North Central U.S. Climate and Drought Summary and Outlook

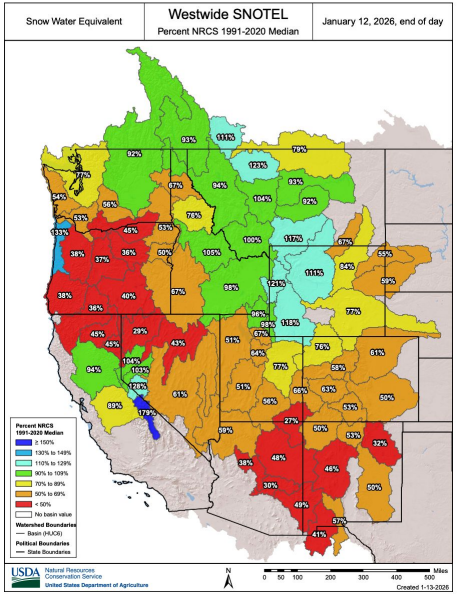
January 15, 2026

Dr. Zachary Hoylman

Assistant State Climatologist (MT)
Research Asst. Professor (University of Montana)

GENERAL INFORMATION

- **Providing climate services to the Central Region**
- **Collaboration Activity Between:**
  - State Climatologists/American Association of State Climatologists
  - NOAA NCEI/NWS/OAR/
  - USDA Climate Hubs
  - Midwest and High Plains Regional Climate Centers
  - National Drought Mitigation Center
- **Next Regular Climate/Drought Outlook Webinar**
  - February 19th, 1pm CT - Austin Pearson
    Asst. State Climatologist (Indiana State Climate Office)
- **Sign Up For This Zoom Series**
  - https://unl.zoom.us/meeting/register/lhQo_-DqSMu9ZOlYhFJFAw
- **Recordings of Past Webinars**
  - https://mrcc.purdue.edu/webinars
  - https://hprcc.unl.edu/webinars.php



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University of Montana
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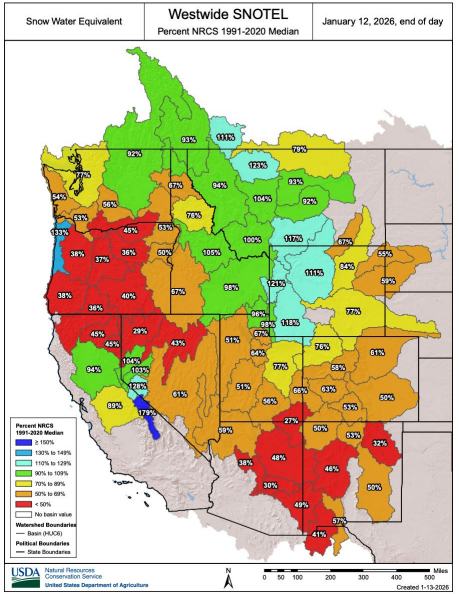
SUMMARY AND OUTLINE

- **Recent Conditions**
  - 2025 Climate Recap
  - 1-3 month & month-to-date precipitation / temperature
  - Snow anomalies
  - Soil Moisture
  - Streamflow (current and forecast)
  - Reservoirs
  - Drought
- **Impacts**
  - Wild Wind!
  - Unconventional Snowpack
- **Outlooks**
  - 8 day - 3 month precipitation and temperature
  - ENSO Forecast
  - Drought / Fire



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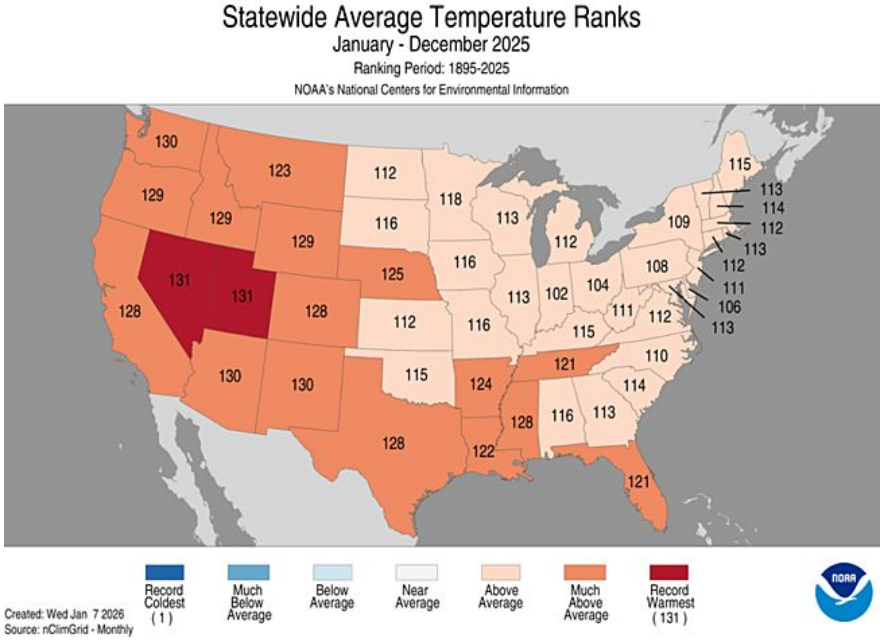
2025 Climate Recap

2025 TEMPERATURE AND PRECIPITATION

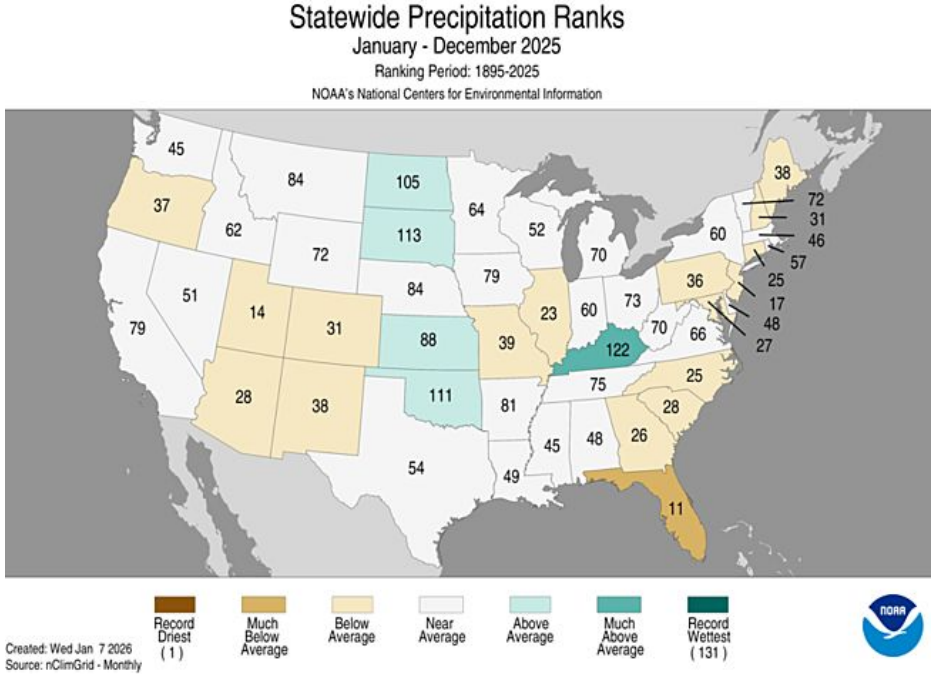
Above average in the UMRB, near normal or below normal for much of US



Warmest or near warmest year for much of the west.

Warmest on record for U.S. overall

Above average for U.S. overall



https://www.ncei.noaa.gov/access/monitoring/us-maps/

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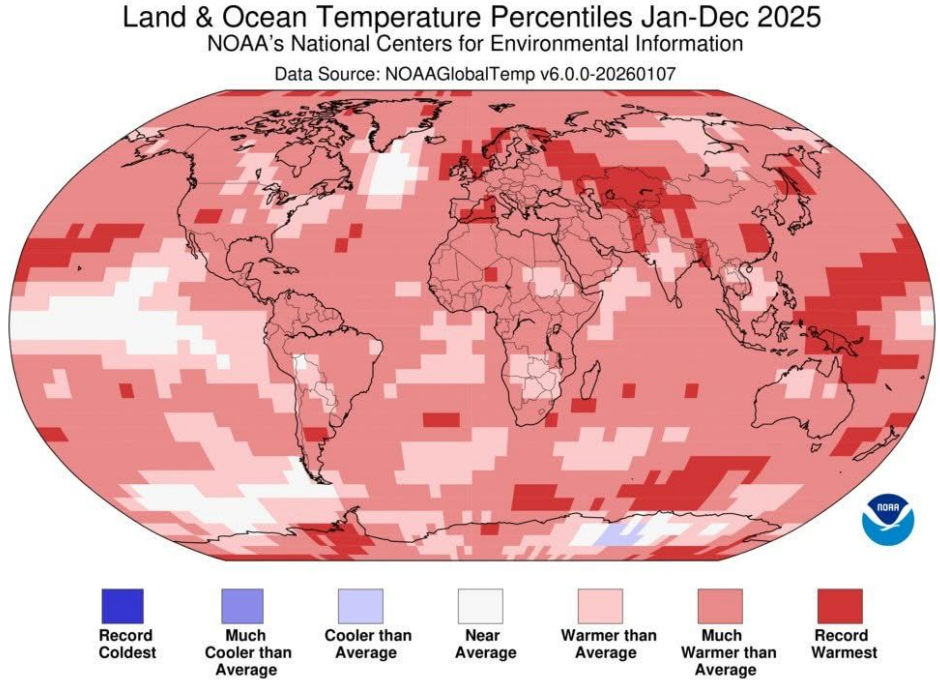
2025 TEMPERATURE - GLOBAL



2025 ranks as the **third-warmest year on record**, since 1850

Annual sea ice extent for both the **Arctic and Antarctic regions** ranked **among the three lowest years on record.**

The **Northern Hemisphere snow** cover extent was the **third lowest on record**.

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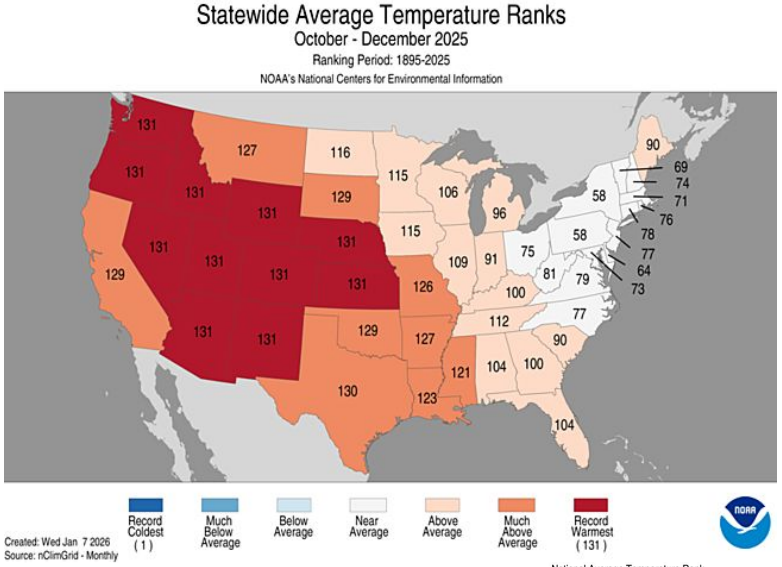
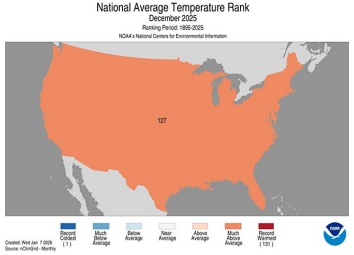
Recent Conditions

