WY Conditions & Outlooks:

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

September 18, 2025

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
  - Water Calls & Allocations
- **Outlooks:**
  - Temperature & Precipitation
- **Wildfire:**
  - Wildfire Activity & Outlooks
- **Highlight of the Month:**
  - SEO Flow
- **Questions**

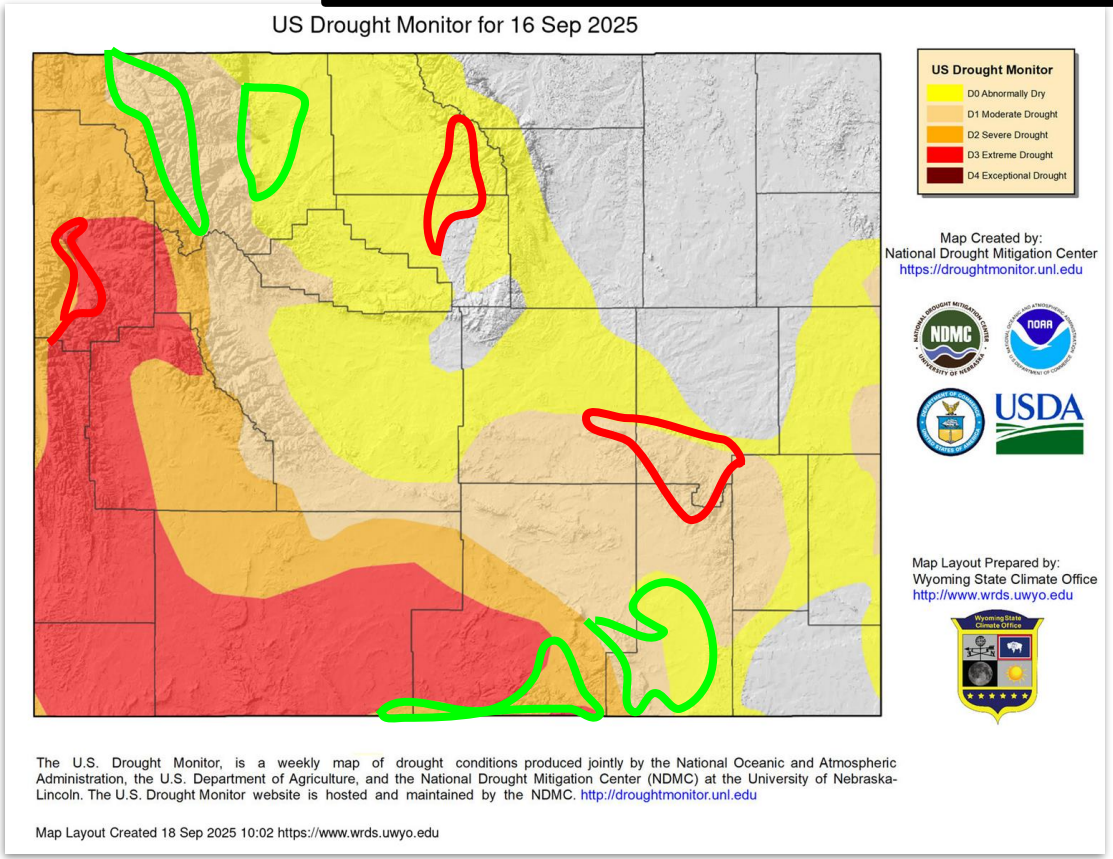
Current Conditions

US Drought Monitor for September 16th, 2025

(Released Thursday, September 18th, 2025)

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



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

Improvements and Degradations in a few scattered areas.

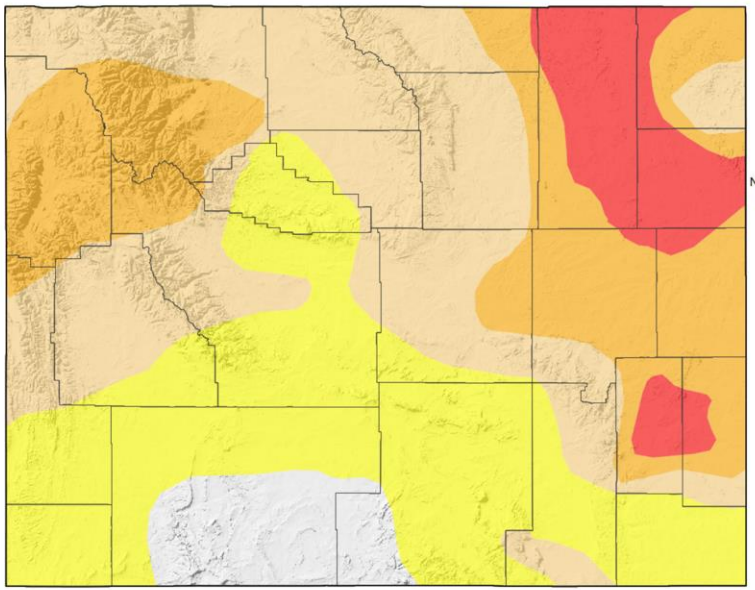
https://droughtmonitor.unl.edu

droughtmonitor.unl.edu

WRDS
Water Resources Data System

One Year Ago

US Drought Monitor for 17 Sep 2024



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

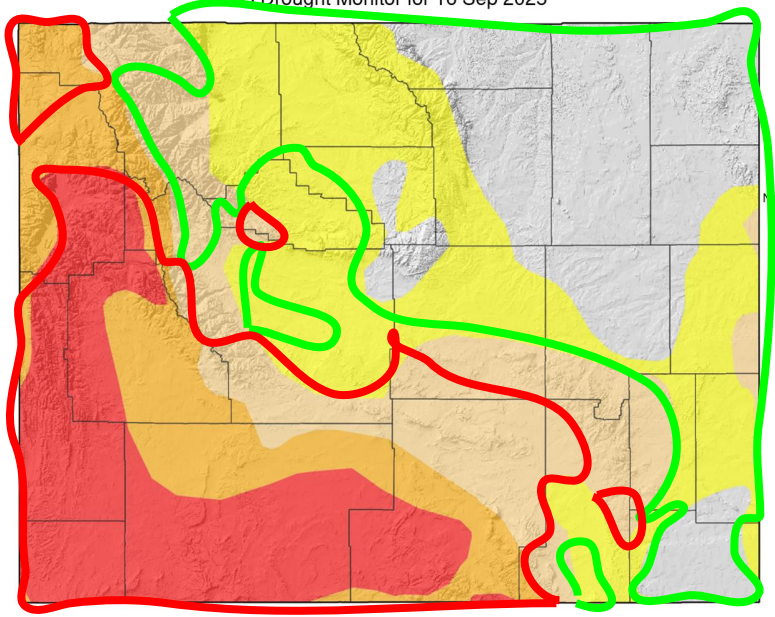
Map Layout Prepared by:
Wyoming State Climate Office
http://www.wrds.uwyo.edu

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 Layout Created 19 Sep 2024 https://www.wrds.uwyo.edu

Today

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
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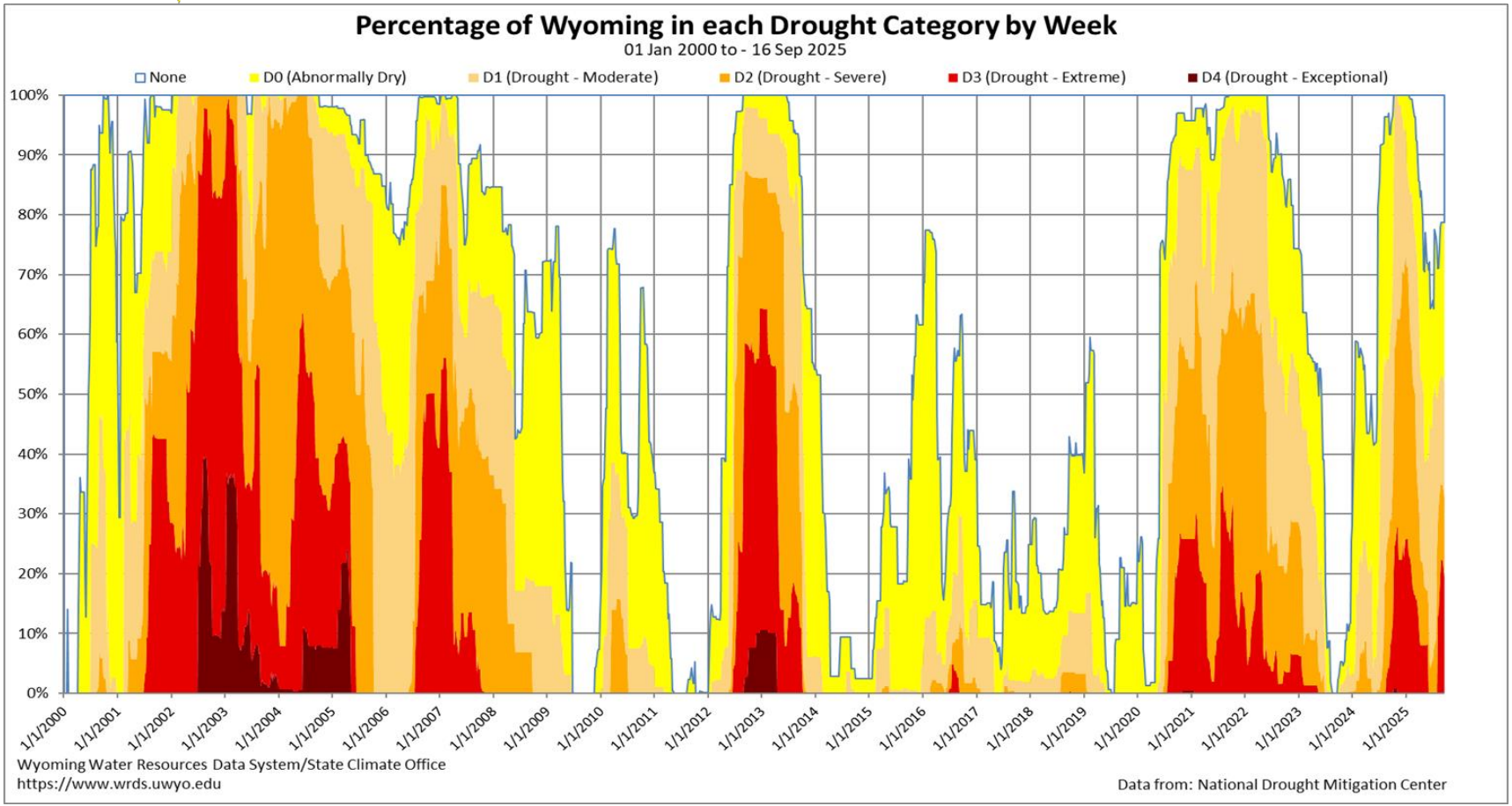
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https://droughtmonitor.unl.edu

droughtmonitor.unl.edu

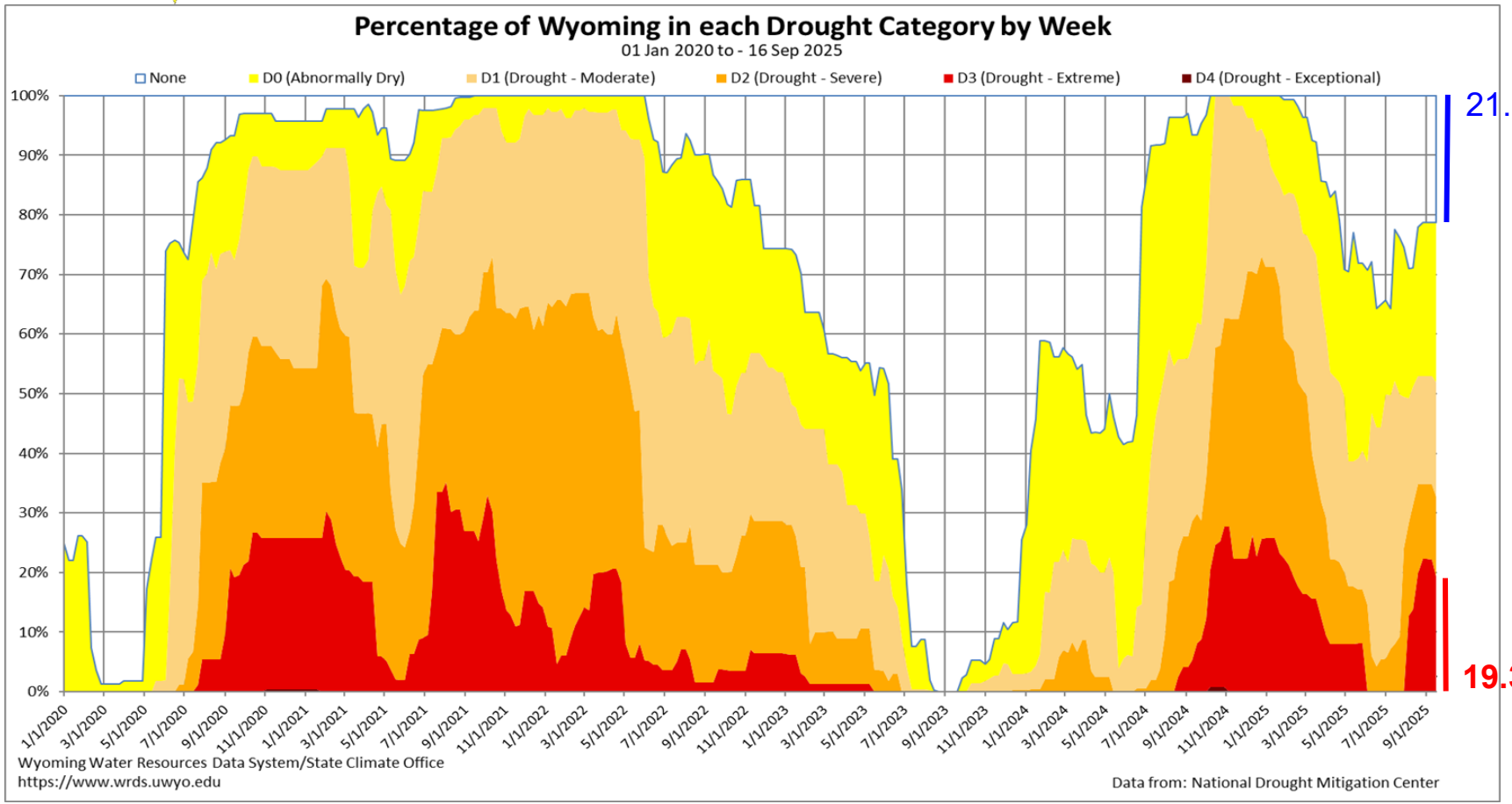
WRDS Water Resources Data System

Wyoming Area Affected: 78.68% D0-D4 ; 51.88% D1-D4



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

WRDS
Water Resources Data System



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

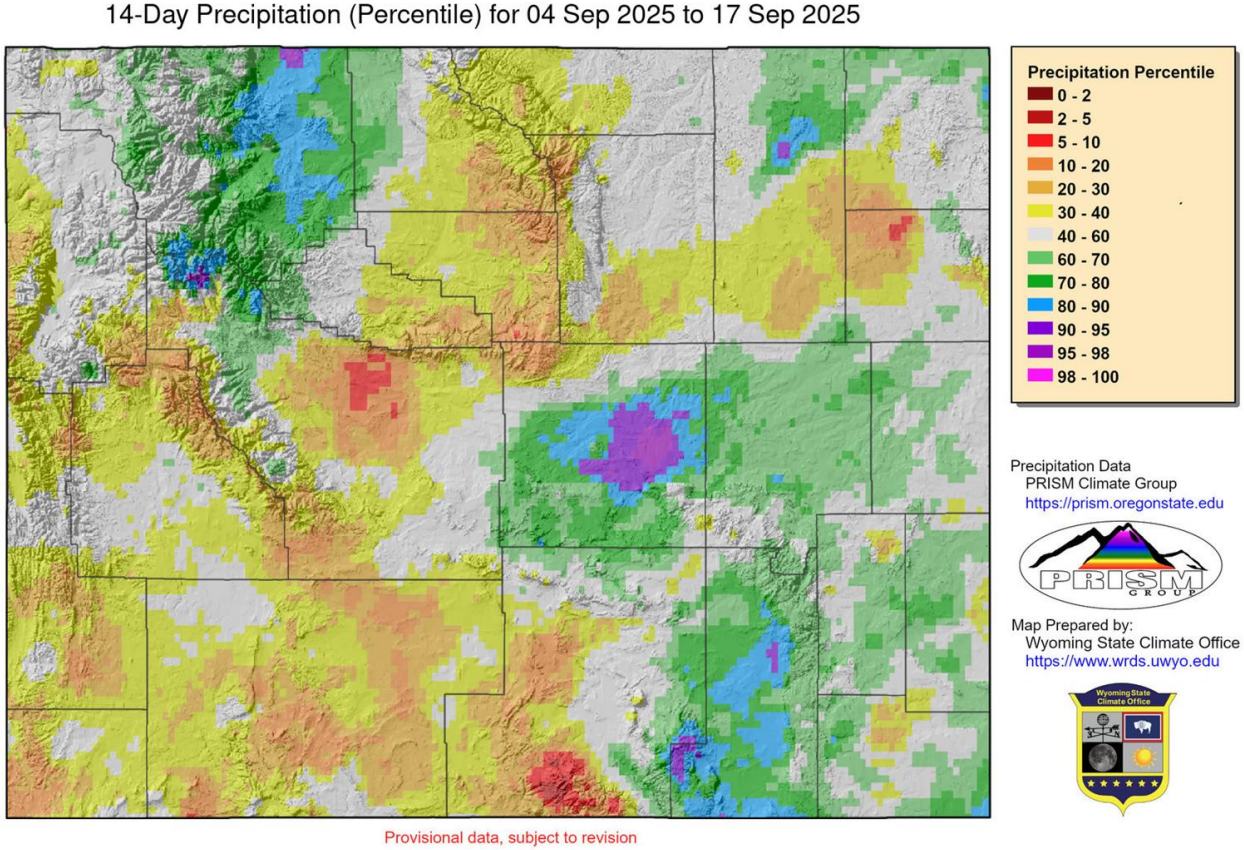
14-Day Precipitation Percentile (04 Sep 2025 to 17 Sep 2025)

Above Median:

- Eastern Park County
- Southeast Wyoming
- Northeastern Border Area

Below Median (*Areas of Concern*):

