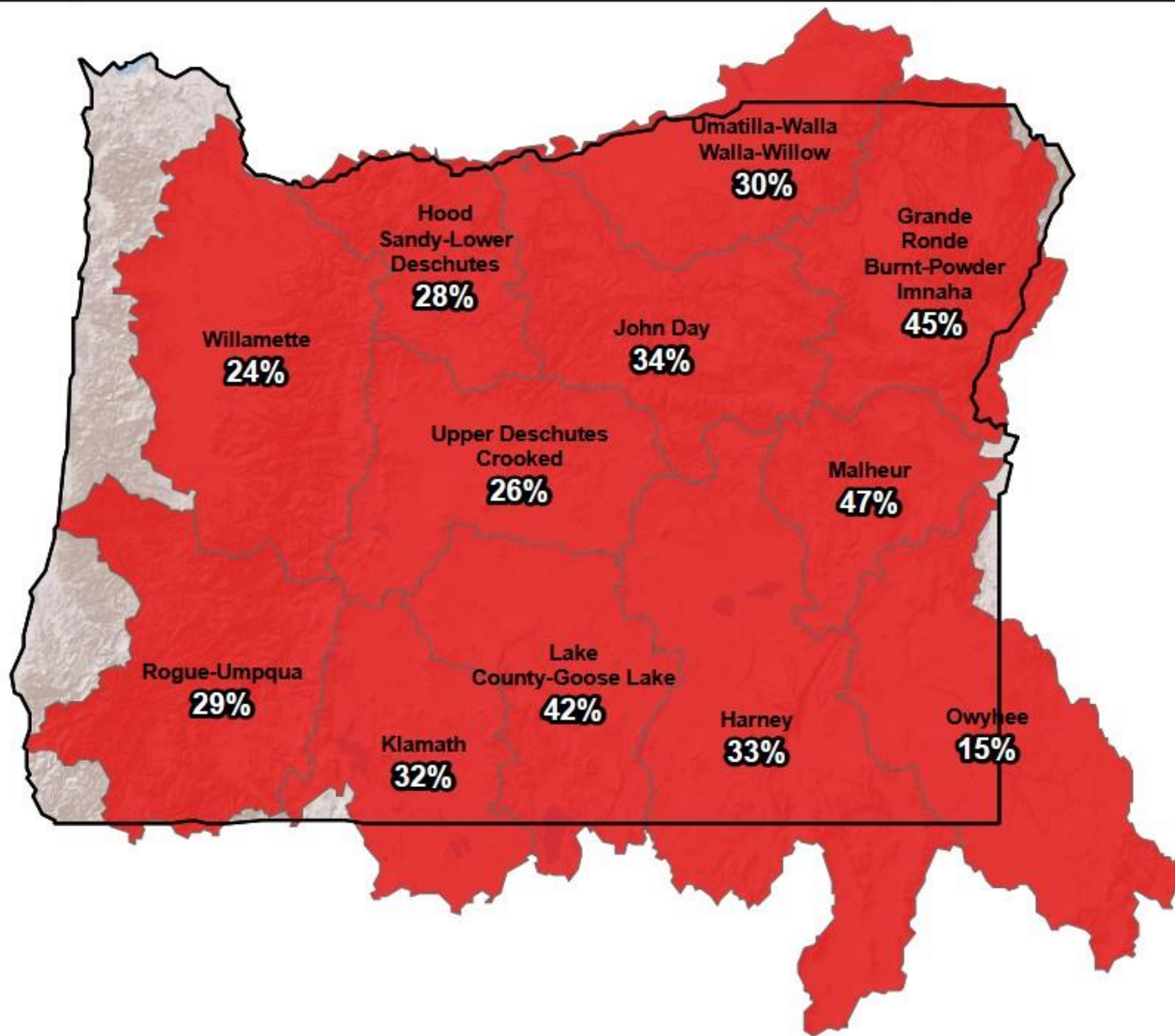
Data courtesy of the National Centers for Environmental Information (NCEI)

December 2025

(Forecast Issued November 20, 2025)/ (Actual)

- **Analogs had high variability.** 1967 & 2017 were slightly cooler than normal. 1981 (the best analog for December) was much warmer than normal and quite wet. A blend predicted slightly warmer-than-normal temperatures. (Temperatures were well-above normal. The Willamette Valley, North-Central, and South-Central Zones had their warmest respective Decembers on record.) A “*partial forecast hit.*”
- **Enhanced chances for “extreme” events.** (Two significant dumps of cold air over the eastern Pacific Ocean generated and directed strong “Atmospheric River” events into Washington and Oregon, with locally heavy rain & flooding. Mountain snowpacks suffered (see next slide). A “*forecast hit.*”

Percent NRCS 1991-2020 Median



Percent NRCS 1991-2020 Median

- ≥ 150%
- 130% to 149%
- 110% to 129%
- 90% to 109%
- 70% to 89%
- 50% to 69%
- < 50%
- No basin value

Watershed Boundaries

- State Watersheds

Political Boundaries

- State Boundaries

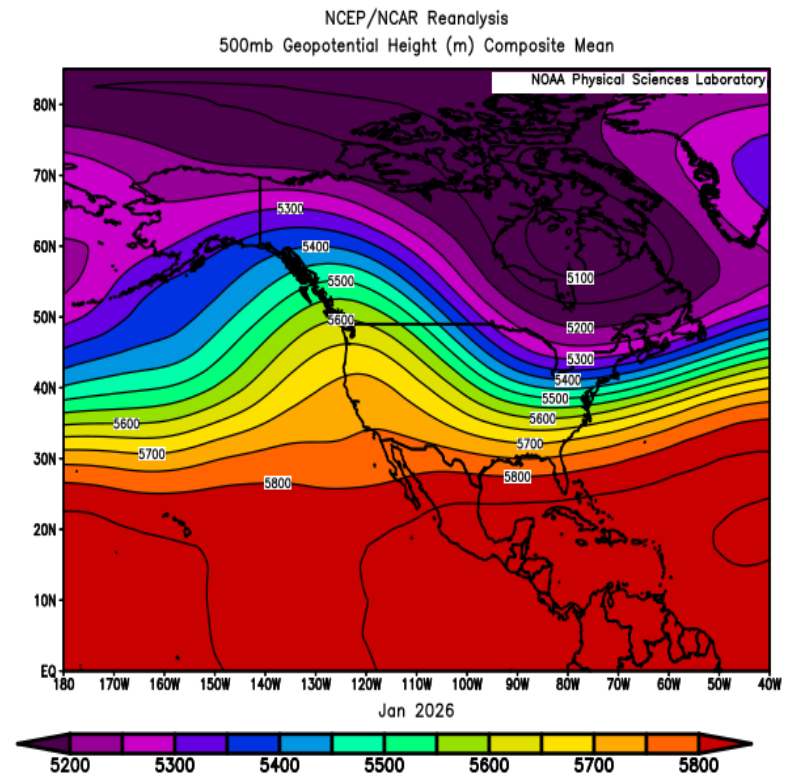
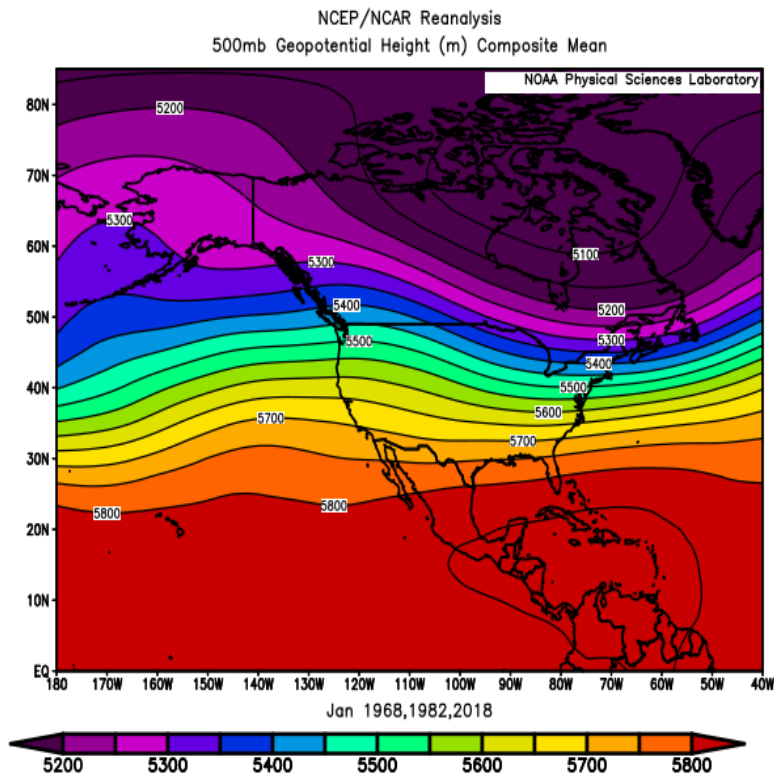


January 2026

(Forecast Issued December 18, 2025) / (Actual)