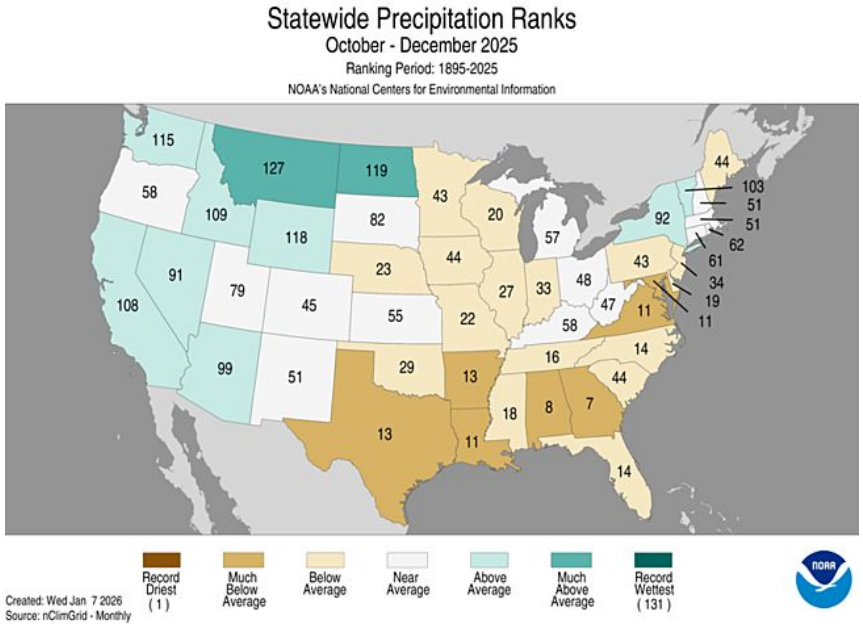
3 MONTH TEMPERATURE AND PRECIPITATION



Near Record Warmest Oct - Dec for CONUS



37th Driest Oct - Dec for CONUS
drier than normal
(Wetter than Normal for UMRB)



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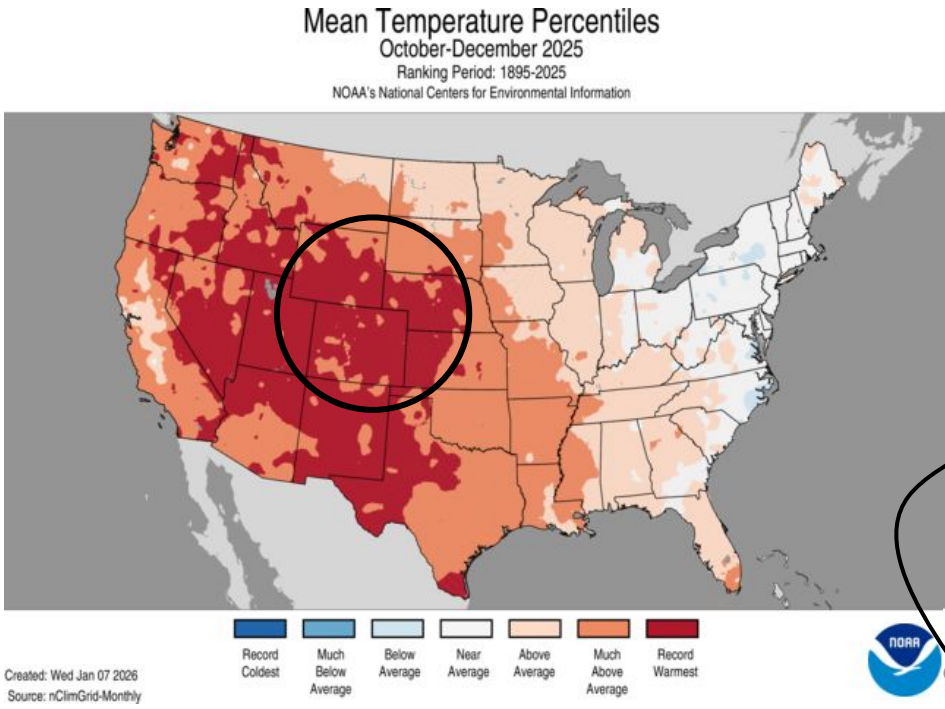
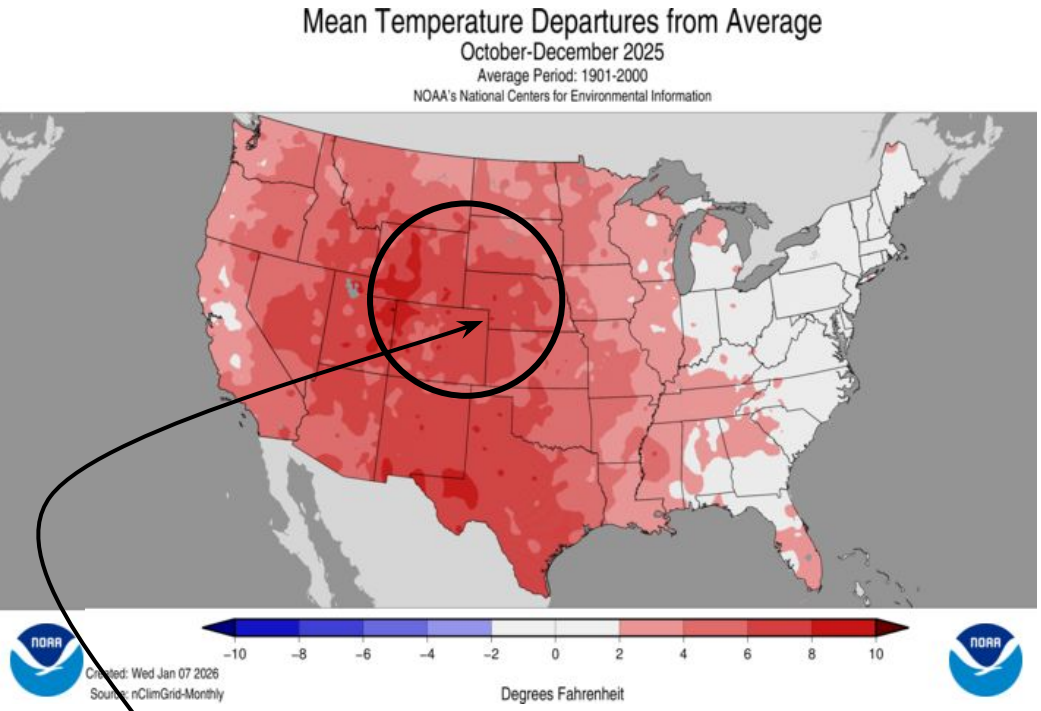
3 MONTH TEMPERATURE PERCENTILE & ANOMALY





+4-8°F above normal on average!

https://www.ncei.noaa.gov/access/monitoring/us-maps/

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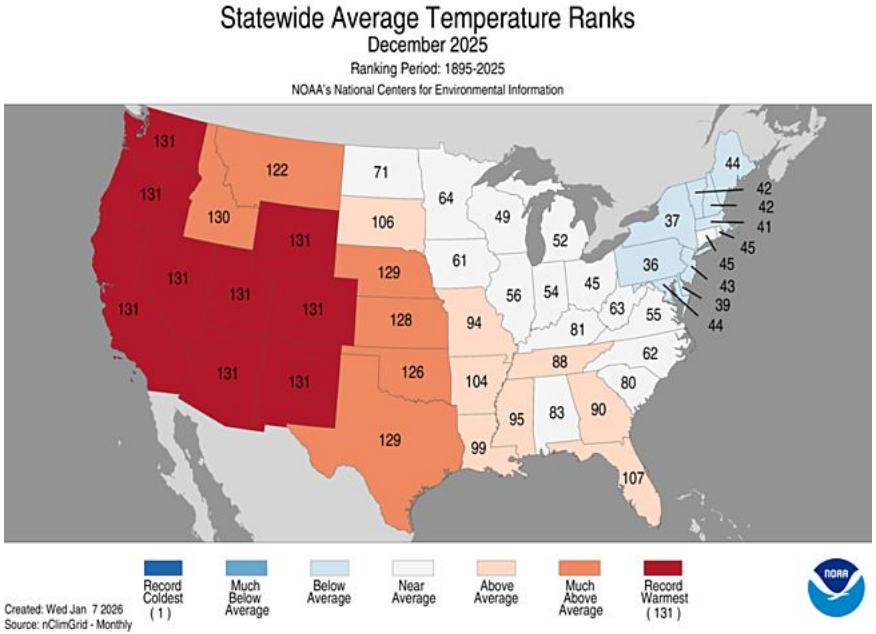
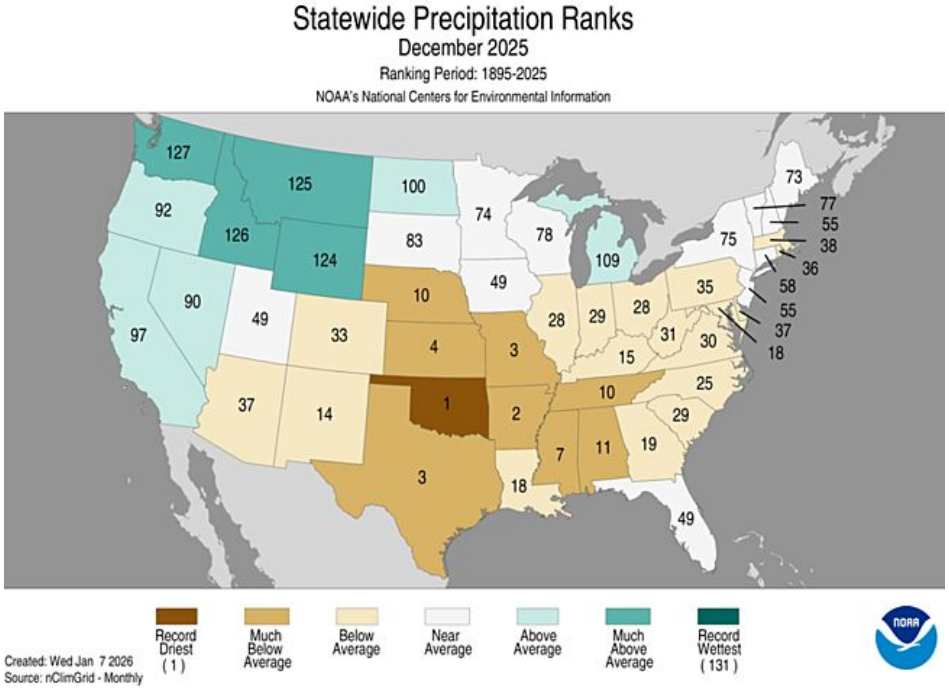
1 MONTH TEMPERATURE AND PRECIPITATION



5th Warmest December for CONUS
(127th of 131 Years)

https://www.ncei.noaa.gov/access/monitoring/us-maps/

Average CONUS December Precipitation
(37th of 131 Years)



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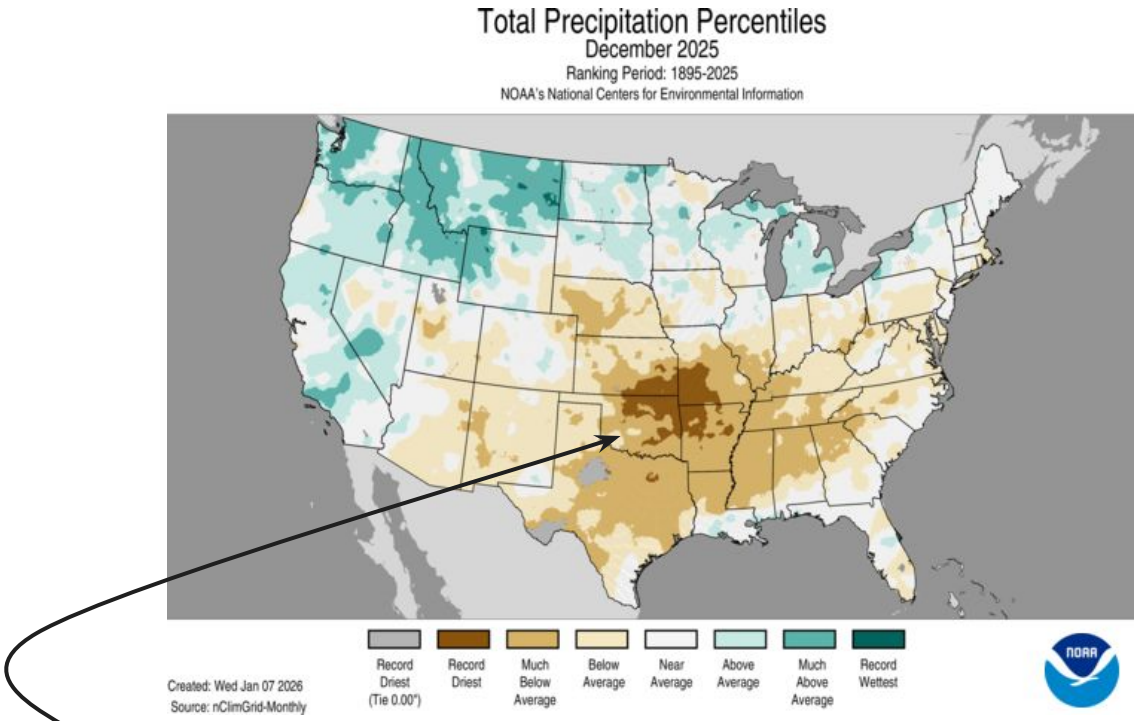
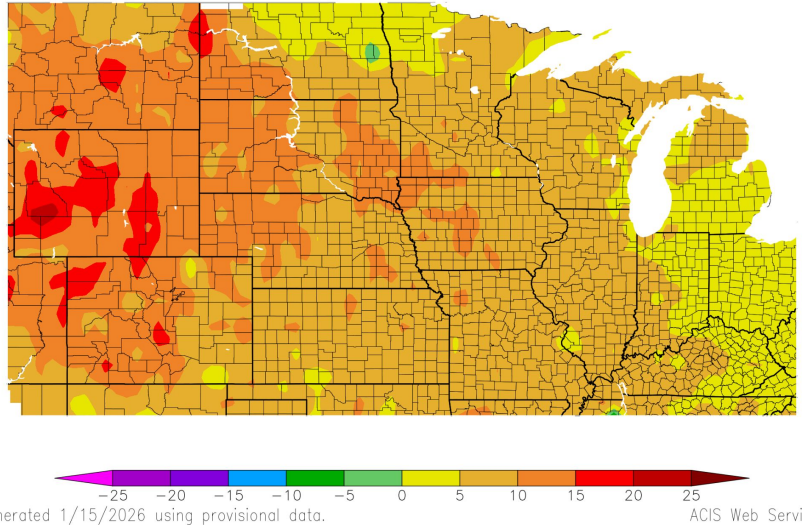
DECEMBER PRECIPITATION PERCENTILE



