WY Conditions & Outlooks:

Precipitation, Temperatures, Drought, Floods, & Everything In-between

September 17, 2026

The University of Wyoming is an equal opportunity/affirmative action institution.

Presentation Outline

- **Current Conditions:** Overview
  - Drought, Temperature, Precipitation, Soil Moisture, and Snow Water Equivalent
  - Streamflows
  - Reservoir Levels
  - Water Calls & Allocations
- **Outlooks:** Overview
  - Temperature & Precipitation
  - Wildfire Activity & Outlooks
- **Highlight of the Month:**
  - El Niño impacts in Wyoming
- **Questions**

Current Conditions

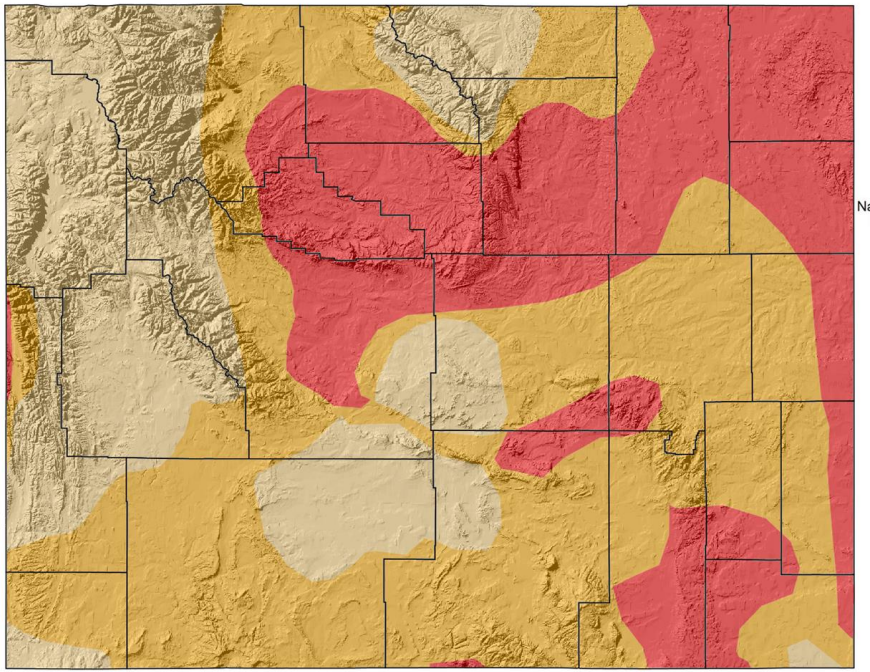
US Drought Monitor for September 15th, 2026

(Released Thursday, Sep 17th, 2026)

Valid 8 a.m. EDT

Drought Level	Percentile
None	>30.01
D0 (Abnormally Dry)	20.01 to 30
D1 (Moderate Drought)	10.01 to 20
D2 (Severe Drought)	5.01 to 10
D3 (Extreme Drought)	2.01 to 5
D4 (Exceptional Drought)	0 to 2

US Drought Monitor for 15 Sep 2026



Map Created by:
National Drought Mitigation Center
https://droughtmonitor.unl.edu

Map Layout Prepared by:
Wyoming State Climate Office
http://www.wrds.uwyo.edu

The U.S. Drought Monitor, is a weekly map of drought conditions produced jointly by the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture, and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln. The U.S. Drought Monitor website is hosted and maintained by the NDMC. http://droughtmonitor.unl.edu

Map Created 17 Sep 2026 06:35 https://www.wrds.uwyo.edu

How are Drought categories assigned?
https://youtu.be/45MQ1GB-uTc

Some Degradation in Sheridan County and the southwest but also some areas of Improvement in central Wyoming.

https://droughtmonitor.unl.edu

droughtmonitor.unl.edu

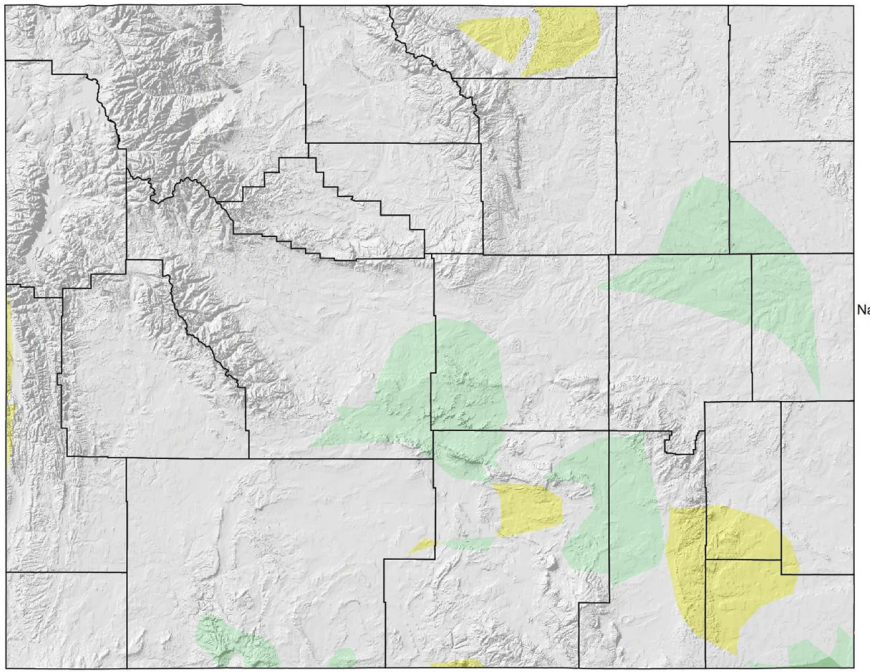
US Drought Monitor Change since Last Webinar 18 Aug 2026 to 15 Sep 2026)

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US Drought Monitor Change from 18 Aug 2026 to 15 Sep 2026



US Drought Monitor
- 5-Class Degradation
- 4-Class Degradation
- 3-Class Degradation
- 2-Class Degradation
- 1-Class Degradation
- 1-Class Improvement
- 2-Class Improvement
- 3-Class Improvement
- 4-Class Improvement
- 5-Class Improvement

Drought Maps Created by:
National Drought Mitigation Center
https://droughtmonitor.unl.edu

Map Layout and
Class Calculation by:
Wyoming State Climate Office
https://www.wrds.uwyo.edu

The U.S. Drought Monitor, is a weekly map of drought conditions produced jointly by the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture, and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln. The U.S. Drought Monitor website is hosted and maintained by the NDMC. http://droughtmonitor.unl.edu

Map Layout and Comparisons created 17 Sep 2026 06:35 https://www.wrds.uwyo.edu

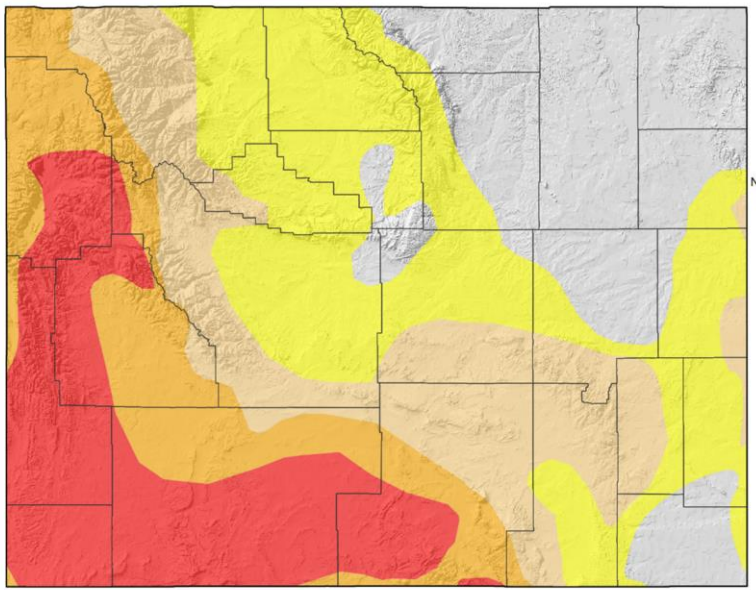
https://droughtmonitor.unl.edu

droughtmonitor.unl.edu

WRDS
Water Resources Data System

One Year Ago

US Drought Monitor for 16 Sep 2025



US Drought Monitor
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

Map Created by:
National Drought Mitigation Center
https://droughtmonitor.unl.edu

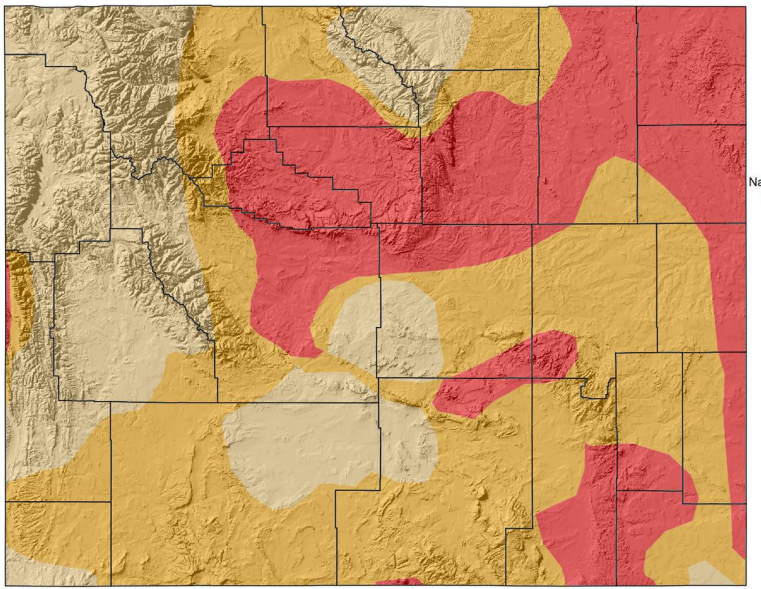
Map Layout Prepared by:
Wyoming State Climate Office
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Map Layout Created 18 Sep 2025 10:02 https://www.wrds.uwyo.edu

Today

US Drought Monitor for 15 Sep 2026



US Drought Monitor
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

Map Created by:
National Drought Mitigation Center
https://droughtmonitor.unl.edu

Map Layout Prepared by:
Wyoming State Climate Office
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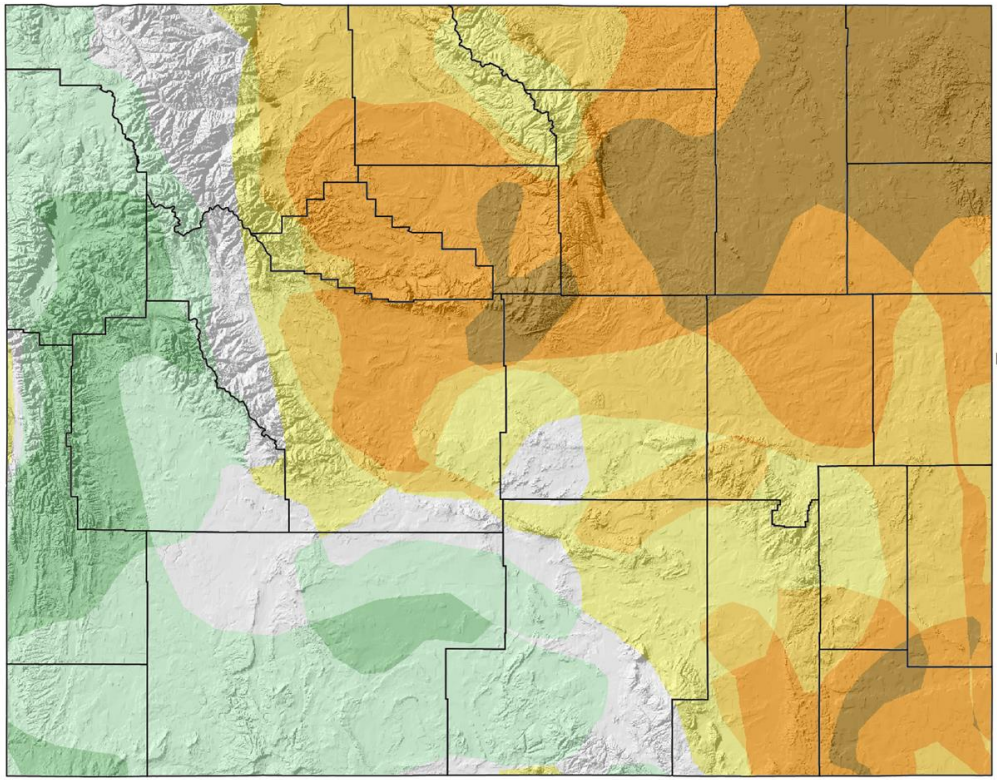
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Map Created 17 Sep 2026 06:35 https://www.wrds.uwyo.edu

https://droughtmonitor.unl.edu

droughtmonitor.unl.edu

1-Year US Drought Monitor Change (16 Sep 2025 to 15 Sep 2026)

US Drought Monitor Change from 16 Sep 2025 to 15 Sep 2026





Drought Maps Created by:
National Drought Mitigation Center
https://droughtmonitor.unl.edu

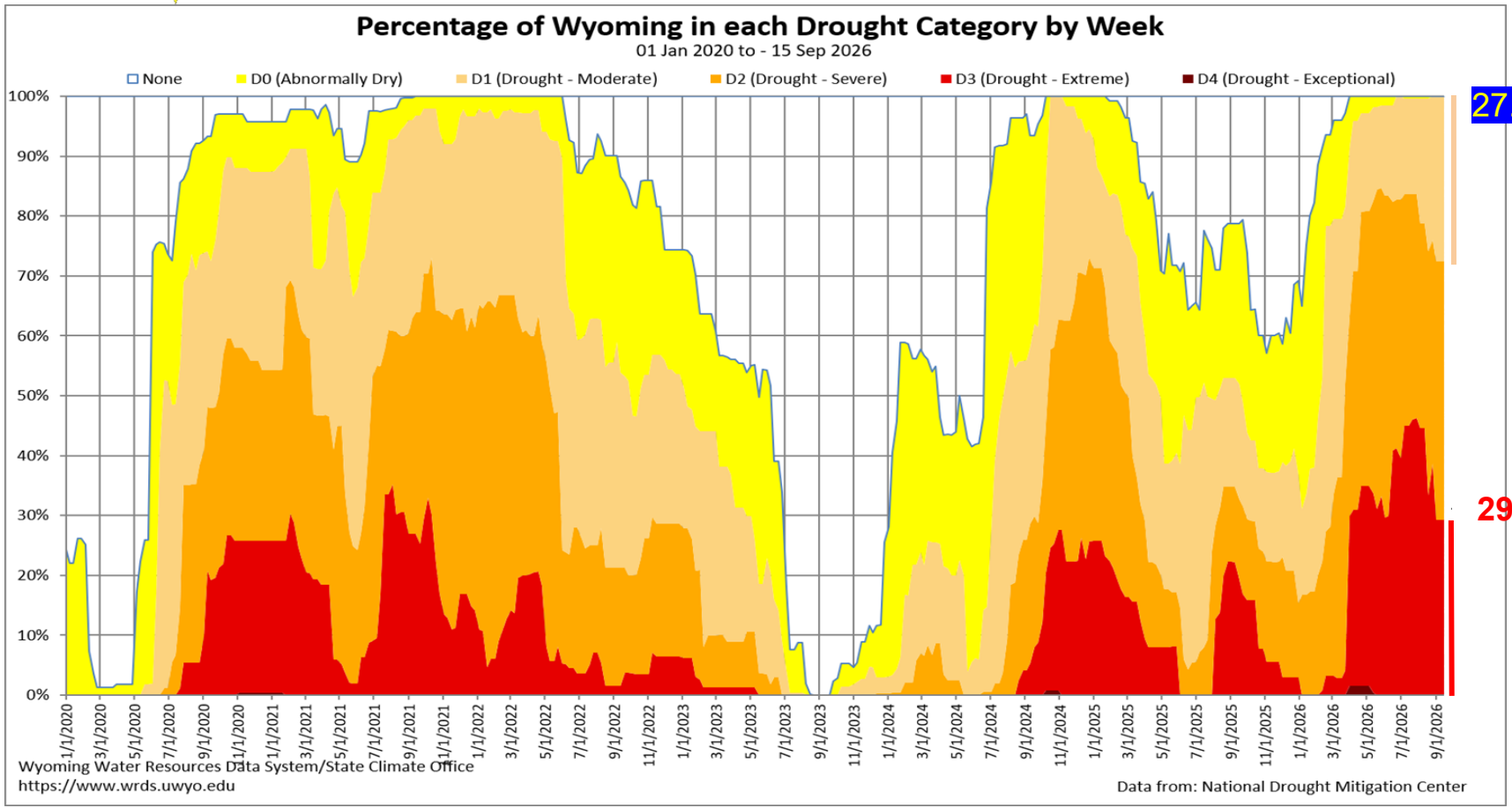
Map Layout and
Class Calculation by:
Wyoming State Climate Office
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Map Layout and Comparisons created 17 Sep 2026 06:35 https://www.wrds.uwyo.edu

WRDS Water Resources Data System

Wyoming Area Affected: 100% D0-D4 ; 100% D1-D4



https://www.wrds.uwyo.edu/drought/droughttimeline.html

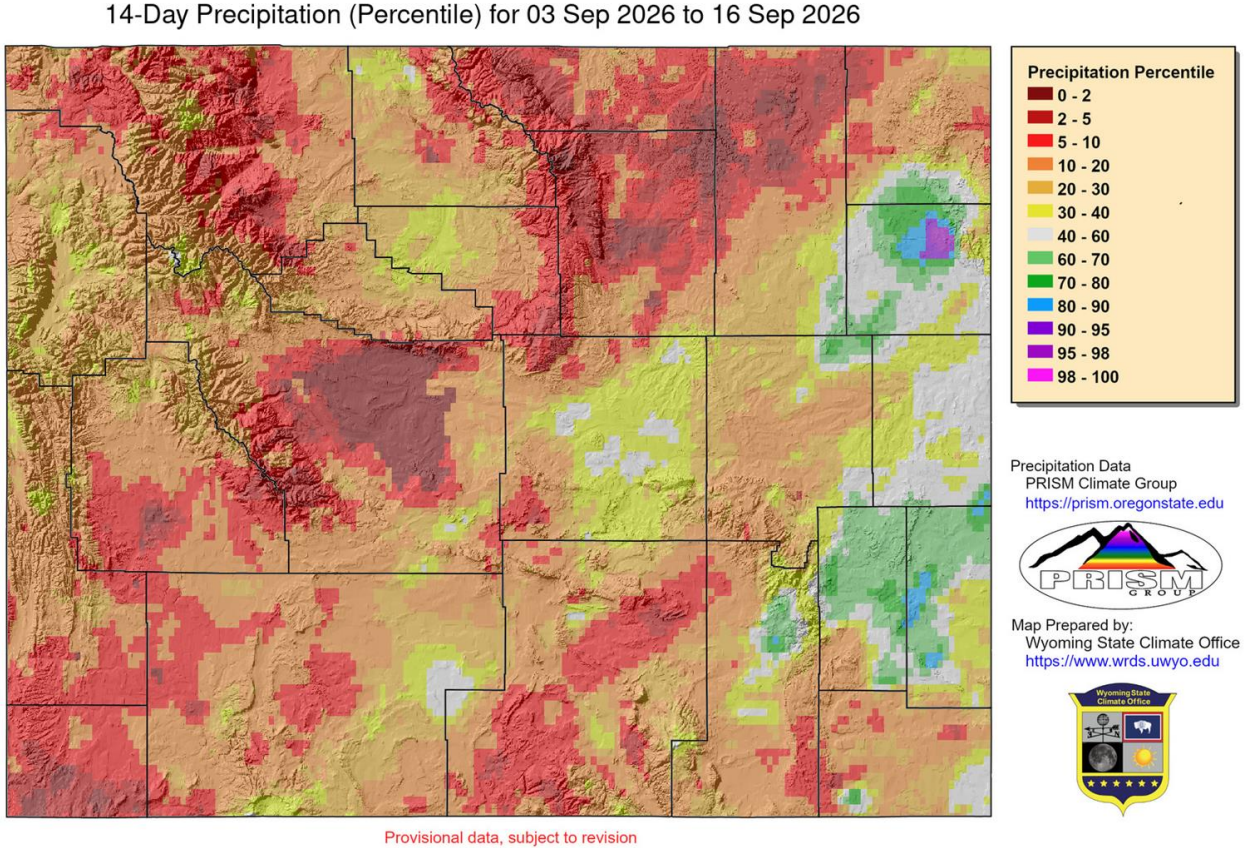
14-Day Precipitation Percentile (03 Sep 2026 to 16 Sep 2026)

Above Median:

- Southern Crook/Weston
- Platte/Goshen

Below Median (*Areas of Concern*):