Forecast Upper-Air Pattern

Actual Upper-Air Pattern



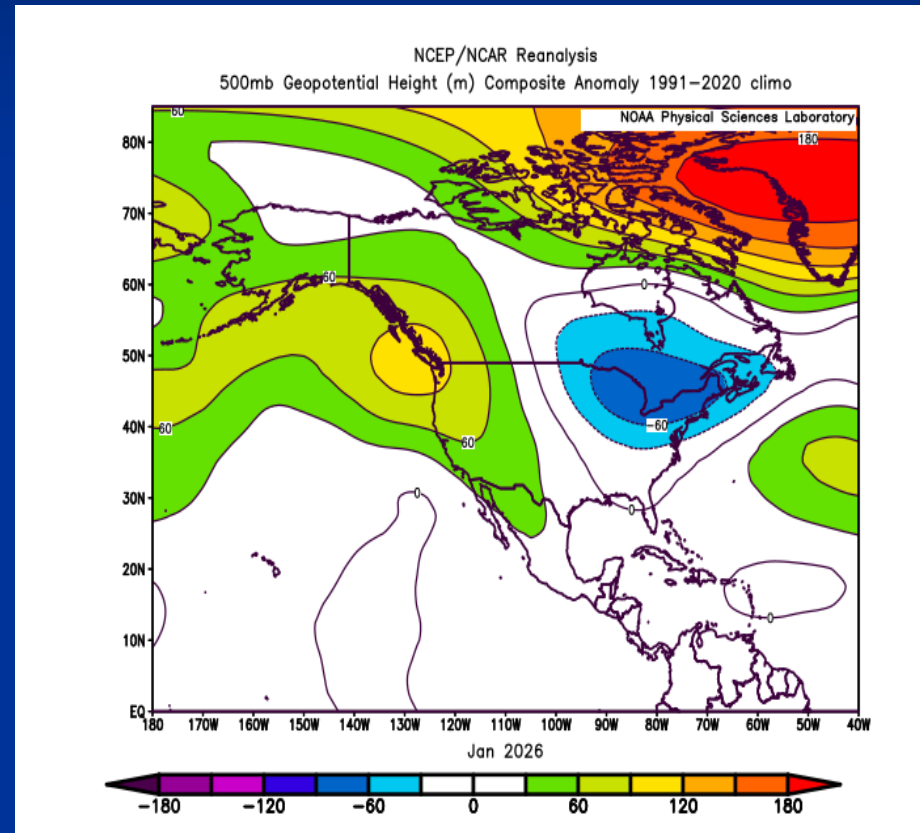
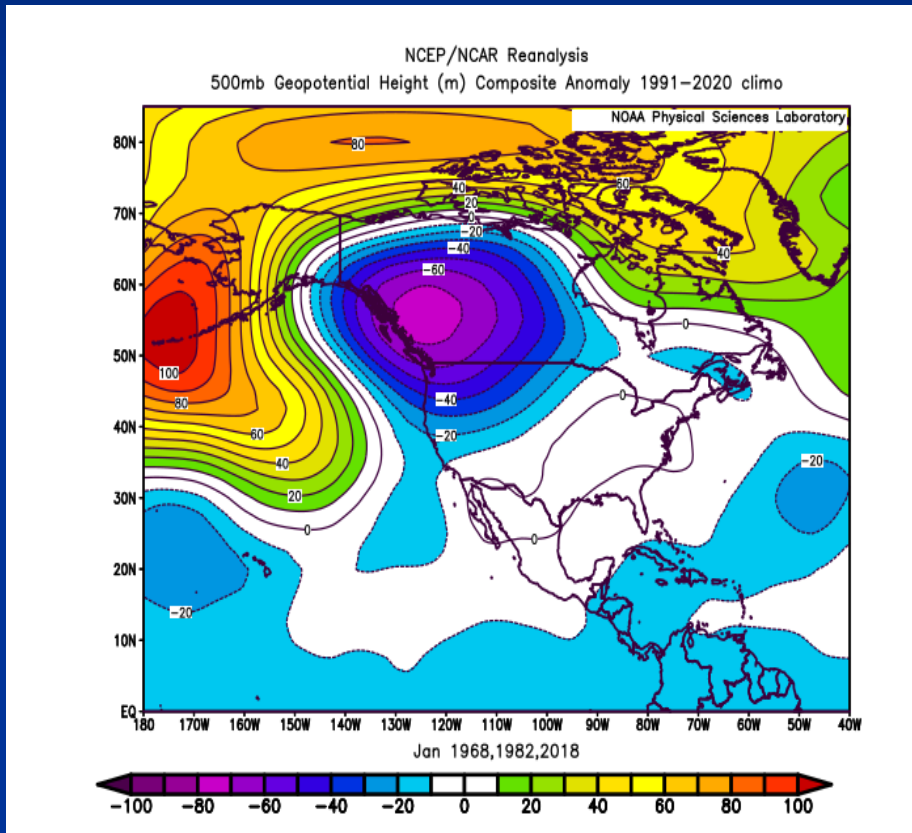
- 1968 & 1982 analogs had anomalous ridging in the western and central Gulf of Alaska respectively. 2018 had anomalous ridging over the Rockies.
- Actual ridging was strong and centered over the west coast. *A “forecast miss.”*

January 2026

(Forecast Issued December 18, 2025) / (Actual)

Forecast Upper-Air Anomalies

Actual Upper-Air Anomalies



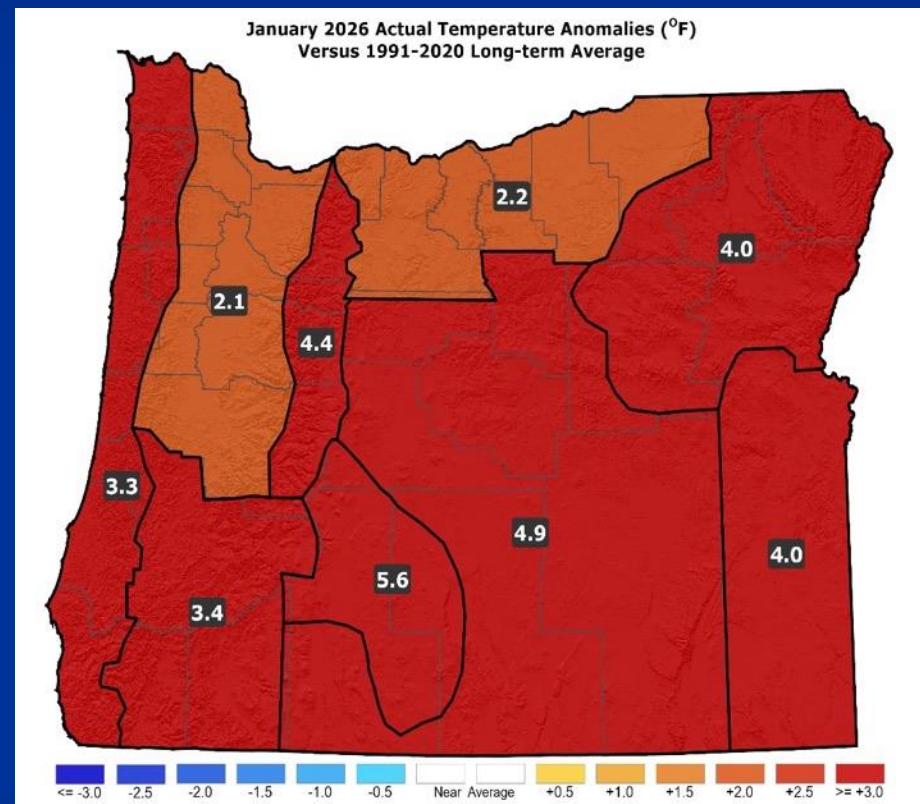
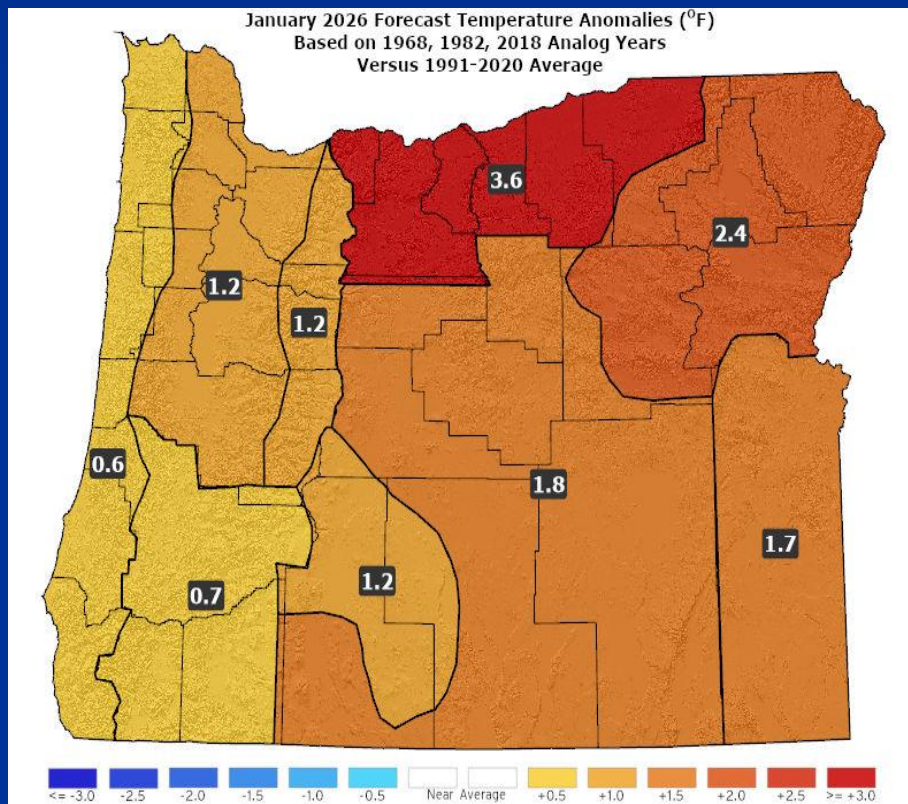
- Analog average (left) had anomalous troughing over Oregon. Strong anomalous ridging was observed (right). A “forecast miss.”
- The best analog match was 2018, which also had anomalous ridging over Oregon.