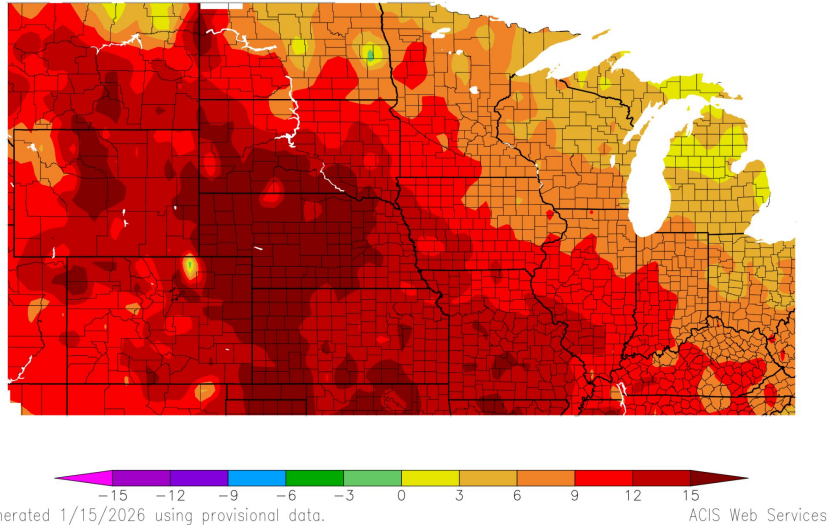
Record low precipitation in Kansas, Oklahoma, Missouri and Arkansas in December

Last 30 Days: Temperature departure from mean

Departure from Normal Average Minimum Temperature (F)
12/16/2025 – 1/14/2026



Departure from Normal Average Maximum Temperature (F)
12/16/2025 – 1/14/2026



https://hprcc.unl.edu/

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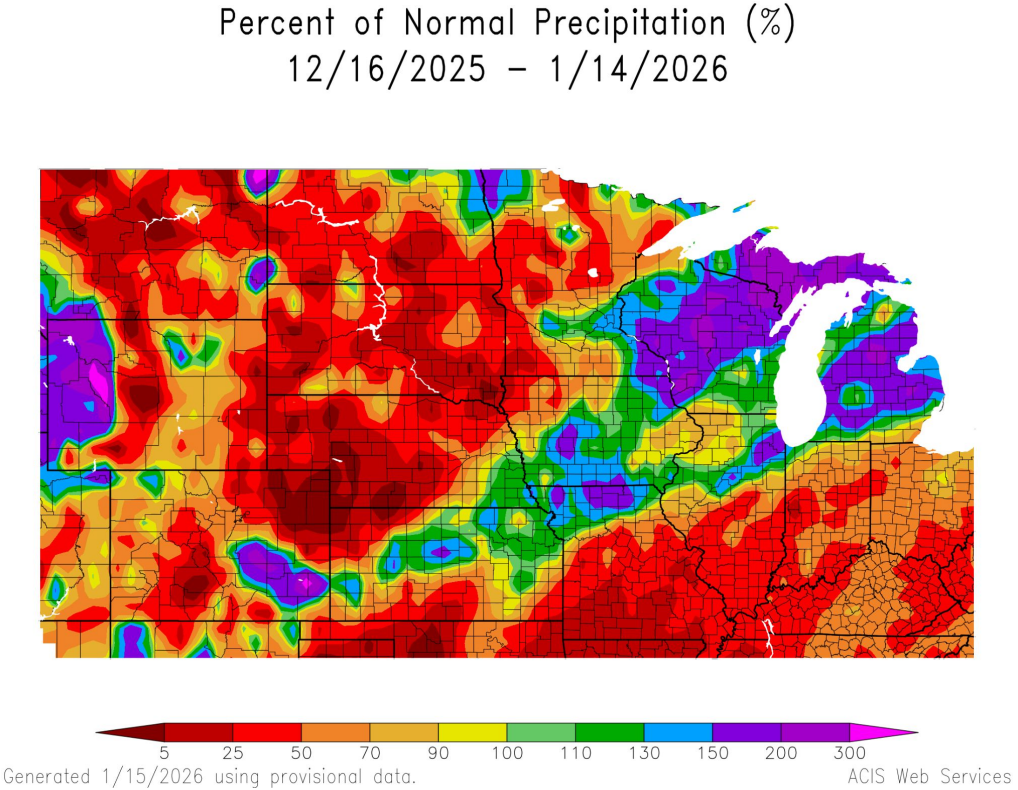
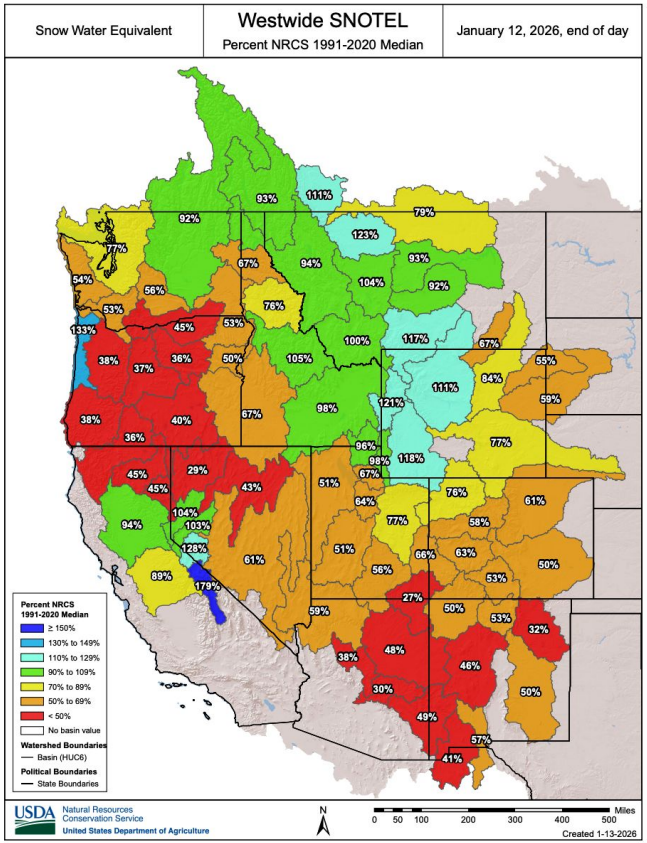
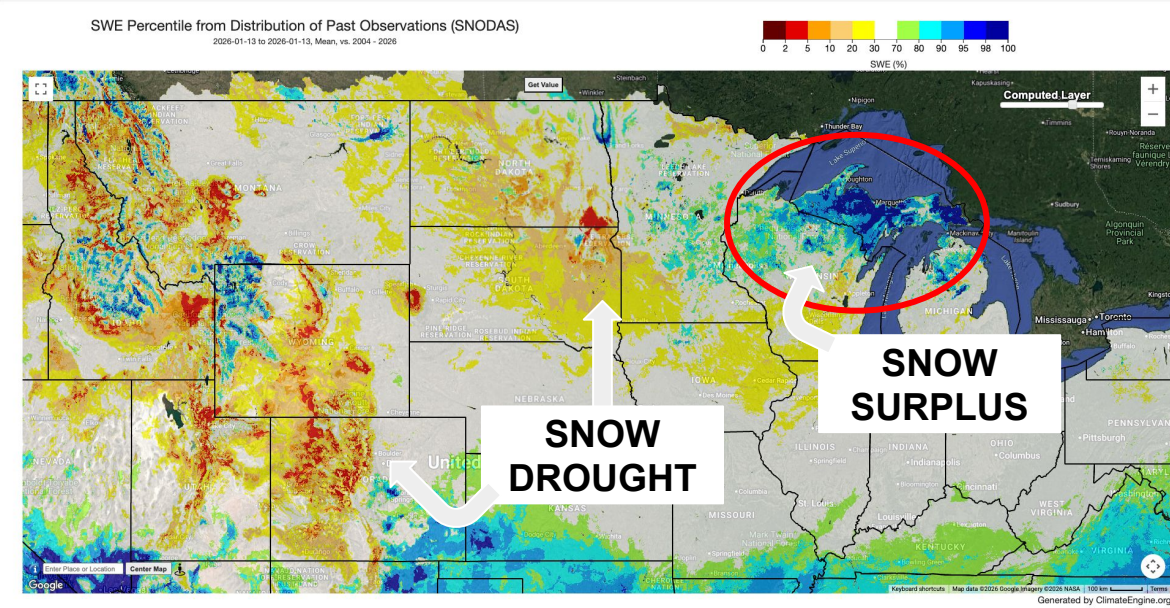
Last 30 Days: Precipitation Percent of Mean

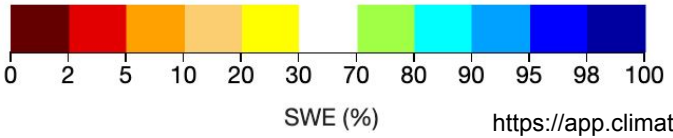


https://hprcc.unl.edu/

SEASONAL SNOW WATER EQUIVALENT (ON THE GROUND CURRENTLY)







note period of record is 2004 - present

https://app.climateengine.com/climateEngine

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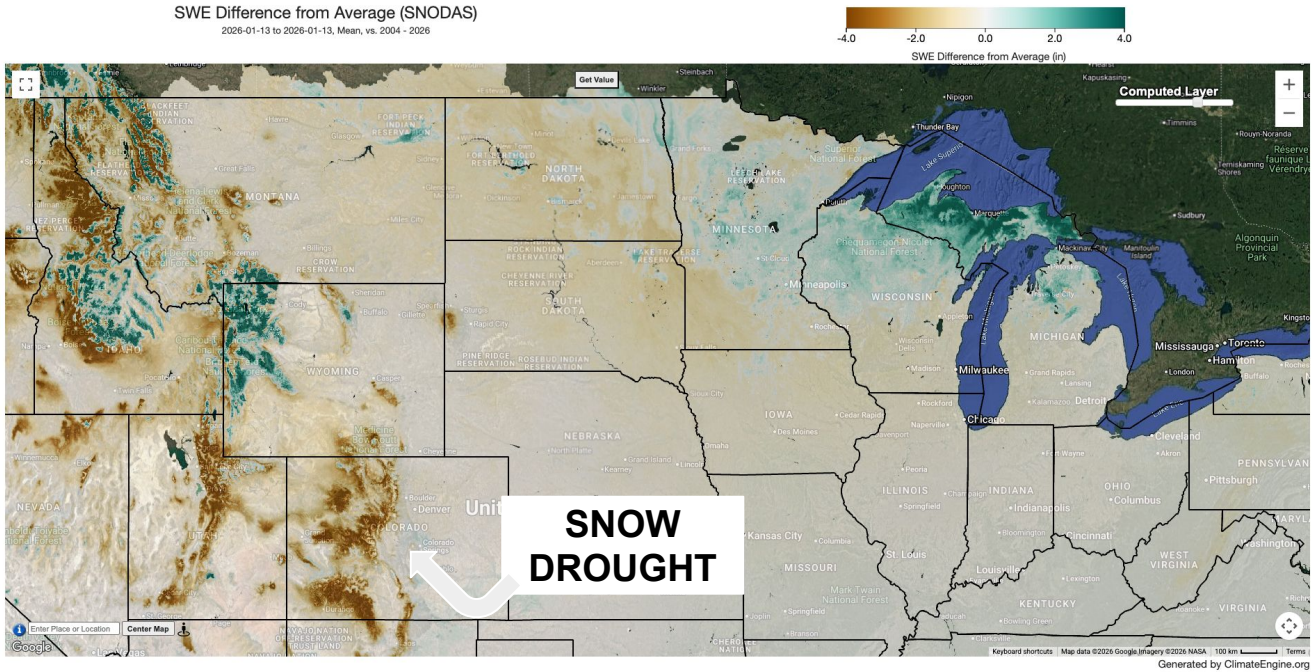
SEASONAL SNOW WATER EQUIVALENT (Difference from Average)



