WY Conditions & Outlooks:

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

September 15, 2022

Presentation Outline

- **Current Conditions:** Overview
  - Streamflow
  - Water Calls & Allocations
  - Harmful Cyanobacterial Blooms
- **Outlooks:** Temperature & Precipitation
  - Fuels' Status & Wildland Fire Outlook
- **Questions**

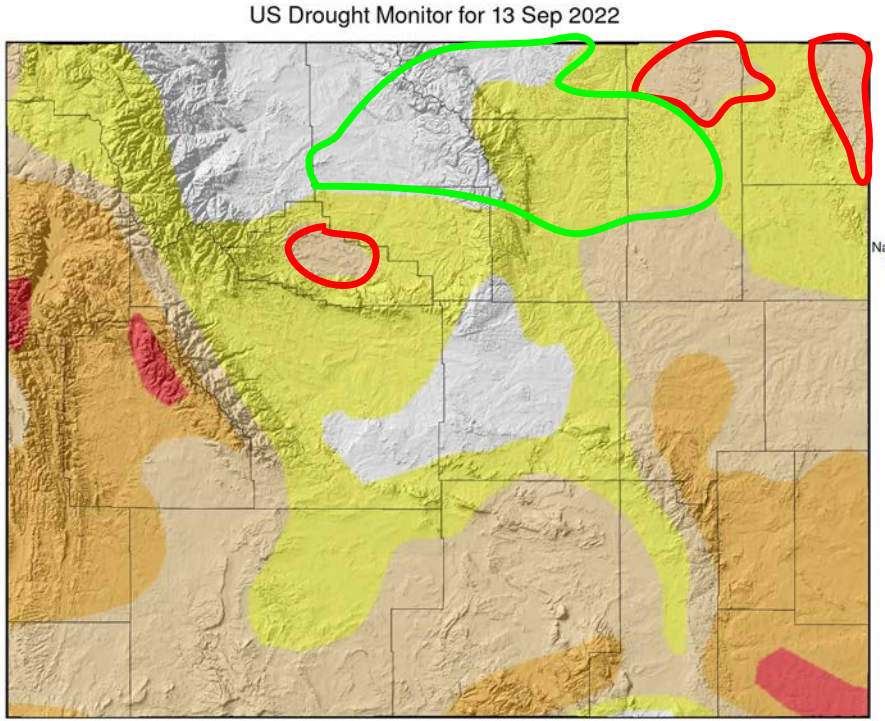
Current Conditions

US Drought Monitor for September 13, 2022

(Released Thursday, September 15, 2022)

Valid 8 a.m. EDT

Drought Level	Percentile
None	>30
D0 (Abnormally Dry)	21 to 30
D1 (Moderate Drought)	11 to 20
D2 (Severe Drought)	6 to 10
D3 (Extreme Drought)	3 to 5
D4 (Exceptional Drought)	0 to 2



https://youtu.be/45MQ1GB-uTc

Improvements and degradations since the last webinar. Recent precipitation in the north has resulted in Improvements in a large area of north central Wyoming. Degradation in Hot Springs County as well as in the northeast prior to last week's precpitation,

https://droughtmonitor.unl.edu

droughtmonitor.unl.edu

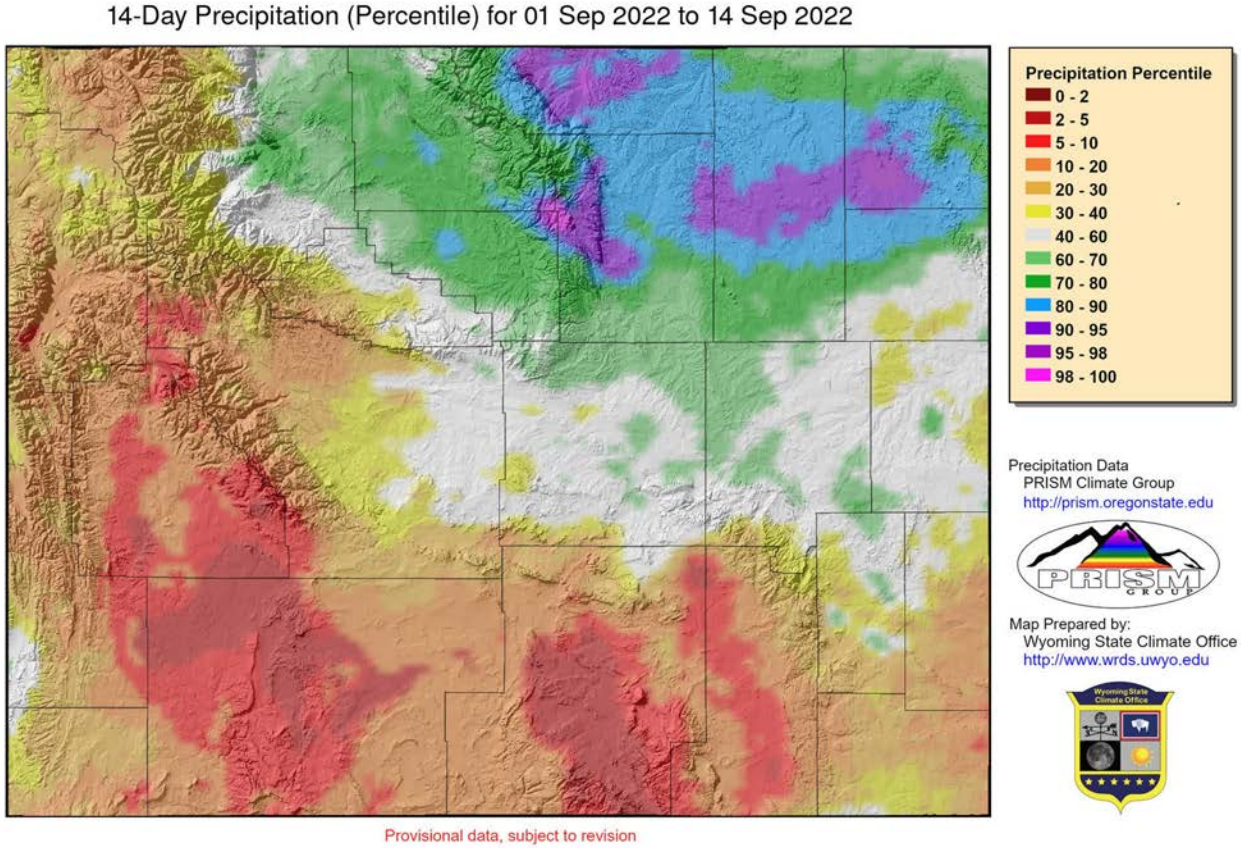
14-Day Precipitation Percentile (01 Sep 2022 to 14 Sep 2022)

Above Median:

- Northeast
- North Central
- Parts Natrona/Converse Counties

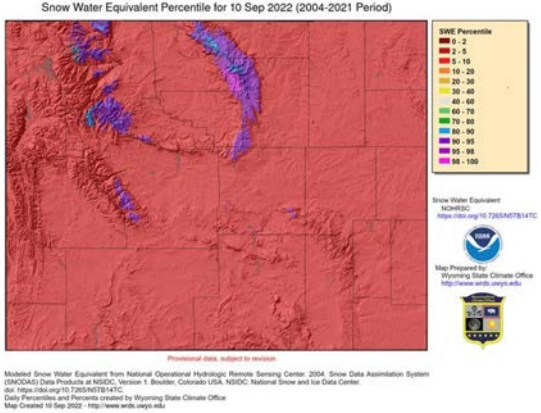
Below Median (Areas of Concern):

- Southeast & West of the Divide



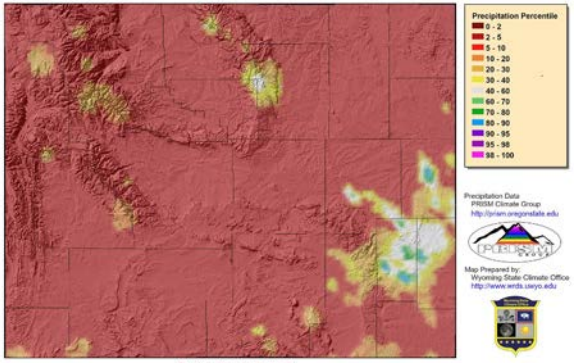
Daily precipitation data from PRISM Climate Group, Copyright ©2021, PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu
Map Created 15 Sep 2022 http://www.wrds.uwyo.edu
Daily percentiles created from PRISM daily precipitation grids

First Snows



7-Day and 14-Day Precipitation Percentiles (01 Sep 2022 to 14 Sep 2022)

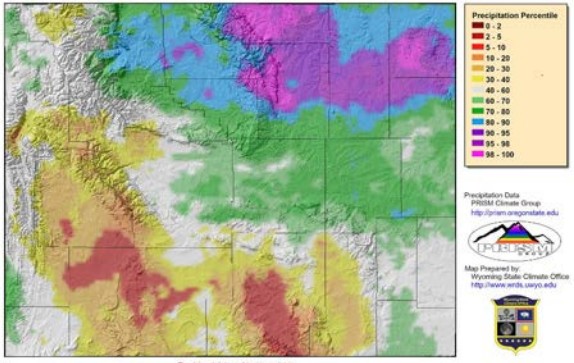
7-Day Precipitation (Percentile) for 01 Sep 2022 to 07 Sep 2022



Provisional data, subject to revision

Daily precipitation data from PRISM Climate Group, Copyright ©2021, PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu
Map Created 08 Sep 2022 http://www.wrds.uwyo.edu
Daily percentiles created from PRISM daily precipitation grids

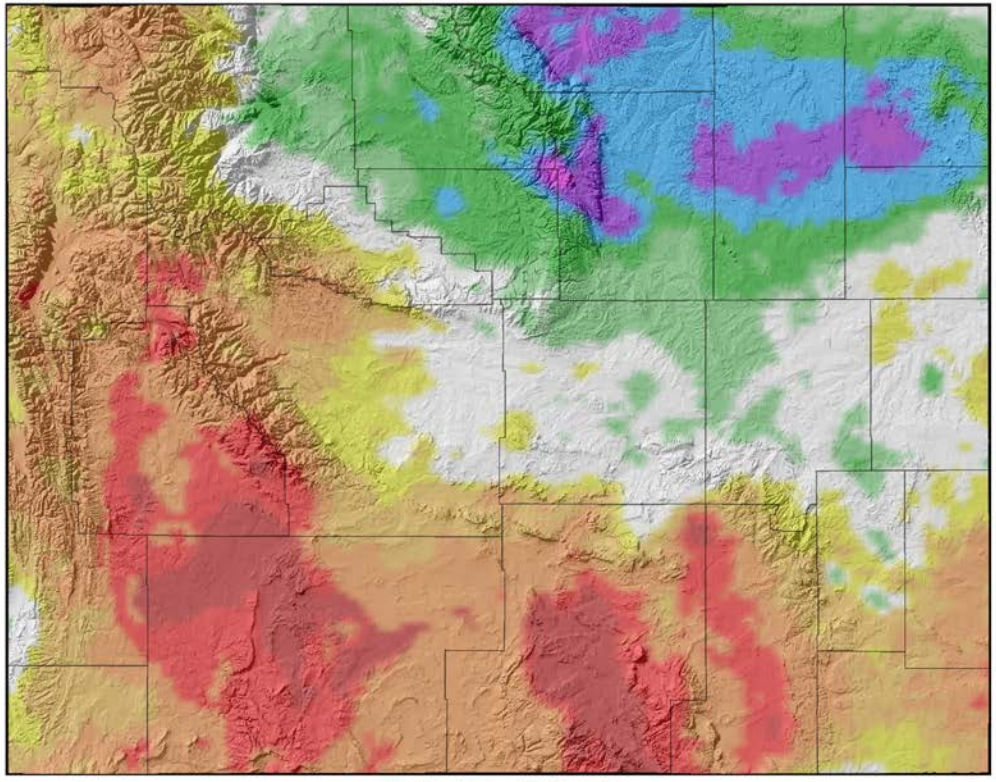
7-Day Precipitation (Percentile) for 08 Sep 2022 to 14 Sep 2022



Provisional data, subject to revision

Daily precipitation data from PRISM Climate Group, Copyright ©2021, PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu
Map Created 15 Sep 2022 http://www.wrds.uwyo.edu
Daily percentiles created from PRISM daily precipitation grids

14-Day Precipitation (Percentile) for 01 Sep 2022 to 14 Sep 2022



Provisional data, subject to revision

Daily precipitation data from PRISM Climate Group, Copyright ©2021, PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu
Map Created 15 Sep 2022 http://www.wrds.uwyo.edu
Daily percentiles created from PRISM daily precipitation grids

Precipitation Percentile
0 - 2
2 - 5
5 - 10
10 - 20
20 - 30
30 - 40
40 - 60
60 - 70
70 - 80
80 - 90
90 - 95
95 - 98
98 - 100

Precipitation Data
PRISM Climate Group
http://prism.oregonstate.edu

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

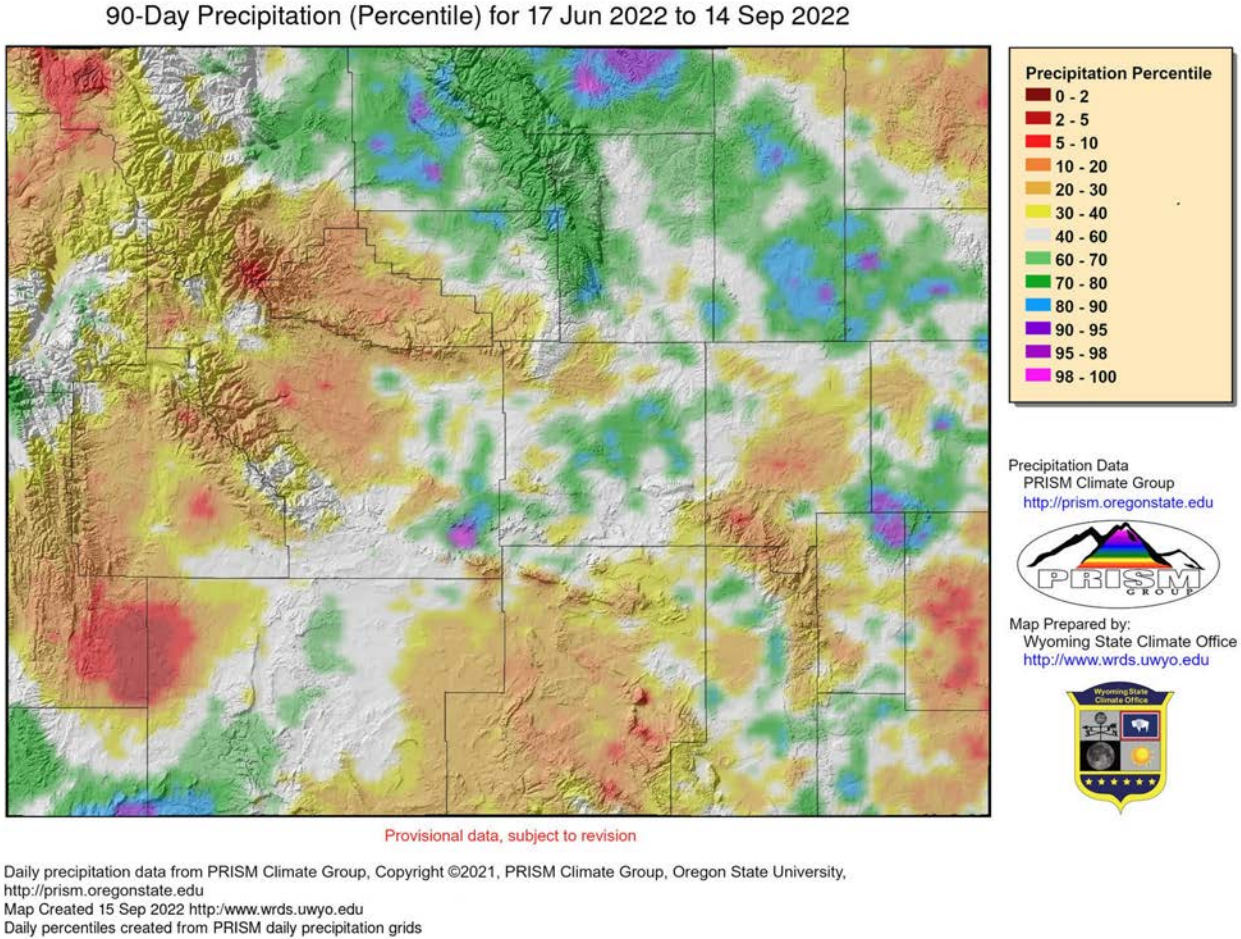
90-Day Precipitation Percentile (17 Jun 2022 to 14 Sep 2022)

Above Median:

- Scattered…
- North Central
- Parts of Northeast
- Central
- Far Southeast

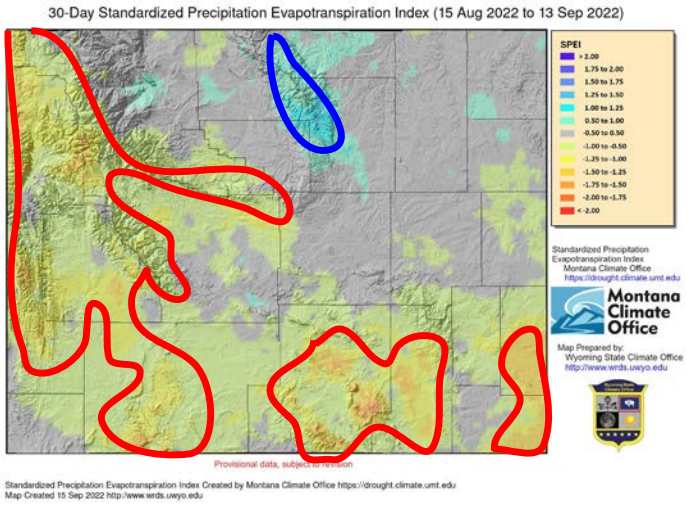
Below Median (Areas of Concern):

- Goshen
- Park
- Lincoln/Sweetwater

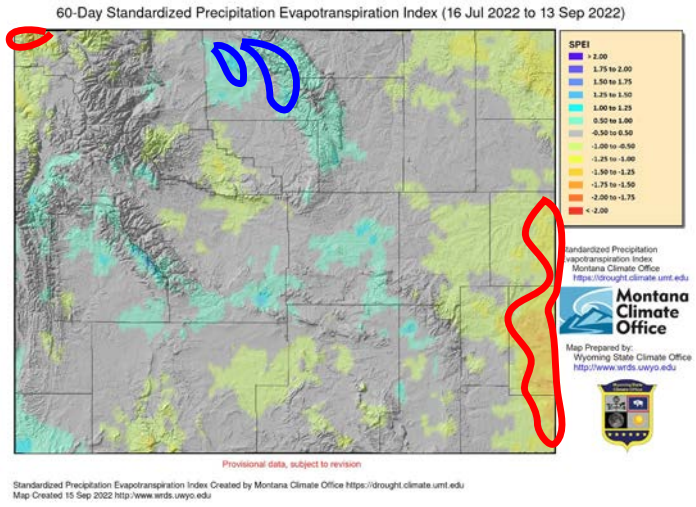


WRDS
Water Resources Data System

30-Day →



60-Day →

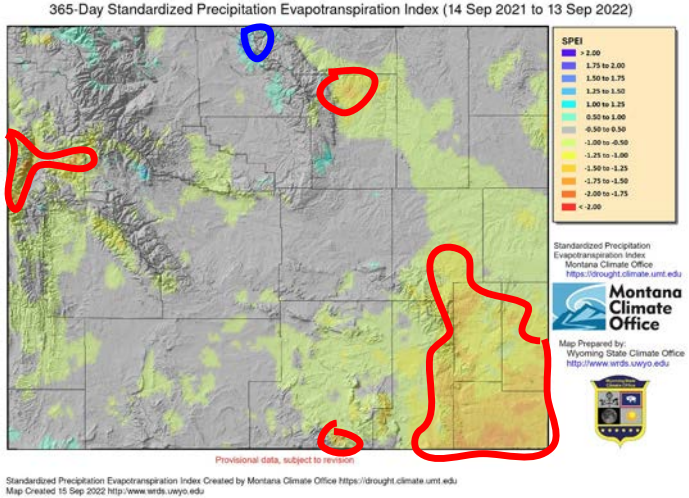


Standardized Precipitation Evapotranspiration Index (SPEI)

Short term: Emerging concerns in the west and south, as well as Goshen County area. Bighorns wetter.

Long term: Dryness in southeast and northern Johnson County.

1-Year →

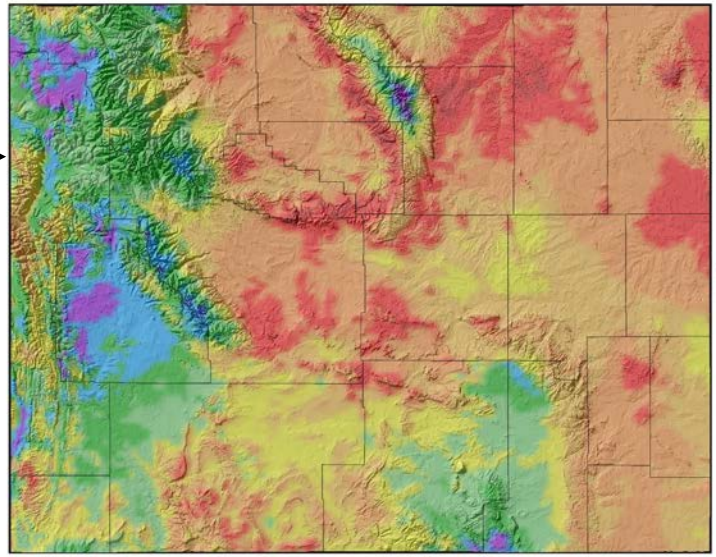


https://drought.climate.umt.edu

WRDS Water Resources Data System

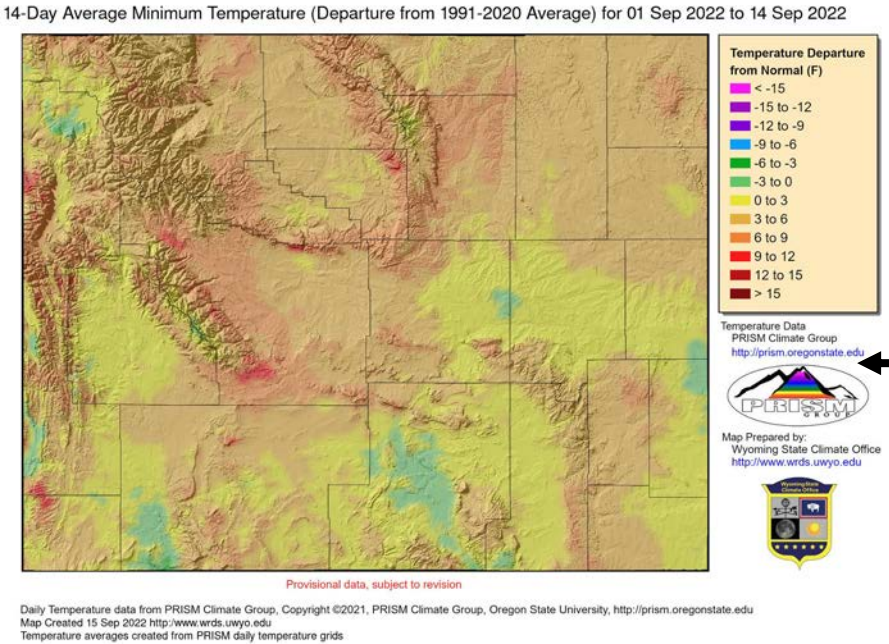
14-Day Average Minimum Temperature (01 Sep to 14 Sep)

- Night time lows dropping below freezing in places.