- Central Fremont County
- Southern Carbon County



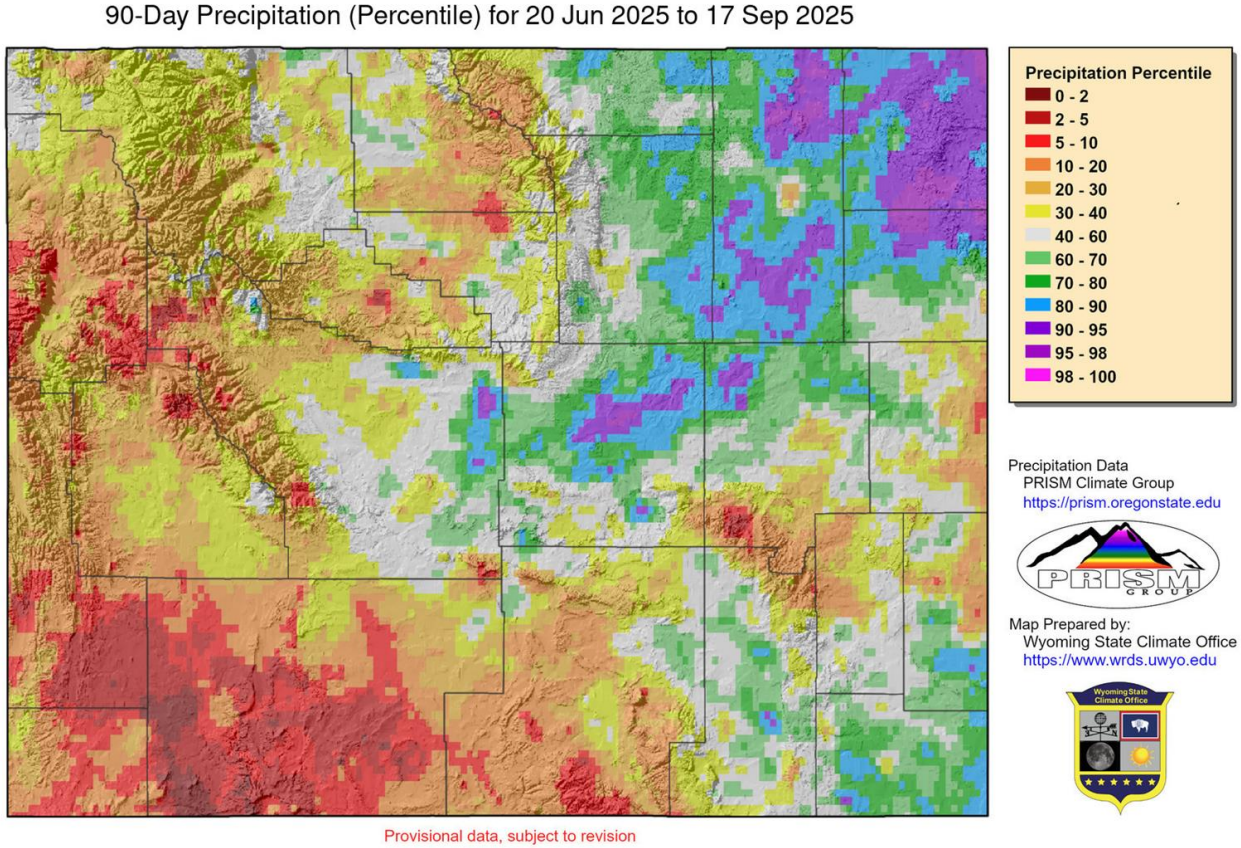
90-Day Precipitation Percentile (20 Jun 2025 to 17 Sep 2025)

Above Median:

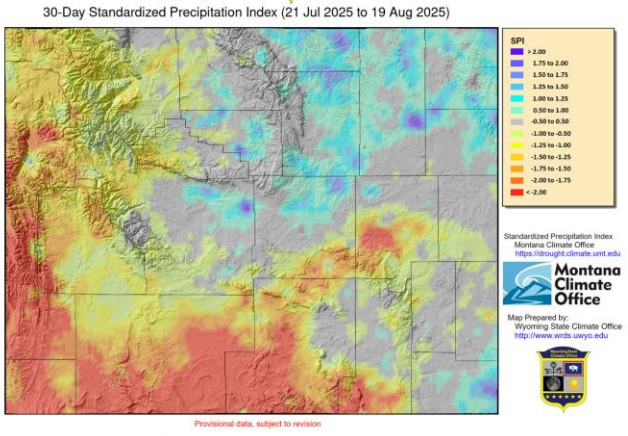
- Northeast Wyoming
- Far Southeast Wyoming

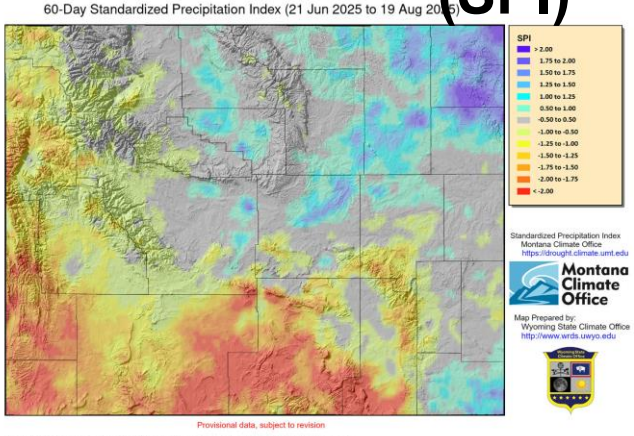
Below Median (*Areas of Concern*):

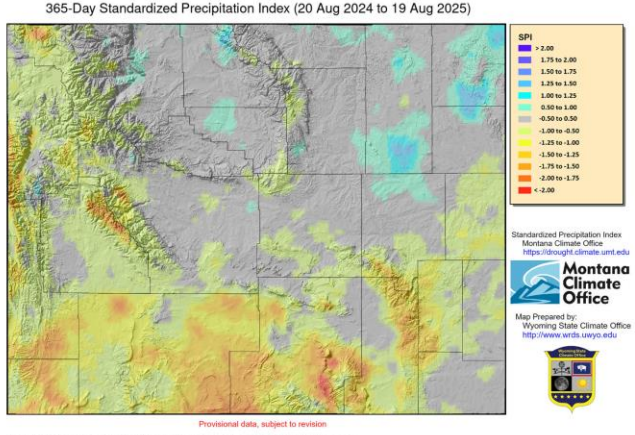
- West
- Southwest Wyoming
- Northern Laramie Range
- Far East Central WY



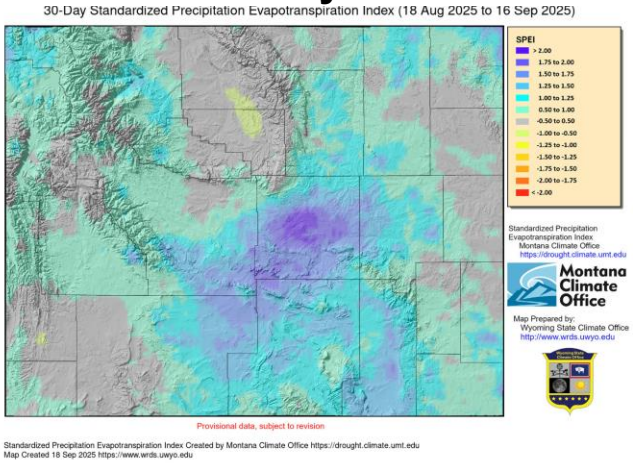
Standardized Precipitation Index (SPI)



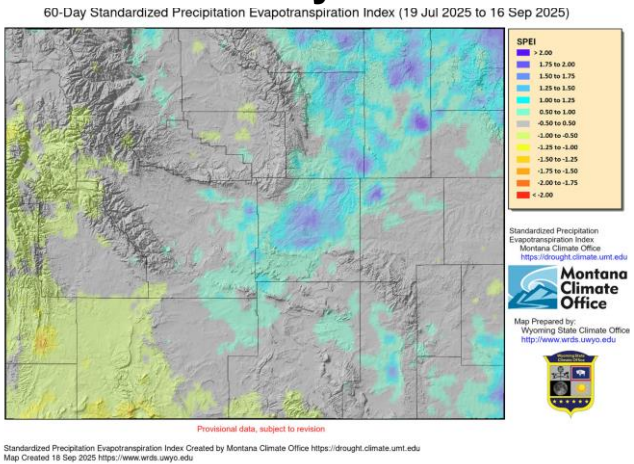




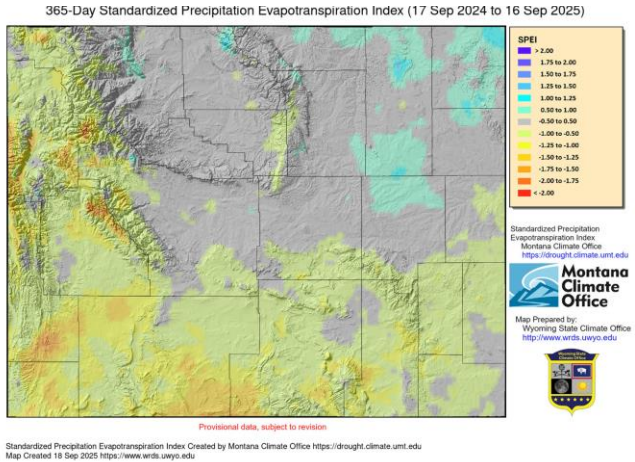
30-Day



60-Day



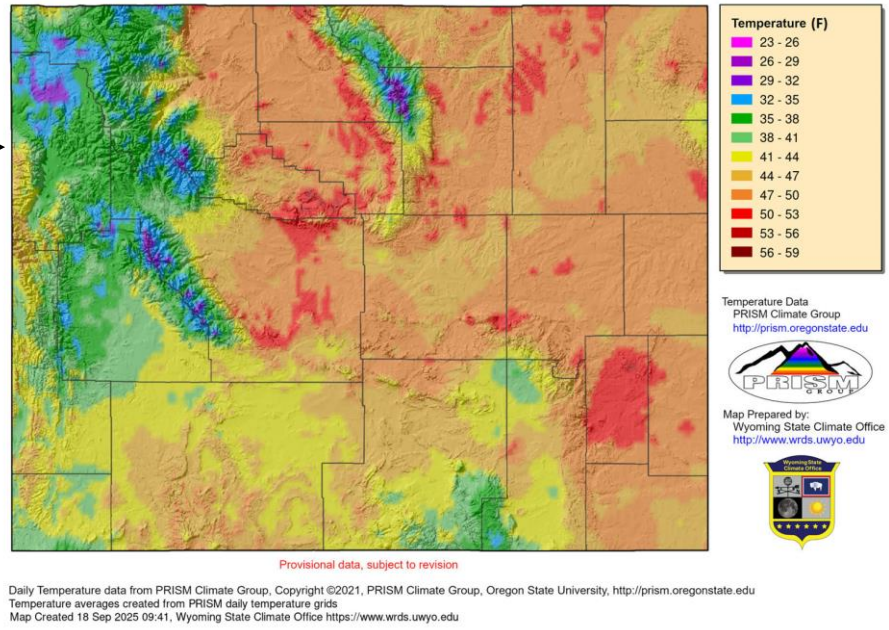
1-Year



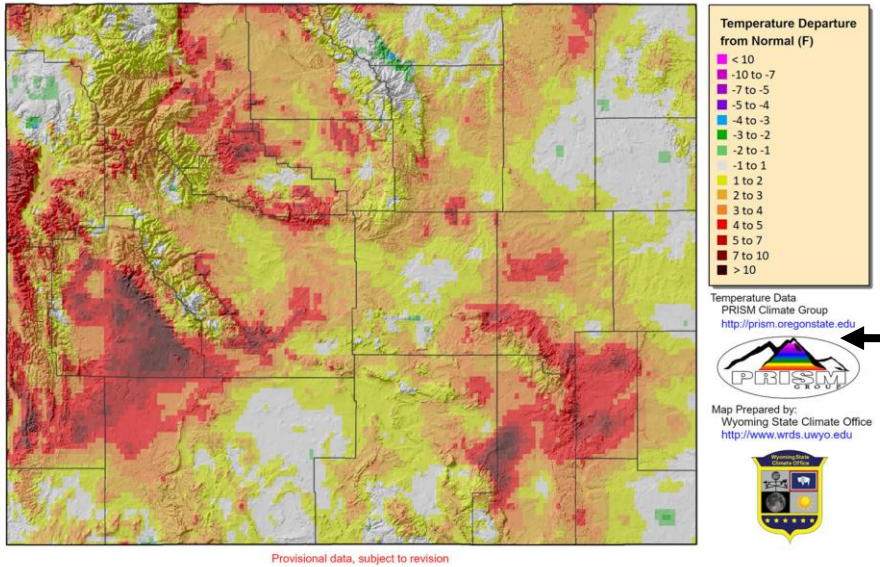
https://drought.climate.umt.edu

14-Day Average Minimum Temperature (04 Sep to 17 Sep)

- Nighttime lows now below freezing in a few high elevation spots.
- A few areas above 50 in Central Wyoming and Platte County



14-Day Minimum Temperature (Departure from 1991-2020 Normal) for 04 Sep 2025 to 17 Sep 2025



14-Day *Departure from* Normal Average Minimum Temperature

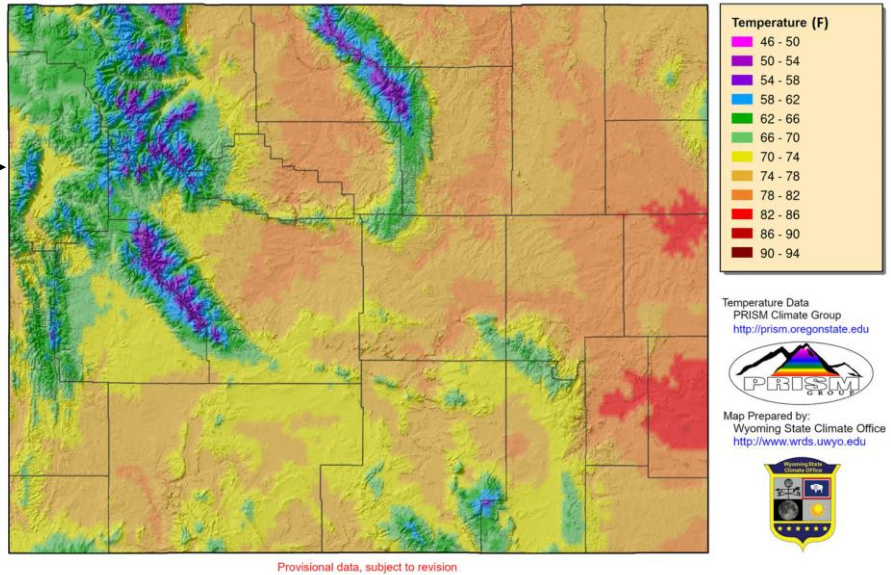
- Most of the state normal to above normal
- Upper Green, Tetons, Albany/Carbon border seeing +10F above normal

WRDS Water Resources Data System

14-Day Average Maximum Temperature (04 Sep to 17 Sep)

- Max Temps mostly in 70s and 80s
- Higher elevations in upper 50s and 60s
- Platte/Goshen and Weston/Niobrara warmest

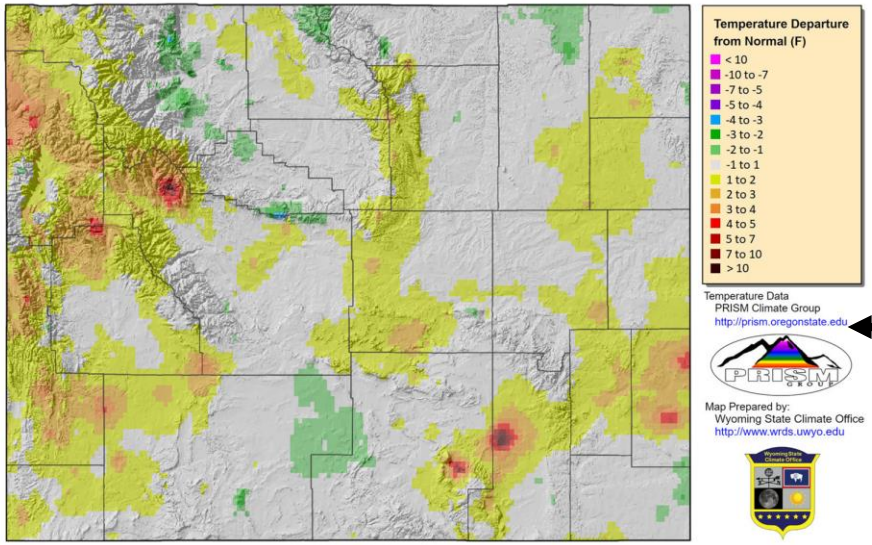
14-Day Average Maxmimum Temperature for 04 Sep 2025 to 17 Sep 2025



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 18 Sep 2025 09:43, Wyoming State Climate Office https://www.wrds.uwyo.edu

14-Day Maximum Temperature (Departure from 1991-2020 Normal) for 04 Sep 2025 to 17 Sep 2025



Provisional data, subject to revision

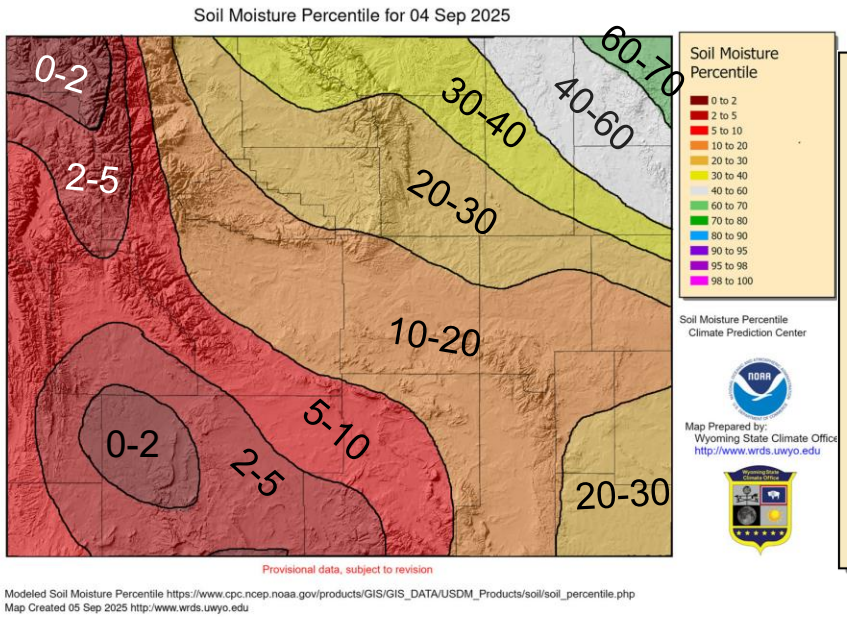
Daily Temperature data from PRISM Climate Group, Copyright ©2021, PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu
Map Created 18 Sep 2025 09:27 Wyoming State Climate Office https://www.wrds.uwyo.edu
Daily departures created from PRISM daily temperature grids