Generally **Above Average** in WY, **Well Below Average** in CO, Mixed in MT
note period of record is 2004 - present

https://app.climateengine.com/climateEngine

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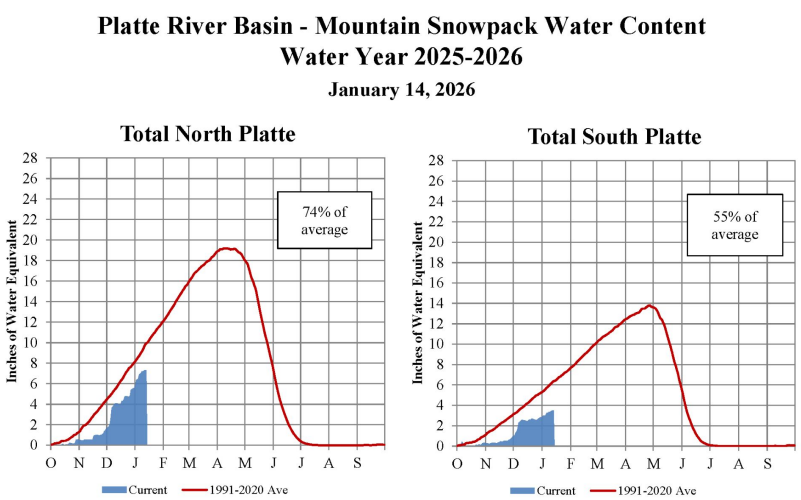
SEASONAL SNOW WATER EQUIVALENT (SWE Accumulation)

PLATTE RIVER BASIN

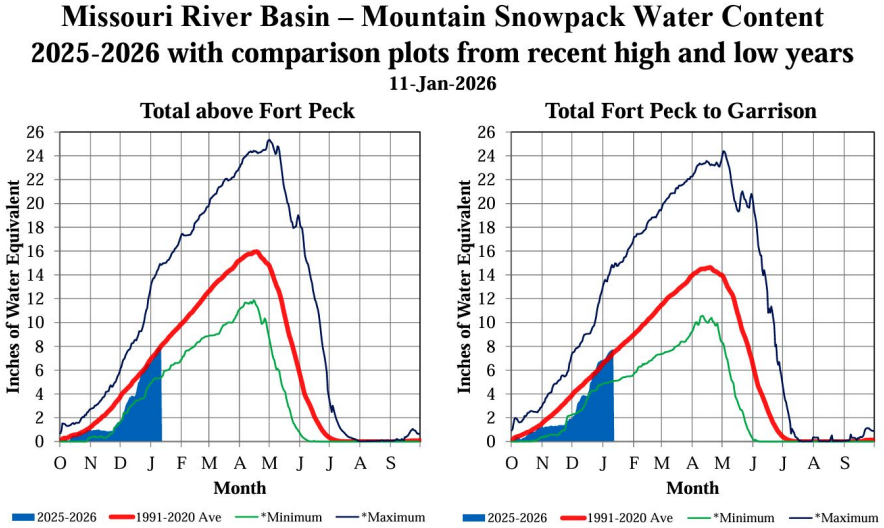


The North and South Platte River Basin mountain snowpacks normally peak near April 10 and the end of April, respectively. As of January 14, 2026, the mountain snowpack SWE in the "Total North Platte" reach is 7.3", 74% of the (1991-2020) average. The mountain snowpack SWE in the "Total South Platte" reach is 3.5", 55% of the (1991-2020) average.

Source: USDA, Natural Resource Conservation Service

Provisional Data. Subject to Revision

MISSOURI RIVER BASIN



On January 11, 2026 the mountain Snow Water Equivalent (SWE) in the "Total above Fort Peck" reach is 7.9" and 99% of the (1991-2020) average. The mountain SWE in the "Fort Peck to Garrison" reach is 7.8" and 104% of the (1991-2020) average. The normal peak for both reaches occurs near April 17.

*Refers to the minimum or maximum SWE in the basin for that day in the historical years 1991-2020.

Provisional data. Subject to revision.

https://www.nwd-mr.usace.army.mil/rcc/

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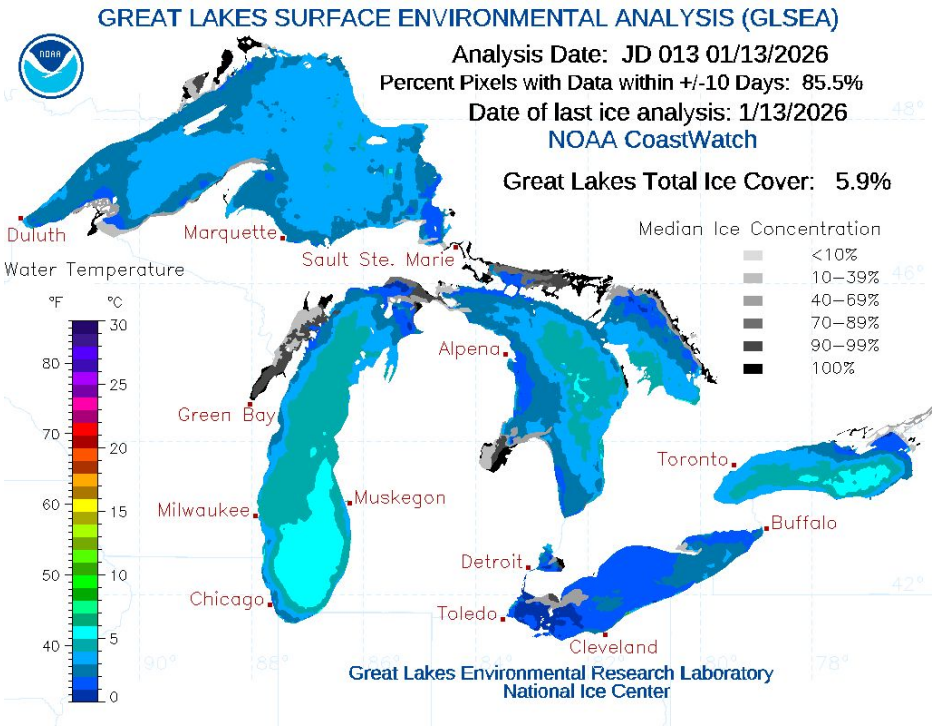
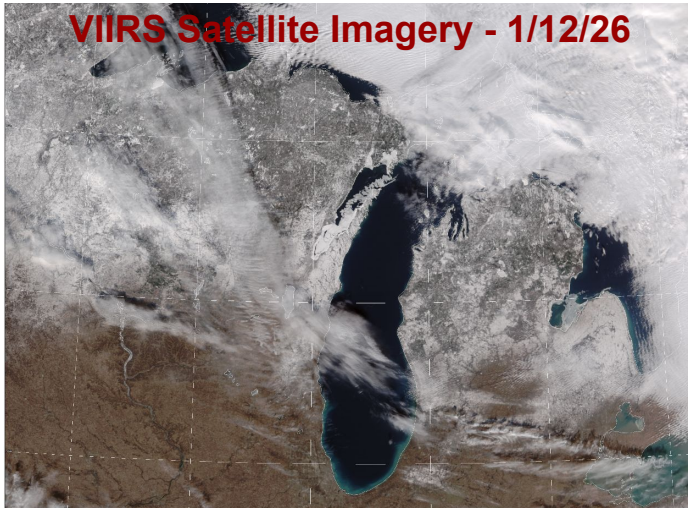
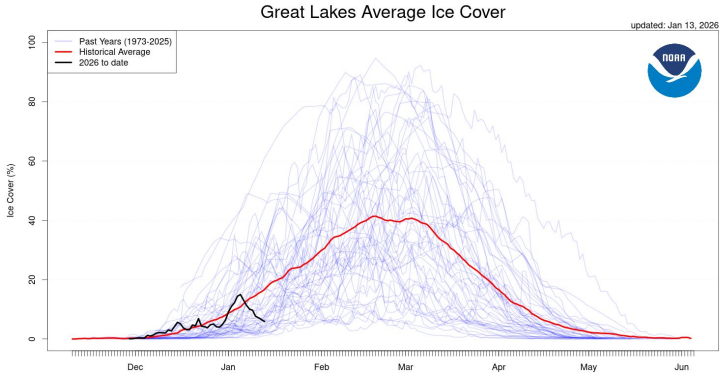
GREAT LAKES ICE COVER







5.9% Ice Cover - Well Below Normal

https://www.weather.gov/cle/GreatLakesIce_Analysis

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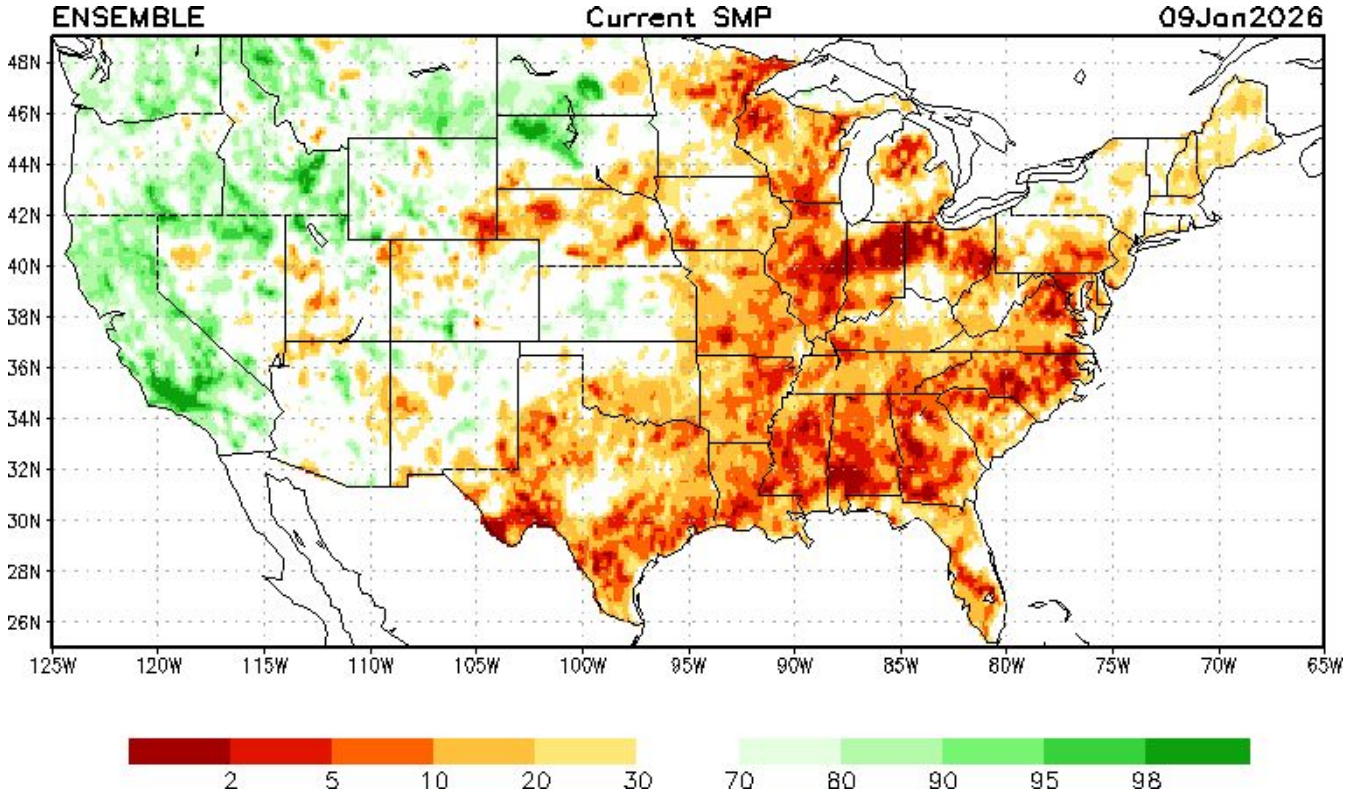
SOIL MOISTURE PERCENTILES