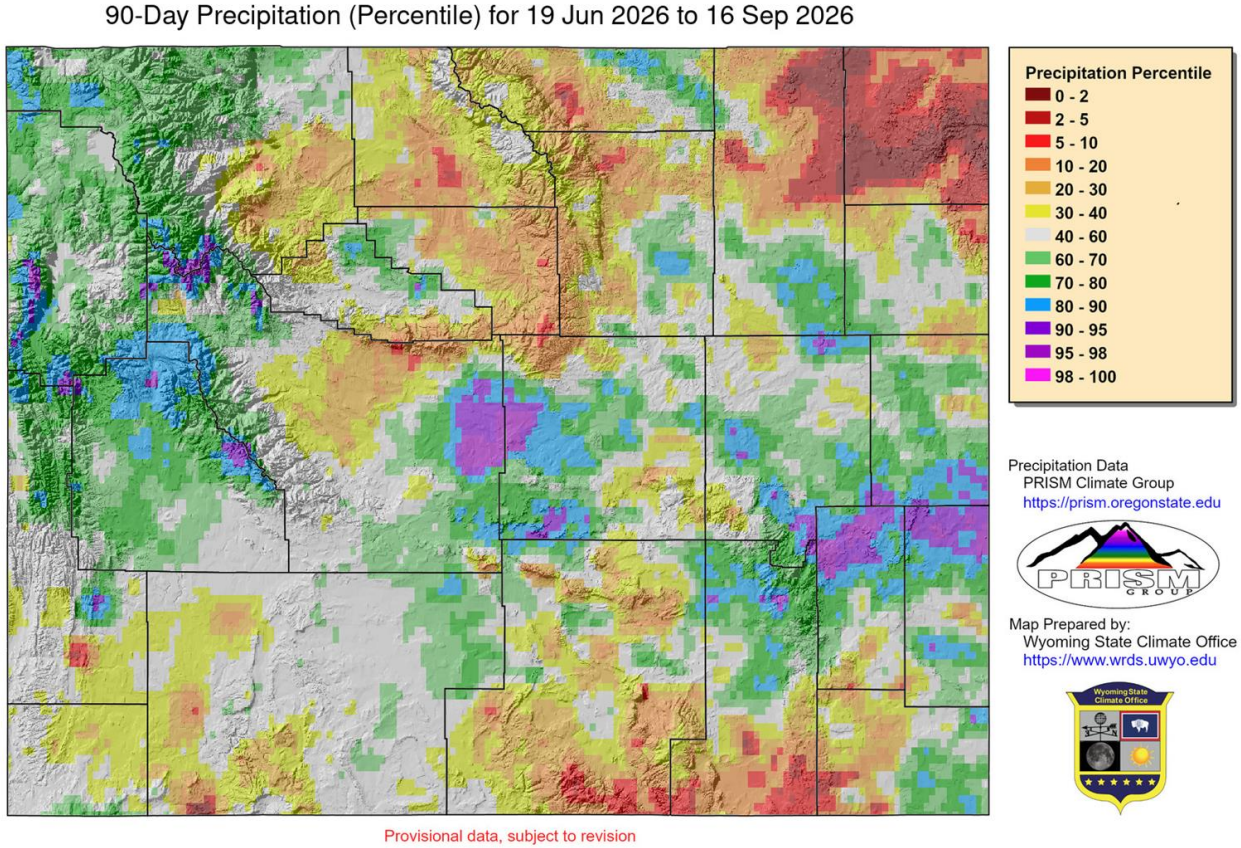
- Most of Wyoming



90-Day Precipitation Percentile (19 Jun 2026 to 16 Sep 2026)

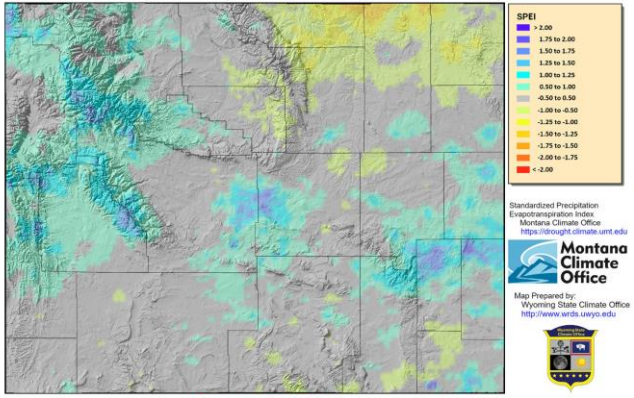
Above Median:
- Northwest
- Central/East Central WY
- Eastern Laramie County

Below Median (*Areas of Concern*):
- Far Northeast
- Southwest
- Southern Carbon/Albany Counties
- Bighorns and Bighorn Basin



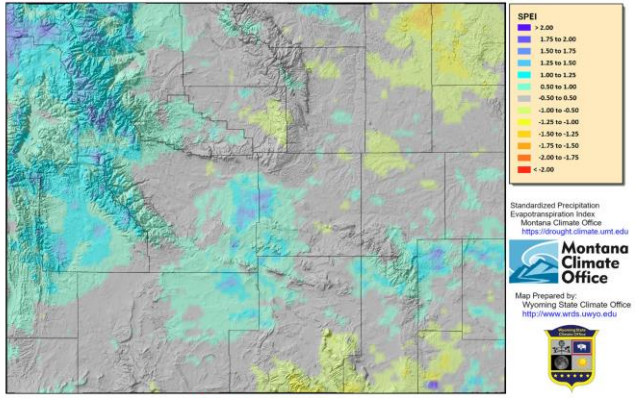
Standardized Precipitation Evapotranspiration Index

30-Day Standardized Precipitation Evapotranspiration Index (20 Jul 2026 to 18 Aug 2026)



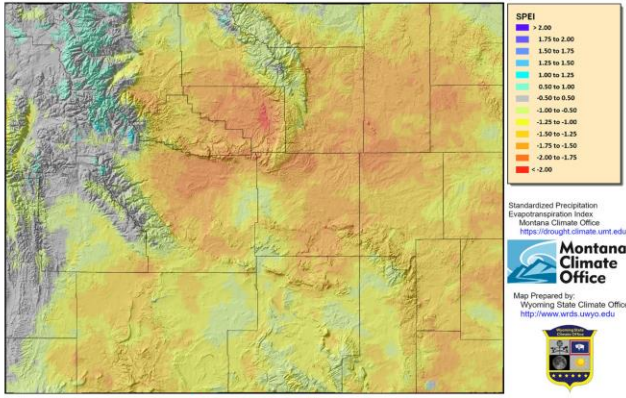
Standardized Precipitation Evapotranspiration Index Created by Montana Climate Office https://drought.climate.umt.edu
Map Created 20 Aug 2026 https://www.wrds.uwyo.edu

60-Day Standardized Precipitation Evapotranspiration Index (20 Jun 2026 to 18 Aug 2026)



Standardized Precipitation Evapotranspiration Index Created by Montana Climate Office https://drought.climate.umt.edu
Map Created 20 Aug 2026 https://www.wrds.uwyo.edu

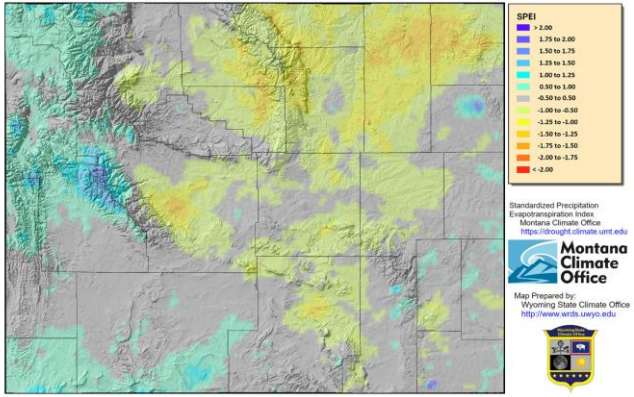
365-Day Standardized Precipitation Evapotranspiration Index (19 Aug 2025 to 18 Aug 2026)



Standardized Precipitation Evapotranspiration Index Created by Montana Climate Office https://drought.climate.umt.edu
Map Created 20 Aug 2026 https://www.wrds.uwyo.edu

30-Day

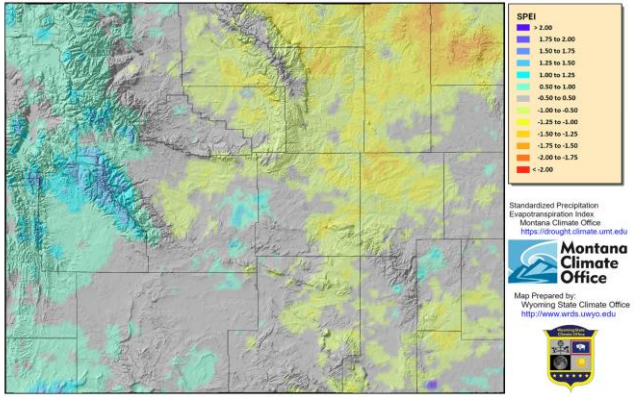
30-Day Standardized Precipitation Evapotranspiration Index (15 Aug 2026 to 13 Sep 2026)



Standardized Precipitation Evapotranspiration Index Created by Montana Climate Office https://drought.climate.umt.edu
Map Created 15 Sep 2026 https://www.wrds.uwyo.edu

60-Day

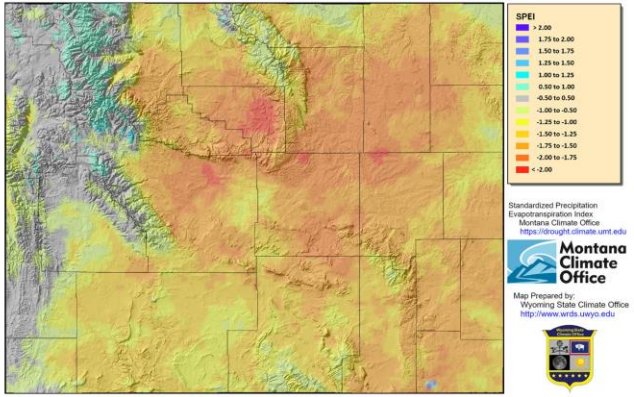
60-Day Standardized Precipitation Evapotranspiration Index (16 Jul 2026 to 13 Sep 2026)



Standardized Precipitation Evapotranspiration Index Created by Montana Climate Office https://drought.climate.umt.edu
Map Created 15 Sep 2026 https://www.wrds.uwyo.edu

1-Year

365-Day Standardized Precipitation Evapotranspiration Index (14 Sep 2025 to 13 Sep 2026)



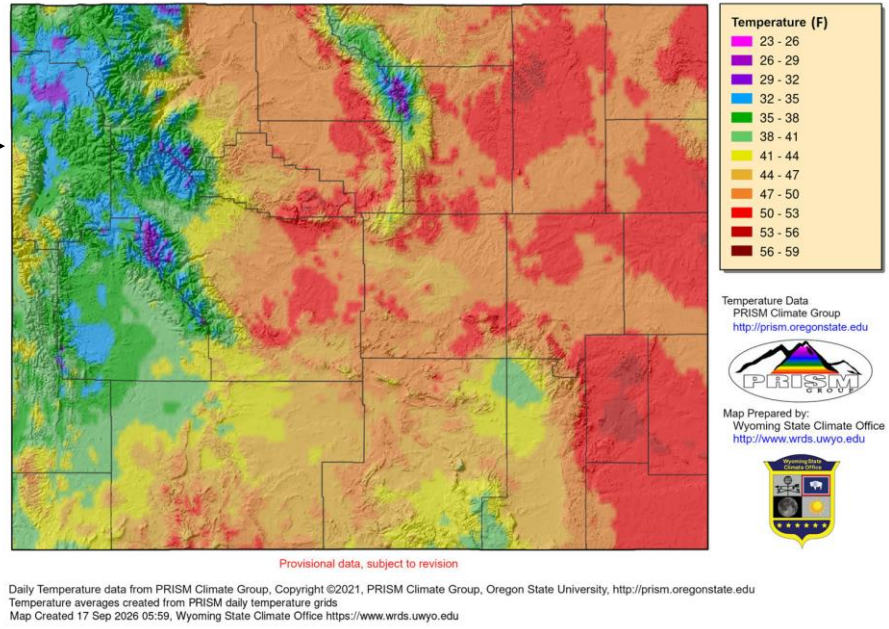
Standardized Precipitation Evapotranspiration Index Created by Montana Climate Office https://drought.climate.umt.edu
Map Created 15 Sep 2026 https://www.wrds.uwyo.edu

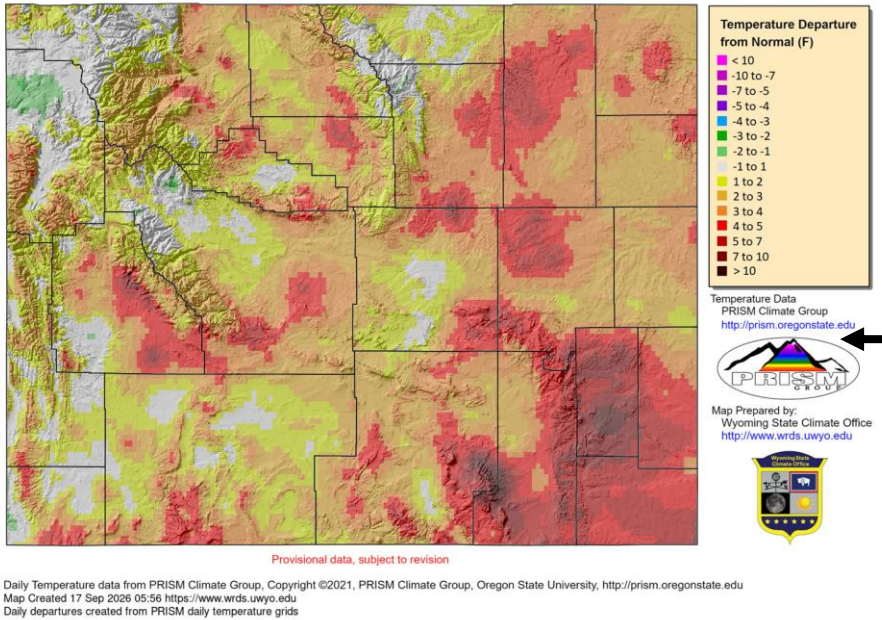
https://drought.climate.umt.edu

WRDS Water Resources Data System

14-Day Average Minimum Temperature (03 Sep to 16 Sep)

- Nighttime lows dipping below freezing in the Winds and Bighorns
- Eastern plains & Lower Wind Basin warmest, Lows >50F
- Mountainous areas and Upper Green the coolest, <40F





14-Day *Departure from* Normal Average Minimum Temperature

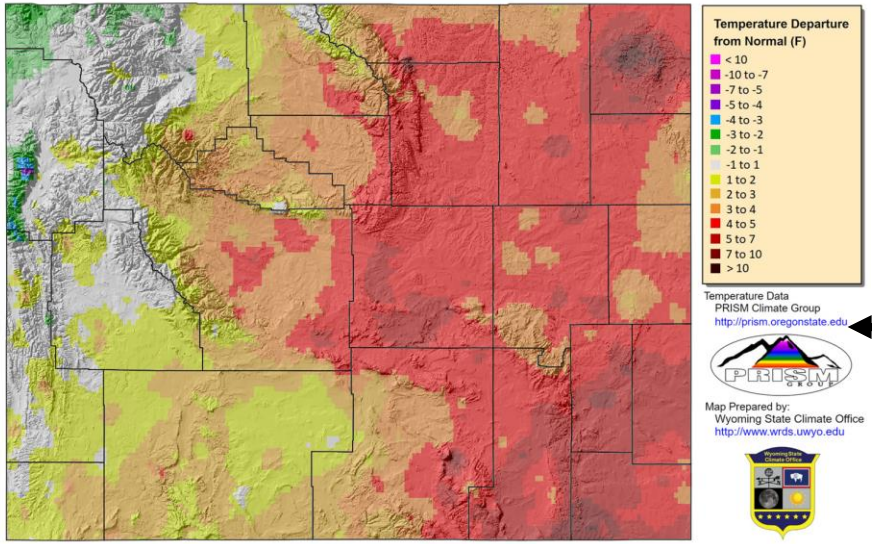
- Above normal across much of Wyoming
- Southeast with strong positive departures (up to +10F above normal)
- West closer to normal, some slightly below normal on the Yellowstone Plateau

WRDS Water Resources Data System

14-Day Average Maximum Temperature (03 Sep to 16 Sep)

- Lower Elev Wind/BH Basins and E Plains in 80s
- Mountains < 70F
- Generally 70s elsewhere

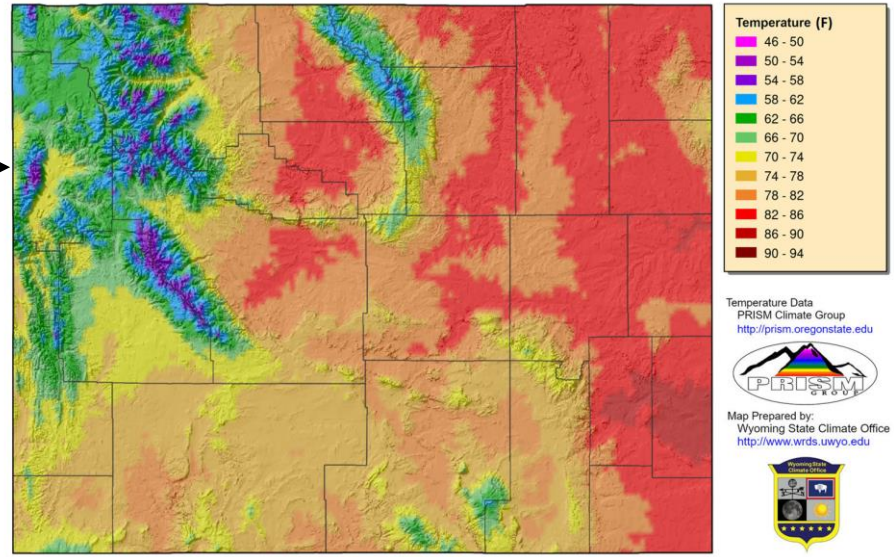
14-Day Maximum Temperature (Departure from 1991-2020 Normal) for 03 Sep 2026 to 16 Sep 2026



Provisional data, subject to revision

Daily Temperature data from PRISM Climate Group, Copyright ©2021, PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu
Map Created 17 Sep 2026 05:55 https://www.wrds.uwyo.edu
Daily departures created from PRISM daily temperature grids

14-Day Average Maxmimum Temperature for 03 Sep 2026 to 16 Sep 2026



Provisional data, subject to revision

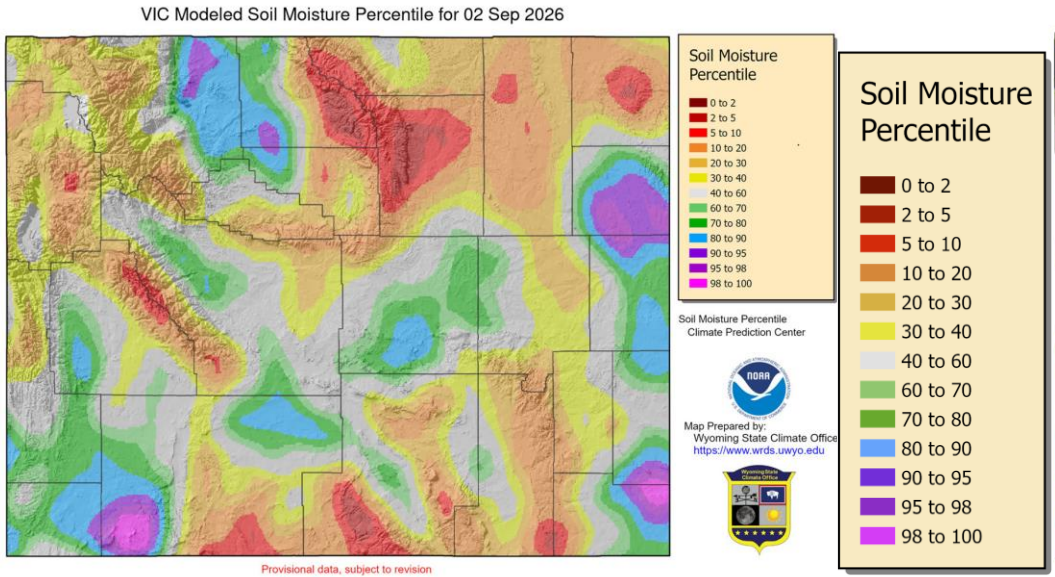
Daily Temperature data from PRISM Climate Group, Copyright ©2021, PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu
Temperature averages created from PRISM daily temperature grids
Map Created 17 Sep 2026 06:00, Wyoming State Climate Office https://www.wrds.uwyo.edu

14- Day *Departure from* Normal Average Maximum Temperature

- West of the Divide, normal to below in the north and slightly above in the south.
- East of the Divide. Above normal, especially east of Laramie Range and Crook County, up to 10F or more above normal.

