WY Conditions & Outlooks:

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

June 26, 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
  - Reservoir Levels
  - Water Calls & Allocations
- **Outlooks:**
  - Temperature & Precipitation
  - Water Supply & Flood Potential
- **Highlight of the Month:**
  - Western Water Assessment Dashboard
- **Questions**

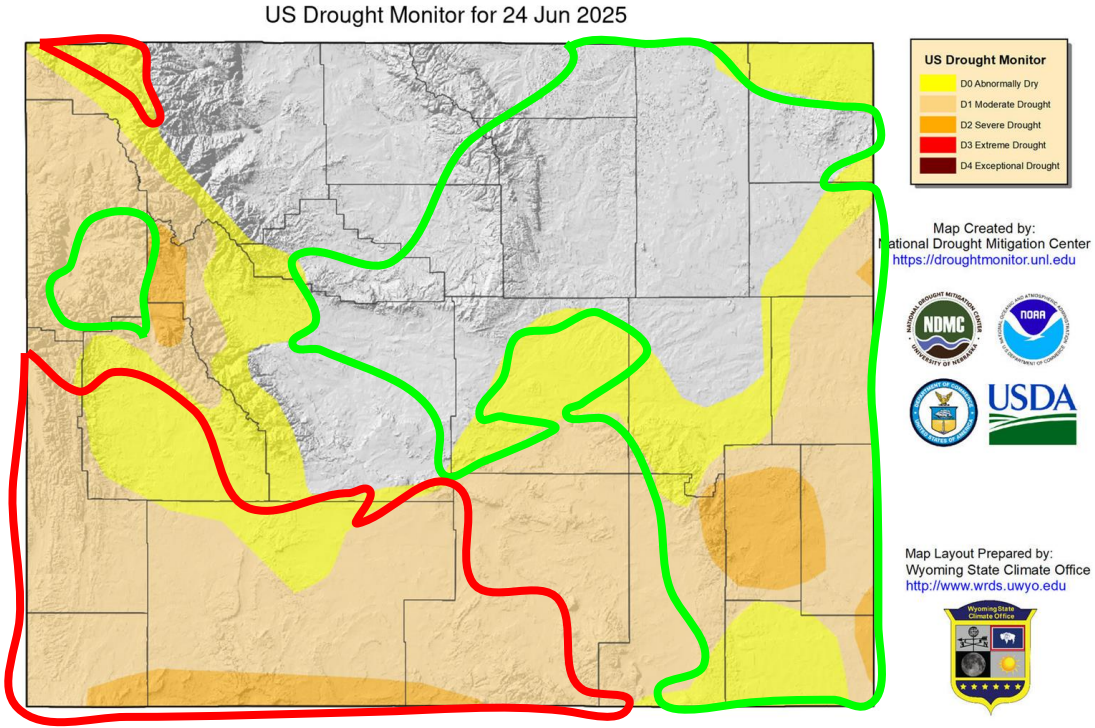
Current Conditions

US Drought Monitor for June 24th, 2025

(Released Thursday, June 26th, 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



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 26 Jun 2025 https://www.wrds.uwyo.edu

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

Improvements in the east extending into central Wyoming. Degradations in the southwest and far northwest.

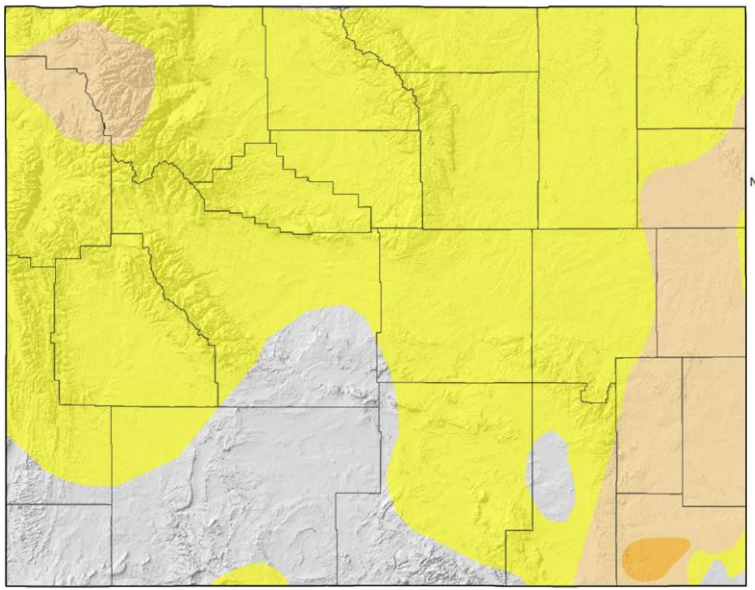
https://droughtmonitor.unl.edu

droughtmonitor.unl.edu

WRDS
Water Resources Data System

One Year Ago

US Drought Monitor for 25 Jun 2024



US Drought Monitor	
66.51%	D0 Abnormally Dry
14.21%	D1 Moderate Drought
0.54%	D2 Severe Drought
0.00%	D3 Extreme Drought
0.00%	D4 Exceptional Drought

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

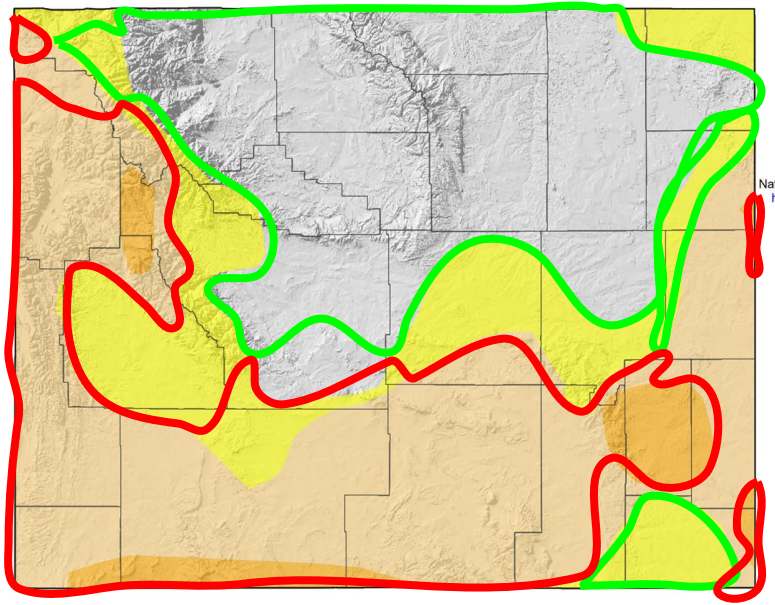
Map Layout Prepared by:
Wyoming State Climate Office
http://www.wrds.uwyo.edu

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 27 Jun 2024 http:/www.wrds.uwyo.edu

Today

US Drought Monitor for 24 Jun 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
http://www.wrds.uwyo.edu

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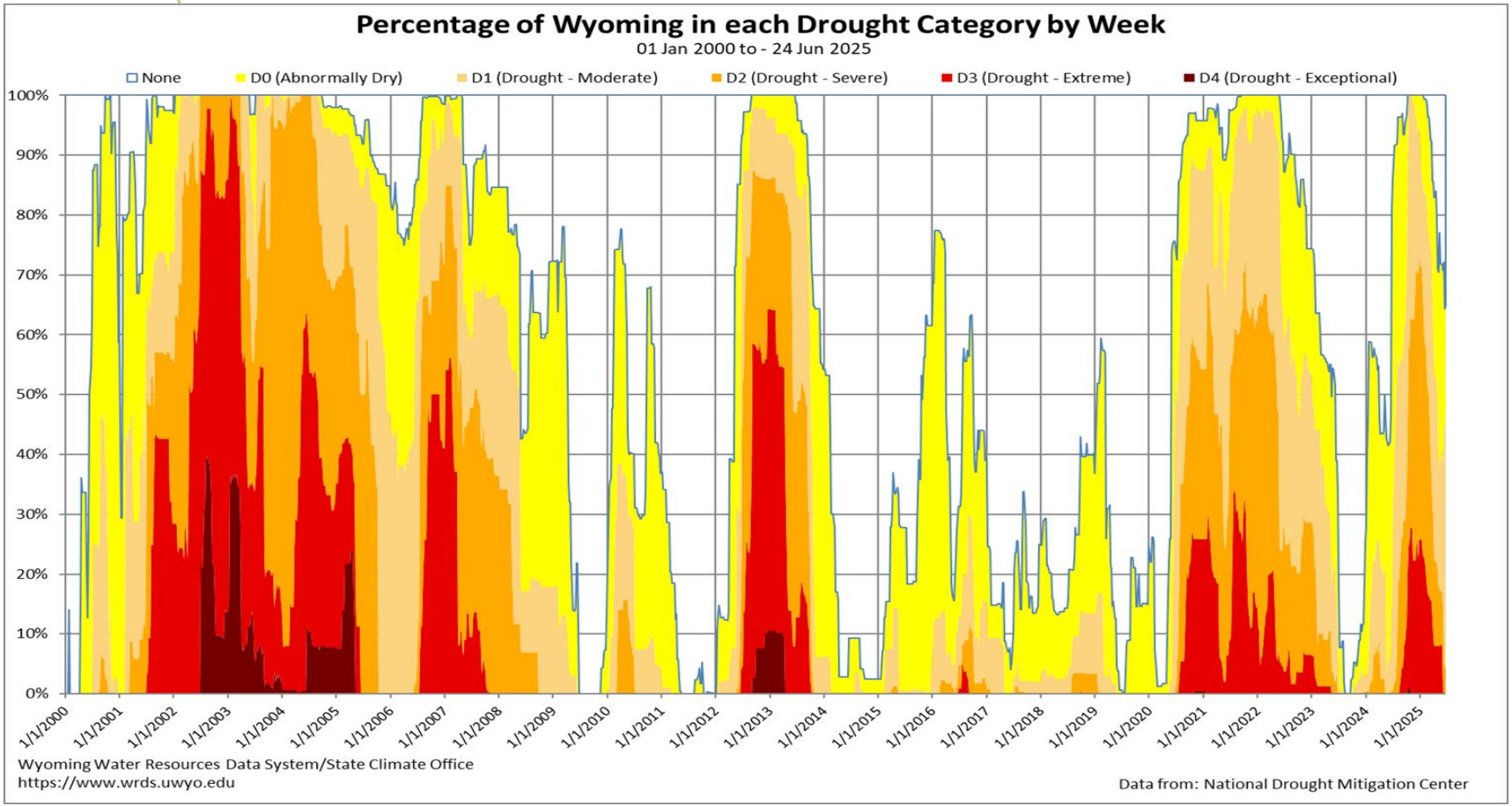
Map Layout Created 26 Jun 2025 https://www.wrds.uwyo.edu

https://droughtmonitor.unl.edu

droughtmonitor.unl.edu

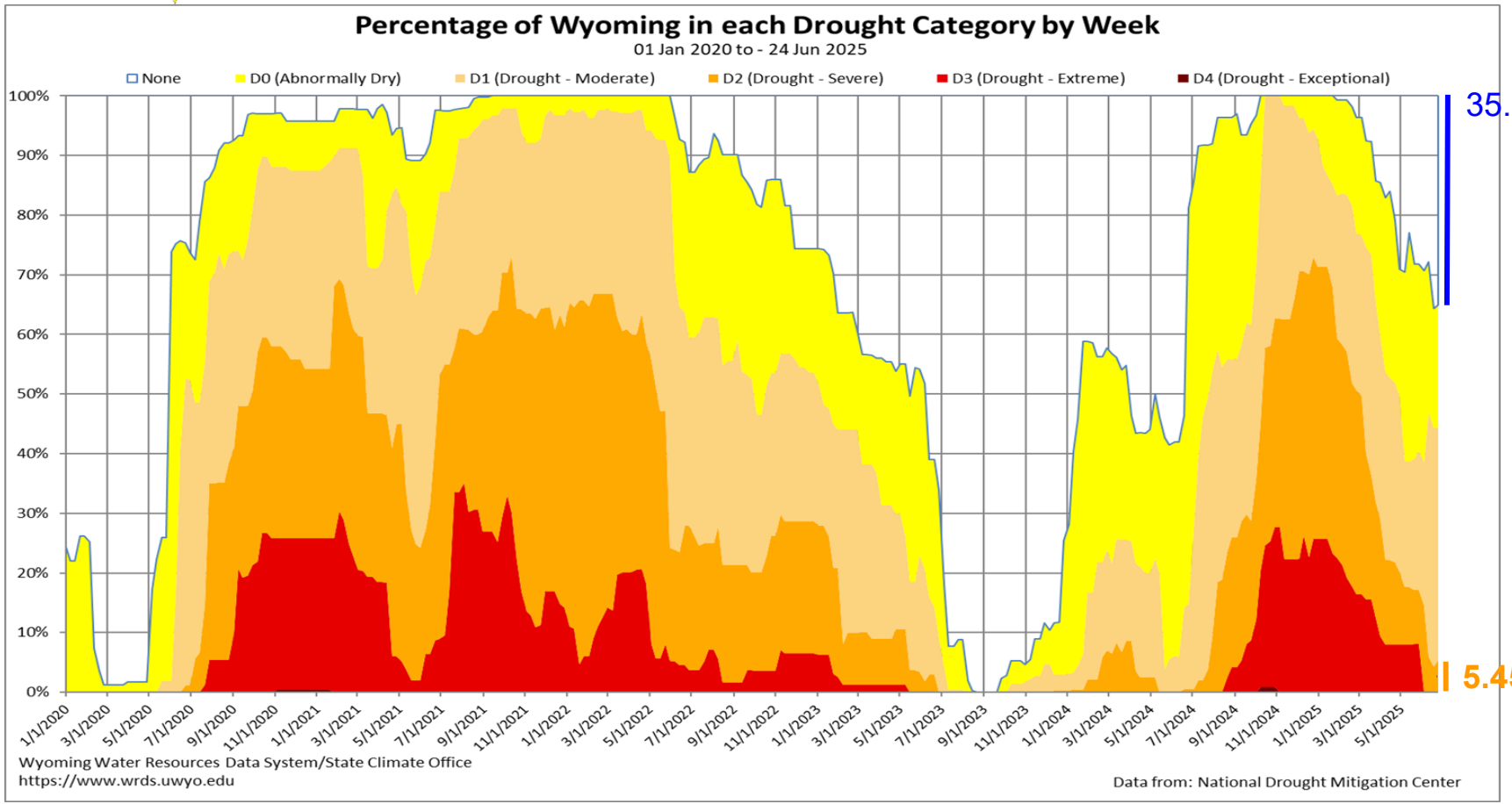
WRDS Water Resources Data System

Wyoming Area Affected: 64.90% D0-D4 ; 44.33% D1-D4



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

WRDS
Water Resources Data System



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

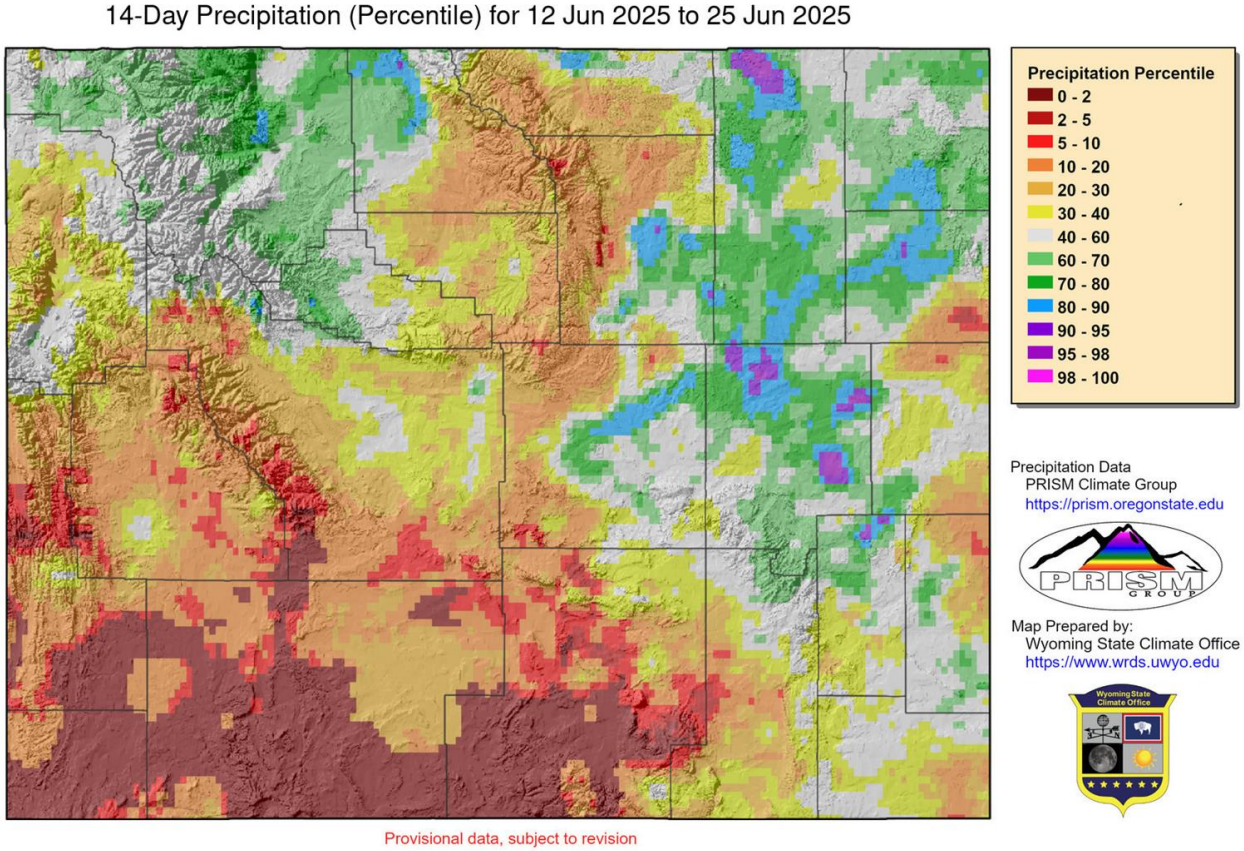
14-Day Precipitation Percentile (12 Jun 2025 to 25 Jun 2025)

Above Median:

- Park/Northern Big Horn/Western Hot Springs Counties
- Converse, Campbell, Crook, Northwestern Weston, Southeastern Johnson Counties

Below Median (*Areas of Concern*):

- Most everywhere else
- Especially: Bighorns and surrounding area and the Southwest



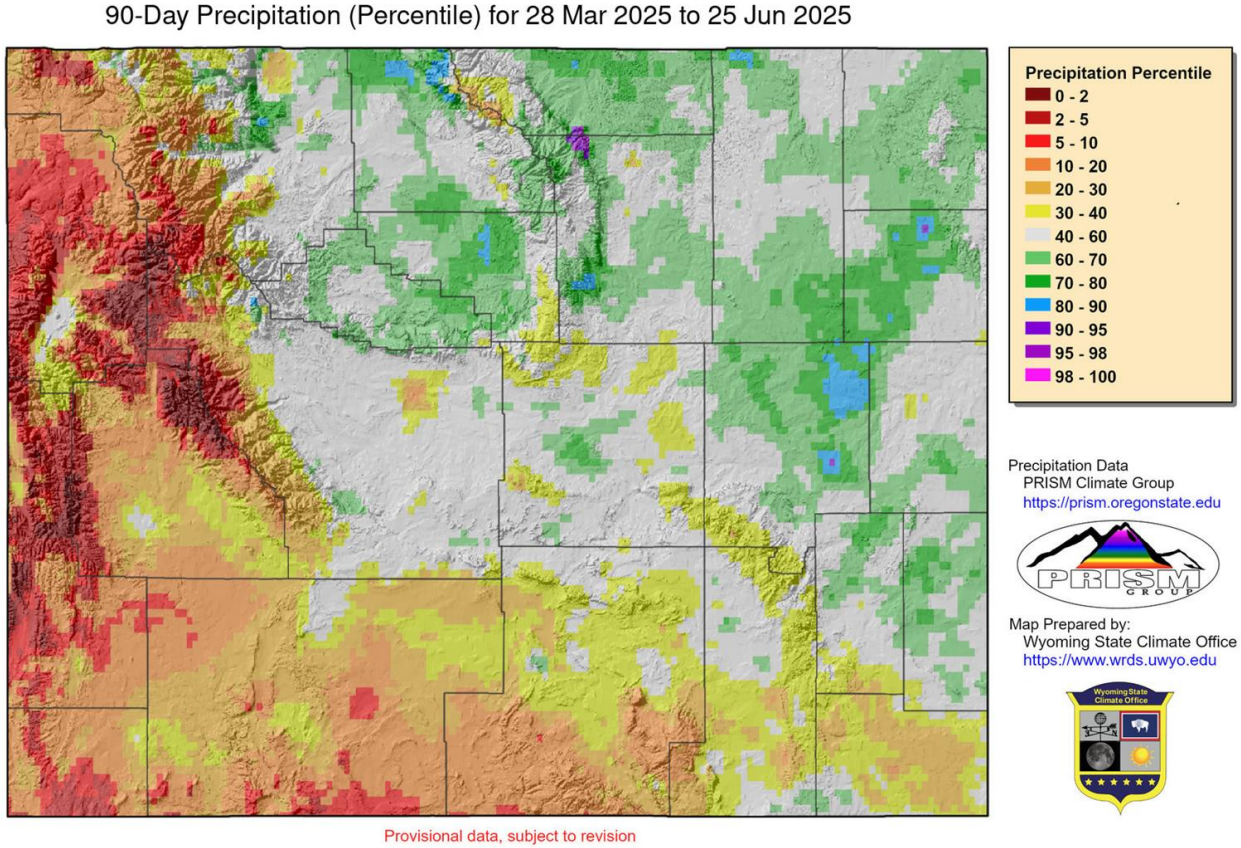
90-Day Precipitation Percentile (28 Mar 2025 to 25 Jun 2025)

Above Median:

- Bighorn Basin
- Northeast
- Goshen/Platte area

Below Median (*Areas of Concern*):

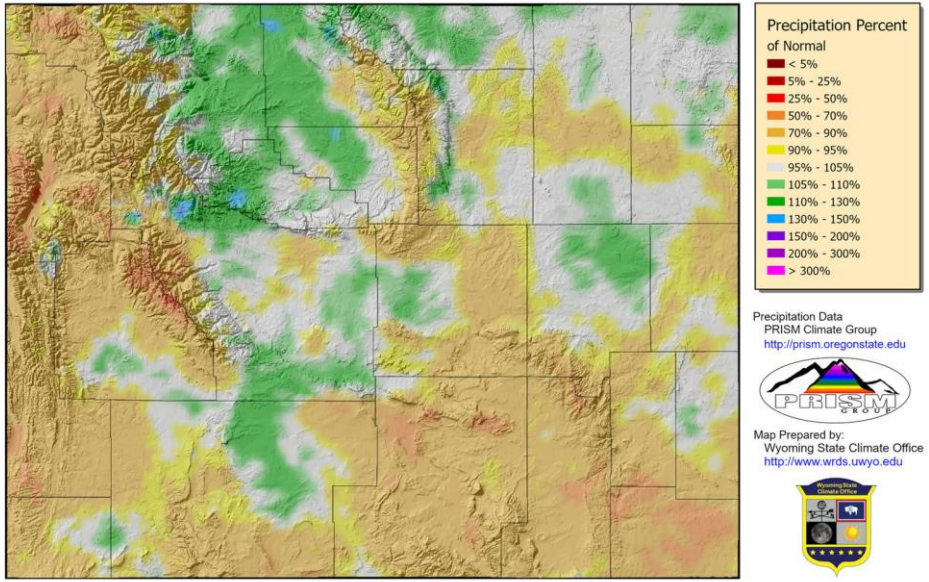
- West
- Southwest



“Year”-to-Date Precipitation (Percent of Average)

Current Water Year

Water-Year Precipitation (Percent of 1991-2020 Average) for 01 Oct 2024 to 25 Jun 2025

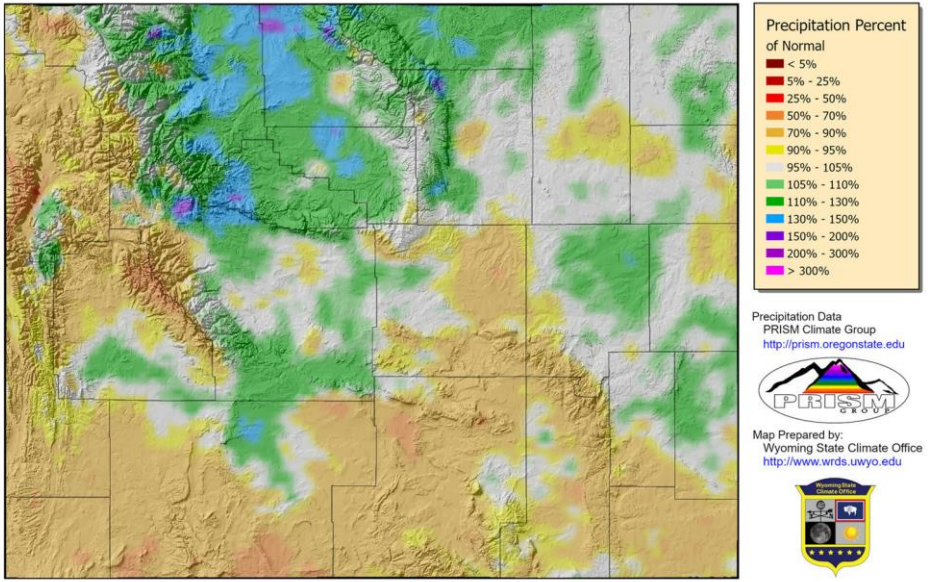


Provisional data, subject to revision

Monthly and Normal precipitation data from PRISM Climate Group, Copyright ©2024, PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu
Map Created 26 Jun 2025 https://www.wrds.uwyo.edu
Daily averages created from PRISM daily precipitation grids

Current Calendar Year

Calendar-Year Precipitation (Percent of 1991-2020 Average) for 01 Jan 2025 to 25 Jun 2025



Provisional data, subject to revision

Monthly and Normal precipitation data from PRISM Climate Group, Copyright ©2024, PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu
Map Created 26 Jun 2025 https://www.wrds.uwyo.edu
Daily averages created from PRISM daily precipitation grids

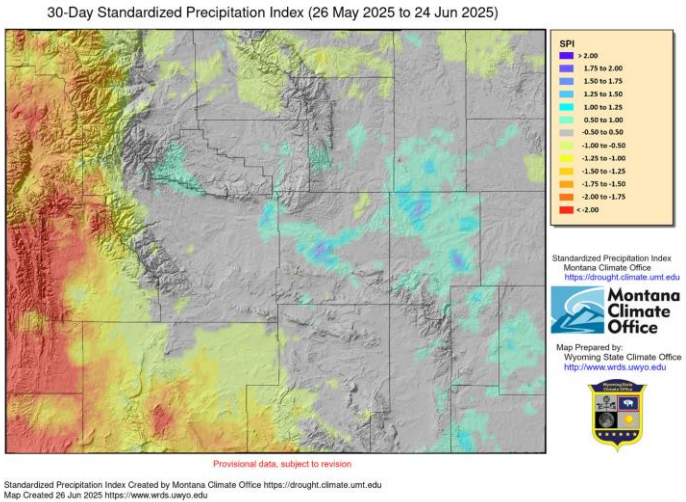
Note: a water year is October 1 through September 30 of the following year.

WRDS Water Resources Data System

Standardized Precipitation Index (SPI)

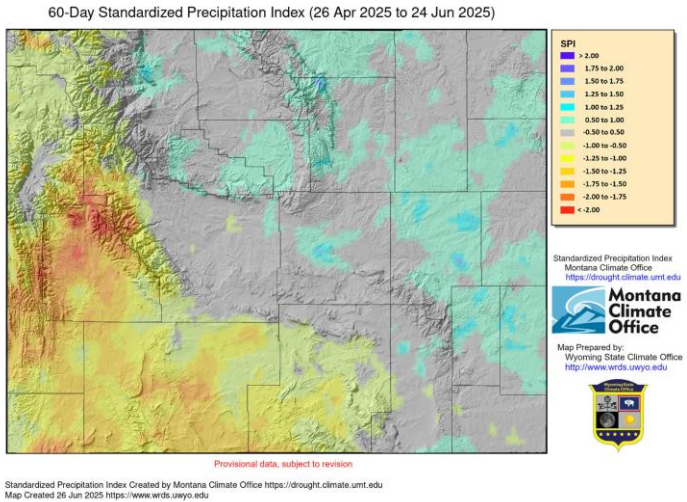
30-Day →

May 26 - Jun 24



60-Day →

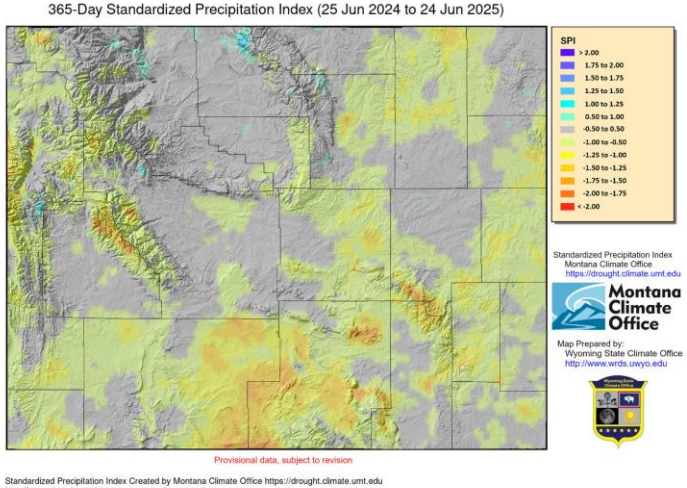
Apr 26 - Jun 24



Short term: Wet in the east Dry in the West and Southwest

Long term: Normal to dry statewide, stronger dry signal in south central Wyoming

1-Year →

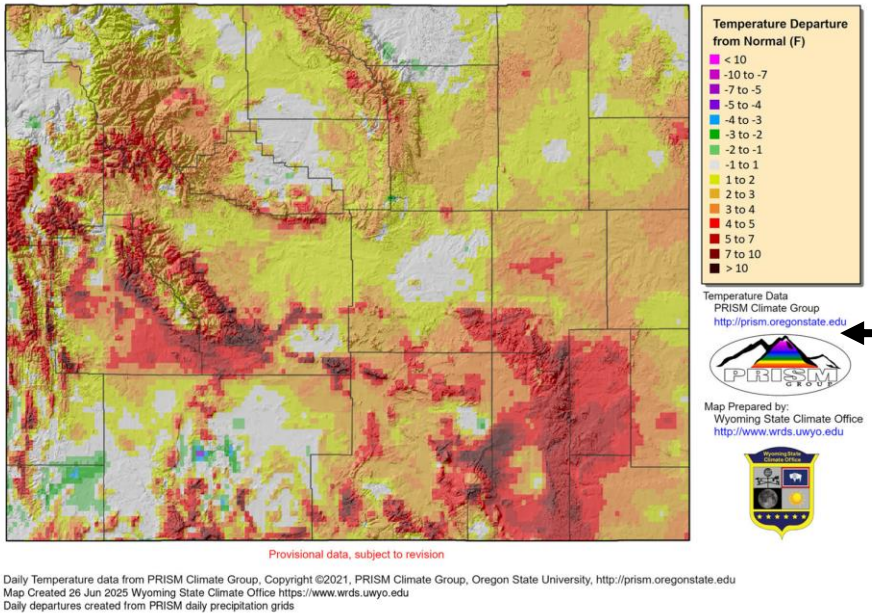


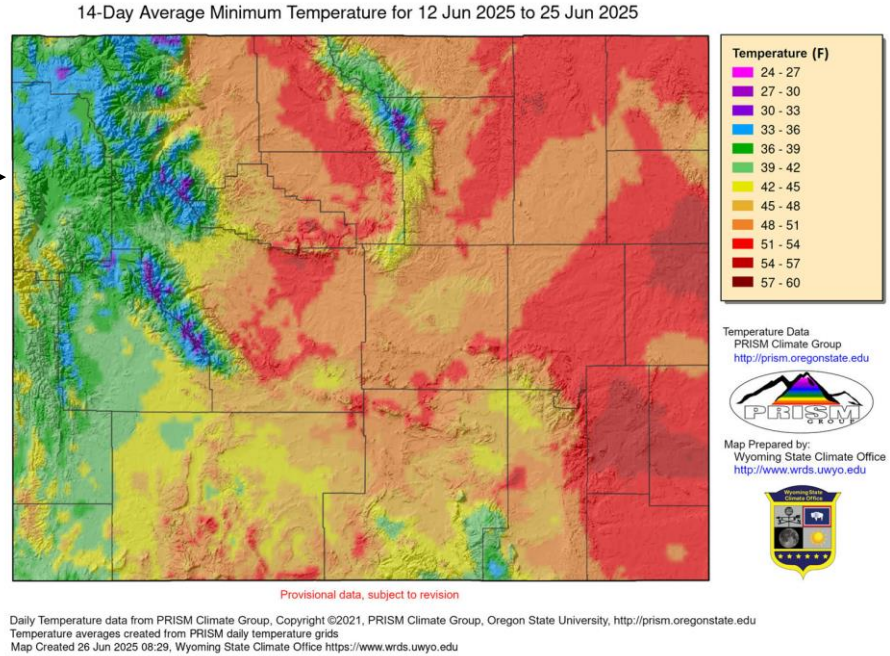
https://drought.climate.umt.edu

WRDS Water Resources Data System

14-Day Average Minimum Temperature (12 Jun to 25 Jun)

- Above freezing throughout the state
- Warmest in northern and eastern plains, Wind and Bighorn Basins





14-Day *Departure from* Normal Average Minimum Temperature

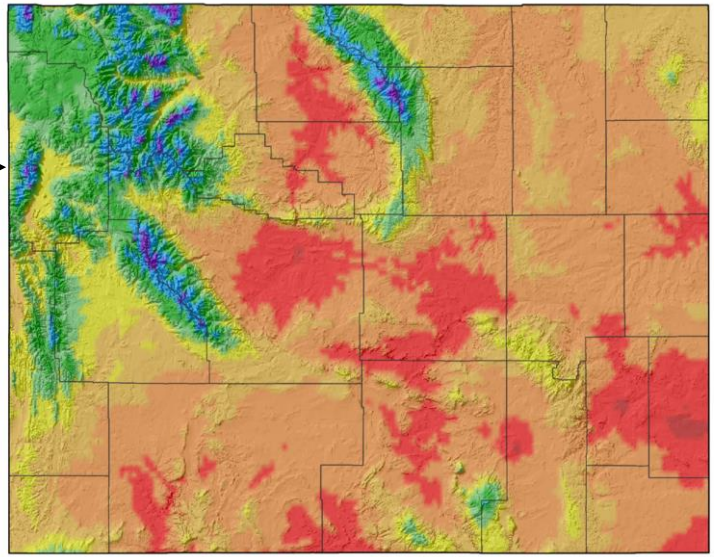
- Above normal across much of the state statewide
- A few exceptions in the southwest and central/northcentral Wyoming where it was about normal to even below normal in a few areas

WRDS Water Resources Data System

14-Day Average Maximum Temperature (12 Jun to 25 Jun)

- All of Wyoming saw highs above 32F
- Warmest in central Wyoming and the southeastern plains