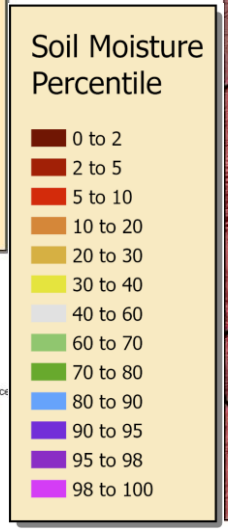
14- Day *Departure from* Normal Average Maximum Temperature

- Normal to a little above/below normal statewide
- Warmest departures in West but some areas scattered throughout
- Generally +/-2F of normal with some minor warmer pockets

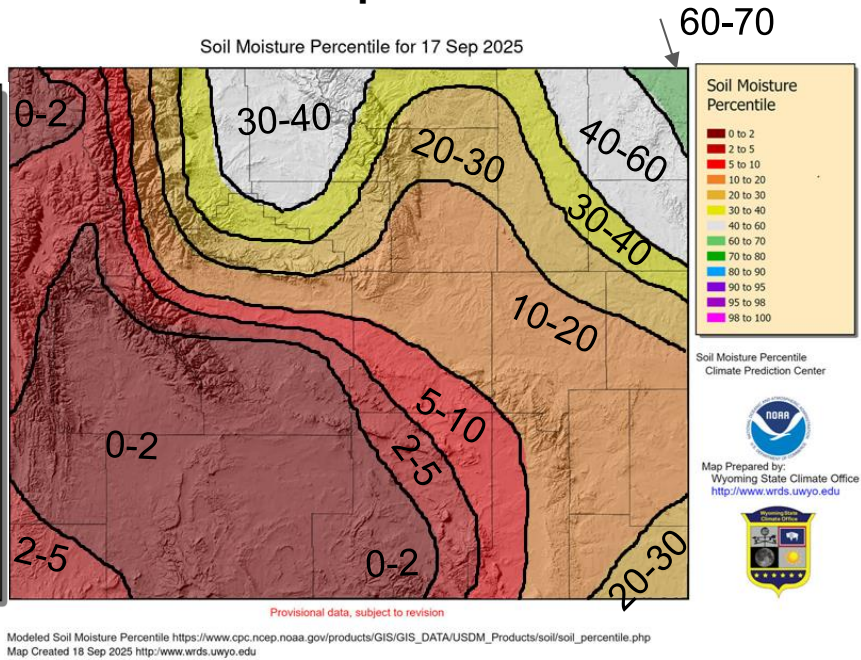
Soil Moisture Percentile

~Two Weeks Ago





17 Sep 2025



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

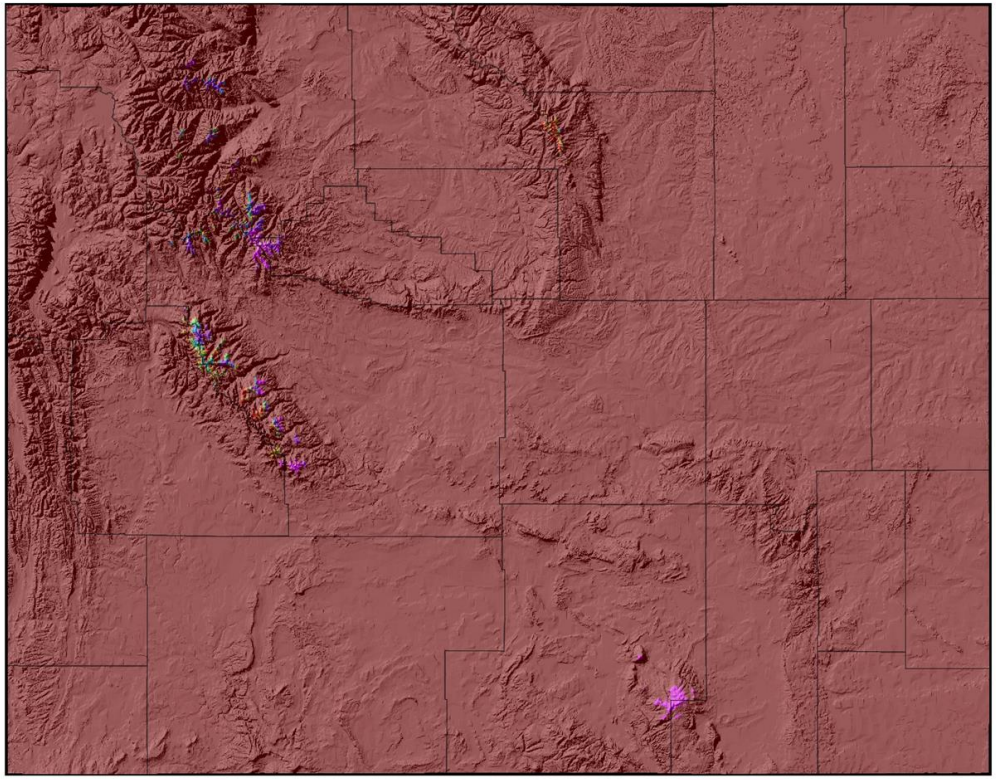
Status Quo or Degradations across Wyoming except some Improvements in the Bighorn Basin.

WRDS Water Resources Data System

Snow Water Equivalent



Snow Water Equivalent Percent of Average (2004-2020) for 18 Sep 2025



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
http://www.wrds.uwyo.edu

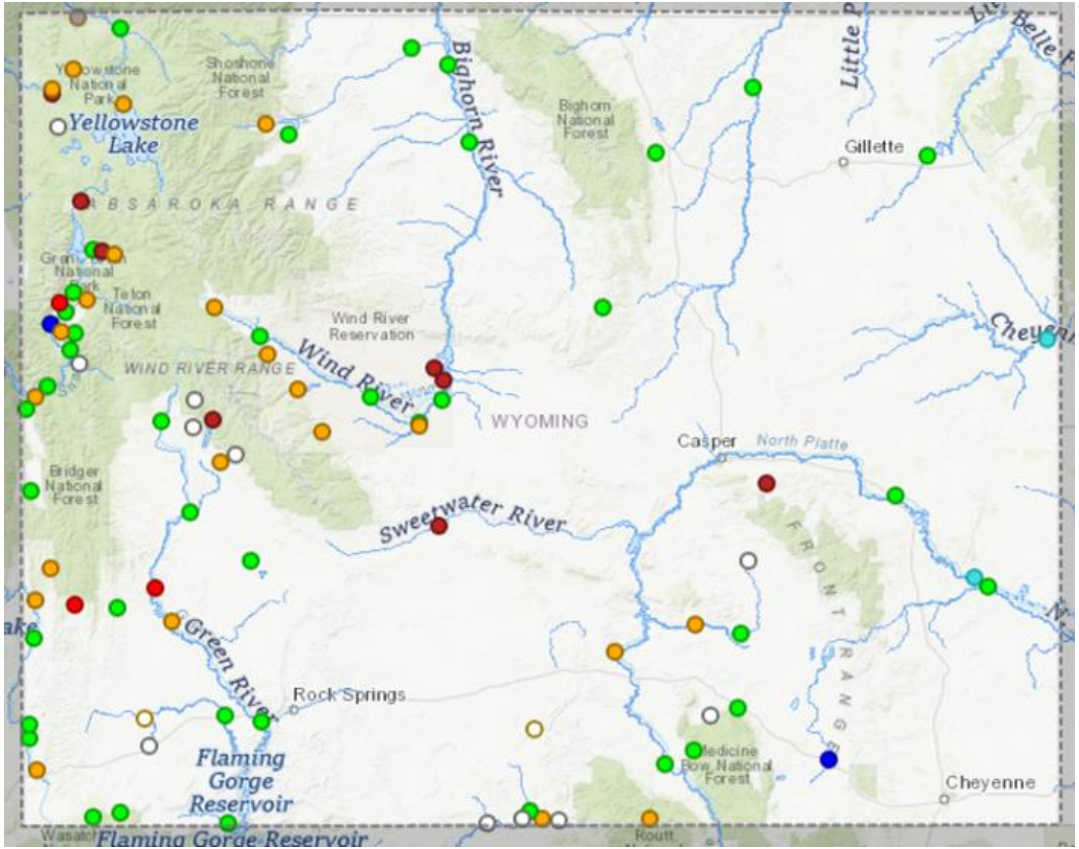
Provisional data, subject to revision

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 created 18 Sep 2025

Current Streamflow Conditions

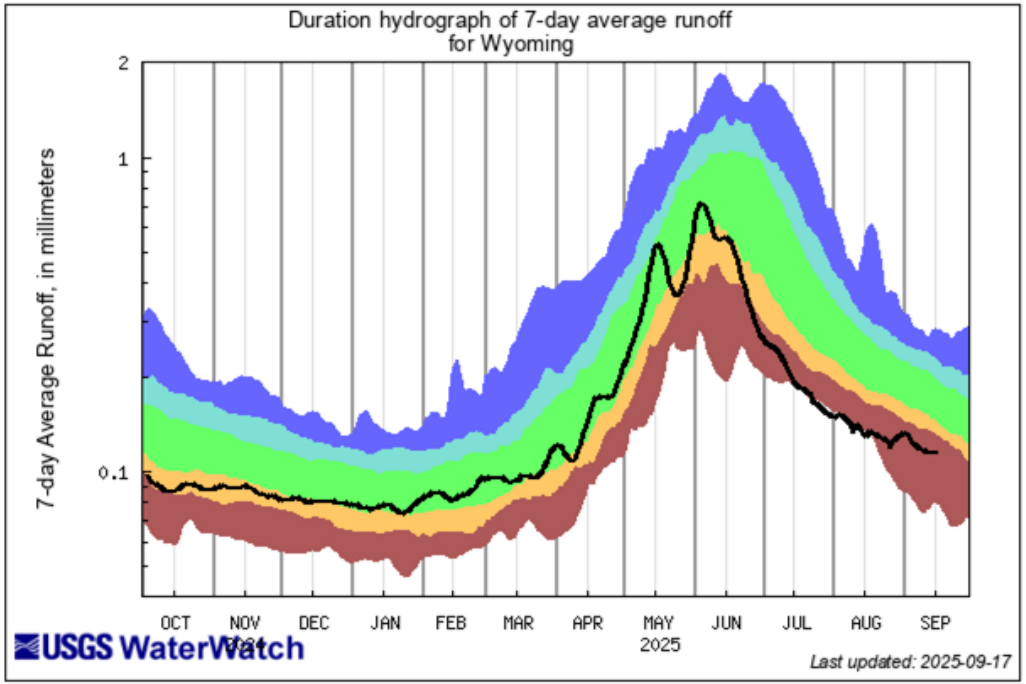
Streamflow Status

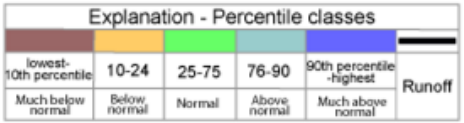




https://dashboard.waterdata.usgs.gov/

Where Are We In The Water Year?

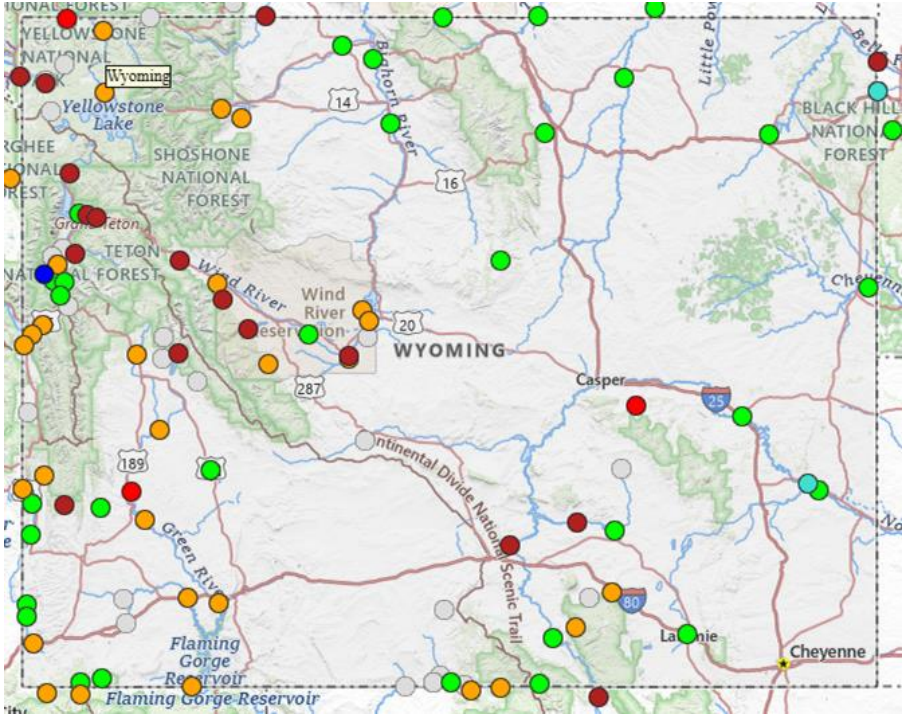




- Times of low flow.
- Potential for increases into October
- Should be at higher flow conditions

https://waterwatch.usgs.gov/

Wyoming: 28- Day Average Streamflow



Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

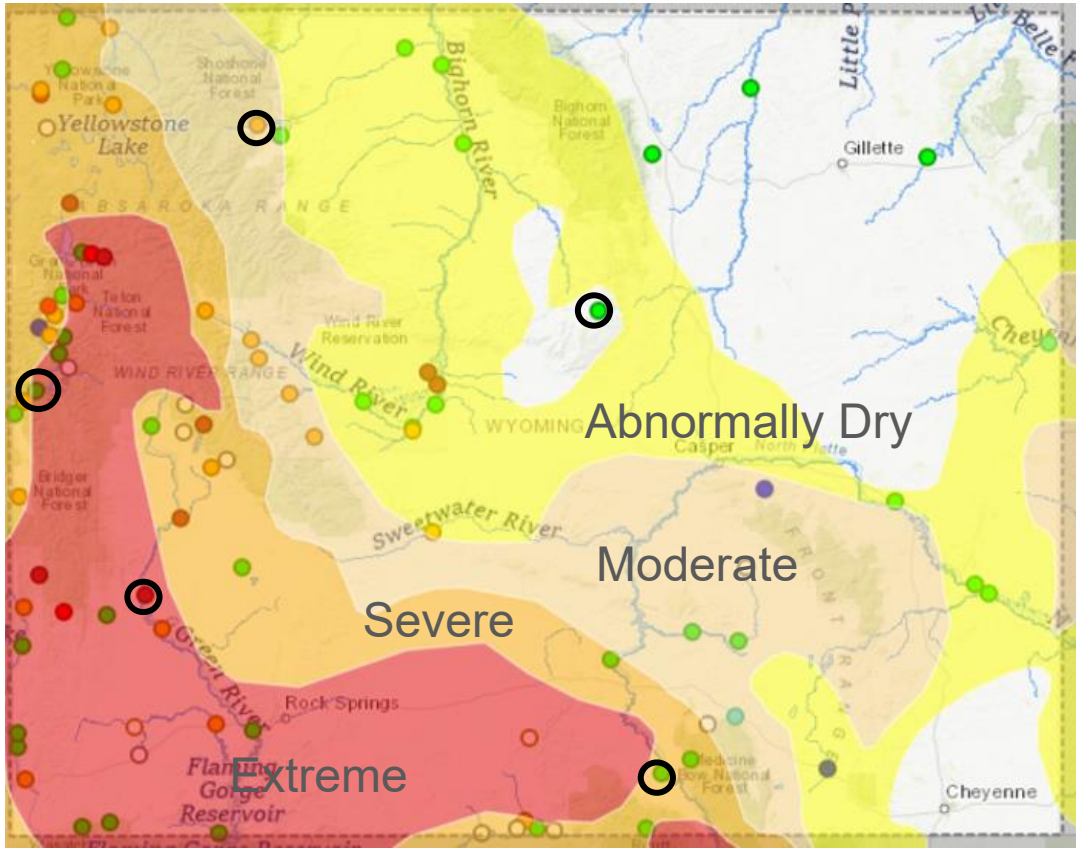
- Lowest ever:
  - Gardner River nr Mammoth
  - Green River nr La Barge
  - Deer Creek nr Glenrock
  - 74, 60, 34 years of record
- Normal is generally below median

https://waterwatch.usgs.gov/

Current Streamflow and Drought Conditions

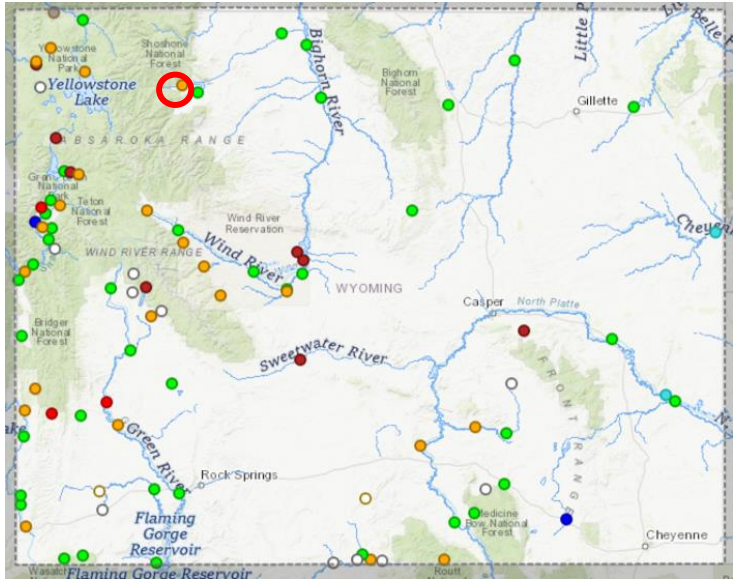
Streamflow Status





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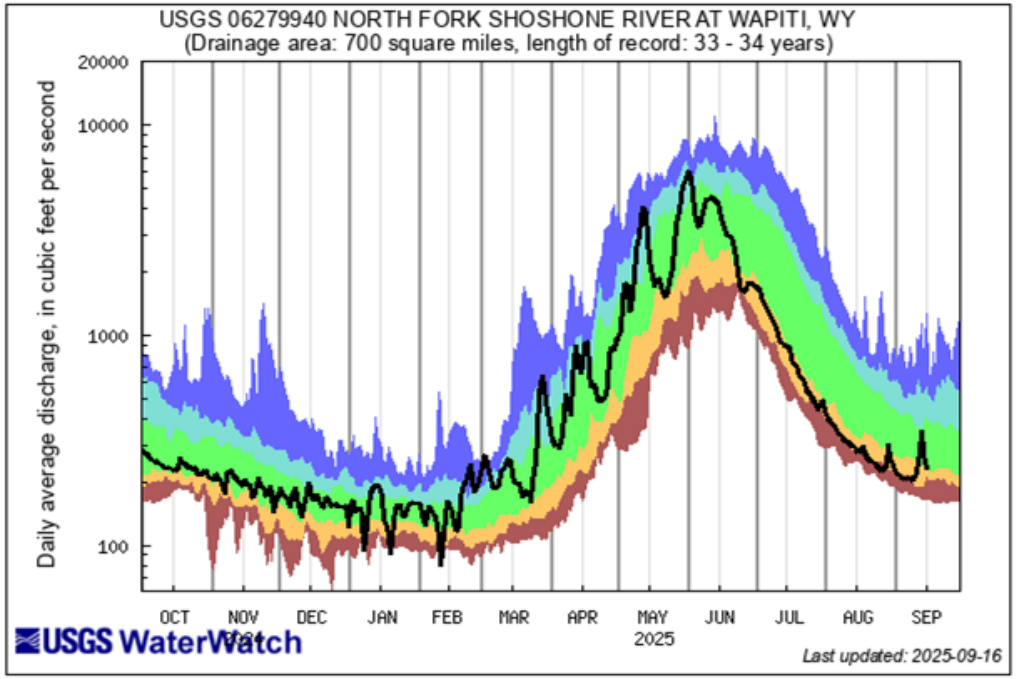
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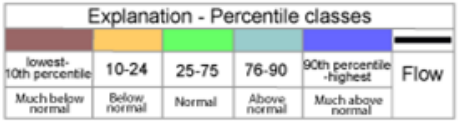