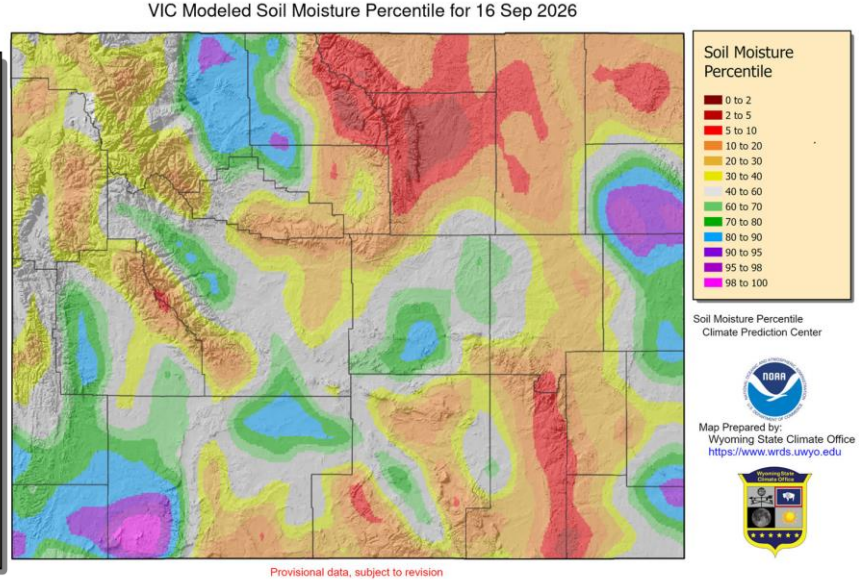
Soil Moisture Percentile

~Two Weeks Ago



VIC (Variable Infiltration Capacity) Modeled Soil Moisture Percentile: https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp.shtml
Map Layout and Comparisons created 03 Sep 2026 07:12 https://www.wrds.uwyo.edu

16 Sep 2026



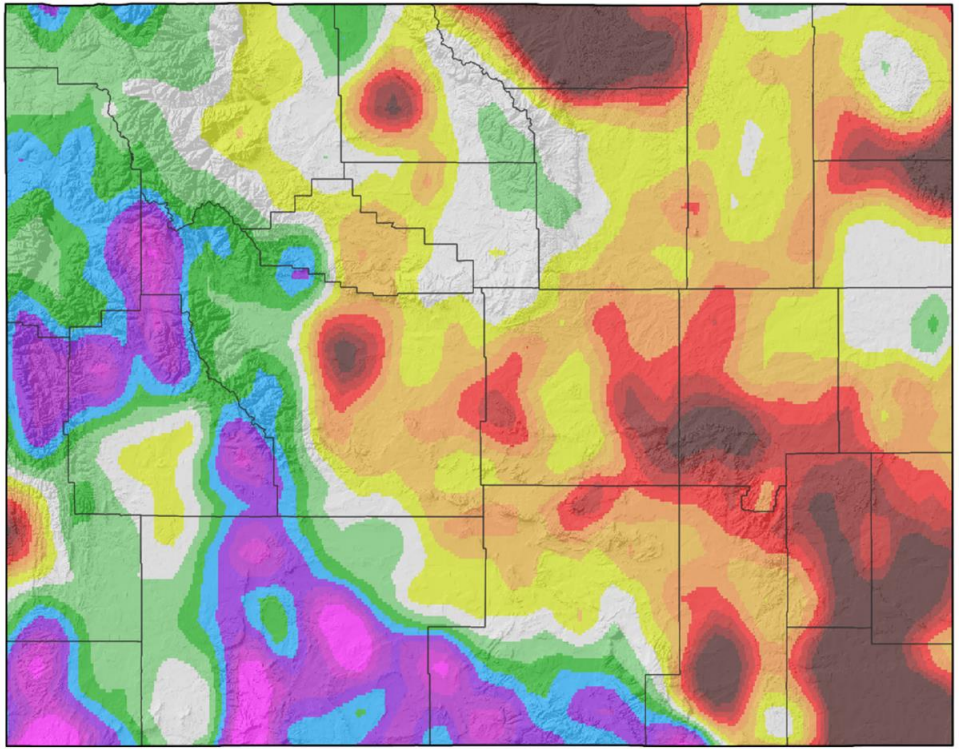
VIC (Variable Infiltration Capacity) Modeled Soil Moisture Percentile: https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp.shtml
Map Layout and Comparisons created 17 Sep 2026 07:12 https://www.wrds.uwyo.edu

Degradations in far East Wyoming and the Northeastern two-thirds. Improvement in the West and Southwest

https://www.wrds.uwyo.edu/Soil/Current_SoilMoisture_Ptile.html

2-Week Soil Moisture Percentile Change

2-Week VIC Modeled Soil Moisture Percentile Change from 02 Sep 2026 to 16 Sep 2026



Soil Moisture Percentile Change

- <-13%
- -13% to -11%
- -11% to -9%
- -9% to -7%
- -7% to -5%
- -5% to -3%
- -3% to -1%
- -1% to 1%
- 1% to 3%
- 3% to 5%
- 5% to 7%
- 7% to 9%
- 9% to 11%
- 11% to 13%
- >13%

Soil Moisture Percentile
Climate Prediction Center

Map Prepared by:
Wyoming State Climate Office
https://www.wrds.uwyo.edu

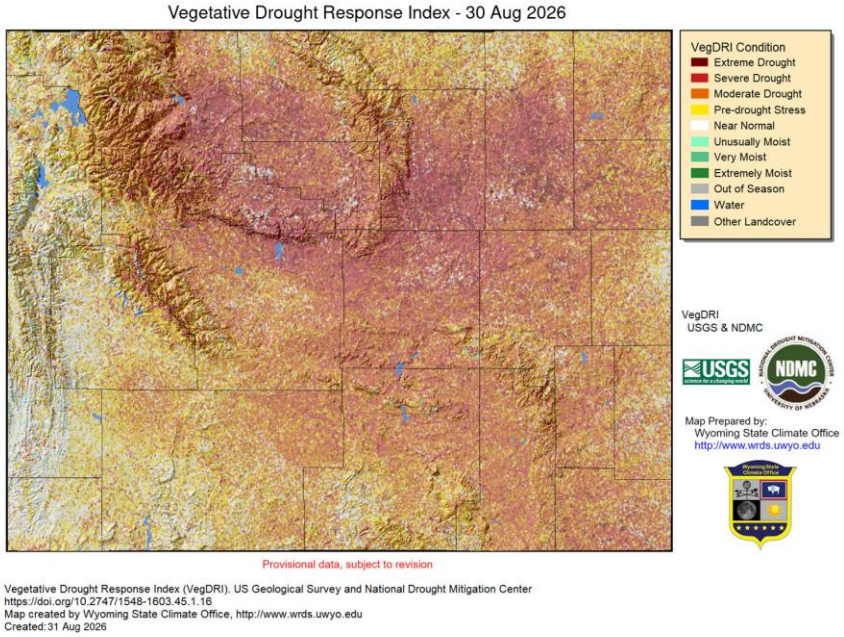
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Map Layout and Comparisons created 17 Sep 2026 07:12 https://www.wrds.uwyo.edu

Degradations in far northeast and south central Albany County. Improvements in much of the rest of Wyoming.

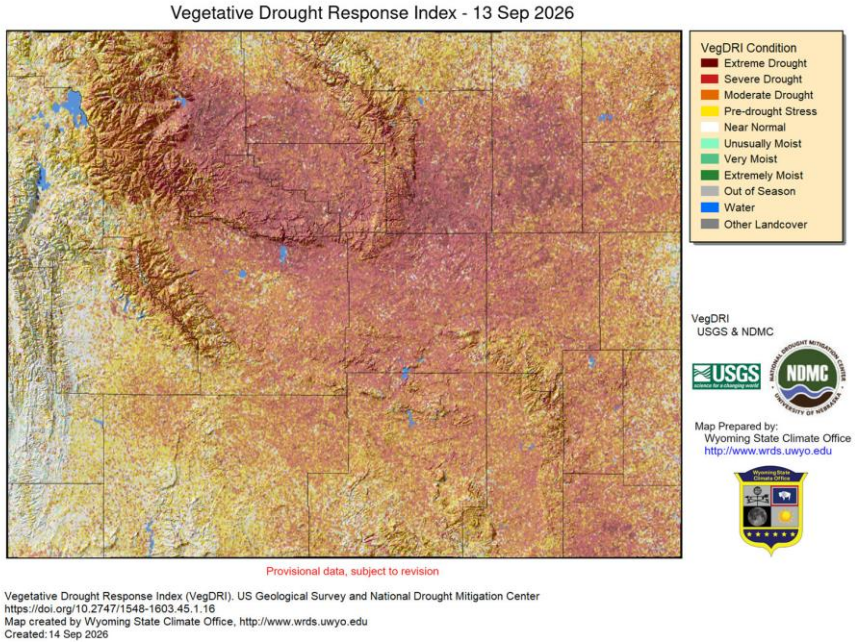
Vegetative Drought Response Index

~Two Weeks Ago



https://www.wrds.uwyo.edu/drought/VegDRI-Current.html

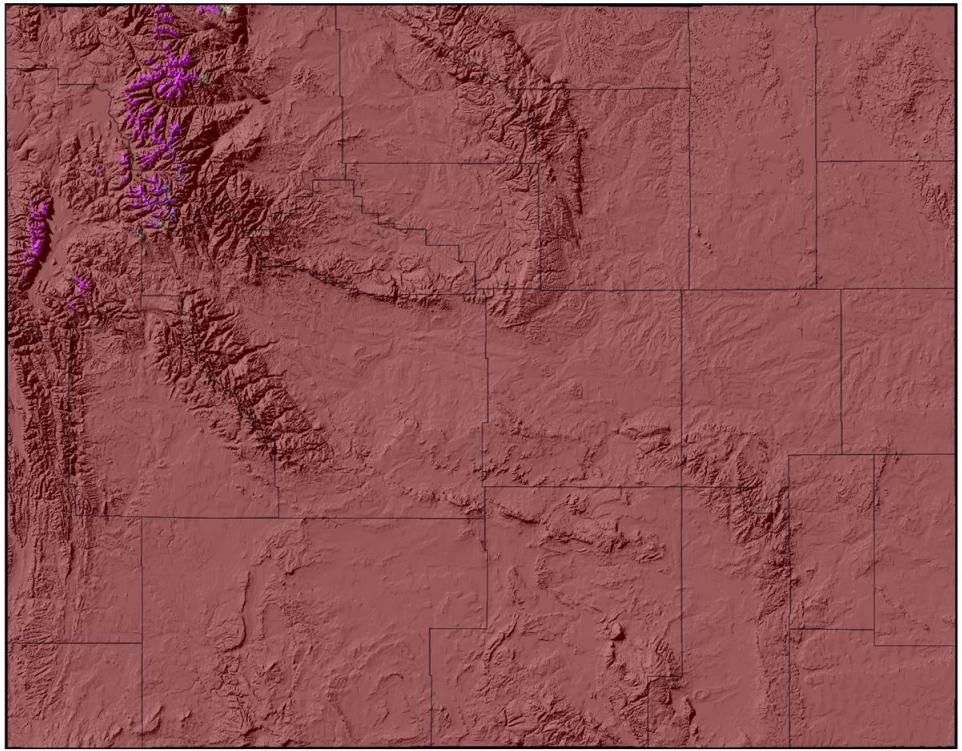
16 Aug 2026



Slight degradations in many parts of the state, the northern parts, southeast.

Snow Water Equivalent Percent of Average

Snow Water Equivalent Percent of Average (2004-2026 Period) for 15 Sep 2026



SWE Percent of Normal
- < 5%
- 5% - 25%
- 25% - 50%
- 50% - 70%
- 70% - 90%
- 90% - 95%
- 95% - 105%
- 105% - 110%
- 110% - 130%
- 130% - 150%
- 150% - 200%
- 200% - 300%
- > 300%

Snow Water Equivalent
NOHRSC
https://doi.org/10.7265/N5TB14TC

Map Prepared by:
Wyoming State Climate Office
https://www.wrds.uwyo.edu

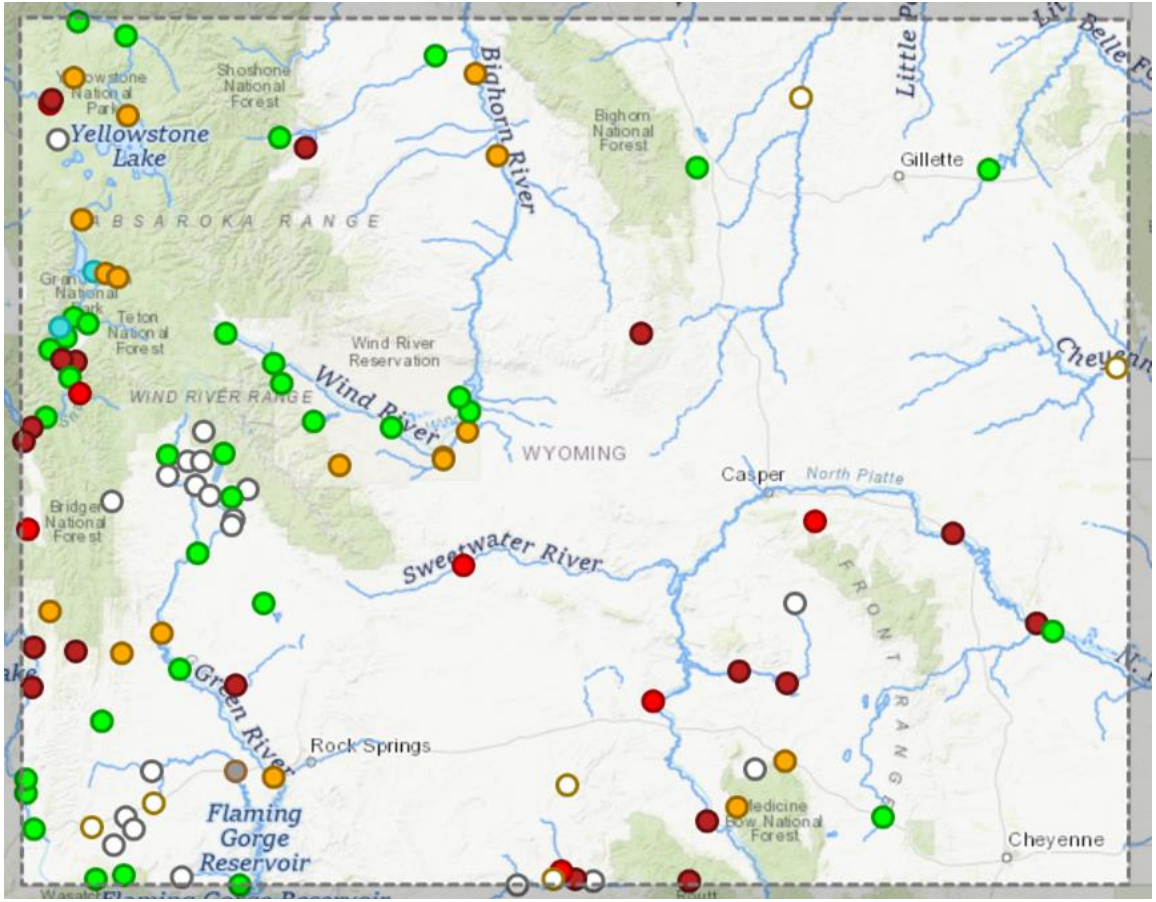
Provisional data, subject to revision

Modelled Snow Water Equivalent from National Operational Hydrologic Remote Sensing Center. 2004. Snow Data Assimilation System (SNODAS) Data Products at NSIDC, Version 1. Boulder, Colorado USA. NSIDC: National Snow and Ice Data Center.
doi: https://doi.org/10.7265/N5TB14TC.
Daily Percentiles and Percentages created by Wyoming State Climate Office
Map prepared https://www.wrds.uwyo.edu
15 Sep 2026