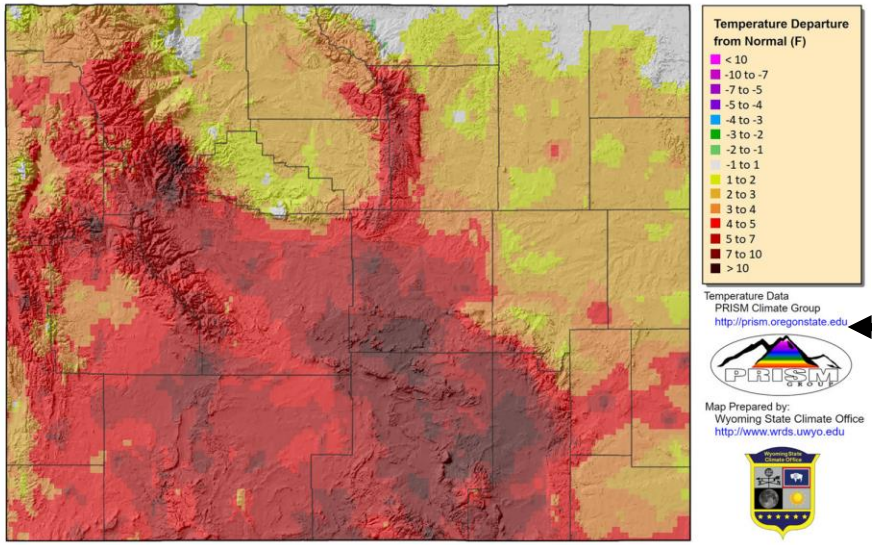
14-Day Average Maxmimum Temperature for 12 Jun 2025 to 25 Jun 2025



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 26 Jun 2025 08:30, Wyoming State Climate Office https://www.wrds.uwyo.edu

14-Day Maximum Temperature (Departure from 1991-2020 Normal) for 12 Jun 2025 to 25 Jun 2025



Provisional data, subject to revision

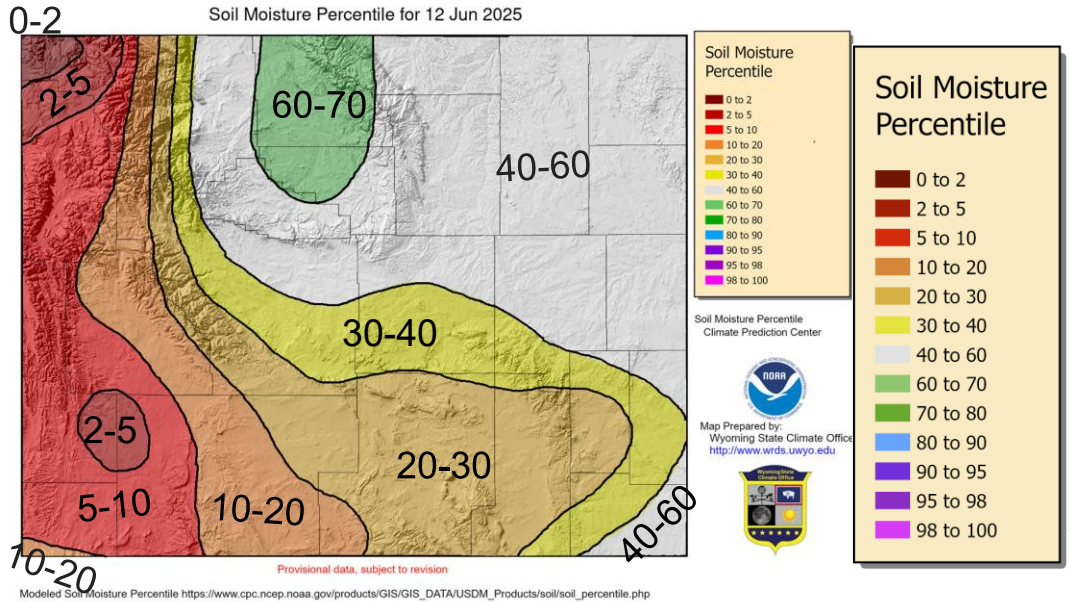
Daily Temperature data from PRISM Climate Group, Copyright ©2021, PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu
Map Created 26 Jun 2025 Wyoming State Climate Office https://www.wrds.uwyo.edu
Daily departures created from PRISM daily precipitation grids

14- Day *Departure from* Normal Average Maximum Temperature

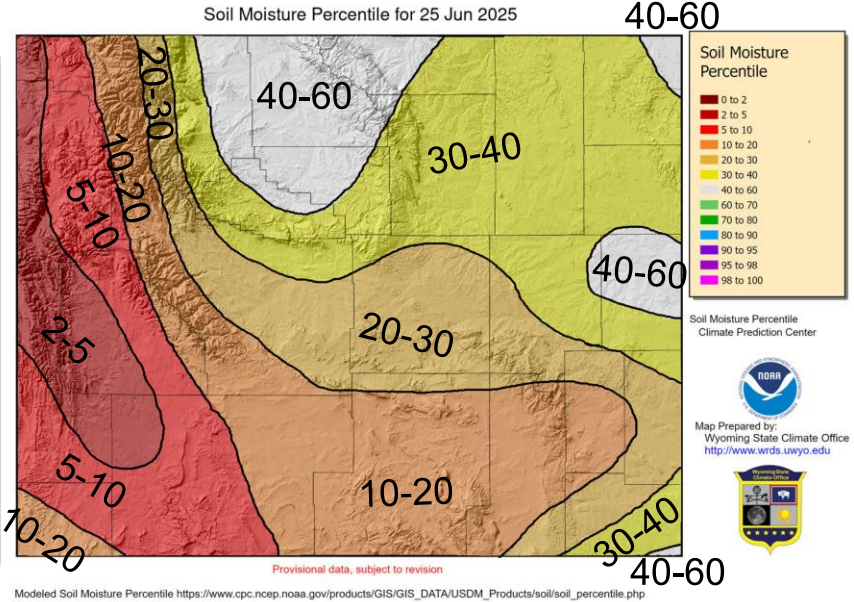
- Central and South Central Wyoming > 10F above normal.
- Bighorns and west/southwest >4F above normal
- Bighorn Basin and Northwest smallest departures

Soil Moisture Percentile

~Two Weeks Ago



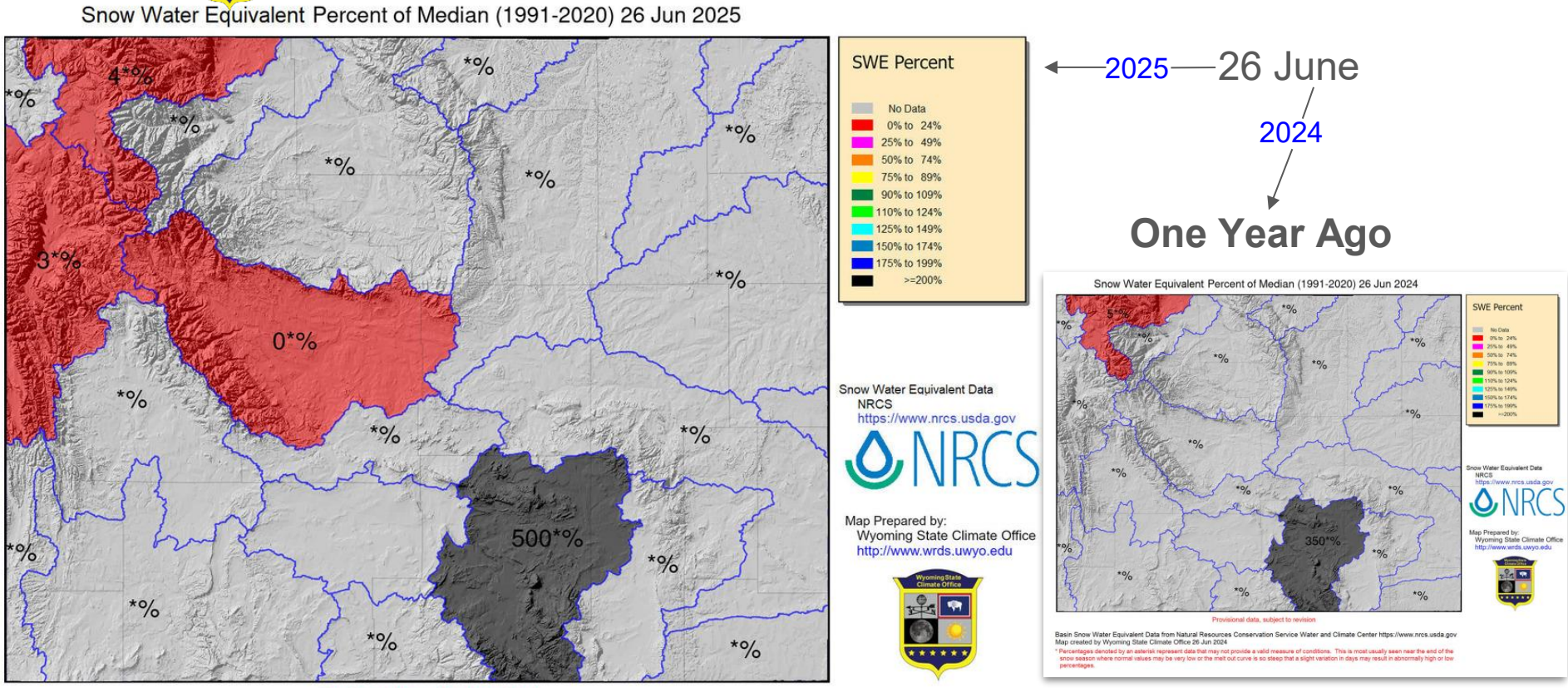
25 Jun 2025



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

Status Quo or Degradations across most of Wyoming

Basin Snow Water Equivalent - Percent of Median



2025 — 26 June

2024

One Year Ago

All basins are at the point where the percentages calculated are not valid measures of conditions.

https://www.wrds.uwyo.edu/wrds/nrcs/snowmap/snowmap.html

Basin Snow Pack Status - 26 Jun 2025

Peak Snow Water Equivalent Dates and Totals by Basin With Meltout Dates

This year's "to-date" peak snow water equivalent (SWE) compared to median.
Red indicates **earlier** peak date or **lower** SWE compared to median
Blue indicates **later** peak date or **higher** SWE compared to median
Click Column Headers to Sort

Basin Click to View Chart	This Year Peak Date	This Year Peak SWE (inches)	Days Early/Late	Peak SWE Dif (inches)	Percent of Median Peak SWE	Median Peak Date	Median Peak SWE (inches)	Current SWE	Median Meltout Date
Belle Fourche	25 Mar 2025	5.20	-3	-1.7	76%	28 Mar IMG	6.87 IMG	0.00	01 May IMG
Bighorn	06 Apr 2025	10.68	-18	-1.1	91%	24 Apr IMG	11.74 IMG	0.01	21 Jun IMG
Cheyenne	11 Mar 2025	4.90	-17	-2.6	65%	28 Mar IMG	7.50 IMG	0.00	01 May IMG
Laramie	07 Apr 2025	13.41	-8	-2.5	84%	15 Apr IMG	15.90 IMG	0.00	13 Jun IMG
Little Snake	07 Apr 2025	18.48	1	-2.4	88%	06 Apr IMG	20.90 IMG	0.03	20 Jun IMG
Lower Green	06 Apr 2025	12.80	-2	-1.0	92%	08 Apr IMG	13.84 IMG	0.00	13 Jun IMG
Lower North Platte	06 Apr 2025	9.25	-8	-3.5	73%	14 Apr IMG	12.75 IMG	0.00	29 May IMG
Madison	09 Apr 2025	19.62	-5	-2.2	90%	14 Apr IMG	21.80 IMG	0.04	25 Jun IMG
Powder	07 Apr 2025	7.61	-7	-3.0	72%	14 Apr IMG	10.61 IMG	0.01	10 Jun IMG
Shoshone	25 Mar 2025	17.17	-30	-0.9	95%	24 Apr IMG	18.08 IMG	0.00	29 Jun IMG
Snake	06 Apr 2025	22.55	-5	1.7	108%	11 Apr IMG	20.85 IMG	0.01	29 Jun IMG
South Platte	20 Mar 2025	3.30	-12	-3.3	50%	01 Apr IMG	6.60 IMG	0.00	26 Apr IMG
Sweetwater	25 Mar 2025	13.47	-24	-1.6	90%	18 Apr IMG	15.03 IMG	0.03	06 Jun IMG
Tongue	02 May 2025	12.14	4	-1.2	91%	28 Apr IMG	13.30 IMG	0.00	09 Jun IMG
Upper Bear	06 Apr 2025	16.40	-3	-1.4	92%	09 Apr IMG	17.81 IMG	0.09	15 Jun IMG
Upper Green	07 Apr 2025	16.47	-4	0.5	103%	11 Apr IMG	15.96 IMG	0.04	19 Jun IMG
Upper North Platte	06 Apr 2025	21.98	-10	-2.4	90%	16 Apr IMG	24.35 IMG	0.04	28 Jun IMG
Wind	07 Apr 2025	13.24	-13	-0.7	95%	20 Apr IMG	13.97 IMG	0.00	25 Jun IMG
Yellowstone	30 Apr 2025	21.12	7	0.3	102%	23 Apr IMG	20.79 IMG	0.04	01 Jul IMG

Data from Natural Resources Conservation Service SnoTel Network

https://www.wrds.uwyo.edu/Snow/BasinPeakSWE.html

Basin Meltout Dates

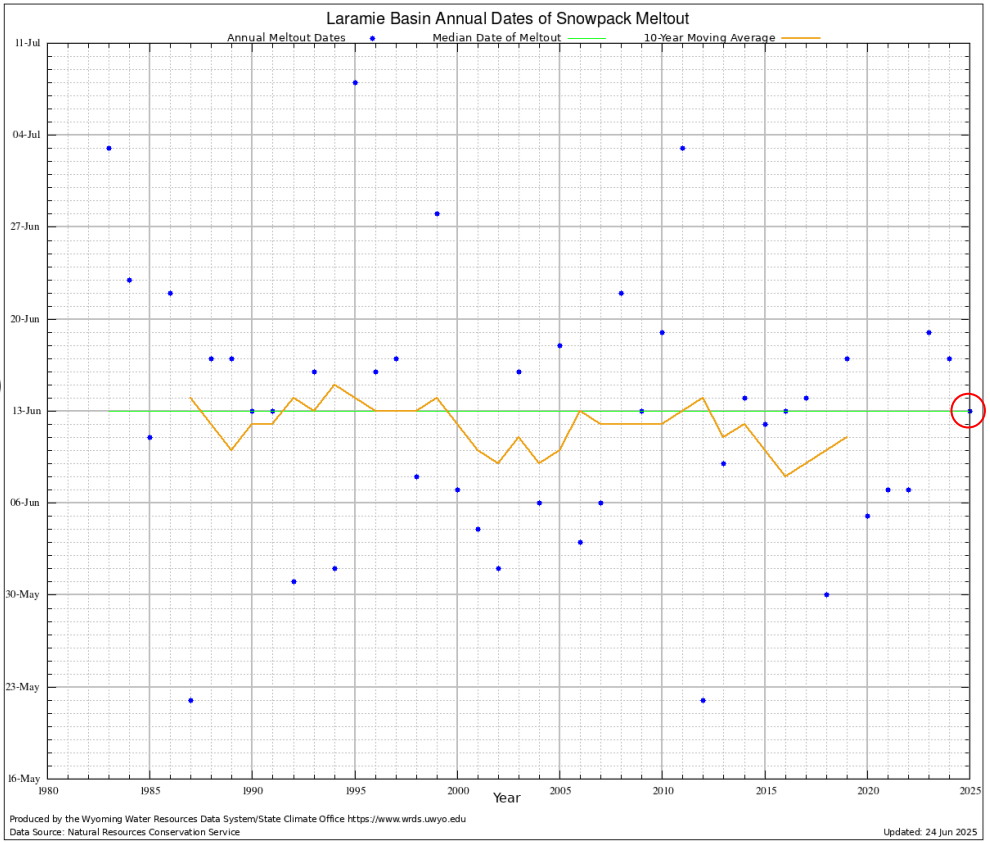
Early (12 Basins)
Belle Fourche (-9)
Bighorn (-4)
Cheyenne (-17)
Lower Green (-7)
Lower North Platte (-4)
Madison (-15)
Shoshone (-16)
Snake (-8)
South Platte (-12)
Sweetwater (-5)
Upper Green (-3)
Wind (-16)
Yellowstone (-6)

Late (4 Basins)
Little Snake (+3)
Powder (+1)
Tongue (+1)
Upper Bear (+1)

On Median Date (1 Basin)
Laramie (0)

Not Melted Out & Too Close to Call (1 Basin)
Upper North Platte (-2)

Number after basin name is the number of days early (-) or late (+) that the basin melted out.