https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml

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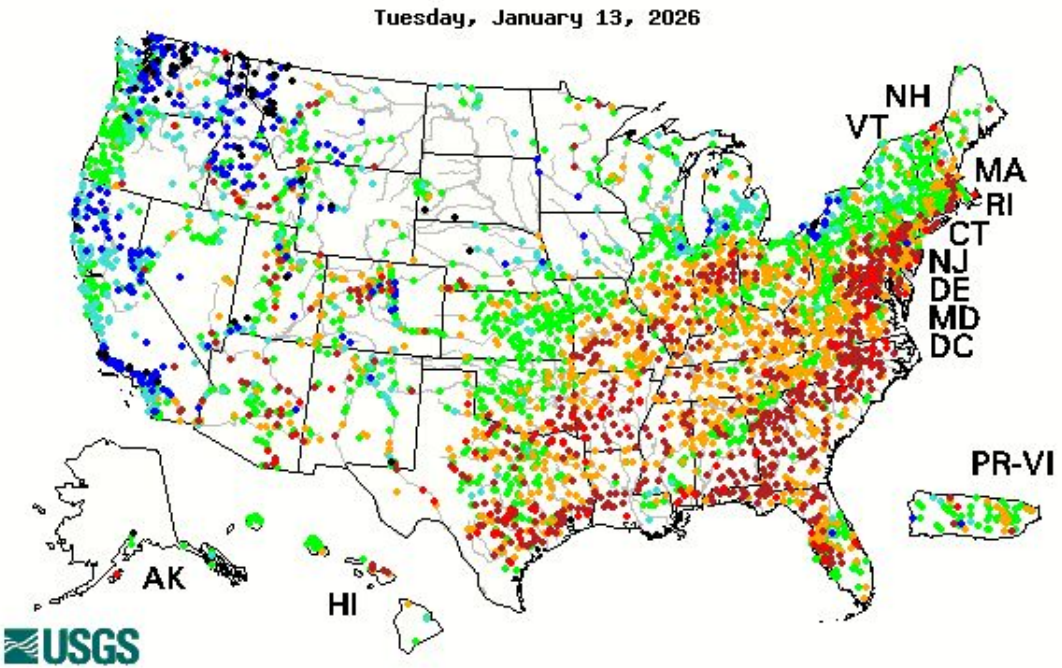
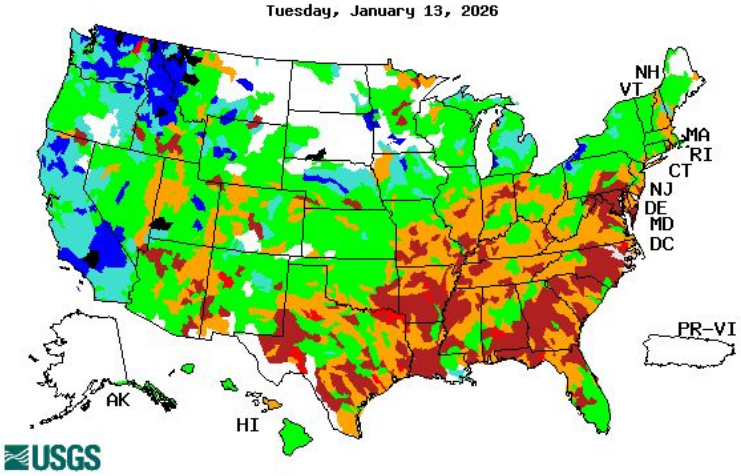
STREAMFLOW PERCENTILES (28-day)





Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

https://waterwatch.usgs.gov/

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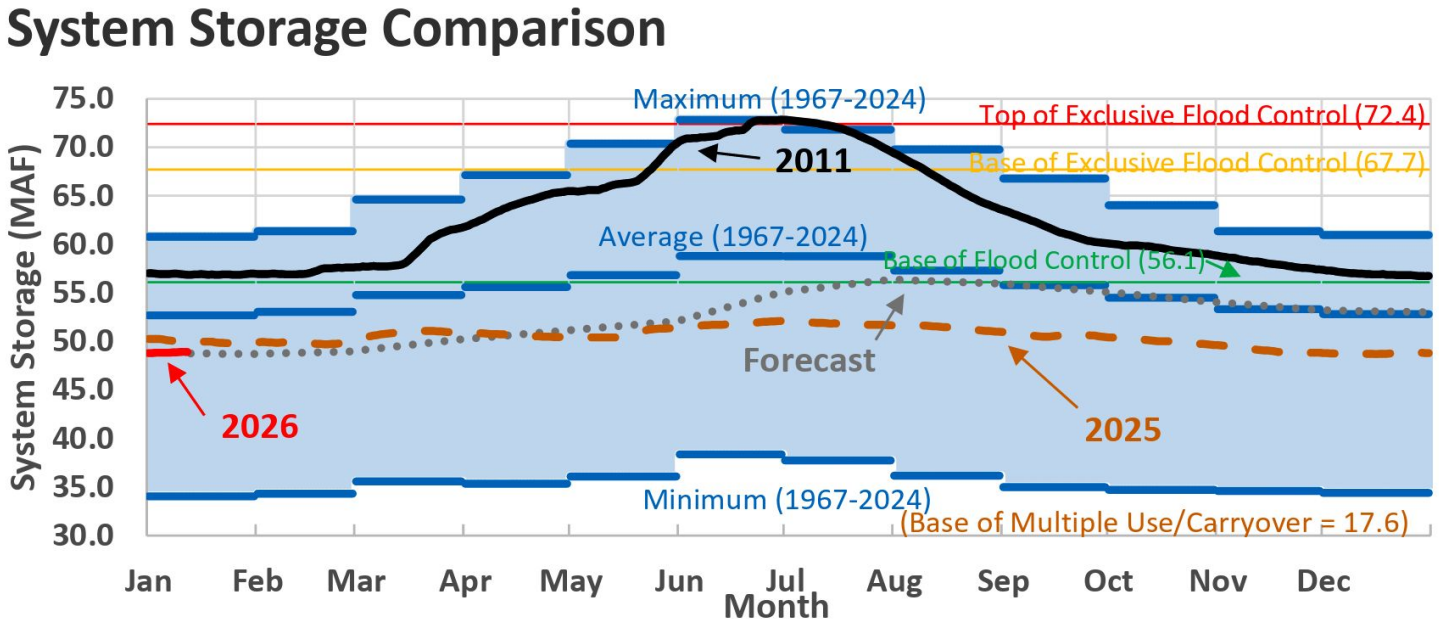
MISSOURI RIVER RESERVOIR STORAGE

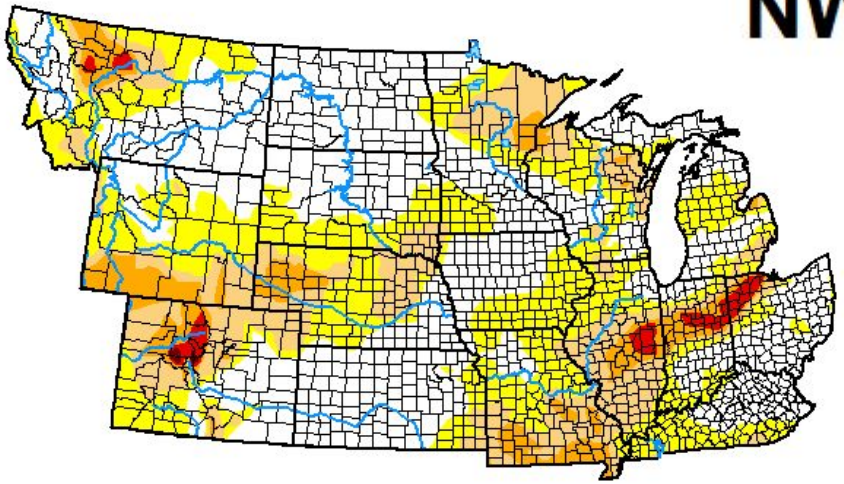


"Mountain snowpack is currently near average in both the Fort Peck and Garrison reaches"

https://www.nwd-mr.usace.army.mil/rcc/reports/pdfs/weeklyupdate.pdf

U.S. DROUGHT MONITOR

U.S. Drought Monitor
NWS Central



January 13, 2026
(Released Thursday, Jan. 15, 2026)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

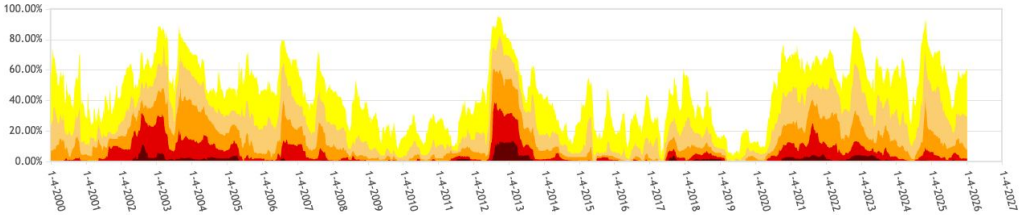
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	45.43	54.57	25.29	8.35	1.43	0.07
Last Week 01-06-2026	38.91	61.09	29.46	8.46	1.41	0.06
3 Months Ago 10-14-2025	42.00	58.00	30.72	14.03	3.44	0.00
Start of Calendar Year 01-06-2026	38.91	61.09	29.46	8.46	1.41	0.06
Start of Water Year 09-30-2025	45.92	54.08	28.92	14.16	3.88	0.00
One Year Ago 01-14-2025	32.20	67.80	45.72	19.43	5.80	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

NWS Central Region Percent Area in U.S. Drought Monitor Categories



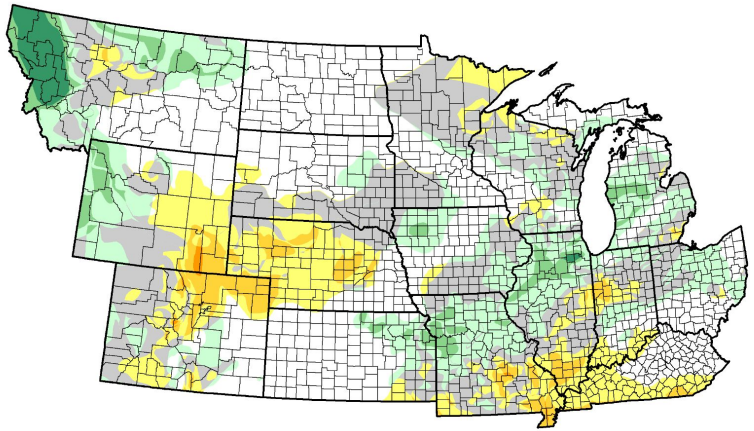
Author:
Brian Fuchs
National Drought Mitigation Center

droughtmonitor.unl.edu

https://droughtmonitor.unl.edu/

U.S. DROUGHT MONITOR CHANGE (10 WEEK and 1 YEAR)

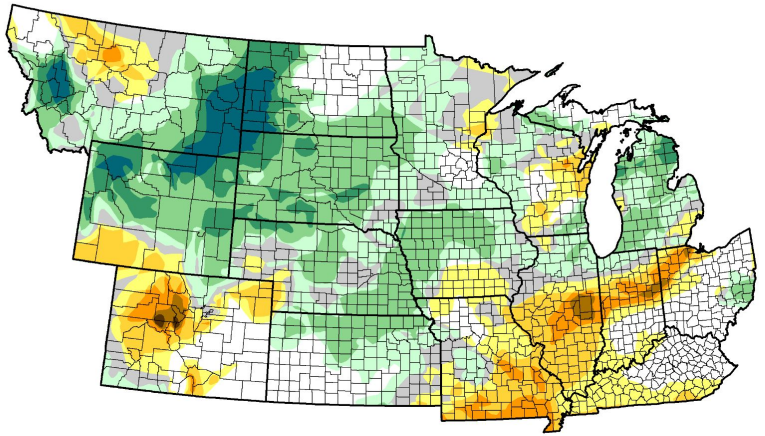
U.S. Drought Monitor Class Change - NWS Central
10 Week



January 13, 2026
compared to
November 4, 2025

droughtmonitor.unl.edu

U.S. Drought Monitor Class Change - NWS Central
52 Week



January 13, 2026
compared to
January 14, 2025

droughtmonitor.unl.edu

- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

https://droughtmonitor.unl.edu/

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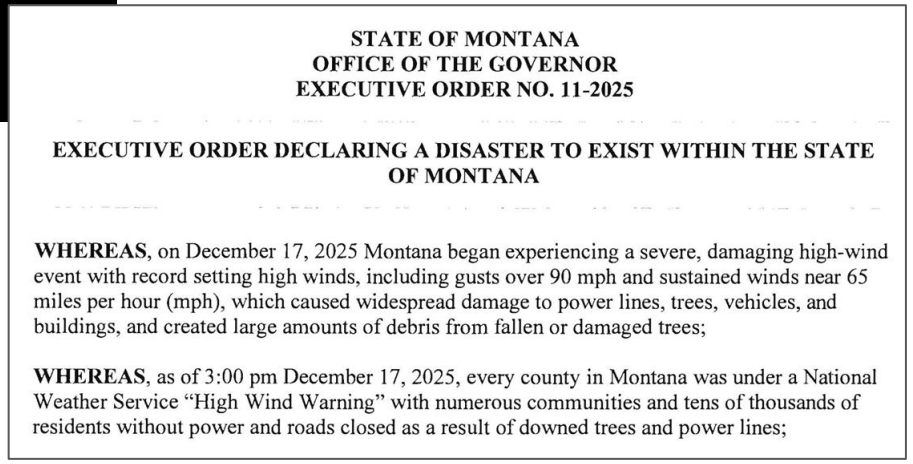
Impacts

December Wind Event!