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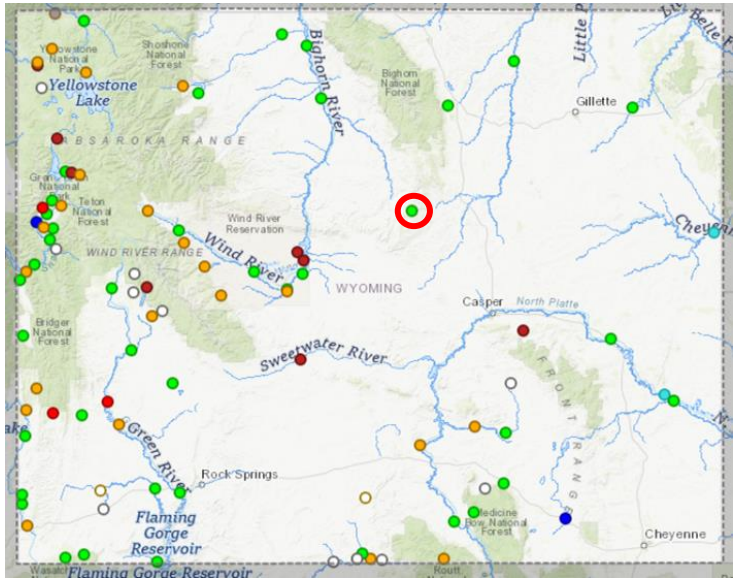
https://waterwatch.usgs.gov/

North Fork Shoshone River, at Wapiti, WY





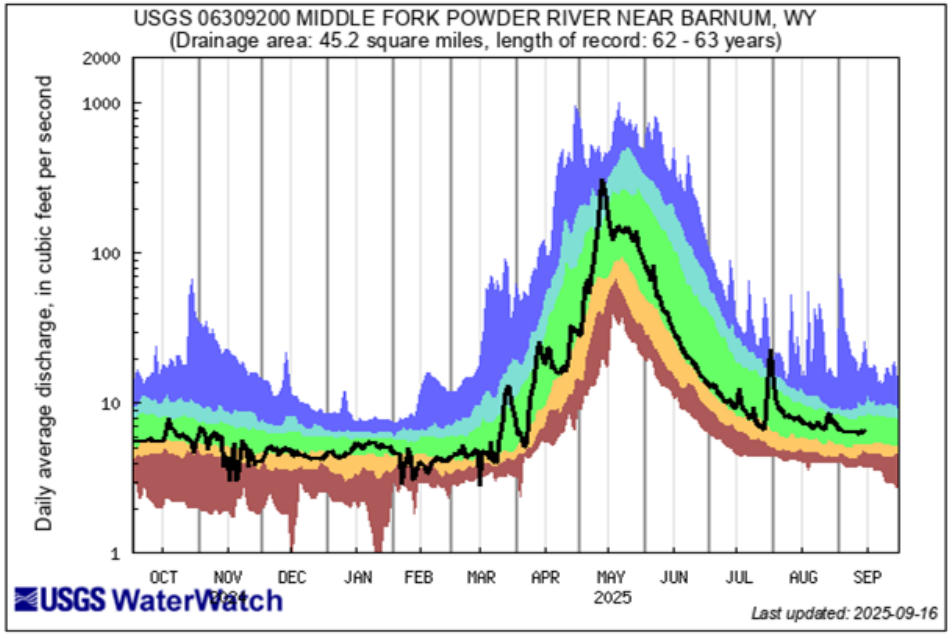
Select WY Streamflows

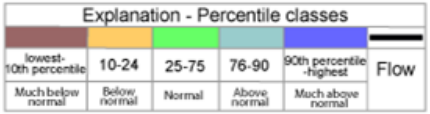


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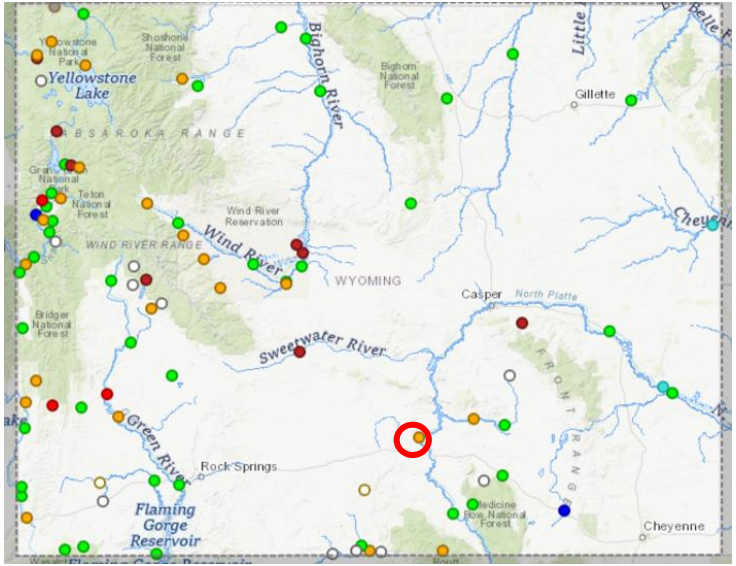
https://waterwatch.usgs.gov/

Middle Fork Powder River, near Barnum, WY

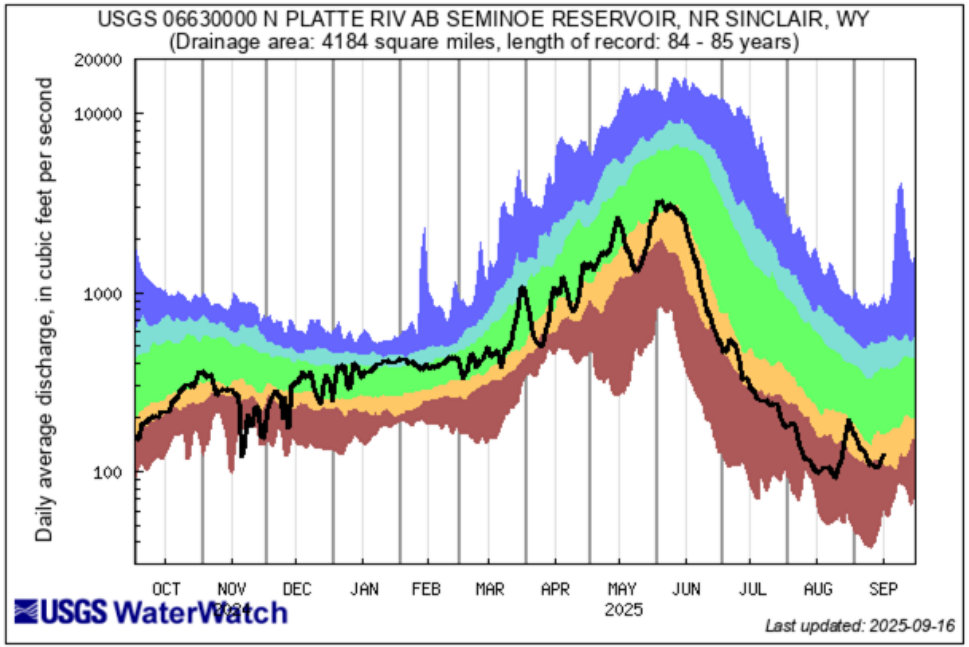




Select WY Streamflows

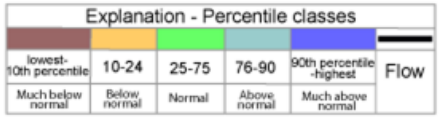


North Platte River above Seminoe Reservoir, near Sinclair, WY

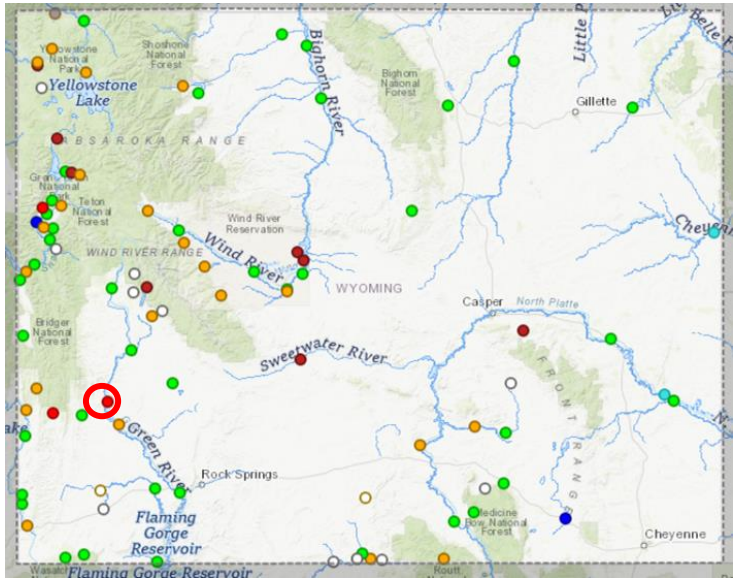


https://dashboard.waterdata.usgs.gov/

https://waterwatch.usgs.gov/



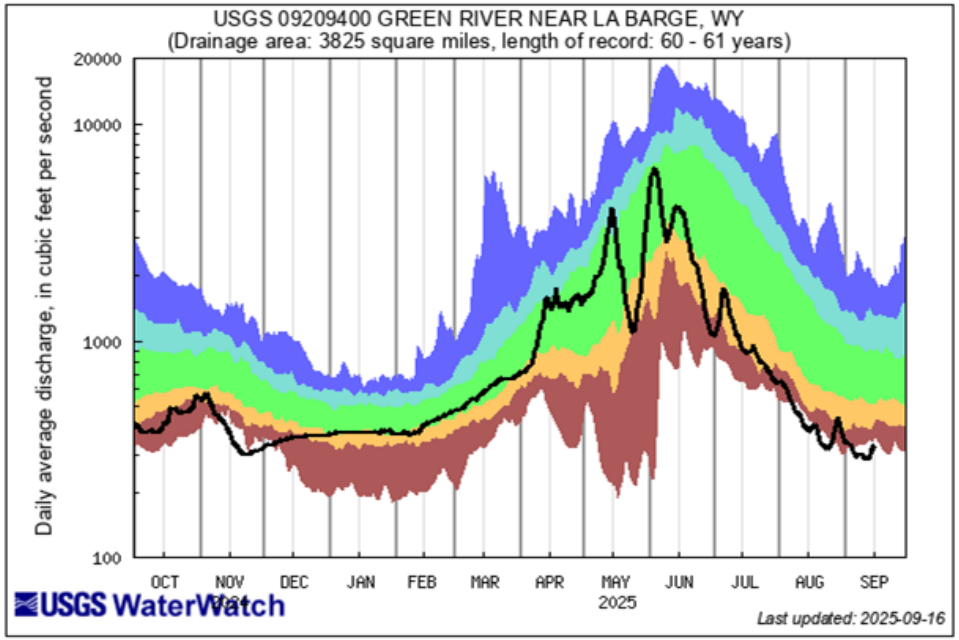
Select WY Streamflows

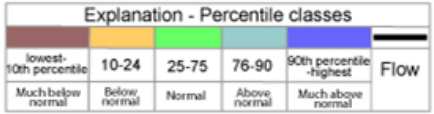


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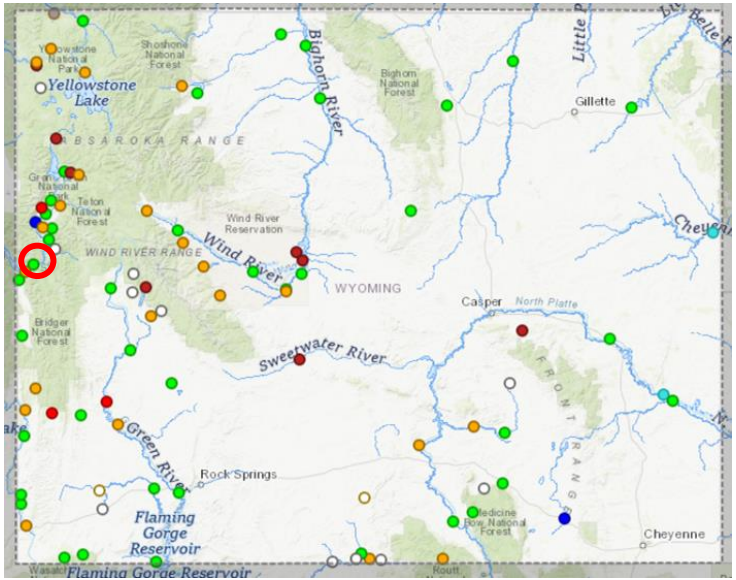
https://waterwatch.usgs.gov/

Green River near La Barge, WY





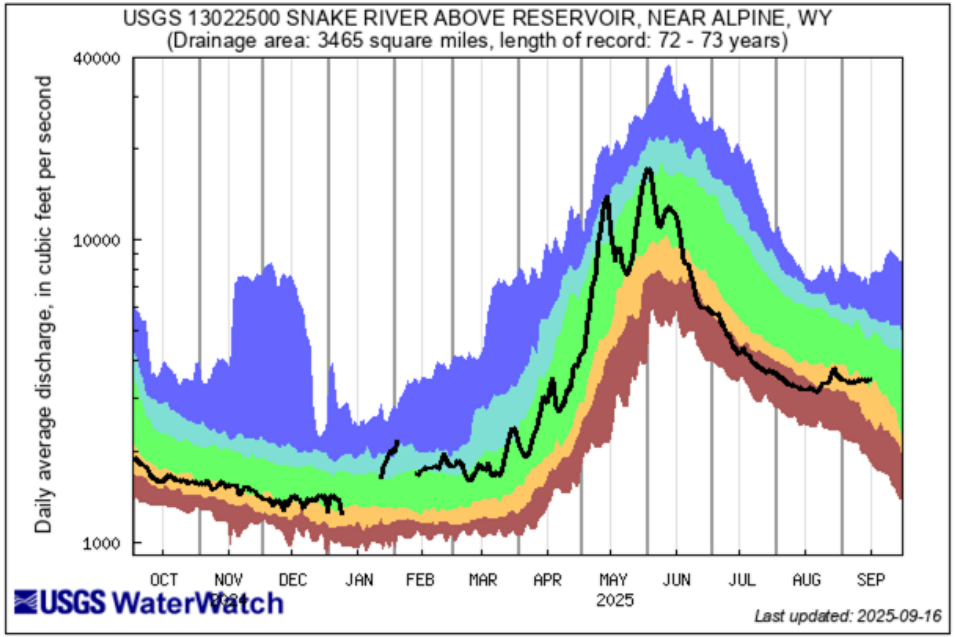
Select WY Streamflows

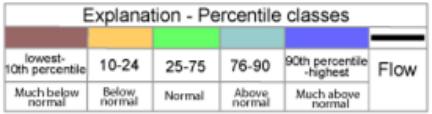


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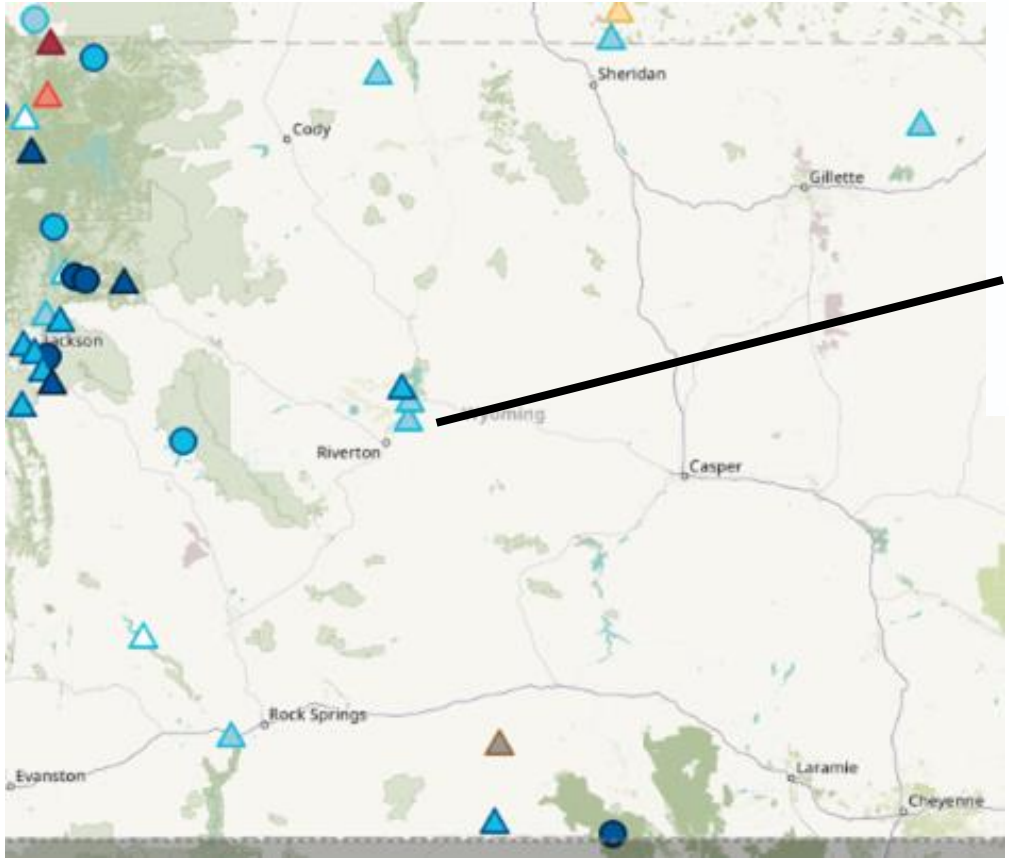
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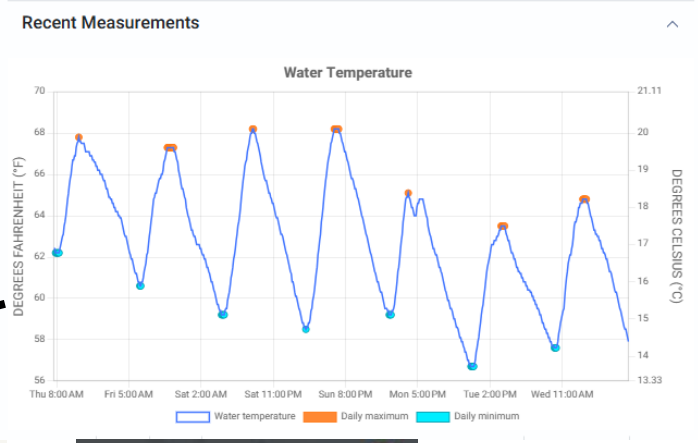
Snake River above Reservoir, near Alpine, WY