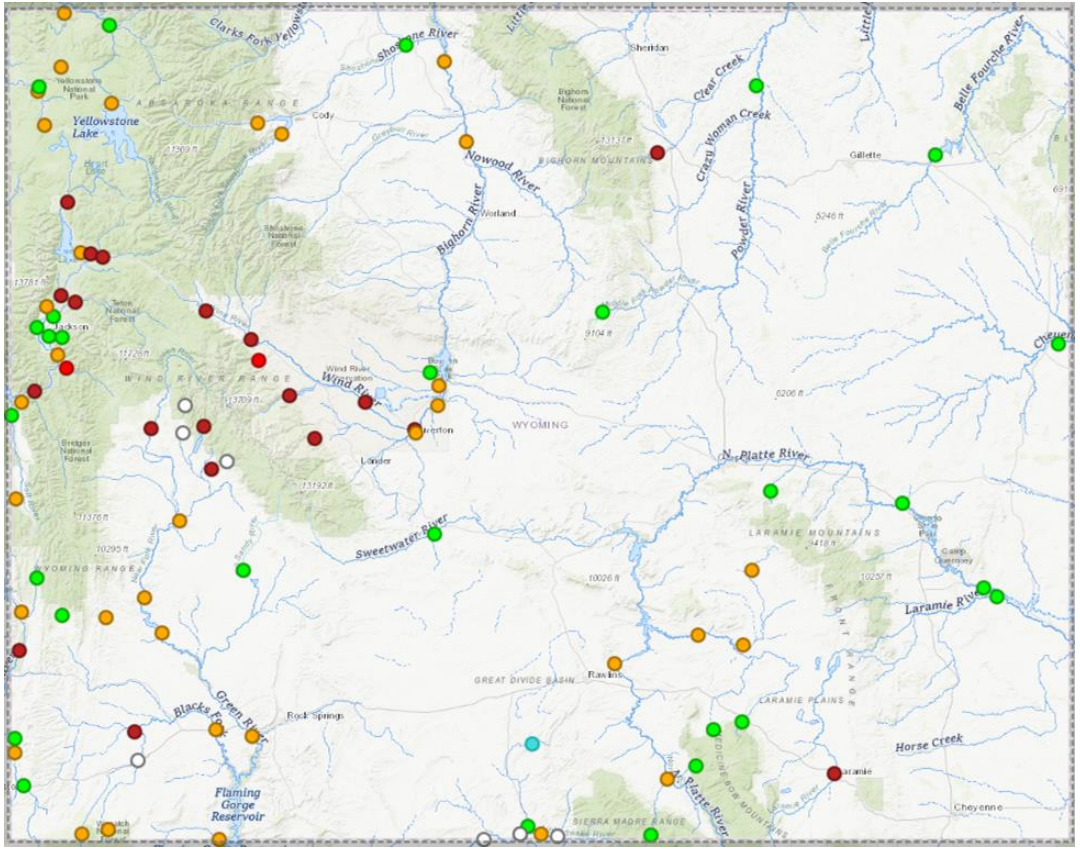


https://www.wrds.uwyo.edu/Snow/BasinPeakSWE.html

Current Streamflow Conditions

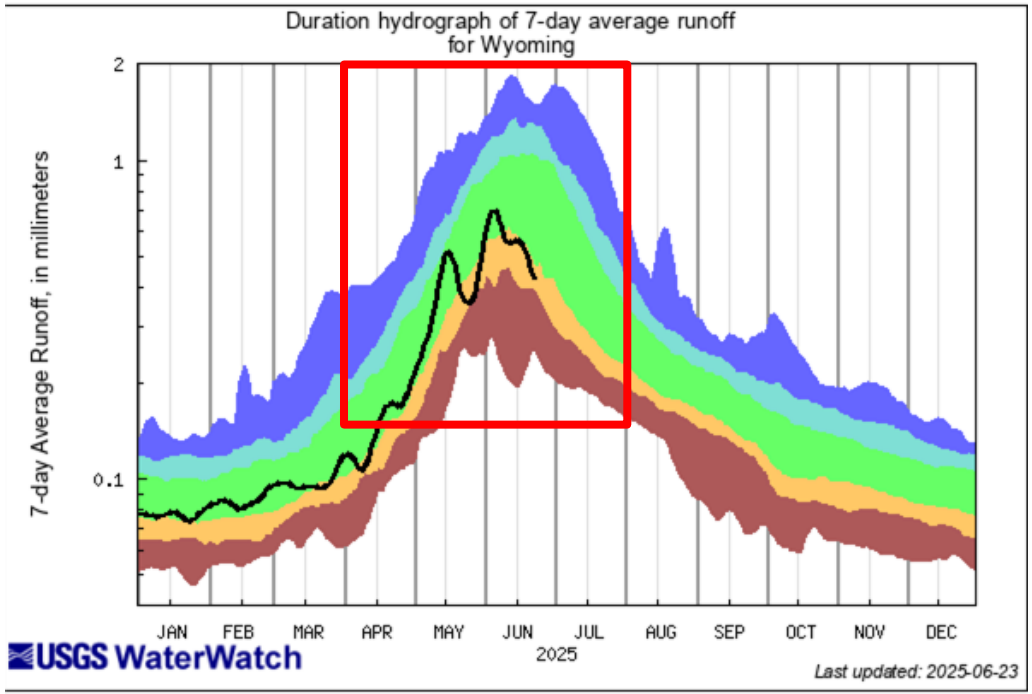
Streamflow Status

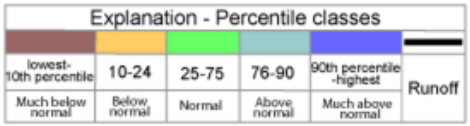




https://dashboard.waterdata.usgs.gov/

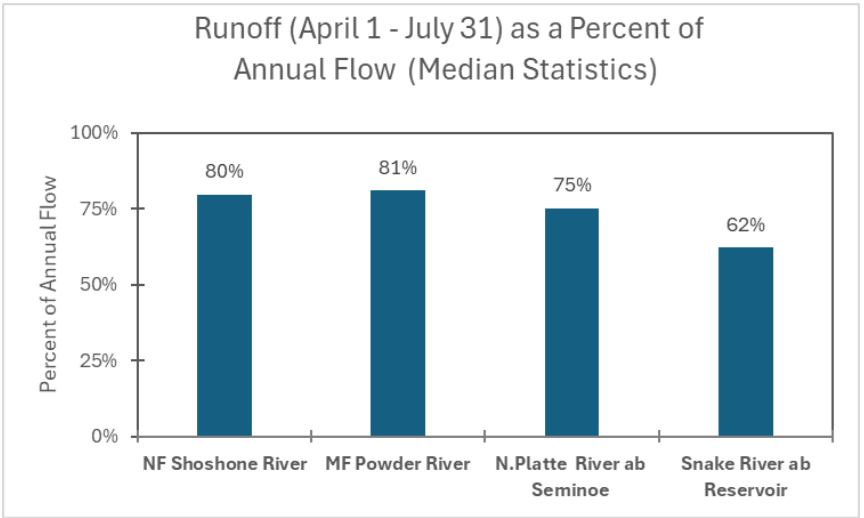
Significance of Runoff: April 1- July 31





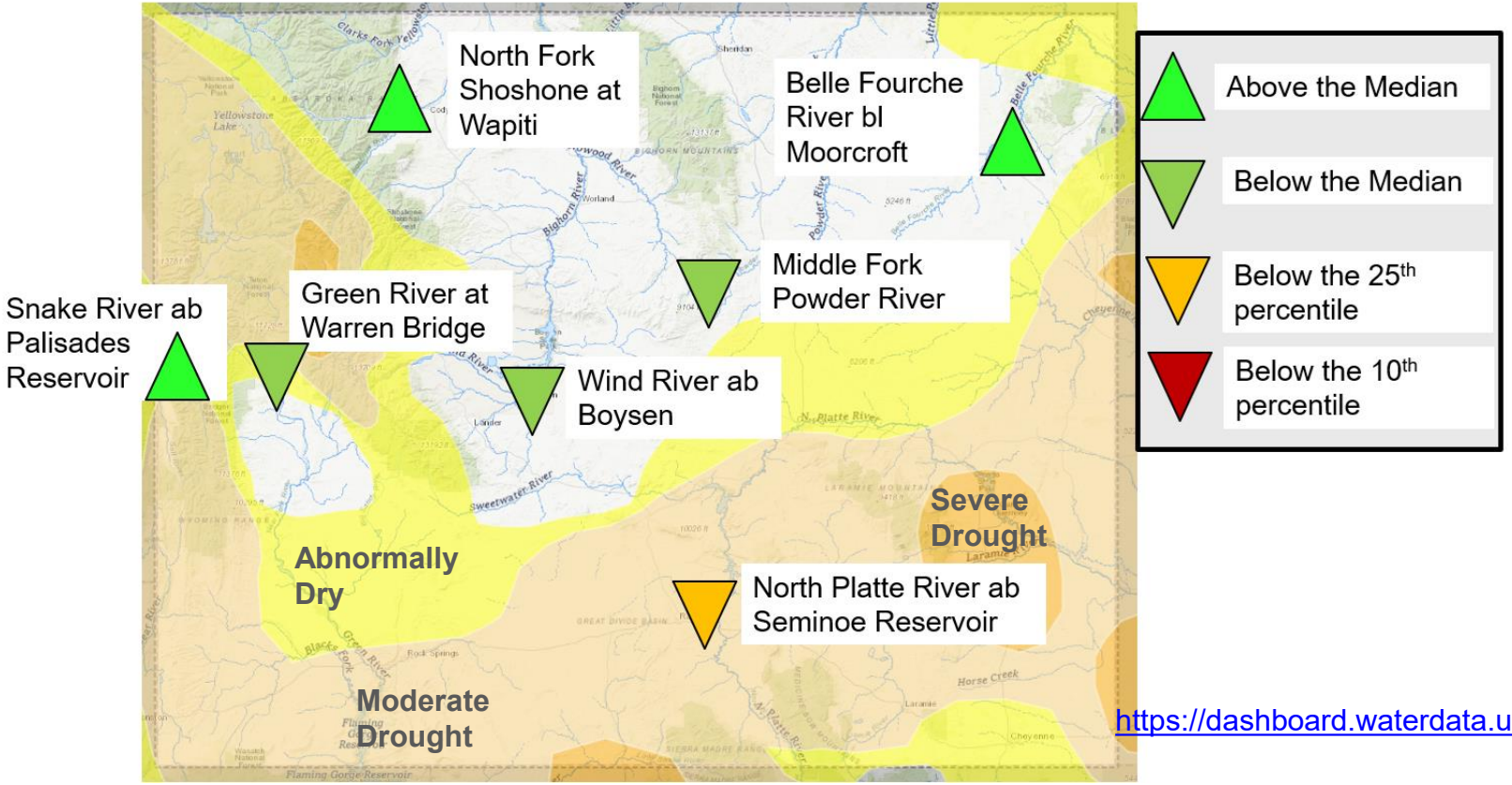
https://waterwatch.usgs.gov/

- Majority of the annual volume in a short period of time.
- If runoff volume is below “average” then the annual flow is likely to follow.