January 2026

(Forecast Issued December 18, 2025) / (Actual)

Forecast Temperatures

Actual Temperatures



Data courtesy of the National Centers for Environmental Information (NCEI)

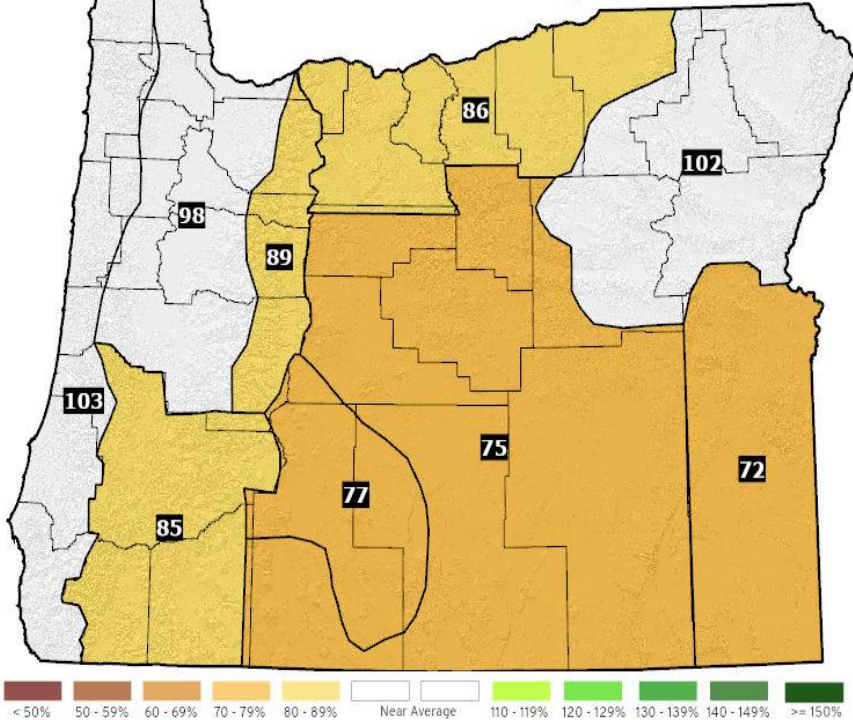
January 2026

(Forecast Issued December 18, 2025) / (Actual)

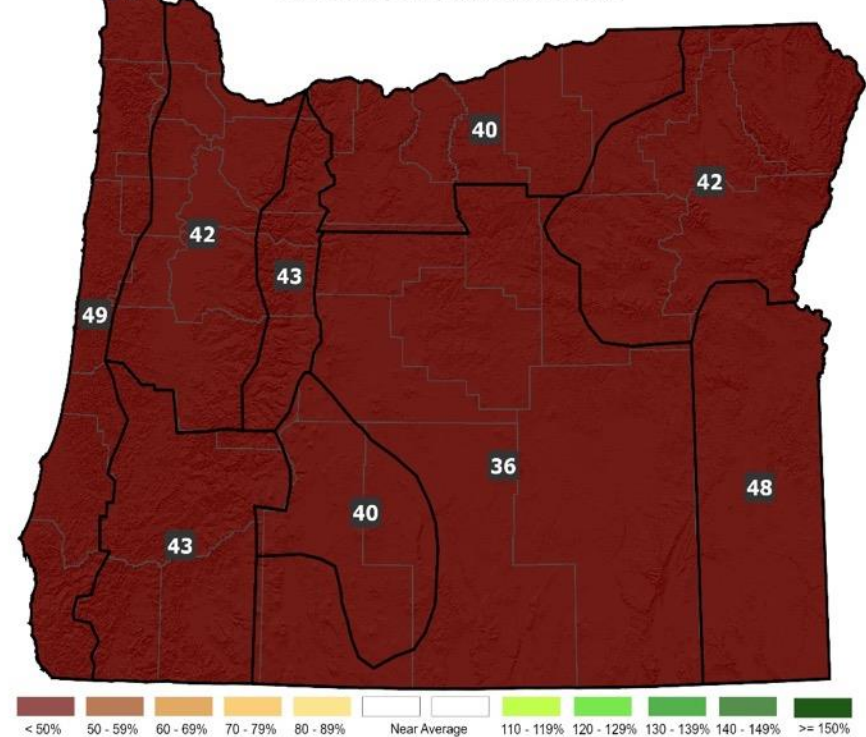
Forecast Precipitation

Actual Precipitation

January 2026 Forecast Precipitation Anomalies (% of Avg.)
Based on 1968; 1982; 2018 Analog Years
Versus 1991-2020 Average



January 2026 Actual Precipitation Anomalies (% of Avg.)
Versus 1991-2020 Long-term Average



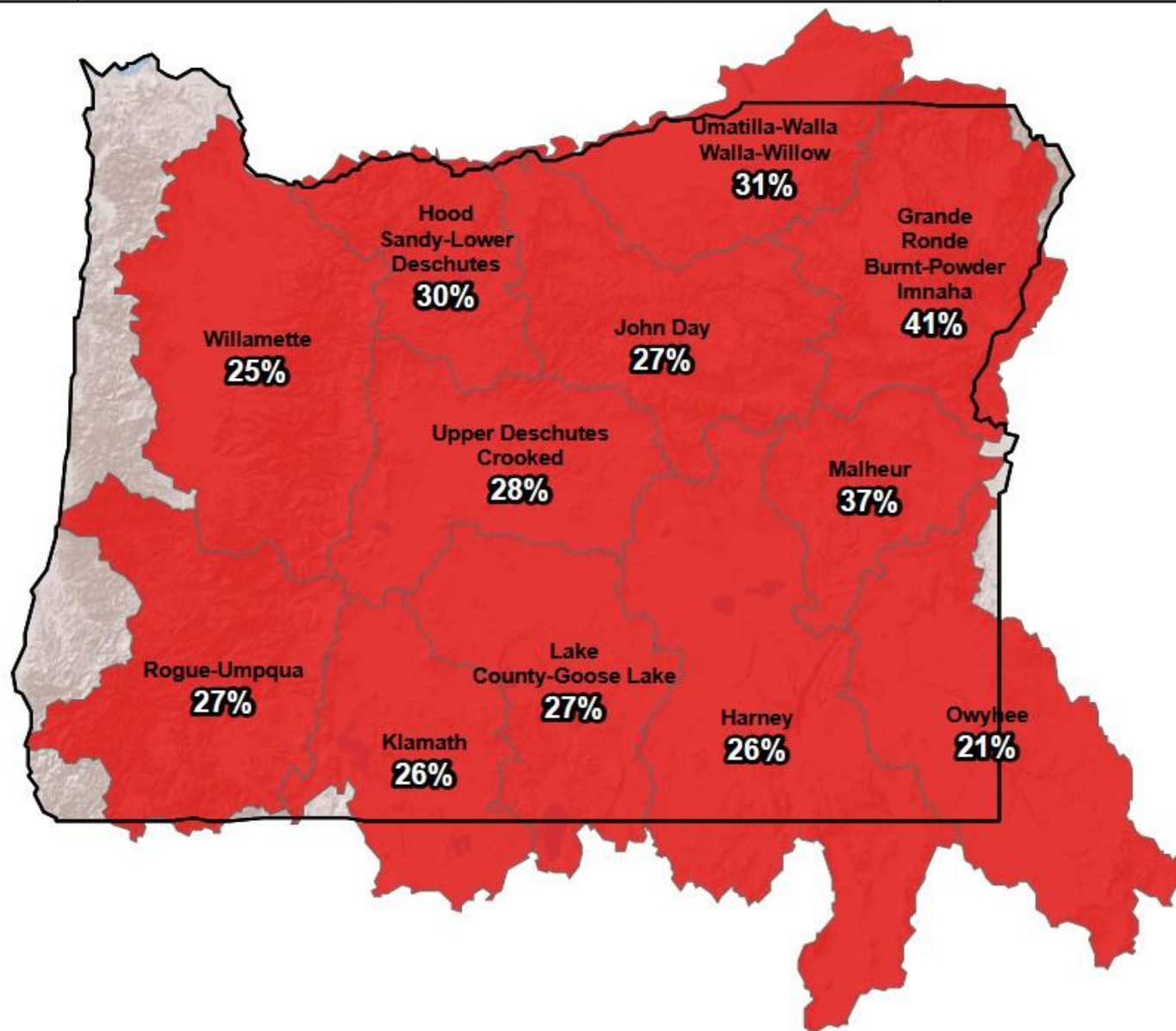
Data courtesy of the National Centers for Environmental Information (NCEI)

January 2026

(Forecast Issued December 18, 2025) / (Actual)

- 2018 (*which turned out being best analog match*) was “blow-torch” warm and skewed the analog average warm, despite 1968 & 1982 being cool. (January 2026 temperatures looked remarkably like 2018...well above average but not record warm.) *A “partial forecast hit.”*
- Mostly below average precipitation. 1968 & 2018 had below-average mountain snow. 1982 had the reverse. (January 2026 had well below average precipitation and mountain snow.) *A “partial forecast hit.”*