14-Day *Departure from* Normal Average Minimum Temperature

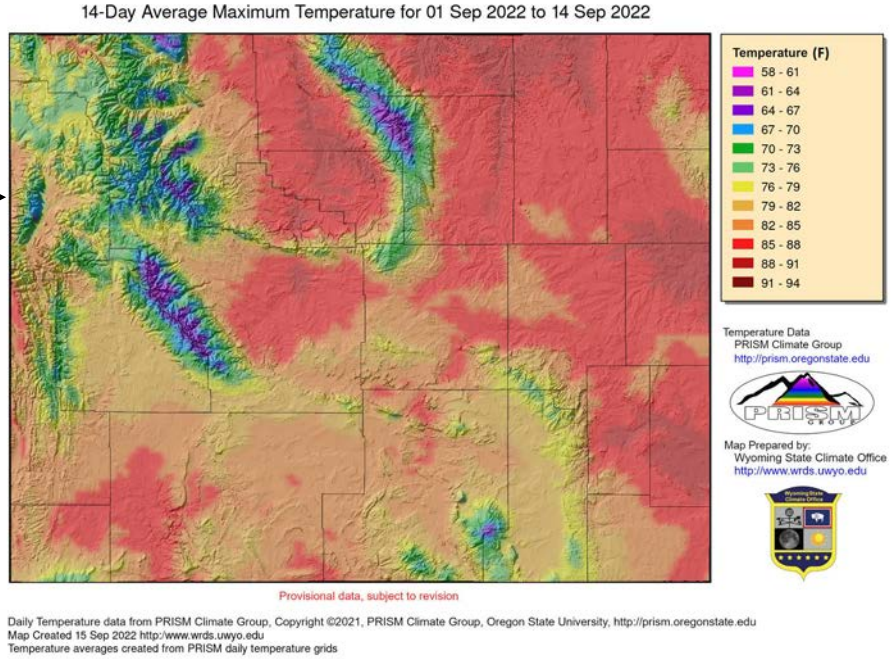
- Generally 3F-6F above average
- Some scattered areas up to 3F below average



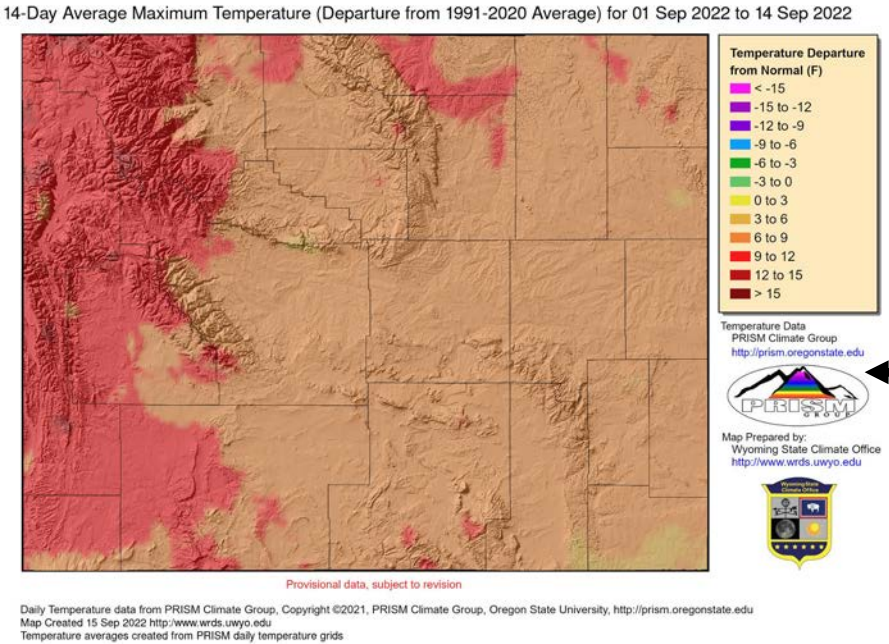
WRDS Water Resources Data System

14-Day Average Maximum Temperature (01 Sep to 14 Sep)

- >60F Statewide
- 85F+ East of Divide and Southeast



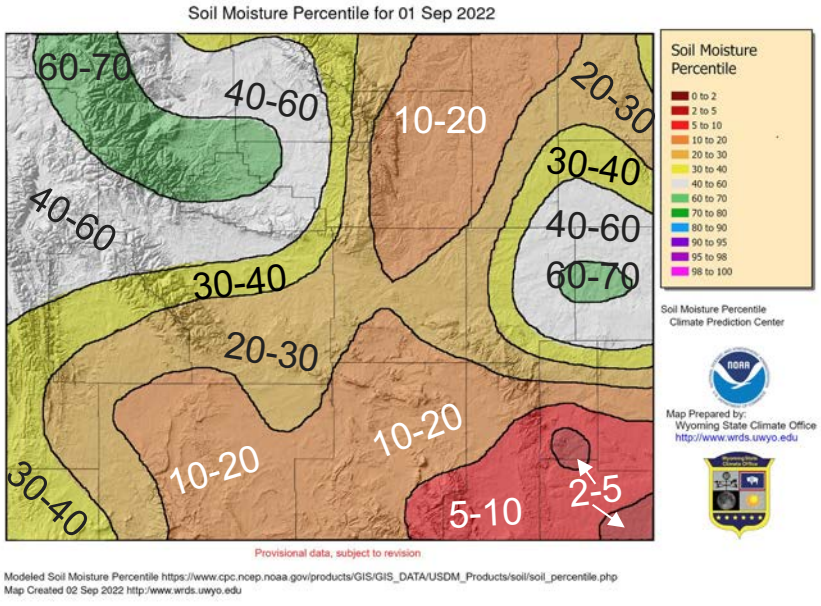
14- Day *Departure from* Normal Average Maximum Temperature



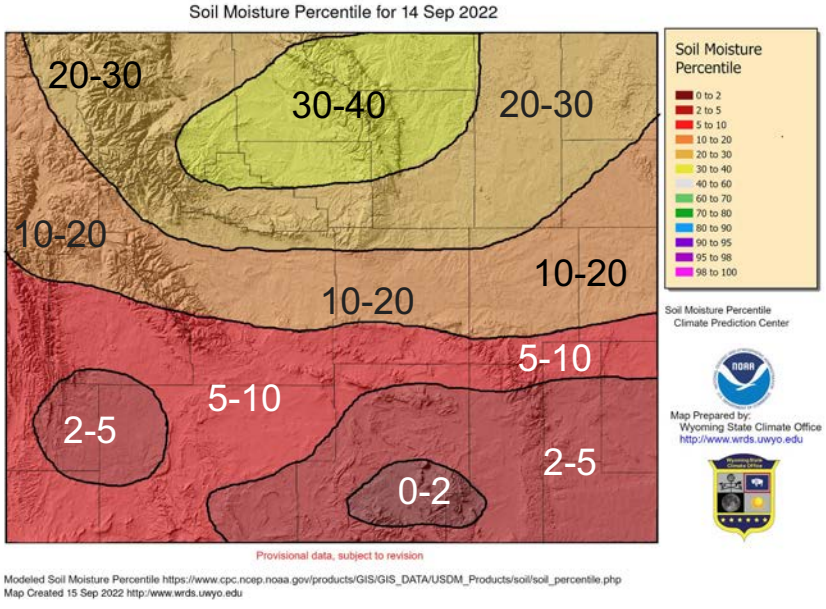
- West 9F to 12F above average
- Rest of WY 6F to 9F above average…
- …Except southern Laramie County & a few small pockets at 3F to 6F above average

Soil Moisture Percentile

Two Weeks Ago



September 14, 2022



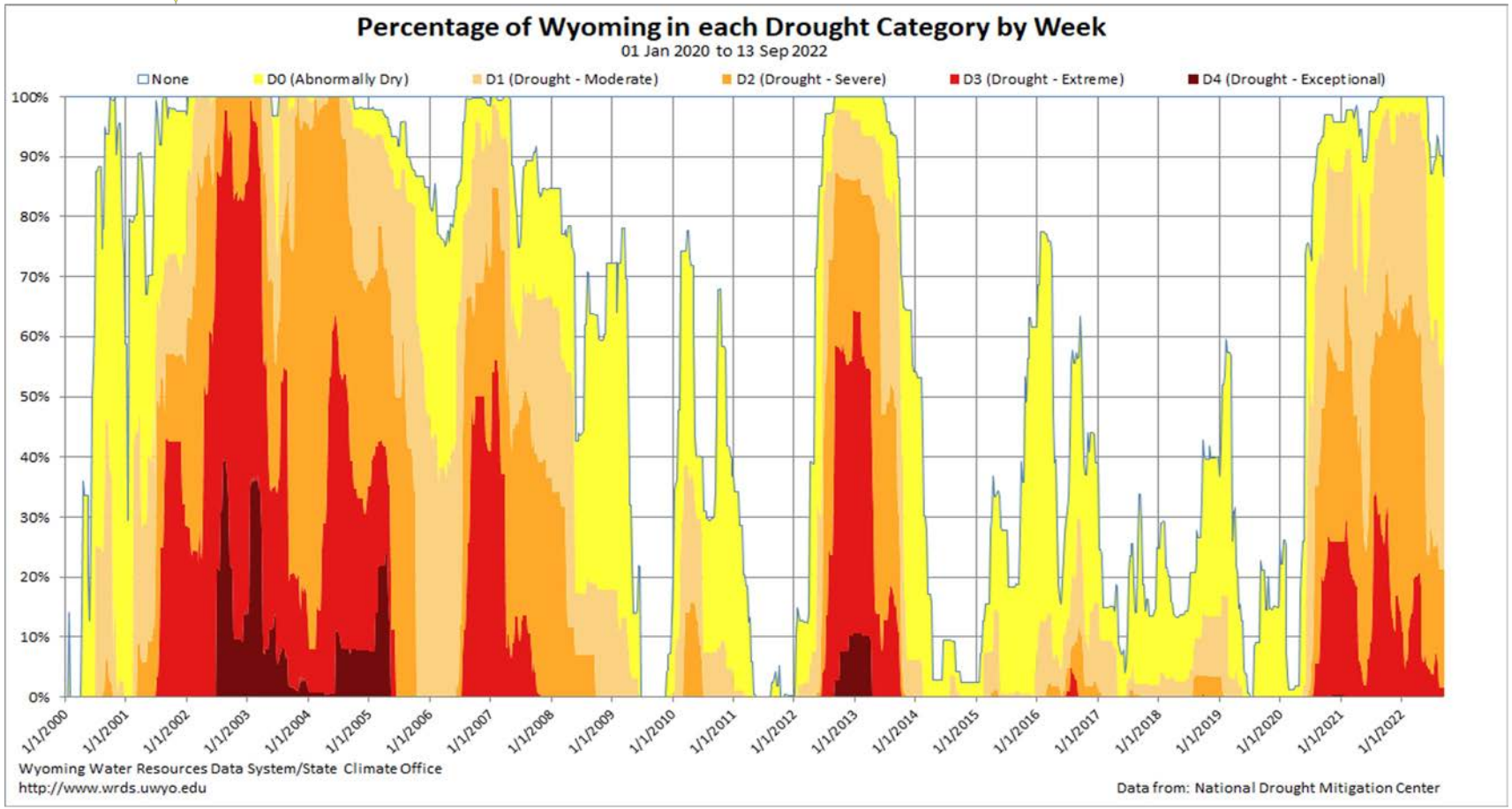
http://www.wrds.uwyo.edu/Soil/Current_SoilMoisture_Ptile.html

Conditions worsened except Powder/Tongue Basin

WRDS Water Resources Data System

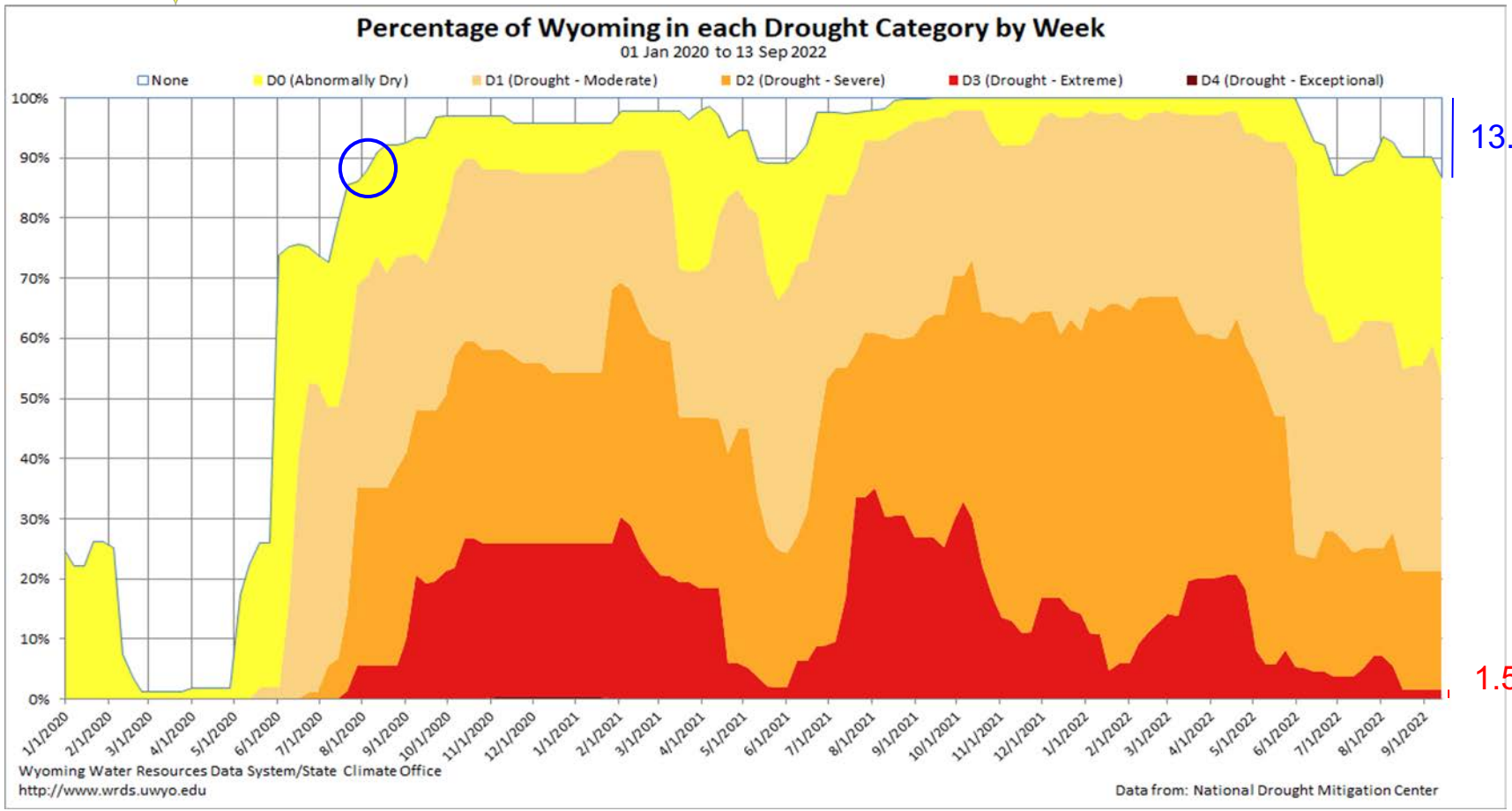
A decrease of 0.97% from last Webinar

Wyoming Area Affected: 90.14% D0-D4 ; 53.81% D1-D4



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

WRDS
Water Resources Data System



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

La Niña Threepeat this winter?

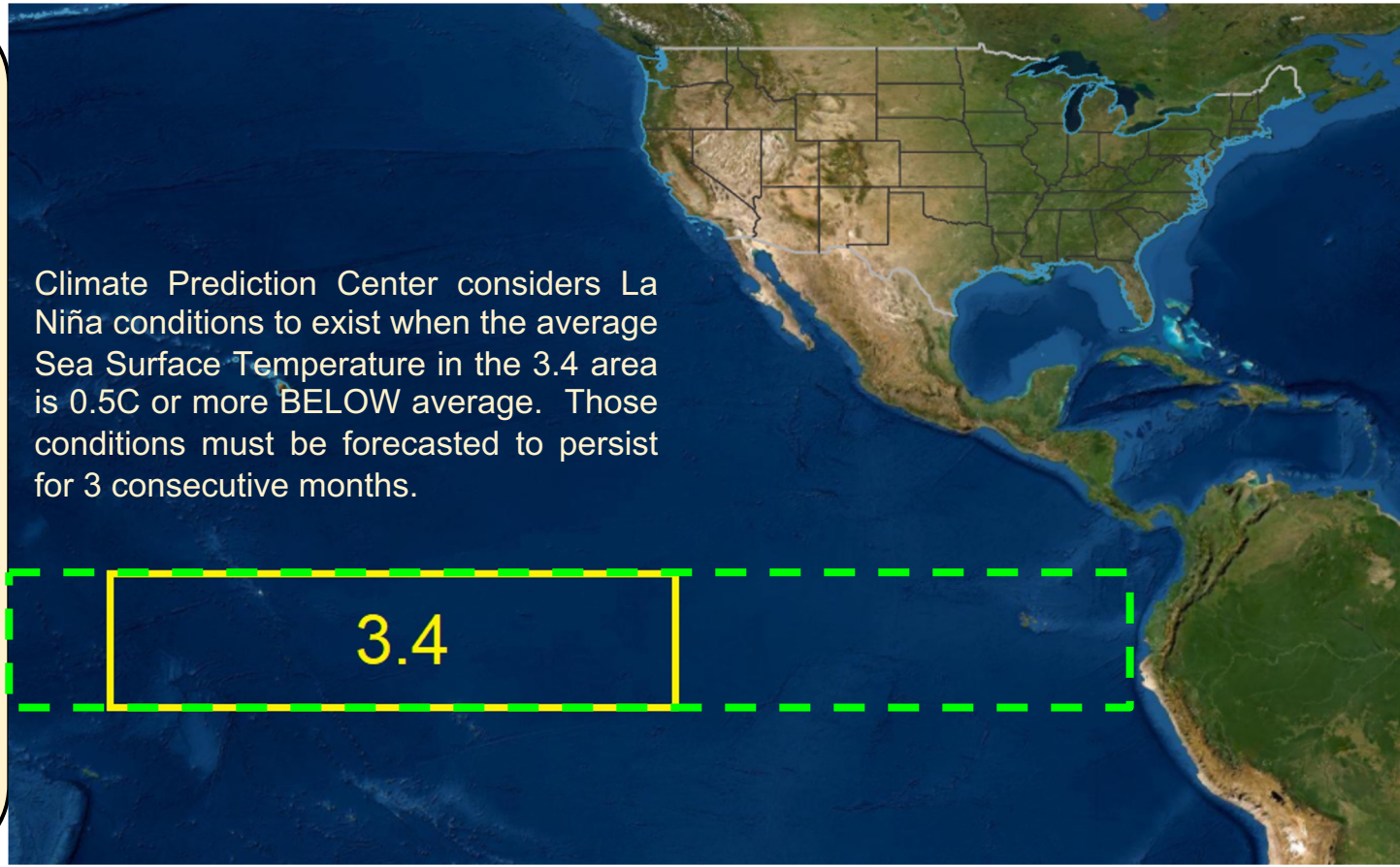
A cooling of the waters in the equatorial Pacific

Opposite of El Niño, a warming of the same region.

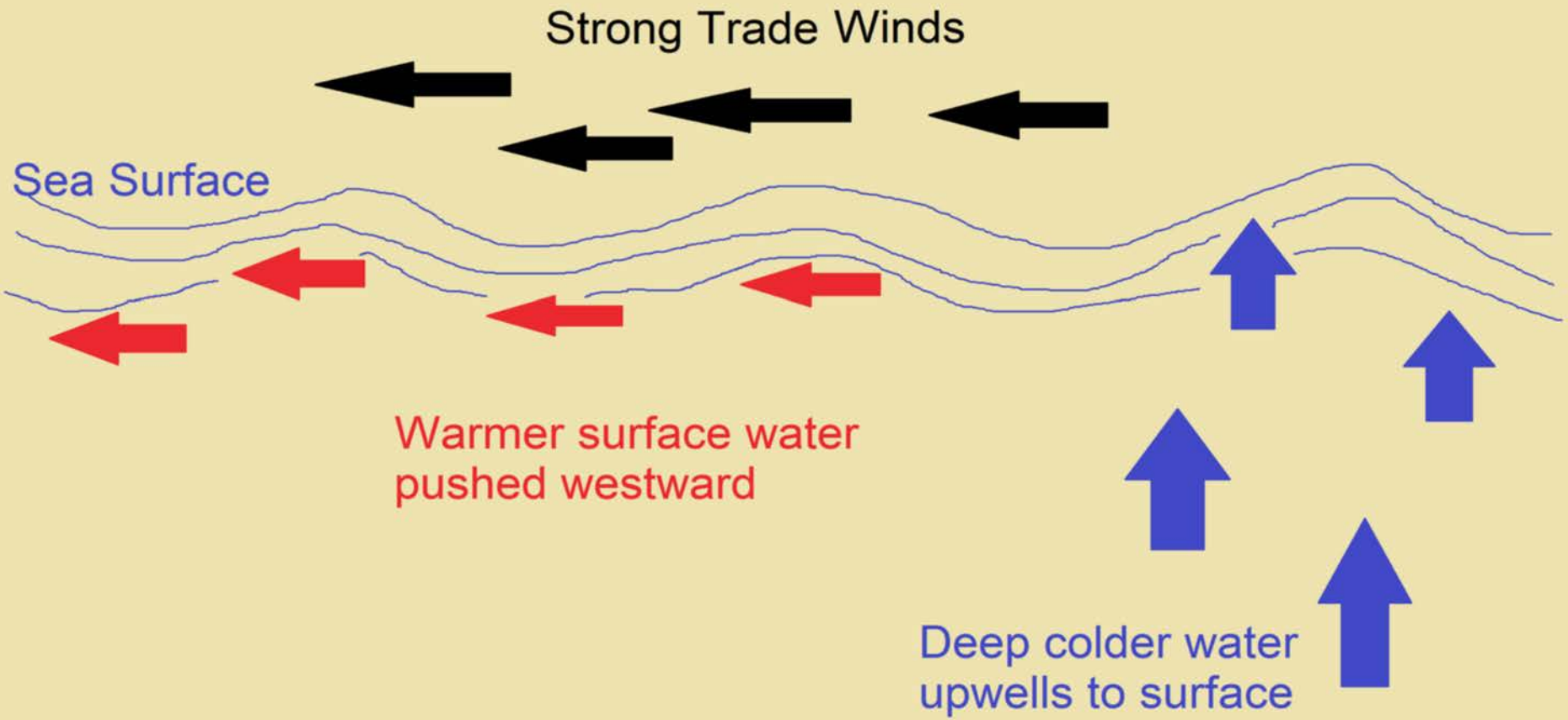
El Niño was recognized by fishermen of the area around Peru for centuries. La Niña was “discovered” in the 1980s, though has been occurring for millenia.