Current Streamflow Conditions

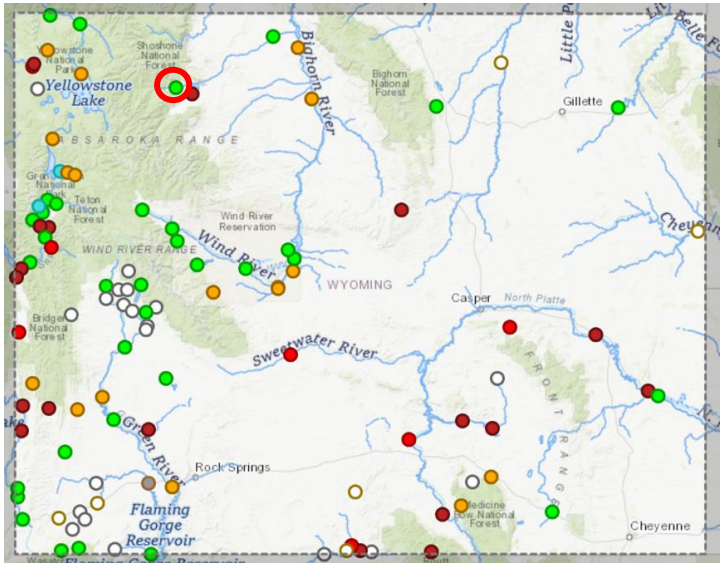
Streamflow Status





https://dashboard.waterdata.usgs.gov/

Select WY Streamflows

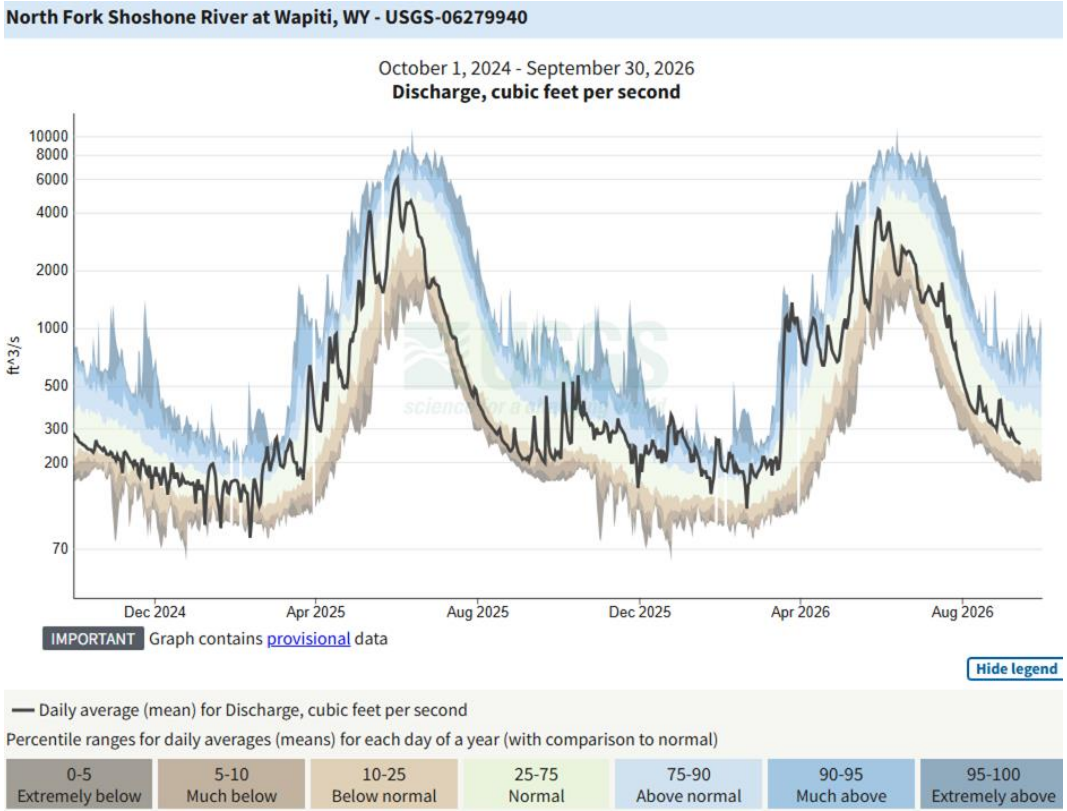


https://dashboard.waterdata.usgs.gov/

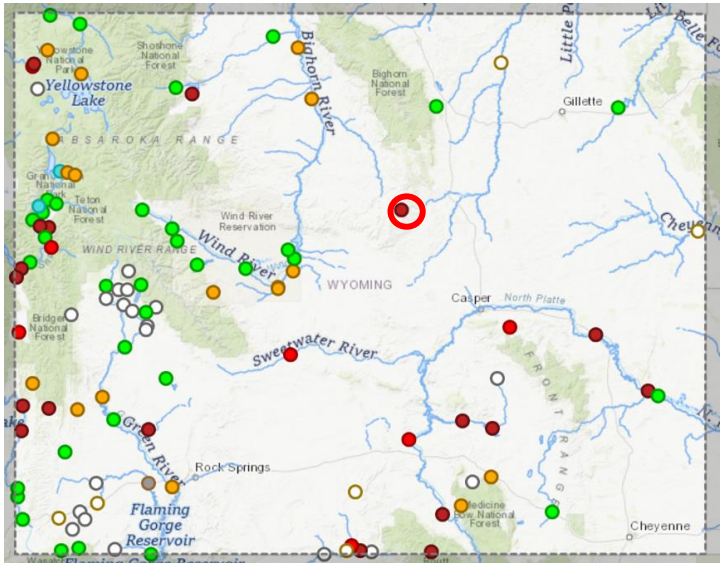
https://waterdata.usgs.gov/

North Fork Shoshone River, at Wapiti, WY

36 years of data



Select WY Streamflows

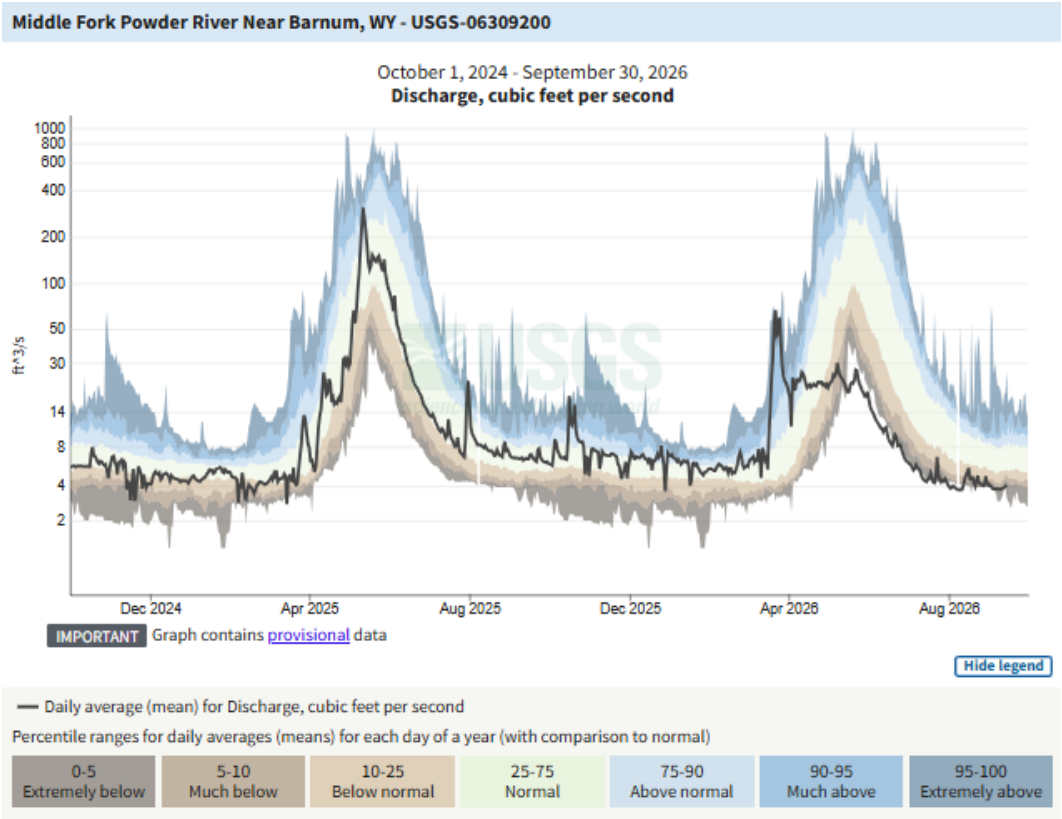


https://dashboard.waterdata.usgs.gov/

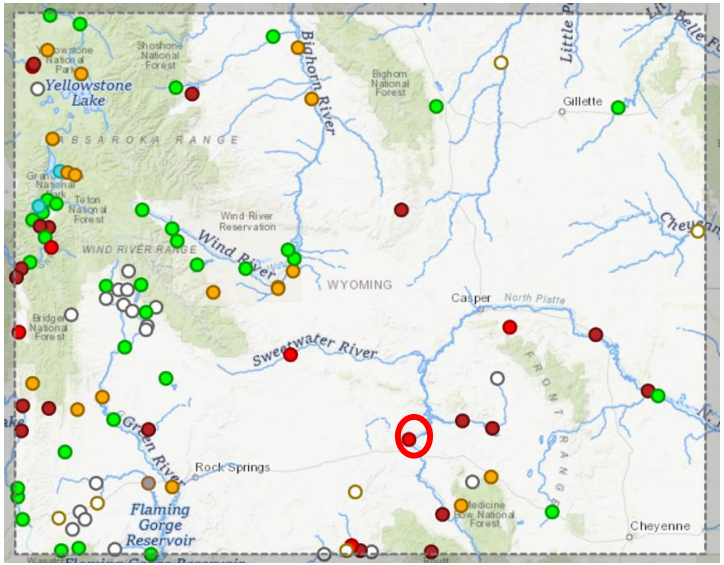
https://waterdata.usgs.gov/

Middle Fork Powder River near Barnum, WY

64 years of data



Select WY Streamflows

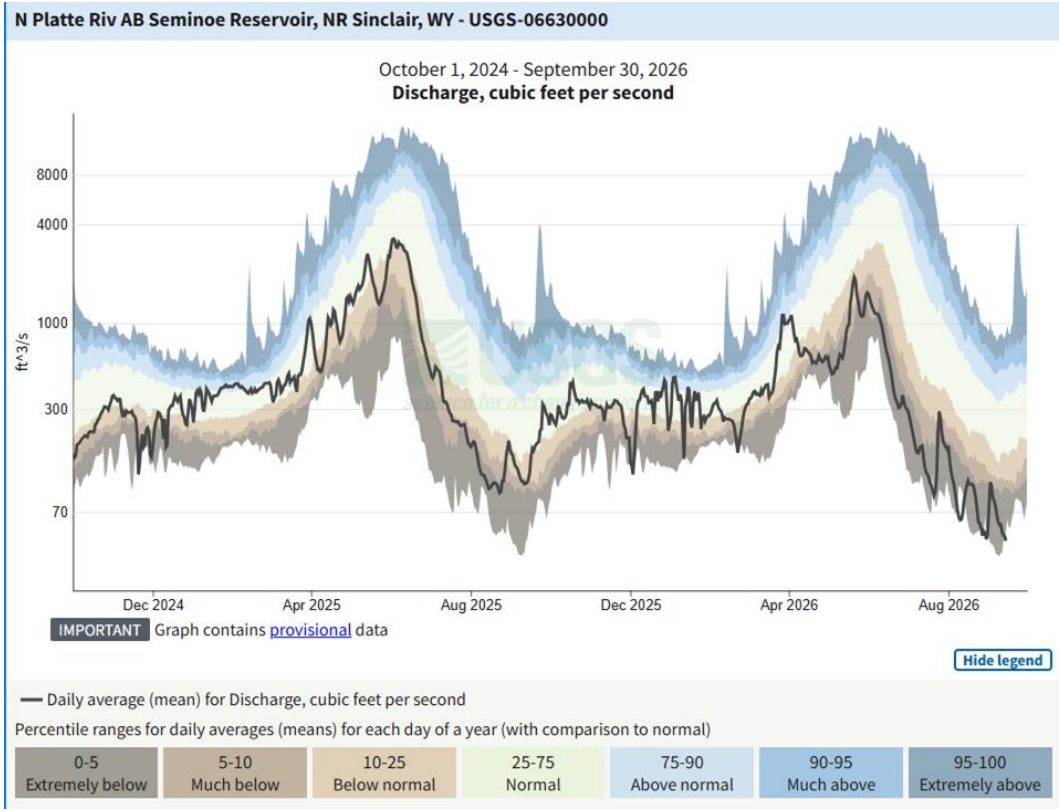


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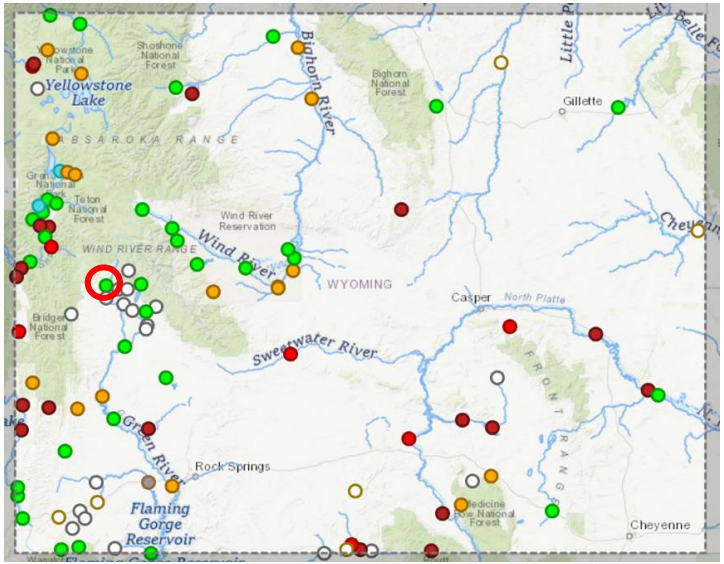
https://waterdata.usgs.gov/

North Platte River, ab Seminoe Res, near Sinclair WY

87 years of data



Select WY Streamflows

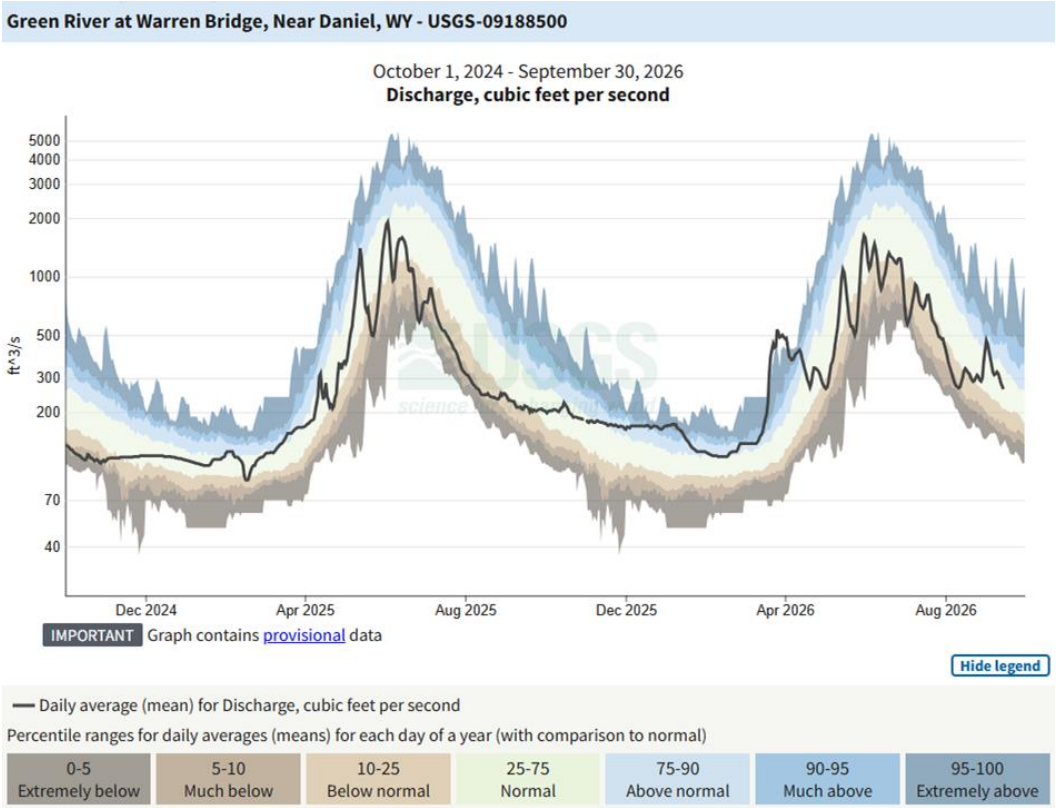


https://dashboard.waterdata.usgs.gov/

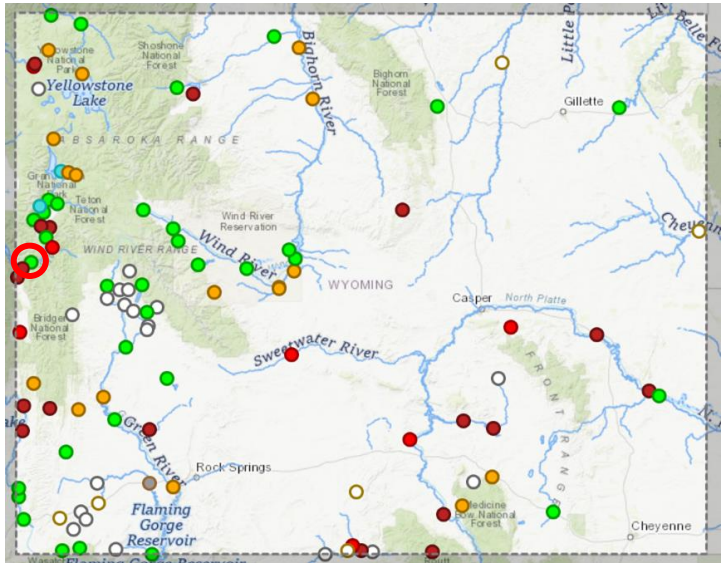
https://waterdata.usgs.gov/

Green River at Warren Bridge, near Daniel, WY

93 years of data



Select WY Streamflows

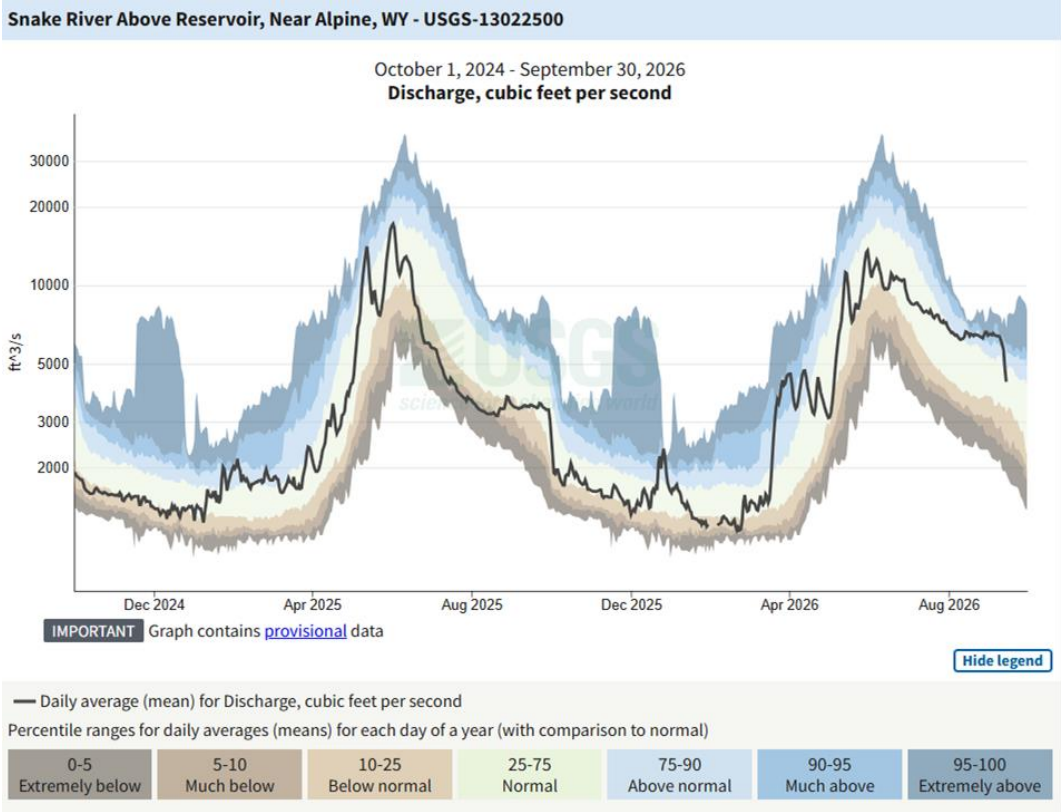


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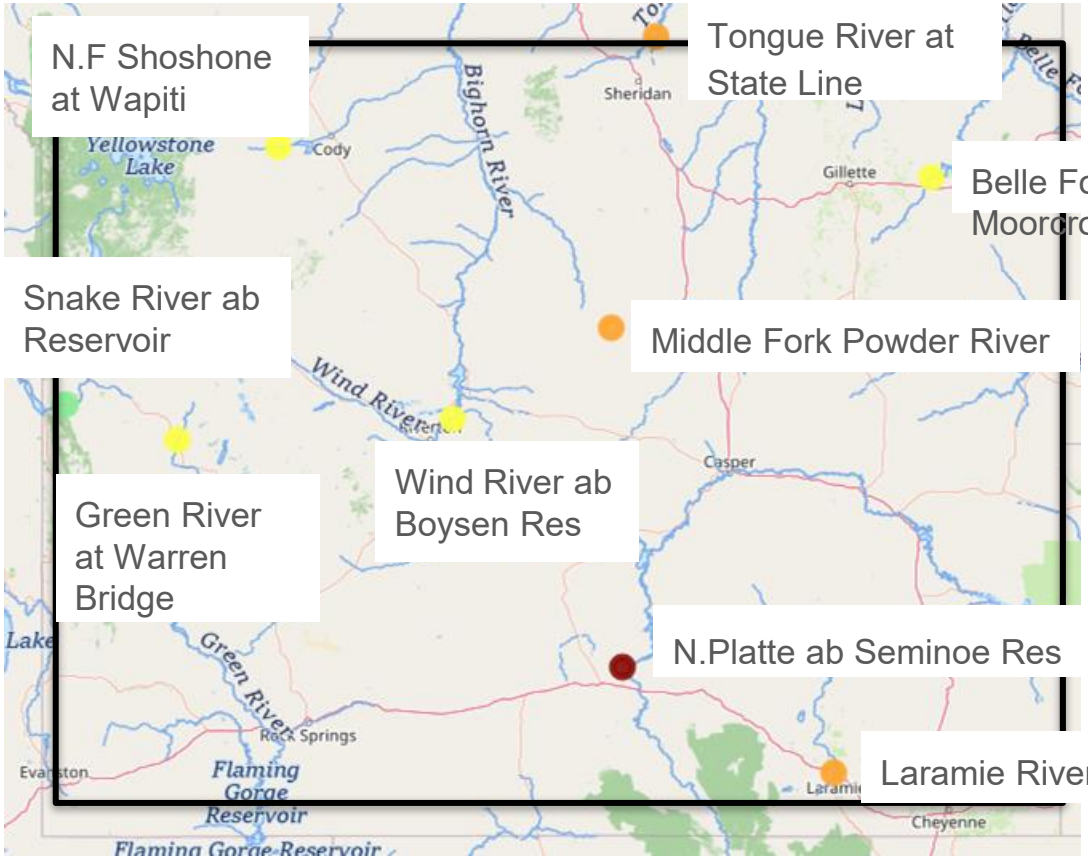
https://waterdata.usgs.gov/