Percent NRCS 1991-2020 Median



Percent NRCS 1991-2020 Median

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- No basin value

Watershed Boundaries

- State Watersheds

Political Boundaries

- State Boundaries



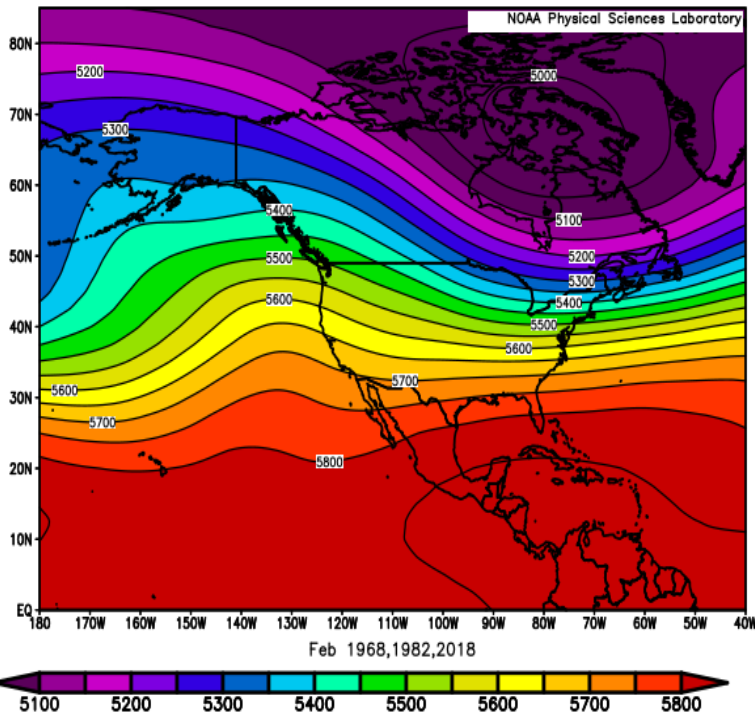
February 2026

(Forecast Issued January 15, 2026) / (Actual)

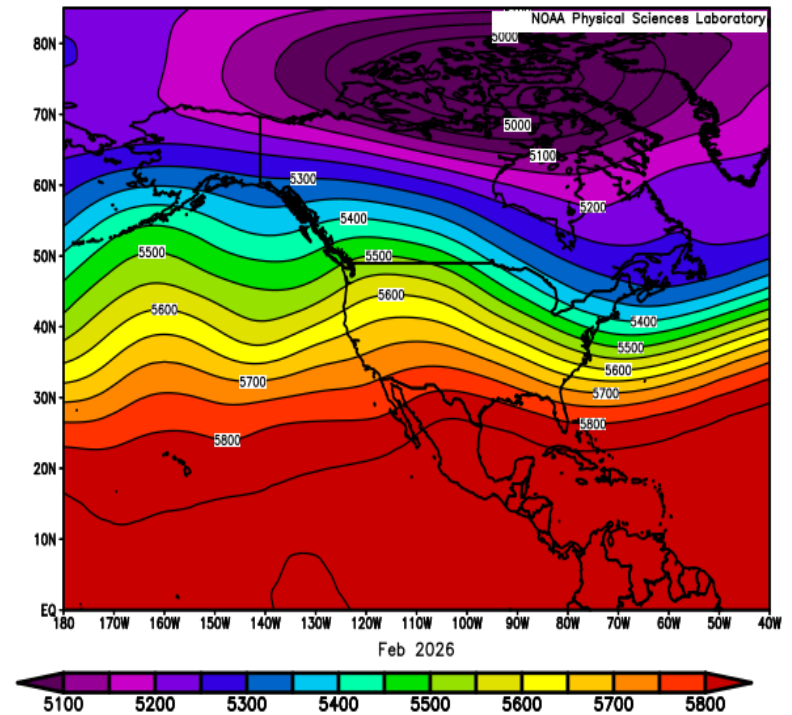
Forecast Upper-Air Pattern

Actual Upper-Air Pattern

NCEP/NCAR Reanalysis
500mb Geopotential Height (m) Composite Mean



NCEP/NCAR Reanalysis
500mb Geopotential Height (m) Composite Mean



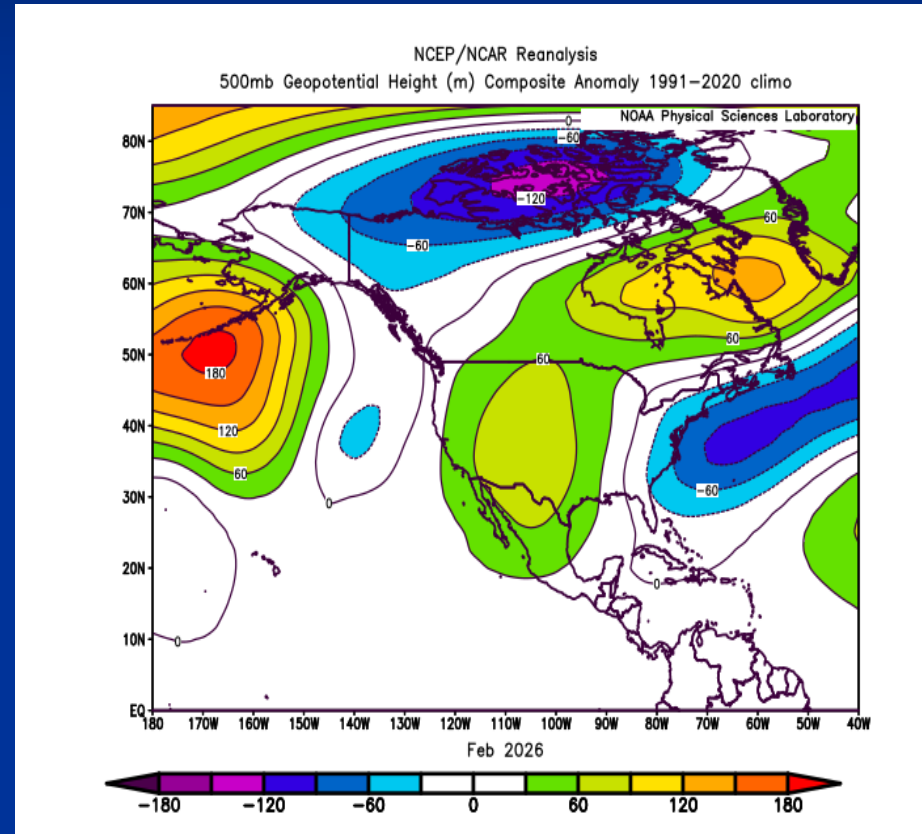
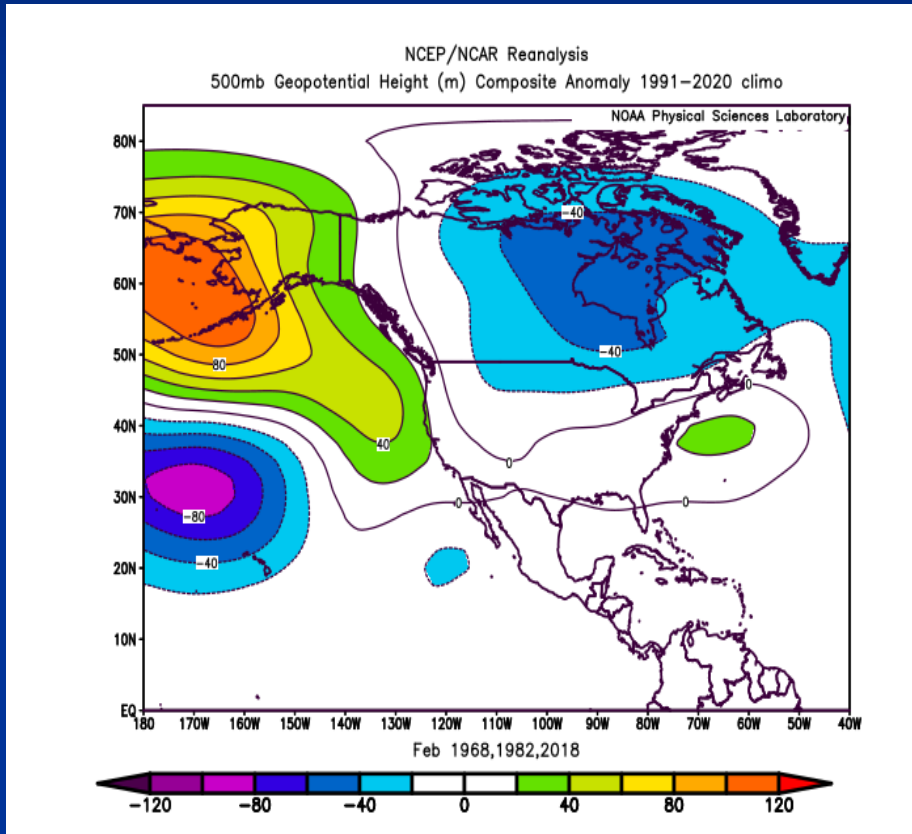
- The forecast (left) and the observed pattern (right) both showed mean ridging near the west coast. *A “partial forecast hit.”*

February 2026

(Forecast Issued January 15, 2026) / (Actual)