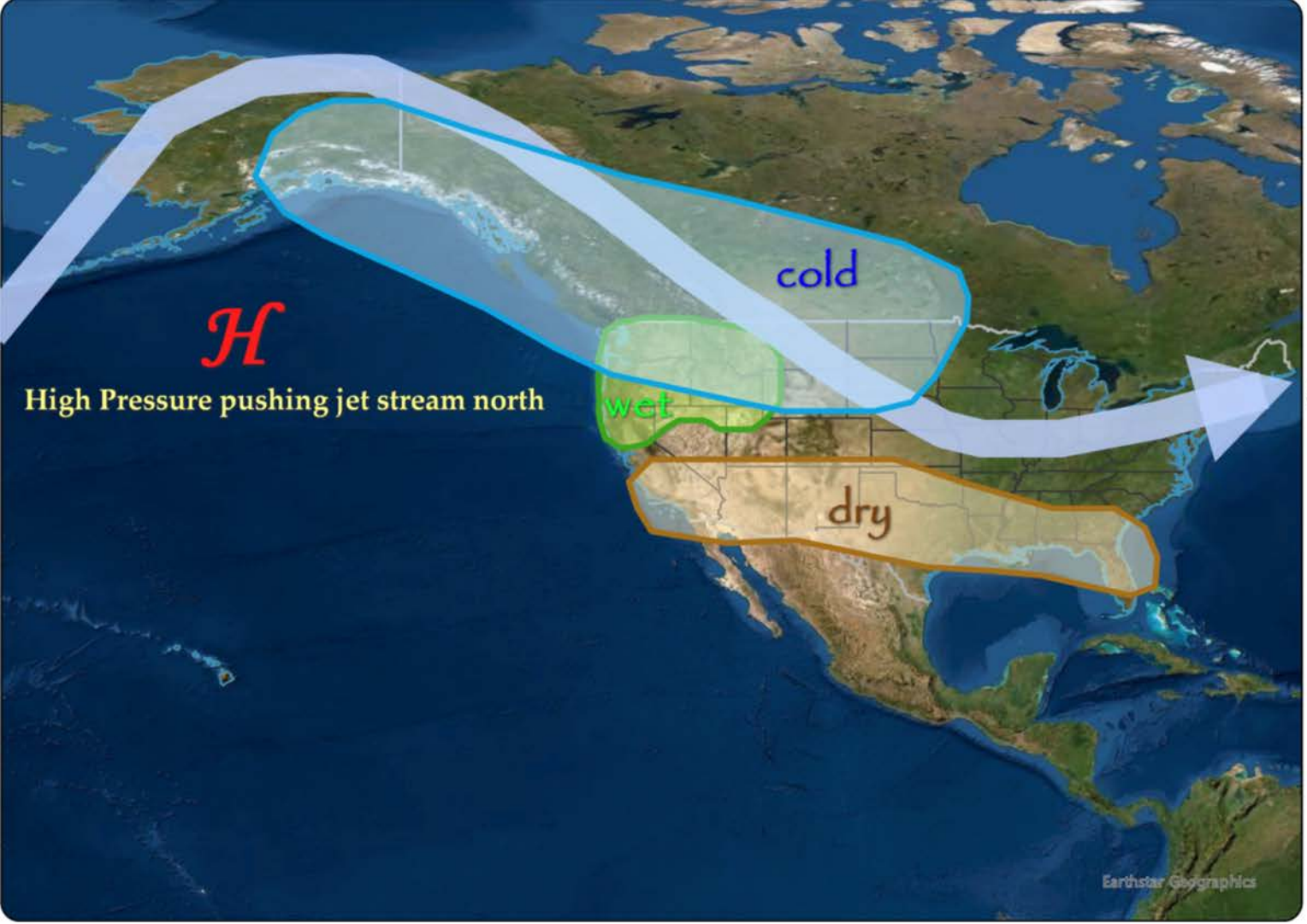
Winter La Niña conditions have only happened three years in a row twice since 1950:

1973-74 to 1975-76
and
1998-99 to 2000-01



Eastern Equatorial Pacific





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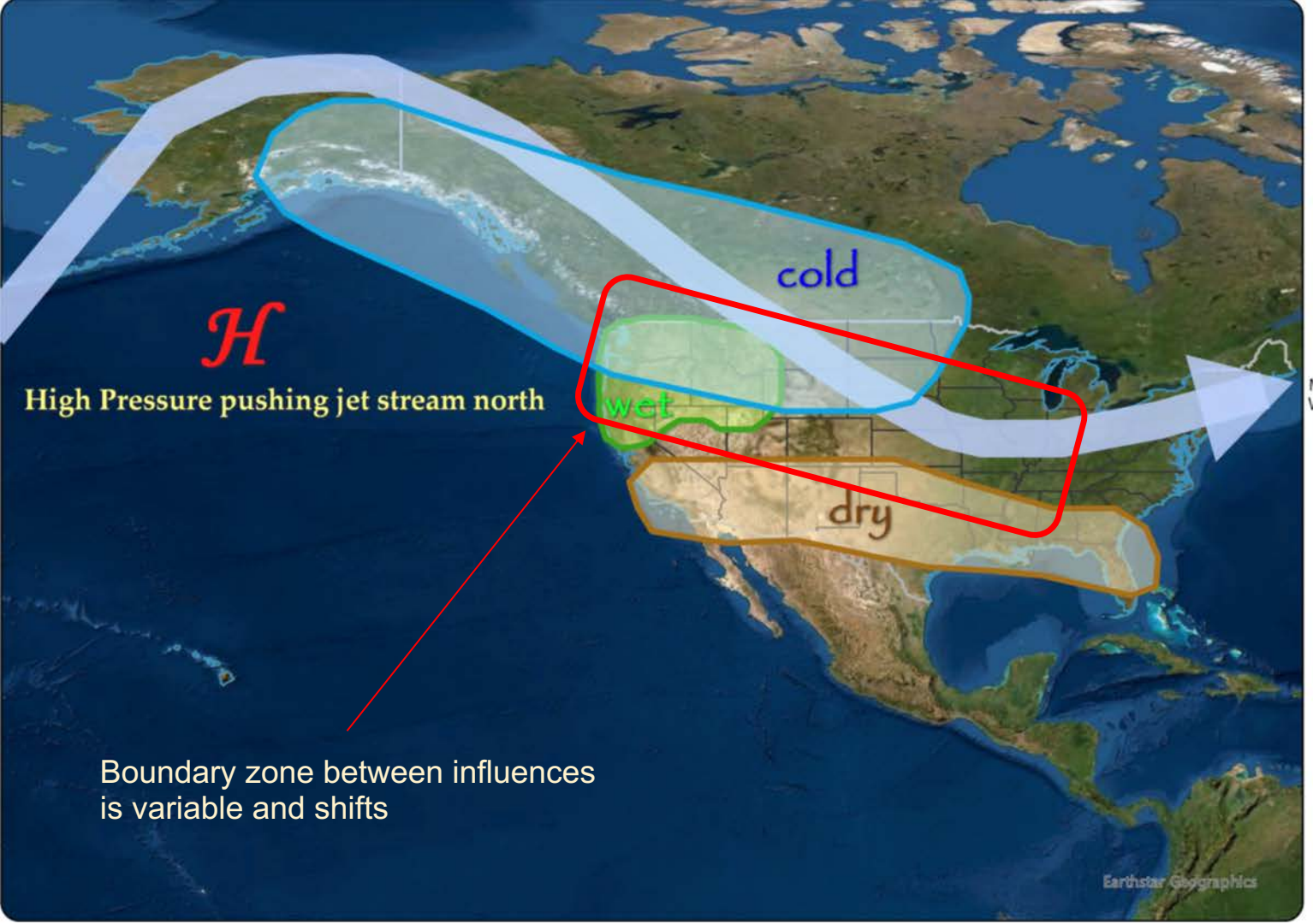
Water Resources Data System

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

“It's tough to make predictions, especially about La Niña.”

–Yogi Berra (Sort of)



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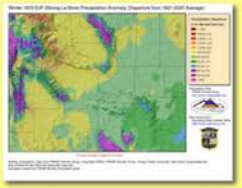
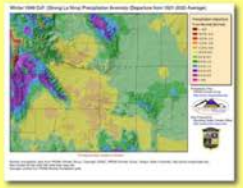
Map Prepared by:
Wyoming State Climate Office
http://www.wrds.uwyo.edu

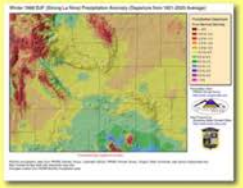
WRDS Water Resources Data System

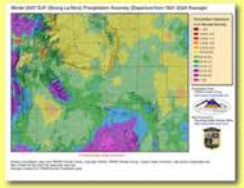
December to February Total Precipitation Compared to 1921-2020 Average

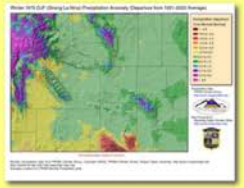
Strong Moderate Weak

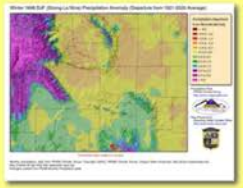

18-AP1973DJF

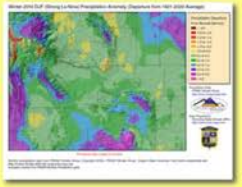

17-AP1999DJF

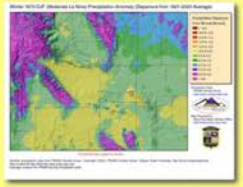

17-AP1988DJF


16-AP2007DJF


16-AP1975DJF

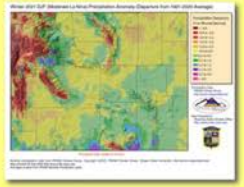

15-AP1998DJF


14-AP2010DJF

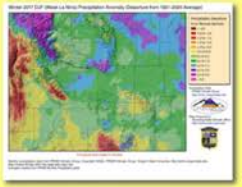

14-AP1970DJF

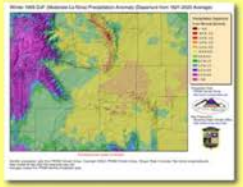

11-AP2020DJF

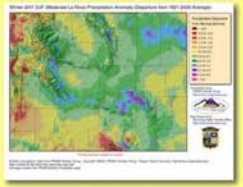

11-AP1955DJF

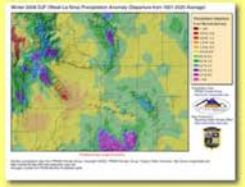

10-AP2021DJF


10-AP1984DJF


09-AP2017DJF


09-AP1995DJF


08-AP2011DJF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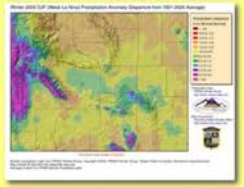
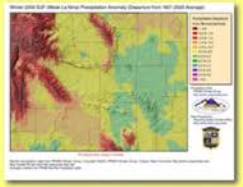
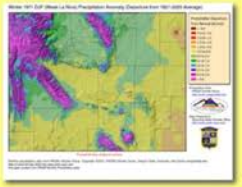

08-AP2005DJF

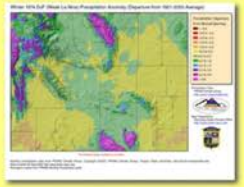

07-AP2000DJF


07-AP1971DJF


07-AP1954DJF


06-AP1983DJF

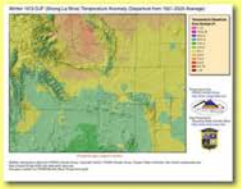

06-AP1964DJF


05-AP1974DJF

WRDS Water Resources Data System

December to February Average Temperature Compared to 1921-2020 Average

Strong

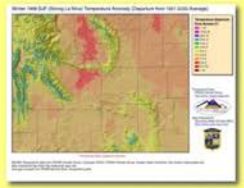

18-AT1973DJF


17-AT1999DJF


17-AT1988DJF

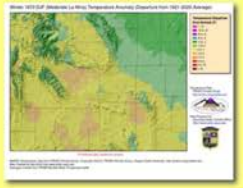

16-AT2007DJF


16-AT1975DJF


15-AT1998DJF

Moderate


14-AT2010DJF


14-AT1970DJF


11-AT2020DJF


11-AT1955DJF


10AT2021DJF


10-AT1984DJF

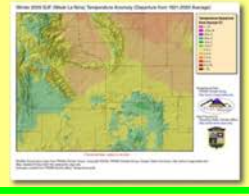
Weak


09-AT2017DJF


09-AT1995DJF


08-AT2011DJF


08-AT2008DJF

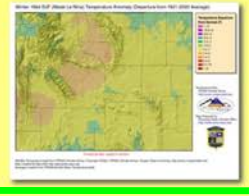

08-AT2005DJF


07-AT2000DJF


07-AT1971DJF


07-AT1954DJF


06-AT1983DJF

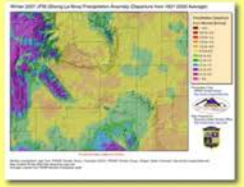

06-AT1964DJF

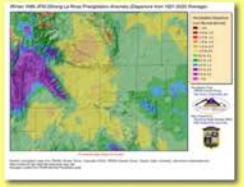

05-AT1974DJF

January to March Total Precipitation Compared to 1921-2020 Average

Strong Moderate Weak


16-AP1973JFM


14-AP2007JFM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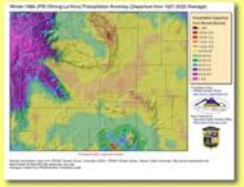
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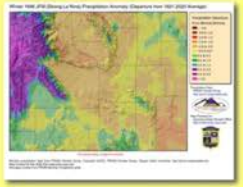
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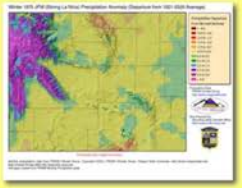
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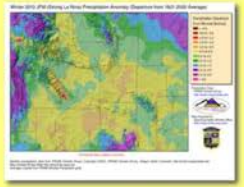
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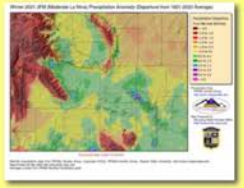
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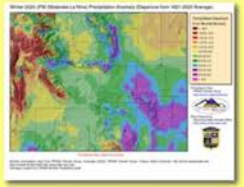
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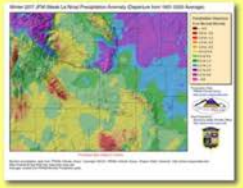
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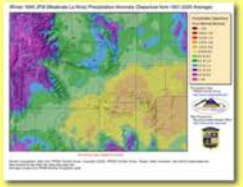
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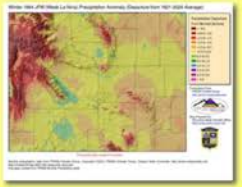
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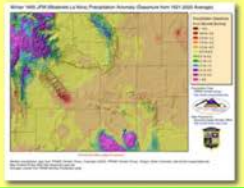
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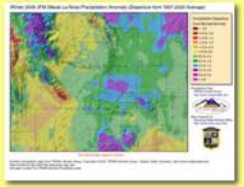
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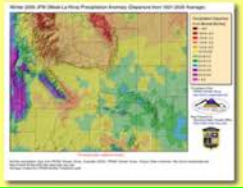
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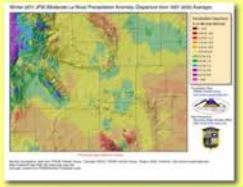
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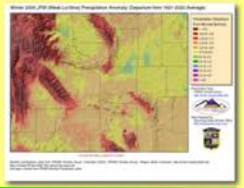
06-AP1974JFM


06-AP1954JFM


05-AP2000JFM

WRDS Water Resources Data System

January to March Average Temperature Compared to 1921-2020 Average

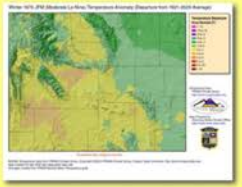
Strong Moderate Weak


16-AT1973JFM


14-AT2007JFM


14-AT1999JFM


14-AT1988JFM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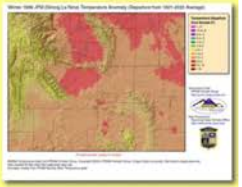
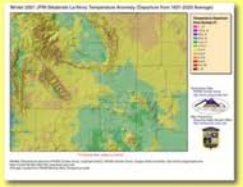

13-AT1998JFM


12-AT1975JFM


11-AT2010JFM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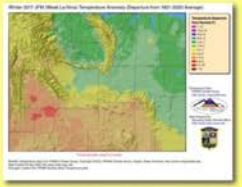
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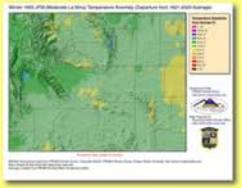
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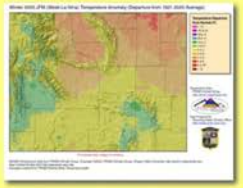
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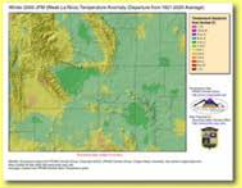
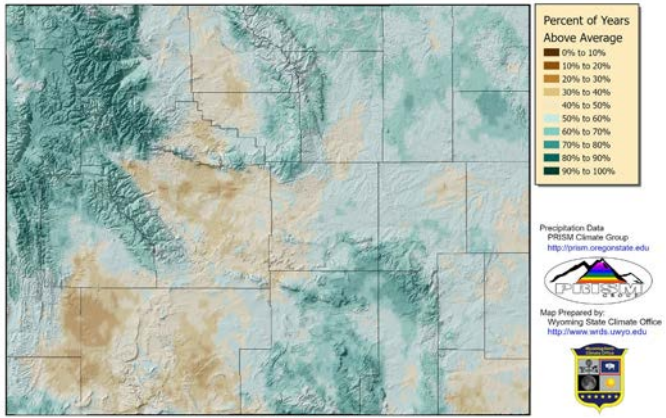

05-AT2000JFM

“There are three kinds of lies. Lies, Damned Lies, and La Niña Statistics.”

–attributed to Mark Twain and Others (Sort of)

Percent of La Niña Years with ***Nov-Jan Precipitation*** Total Above 1921-2020 Average

NDJ (La Nina Years) Precipitation Anomaly (Departure from 1921-2020 Average)



Provisional data, subject to revision

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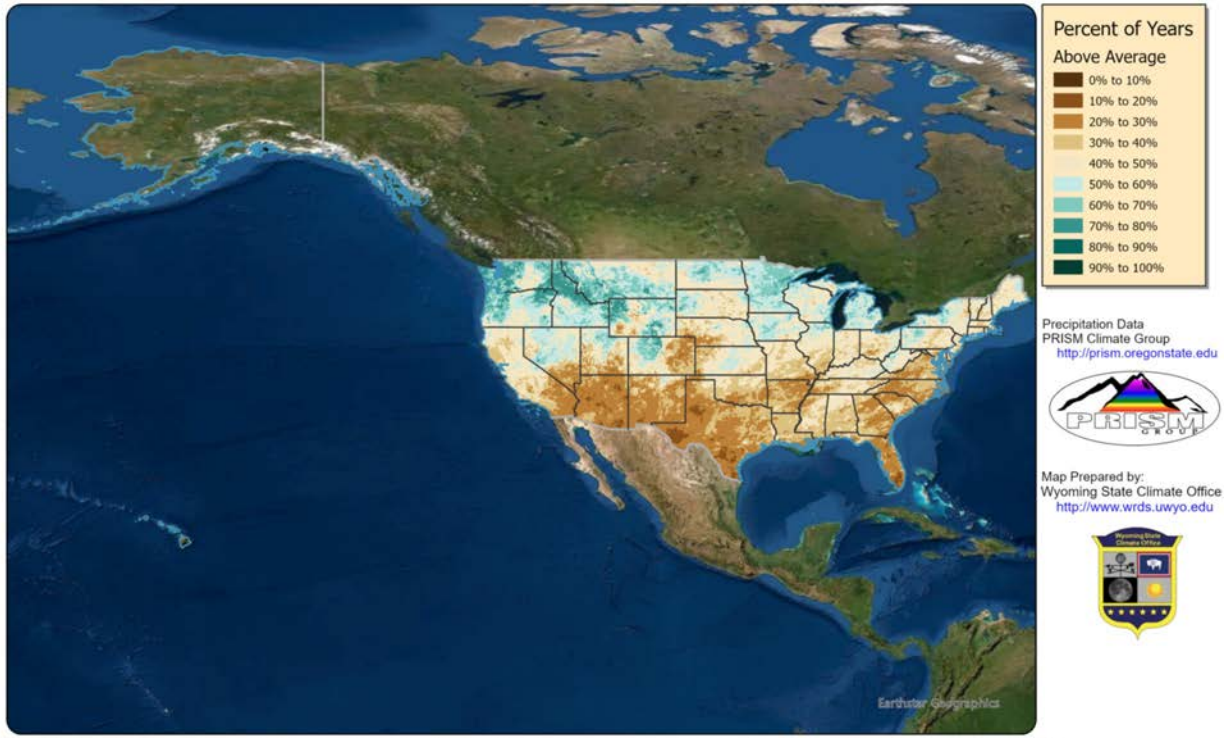
Map Created 07 Sep 2022 http://www.wrds.uwyo.edu
Averages created from PRISM Monthly Precipitation grids

Percent of La Nina Years with Nov-Jan Precipitation Above the 1921-2020 Average



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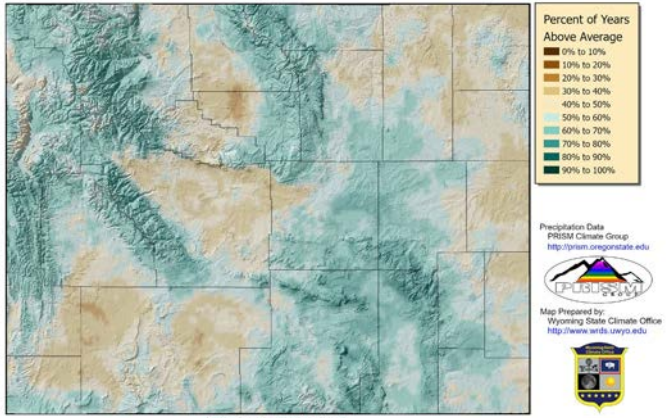
Percent of La Niña Years with ***Dec-Feb Precipitation*** Total Above 1921-2020 Average

DJF (La Nina Years) Precipitation Anomaly (Departure from 1921-2020 Average)



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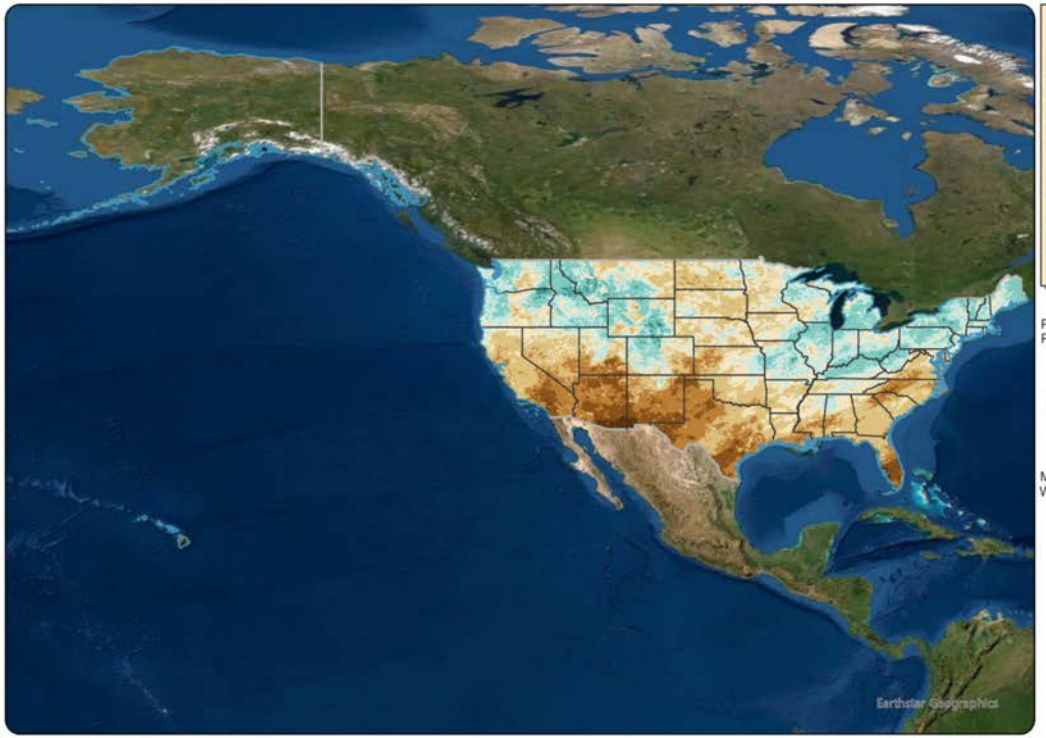

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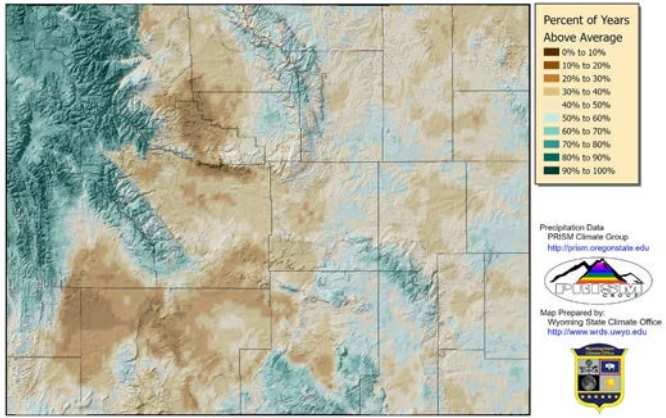
Percent of La Niña Years with ***Jan-Mar Precipitation*** Total Above 1921-2020 Average

JFM (La Nina Years) Precipitation Anomaly (Departure from 1921-2020 Average)