Snake River above Reservoir, near Alpine, WY

74 years of data



Water Year Statistics to Date



N.F Shoshone at Wapiti

Tongue River at State Line

Belle Fourche River bl Moorcroft

Snake River ab Reservoir

Middle Fork Powder River

Wind River ab Boysen Res

Green River at Warren Bridge

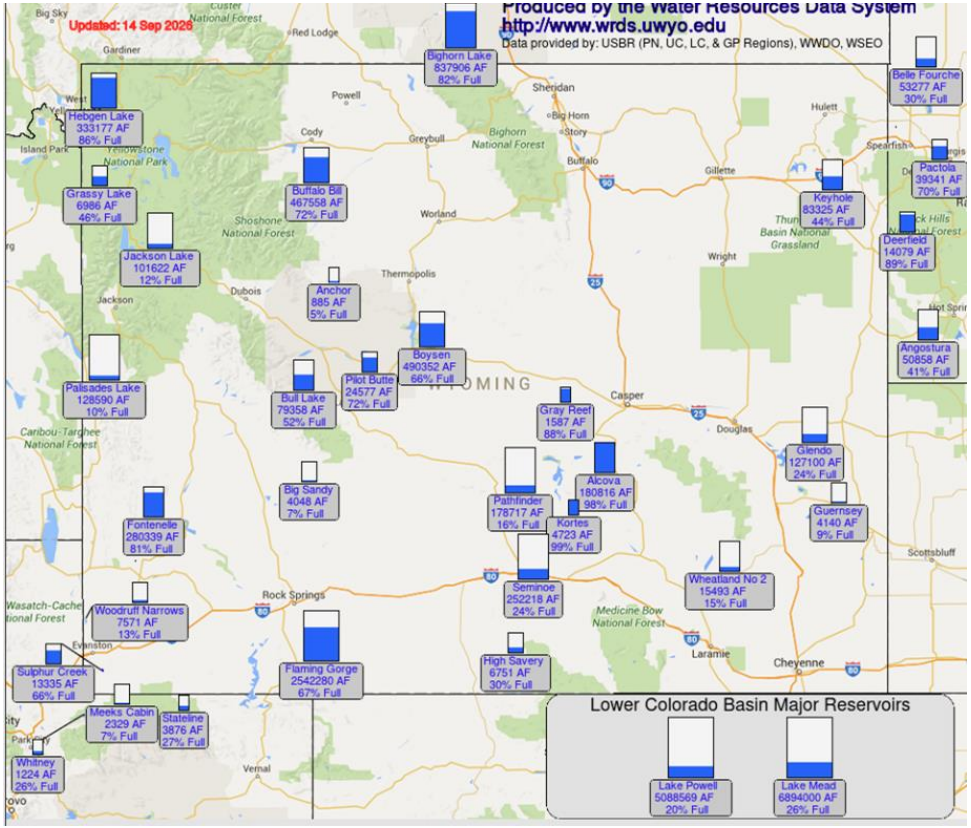
N.Platte ab Seminoe Res

Laramie River at Laramie

Legend
< 10
< 25
< Median
> Median

https://waterdata.usgs.gov/

Wyoming Reservoirs



Reservoir Storage

Large Decreases:
Buffalo Bill, Palisades, Jackson Lake

https://www.wrds.uwyo.edu/surface_water/teacups.html

WY SEO Divisions and Superintendents

Contact information for calls and administration

Division 3

Joshua Fredrickson, 856-0747

Division 2

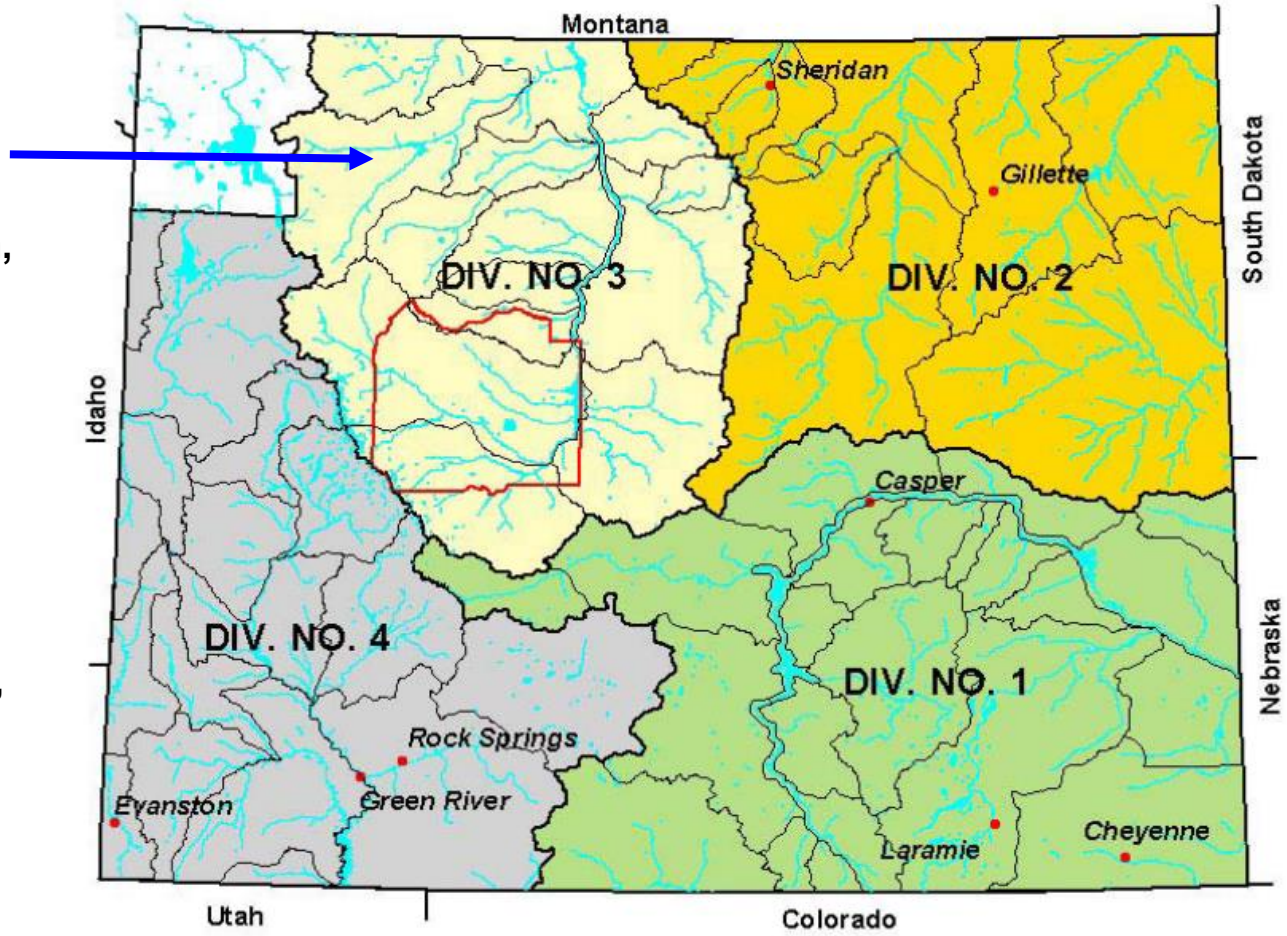
David Schroeder, 674-7012

Division 4

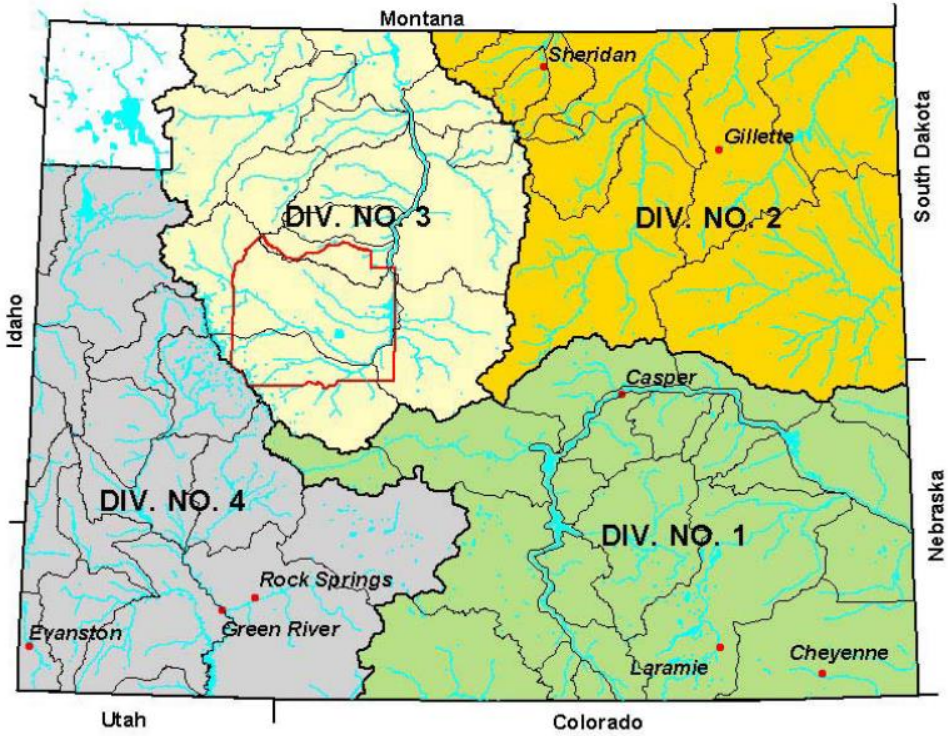
Kevin Payne, 279-3441

Division 1

Josh DeBerard, 532-1272



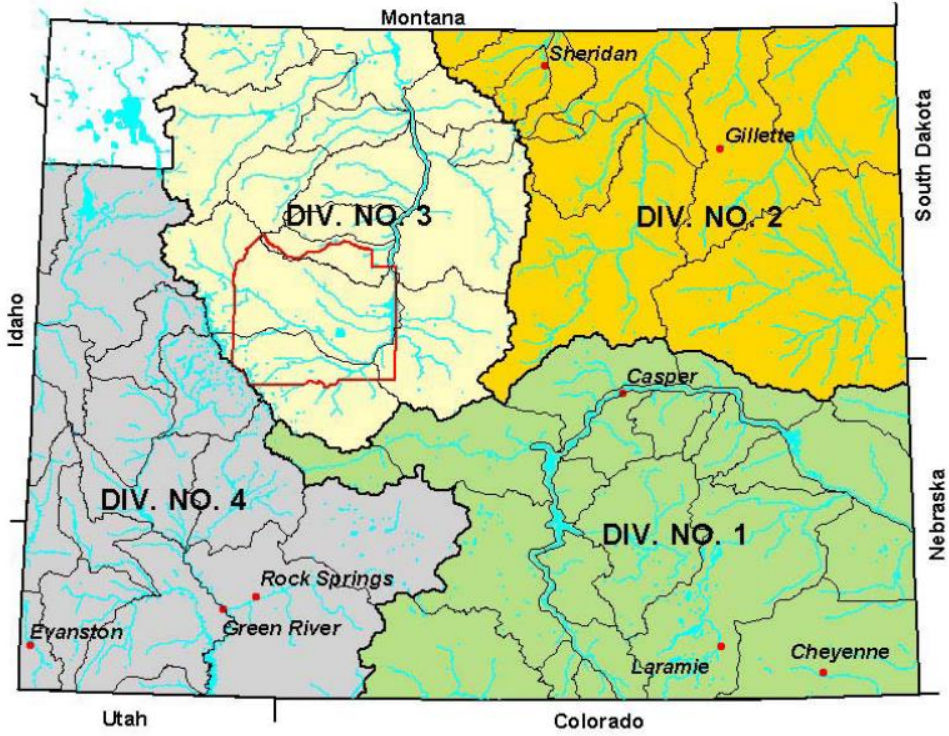
WY SEO Divisions and Superintendents



Division 1:

No new regulation

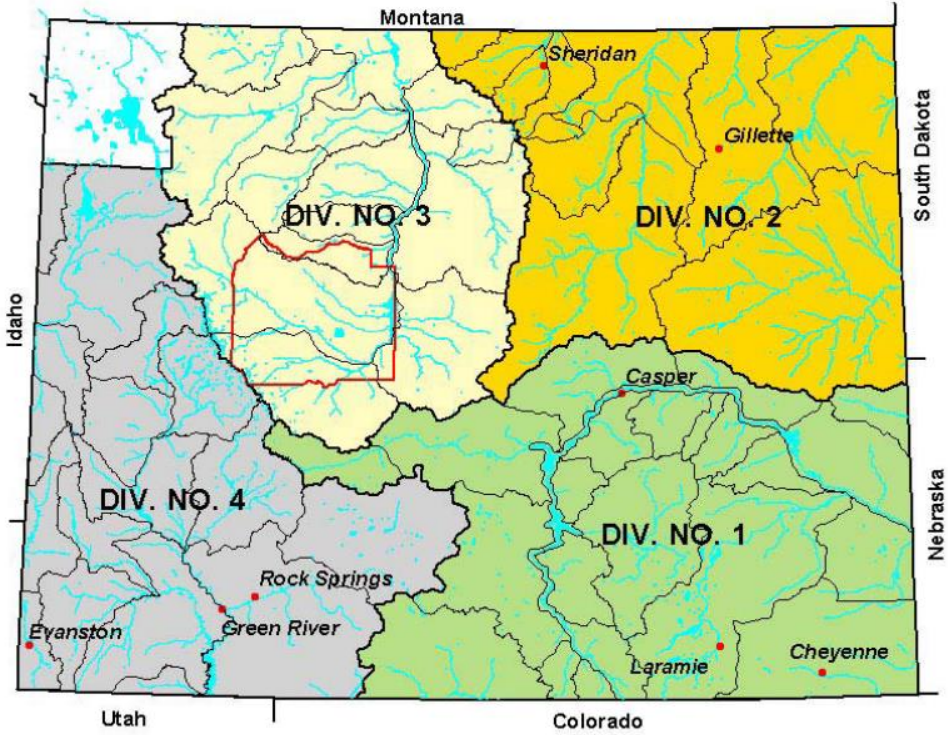
WY SEO Divisions and Superintendents



<u>Division 2:</u>

No new regulation

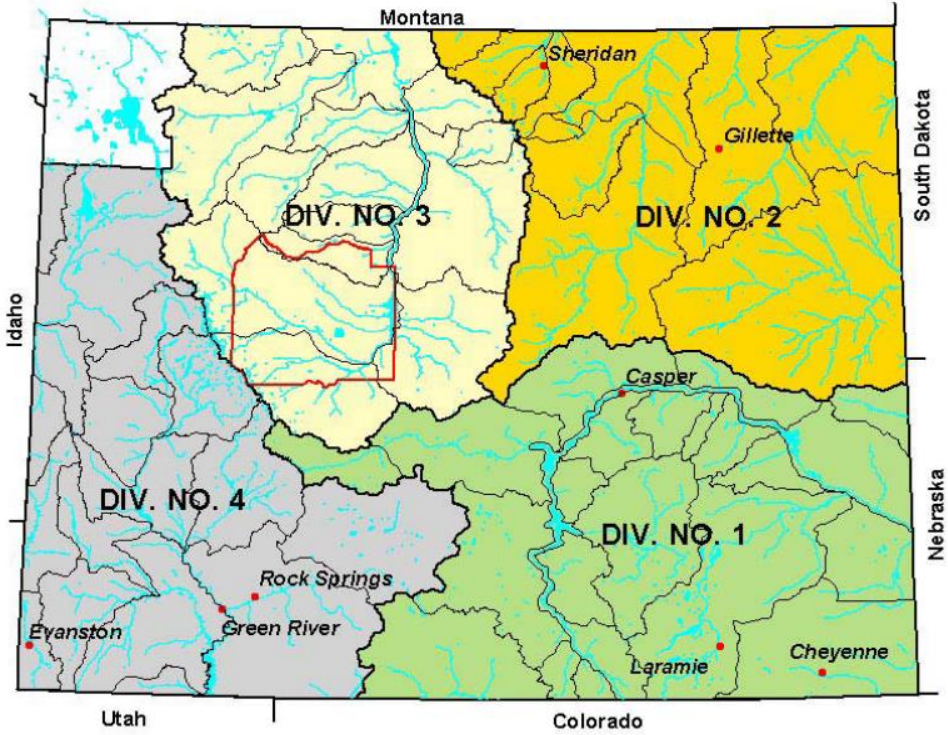
WY SEO Divisions and Superintendents



Division 3:

No new regulation

WY SEO Divisions and Superintendents

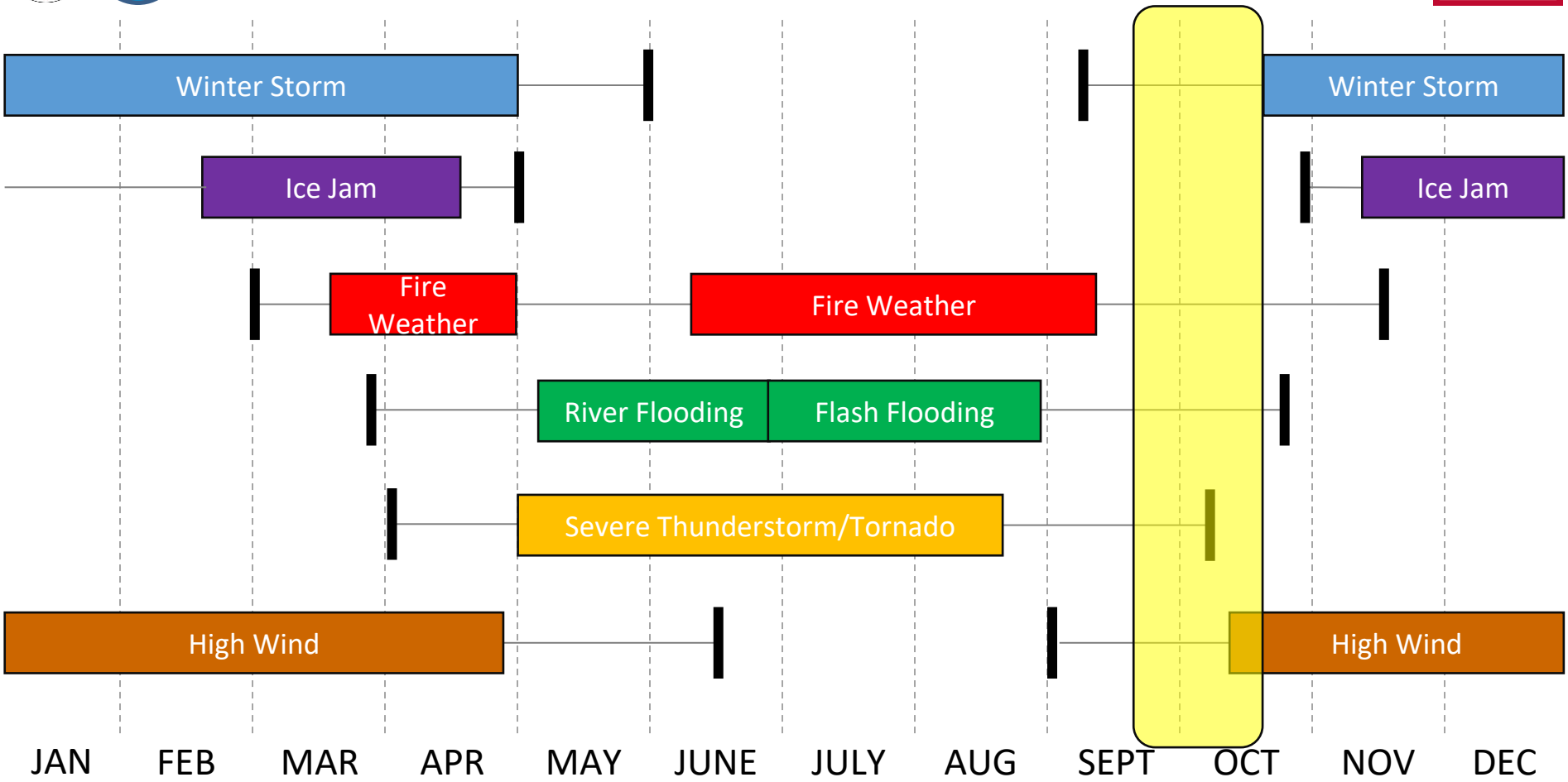


Division 4:

No new regulation

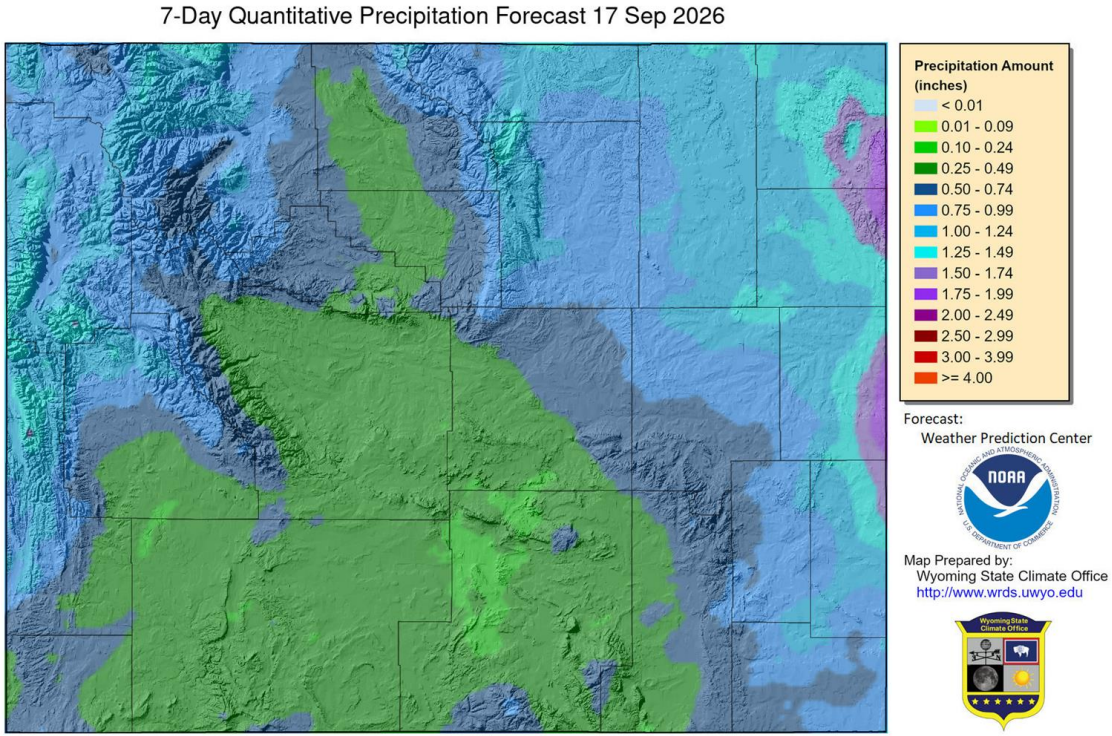
Weather Info & Forecasts

NWS Wyoming - Typical Hazard Calendar



7-Day Total Precipitation Forecast

Through Sept. 23



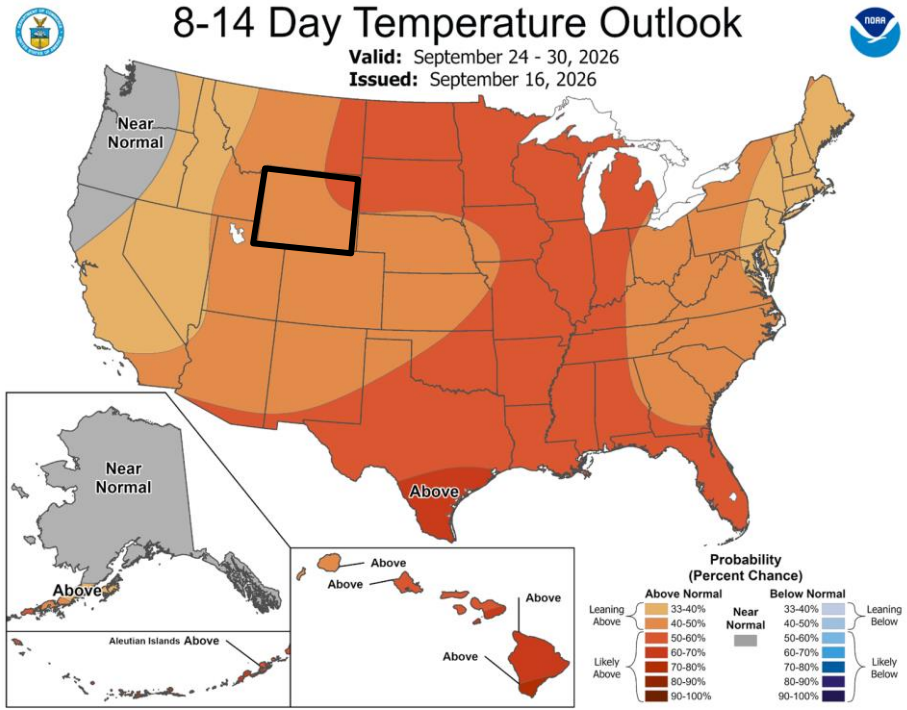
The Quantitative Precipitation Forecast shows the liquid amount of forecasted precipitation over the next 7 days
The Forecast is created by the National Weather Service Weather Prediction Center
Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, National Centers for Environmental Prediction,
and Weather Prediction Center - https://www.wpc.ncep.noaa.gov
Map Layout Created 17 Sep 2026 https://www.wrds.uwyo.edu