- Bynum W - MT Mesonet Station in Teton County recorded **104 mph on Dec. 17**
- Rapid City, S.D., reported a **record 94 mph Dec. 18.**
- **Governor Gianforte** Issues **Executive Order** Declaring **Wind Disaster** (Dec 17) in Montana
- The event was driven by rapid cyclogenesis in a mid-latitude cyclone crossing the Rockies.
- First of its kind "Particularly Dangerous Situation" issued in Colorado for high fire danger
- Caused widespread damage to power lines, trees, vehicles, and buildings, generating extensive debris.



STATE OF MONTANA
OFFICE OF THE GOVERNOR
EXECUTIVE ORDER NO. 11-2025

EXECUTIVE ORDER DECLARING A DISASTER TO EXIST WITHIN THE STATE OF MONTANA

WHEREAS, on December 17, 2025 Montana began experiencing a severe, damaging high-wind event with record setting high winds, including gusts over 90 mph and sustained winds near 65 miles per hour (mph), which caused widespread damage to power lines, trees, vehicles, and buildings, and created large amounts of debris from fallen or damaged trees;

WHEREAS, as of 3:00 pm December 17, 2025, every county in Montana was under a National Weather Service "High Wind Warning" with numerous communities and tens of thousands of residents without power and roads closed as a result of downed trees and power lines;

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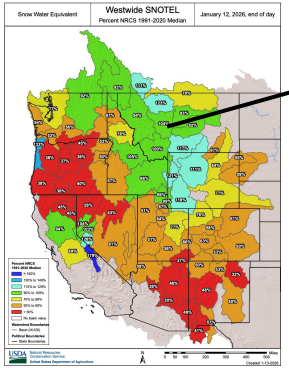
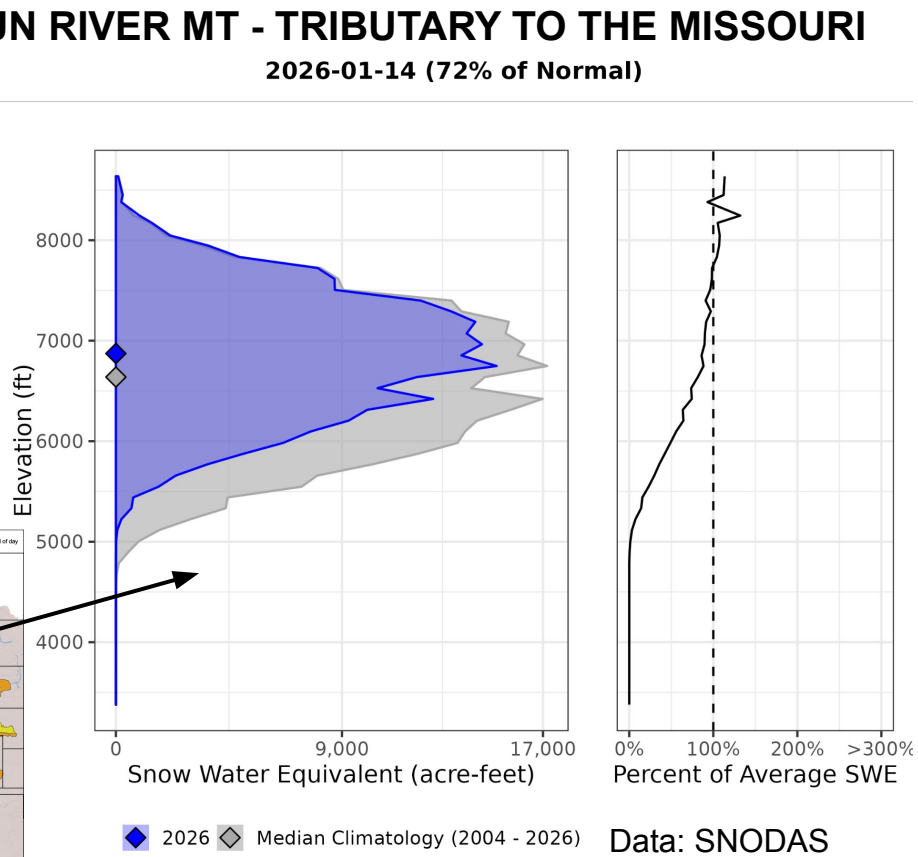
An Unconventional Snowpack

- Snow accumulation this season is **highly elevation-dependent**
- Warm temperatures have **raised the rain–snow transition**
- Mountains retained snow; **lower elevations did not**
- Snowpack structure matters for **runoff timing and water supply**





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An Unconventional Snowpack and Snow Drought!

Climate change makes snowmaking a necessity, not a backup, for the West's ski resorts

As warming temperatures amplify drought in the Mountain West, ski areas across the region are considering how best to use increasingly scarce water resources.

…ity Radio - December 22, 2025

CNN Climate NEW Watch Subscribe Sign in

CLIMATE • 4 MIN READ

The western US is in a snow drought, raising fears for summer water supplies

UPDATED JAN 9, 2026

By Andrew Freedman

AXIOS Denver Sign up for the newsletter

Updated Jan 13, 2026 - News

Colorado is on track for its worst snowpack on record

Alayna Alvarez

Add Axios on Google

Sparse snow conditions seen at Arapahoe Basin ski resort in Colorado's Summit County in mid-December. Photo: Hyoung Chang/The Denver Post via Getty Images

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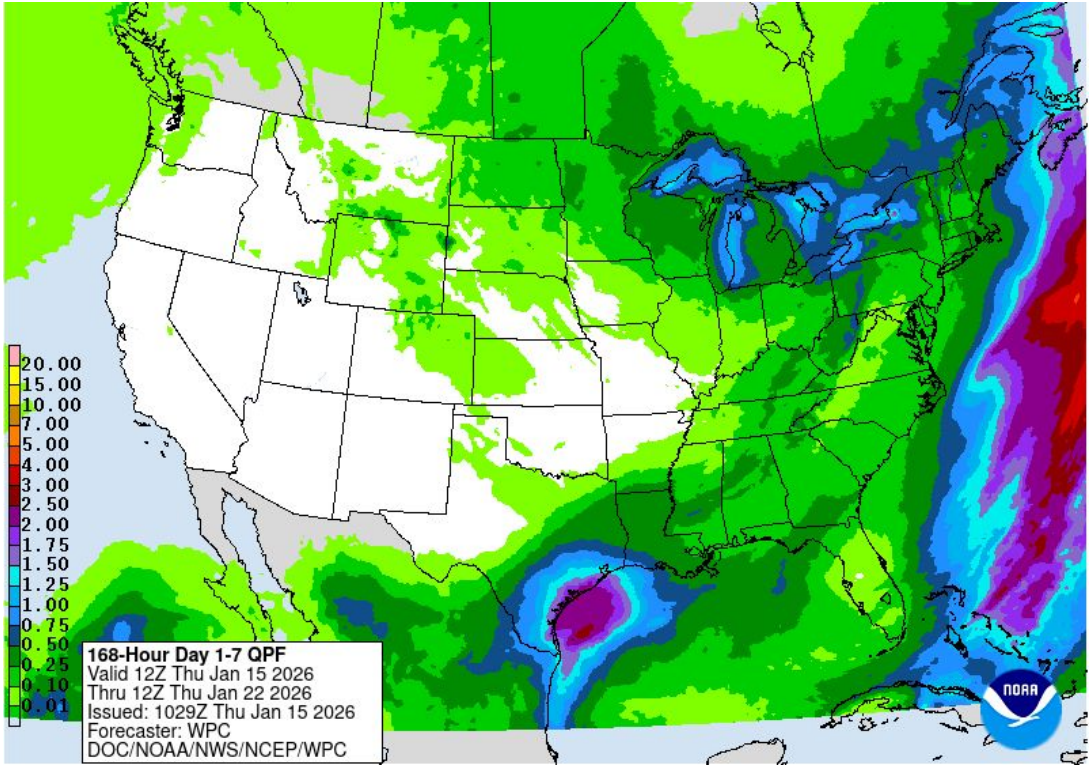
Central Region Climate & Drought Outlook
Dr. Zachary Hoylman, Montana Climate Office
University of Montana
Missoula, MT - 1/15/2026

Outlook

7 DAY PRECIPITATION FORECAST (January 15 - 22)



https://www.wpc.ncep.noaa.gov/qpf/day1-7.shtml

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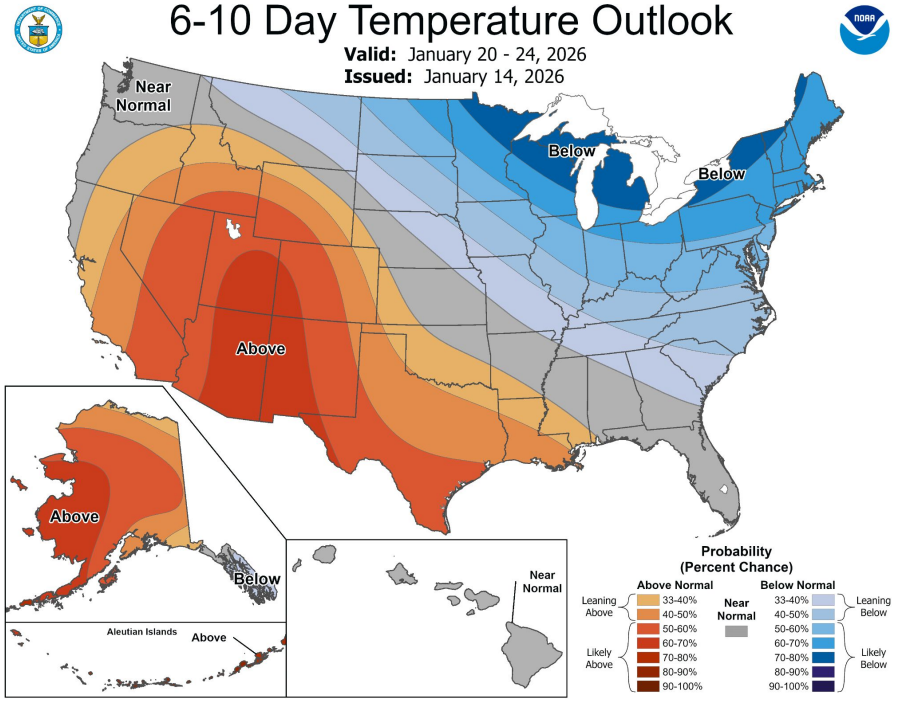
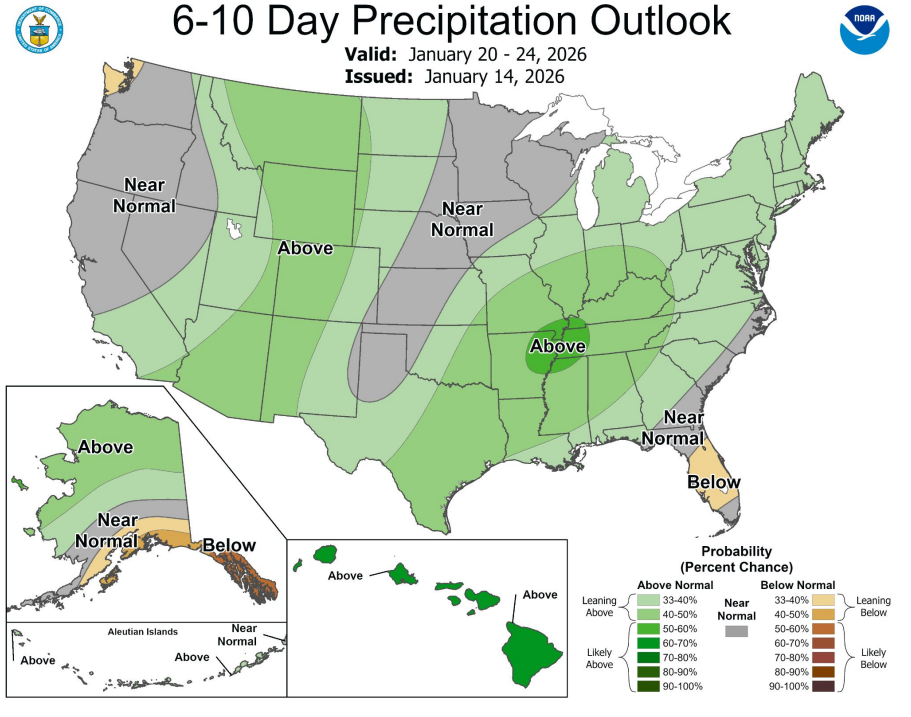
6-10 DAY TEMPERATURE OUTLOOK