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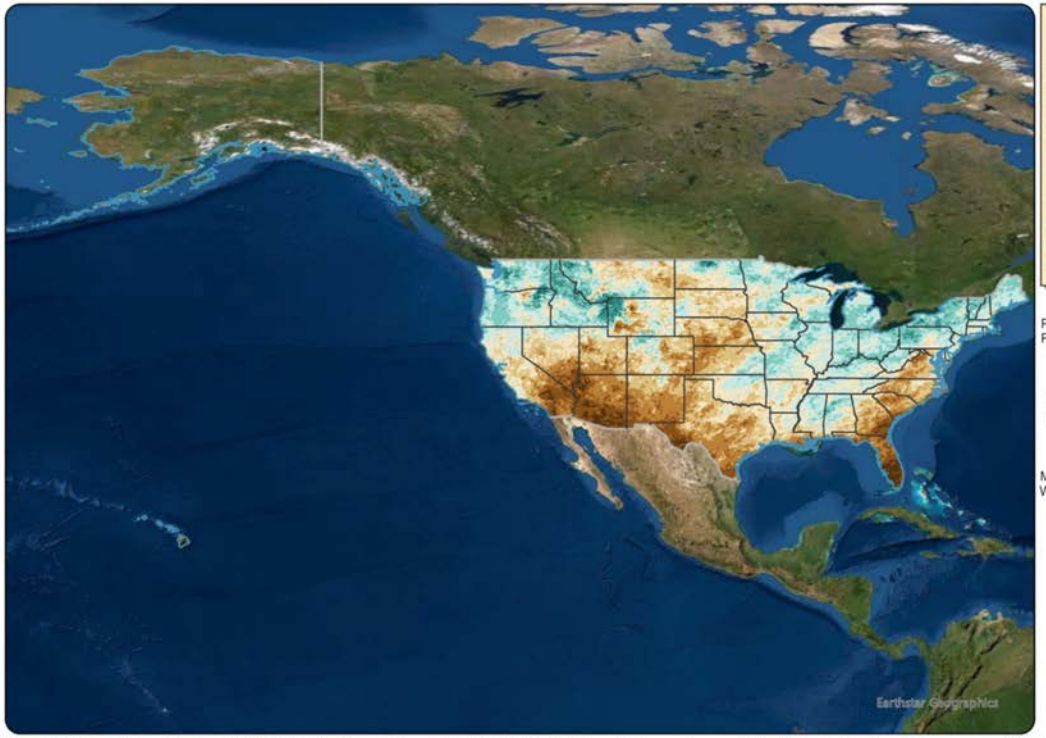
Percent of La Nina Years with Jan-Mar Precipitation Above the 1921-2020 Average



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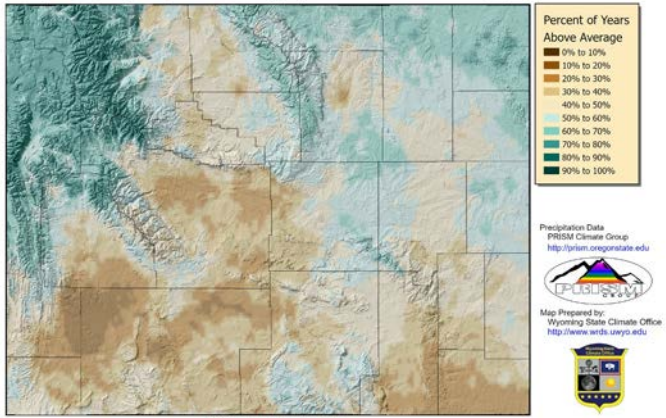
Percent of La Niña Years with ***Feb-Apr Precipitation*** Total Above 1921-2020 Average

FMA (La Nina Years) Precipitation Anomaly (Departure from 1921-2020 Average)



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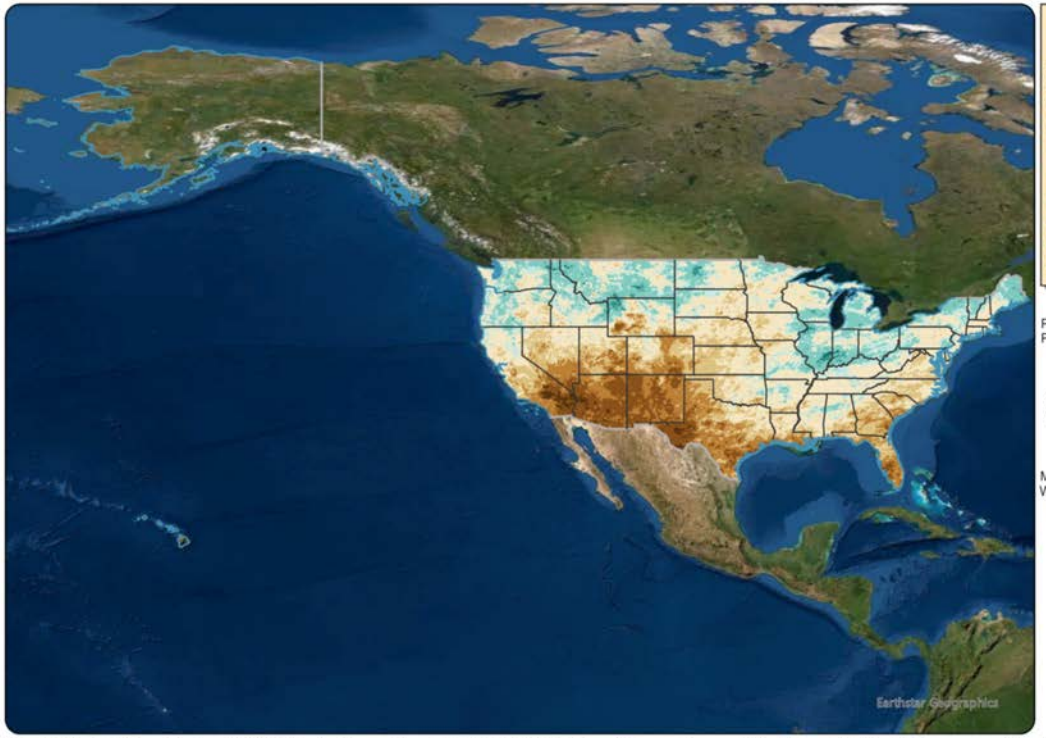
Percent of La Nina Years with Feb-Apr Precipitation Above the 1921-2020 Average



Percent of Years
Above Average
0% to 10%
10% to 20%
20% to 30%
30% to 40%
40% to 50%
50% to 60%
60% to 70%
70% to 80%
80% to 90%
90% to 100%

Precipitation Data
PRISM Climate Group
http://prism.oregonstate.edu

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

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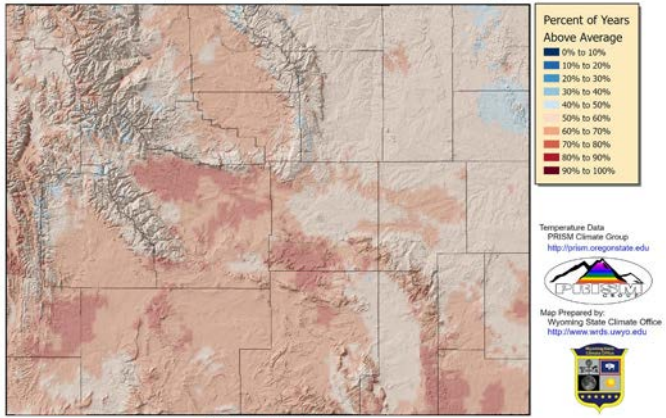
Percent of La Niña Years with ***Nov-Jan <u>Temperatures</u>*** Above 1921-2020 Average

NDJ (La Nina Years) Temperature Anomaly (Departure from 1921-2020 Average)



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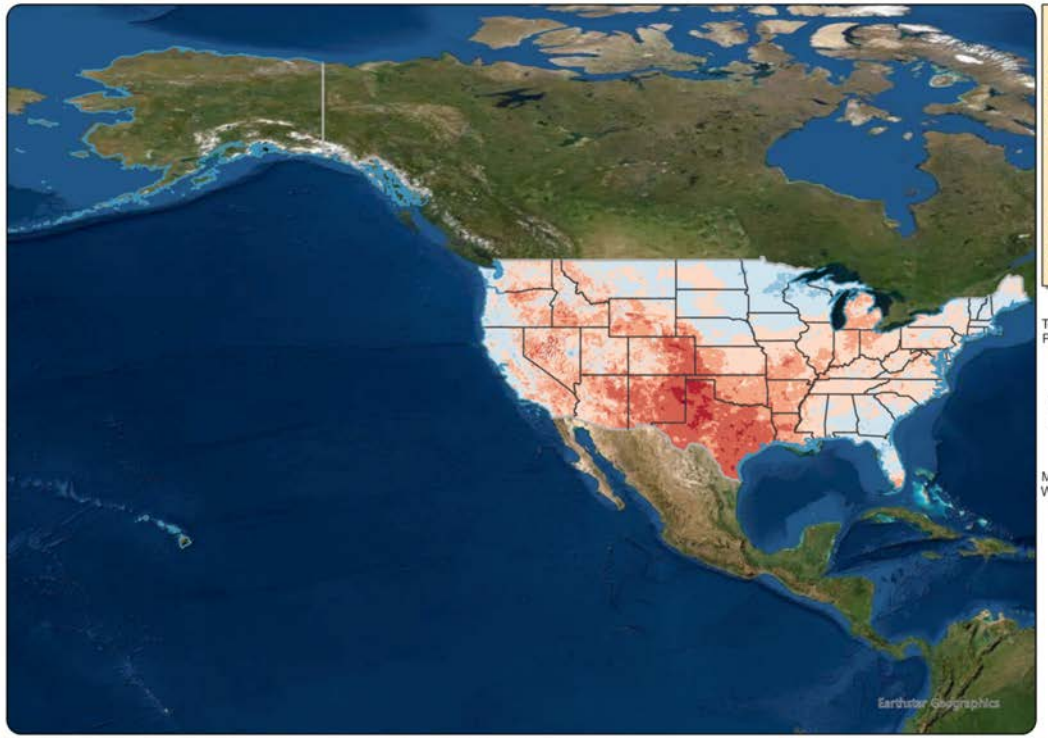
Percent of La Nina Years with Nov-Jan Temperatures Above the 1921-2020 Average



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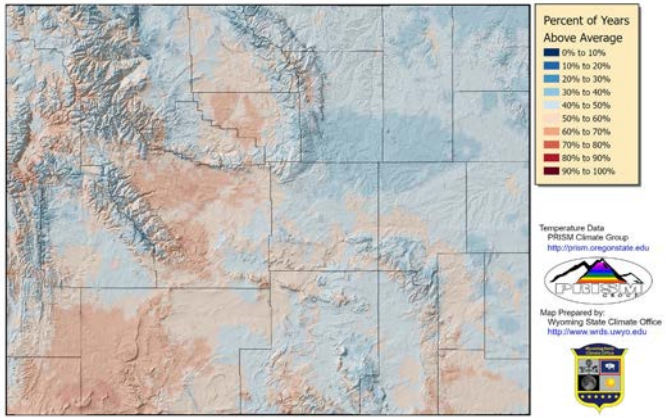
Percent of La Niña Years with ***Dec-Feb Temperatures*** Above 1921-2020 Average

DJF (La Nina Years) Temperature Anomaly (Departure from 1921-2020 Average)



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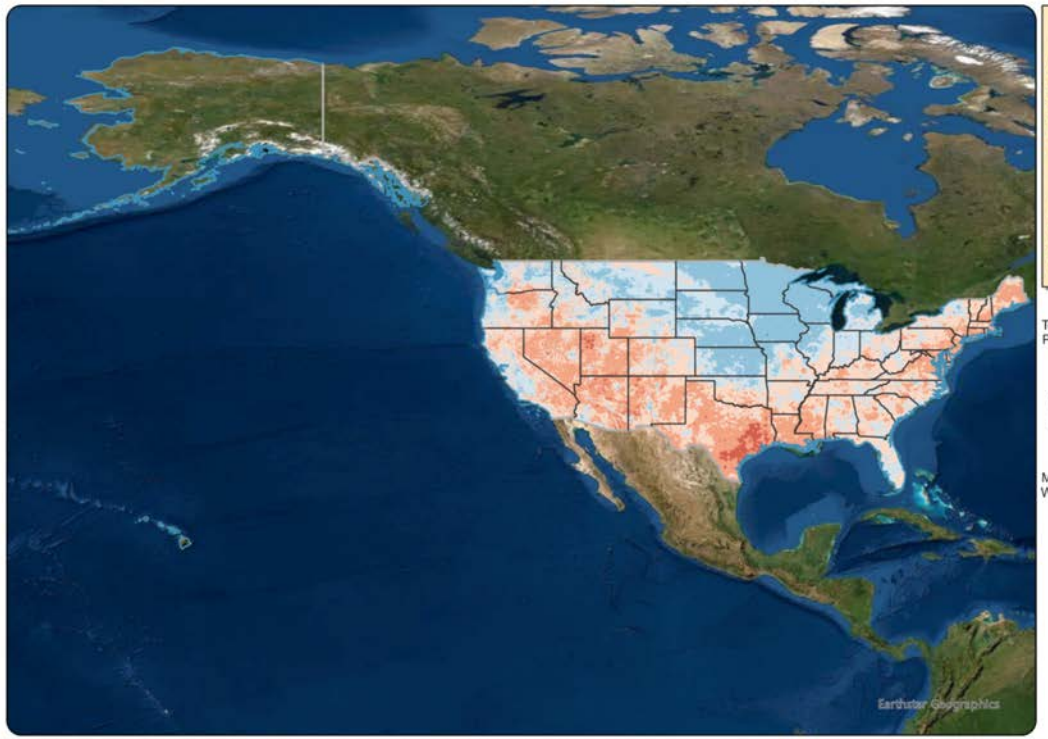
Percent of La Nina Years with Dec-Feb Temperatures Above the 1921-2020 Average



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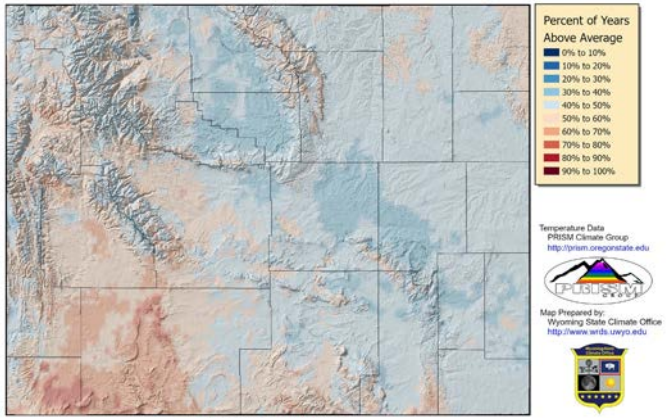
Percent of La Niña Years with ***Jan-Mar <u>Temperatures</u>*** Above 1921-2020 Average

JFM (La Nina Years) Temperature Anomaly (Departure from 1921-2020 Average)



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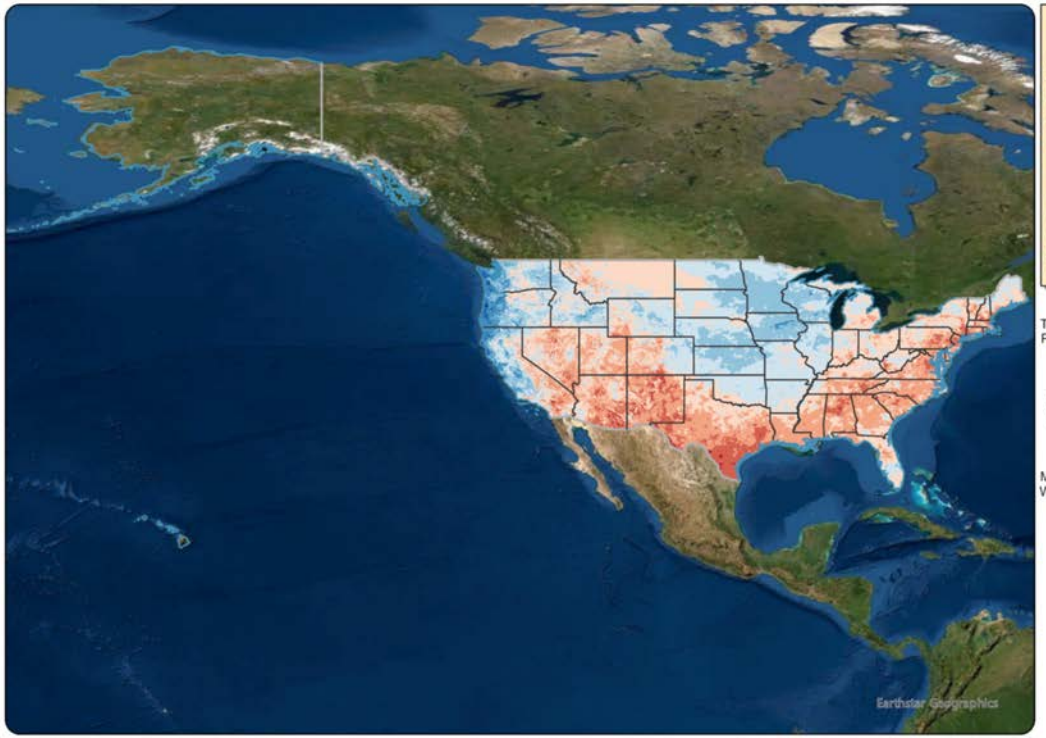

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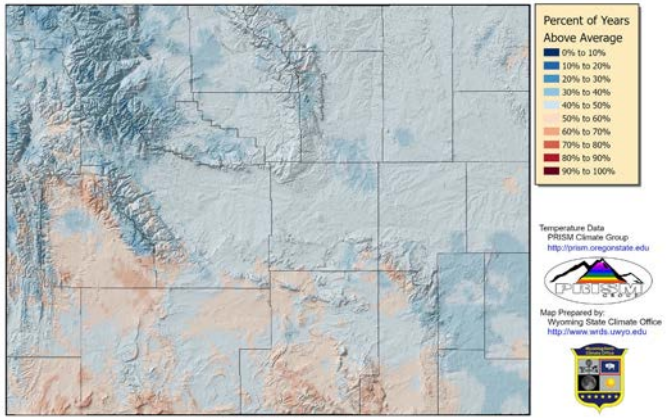
Percent of La Niña Years with ***Feb-Apr <u>Temperatures</u>*** Above 1921-2020 Average

FMA (La Nina Years) Temperature Anomaly (Departure from 1921-2020 Average)



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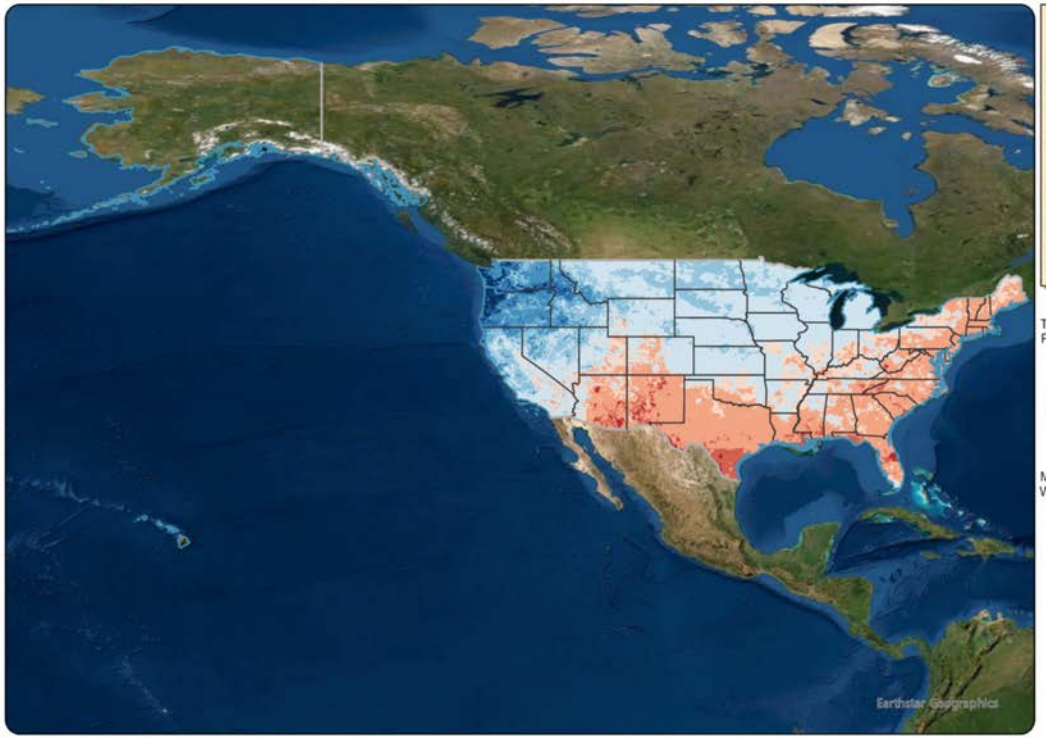

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What does this mean for Wyoming?

Increasing chances that La Niña will persist into winter

Early August forecasts had January-March period being Neutral. Current odds favor La Niña in that period

Conditions expected to be ENSO-Neutral starting the February-April timeframe.

Next few months: Above normal temperatures, below normal precipitation at least in southern part of WY

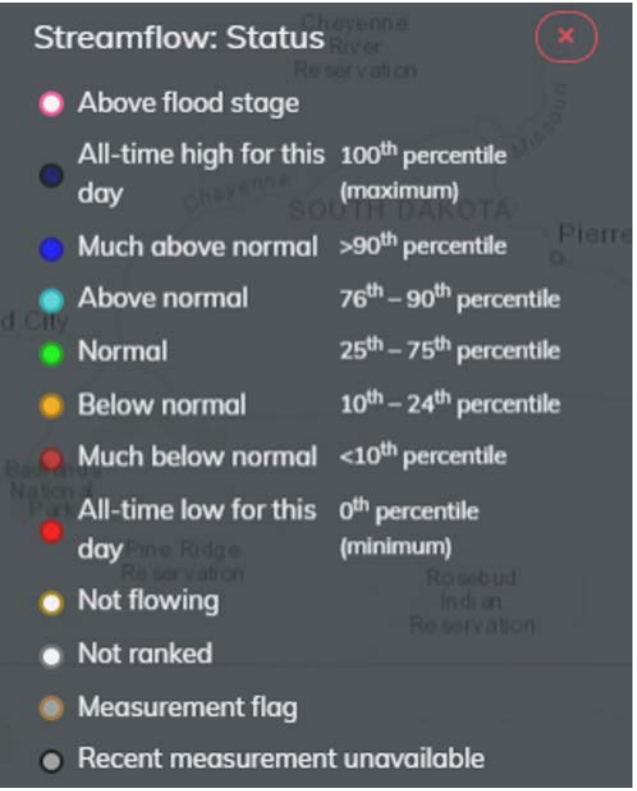
Then, better probability of above average precipitation, especially in the northwest as we move into winter months

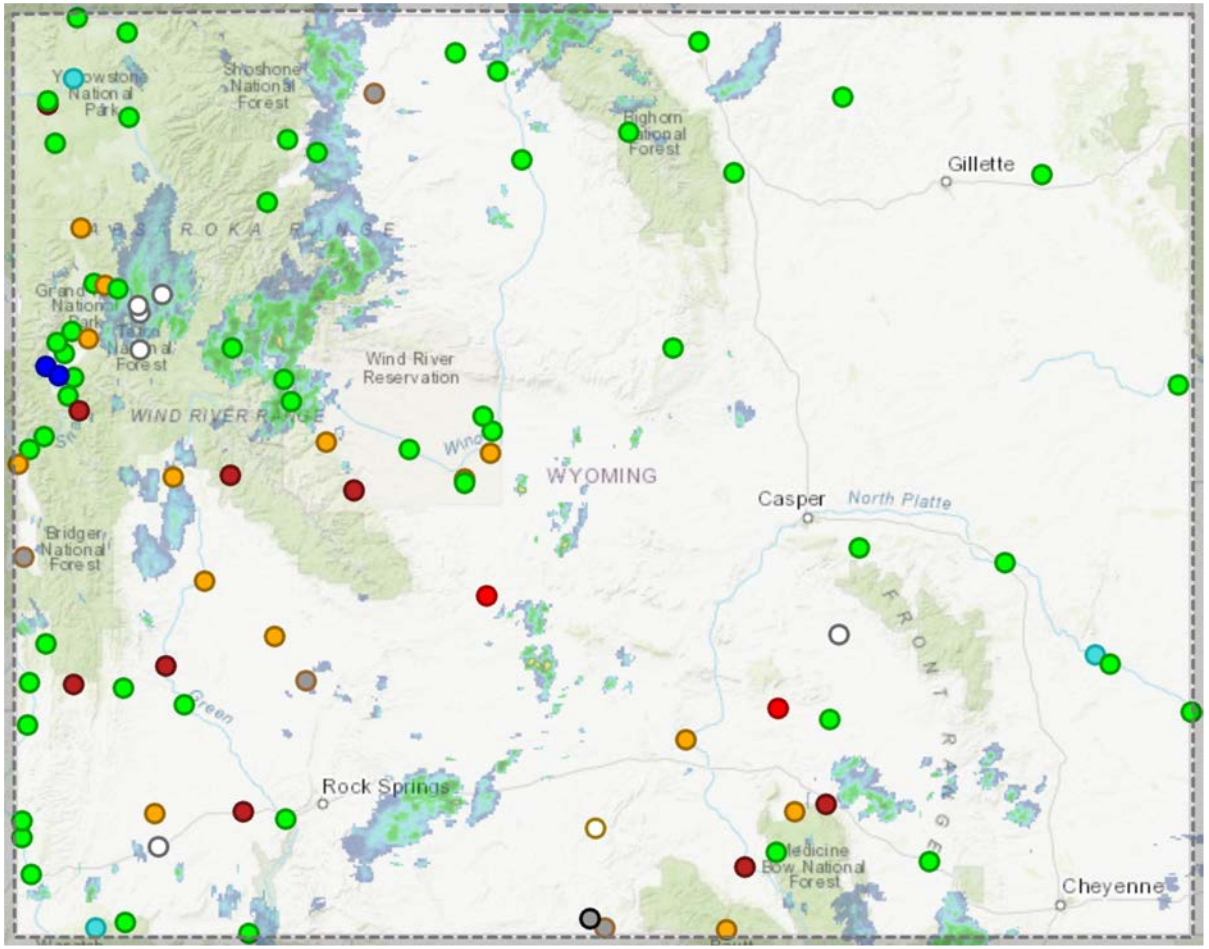
If La Niña weakens as expected further into 2023, there is less guidance and we rely more on Climatology for conditions