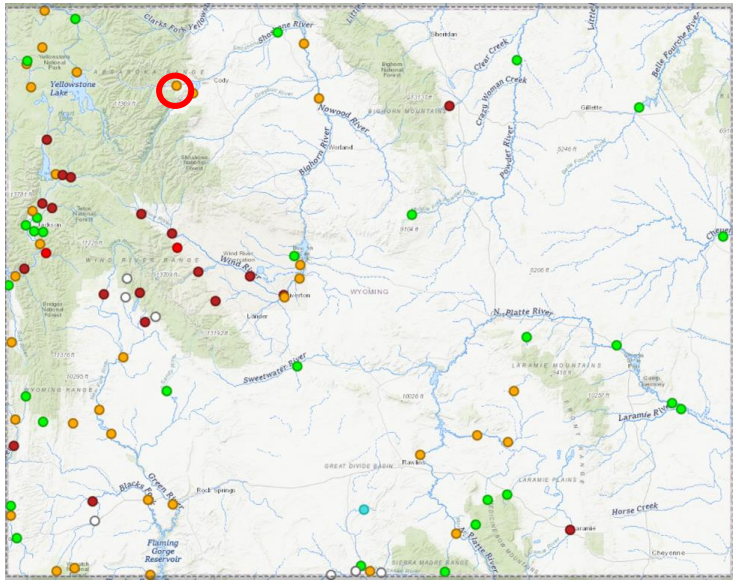
April 1- June 22, 2025: Streamflows

Cumulative Flow, Compared to Period of Record Statistics



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

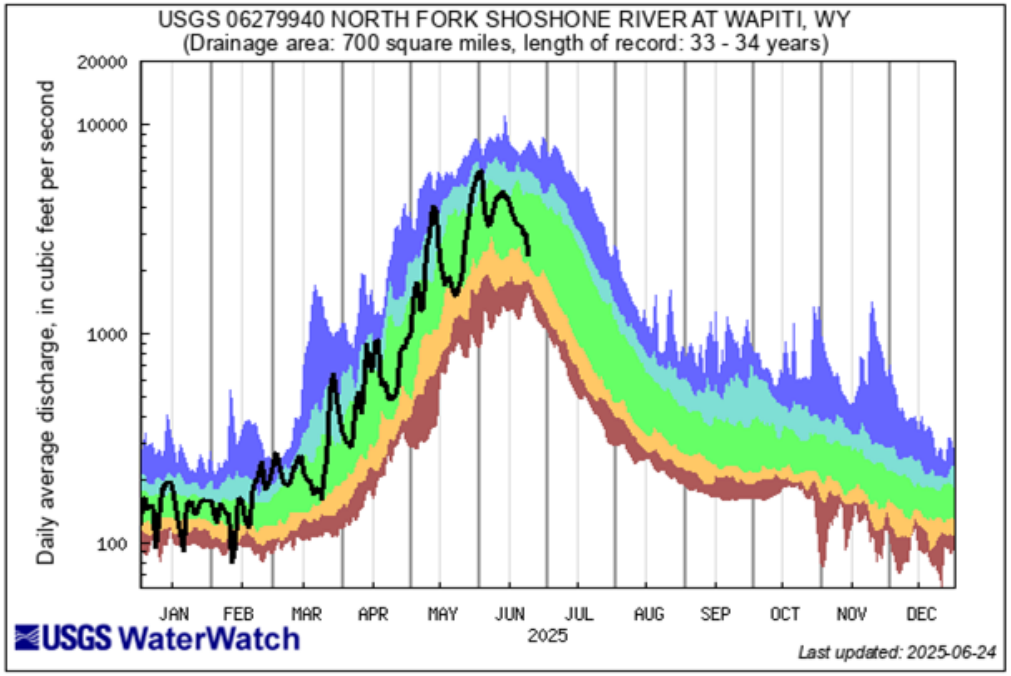
Select WY Streamflows

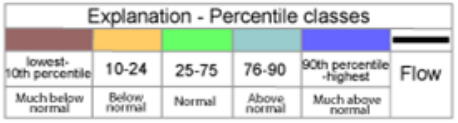


https://dashboard.waterdata.usgs.gov/

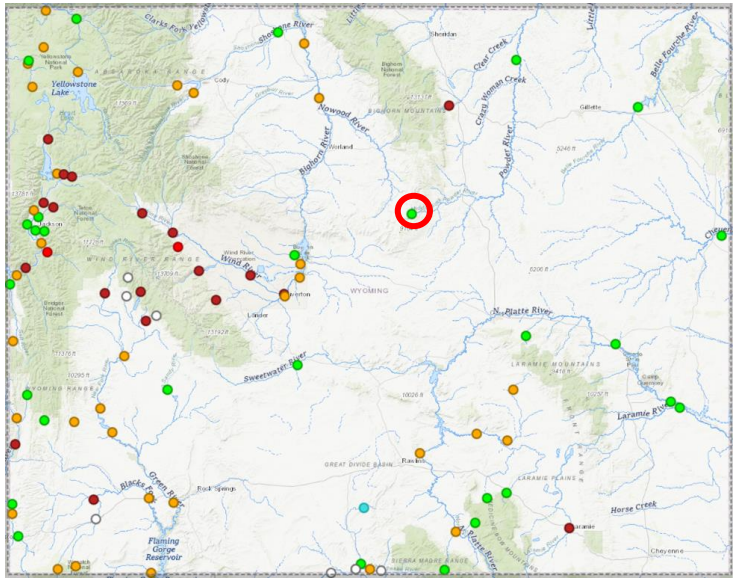
https://waterwatch.usgs.gov/

North Fork Shoshone River, at Wapiti, WY





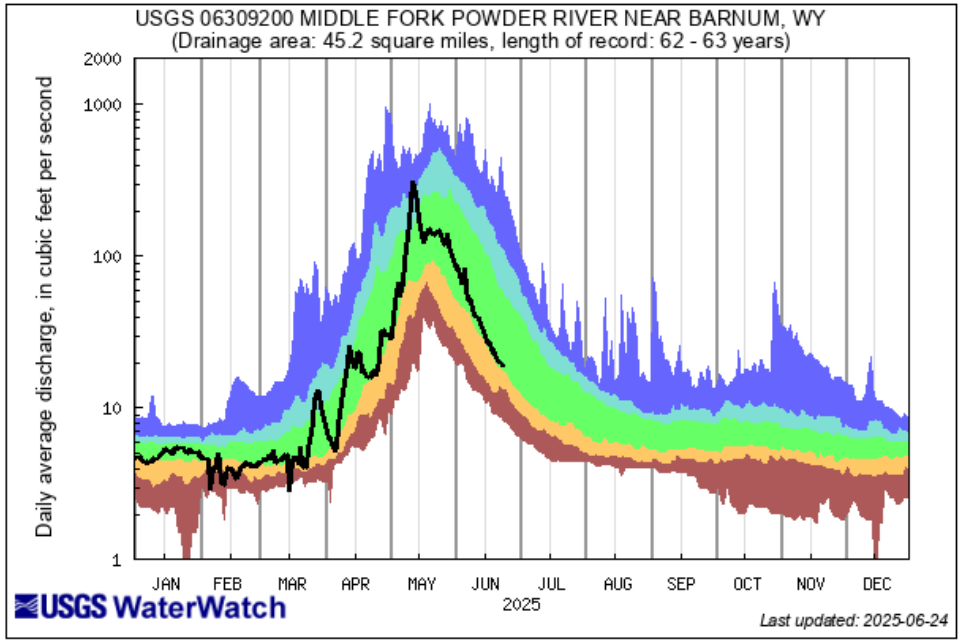
Select WY Streamflows

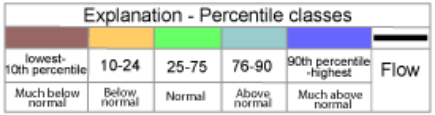


https://dashboard.waterdata.usgs.gov/

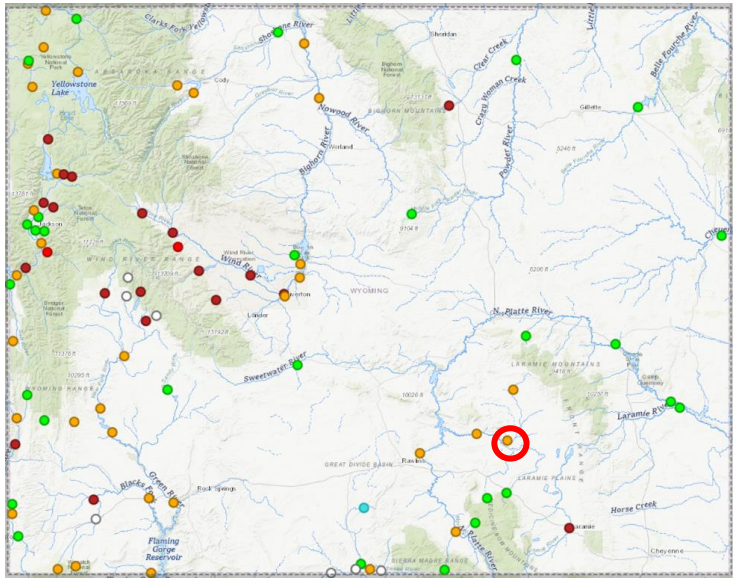
https://waterwatch.usgs.gov/

Middle Fork Powder River, near Barnum, WY

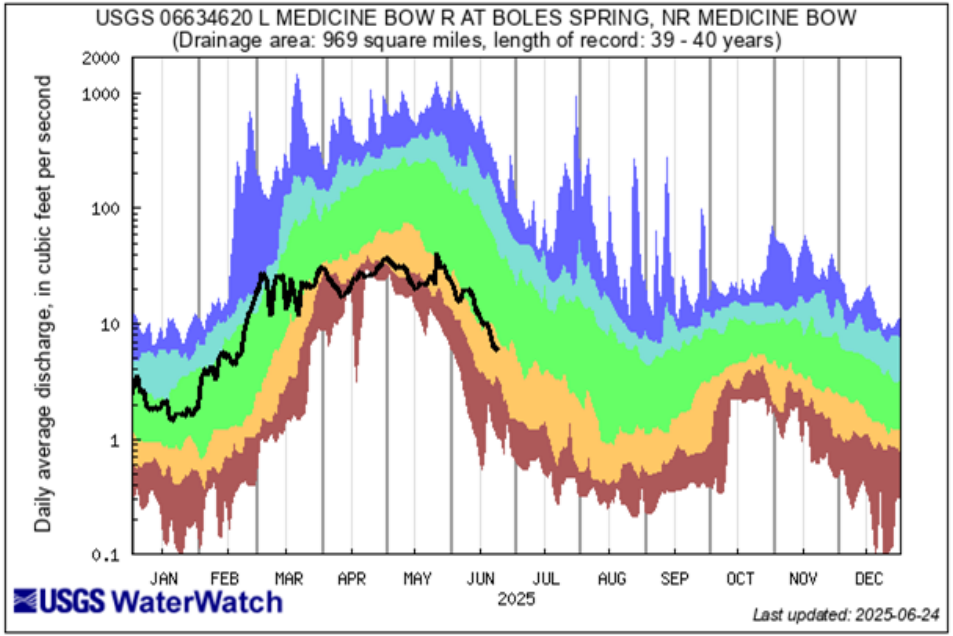




Select WY Streamflows



Little Medicine Bow River, near Medicine Bow, WY

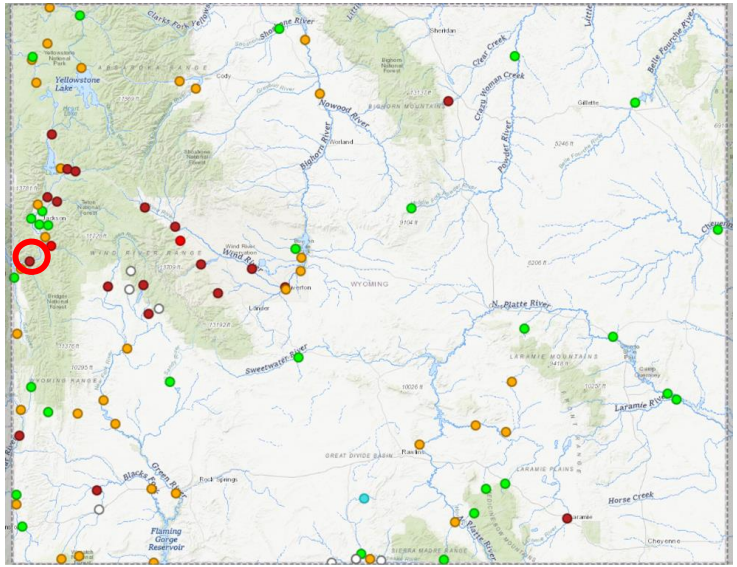


Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

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

https://waterwatch.usgs.gov/

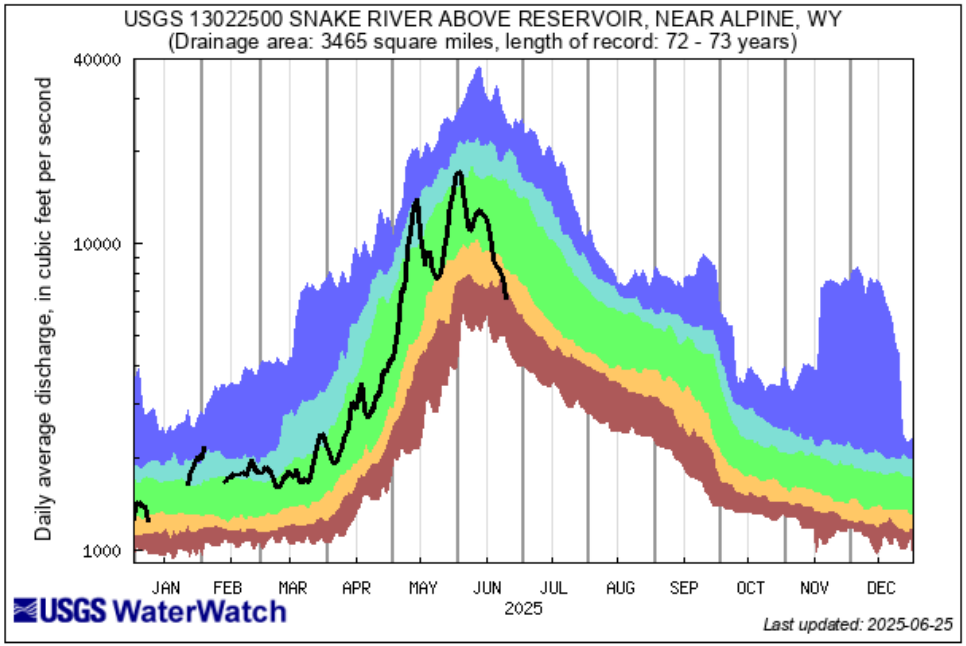
Select WY Streamflows

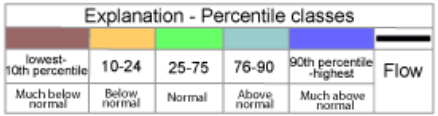


https://dashboard.waterdata.usgs.gov/

https://waterwatch.usgs.gov/

Snake River above Reservoir, near Alpine, WY

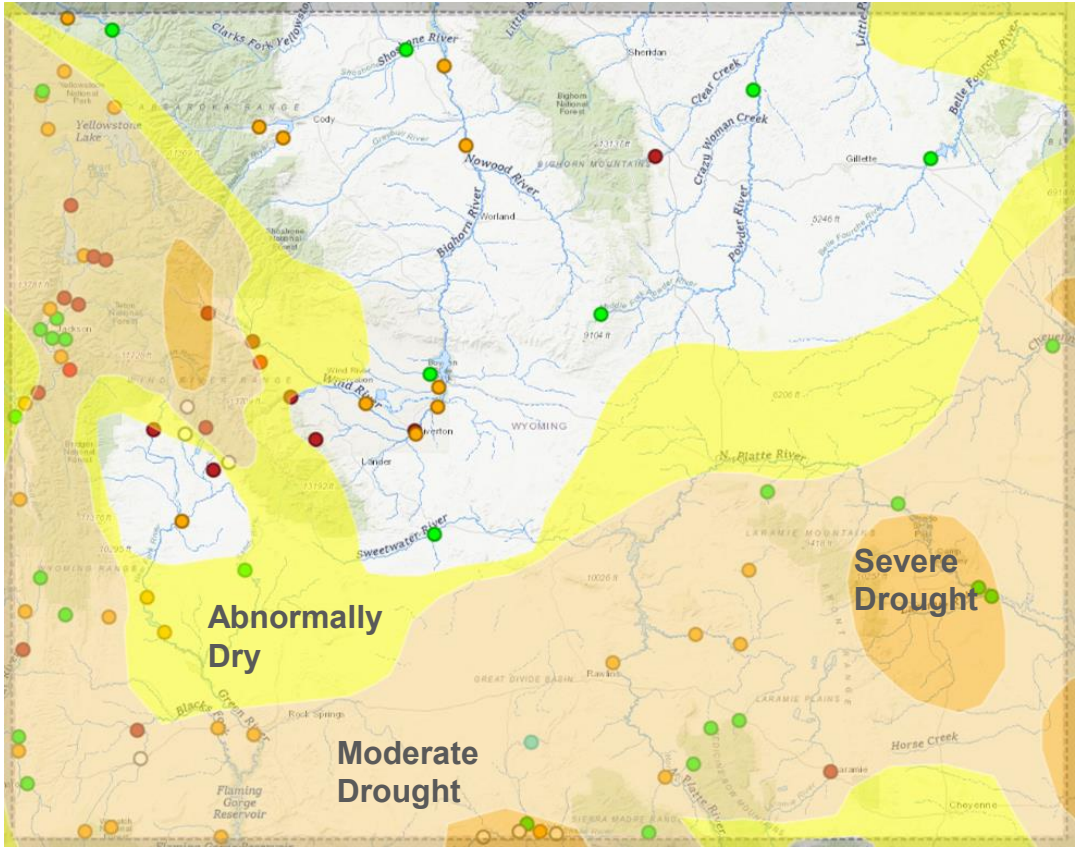




Drought and Streamflow

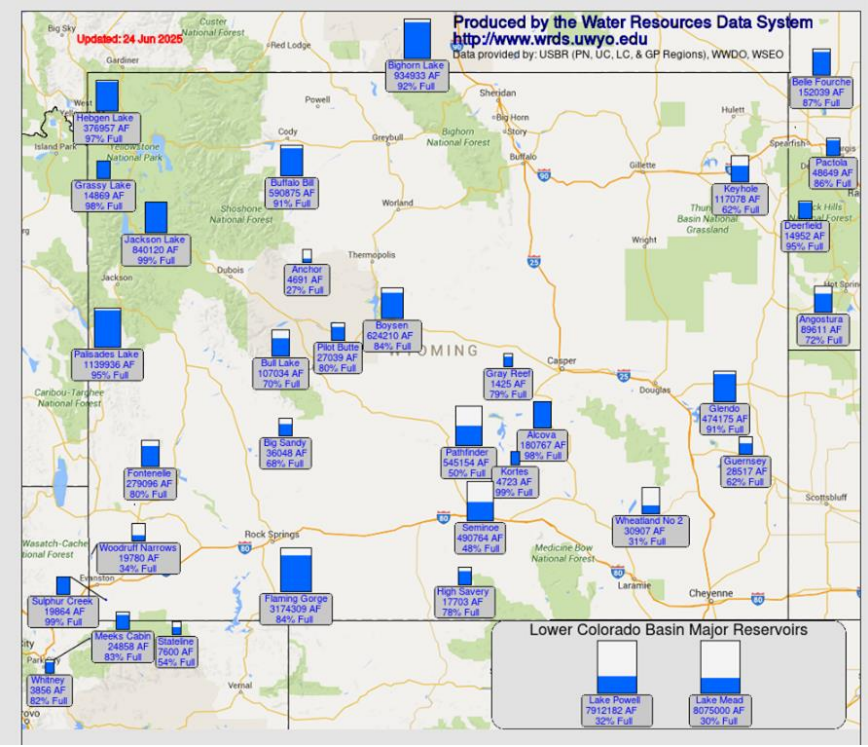
Streamflow Status





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

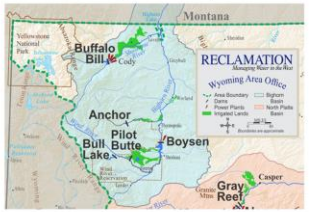
Wyoming Reservoirs



Reservoir Storage

- Mixed Bag.
- Large increases - Wind, Fontenelle, Snake.
- Minor - Keyhole, Seminoe, Pathfinder, Flaming Gorge.

Current Reservoir Conditions: Bighorn System

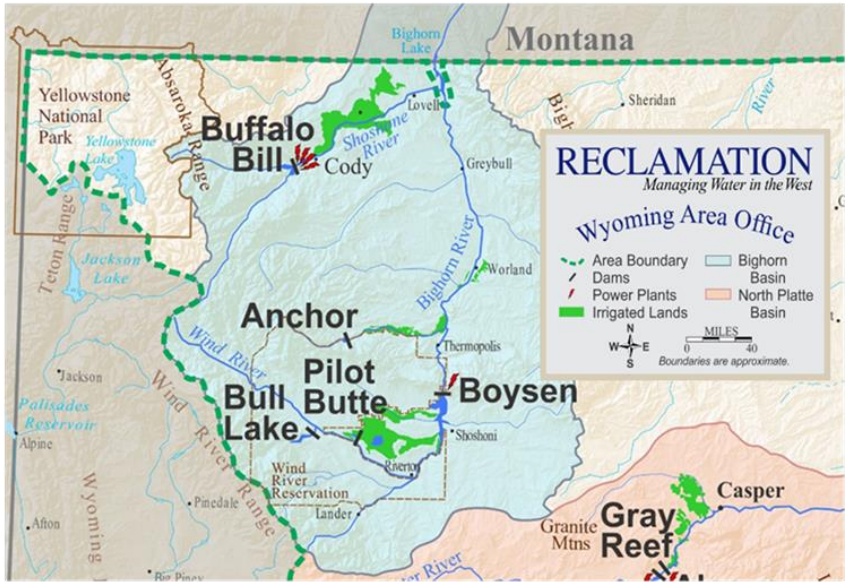


Bighorn System (June 24th):

Reservoir	Content	Capacity	% of Full	% of Avg	Releases
Bull Lake	107,228	152,500	70%	85%	392 cfs
Boysen	623,869	741,600	84%	96%	1150 cfs
Buffalo Bill	591,277	646,600	91%	102%	1350 cfs

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

Current Reservoir Conditions: Bighorn System

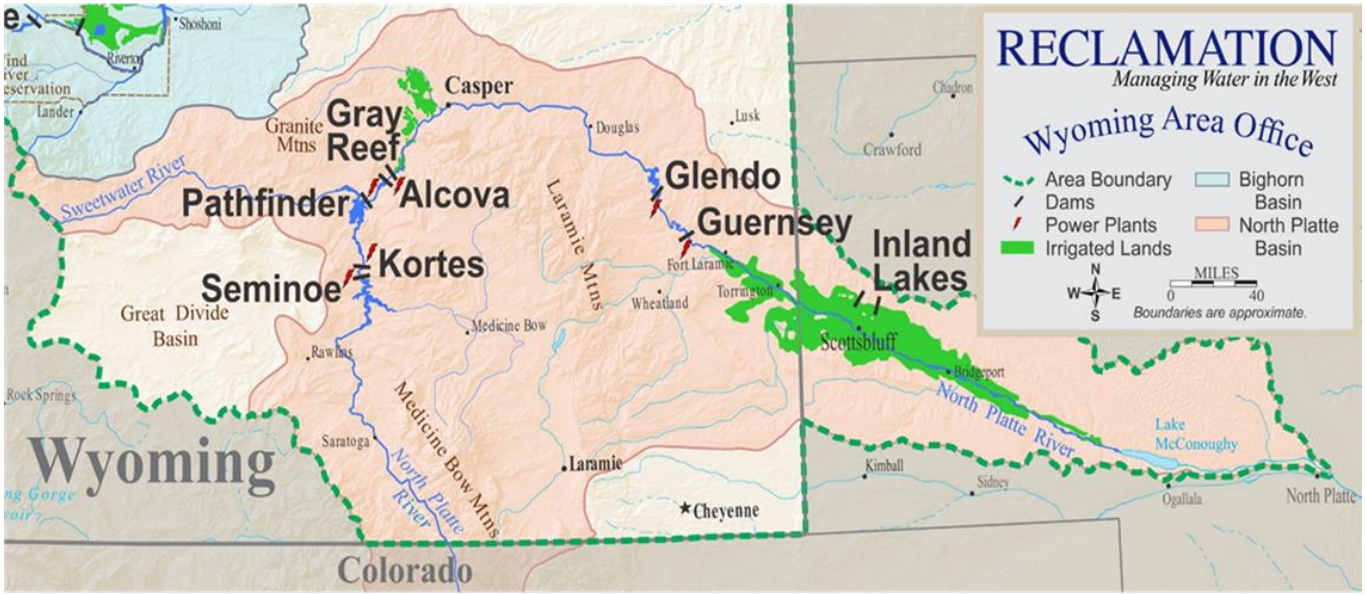


Bighorn System (June 24th):

Reservoir	Content	Capacity	% of Full	% of Avg	Releases
Bull Lake	107,228	152,500	70%	85%	392 cfs
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Buffalo Bill	591,277	646,600	91%	102%	1350 cfs