Forecast Upper-Air Anomalies

Actual Upper-Air Anomalies



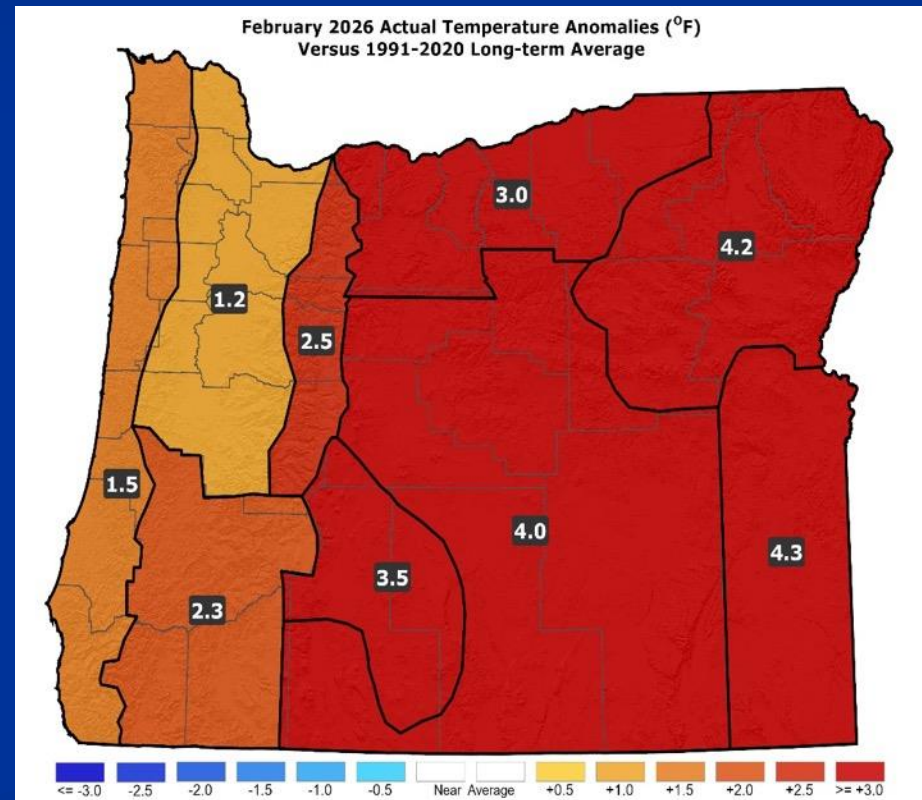
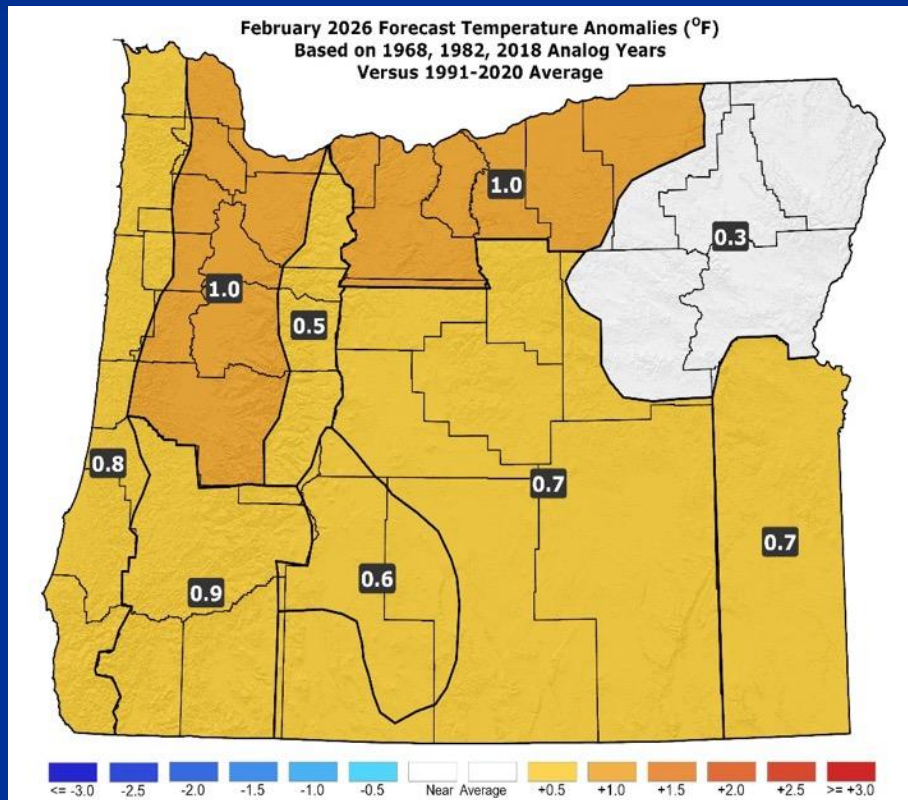
- Upper-air anomalies were minimal for both the analog composite (left), which had widely varying individual solutions, and the observed pattern (right). The latter had more ridging over the Rockies... *Only a “partial forecast hit.”*

February 2026

(Forecast Issued January 15, 2026) / (Actual)

Forecast Temperatures

Actual Temperatures



Data courtesy of the National Centers for Environmental Information (NCEI)

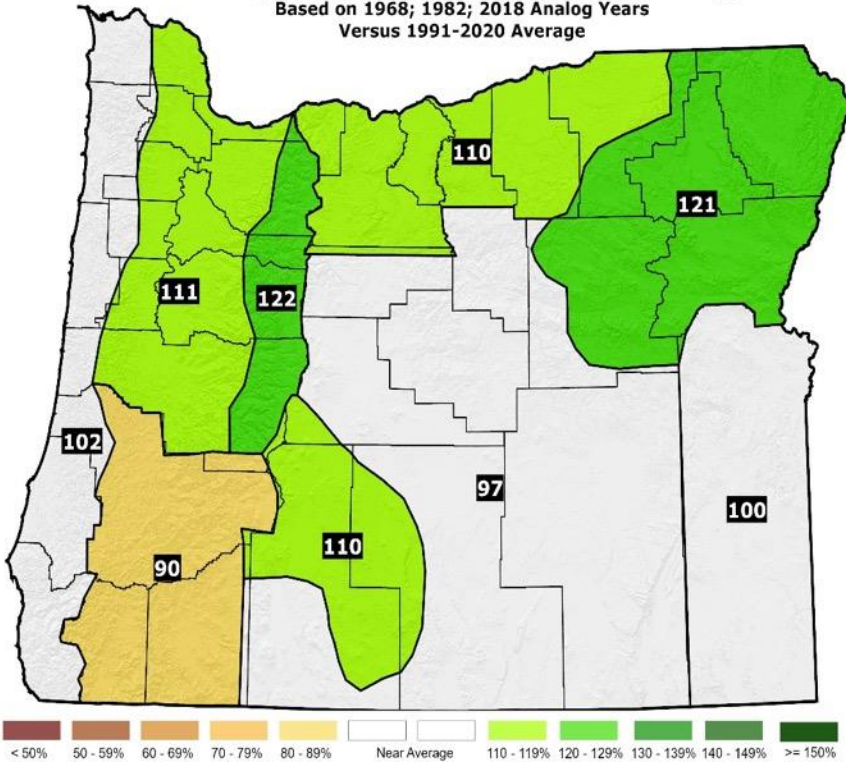
February 2026

(Forecast Issued January 15, 2026) / (Actual)

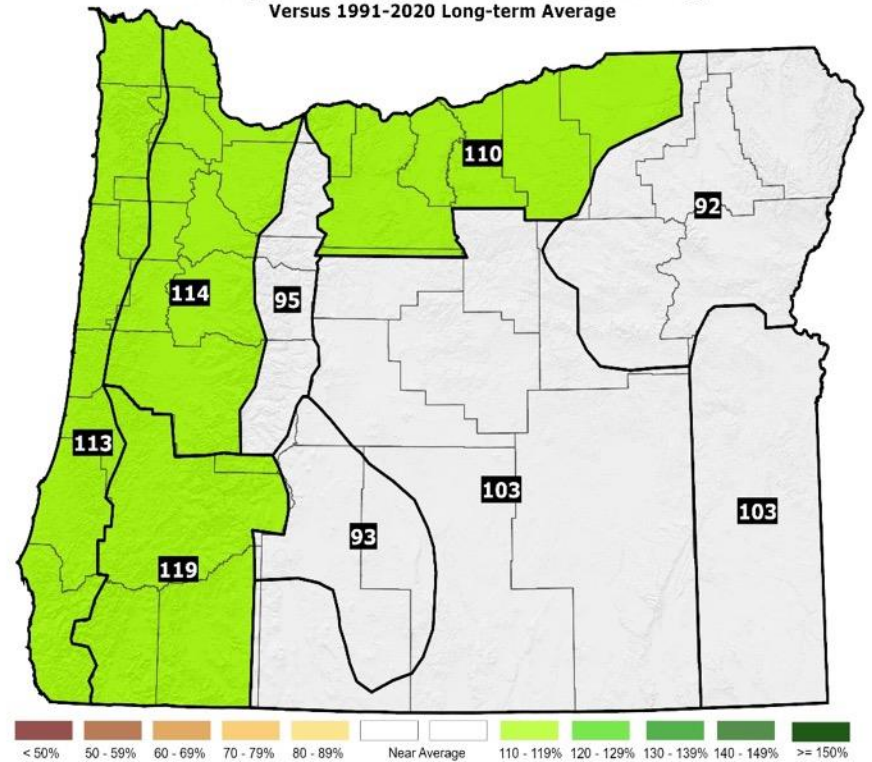
Forecast Precipitation

Actual Precipitation

February 2026 Forecast Precipitation Anomalies (% of Avg.)
Based on 1968; 1982; 2018 Analog Years
Versus 1991-2020 Average



February 2026 Actual Precipitation Anomalies (% of Avg.)
Versus 1991-2020 Long-term Average