Hopefully this means more normal conditions in late winter and spring. CPC Outlooks into next summer are showing a leaning toward and even likelihood of above normal temperatures in the west

Current Streamflow Conditions (Sept 15, 2022)

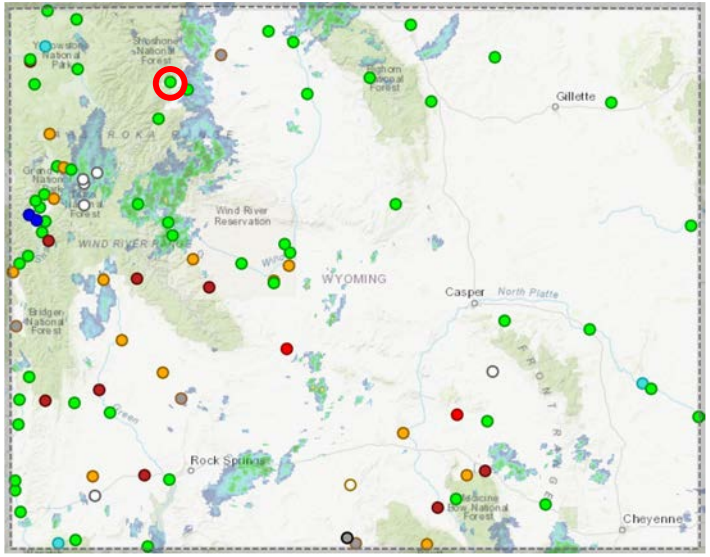
Streamflow Status





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

Select WY Streamflows

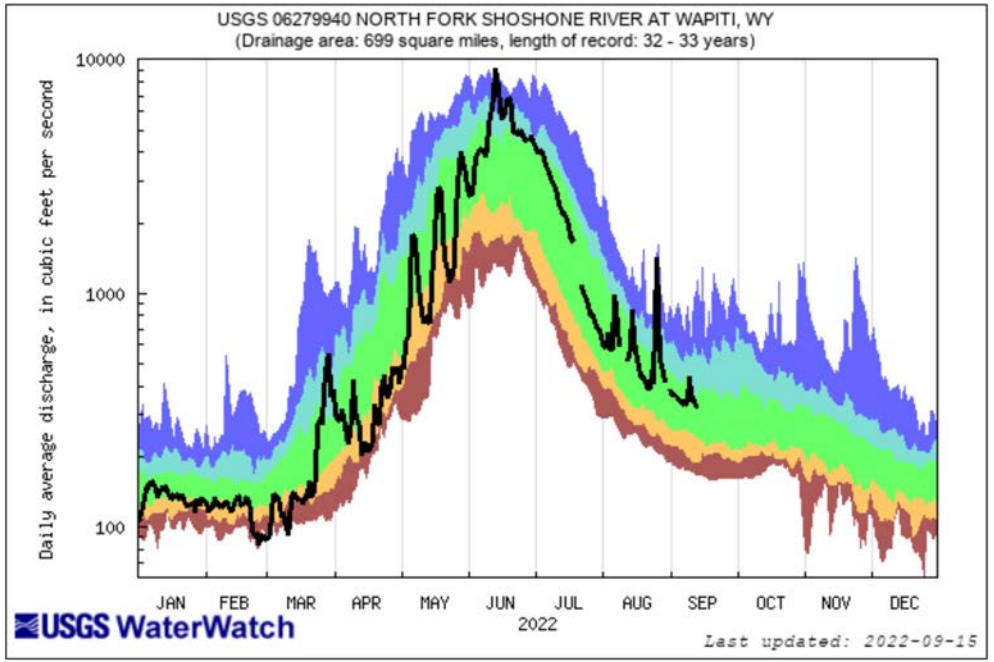


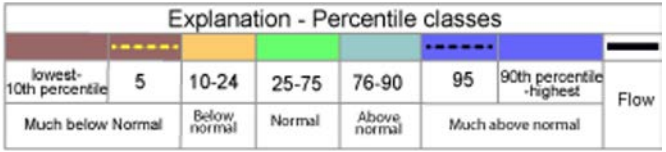
https://dashboard.waterdata.usgs.gov/

https://waterdata.usgs.gov/

North Fork Shoshone River at Wapiti, WY

Last updated Sept 15, 2022





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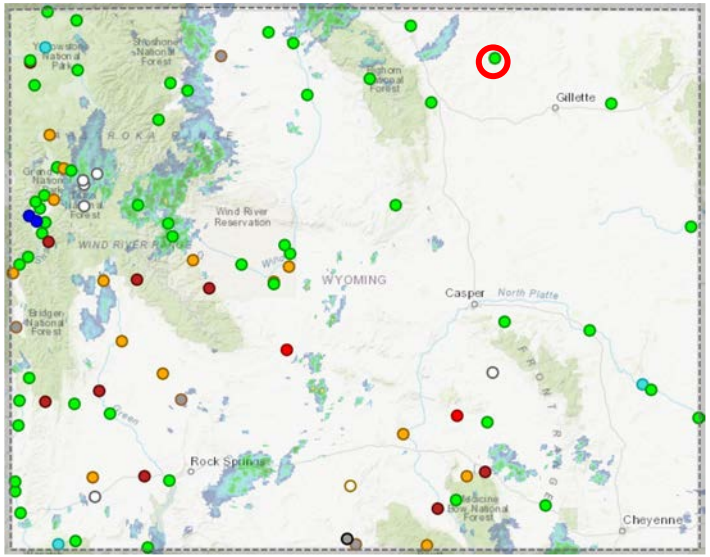
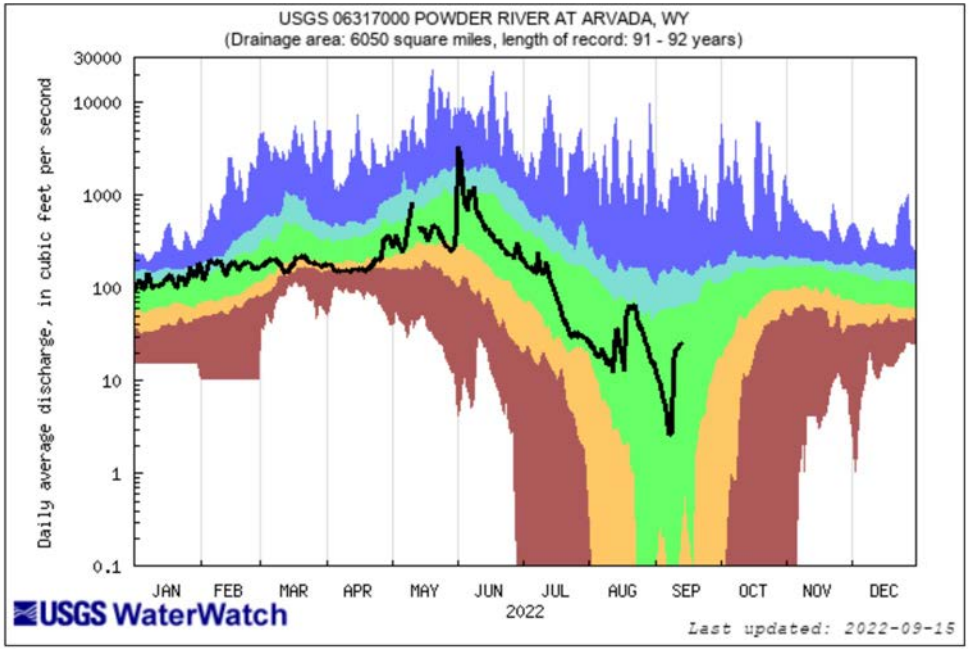


https://dashboard.waterdata.usgs.gov/

https://waterdata.usgs.gov/

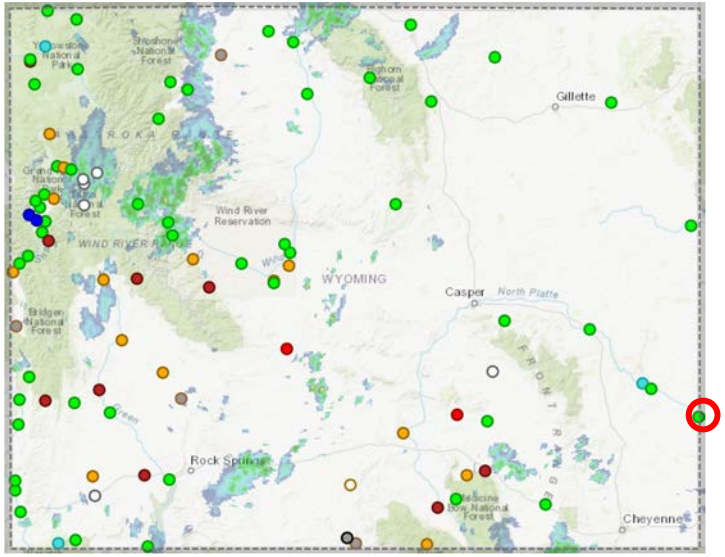
Powder River at Arvada, WY

Last updated Sept 15, 2022



Explanation - Percentile classes							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Flow
Much below Normal		Below normal	Normal	Above normal	Much above normal		

Select WY Streamflows

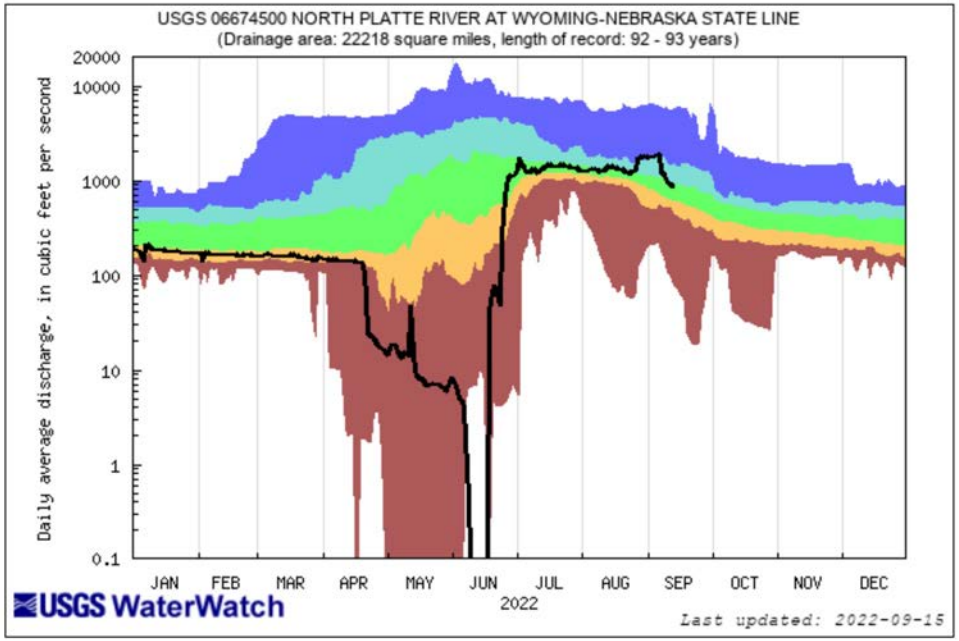


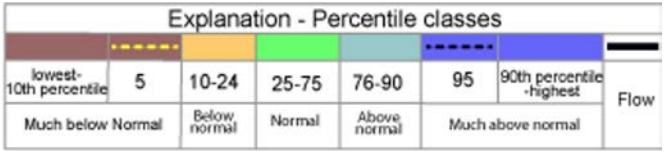
https://dashboard.waterdata.usgs.gov/

https://waterdata.usgs.gov/

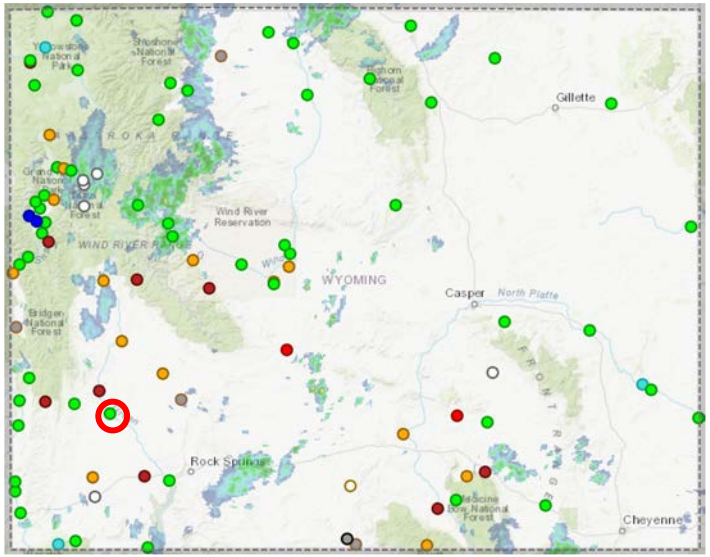
North Platte River at WY-NE State Line

Last updated Aug 18, 2022





Select WY Streamflows

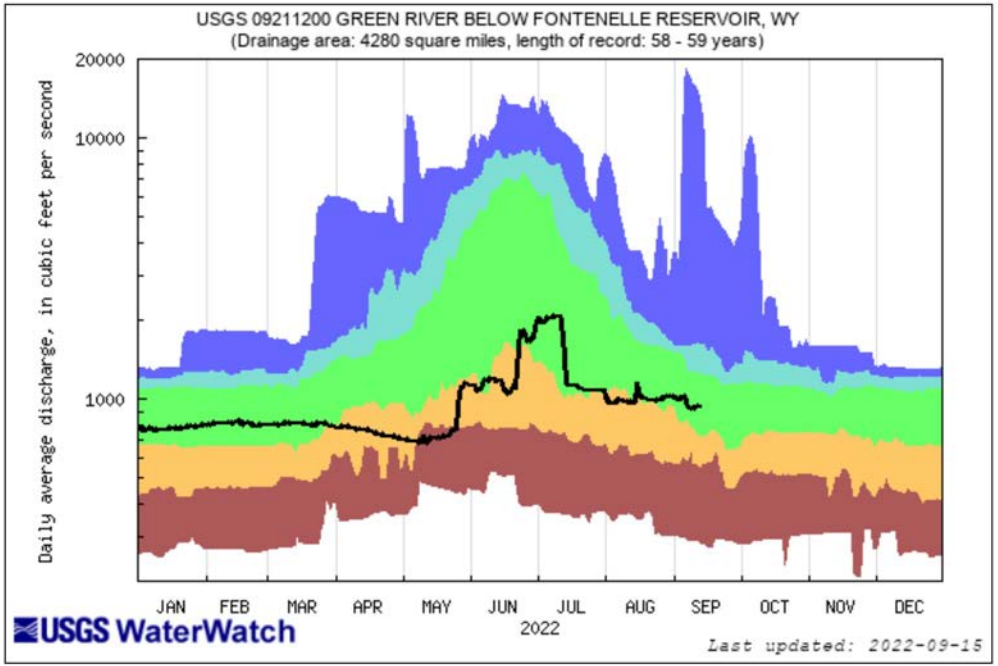


https://dashboard.waterdata.usgs.gov/

https://waterdata.usgs.gov/

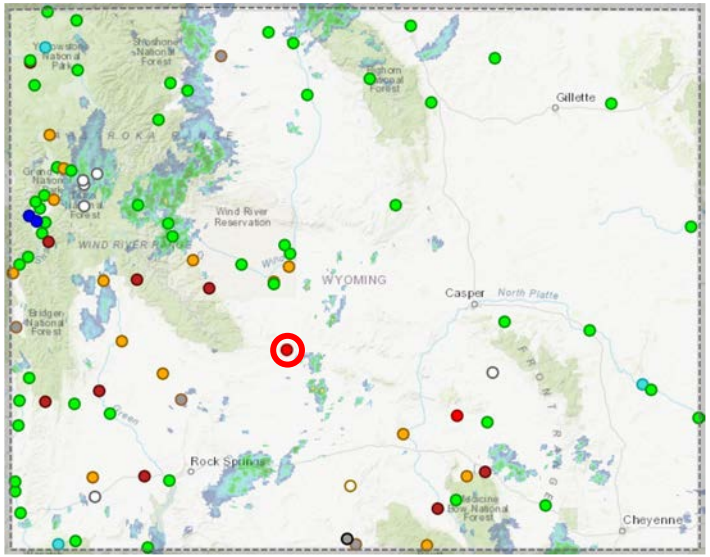
Green River at Below Fontenelle Reservoir, WY

Last updated Sept 15, 2022



Explanation - Percentile classes							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Flow
Much below Normal		Below normal	Normal	Above normal	Much above normal		

Select WY Streamflows

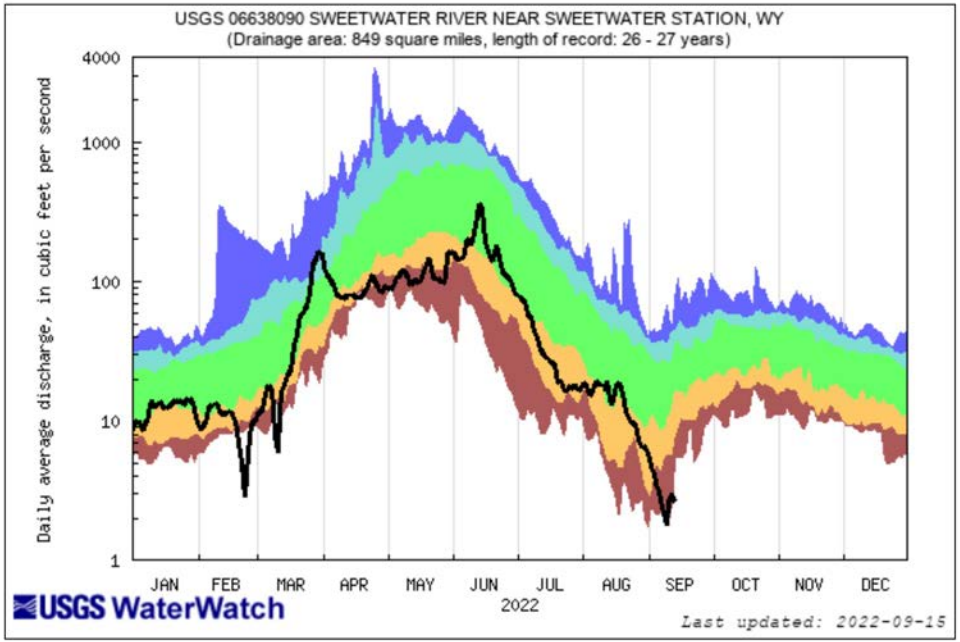


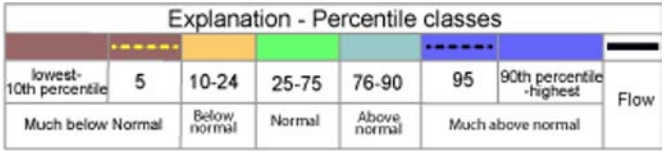
https://dashboard.waterdata.usgs.gov/

https://waterdata.usgs.gov/

Sweetwater River near Sweetwater Station, WY

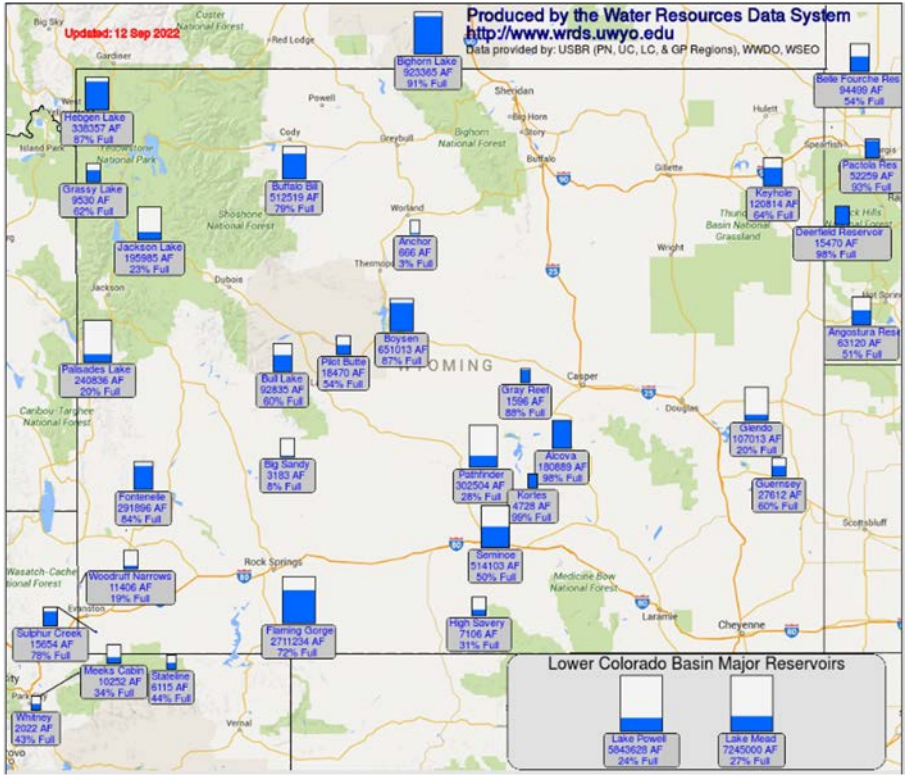
Last updated Sept 15, 2022





WY Reservoirs (Sept 15, 2022)

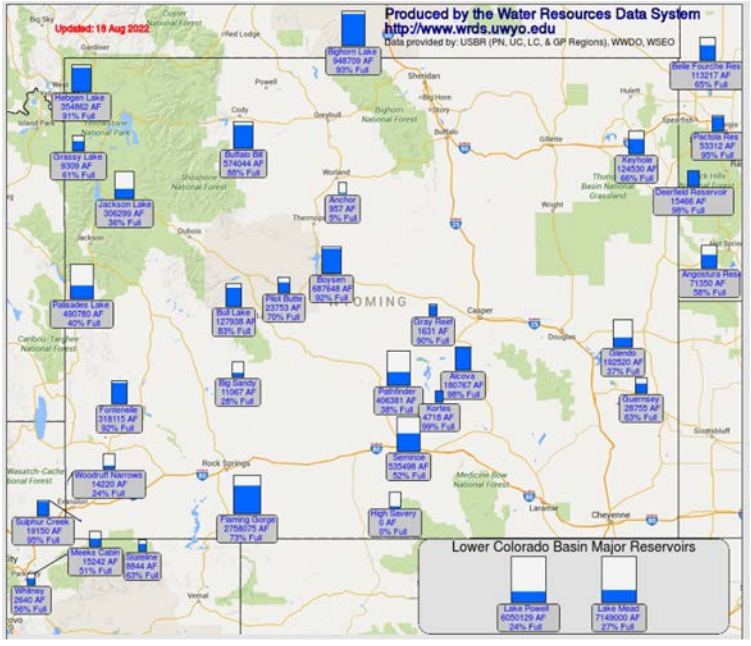
Sept 15, 2022



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

- Decreases across the state
- Larger decreases- Palisades, Jackson, Buffalo Bill, Pathfinder, Fontenelle