BUREAU OF RECLAMATION

Current Reservoir Conditions: North Platte System



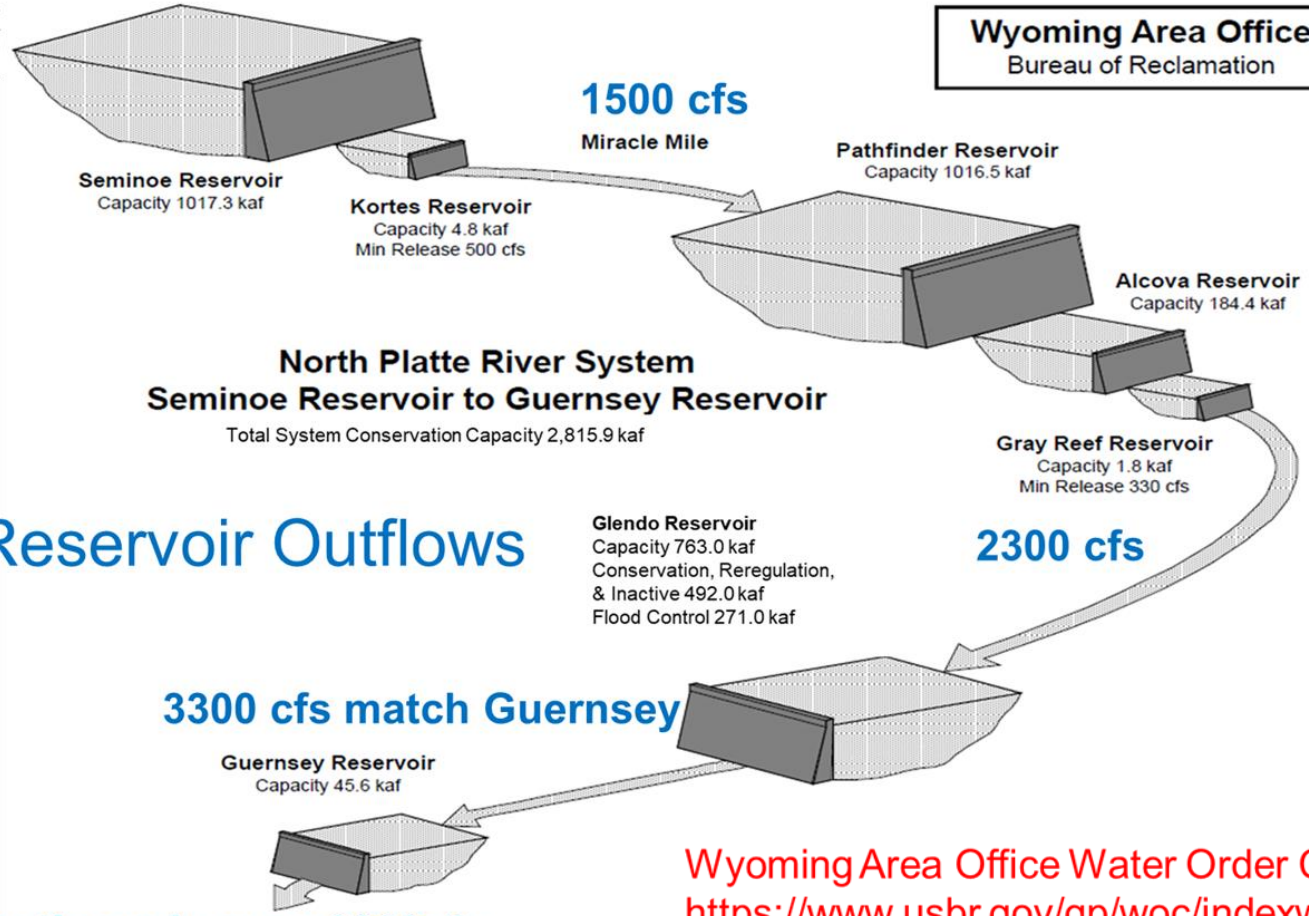
North Platte System (June 24th):

Reservoir	Content	Capacity	% of Full	% of Avg
Seminoe	489,631	1,017,300	48%	66%
Pathfinder	542,731	1,070,000	51%	76%
Glendo	470,927	492,000	96%	97%

BUREAU OF RECLAMATION

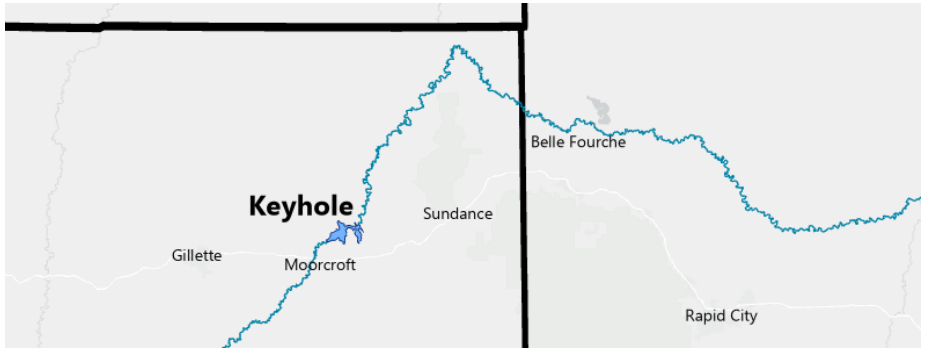
Wyoming Area Office
Bureau of Reclamation

Current Reservoir Outflows



Wyoming Area Office Water Order Changes –
https://www.usbr.gov/gp/woc/indexwy.html

Current Reservoir Conditions – Keyhole





Keyhole: 60% full

Current Release: 0 cfs

- Releases are based on irrigation demand
- Operated by Reclamation's Dakotas Area Office

Current Data for Keyhole Reservoir, WY

WY SEO Divisions and Superintendents

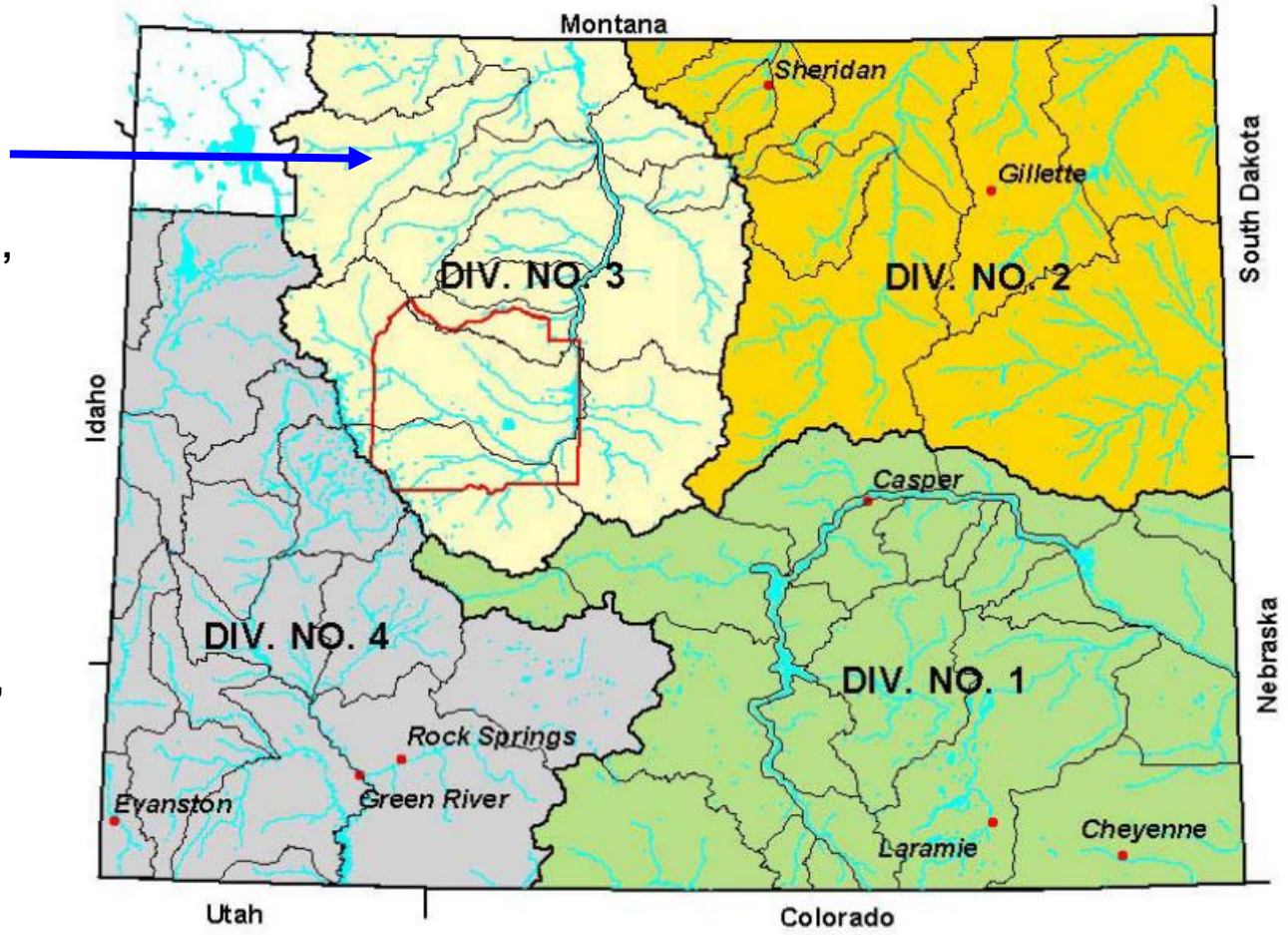
Contact information for calls and administration

Division 3

Joshua Fredrickson, 856-0747

Division 2

David Schroeder, 674-7012



Division 4

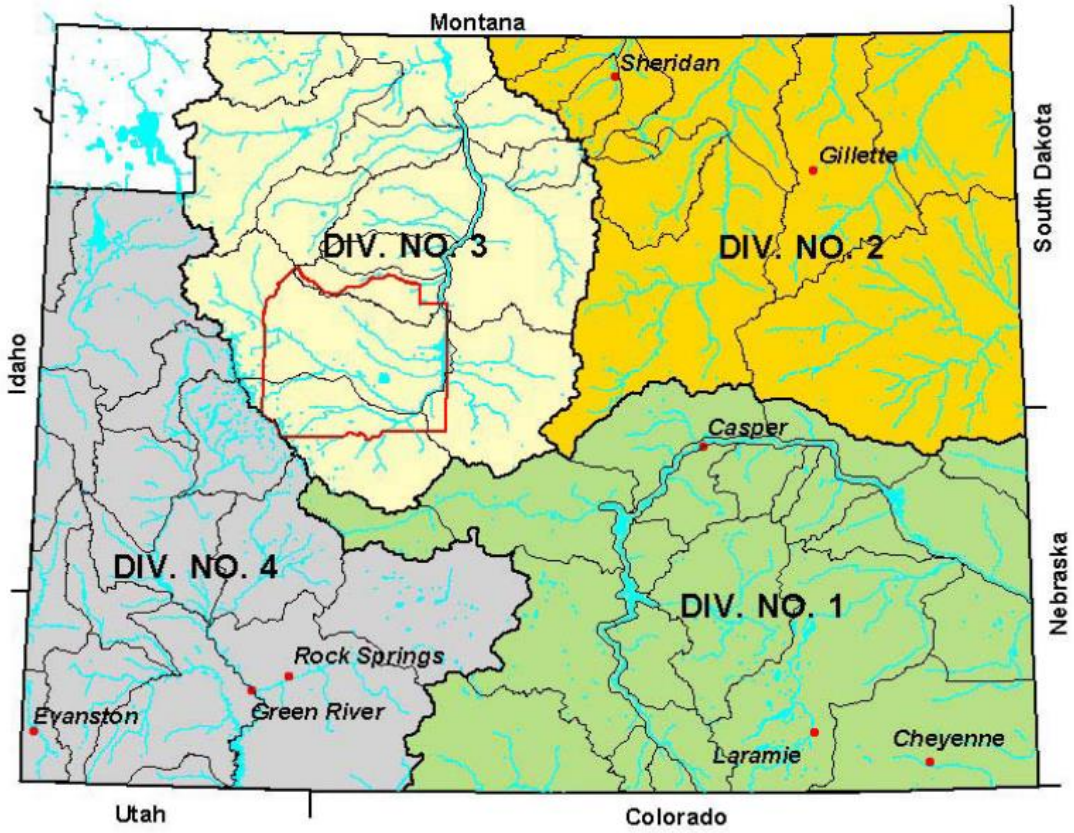
Kevin Payne, 279-3441

Division 1

Josh Deberard, 532-1272

WY SEO Divisions and Superintendents

Contact information for calls and administration



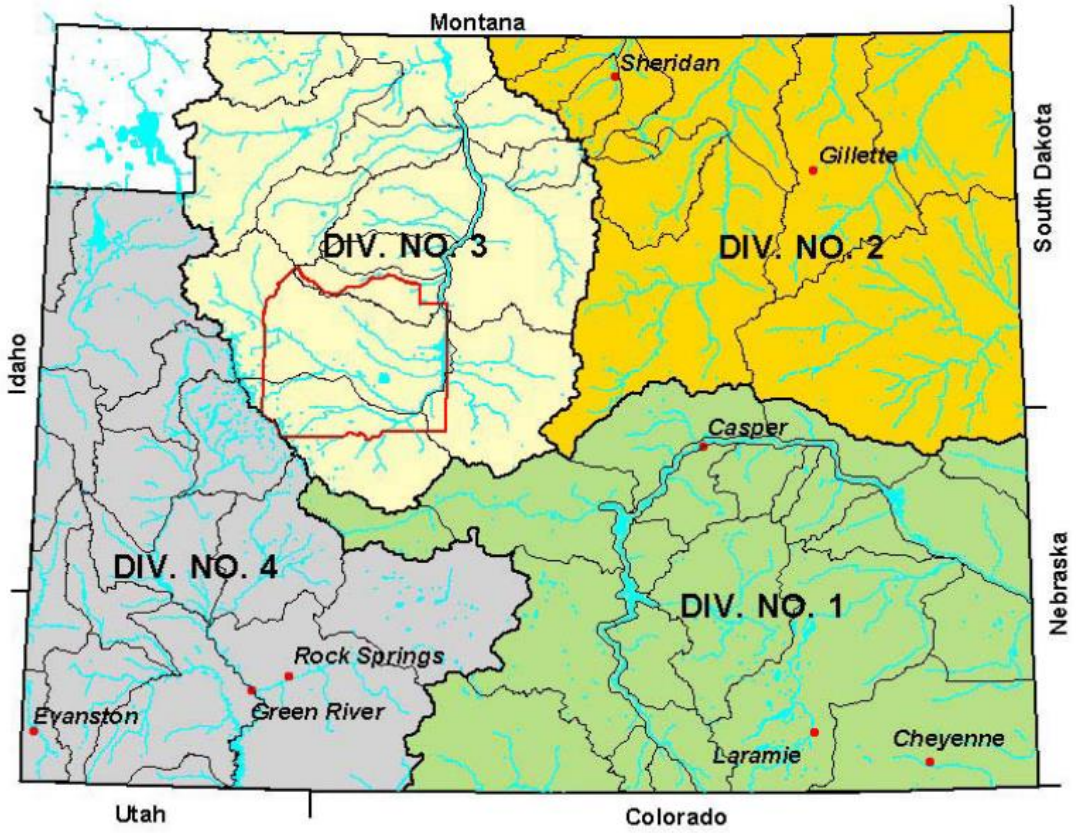
June 25:

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

- Little Laramie River: regulated to 1875 and 1881; and 1897
- Laramie River: regulated to 1875 and 1881; and 1879
- Bear Creek: regulated to 1891
- Horseshoe Creek: regulated to 1879 and 1890
- South Spring Creek and Heather Creek: regulated to 1880, and 1885
- Pass Creek: regulated to 1884

WY SEO Divisions and Superintendents

Contact information for calls and administration



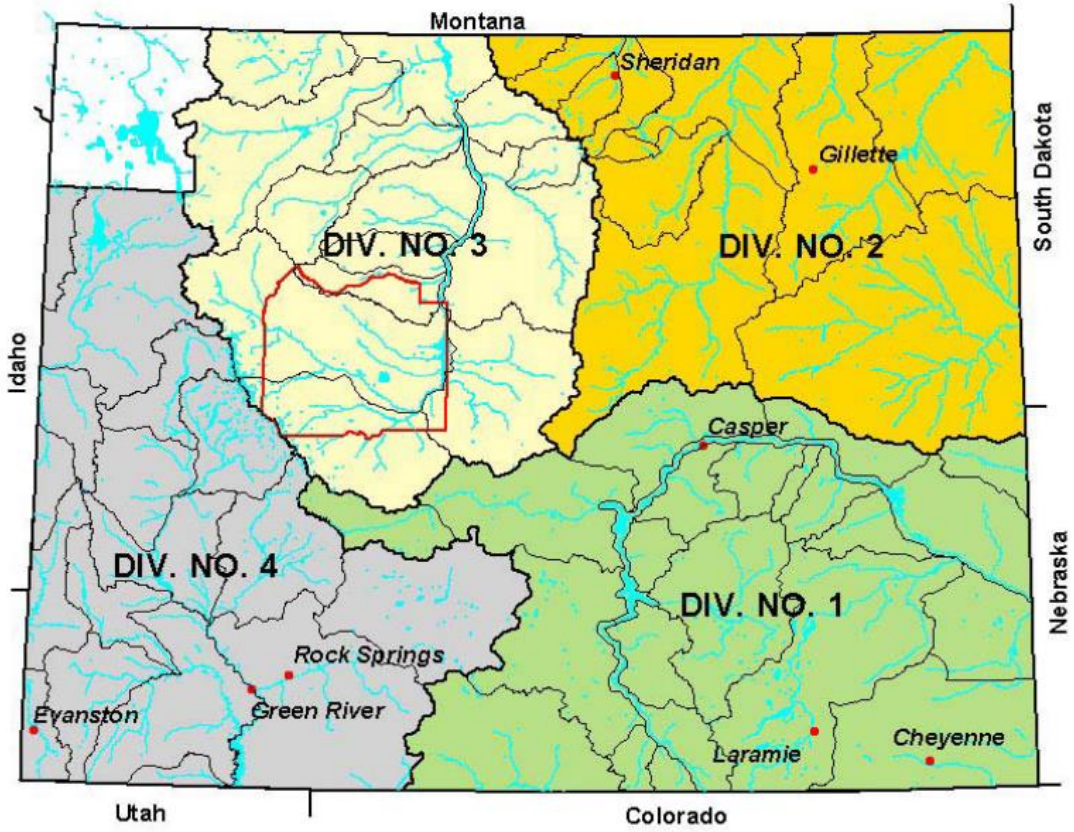
As of June 25:

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

- **Bates Creek: regulated to 1886 and 1888**
- **Laramie River: regulated to 1883**