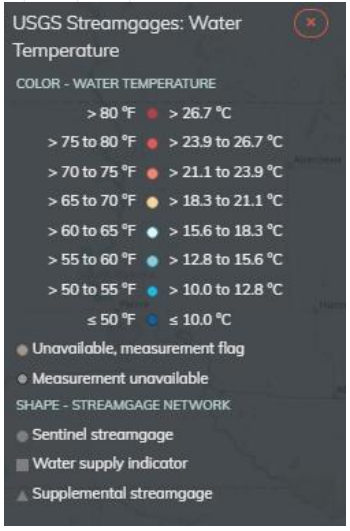




Wyoming Water Temperatures, Noon 9/18

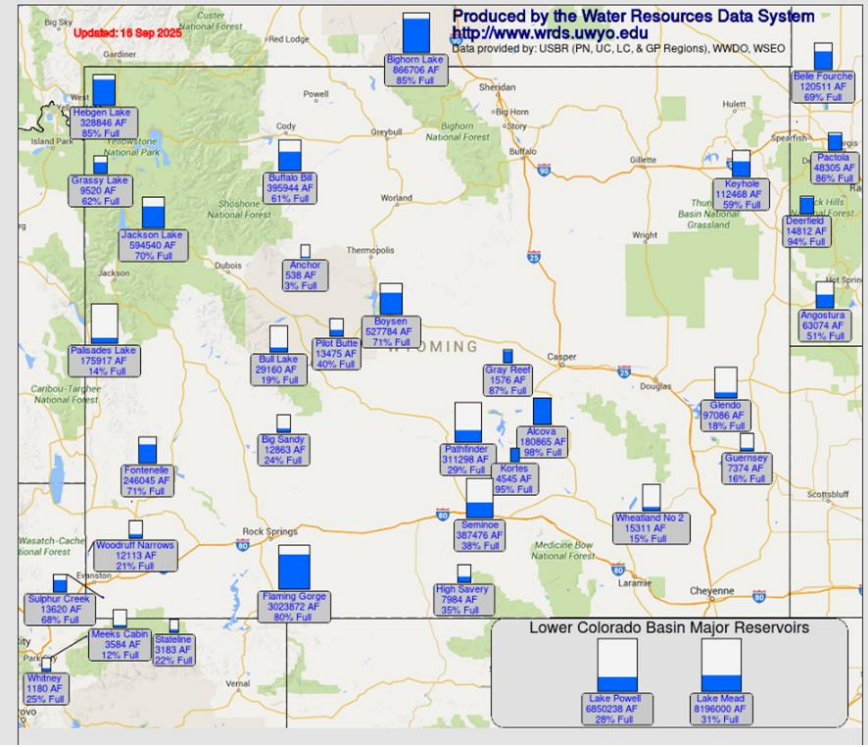






https://webapps.usgs.gov/wy-mt-drought-viewer/

Wyoming Reservoirs



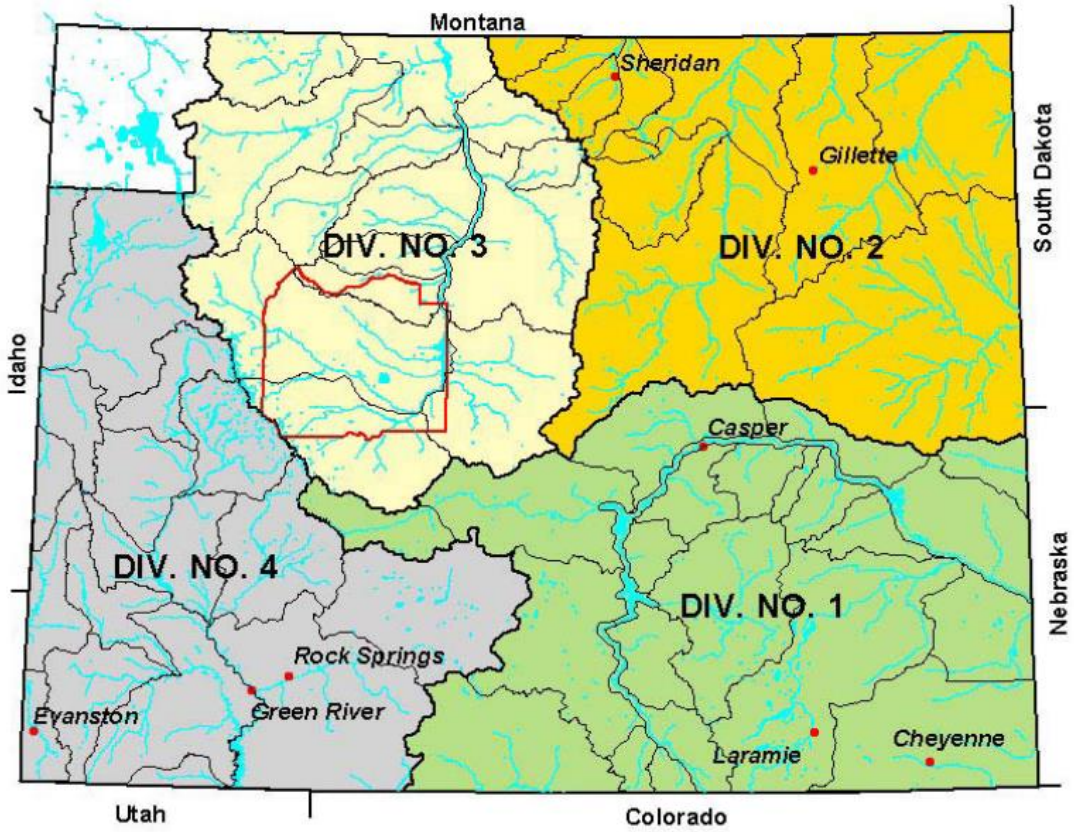
Reservoir Storage

- Decreases in Storage
- Large decrease in Palisades, Jackson and Buffalo Bill.

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

WY SEO Divisions and Superintendents

Contact information for calls and administration



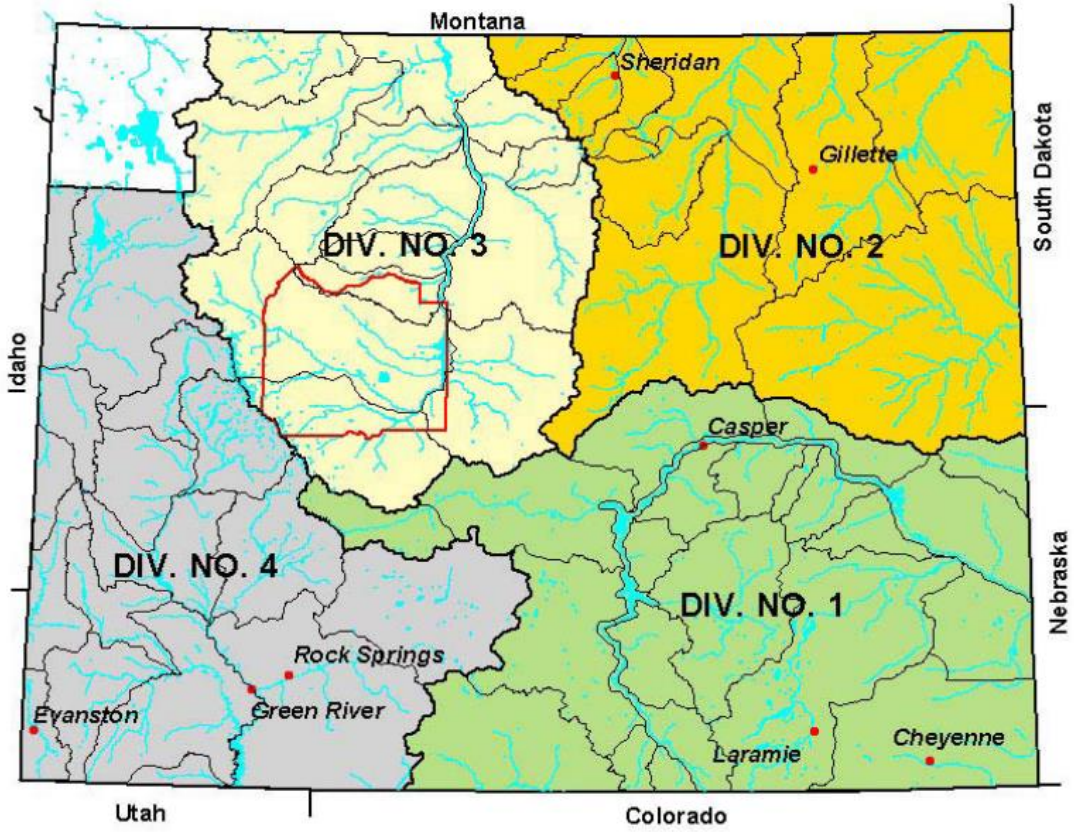
As of September 16:

Streams in **Division 1 cont.** under regulation are:

- Bates Creek: regulated to 1886 and 1888
- Laramie River: regulated to 1883, 1868
- Bear Creek: regulated to 1891
- Little Laramie River: regulated to 1875 and 1881

WY SEO Divisions and Superintendents

Contact information for calls and administration



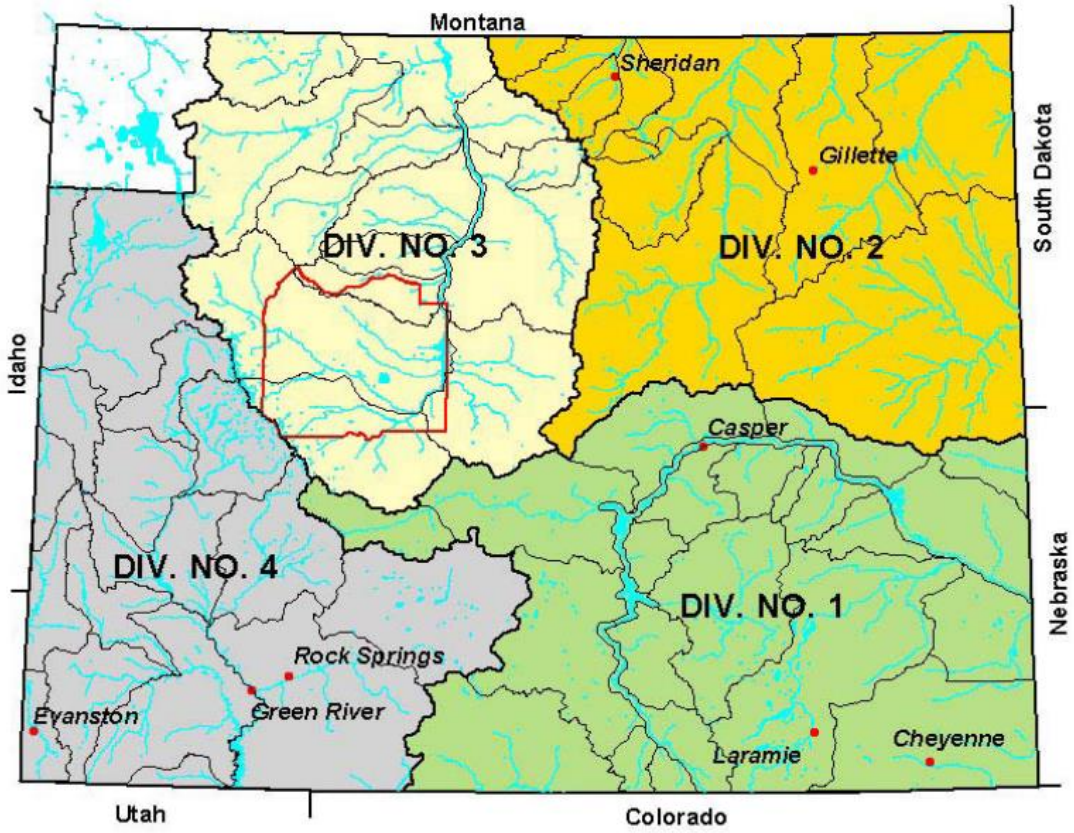
As of September 16:

Streams in **Division 2** under regulation are:

- French Creek: regulated to 1884
- Little Goose Creek: regulated to 1883, 1880
- Clear Creek: regulated to 1883
- Piney Creek / Rock Creek: regulated to 1885, 1884
- North Fork Powder River: regulated to 1890
- Wolf Creek: regulated to 1881
- Big Goose Creek: regulated to 1884
- **Crazy Woman Creek: regulated to 1889**

WY SEO Divisions and Superintendents

Contact information for calls and administration



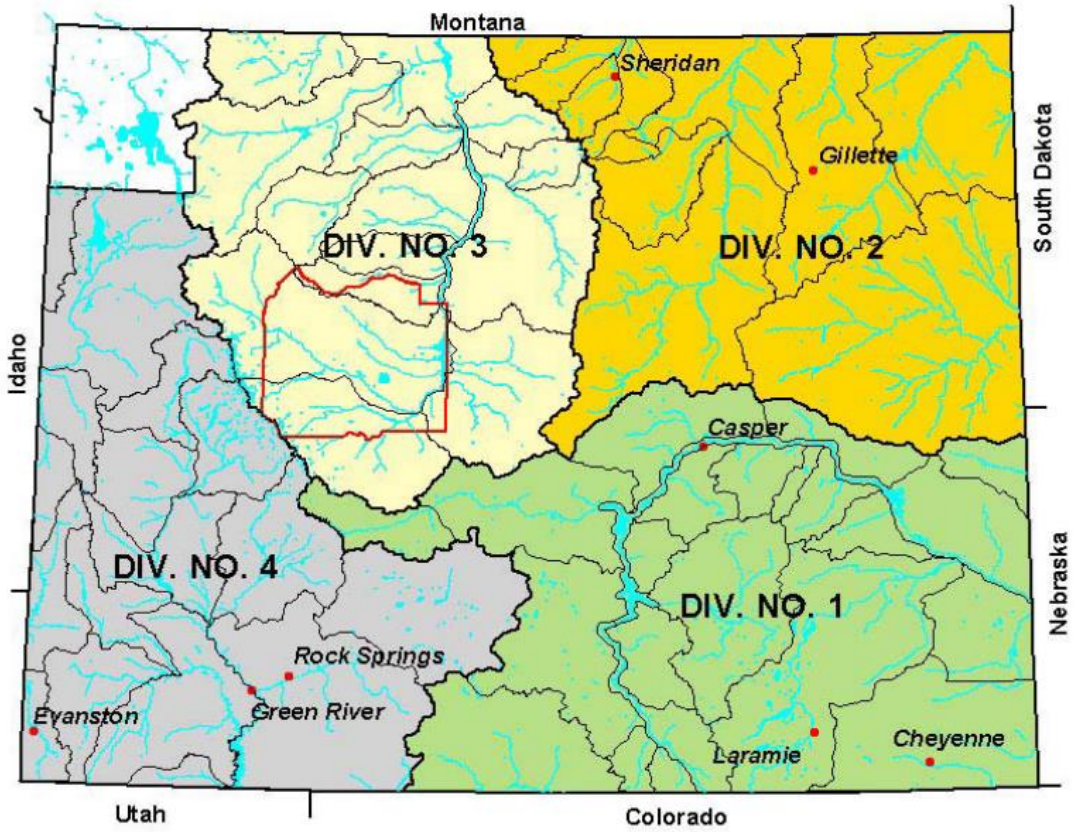
As of September 16:

Streams in **Division 3** under regulation are:

- Gooseberry Creek: regulated to 1907, 1906
- Greybull River: regulated to 1894
- Bennett-Little Rock Creek: regulated to 1900
- Owl Creek: regulated to 1901
- Gooseberry/Blake Denton Creek: regulated to 1906
- North Fork and Owl Creek: regulated to 1900