Aug 18, 2022



WY SEO Divisions and Superintendents

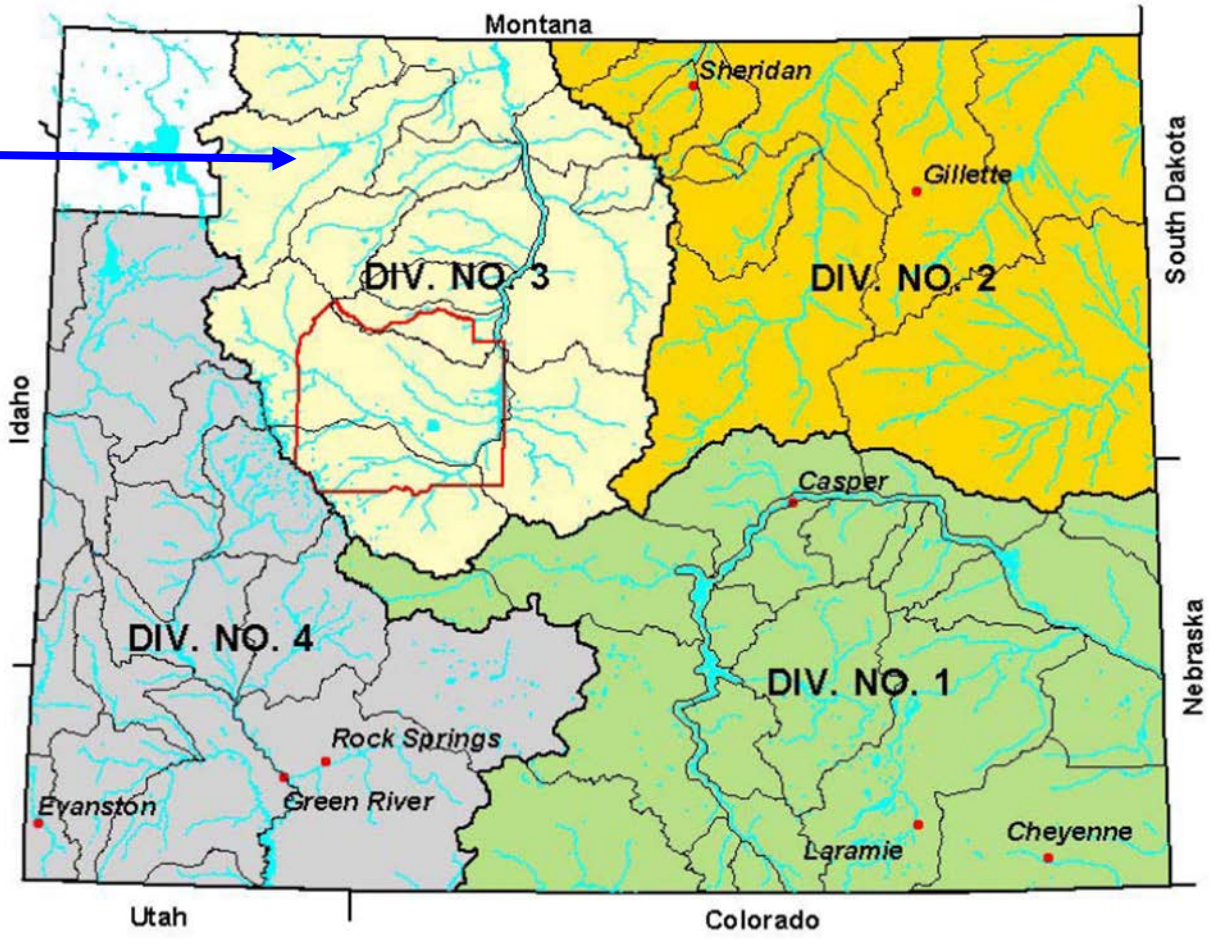
Contact information for calls and administration

Division 3

Joshua Fredrickson, 856-0747

Division 2

David Schroeder, 674-7012

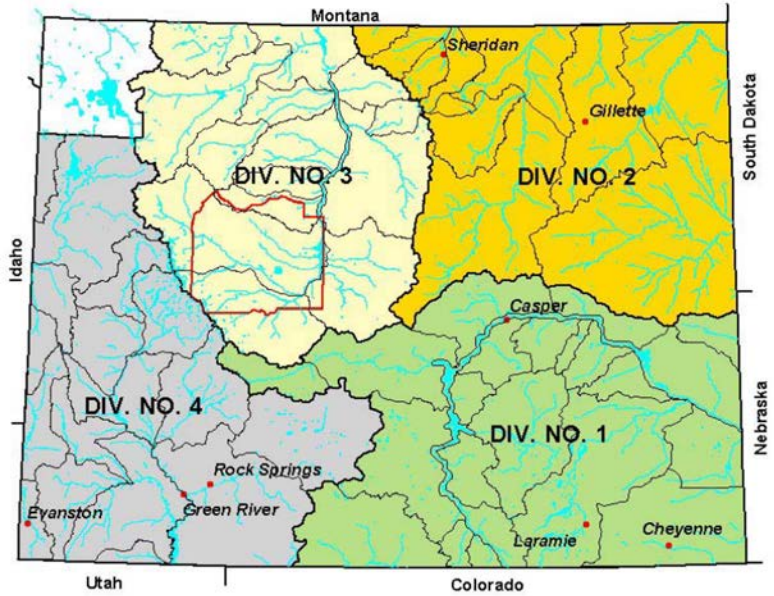


Division 4

Kevin Payne, 279-3441

Division 1

Cory Rinehart, 532-2248



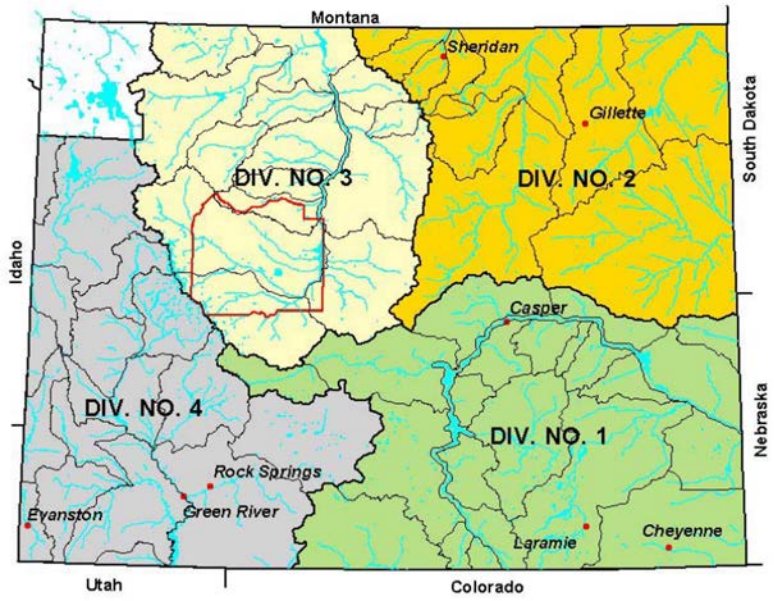
Division 1

1. May 1, 2022 BOR call on North Platte limits Irrigation Pumpers, between Pathfinder and Guernsey, to 6,600 acre feet every 2 weeks, through Sept 30th.

1. June 15, 2022 call on Horseshoe Creek and tribs, Dist 3, to a priority date of 4/05/1879.

1. June 24, 2022 call on Laramie River and Tribs, Dist 3, 4A, 4B, 4C, to a priority date of 12/31/1881.

1. June 26, 2022 call on Laramie River and Tribs, Dist 3, 4A, 4B, 4C, to a priority date of 5/23/1883 and priority No. 17 of Laramie

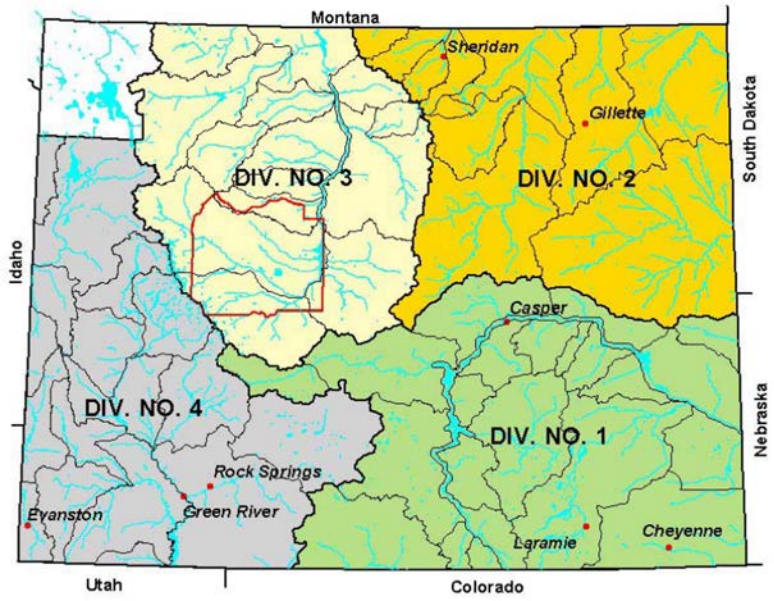


Division 1

5. June 27, 2022 call on Laramie River and Tribs, Dist 3, 4A, 4B, 4C, to a priority date of 12/31/1875.

5. June 29, 2022 call on Rattlesnake Creek and tribs, Dist 16 to a priority date of 4/1885.

5. June 29, 2022 call on Rattlesnake Creek and tribs, Dist 16 to a priority date of 12/19/1889.



Division 2

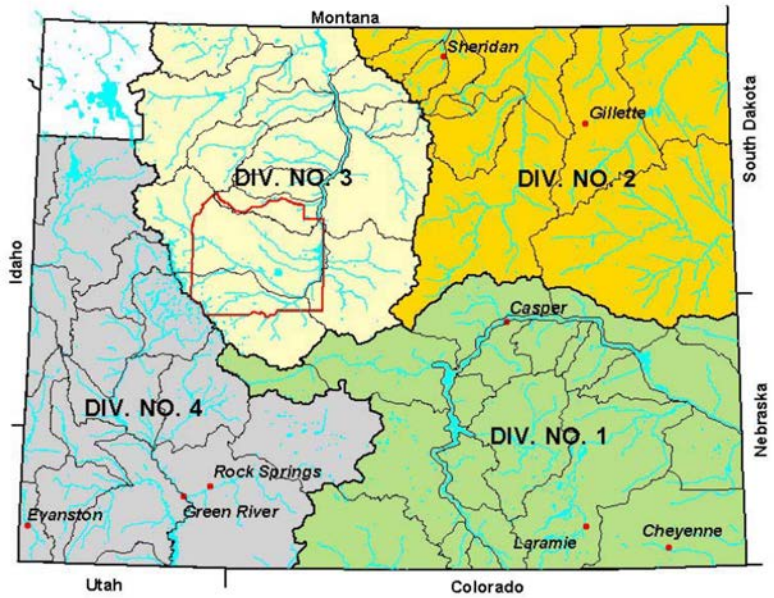
1. May 14, 2022 Call on Big Goose Creek, Dist 4, to a priority date of 9/18/1962.

1. July 12, 2022 Call on Little Goose Creek, Dist 4, to a priority date of 4/15/1880.

1. July 12, 2022 Call on Piney Creek, Dist 9 to a priority date of summer 1884.

1. July 13, 2022 Call on Upper Clear Creek, Dist 2, to a priority date of spring 1883.

1. July 21, 2022 Call on Lower Clear Creek, Dist 2, to a priority date of 4/30/1882.



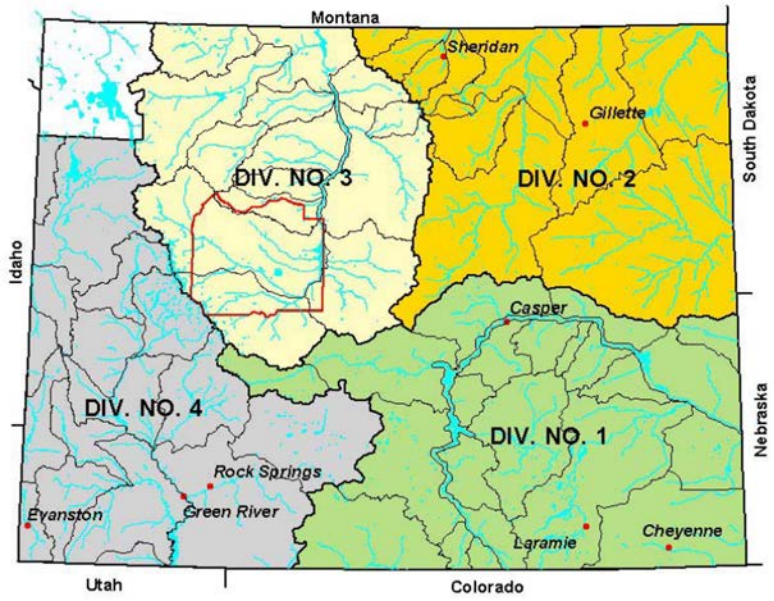
Division 2

6. 7/18/22 Distribution of Dull Knife Reservoir water to shareholders.

6. 7/15/22 Distributions of Willow Park and Cloud Peak Reservoirs water to shareholders.

6. 8/2/22 Call on Wolf Creek, Dist 5, to a priority date of 9/01/1881.

6. 8/1/22 Call on Powder River, Dist 8, to a priority date of 2/21/1902



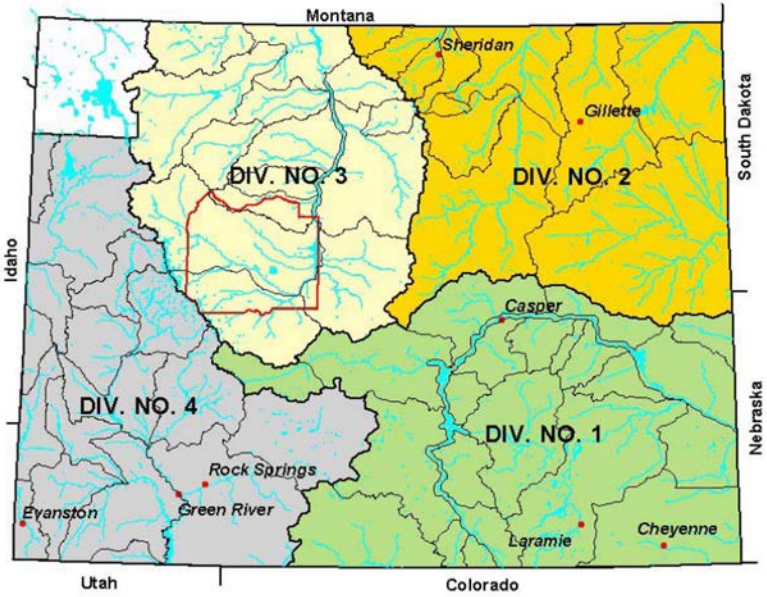
Division 3

1. April 8, 2022, Call on Owl Creek, Dist 5, to a priority date of Fall 1885.

1. May 6, 2022, Call on Grass Creek , Dist 14, to a priority date of Spring 1903.

1. June 30, 2022, Call on Gooseberry Creek, Dist 13, to a priority date of 12/21/1906.

1. July 12, 2022, Call on Greybull River, Dist 8, to a priority date of 6/20/1888 and 6/18/1900.



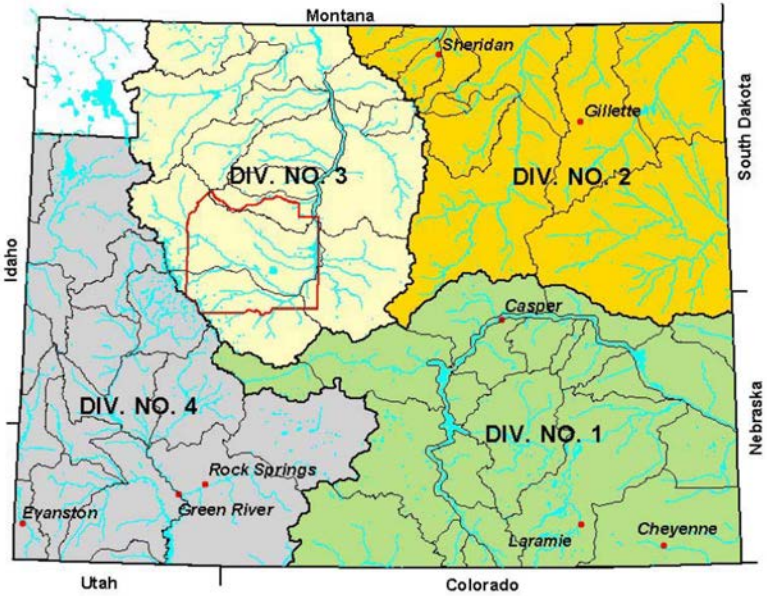
Division 3

5. July 18, 2022, Call on Cottonwood Creek, Dist 14, to a priority date of 11/10/1904.

5. July 25, 2022, Call on Medicine Lodge Creek and Paint Rock Creek, Dist 12, to a priority date of 4/11/1896 and 3/28/1904.

5. August 17, 2022, Call on Big or Middle Popo Agie River, Dist 1, to a priority of 1885.

5. August 22, 2022, Call on Nowood River, Dist 12, to a priority date of 7/7/1958



Division 4

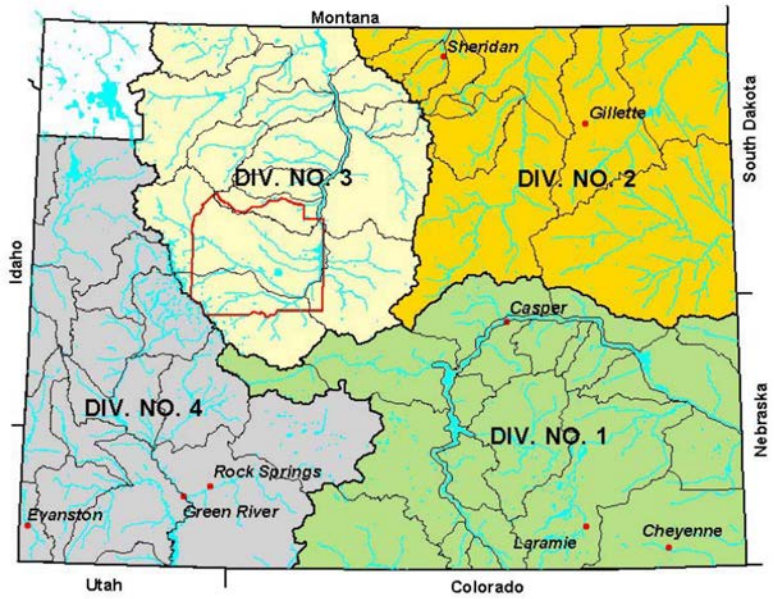
1. May 9, 2022, call onf Central Bear River, Dist 2, multiple dates for interstate call.

1. May 16, 2022, call on Fish Creek, Dist 10, to a priority date of 7/13/1889.

1. May 17, 2022, call on Blacks Fork River, Dist 15, to a priority date of 1891, delivery of storage water from Meeks Cabin Res.

1. May 27, 2022, call on South Piney Creek, Dist 10, to a priority date of 12/31/1886.

1. June 8, 2022, call on Smith's Fork, Dist 3, to a priority date of 3/2/1935, delivery of storage water from Stateline Res.



Division 4

7. June 13, 2022, call on Corral Creek, Dist 9, to a priority date of 6/30/1890.

7. June 30, 2022, call on Upper Bear River, Dist 4, to a priority of 1874, interstate call.

7. July 25, 2022, call on Teton Creek, Dist 13, interstate call.

Contact Information for Calls/Administration

Division 1 Superintendent–Cory Rinehart, 532-2248

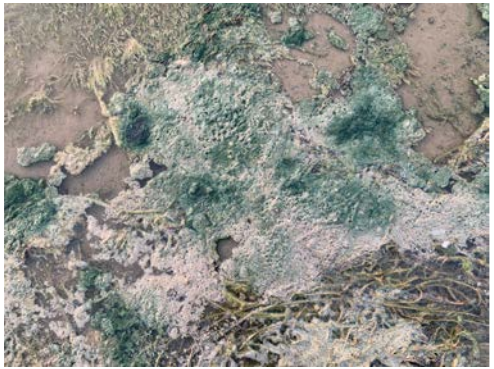
Division 2 Superintendent–David Schroeder, 674-7012

Division 3 Superintendent–Joshua Fredrickson, 856-0747

Division 4 Superintendent–Kevin Payne, 279-3441

Harmful Cyanobacterial Blooms (HCBs)

- Dense concentrations of cyanobacteria (AKA blue-green algae)
- Can be green, blue-green, tan, or brown in color
- Appear as surface scums, clumps, and/or diffuse in water column
- Can produce toxins that can affect the nervous system, liver, kidneys, and skin
- Can affect tourism, recreation, drinking water, agriculture, and wildlife

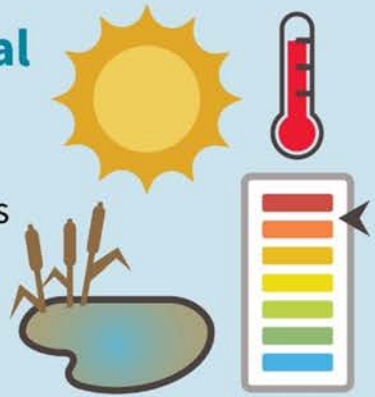


WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

What causes HCBs?