https://www.cpc.ncep.noaa.gov/products/predictions/610day/

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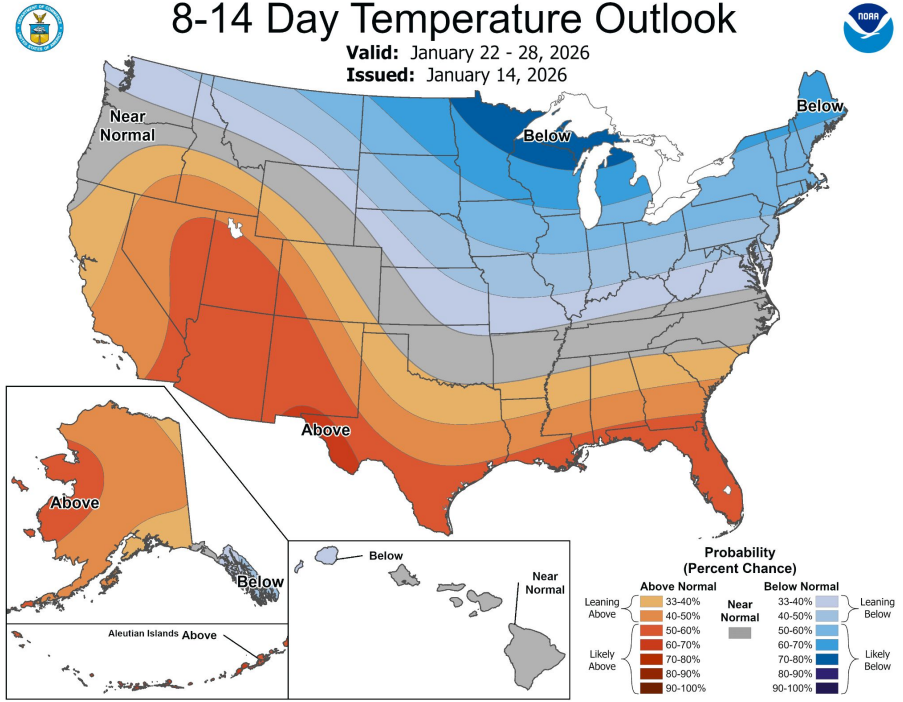
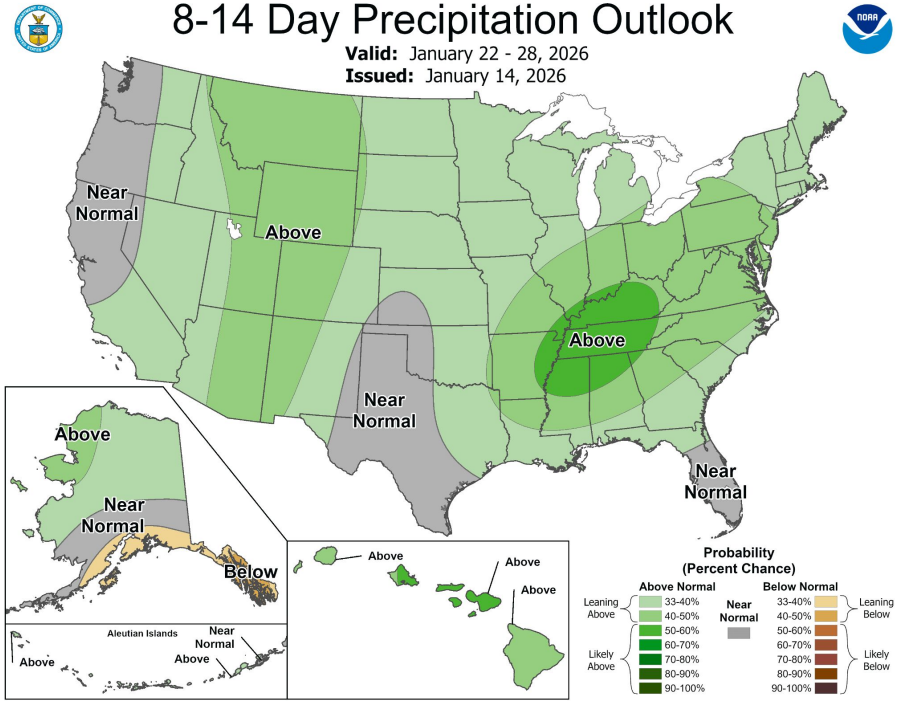
8-14 DAY OUTLOOK





https://www.cpc.ncep.noaa.gov/products/predictions/814day/

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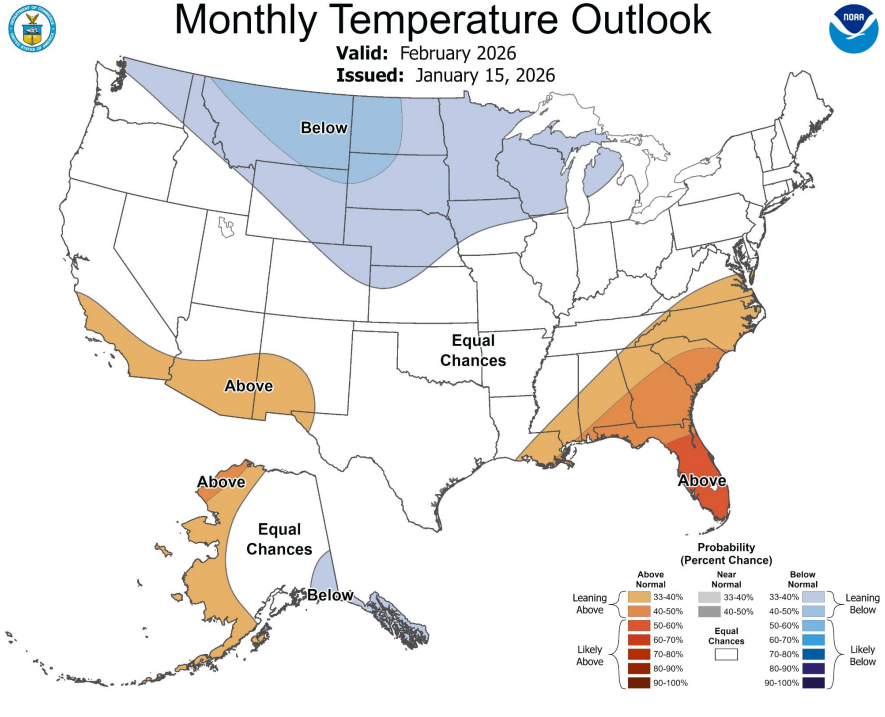
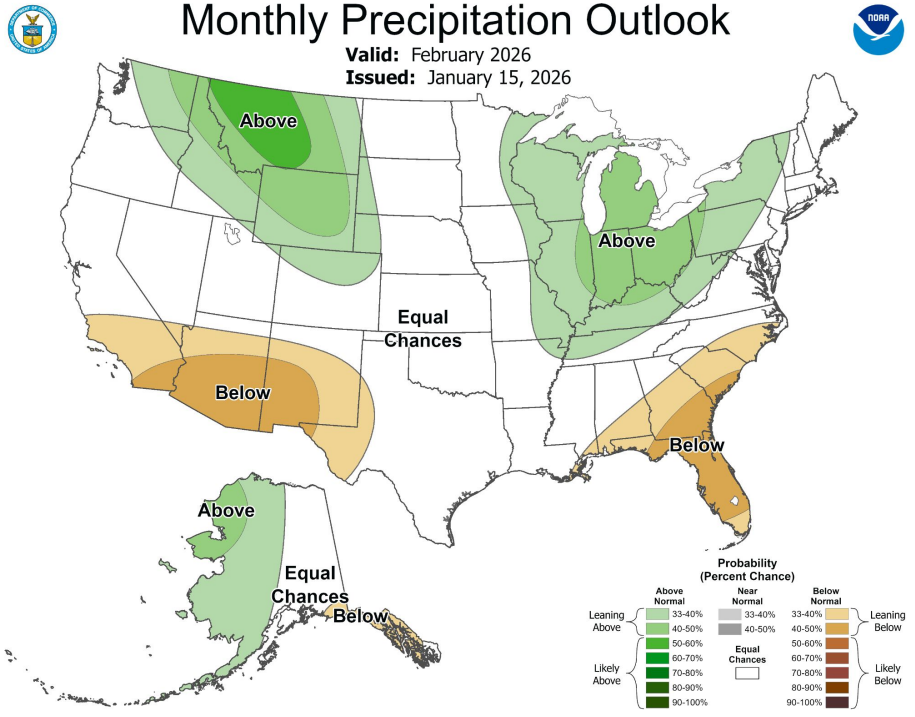
1 MONTH OUTLOOK





https://www.cpc.ncep.noaa.gov/products/predictions/30day/

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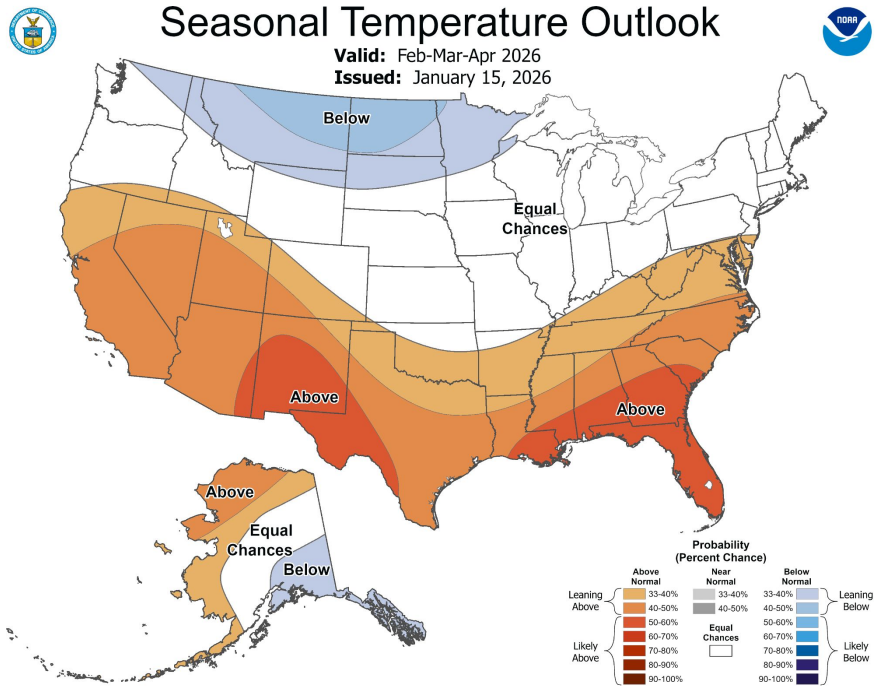
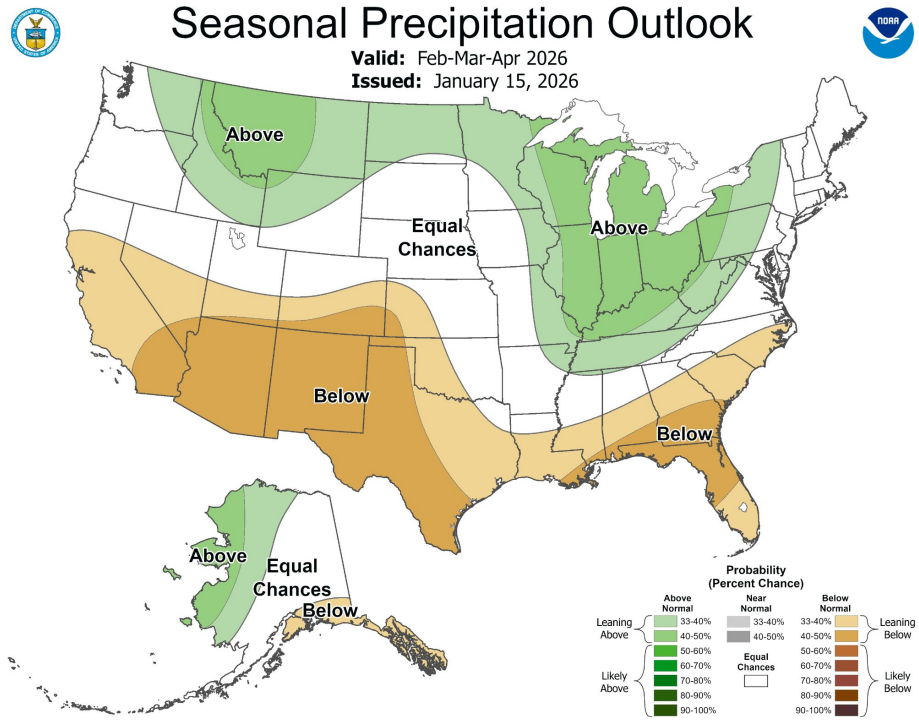
3 MONTH OUTLOOK





https://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1

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El Niño/La Niña (ENSO) PROBABILITY