WY SEO Divisions and Superintendents

Contact information for calls and administration



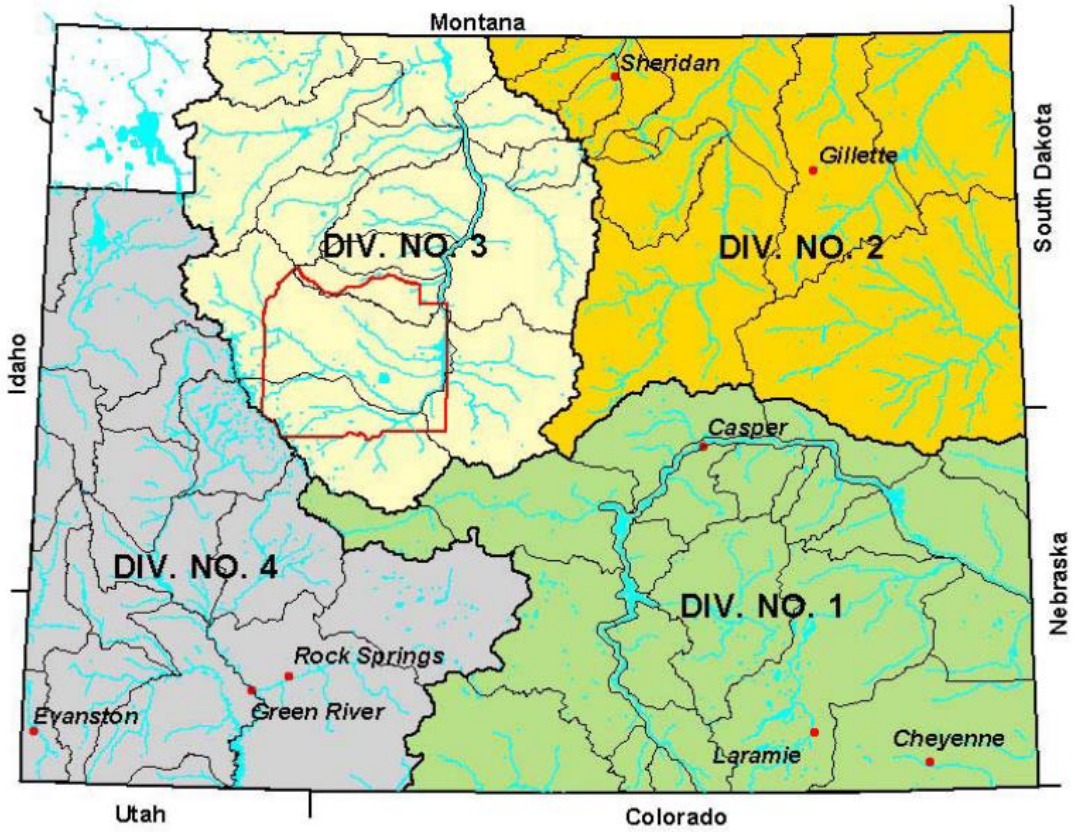
As of September 16:

Streams in **Division 3 cont.** under regulation are:

- Medicine Lodge Creek/Paint Rock Creek : regulated to 1906
- Middle/Big Popo Agie River: regulated to 1879
- Shell Creek: regulated to 1892
- **Ten Sleep Creek: regulated to 1890**

WY SEO Divisions and Superintendents

Contact information for calls and administration



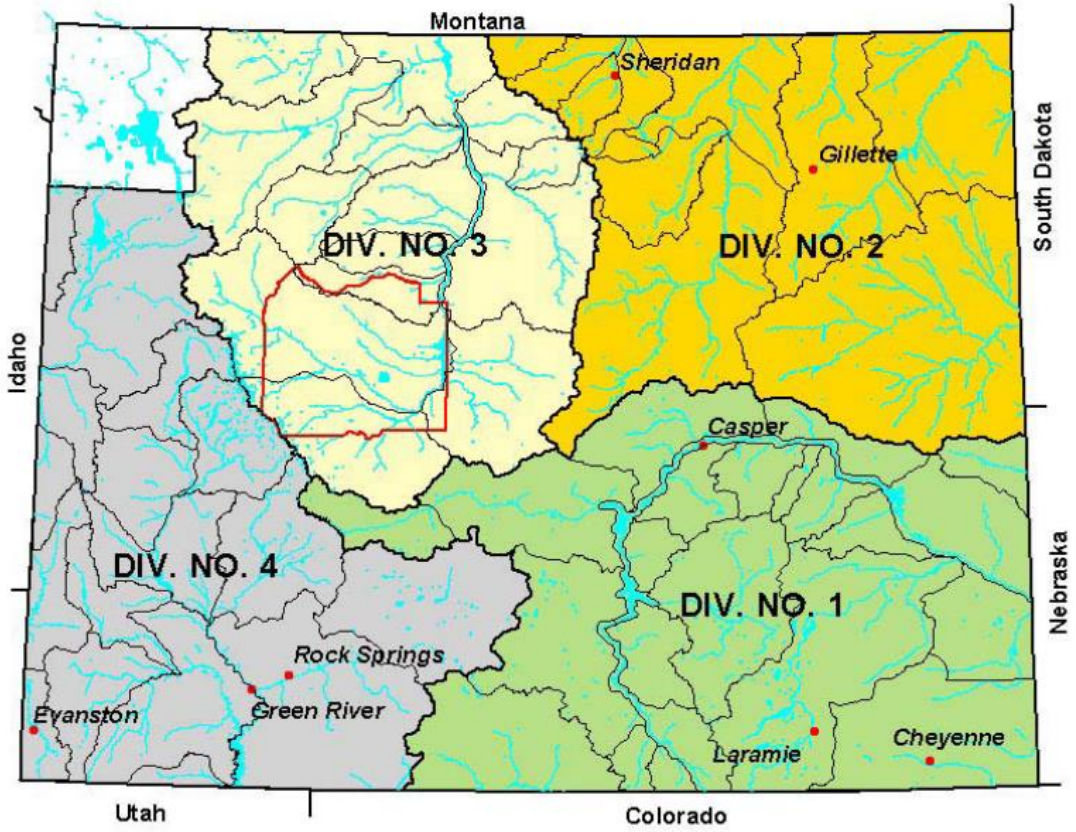
As of September 16:

Streams in **Division 4** under regulation are:

- Smith's Fork River: regulated to 1887, 1910, 1953
- Burnt Fork: regulated to 1878
- Smith's Fork River: regulated to 1887
- South Piney: regulated to 1886
- Henry's Fork: regulated to 1899
- Bear River: regulated to 1878
- Green River: regulated to 1898

WY SEO Divisions and Superintendents

Contact information for calls and administration



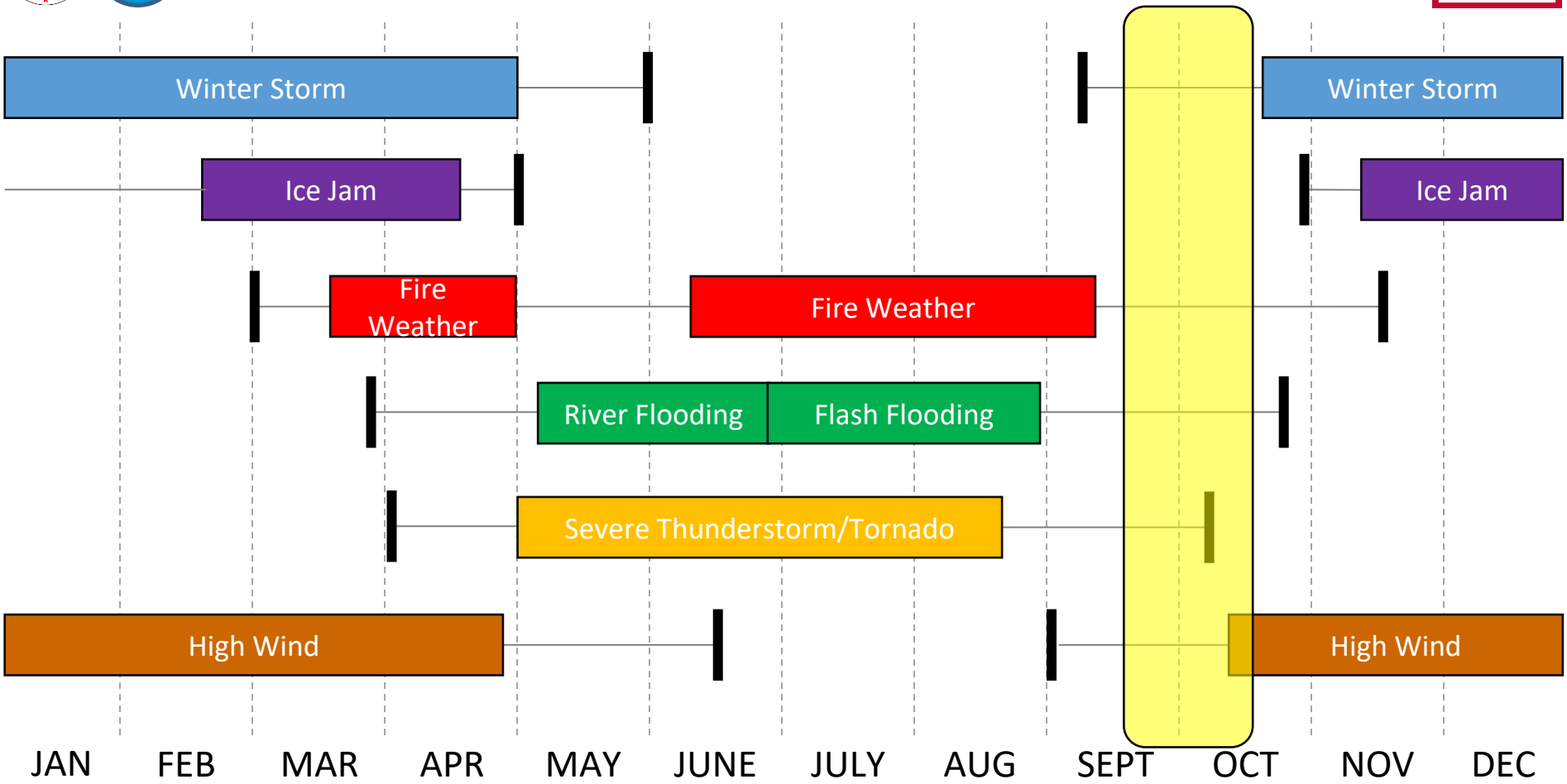
As of September 16:

Streams in **Division 4 cont.** under regulation are:

- Beaver Dam Creek : regulated to 1947
- Hams Fork: regulated to 1890
- Bear River: regulated for compact compliance
- Bear River: regulated to 1874
- Mill Creek: regulated to 1871
- West Beaver: regulated to 1882
- Teton Creek: regulated for Roxana Decree
- Cottonwood Creek: Regulated to 1899
- **Hams Fork: regulated to 1890**

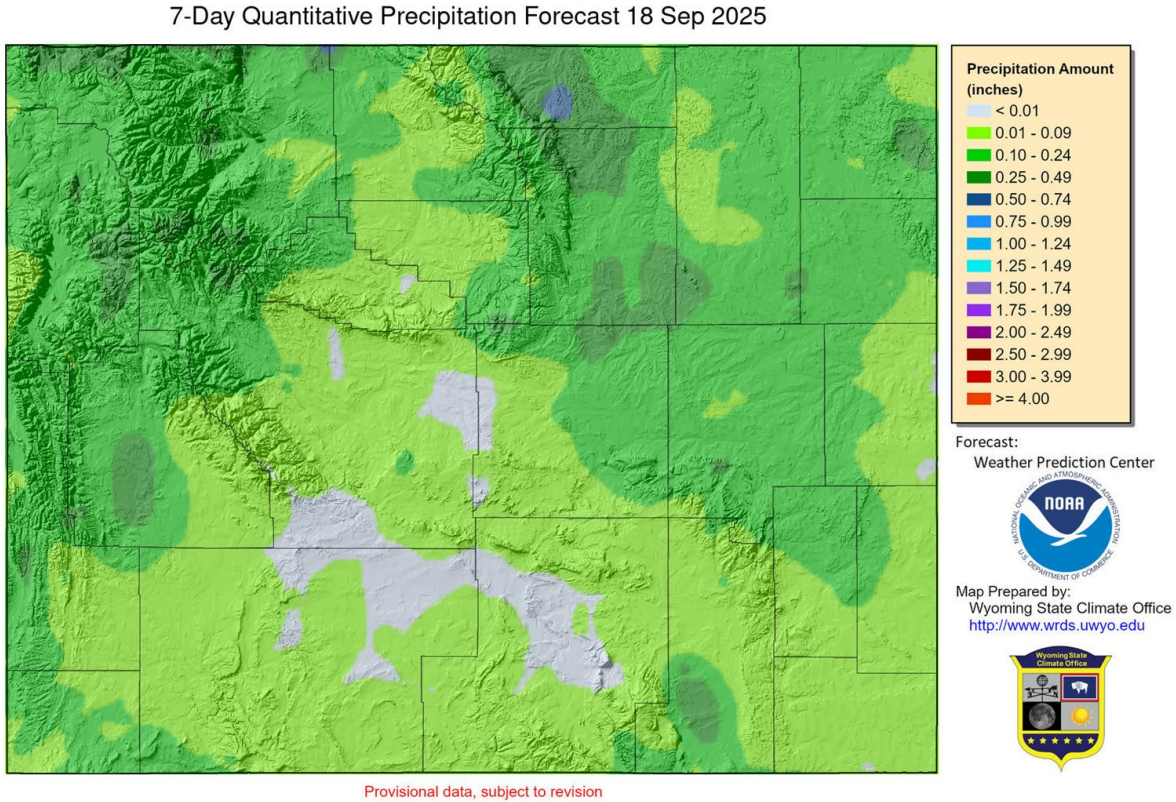
Weather Info & Forecasts

NWS Wyoming - Typical Hazard Calendar



7-Day Total Precipitation Forecast

(Sep 18 - Sep 24)



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 18 Sep 2025 https://www.wrds.uwyo.edu

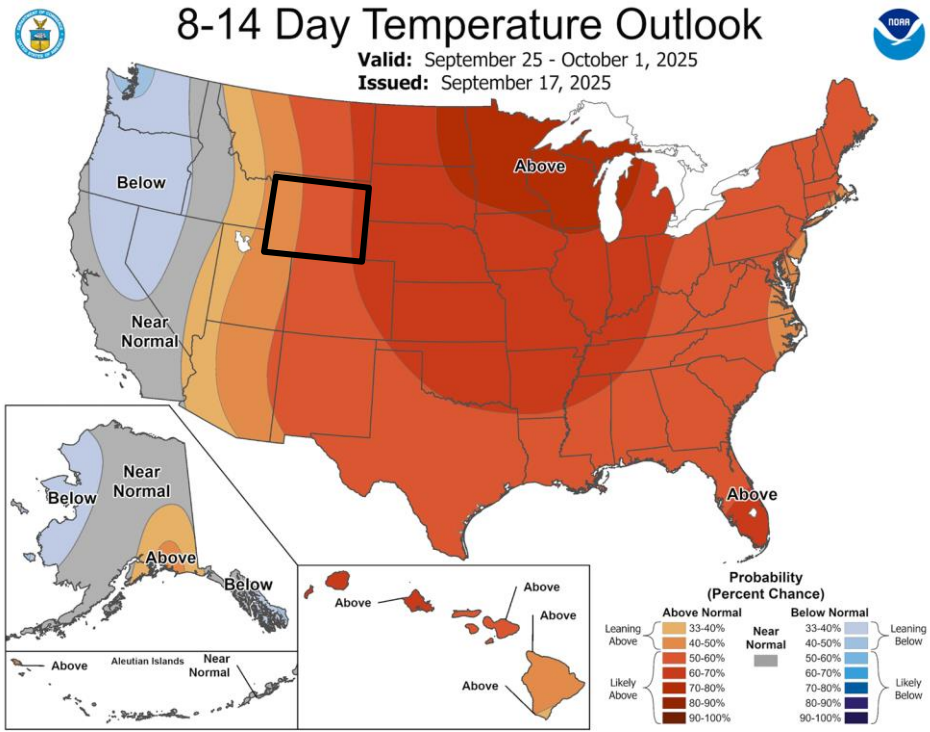
- Dry for most of upcoming week
- Sun/Mon weather system brings light rain
  - Trace to tenth for basins
  - Few tenths in mountains
- Sat warmest, Mon coolest
  - 5 or so degrees above average for most of WY over the next week

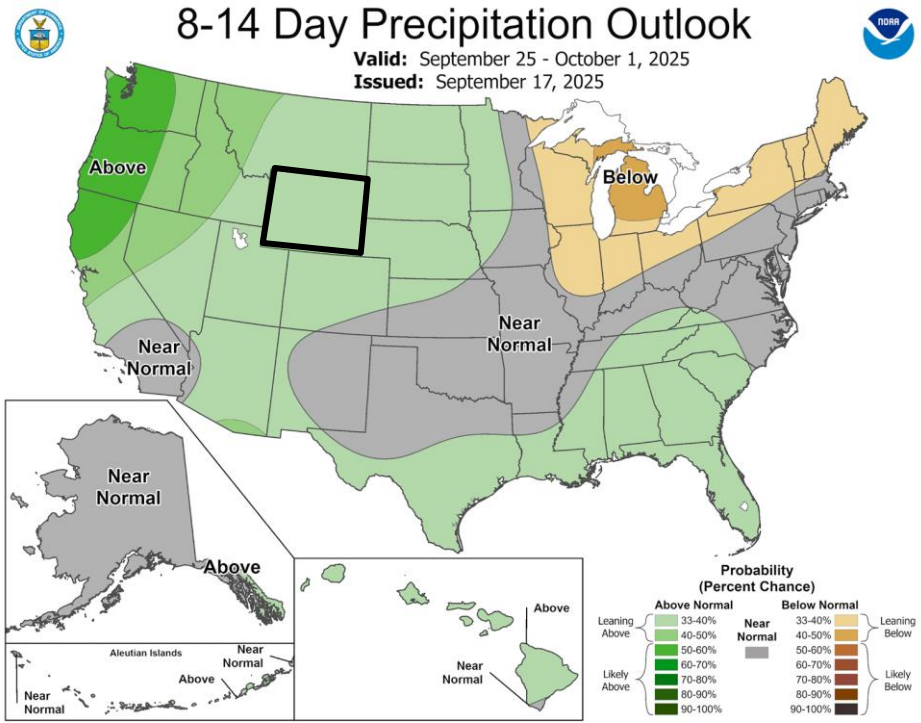
https://bit.ly/7_dayQPForecast

8-14 Day Outlooks

(Sep 25 - Oct 1)

https://bit.ly/CPC8_14Day





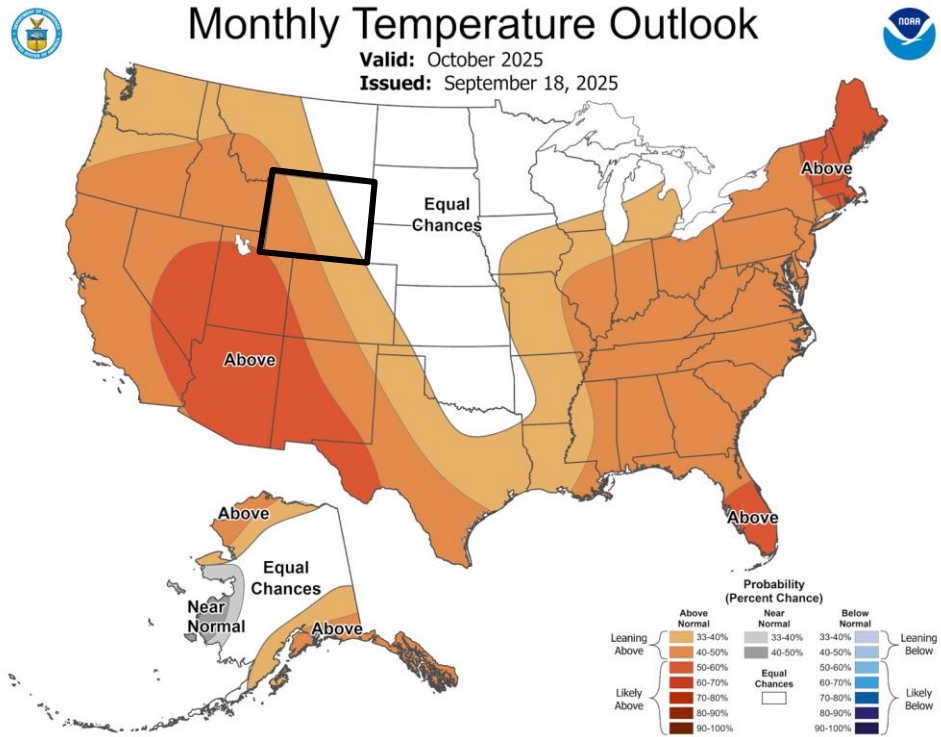
- Likely above average for most of Wyoming
- Interactive Version: cpc.ncep.noaa.gov/products/predictions/814day/interactive/index.php