Environmental Conditions

- Abundant light
- High temperatures
- High pH levels
- Stagnant water
- Excess nutrients



Sources of Excess Nutrients

Agriculture:
Fertilizer runoff (nitrogen & phosphorus) and animal waste

Industry:
Chemical discharge and waste

Urban Life:
Sewage and waste runoff

CLEAN WATER ACTION
CLEAN WATER FUND

HCB Action Plan for Publically Accessible Waterbodies in Wyoming

- Developed by the WDEQ, the WDH, the WLB, resource management agencies, and other stakeholders
- Identify potential HCBs in Wyoming surface waters and inform collaborators and the public of the potential health risks

STEP 1: Surveillance and Reporting

STEP 2: Optional Preliminary Screening

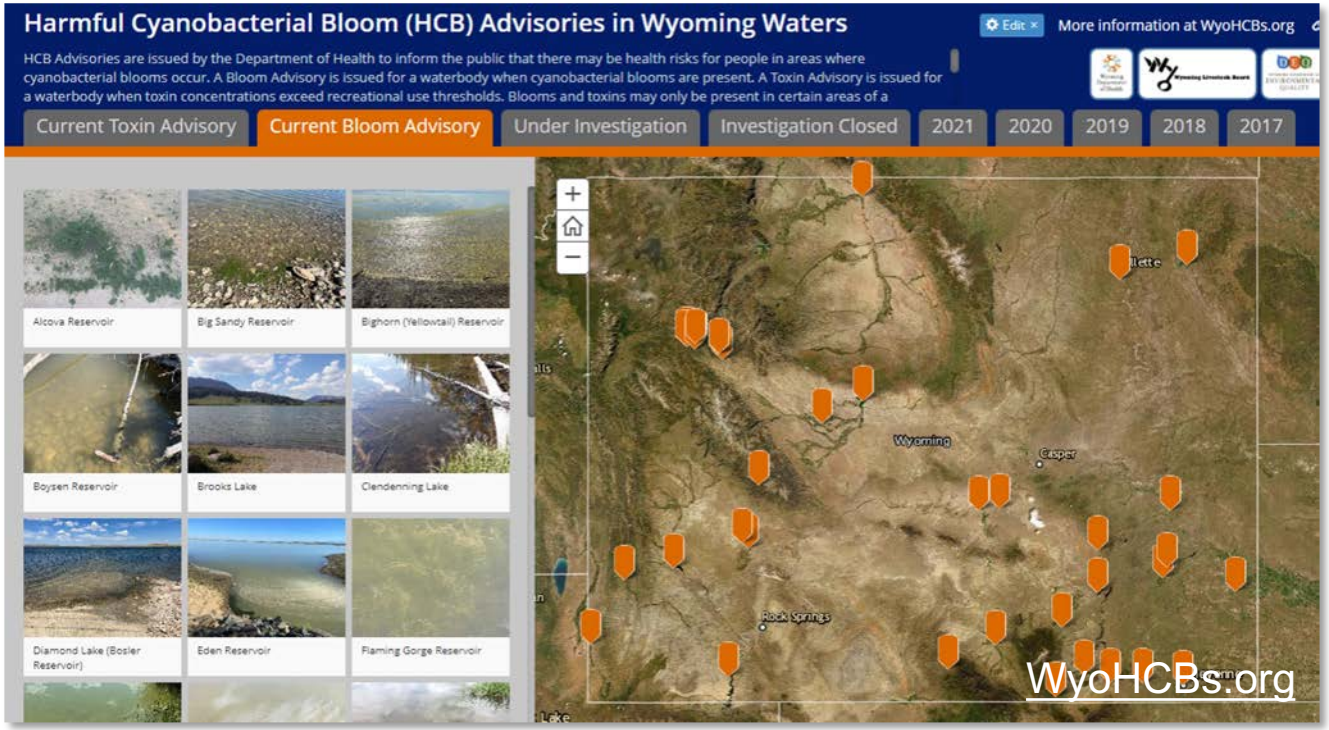
STEP 3: Data Collection and Issuing Advisories

STEP 4: Lifting Advisories

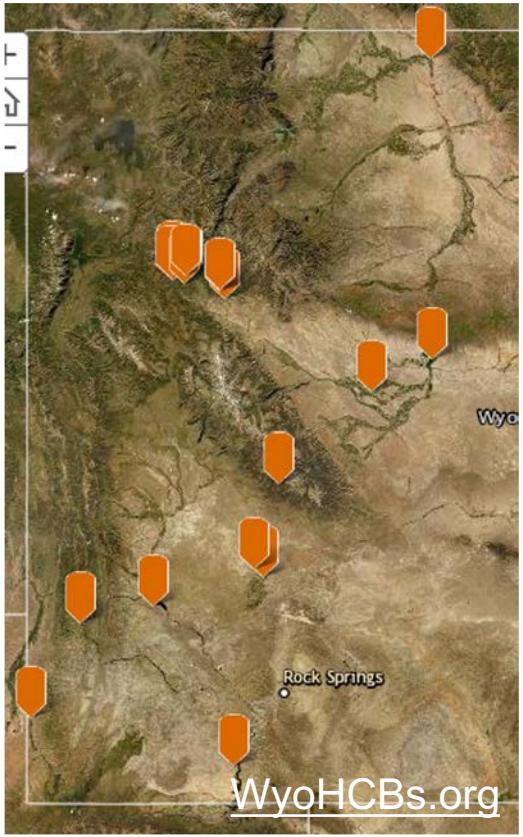
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

Current Bloom Advisories in Wyoming

The WDH issues a Bloom Advisory cyanobacteria abundance exceeds 20,000 cells/mL.



Current Bloom Advisories in Wyoming



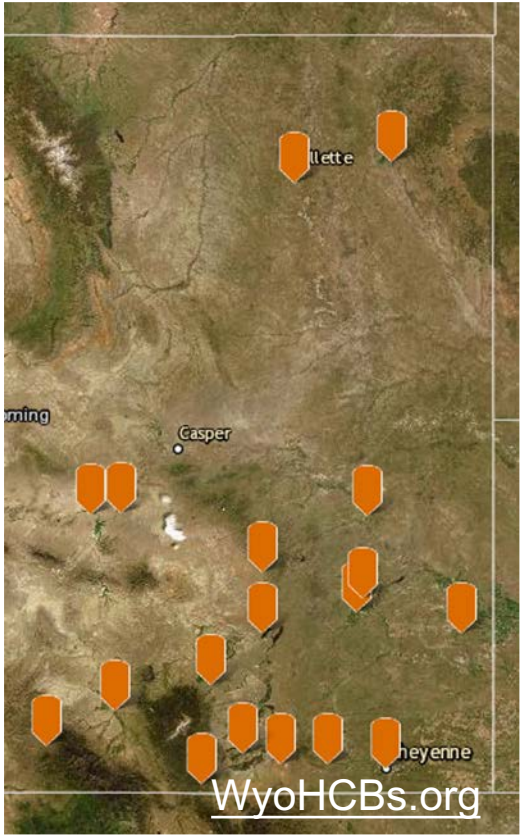
Western Wyoming

- Big Sandy Reservoir
- Bighorn (Yellowtail Reservoir)
- Boysen Reservoir
- Brooks Lake
- Clendenning Lake
- Eden Reservoir
- Flaming Gorge Reservoir
- Fontenelle Reservoir
- Kisinger Lakes
- Lake Viva Naughton
- Murray Lake
- Ocean Lake
- Rainbow Lake
- Rainbow Lake on Burroughs Loop
- Scouts Pond
- Upper Brooks Lake
- Upper Jade Lake
- V Lake
- Virgin Lake
- Woodruff Narrows Reservoir

Current Bloom Advisories in Wyoming

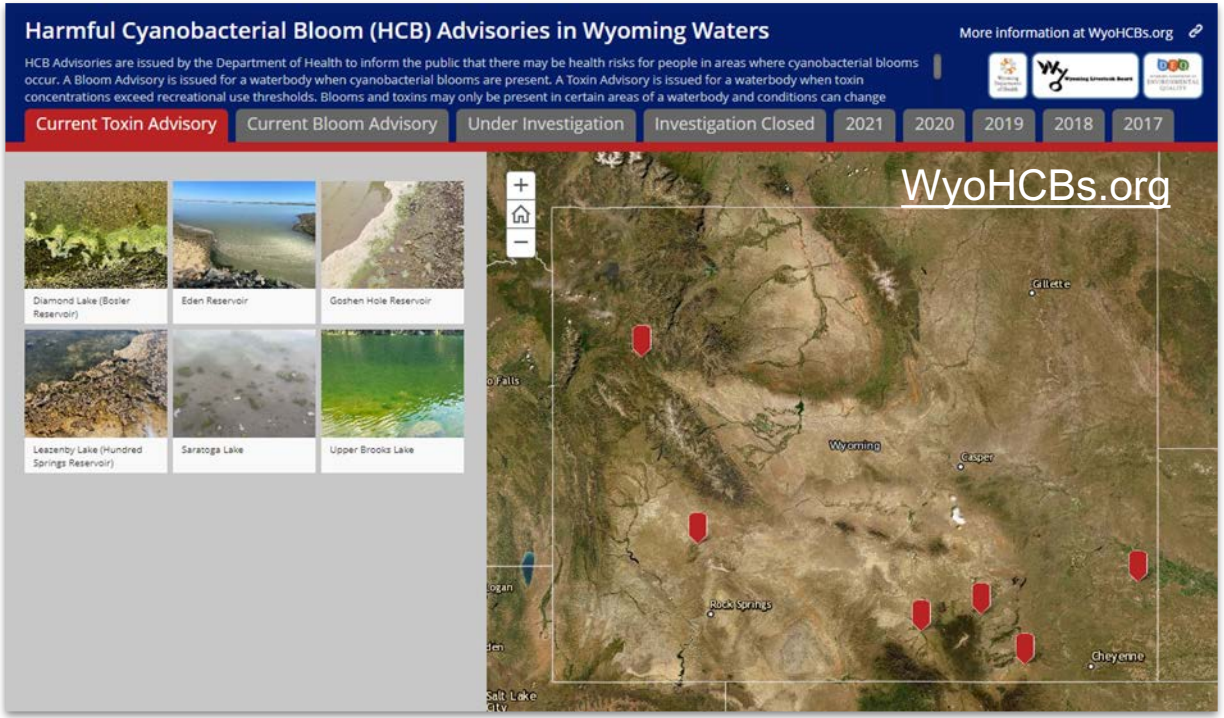
Eastern Wyoming

- Alcova Reservoir
- Diamond Lake
- Festo Lake
- Gillette Fishing Lake
- Glendo Reservoir
- Goshen Hole Reservoir
- Granite Springs Reservoir
- High Savery Reservoir
- Keyhole Reservoir
- Leazenby Lake
- Miller Lake
- Pathfinder Reservoir
- Saratoga Lake
- Sloans Lake
- Twin Buttes Lake
- Toltec Reservoir
- Wheatland Reservoir #1
- Wheatland Reservoir #3



Current Toxin Advisories in Wyoming

The WDH issues a Toxin Advisory when toxins exceed recreational thresholds.



- Diamond Lake
- Eden Reservoir
- Goshen Hole Reservoir
- Leazenby Lake
- Saratoga Lake
- Upper Brooks Lake

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

If You Encounter a Bloom

- Do not swim or come in contact with green water, scums, or clumps
- Do not ingest water from a bloom
- Rinse fish with clean water and eat only the fillet portion
- Avoid water spray from a bloom
- Do not allow pets or livestock to drink water near a bloom, eat bloom material, or lick fur after contact

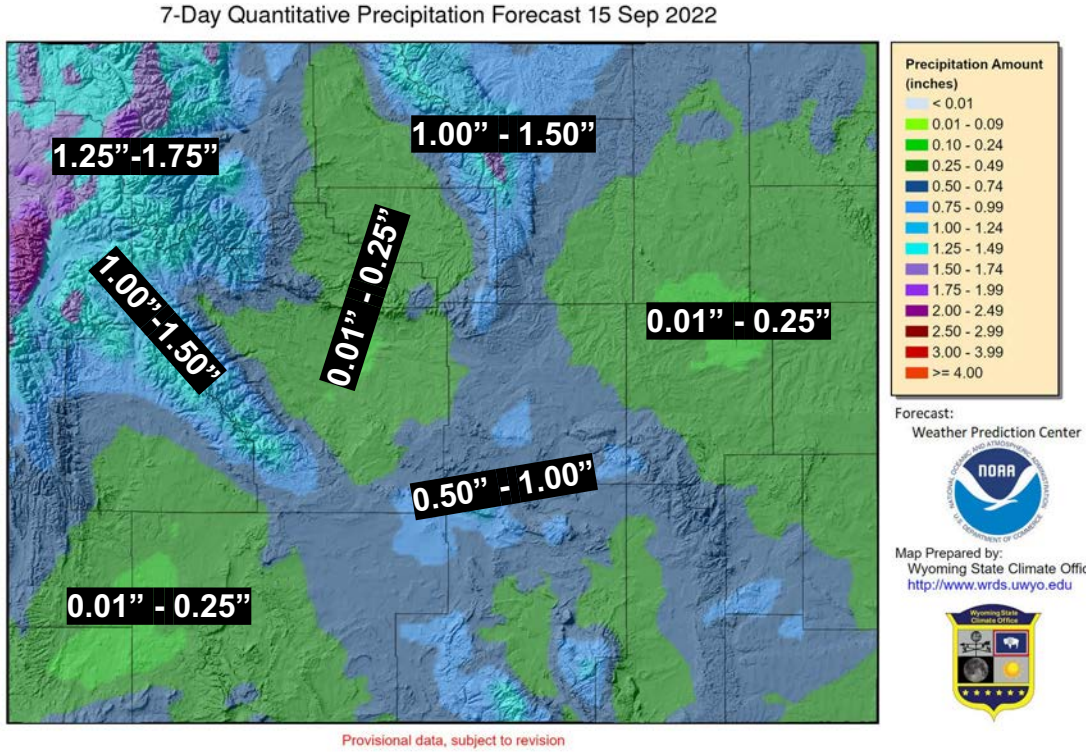
- Report the bloom to DEQ
- Report any HCB related illnesses to WDH

Report a Bloom

Forecasts & Outlooks

7-Day Total Precipitation Forecast

September 15-22



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 15 Sep 2022 http://www.wrds.uwyo.edu

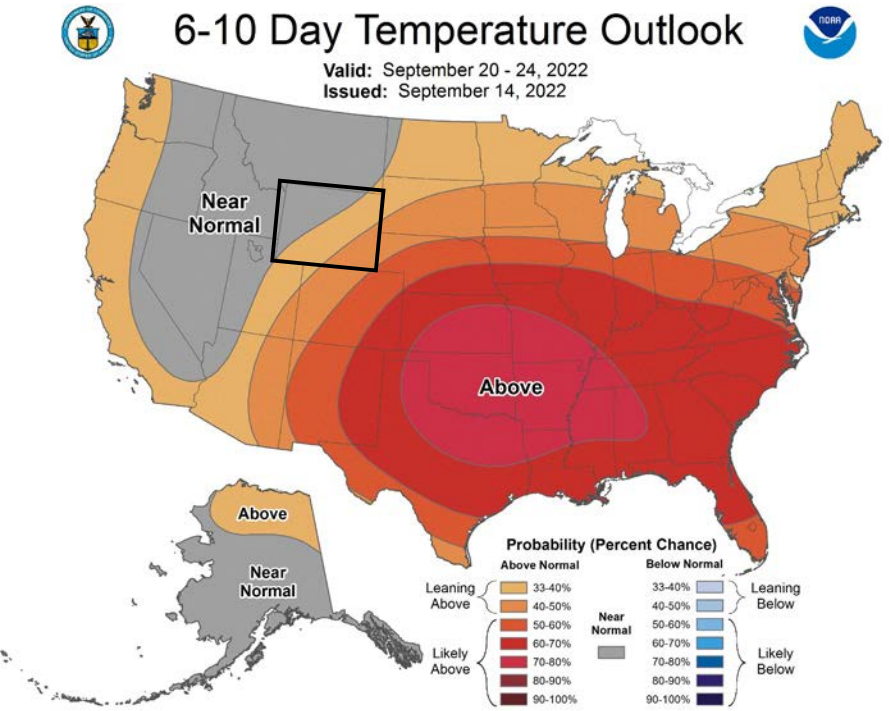
- Temperatures seasonal to above normal through Tuesday
- Cooler air coming in on day 7 with possible freezing temperatures in west.
- Increased precipitation chances today through Saturday
- Dry Saturday night through Monday.
- Increased rain chances Tuesday-Thursday next week

https://bit.ly/7_dayQPForecast

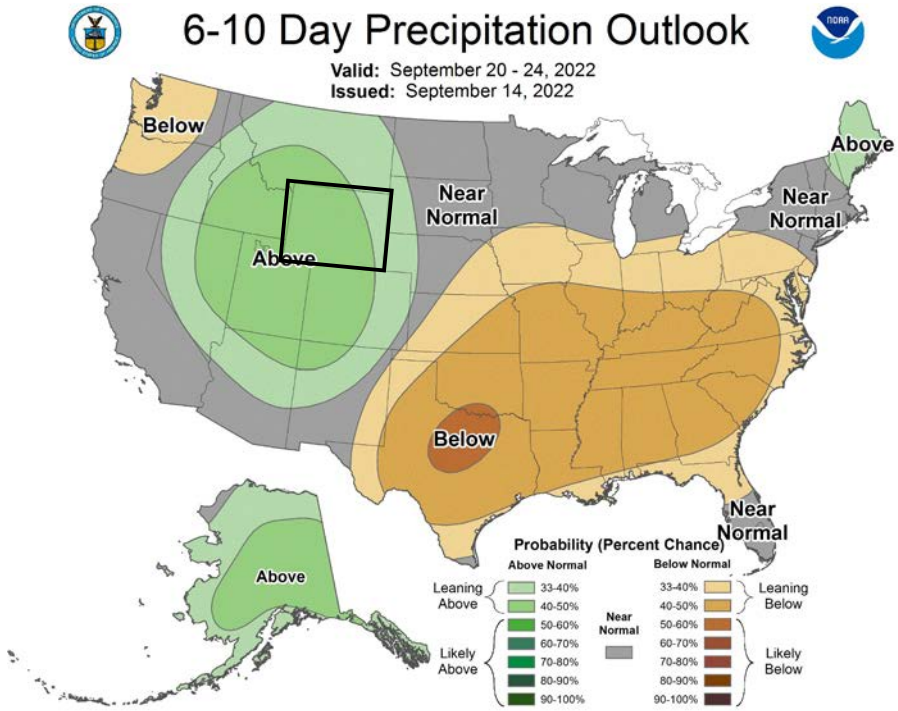
6-10 Day Temp & Precip Outlook

September 20-24

https://bit.ly/CPC6_10Day



Moderate above normal signal in the SE, weakening to neutral in the NW

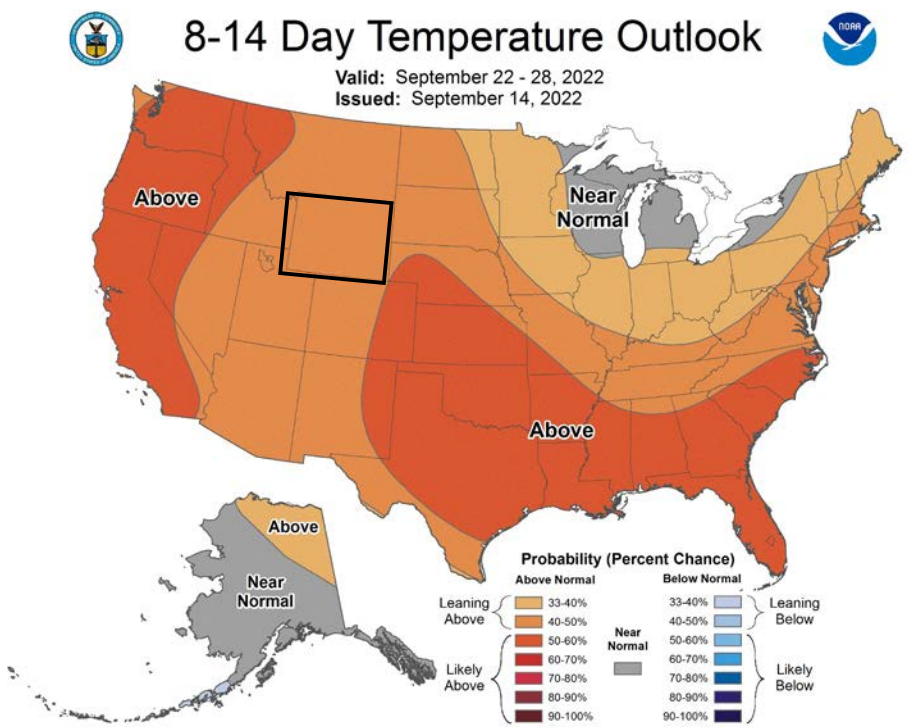


Moderate above normal signal for most of WY, weak signal on E border

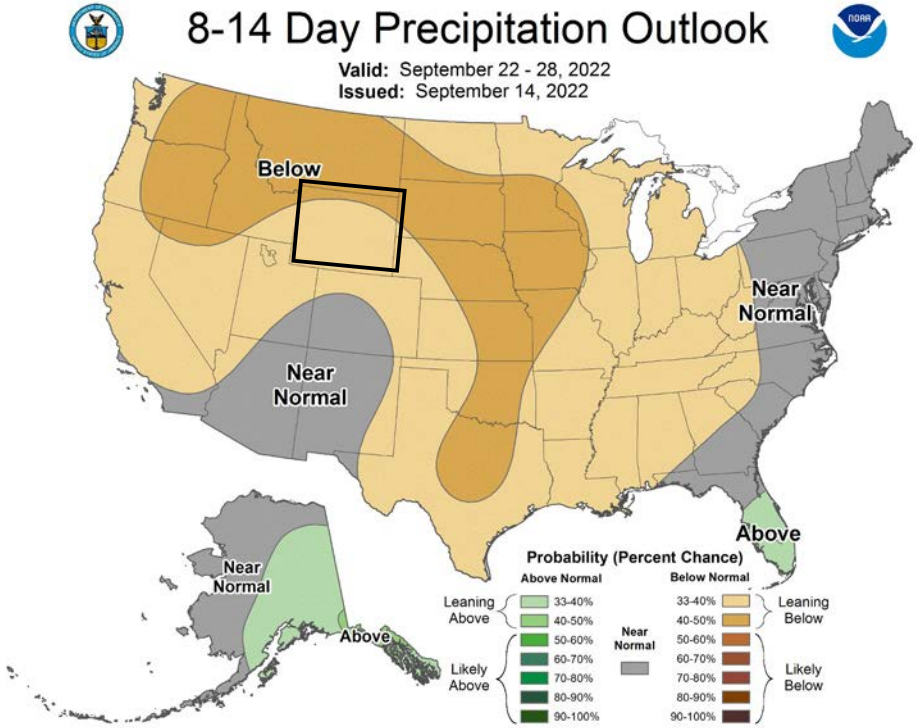
8-14 Day Temp & Precip Outlook

September 22-28

https://bit.ly/CPC8_14Day



Moderate above normal temperature signal across the state

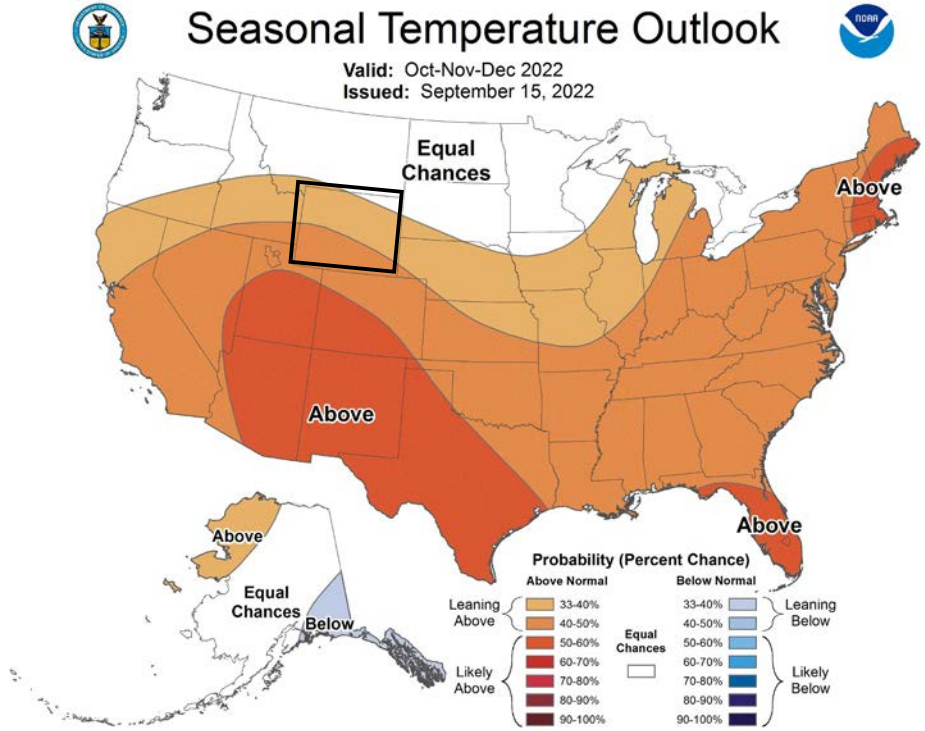


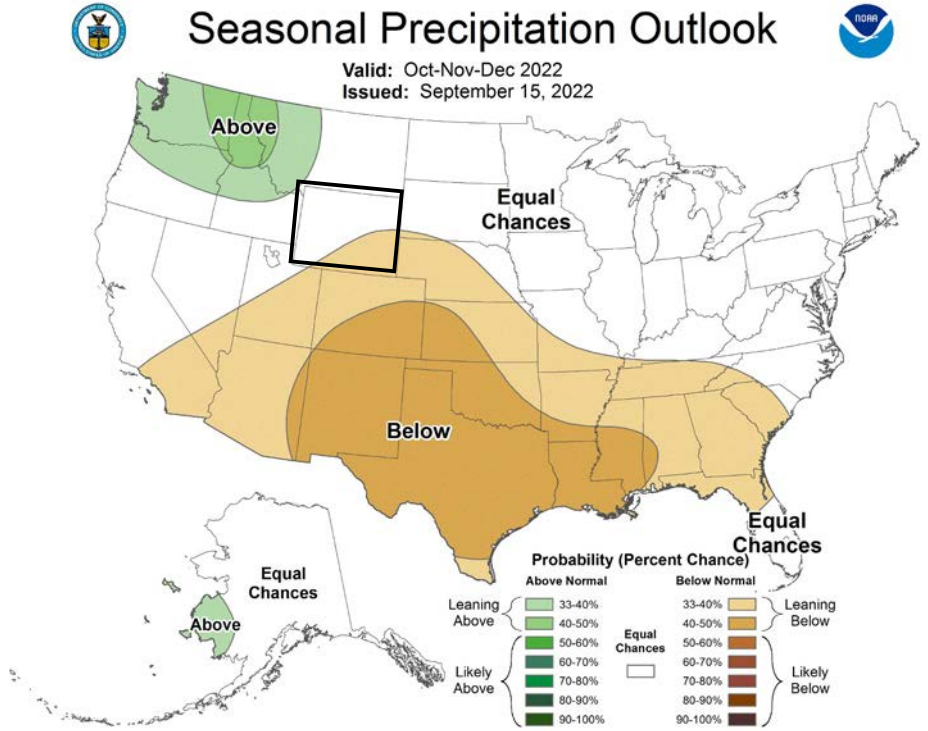
Below normal precip for all WY, weak in most of state strengthening to North

3-Month Temp & Precip Outlook

October-November-December 2022

https://bit.ly/CPC_Seasonal





Above normal signal for all WY. Weak in North strengthening to S and SW

Weak below normal signal in SE, otherwise neutral precip signals

Fuel Moistures and Energy Release Component

Energy Release Component (ERC)

- A number related to the available energy (BTU) per unit area (square foot) within the flaming front at the head of a fire.
- It may also be considered a composite fuel moisture value as it reflects the contribution that all live and dead fuels have to potential fire intensity.
- Generally expressed as a Percentile.