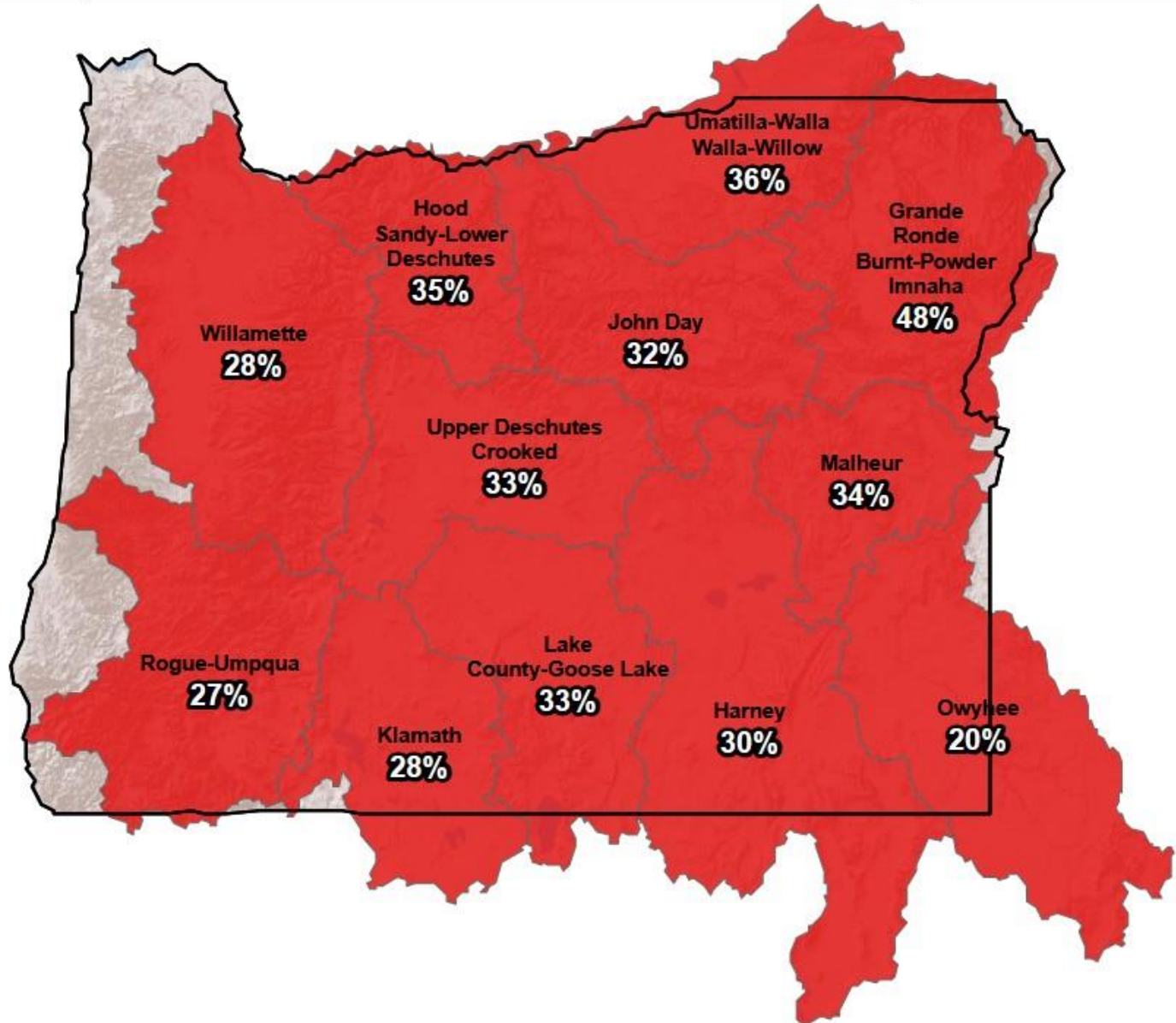


Data courtesy of the National Centers for Environmental Information (NCEI)

February 2026

(Forecast Issued January 15, 2026)/ (Actual)

- Analogs had diverse weather. 1968 was very mild with anomalous ridging over Oregon. 1982 & 2018 had more active and cooler weather. Their blend called for slightly warmer than average conditions. (Strong ridging early in the month transitioned to a cool mid-month trough, then a period of mild SW flow, before a ridge returned. Temperatures were quite mild.) A “partial forecast hit.”
- 1968 & 1982 were wetter than average...2018 was drier but had significant valley snow. (The analog-blend precipitation forecast was solid. There were some areas with brief western valley snow at mid-month. Mountain snowpacks remained well below normal.) A “partial forecast hit.”



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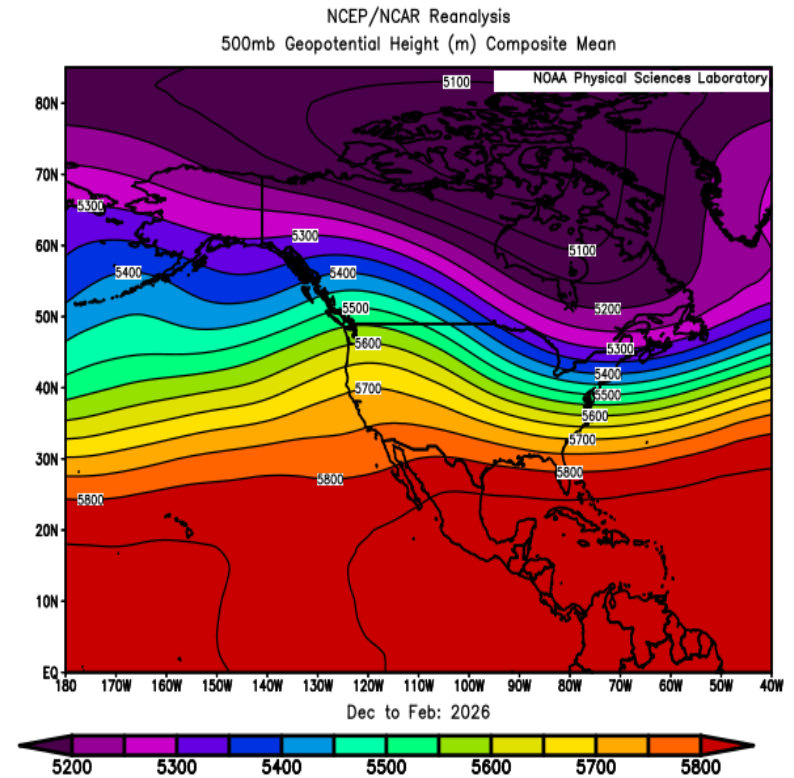
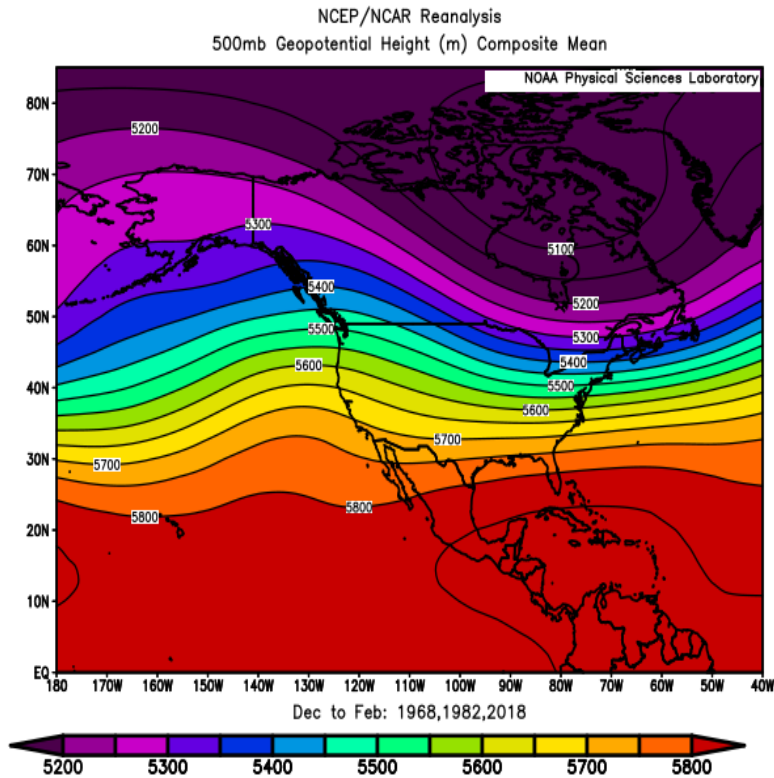


Dec. 2025 – Feb. 2026

(Forecast Issued November 20, 2025)/(Actual)