- Slight lean towards wetter than normal statewide

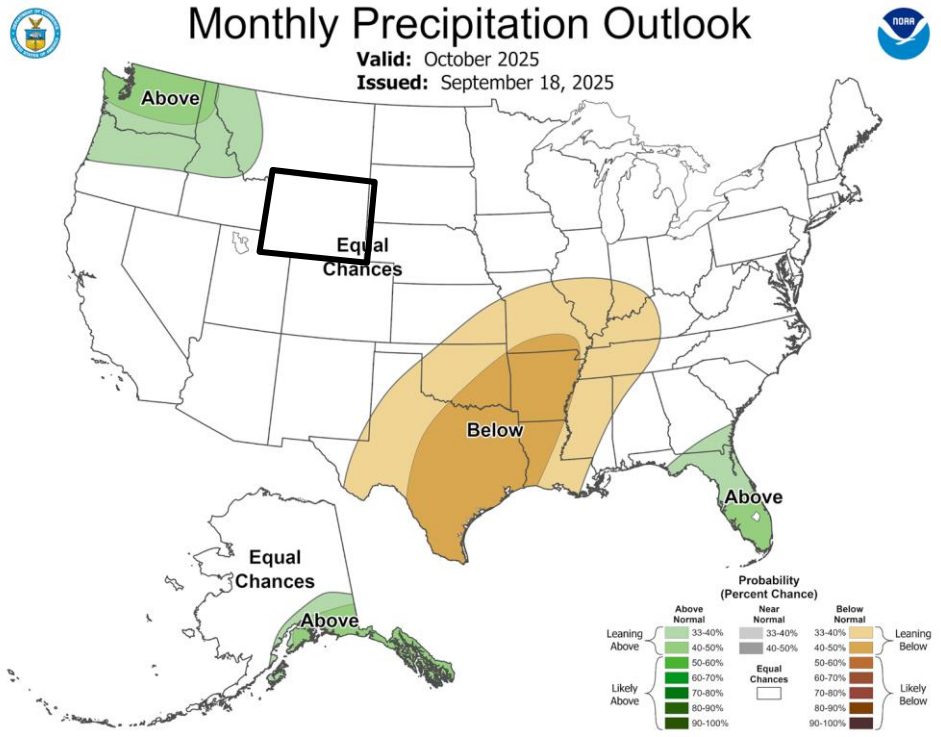
1-Month Outlooks

(October)

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



- Lean toward above normal for western WY
- No signal in the east

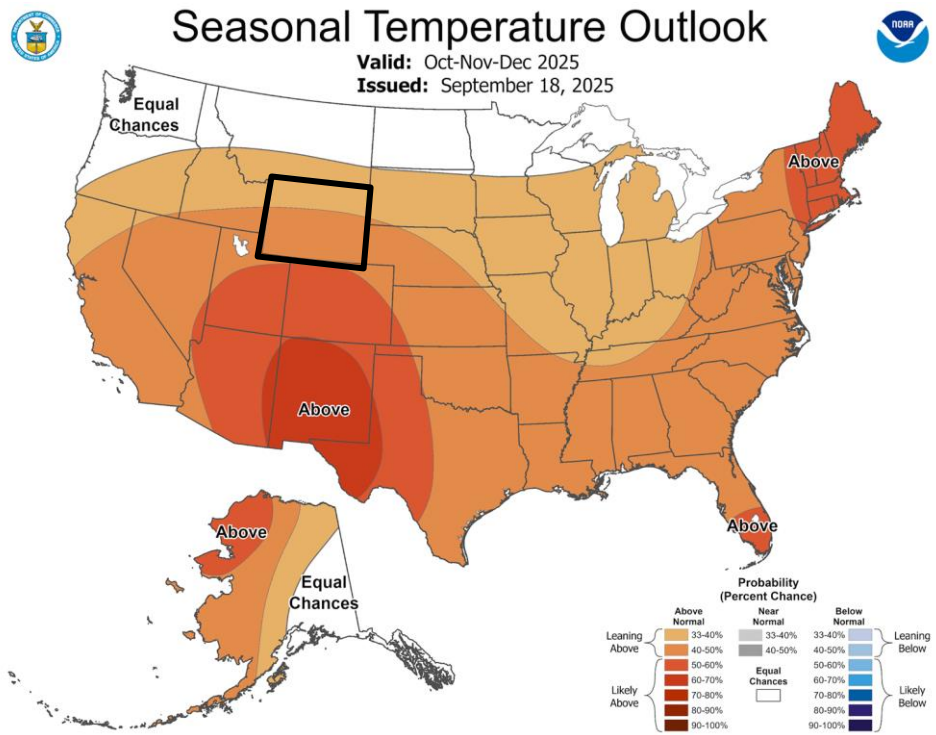


- No lean any direction for precip - climatology is the best forecast

3 Month Outlook

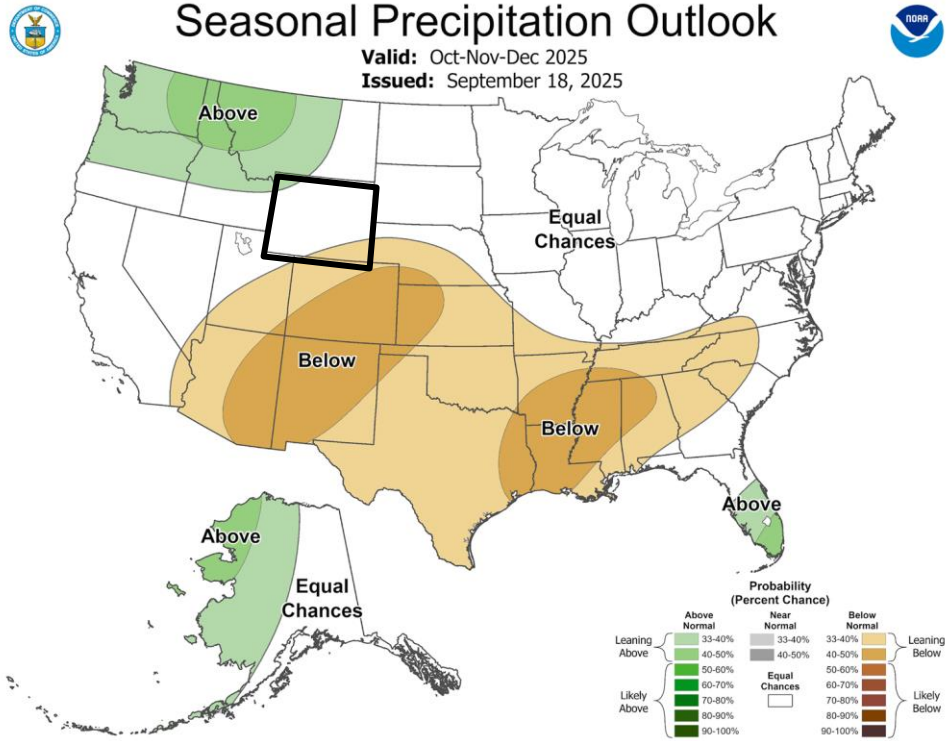
https://bit.ly/CPC_Seasonal

(Oct-Nov-Dec)



- Lean toward above normal statewide for early winter

(Oct-Nov-Dec)



- No lean any direction for precip - climatology is the best forecast

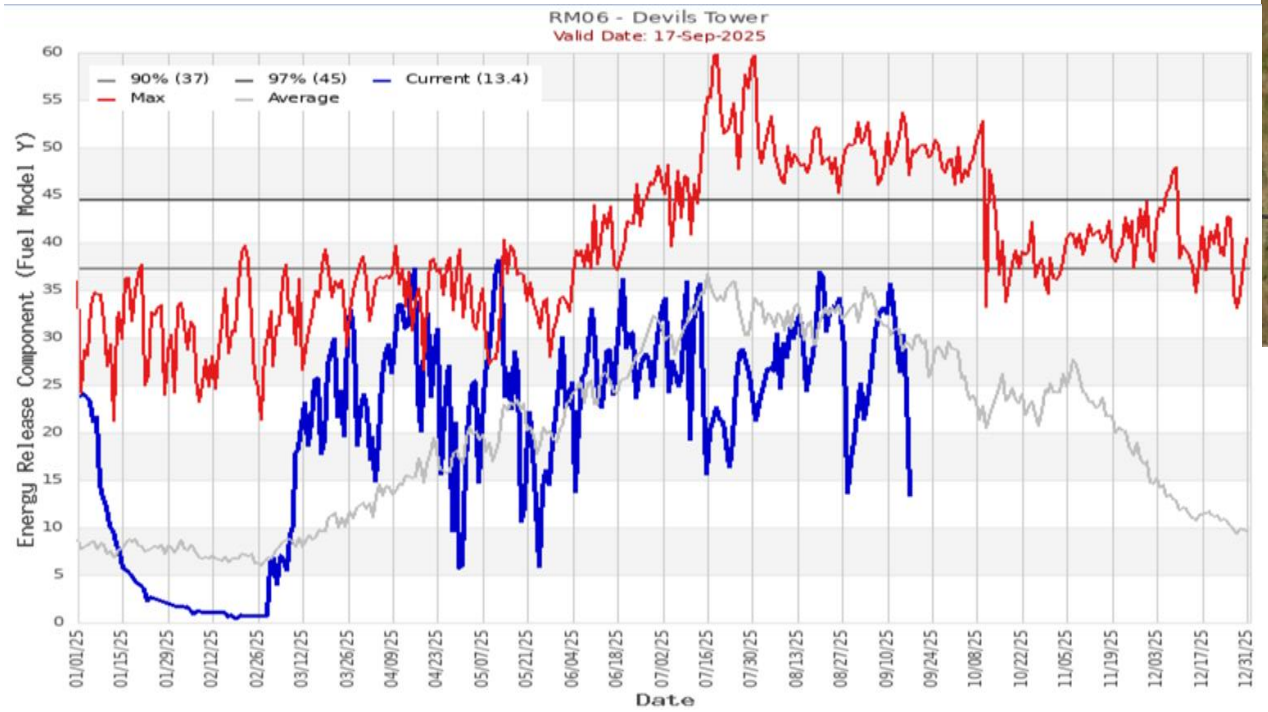
Wildfire Activity & Outlooks

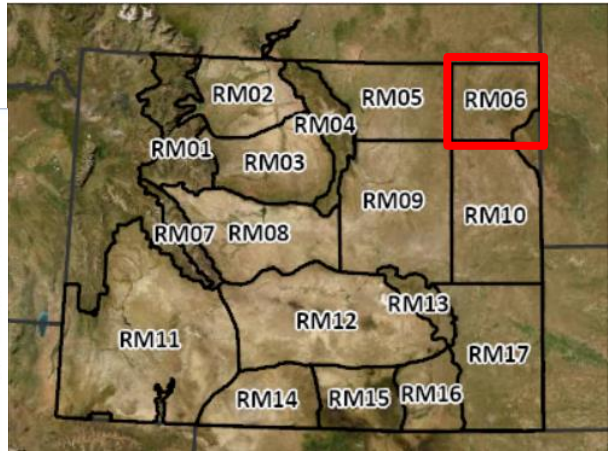
Wildland Fire Potential and Outlook

- **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.
- **Energy Release Component - ERC**
  - Index that measures heat per unit (in BTUs per square foot). 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.
- **Fuel loading**
  - Amount of fuel available to burn
  - Live and dead fuels

Wildland Fire Potential and Outlook

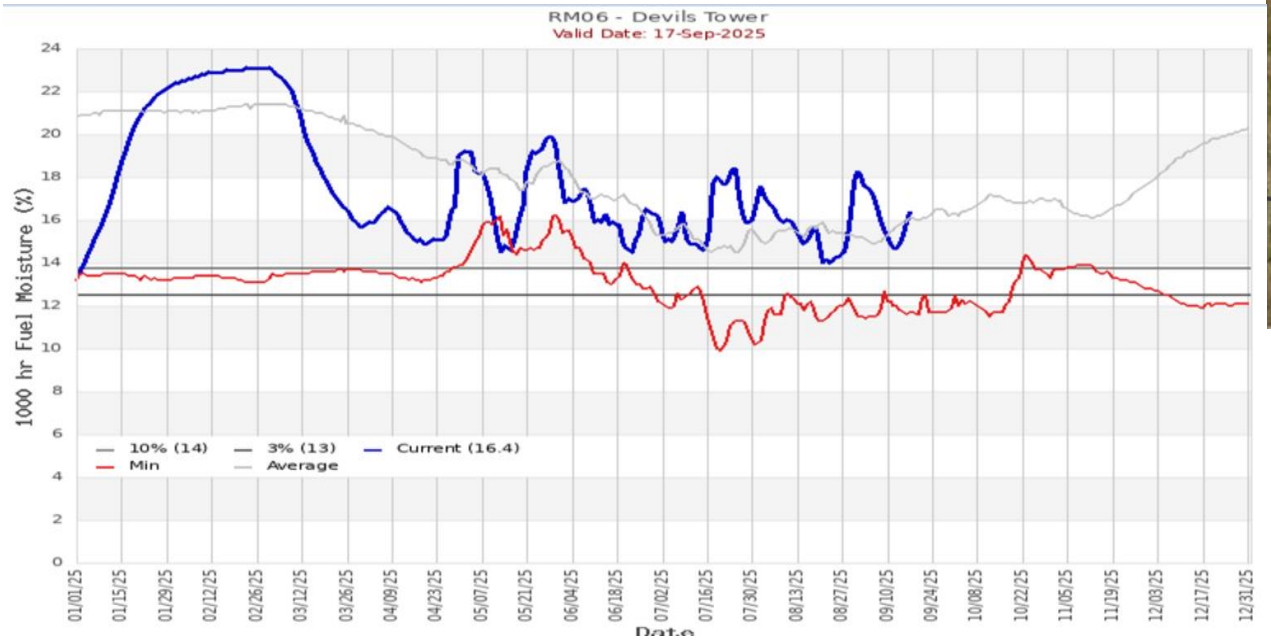
Energy Release Component
Devils Tower-Valid September 18th

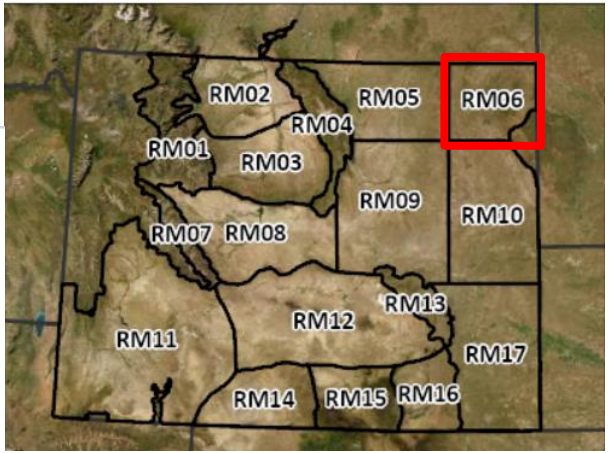




Wildland Fire Potential and Outlook

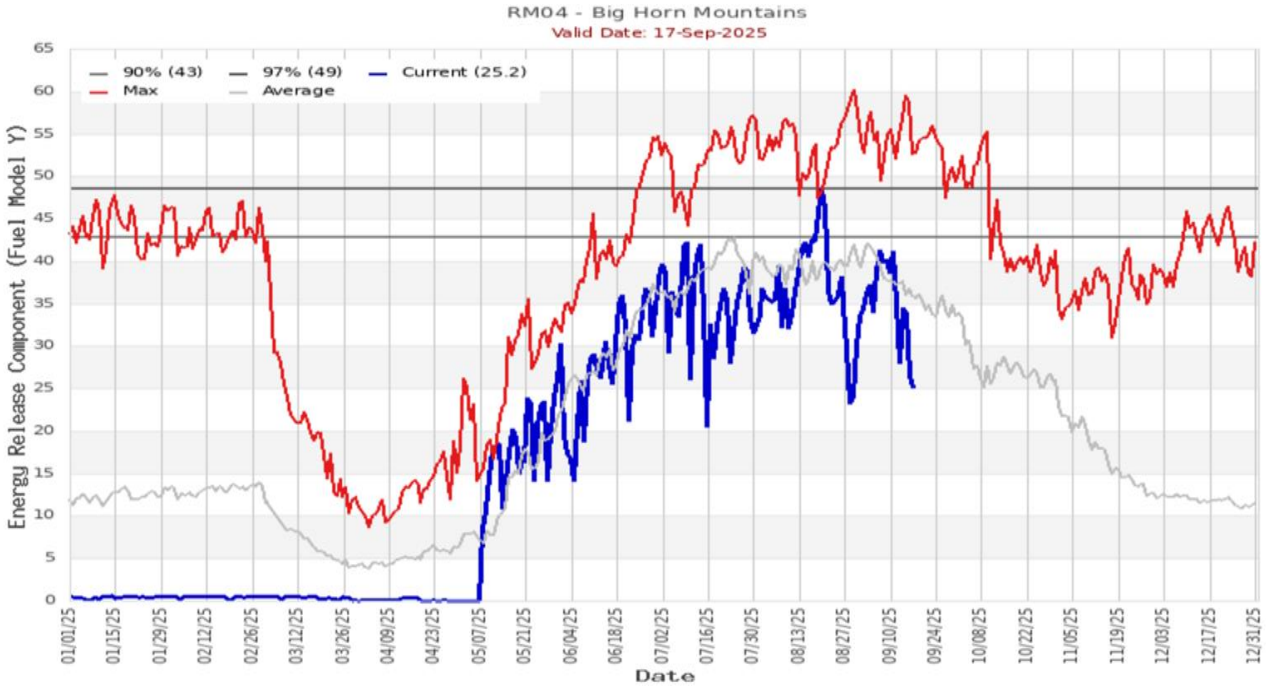
1,000 Hour Fuel Moistures
Devils Tower-Valid September 18th