- Seasonally strong monsoon push will lead to several rounds of showers & storms across the state through the weekend
  - Snow highest elevations of Wind River Range?
- Significant moisture totals (1”+) in spots
  - Greatest potential in the western ranges and eastern plains

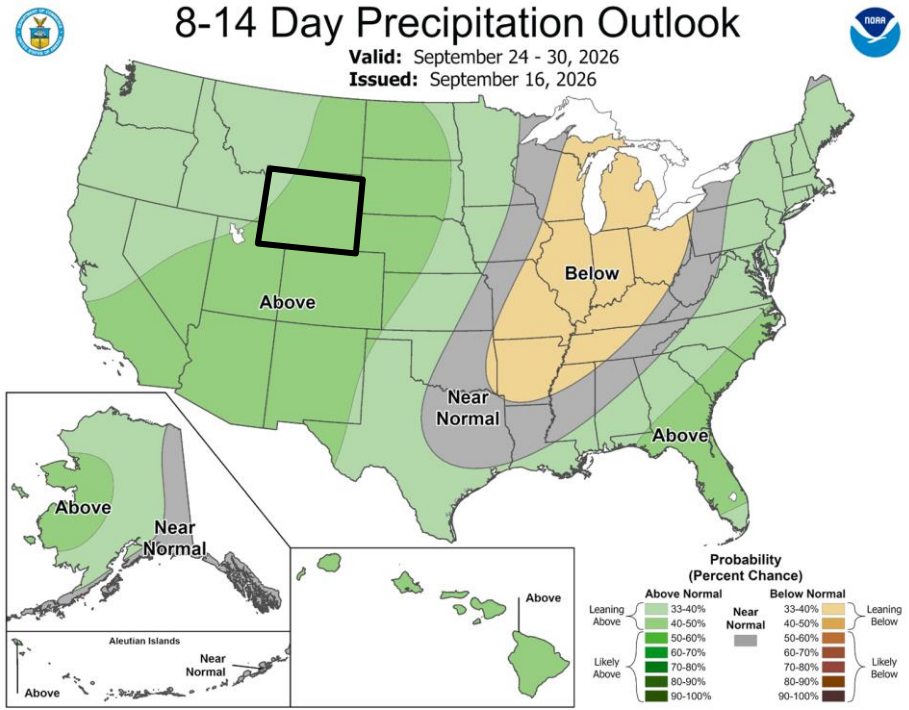
https://bit.ly/7_dayQPForecast

8-14 Day Outlook
(Sept. 24-30)

https://bit.ly/CPC8_14Day



- Leaning warmer than normal statewide

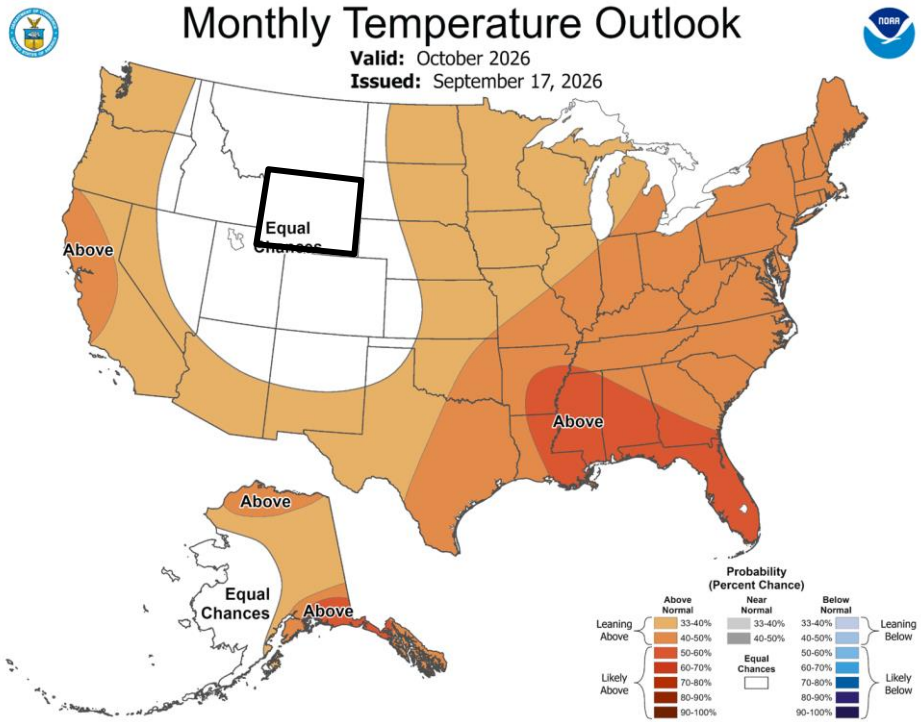


- Leaning wetter than normal statewide

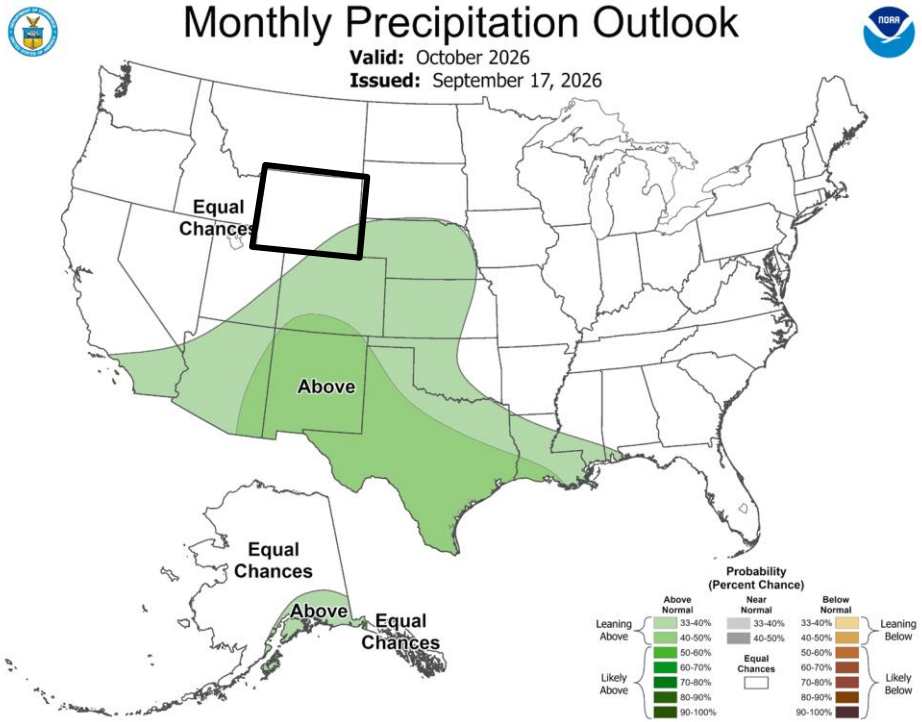
- **Interactive Version:**
  cpc.ncep.noaa.gov/products/predictions/814day/interactive/index.php

1 Month Outlook
(October)

cpc.ncep.noaa.gov/products/predictions/30day/



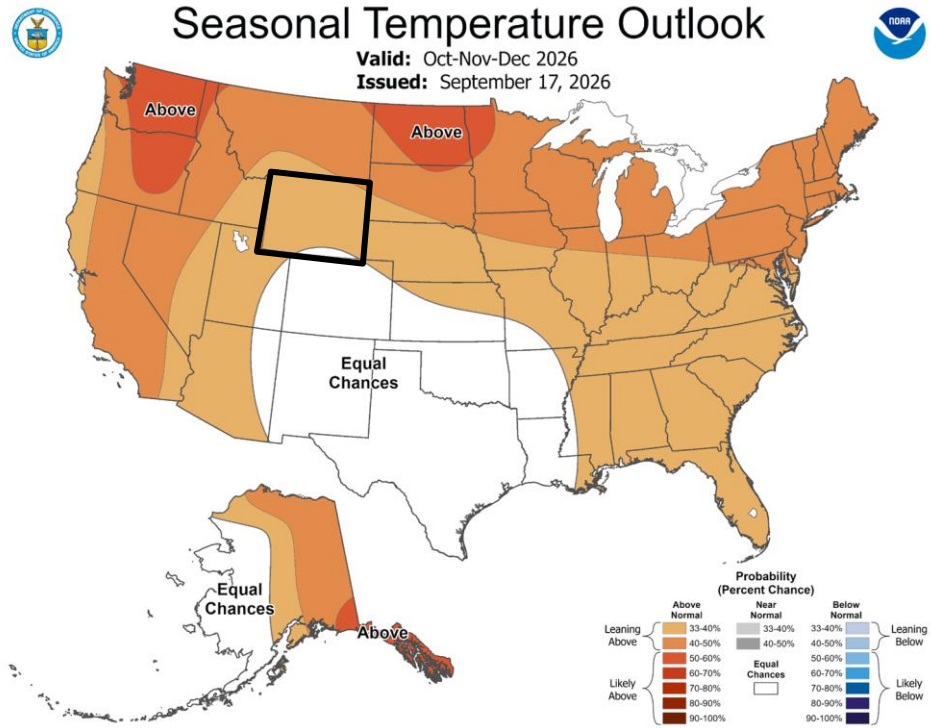
- No clear signal for temps - equal chances of above, near, below normal



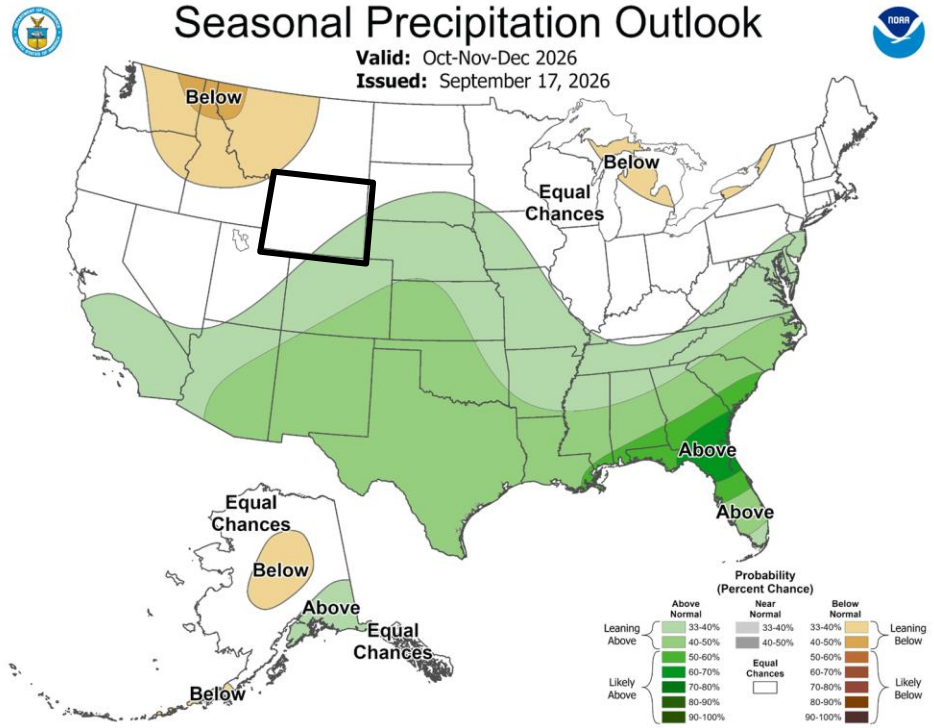
- Slight lean toward wetter than normal far southeast Wyo. - equals chances elsewhere

3 Month Outlook
(Oct - Nov - Dec)

https://bit.ly/CPC_Seasonal



- Slight lean toward warmer than normal statewide



- Slight lean toward wetter than normal southeast Wyo - equal chances elsewhere
  - Precip concentrated toward fall months?

Wildfire Activity & Outlooks

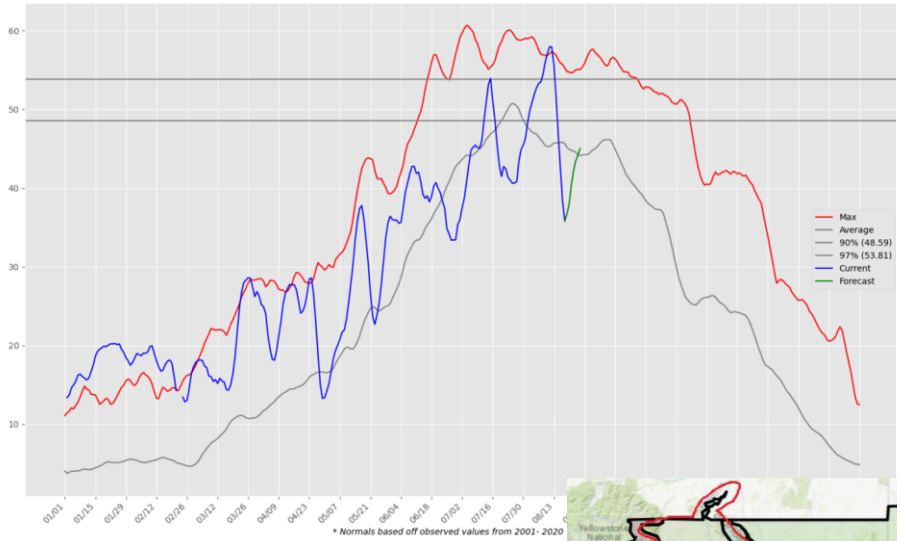
Wildland Fire Potential and Outlook

- **Fuel Moisture Content**
  - A key contributor to fire behavior along with weather and topography. Measures the amount of water in a fuel, expressed in a percentage of the dry weight.
  - Dead Fuels-1-hr, 10-hr, 100-hr, 1000-hr
  - Live fuels
- **Fuel loading**
  - Amount of fuel available to burn
  - Live and dead fuels
- **Energy Release Component - ERC**
  - Index that measures heat per unit (in BTUs). ERC's increase with drier fuel conditions and reflect both the energy available from both live and dead fuels, serving as an indicator of potential fire danger and intensity.

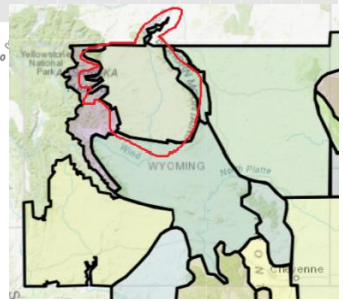
Wildland Fire Potential and Outlook

RM02 - Big Horn Basin - ERC

Valid Date: 08/18/2026

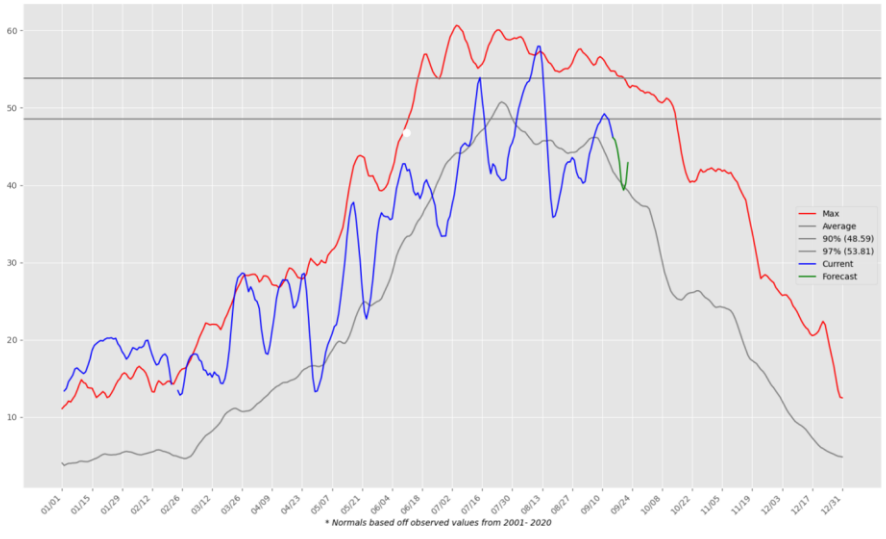


* Normals based off observed values from 2001- 2020



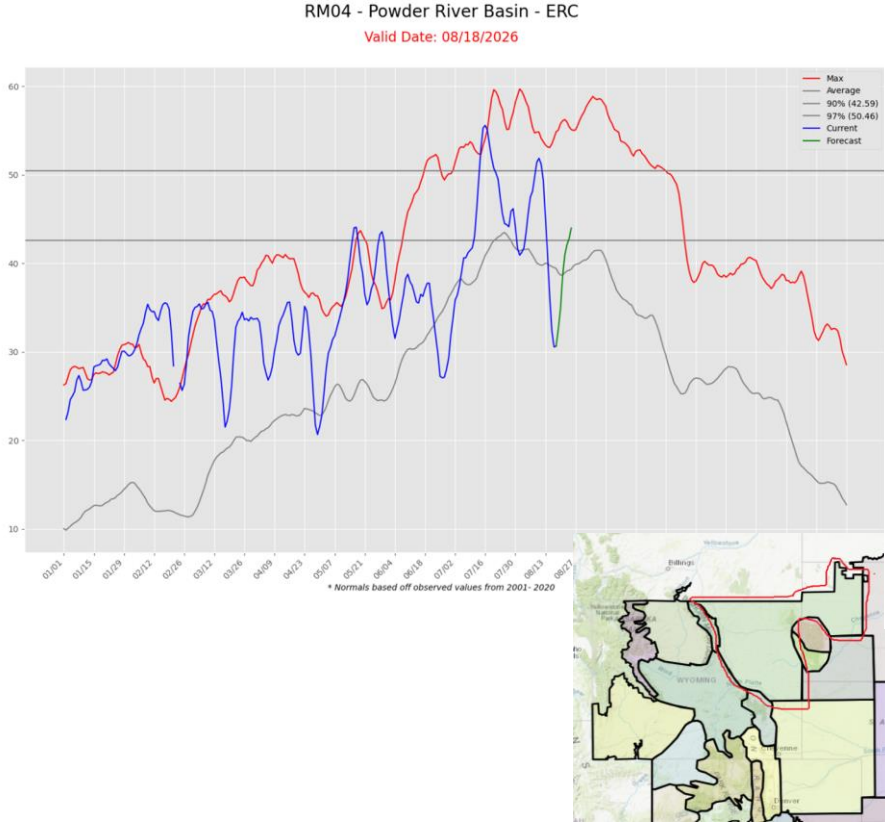
RM02 - Big Horn Basin - ERC

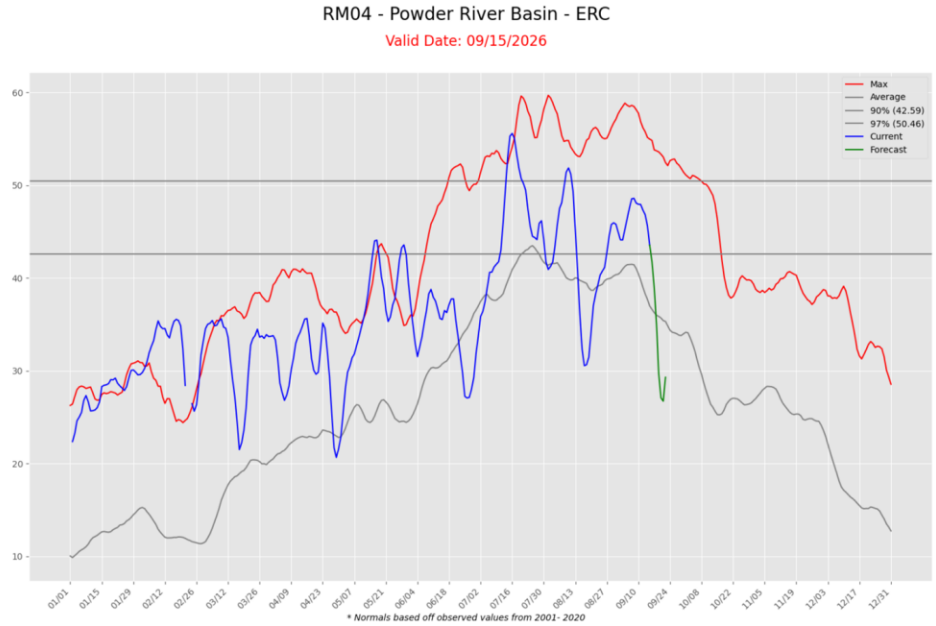
Valid Date: 09/15/2026



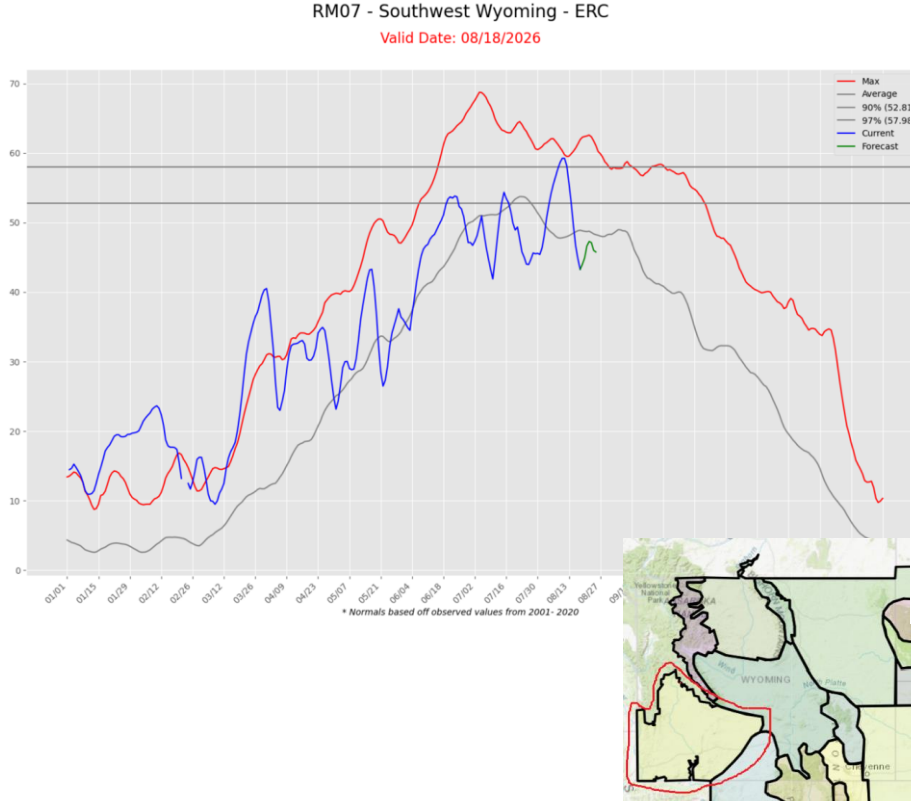
* Normals based off observed values from 2001- 2020