WY SEO Divisions and Superintendents

Contact information for calls and administration



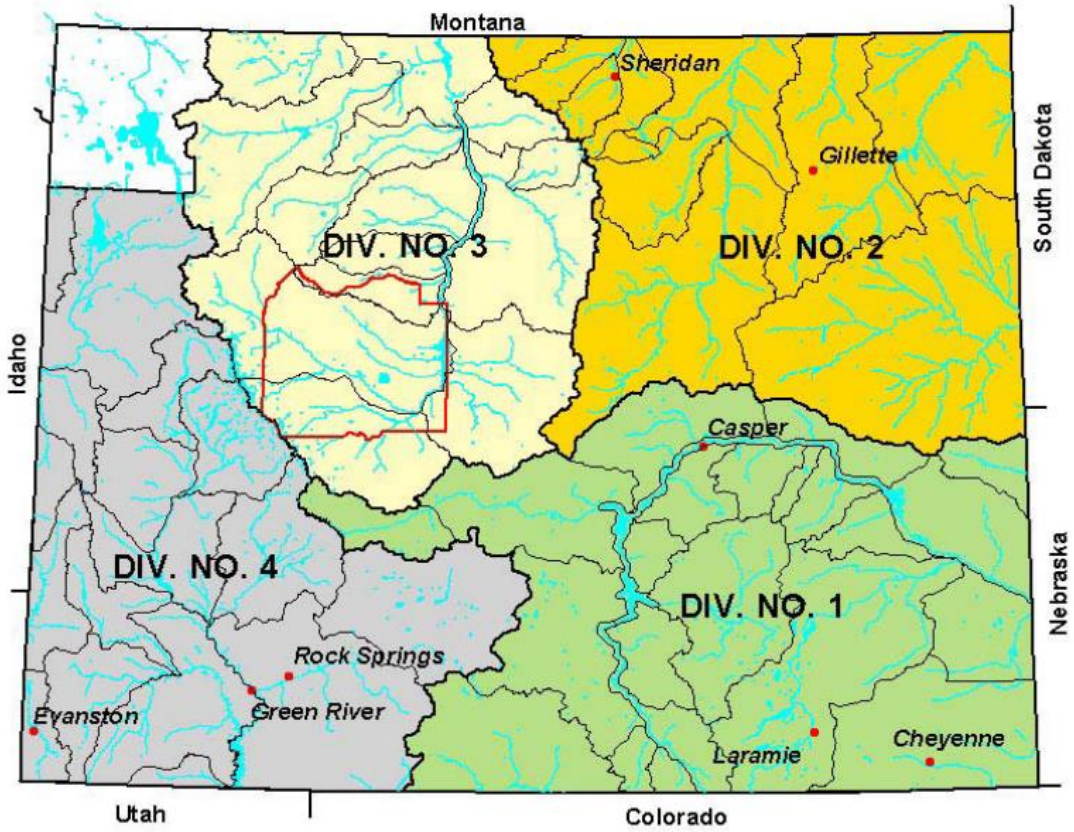
As of June 25:

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

- **French Creek: regulated to 1884**

WY SEO Divisions and Superintendents

Contact information for calls and administration



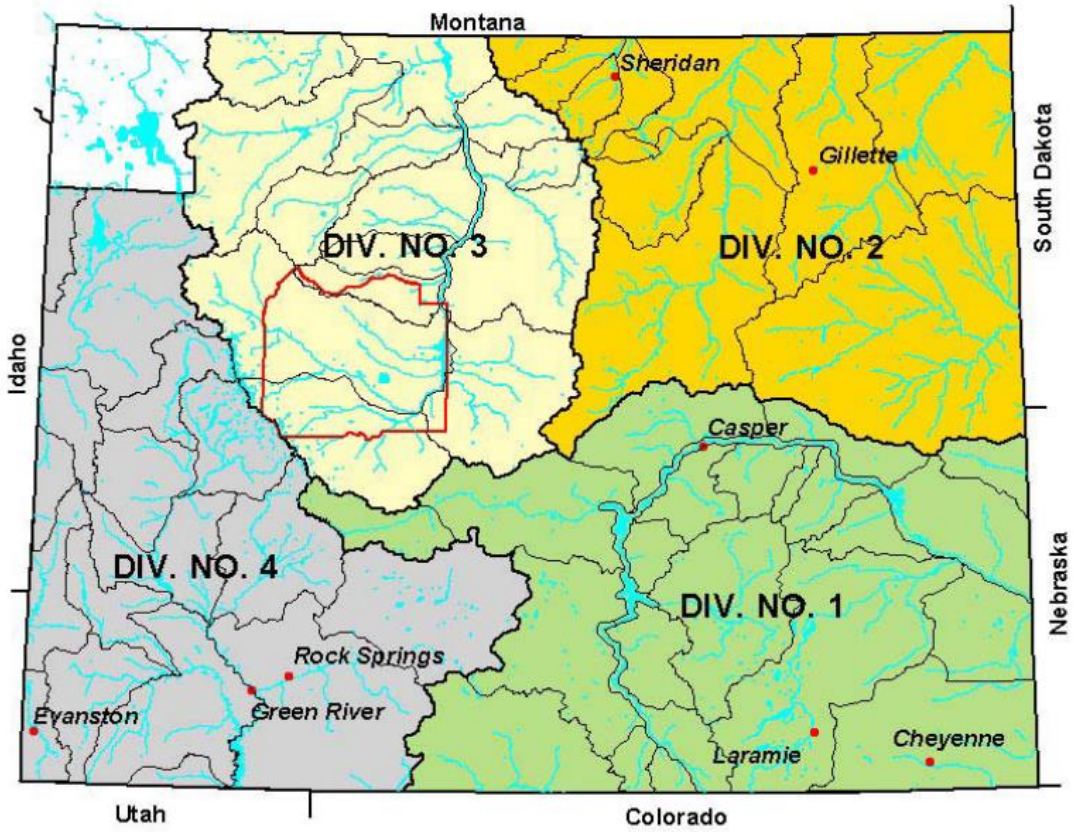
As of June 25:

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

- Gooseberry Creek: regulated to 1907 and 1906
- Greybull River: regulated to 1894
- Bennett - Little Rock Creek: regulated to 1900
- **North Fork and Owl Creek: Regulated to 1900**

WY SEO Divisions and Superintendents

Contact information for calls and administration



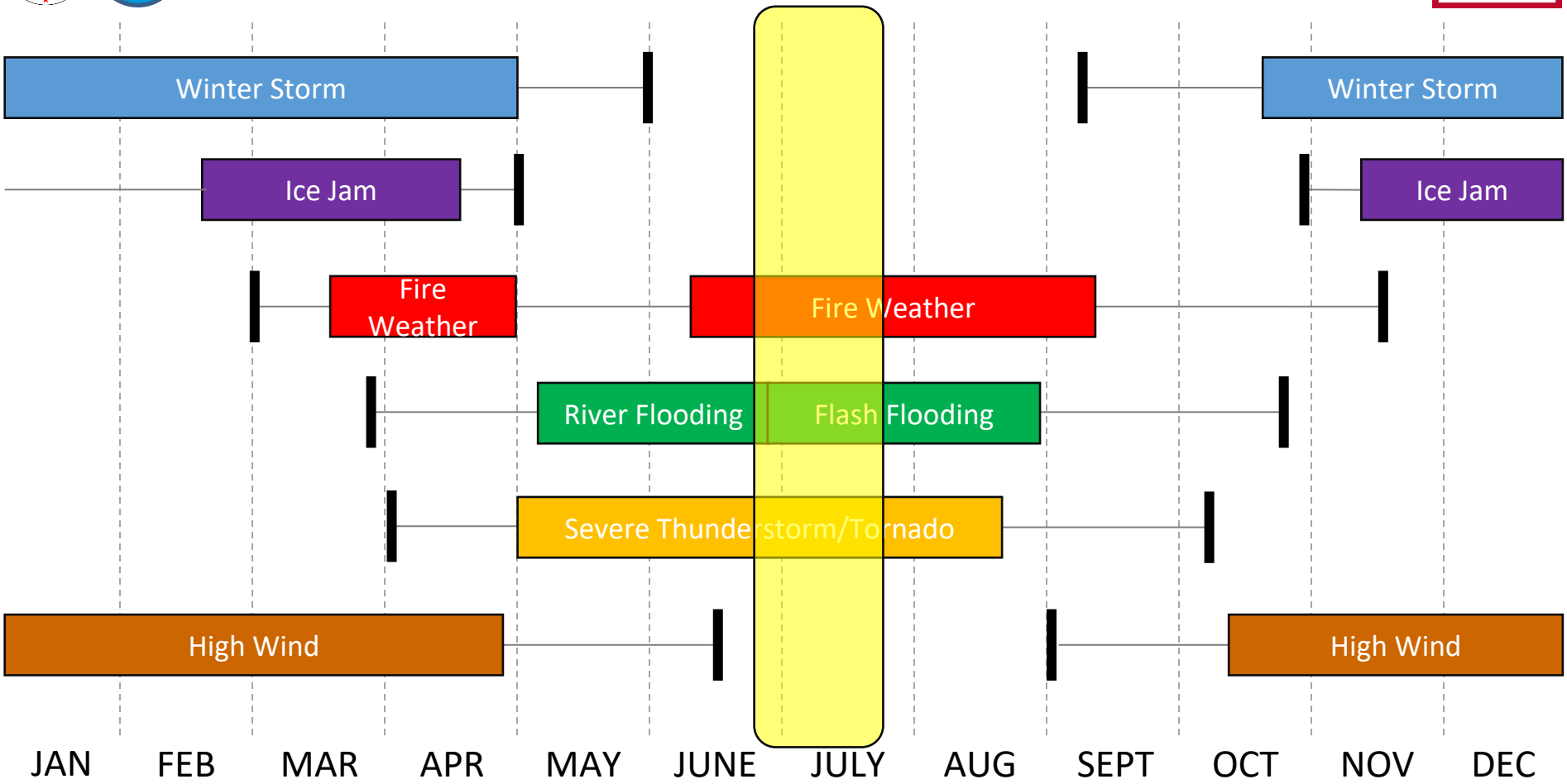
As of June 25:

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

- **Smiths Fork River: regulated to 1887, 1910, 1953**
- **Burnt Fork: regulated to 1878**
- **South Piney Creek: regulated to 1886**
- **Henrys Fork: regulated to 1899**
- **Bear River: regulated for compact compliance**

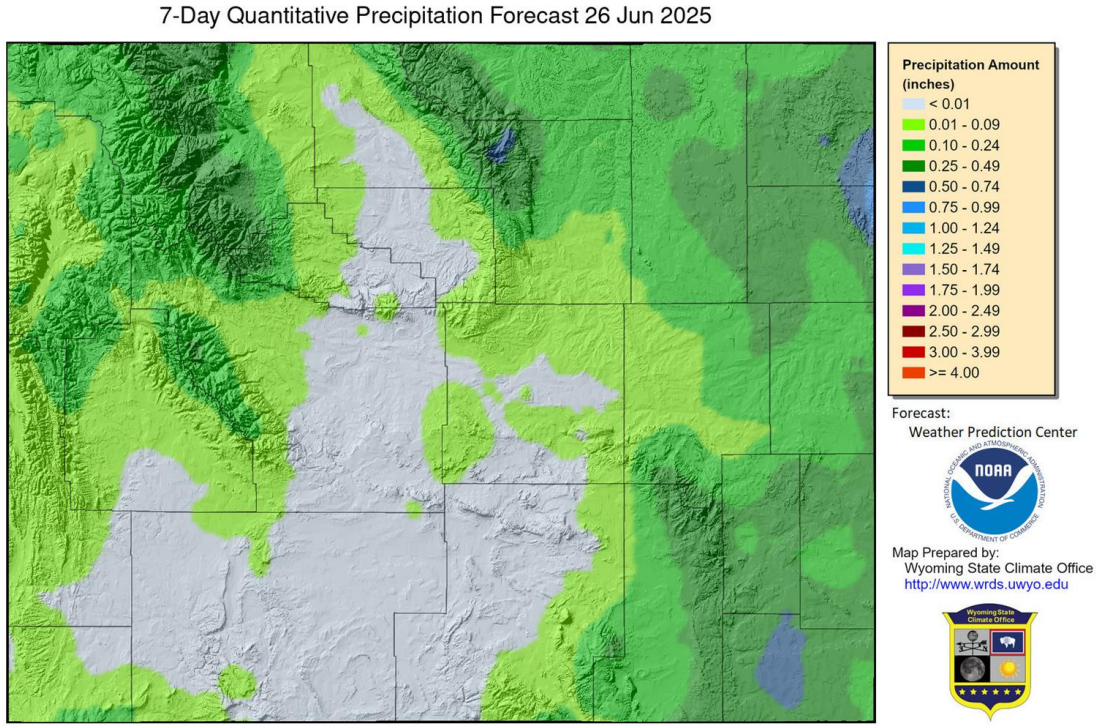
Weather Info & Forecasts

NWS Wyoming - Typical Hazard Calendar



7-Day Total Precipitation Forecast

(Jun 26 - Jul 2)



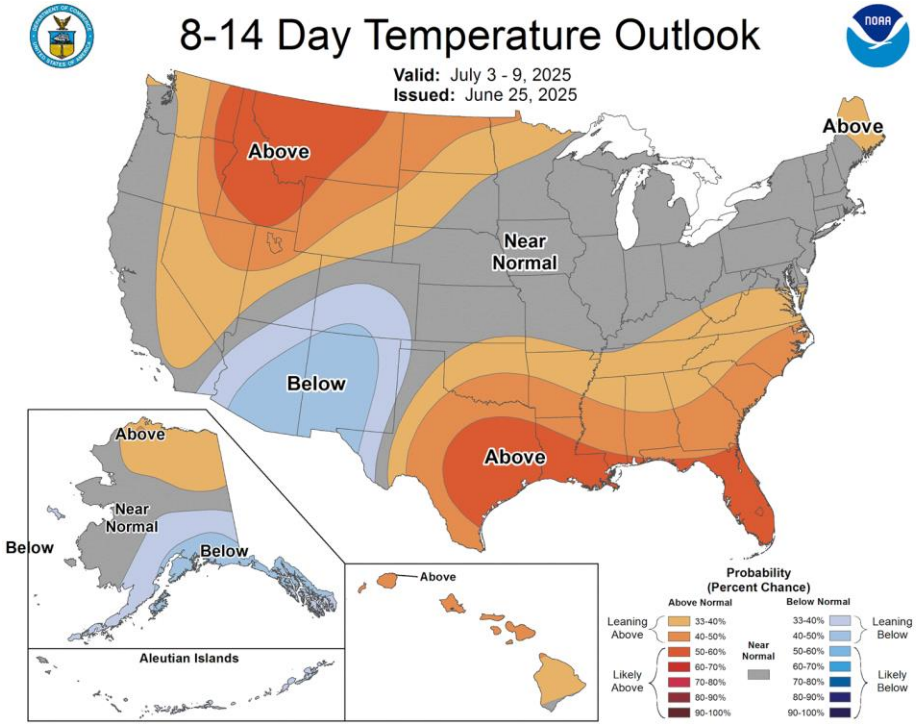
The Quantitative Precipitation Forecast shows the liquid amount of forecasted precipitation over the next 7 days
The Forecast is created by the National Weather Service Weather Prediction Center
Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, National Centers for Environmental Prediction, and Weather Prediction Center - https://www.wpc.ncep.noaa.gov
Map Layout Created 26 Jun 2025 https://www.wrds.uwyo.edu

- No widespread rain likely across state in the next week
- Daily scattered thunderstorms (mainly across eastern Wyoming) will cause isolated corridors of moderate rainfall amounts

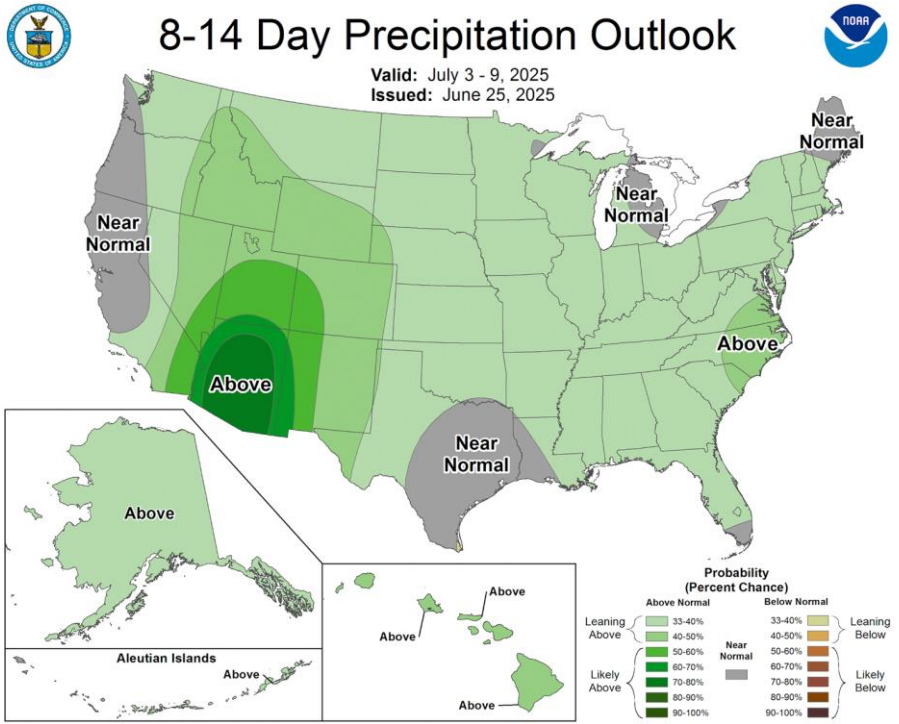
https://bit.ly/7_dayQPForecast

8-14 Day Outlooks
(Jul 3 - Jul 9)

https://bit.ly/CPC8_14Day



- Lean toward above normal temperatures
- Interactive Version: cpc.ncep.noaa.gov/products/predictions/814day/interactive/index.php

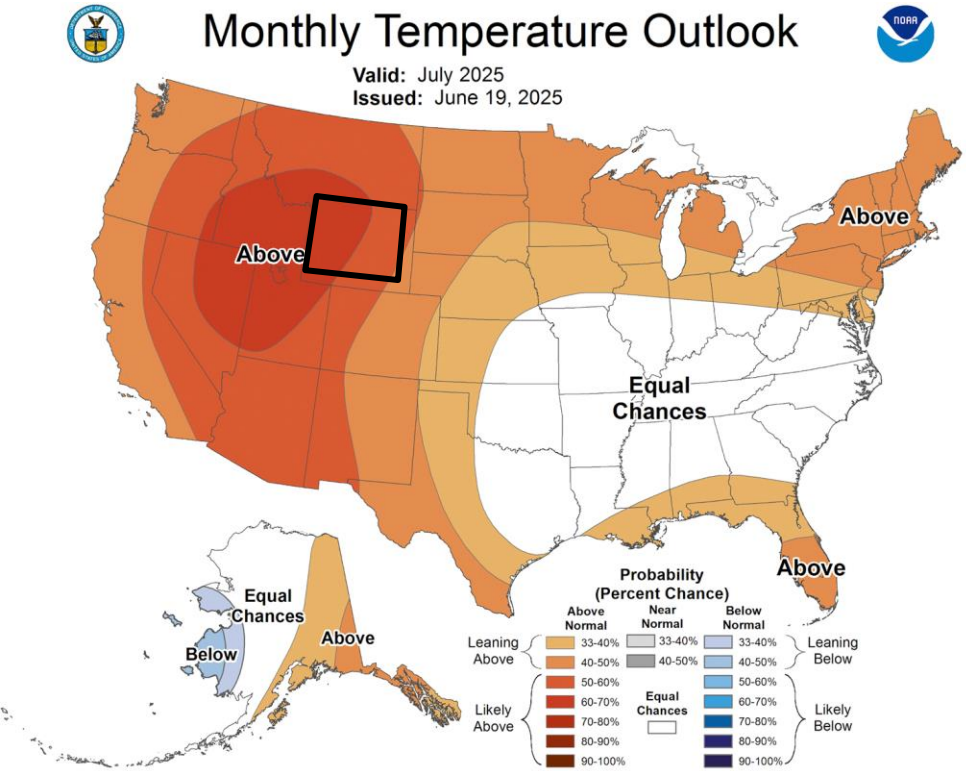


- Lean towards wetter than average conditions as northern extent of southwest US monsoon sets up