Forecast Upper-Air Pattern

Actual Upper-Air Pattern



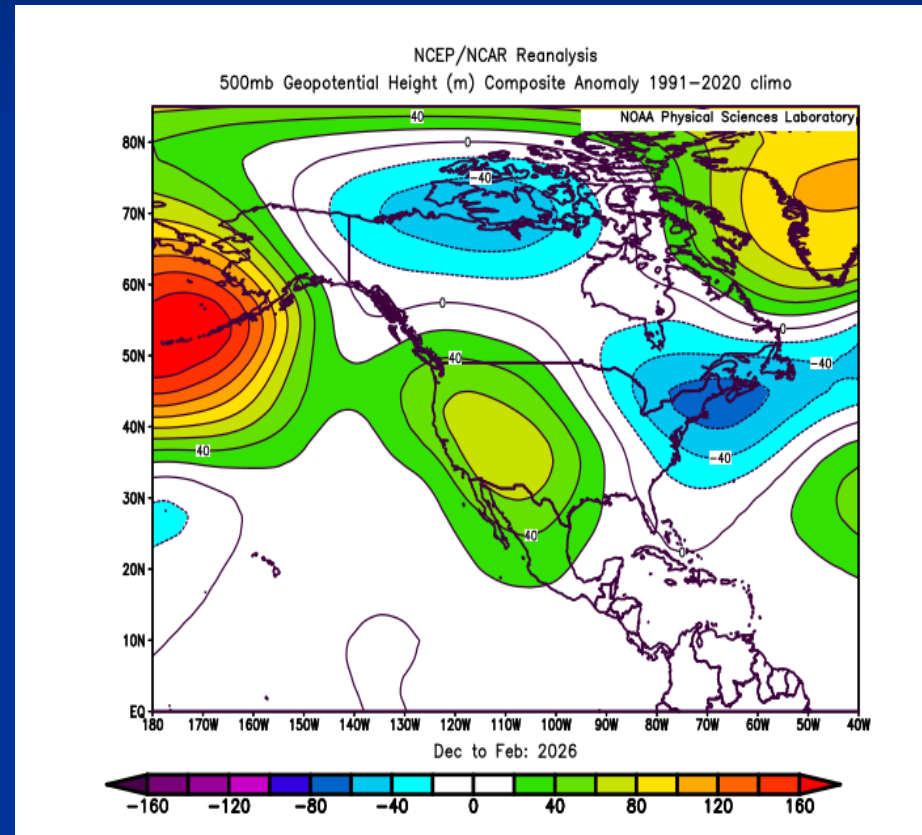
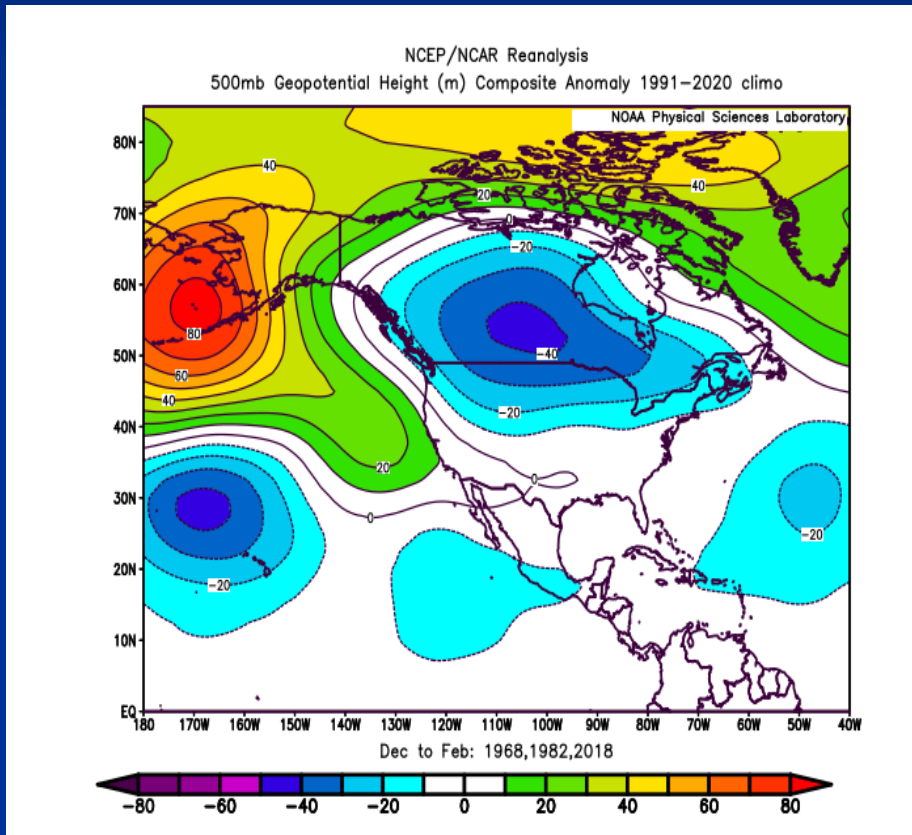
- Large analog variation reduced forecast confidence, but a blend (left) predicted mean ridging near the west coast. A mean ridge over the western U.S. was stronger and centered more inland than predicted by the analogs. *Only a “partial forecast hit.”*

Dec. 2025 – Feb. 2026

(Forecast Issued November 20, 2025)/ (Actual)

Forecast Upper-Air Anomalies

Actual Upper-Air Anomalies



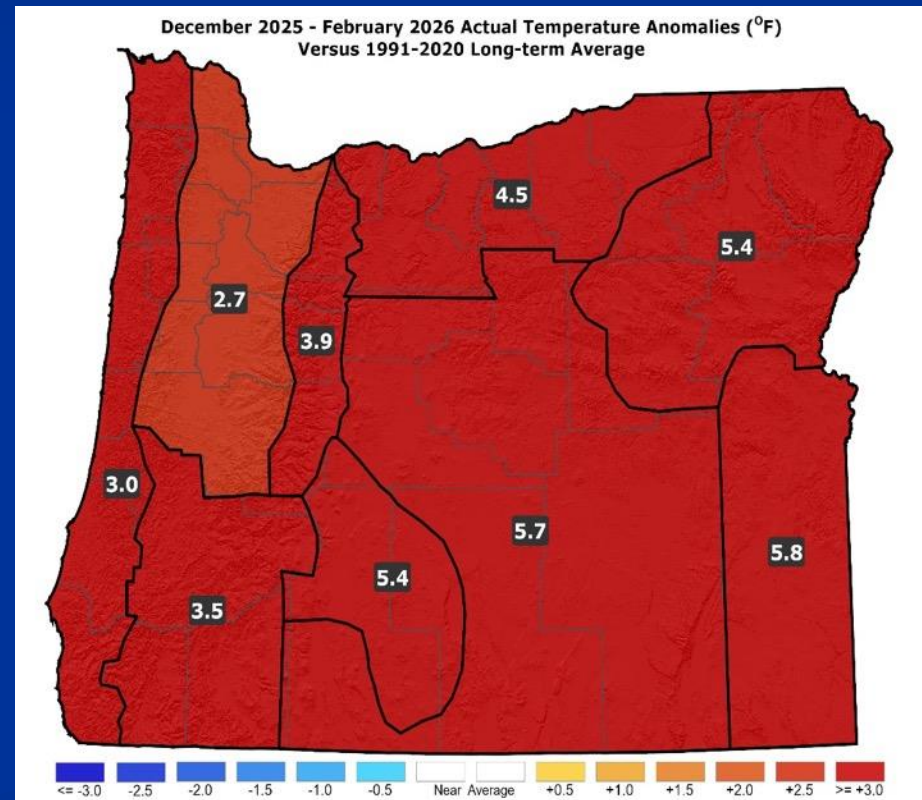
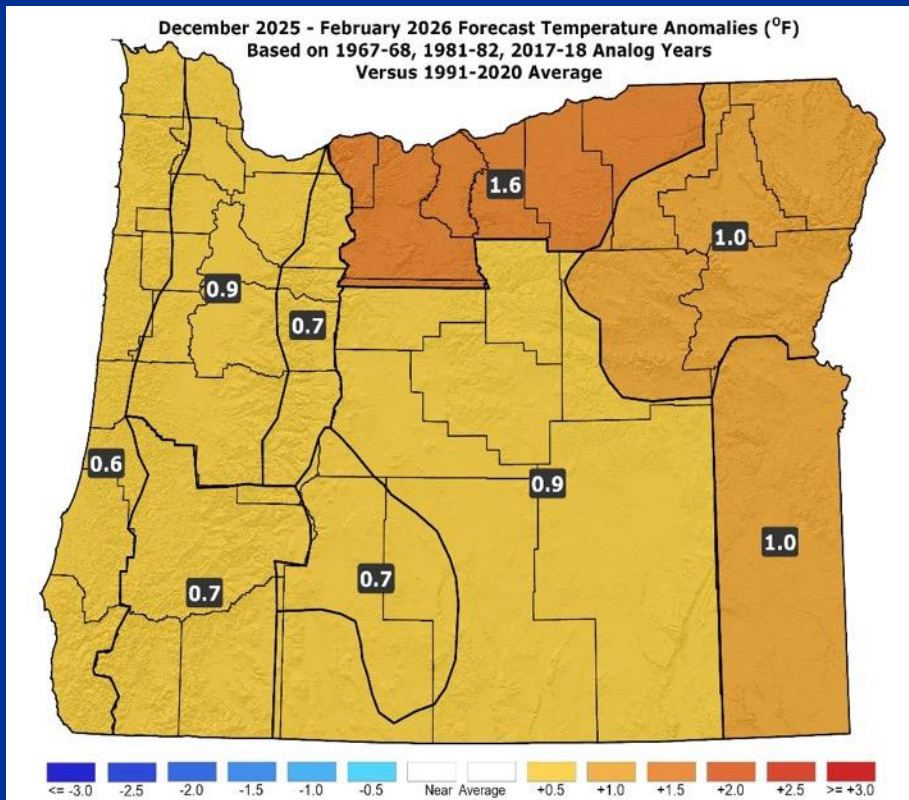
- A composite of the top analog years (left) showed anomalous troughing over Canada extending into NE Oregon. Canadian troughing materialized farther east, with more ridging than expected over the western U.S. *More of a “forecast miss” than a hit.*

Dec. 2025 – Feb. 2026

(Forecast Issued November 20, 2025) / (Actual)