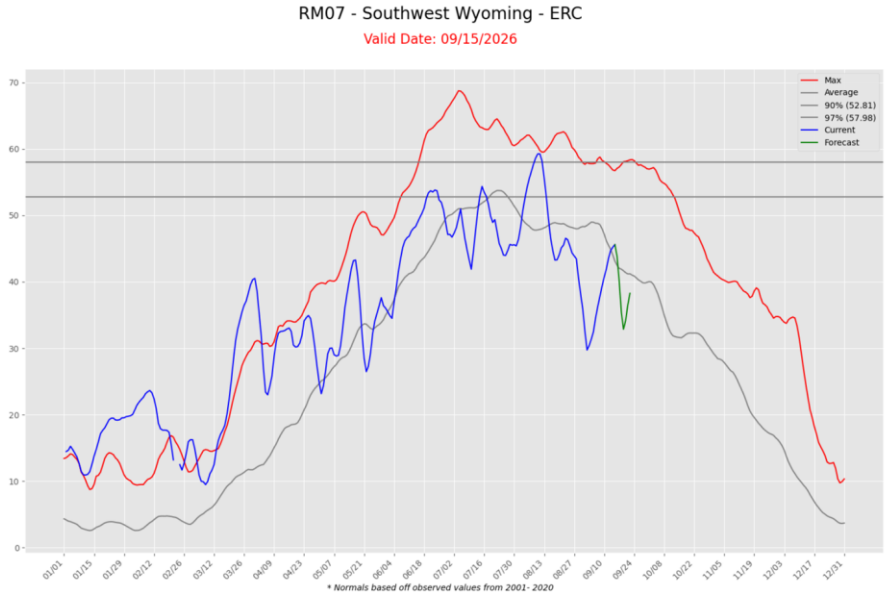
Wildland Fire Potential and Outlook



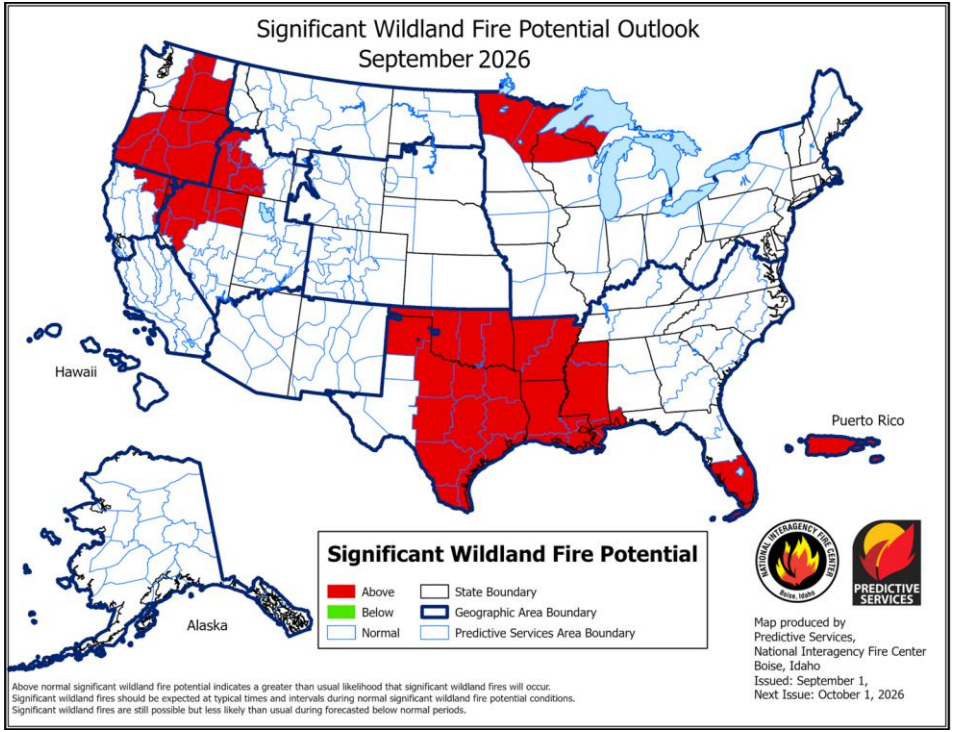


Wildland Fire Potential and Outlook





Wildland Fire Potential and Outlook



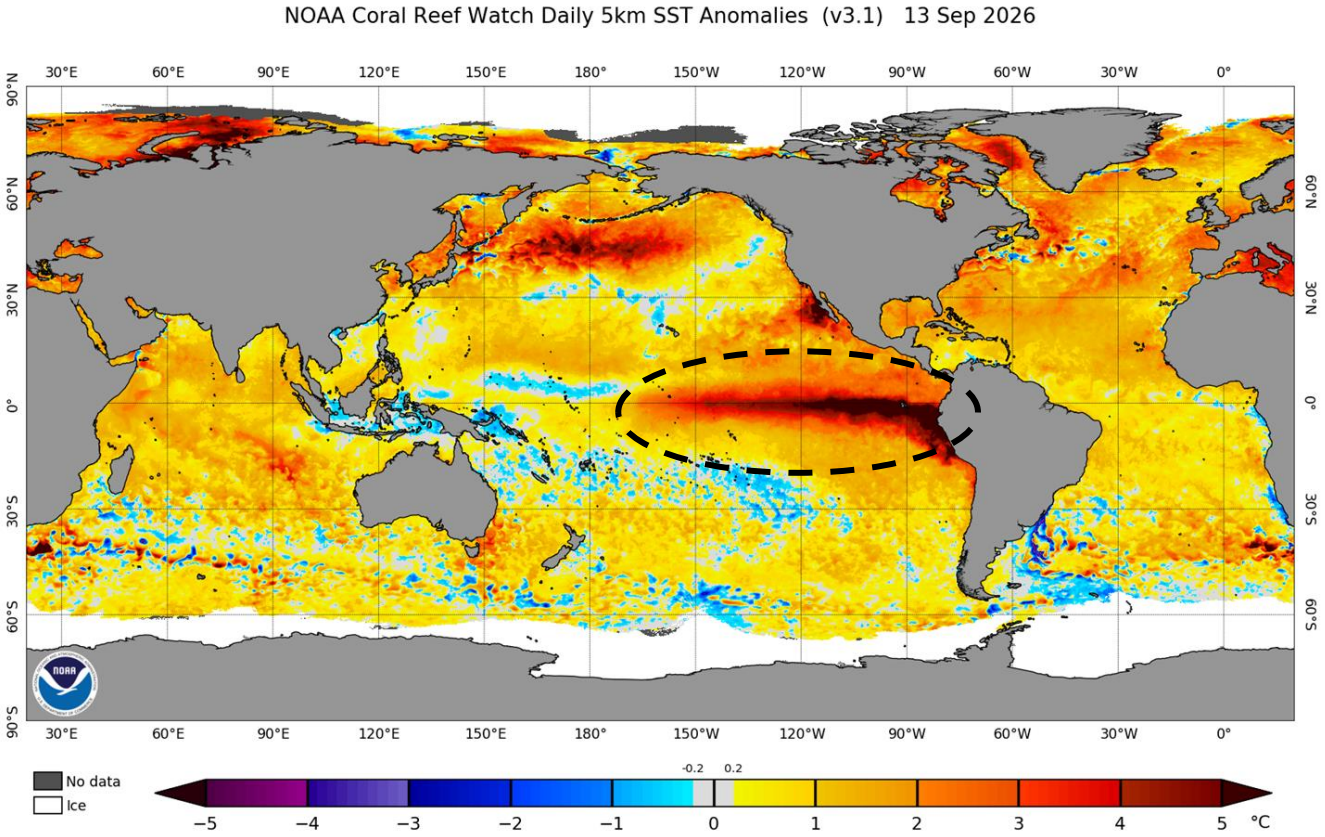


Highlight of the Month:

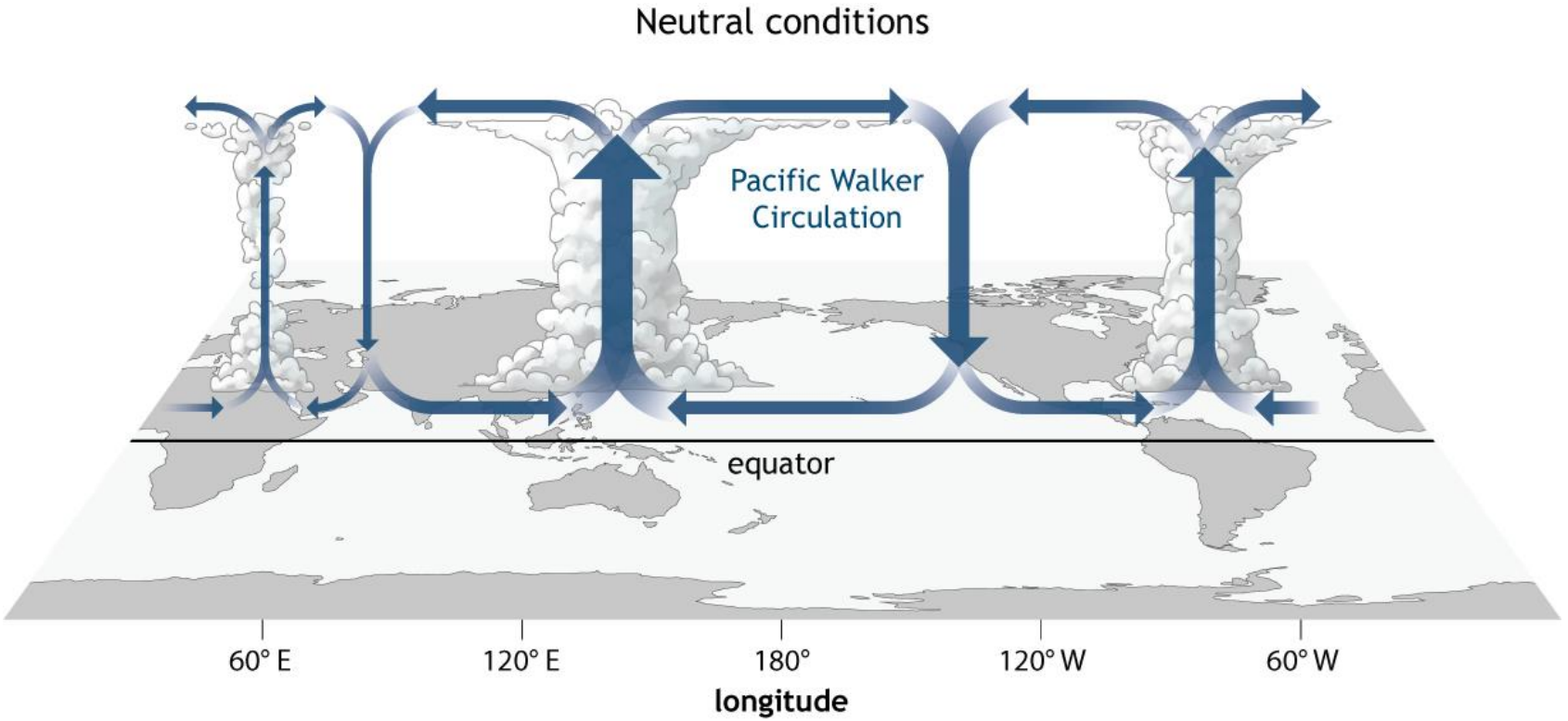
El Niño impacts in Wyoming

What is El Niño?

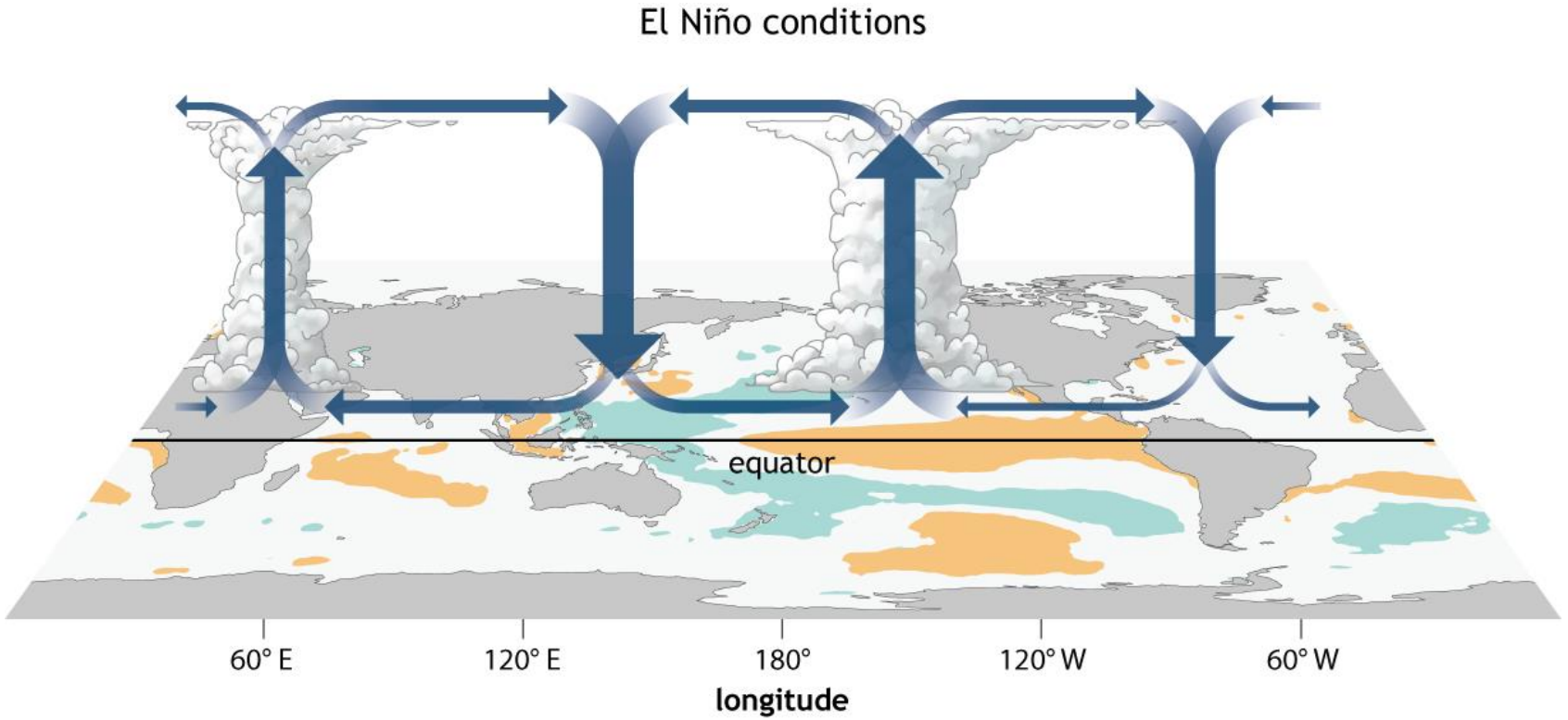
El Niño is a pattern of warm sea surface temperatures along the equator in the central and eastern Pacific Ocean.



How Can El Niño Alter the Weather?

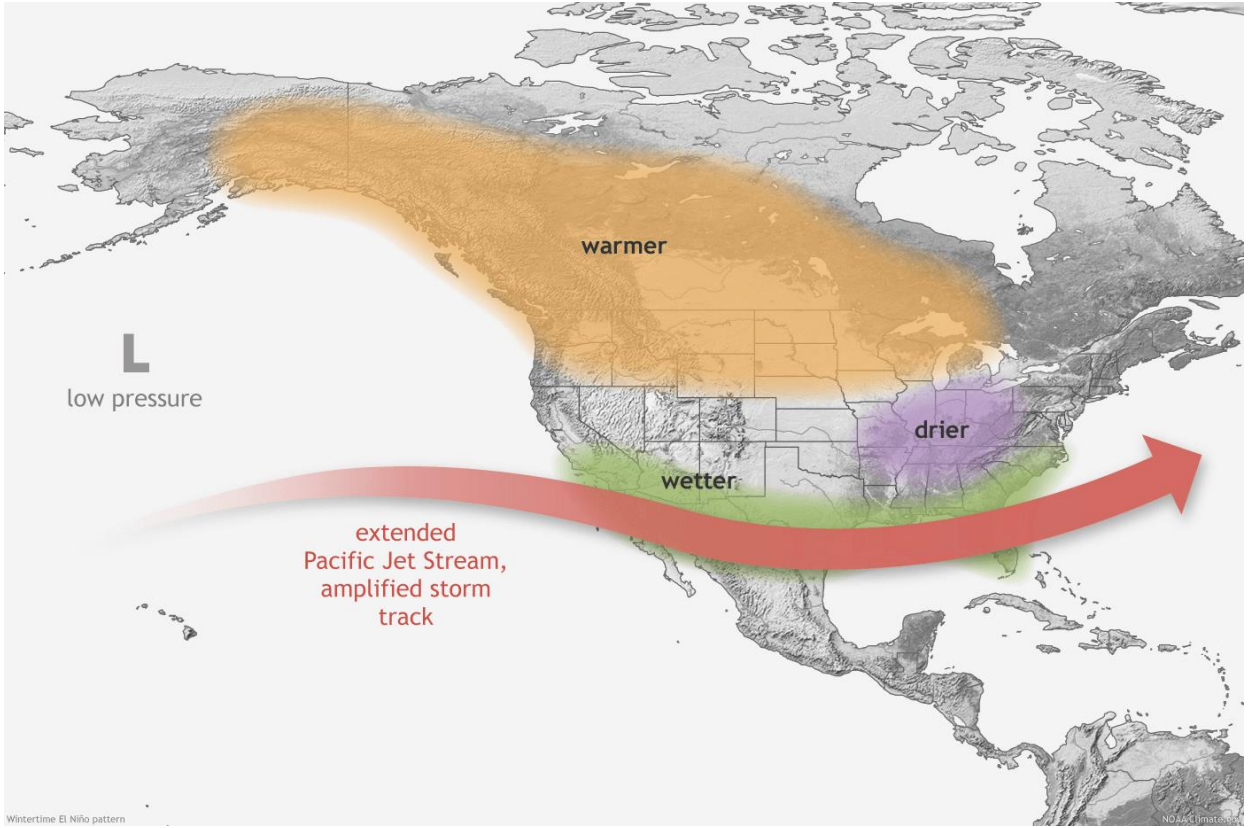


How Can El Niño Alter the Weather?