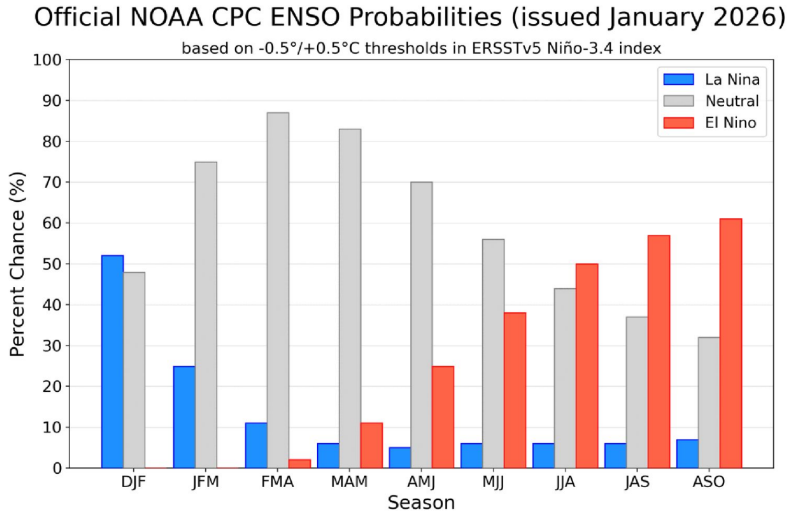
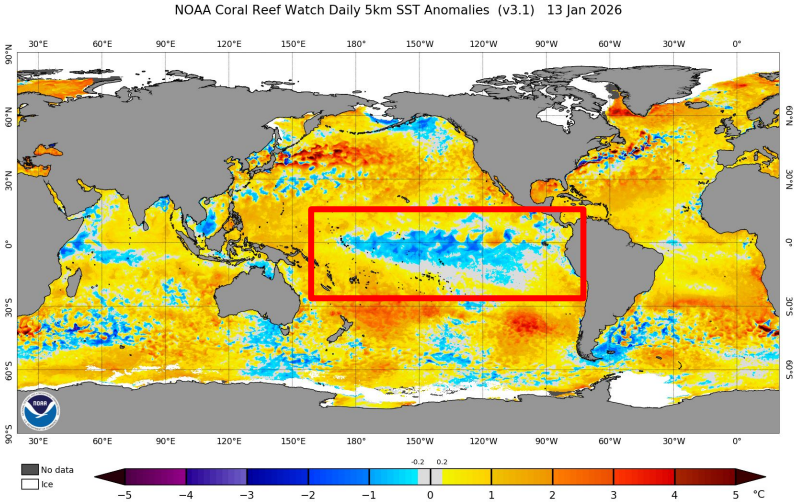


Figure 7. Official ENSO probabilities for the Niño 3.4 sea surface temperature index (5°N-5°S, 120°W-170°W). Figure updated 8 January 2026.



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

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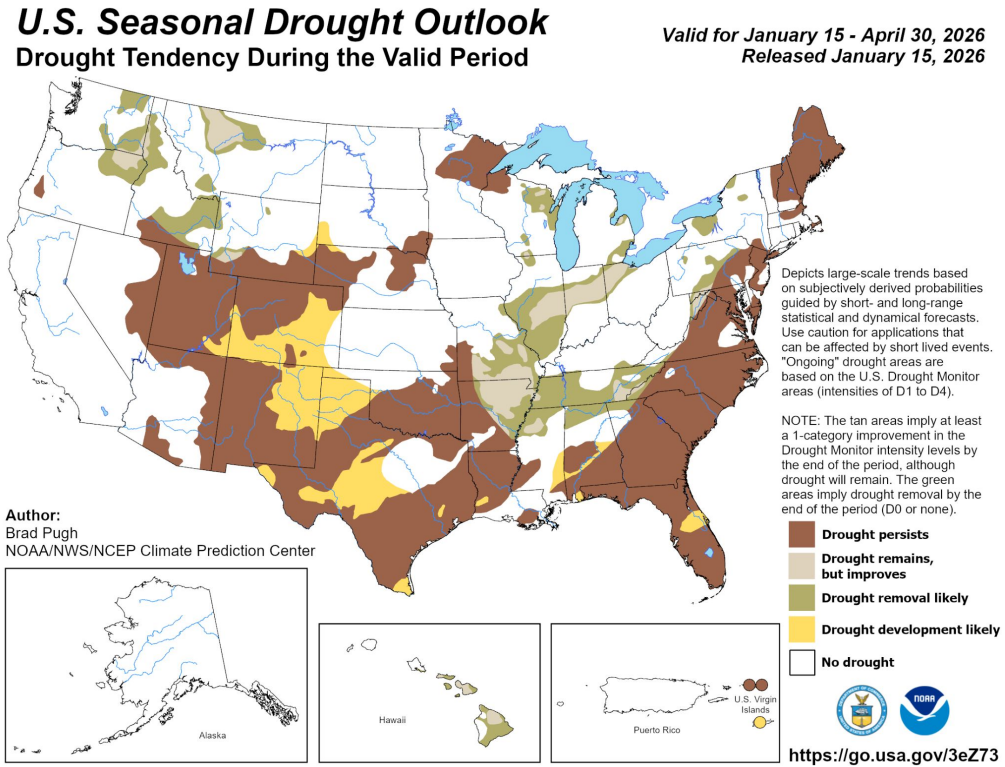
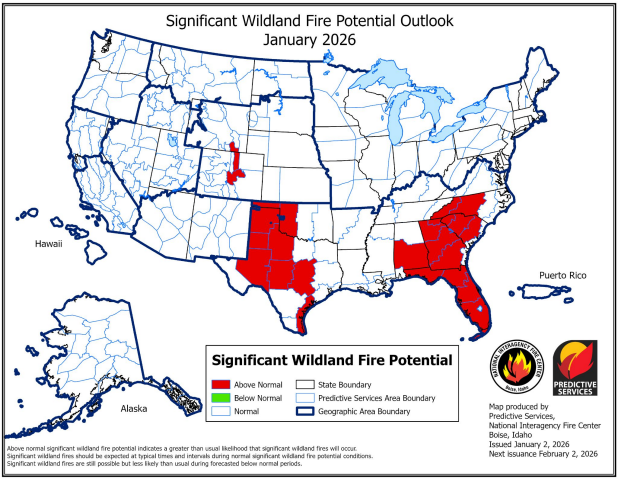
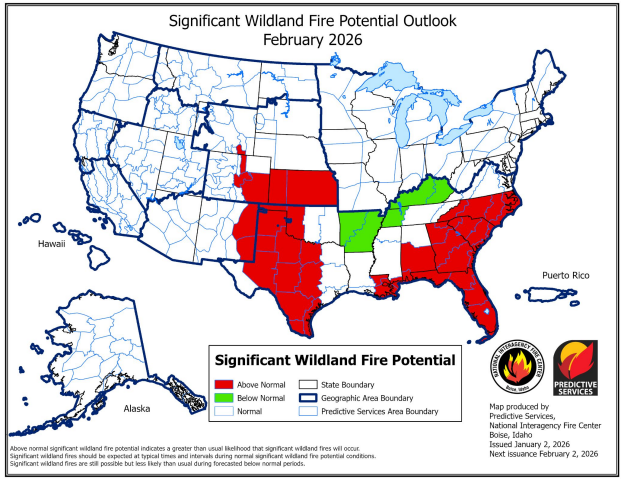
OUTLOOK: DROUGHT

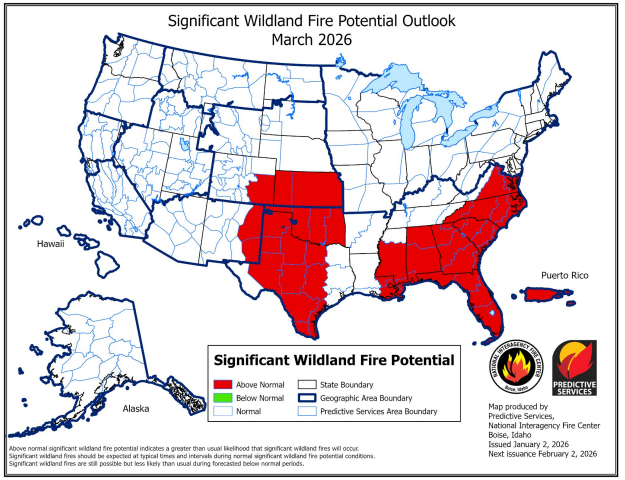


https://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.php

Significant Wildfire Potential Outlook







JANUARY → **FEBRUARY** → **MARCH**

https://www.nifc.gov/nicc/predictive-services/outlooks

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SUMMARY

- **Recent Conditions**
  - **Temperature**: **2025 and early winter** were **exceptionally warm**, record warmth across much of the West and Great Plains, above-normal temperatures regionwide.
  - **Precipitation: Highly variable**: wetter in the Upper Missouri Basin, but record December dryness in parts of Nebraska, Kansas, Missouri, Arkansas, and Oklahoma.
  - **Snow: Snowpack is highly elevation-dependent**, with near-normal mountain snow in Montana and Wyoming, pronounced snow drought in Colorado, emerging deficits in the Dakotas, and surpluses near the Great Lakes.
  - **Streamflow**: Generally below normal across the middle and lower Missouri Basin, with frozen gauges limiting observations farther north.
  - **Drought:** Mixed signals: short-term improvements in parts of the Midwest, but worsening drought across Nebraska, eastern Wyoming, northeast Colorado, Illinois and Indiana

- **Outlooks**
  - **Short term**: Leaning wet and cool for northern portions of the domain, equal chances elsewhere
  - **Long term:** Generally similar to short term outlooks
  - **ENSO Forecast:** Weak La Niña is here, expected to transition to neutral by spring
  - **Drought:** A mix of degradations and improvements are expected

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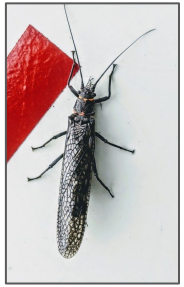
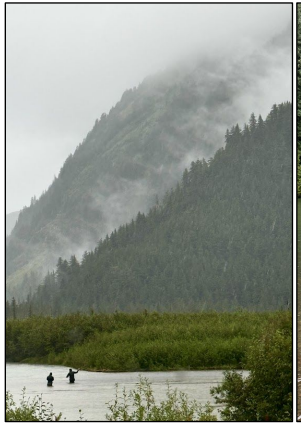
Thank You!

Questions?





RELEVANT CONTACTS

Climate

- Zachary Hoylman – zachary.hoylman@umontana.edu
- Dennis Todey – dennis.todey@usda.gov
- Doug Kluck – dougkluck@gmail.com
- Brian Fuchs – bfuchs2@unl.edu

Agriculture

- Brad Rippey, brad.rippey@usda.gov