Forecast Temperatures

Actual Temperatures



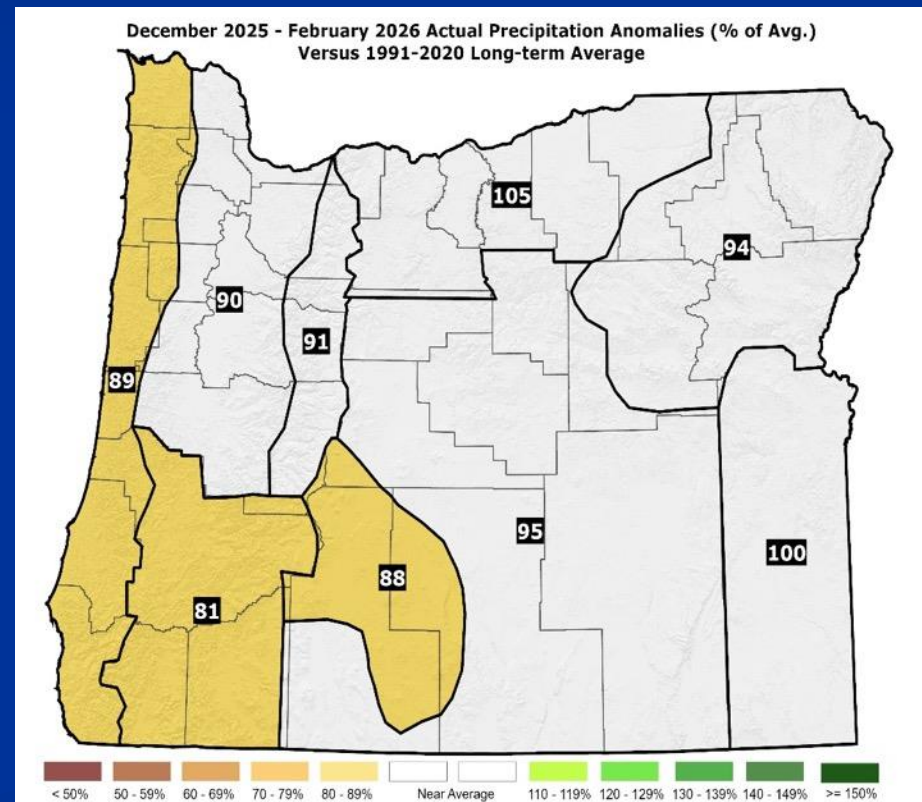
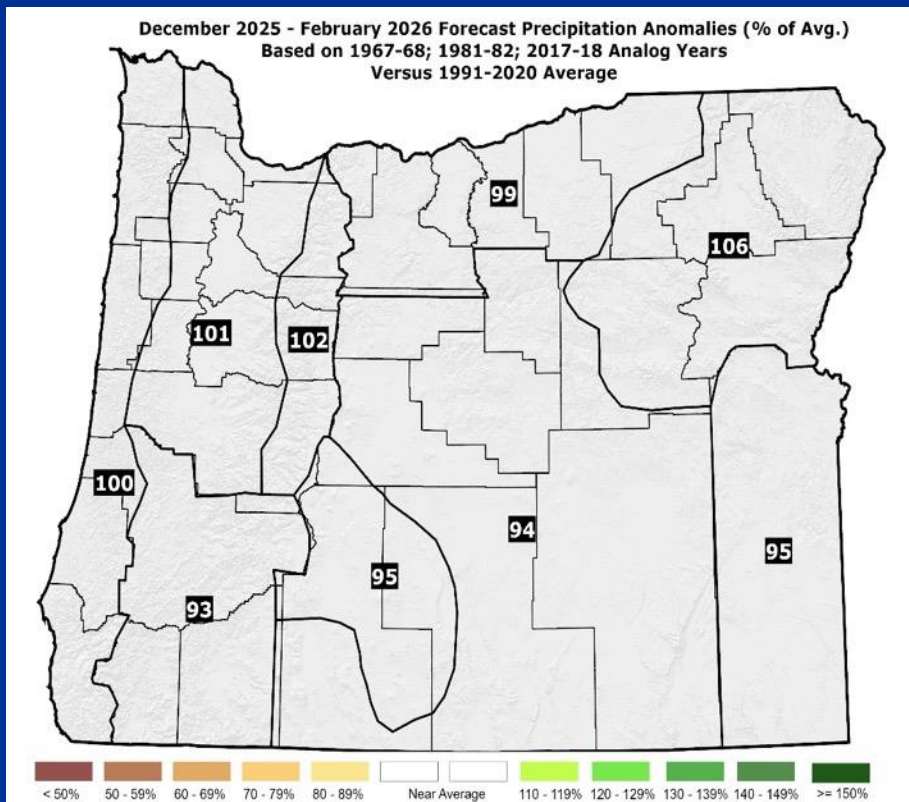
Data courtesy of the National Centers for Environmental Information (NCEI)

Dec. 2025 – Feb. 2026

(Forecast Issued November 20, 2025) / (Actual)

Forecast Precipitation

Actual Precipitation



Data courtesy of the National Centers for Environmental Information (NCEI)

Dec. 2025 – Feb. 2026

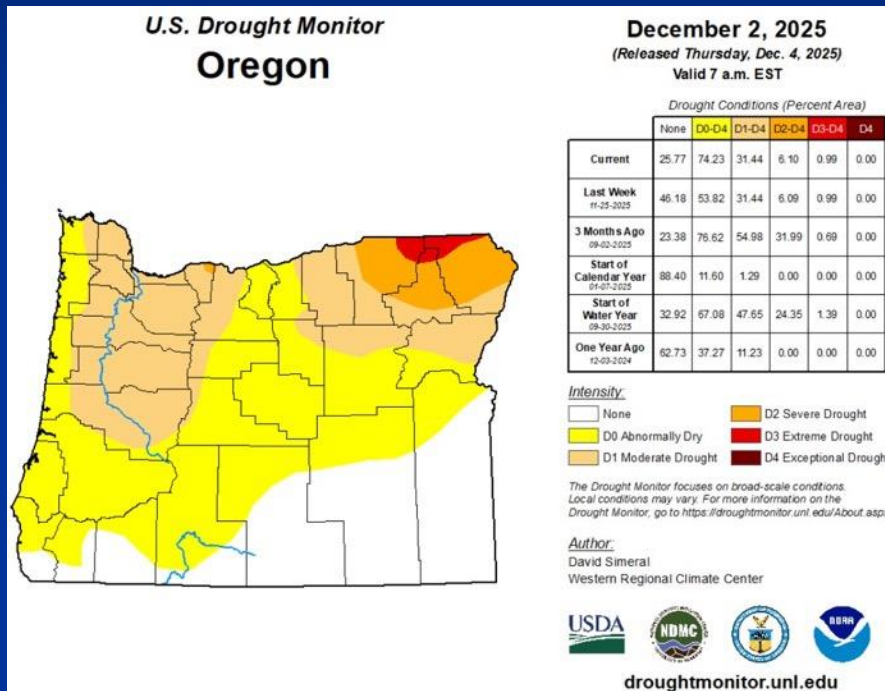
(Forecast Issued November 20, 2025) / (Actual)

- Analogs had high variability for the December - February period. Their blend showed above average temperatures, especially east. (Extremely mild conditions dominated the period.) A “partial forecast hit.”
- A blend of the analog solutions yielded “near average” precipitation. (December had above-average rain but well-below average mountain snow. January had below average rain and mountain snow. February was slightly wet with near average mountain snow. Overall, precipitation was near average, but mountain snow was well below average.) A “partial forecast hit.”

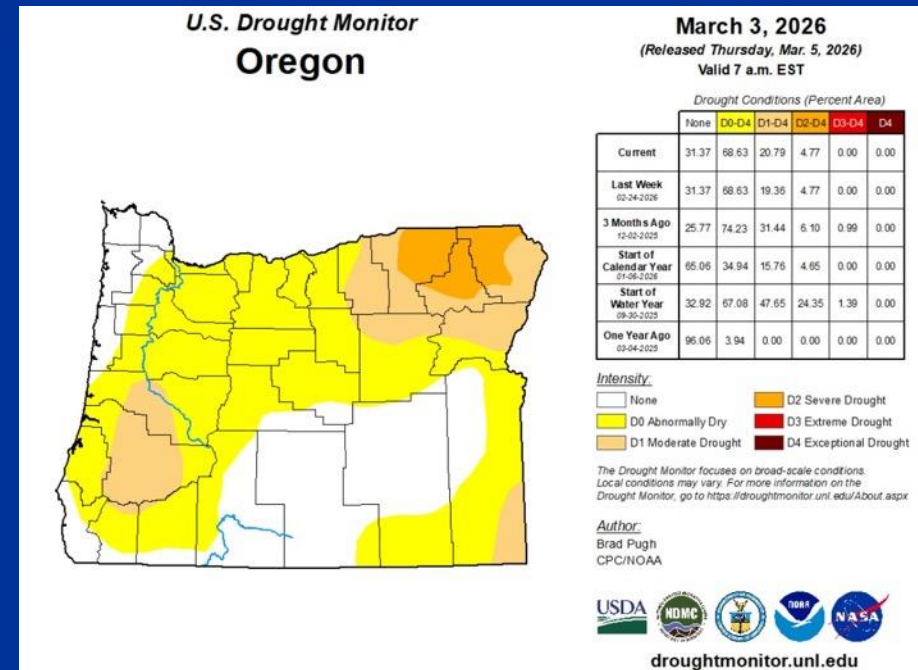
Oregon Drought Status

(Only Minor Improvement During the “Wet” Season)

December 2, 2025



March 3, 2026



Courtesy: National Drought Mitigation Center (NDMC)

<https://droughtmonitor.unl.edu/>

Forecast Resources

- ODA Seasonal Climate Forecast Home:

<https://www.oregon.gov/oda/natural-resources/pages/weather.aspx>

- CPC Official US Three-Month Forecasts (Graphics):

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=01

- CPC US 30-Day & 90-Day Forecasts (Discussions):

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/fxus07.html

- CPC Weekly & Monthly ENSO Discussions:

https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory

- Australian Government Climate Model Summary:

<http://www.bom.gov.au/climate/model-summary/#region=NINO34&tabs=Overview>

- Australian Government ENSO Wrap-Up:

<http://www.bom.gov.au/climate/enso>

- IRI ENSO Quick Look:

<https://iri.columbia.edu/our-expertise/climate/forecasts/enso/current/>

Water Supply / Fire-Potential Outlook

- CPC U.S. Seasonal Drought Outlook:

https://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.png

- NRCS Snow Water Equivalent Oregon Map:

https://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/or_swepctnormal_update.pdf

- NRCS/USDA Snow Water Equivalent Products:

<https://www.nrcs.usda.gov/wps/portal/wcc/home/snowClimateMonitoring/snowpack/>

- NDMC U.S. Drought Monitor:

<https://droughtmonitor.unl.edu/>

- NIDIS North American Drought Portal:

<https://www.drought.gov/nadm/content/percent-average-precipitation>

- WRCC WestWideDroughtTracker:

<https://www.wrcc.dri.edu/wwdt/>

- NWCC Northwest Interagency Coordination Center (video)

<https://gacc.nifc.gov/nwcc/predict/outlook.aspx>

Updated Mid-Month

Your Feedback is Welcome!

Sign-up for Email notification of updates at:

https://public.govdelivery.com/accounts/ORODA/subscriber/new?topic_id=ORODA_14

Contact: Pete Parsons, ODF Lead Meteorologist
at 503-945-7448 or peter.gj.parsons@odf.oregon.gov