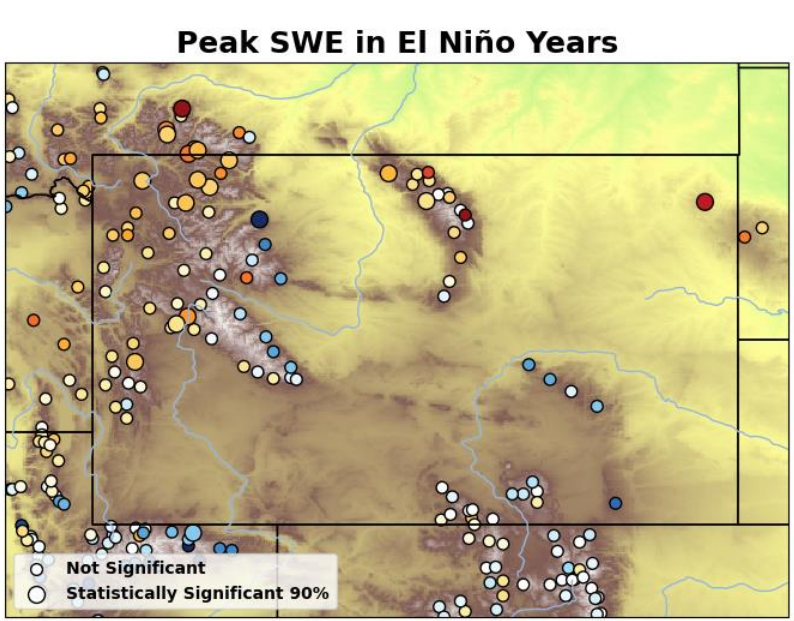


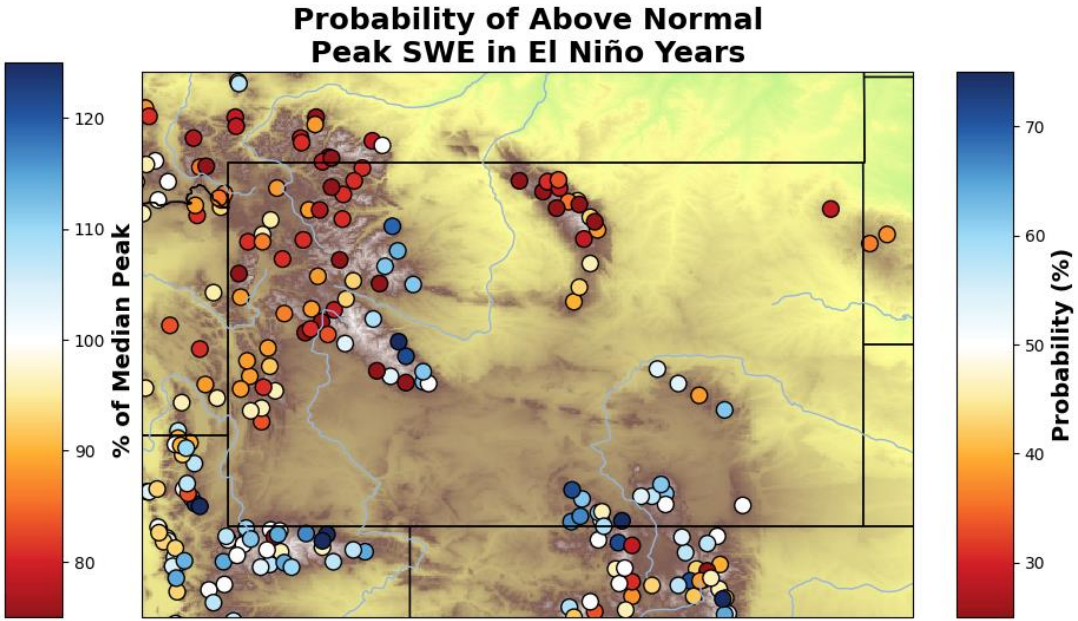
Typical El Niño Winter Pattern

- El Niño acts like a **weighted die** and can make certain types of weather more or less likely this season
- Every El Niño is different, so a certain outcome is never guaranteed



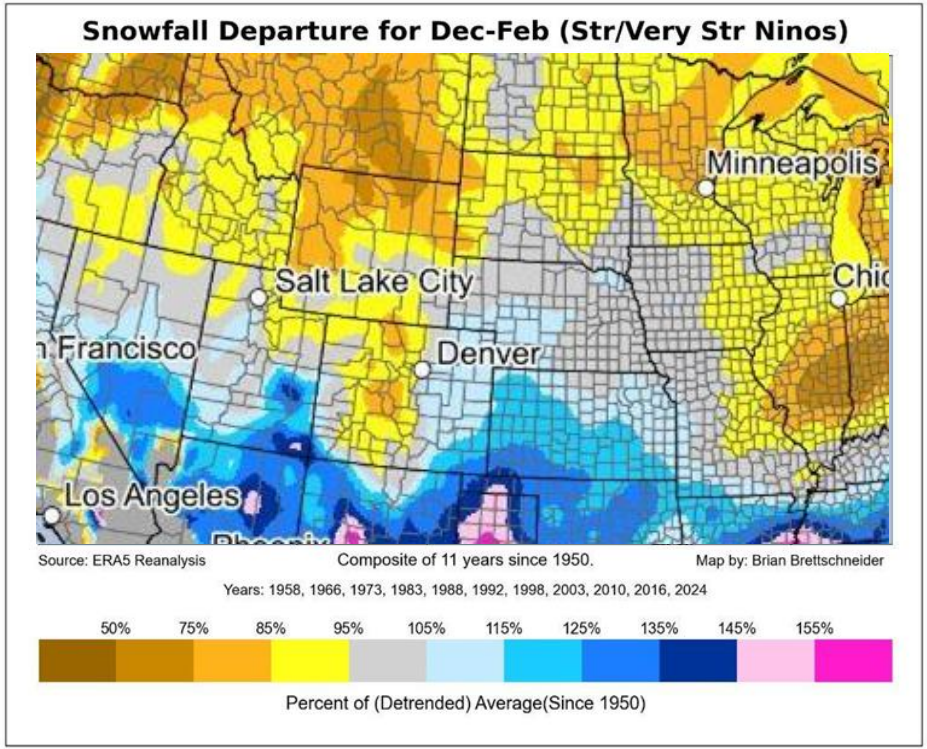
Wyoming Impacts: Mountain Snowpack

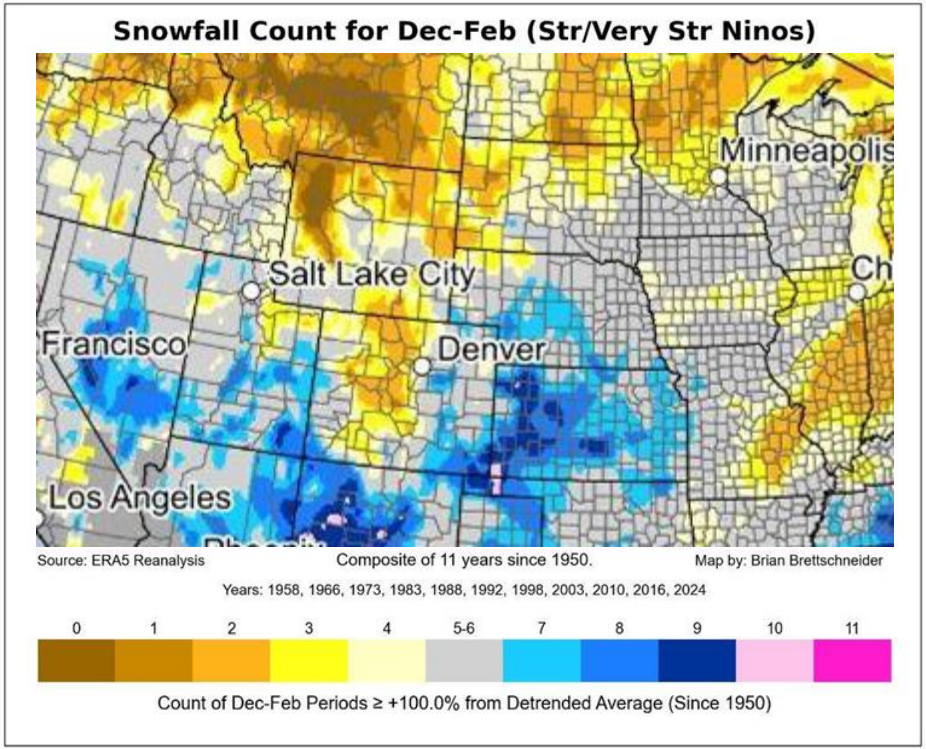




- Northern Wyoming mountains tend to see below average snowpack due to warmer temperatures and southward shift of the jet stream / storm track
- Reduced snowfall is most prevalent during mid-winter (Dec-Feb)
- Southern Wyoming mountains can go either way during El Niño
- El Niño years tend to favor increased snowfall on eastern slopes of mountain ranges

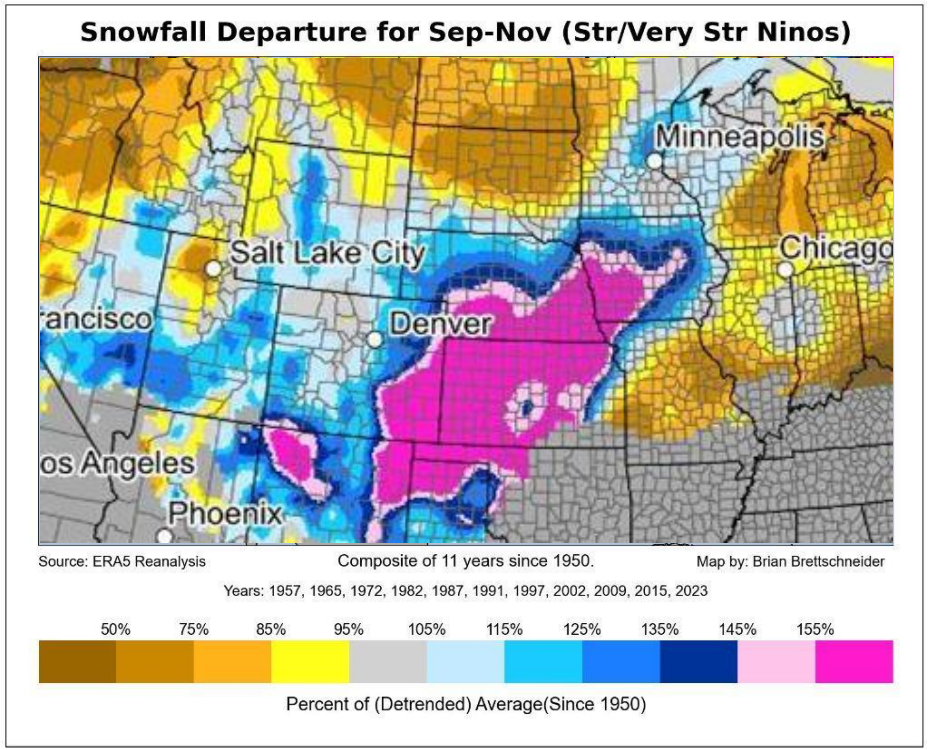
Wyoming Impacts: Plains/Valley Snow

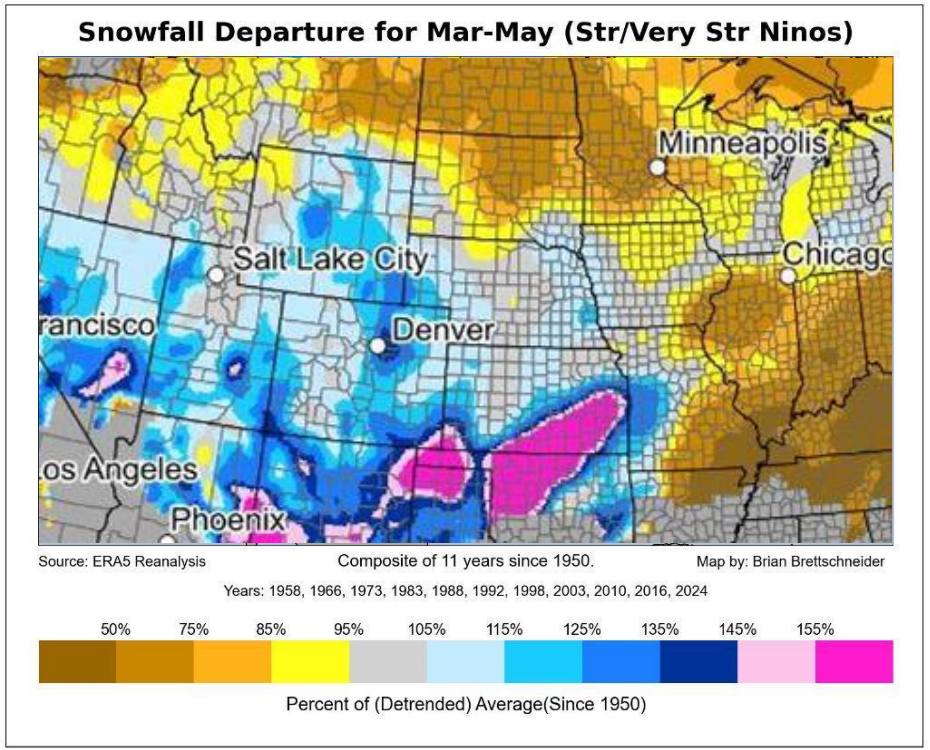




- Most of the state (but especially the northern part) is more likely to see lower than average snow totals in December-February

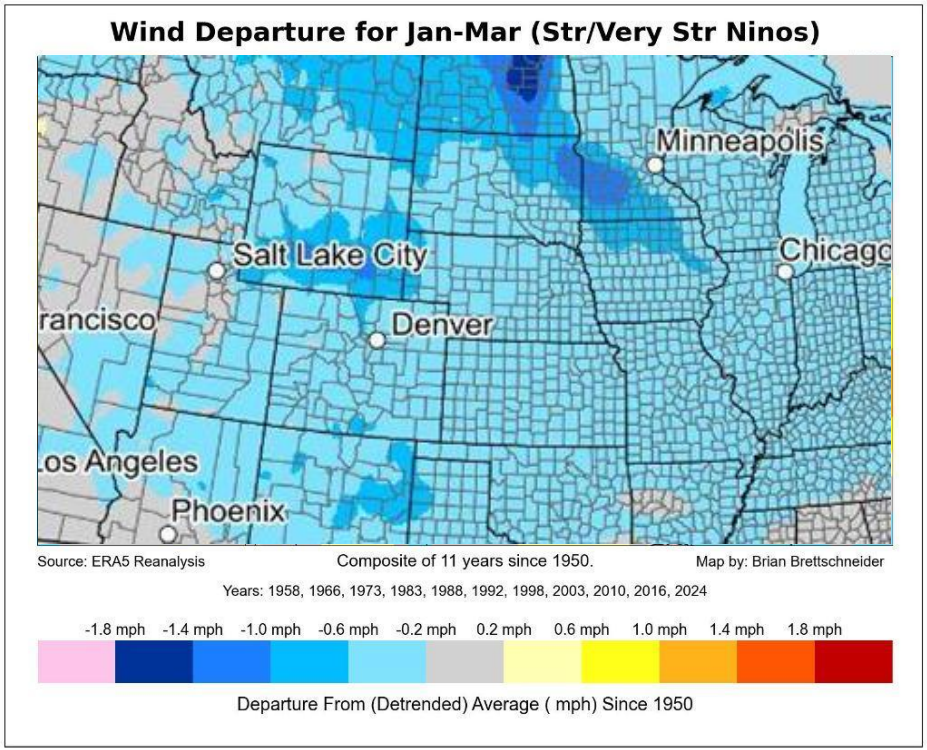
Wyoming Impacts: Plains/Valley Snow

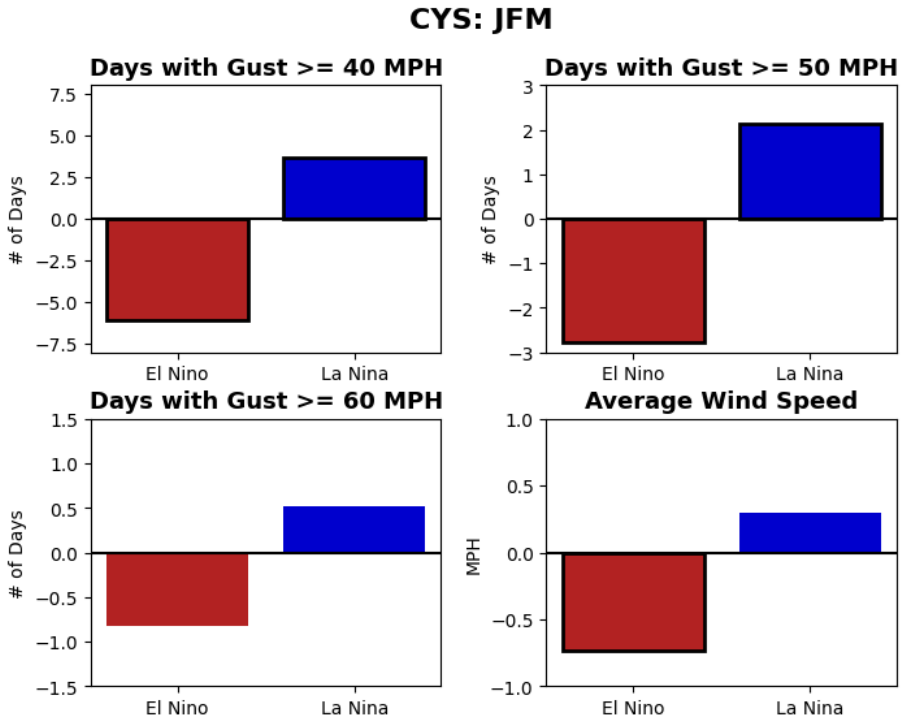




- The valleys and plains (and southern/eastern mountains) tend to see above average snow totals in the fall and spring

Wyoming Impacts: Wind

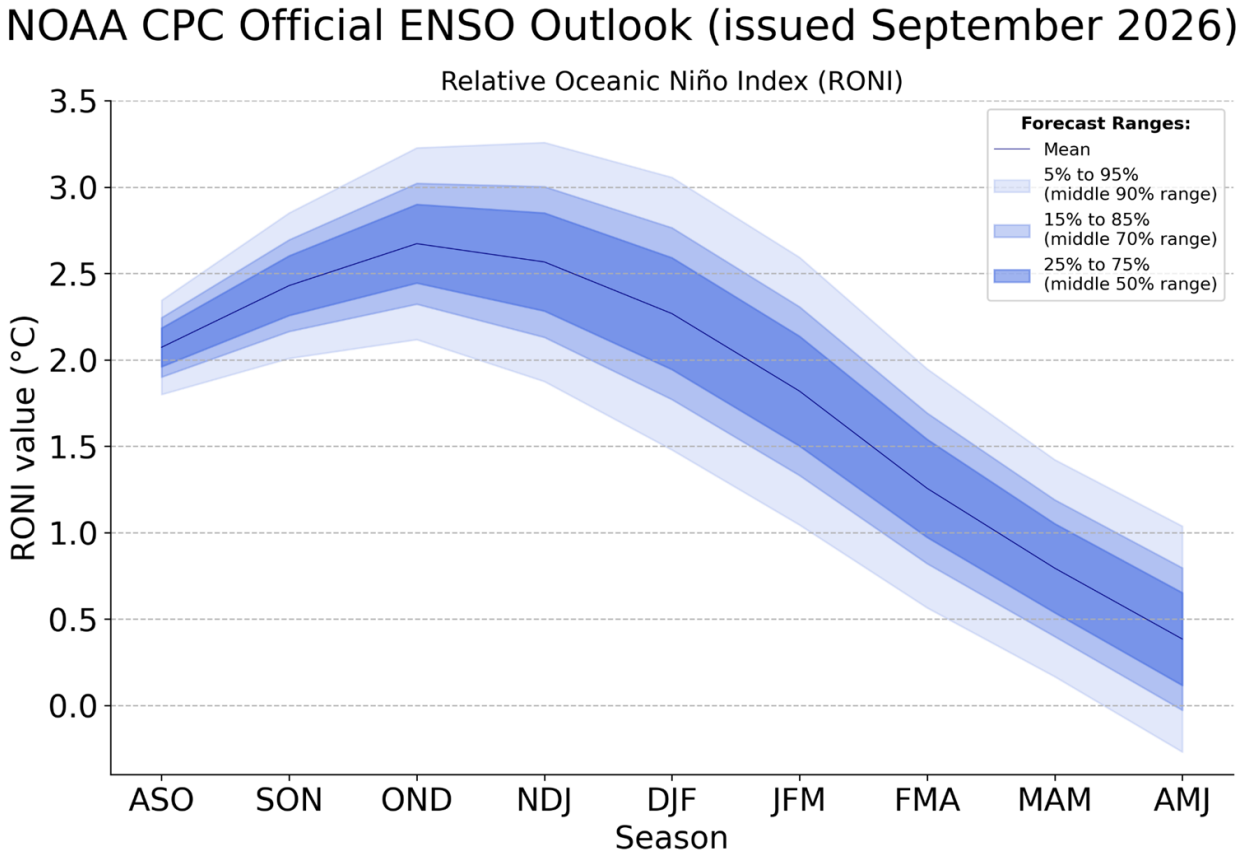




- El Niño winters are associated with lower average wind speeds and a reduced frequency of high wind events. Yay!
- This is strongest in fall and winter, but fades during the spring

This Year's El Niño

- 90+% chance for a "very strong" event this year
- This year's El Niño has a 75% chance to be the strongest event on record
- The event is expected to peak in strength in late fall or early winter, and then weaken through the winter and spring



Feedback Survey

Please take 2 minutes to complete survey to help us improve the webinar series

1. Scan QR Code
   OR
1. Take survey on webpage that will open after webinar concludes

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The Wyoming Conditions Monitoring Team (WCMT) organized and hosted this webinar. The WCMT is a collaborative effort of state, federal, tribal, and university partners that monitor conditions & impacts throughout the state on a weekly basis – and communicate this information to the U.S. Drought Monitor among others.

Learn more at:
https://drought.wyo.gov

Thank you!

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