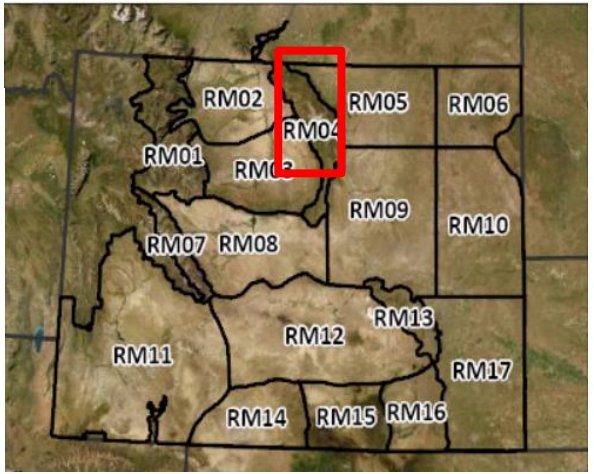




Wildland Fire Potential and Outlook

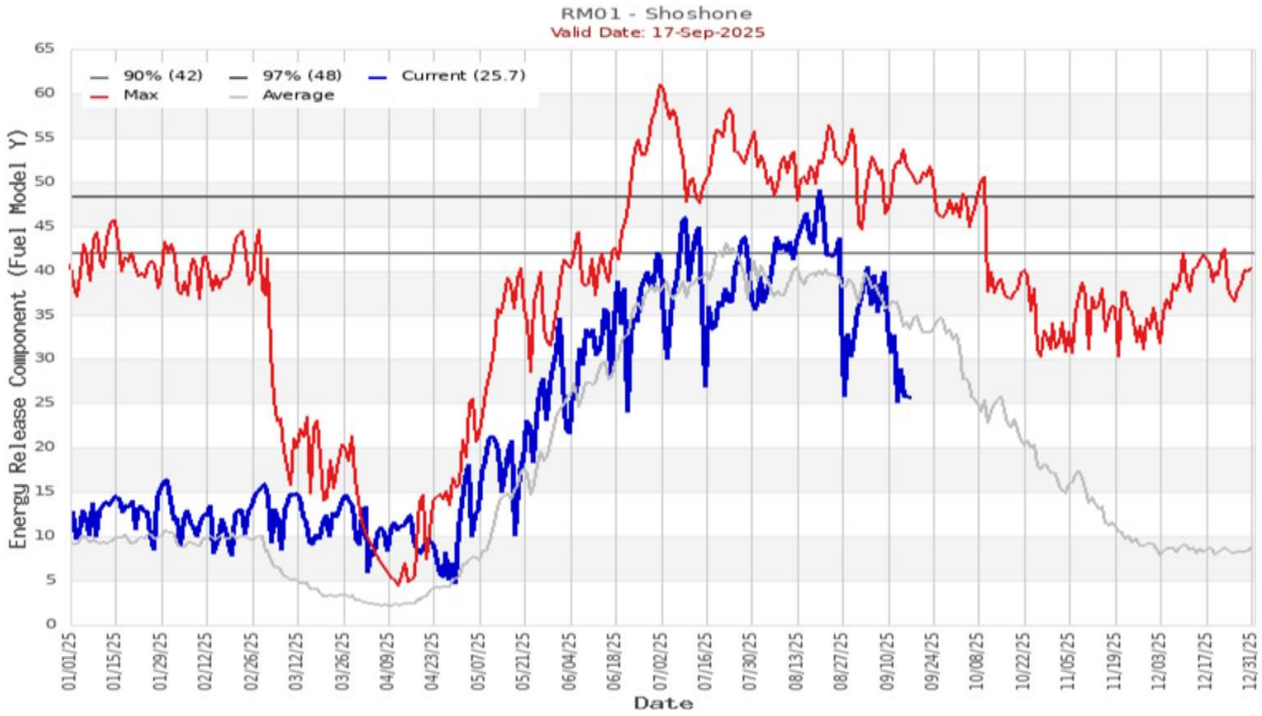
Energy Release Component
Big Horn Mountains-Valid September 18th

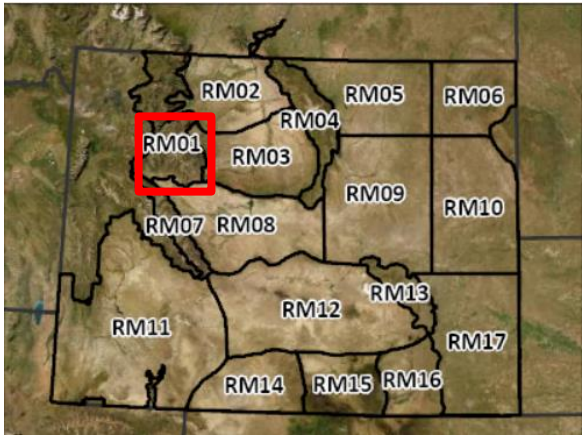




Wildland Fire Potential and Outlook

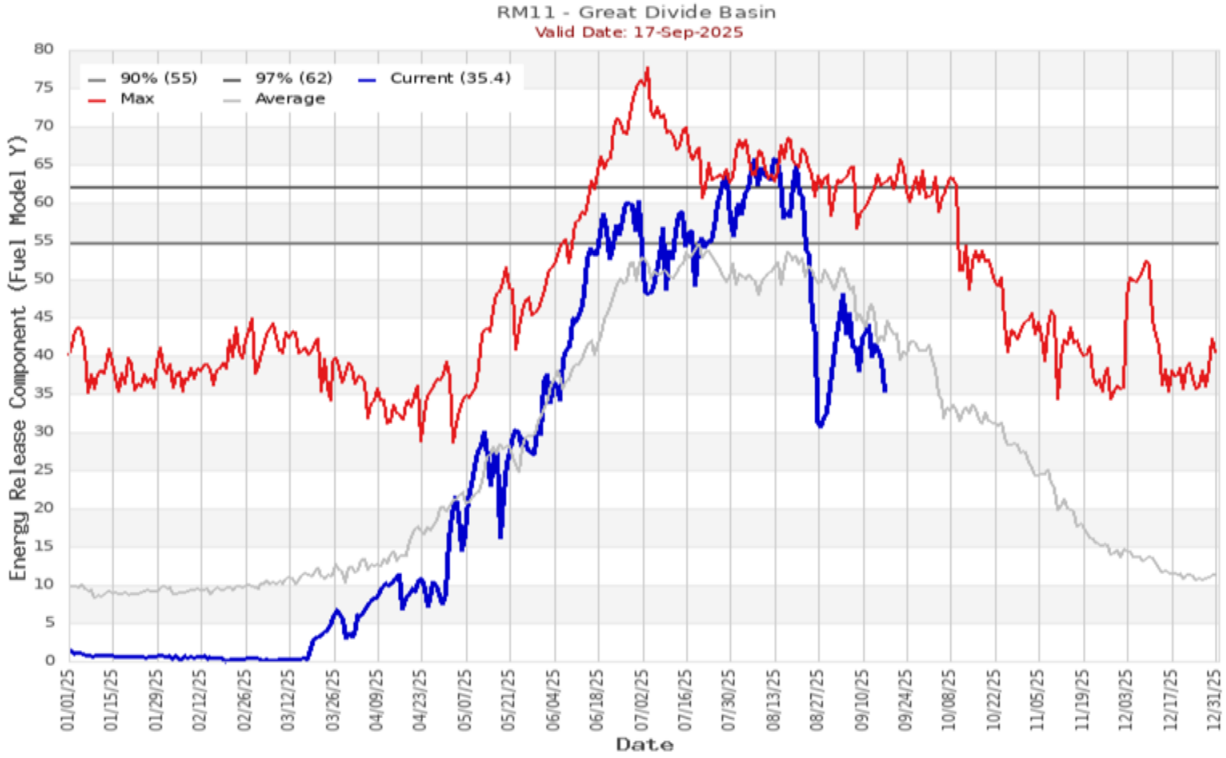
Energy Release Component
Shoshone-Valid September 18th

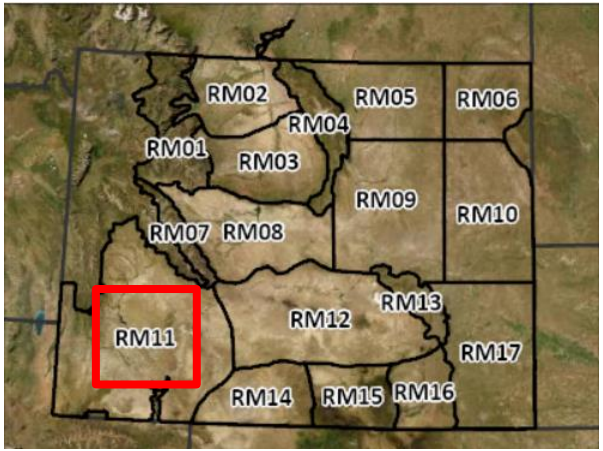




Wildland Fire Potential and Outlook

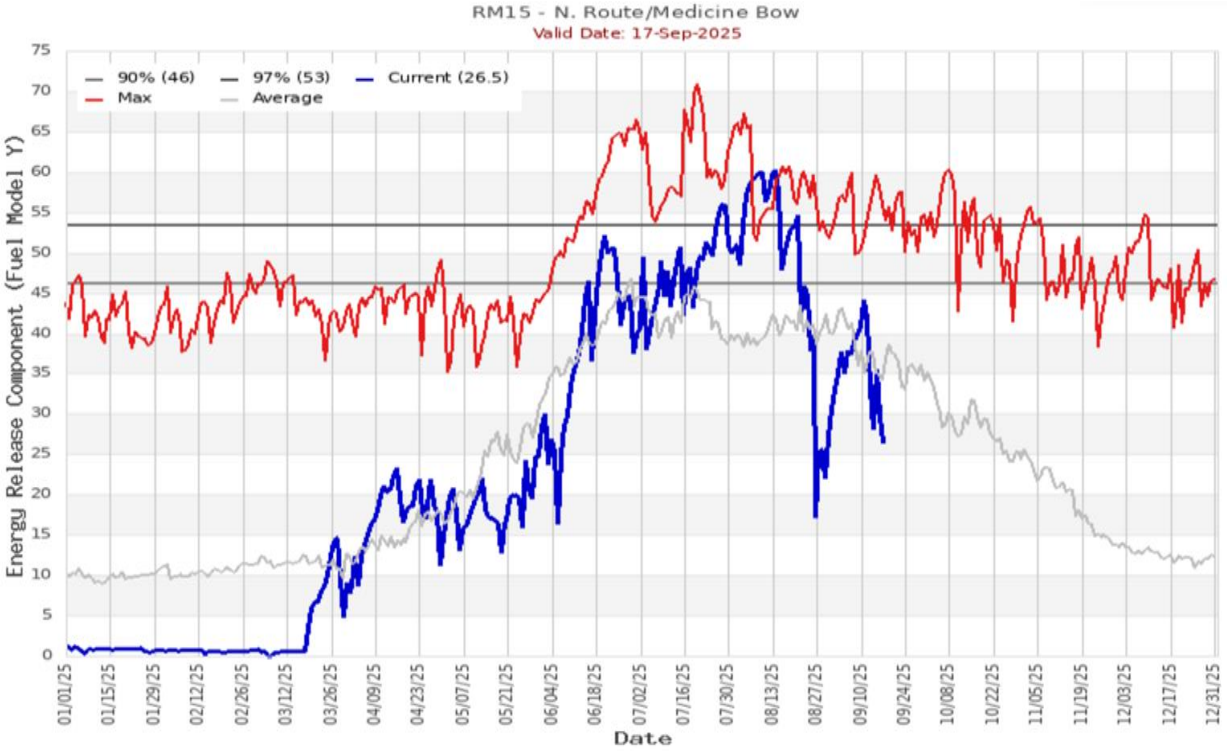
Energy Release Component
South West WY-Valid September 18th

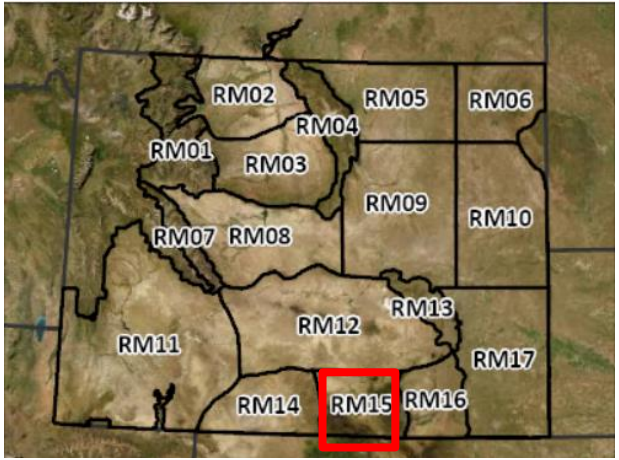




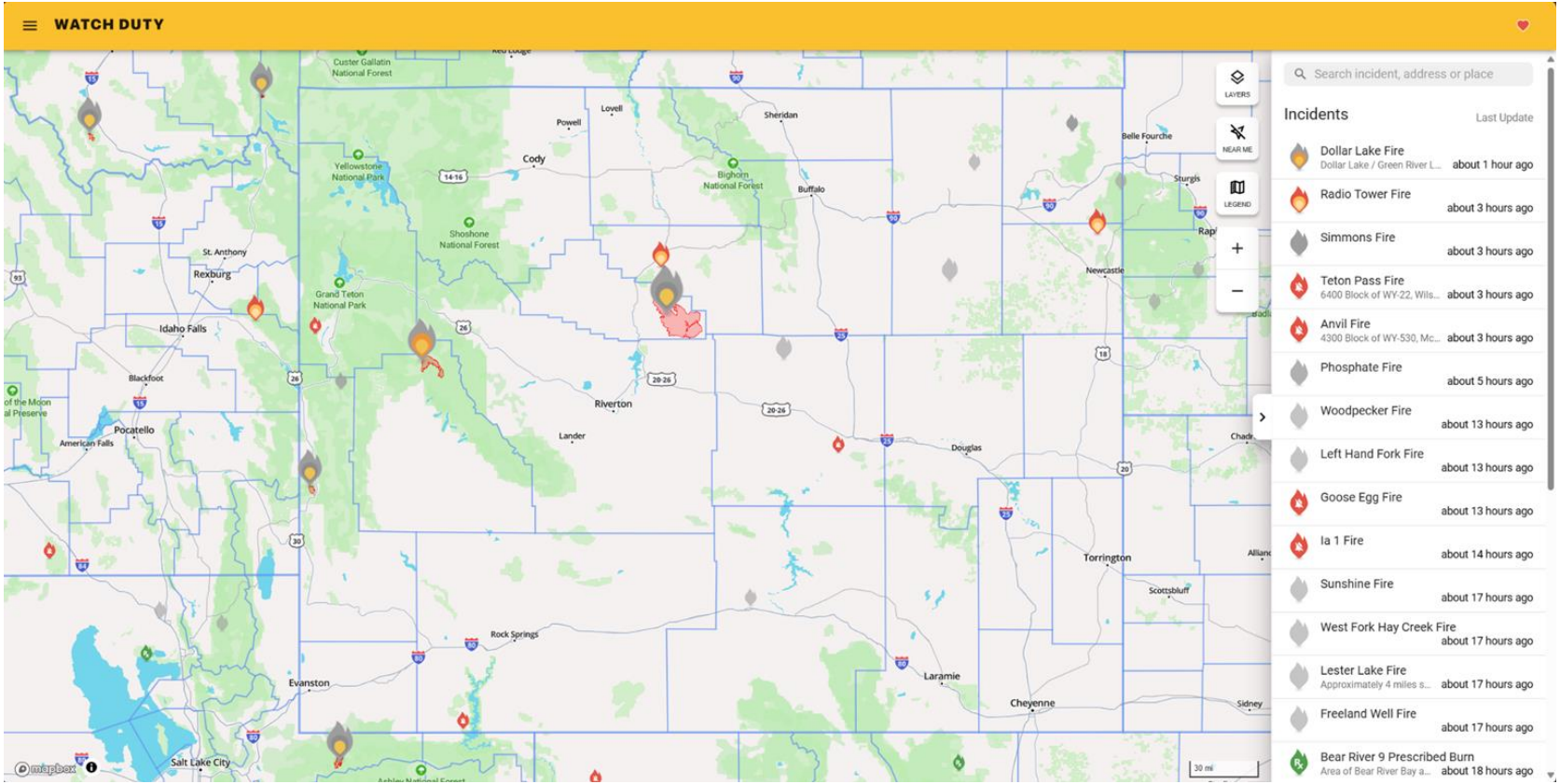
Wildland Fire Potential and Outlook

Energy Release Component
Medicine Bow-Valid September 18th





Current Large Fires



[Watch Duty - Wildfire Maps & Alerts]

Large Fire Potential Outlook





Highlight of the Month:

https://seo.wyo.gov/

https://bearriverbasin.org/

https://greenriverbasin.org/

**see recording of webinar for brief walk-through on using these tools

US Drought Monitor Workshop
November 13, 1-2 pm MST

go.unl.edu/usdm-workshop-nov-13-2025 or https://bit.ly/3VW1A8s

What is the Drought Monitor, its methodology and process, the input data involved and how you can contribute. During the second half of the workshop, participants can ask questions and provide feedback to USDM authors in a Q&A session.

Questions? Contact Curtis Riganti, NDMC climatologist, at criganti2@unl.edu

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WRDS & State Climate Office
antonius@uwyo.edu

Chase Lane
Bureau of Land Management
clane@blm.gov

Aaron Fiaschetti
USGS
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Callie Surber
UW Extension
csurber@uwyo.edu

Jeff Cowley
WY State Engineer's Office
jeff.cowley@wyo.gov

Micah Most
UW Extension
mmost@uwyo.edu

Lance VandenBoogart
National Weather Service
lance.vandenboogart@noaa.gov

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!

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