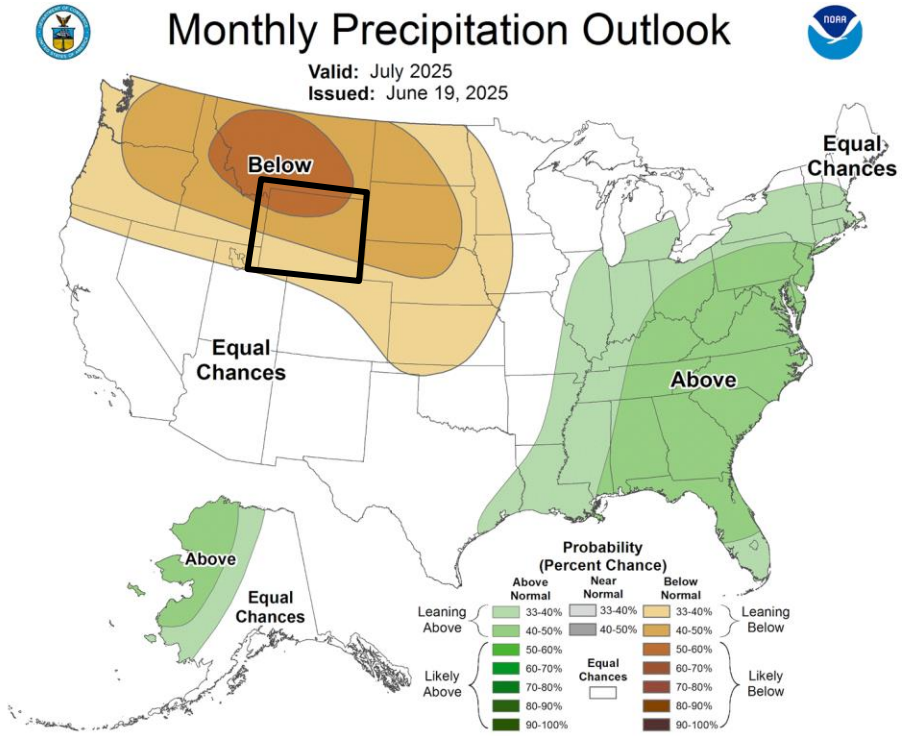
1-Month Outlooks

(July)

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



- Likely above normal statewide

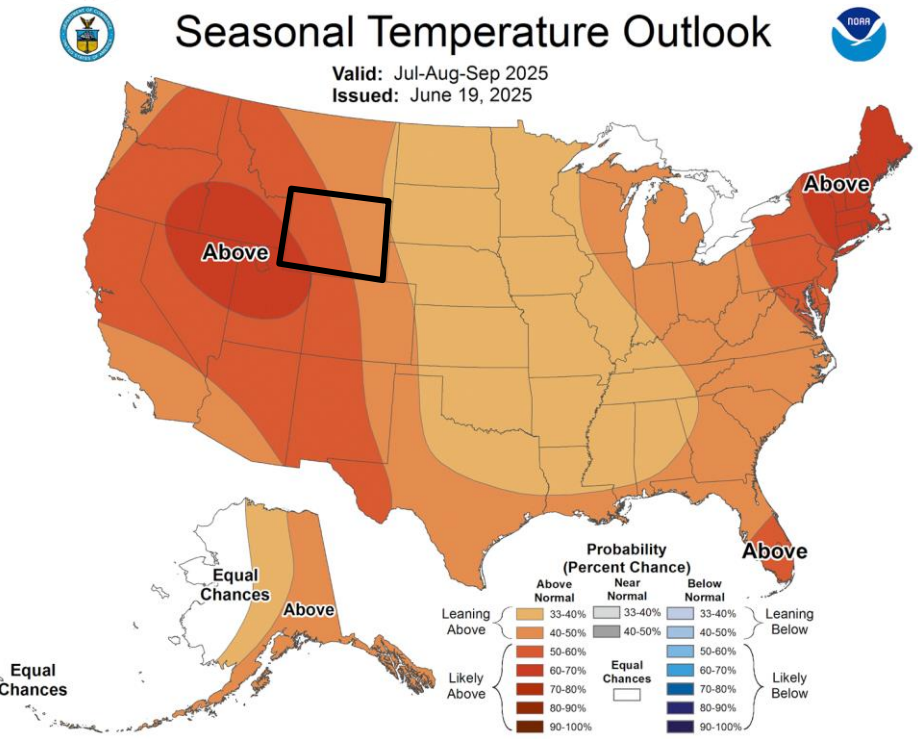


- Lean toward drier for most of state for the middle and end of July

Summer Outlook

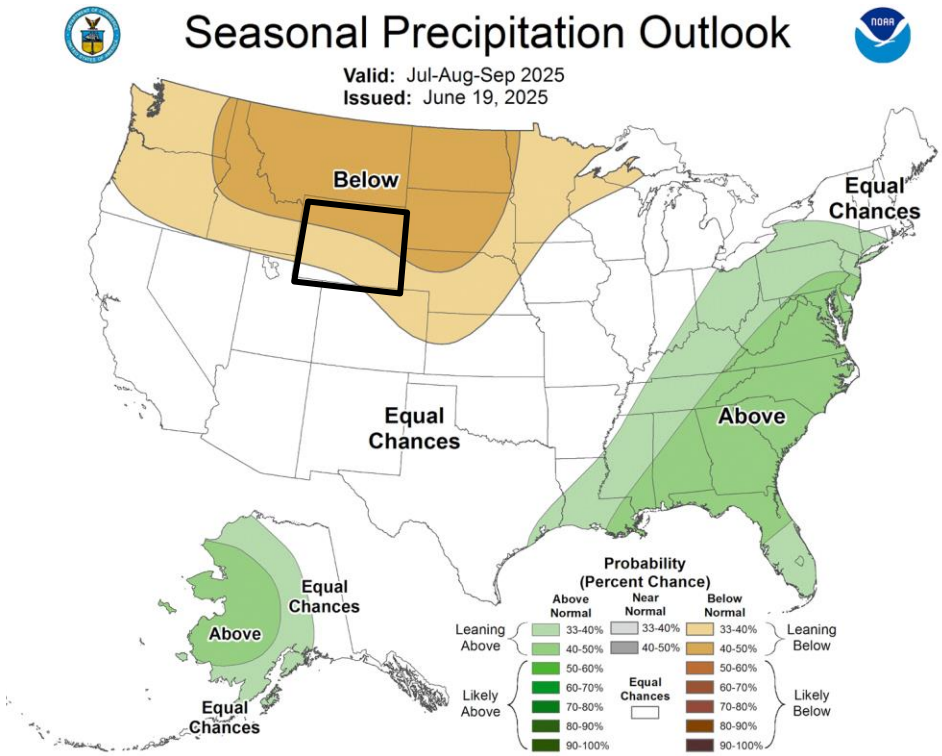
https://bit.ly/CPC_Seasonal

(Jul-Aug-Sep)



- Likely above normal temps, with highest confidence in the southwest

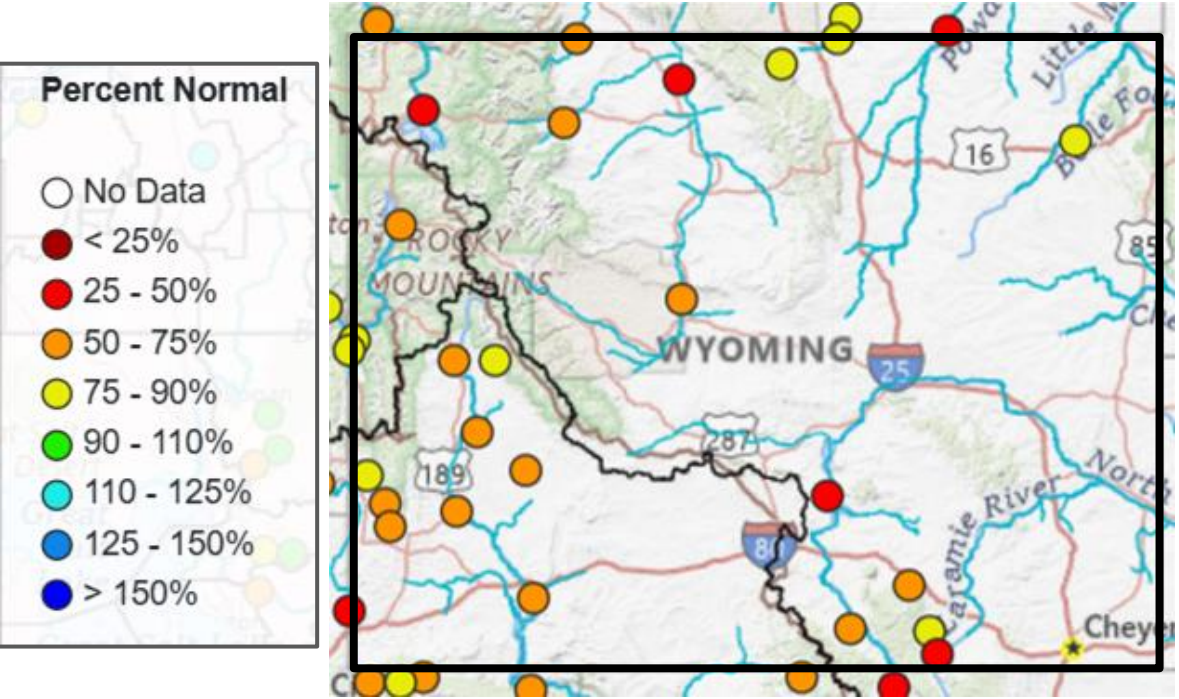
(Jul-Aug-Sep)



- Lean toward drier than average, especially in the north

Wyoming Water Supply Outlook

Valid April-September



April thru September runoff volumes below normal.

This graphic depicts the NWS water supply outlook locations, colored by the percent of April-thru-September volumetric normal. Many Wyoming stations are projected to see lower-than-normal volumes this season (yellows, oranges, and reds).

Forecast valid June 2025.

**Please note that the Colorado River basin colors reflect April-thru-July percent-of-normals.*

https://www.cbrfc.noaa.gov/wsup/graph/west/map/esp_map.html

Highlight of the Month:

Western Water Assessment Dashboard

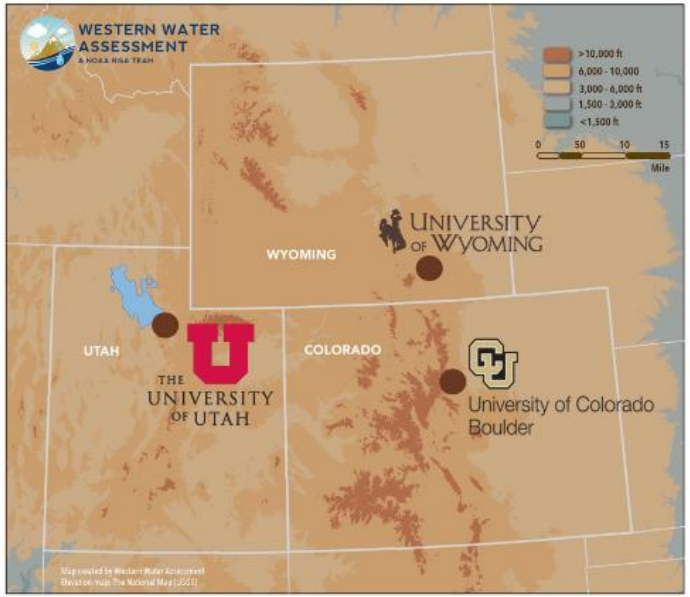
Intermountain West Dashboard



Seth Arens

Western Water Assessment

Western Water Assessment



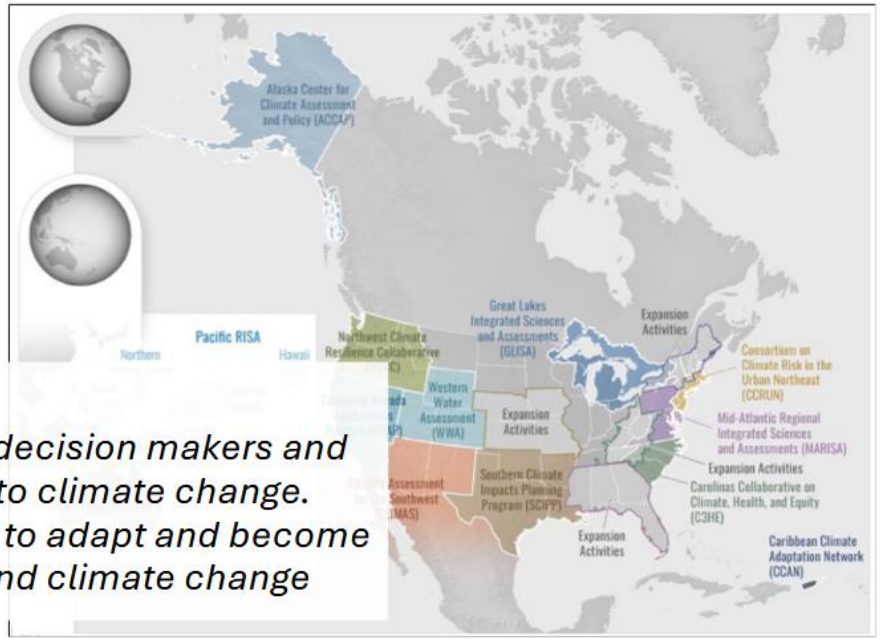
Our mission: Conduct innovative research in partnership with decision makers, helping them make the best use of science to manage for climate impacts.

This includes:

- Working directly with communities and water systems to build resilience to compound hazards
- Advancing user-relevant research on climate change, snowpack, wildfire, and water supply
- Integrating and prioritizing social science research techniques throughout our work

NOAA Climate Adaptation Partnership (CAP)

- Climate Adaptation Partnership
  - $16M annually
- 13 regional programs
- Started in late 1990s
- WWA funded in 1999



- CAP Program goal:

  To build relationships that help local decision makers and researchers collaborate on adapting to climate change. …CAP expands the Nation's capacity to adapt and become resilient to extreme weather events and climate change

Western Water Assessment priorities



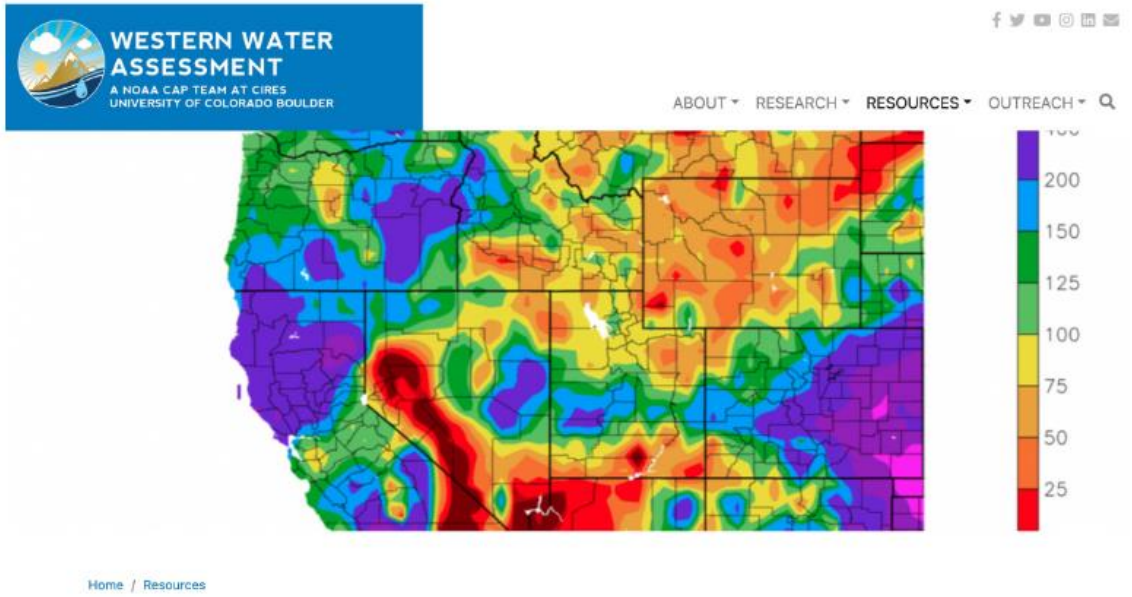
- We are working to build:
  - Resilient water systems
  - Resilient communities
- Work on climate-related issues:
  - Water resources & the Colorado River
  - Drought
  - Snowpack
  - Wildfire
  - Climate science
  - Climate adaptation
  - Resilience to compound hazards

What Western Water Assessment does





- Research
  - Grounded in real-world needs
  - Responsive to partner priorities
  - Brings together physical and social science expertise
- Research integration
  - Taking science the last mile
  - Workshops, webinars, online tools, & technical reports
- Information
  - Climate summaries
  - Climate & science assessments
- Convening



- Real-time climate information; focus on water resources
  - Precipitation, temperature, snow, drought, water supply/streamflow, seasonal outlooks
- Infographics with link to source information

https://wwa.colorado.edu/

Feedback Survey

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

1. Scan QR Code
   OR
1. Take survey on webpage that will appear after webinar closes

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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!

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