1000-Hour Fuel Moisture (1000-hr FM)

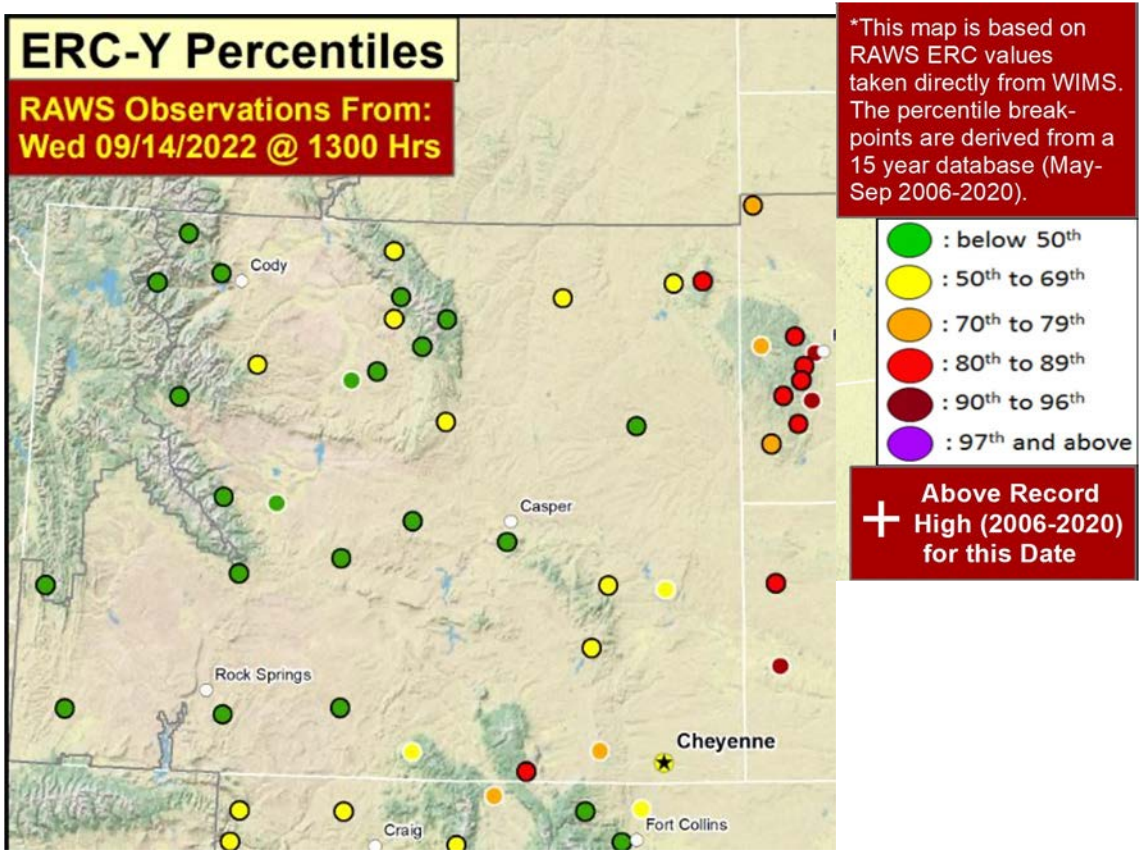
- General indicator of drought and correlates with fire danger for a Fire Danger Rating Area
- Represents the modeled moisture content in dead fuels in the 3 to 8 inch diameter class
- The 1000-hr FM value is based on a running 7-day computed average using length of day, daily temperature and relative humidity extremes (maximum and minimum values) and the 24-hour precipitation duration values.

100-Hour Fuel Moisture (100-hr FM)- 1” to 3” Dead Fuels
10-Hour Fuel Moisture (10-hr FM)- ¼” to 1” Dead Fuels
1-Hour Fuel Moisture (1-hr FM)- 0” to ¼” Dead Fuels

Live Fuel Moisture- Fuels transition from dormancy to green-up in the spring and early summer, then back to dormancy in the fall.

Energy Release Component

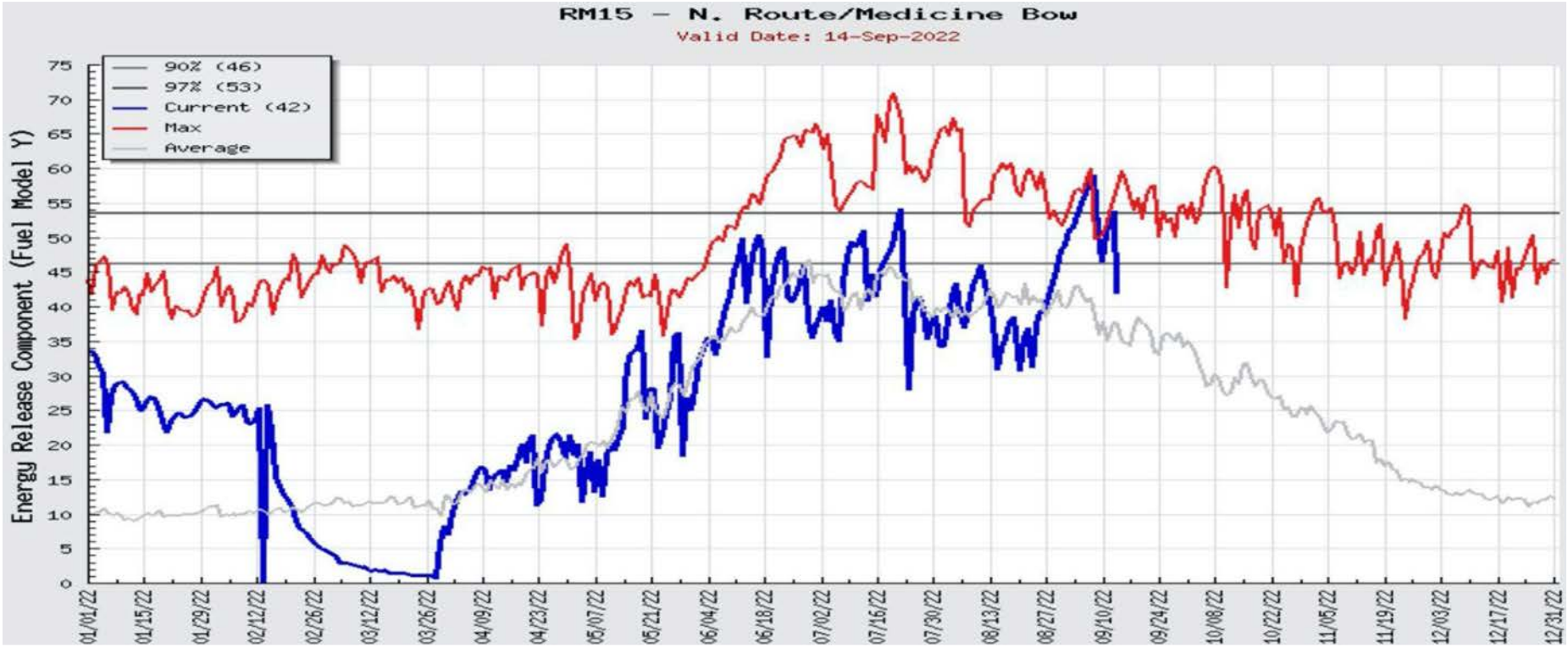
Current Status as of 09/15/2022



- Entire state below 90th Percentile
  - 90th percentile and above typically seen as “critical”
- Periodic and sometimes substantial moisture in the last month continues moderating conditions.
- Abundant fine fuels across state, seasonal curing will occur.
  - Day length and cooler temps should moderate fire danger.

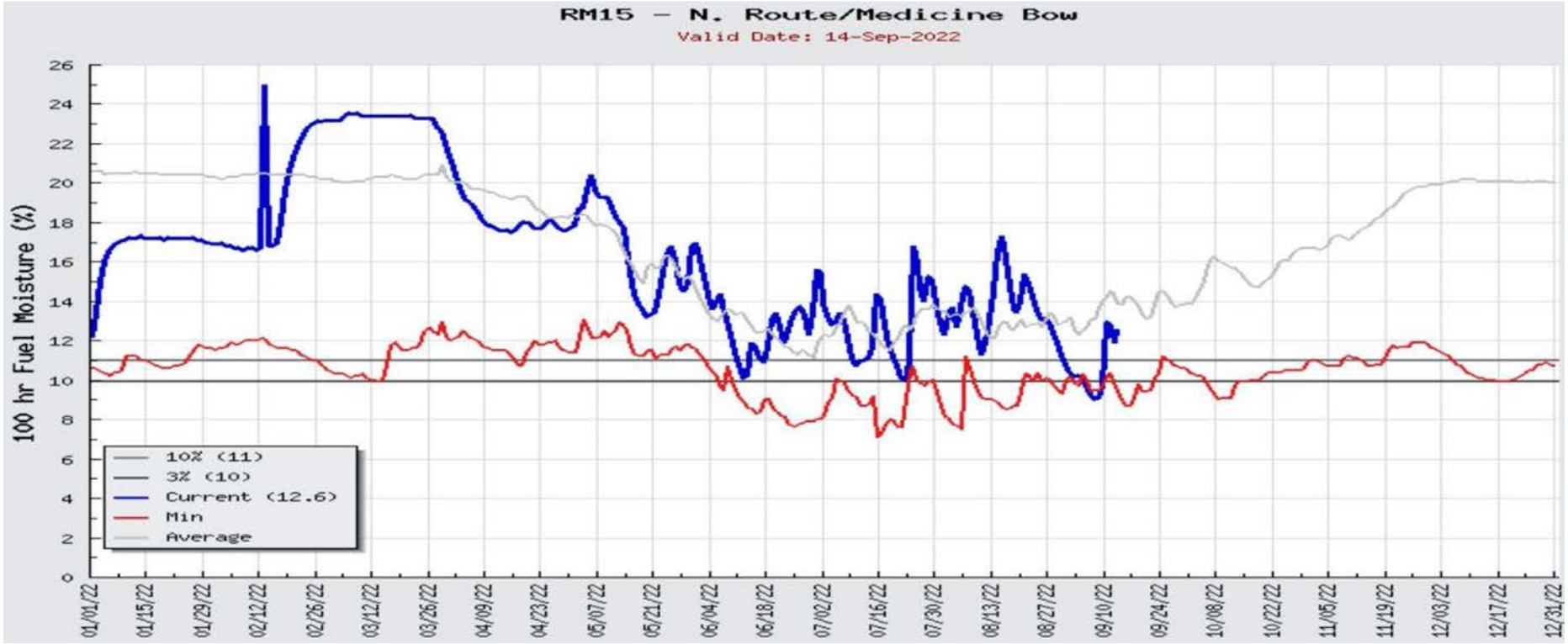
Energy Release Component

Current Status: Medicine Bow (valid 9/14//22)



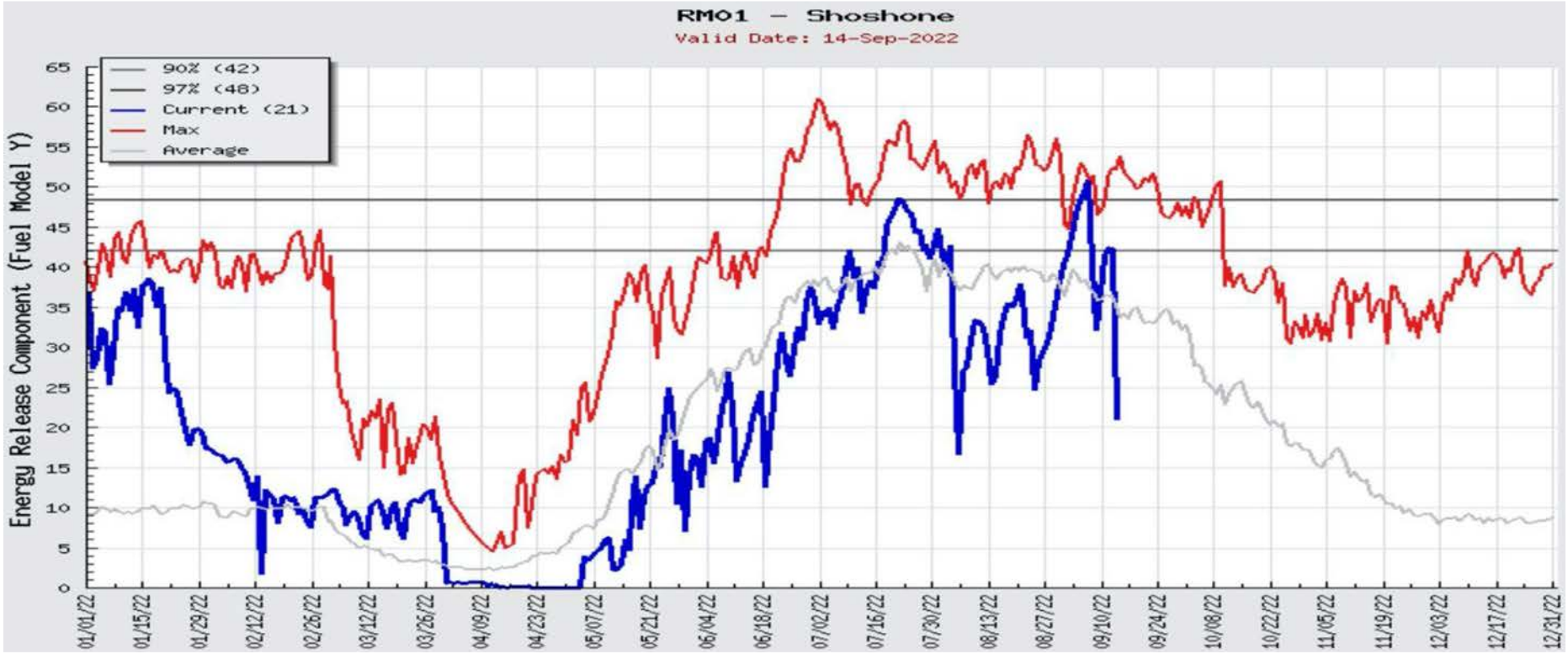
100 Hr. Fuel Moisture

Current Status: Medicine Bow (valid 9/14//22)



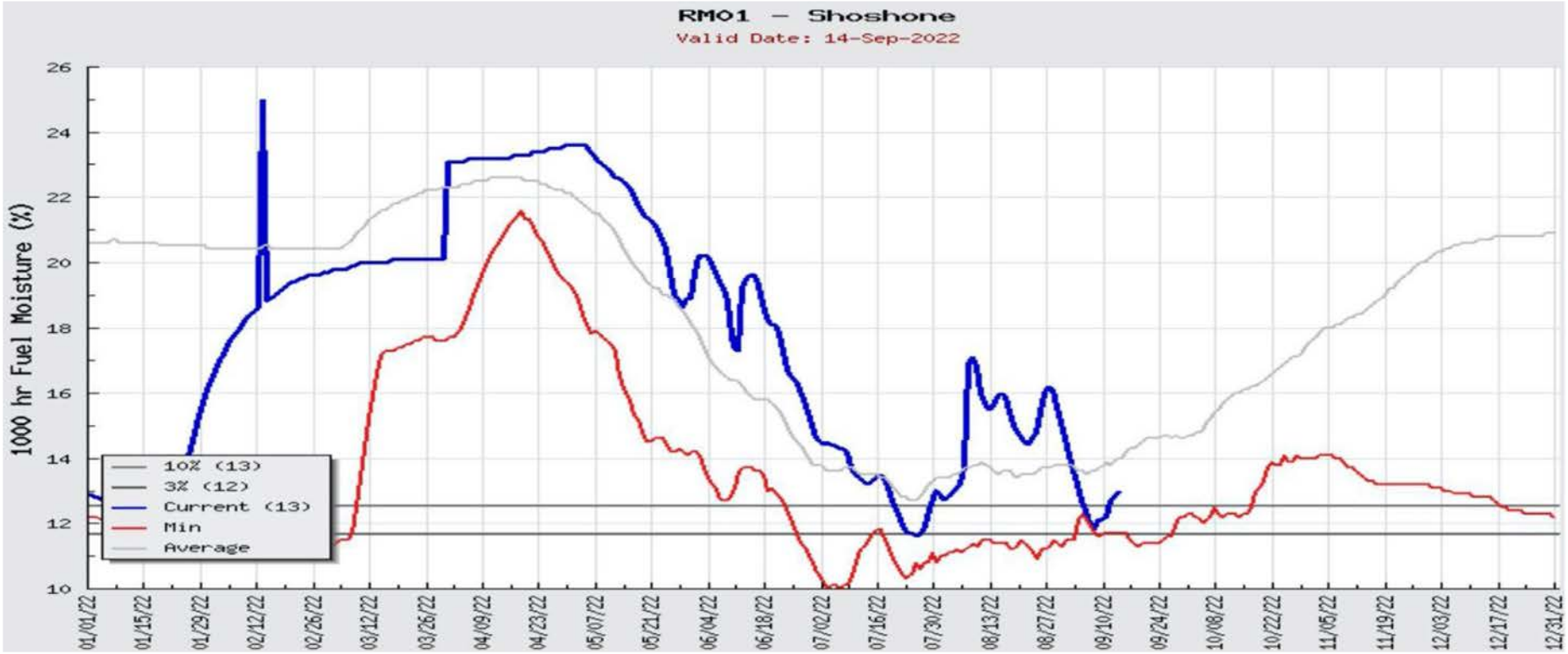
Energy Release Component

Current Status: Shoshone (valid 9/14/22)



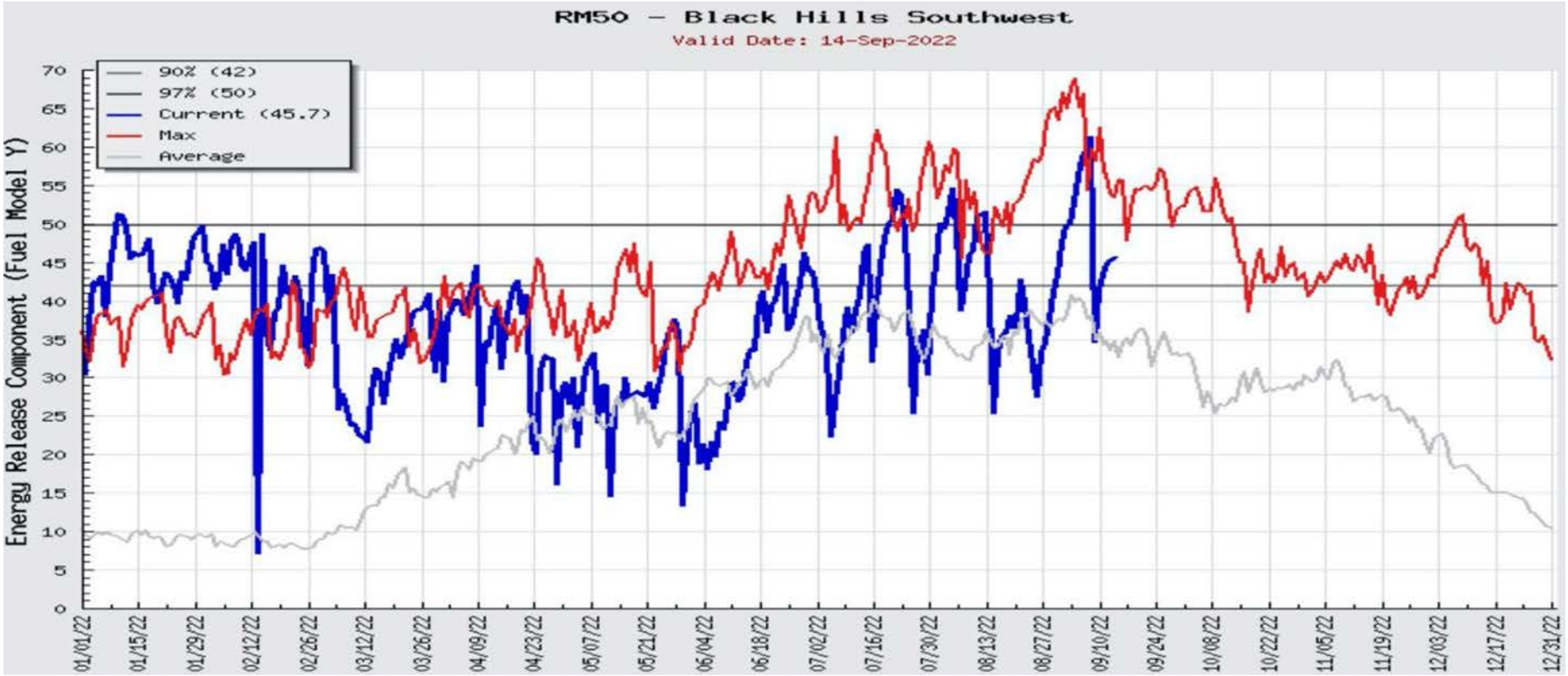
1000 Hr. Fuel Moisture

Current Status: Shoshone (valid 9/14/22)



Energy Release Component

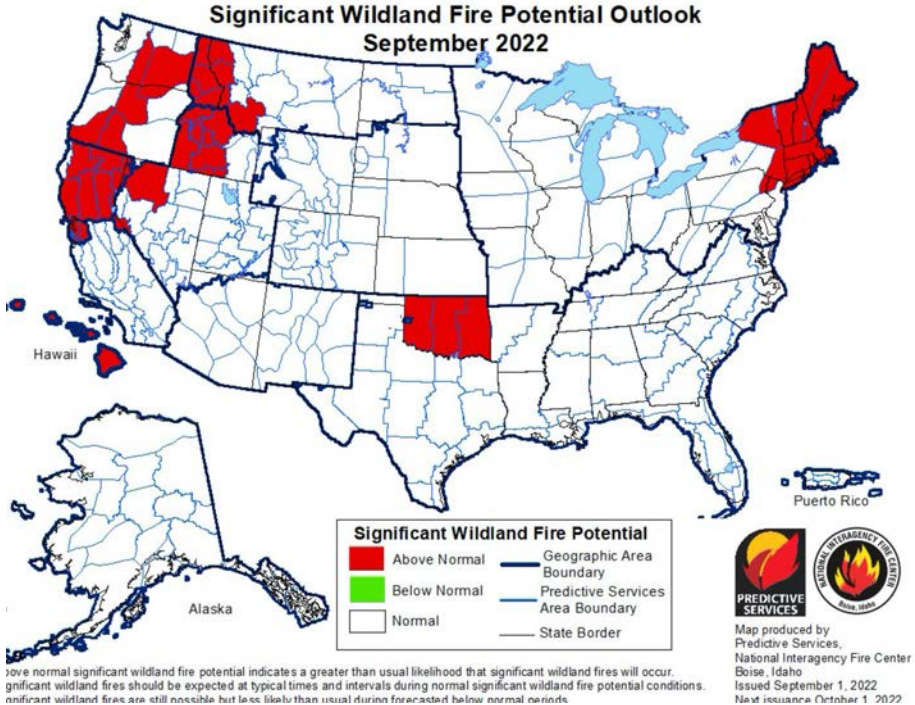
Current Status: Black Hills SW (valid 9/14/22)



Energy Release Component

Current Status: Great Divide Basin (valid 9/14/22)

Seasonal Outlooks



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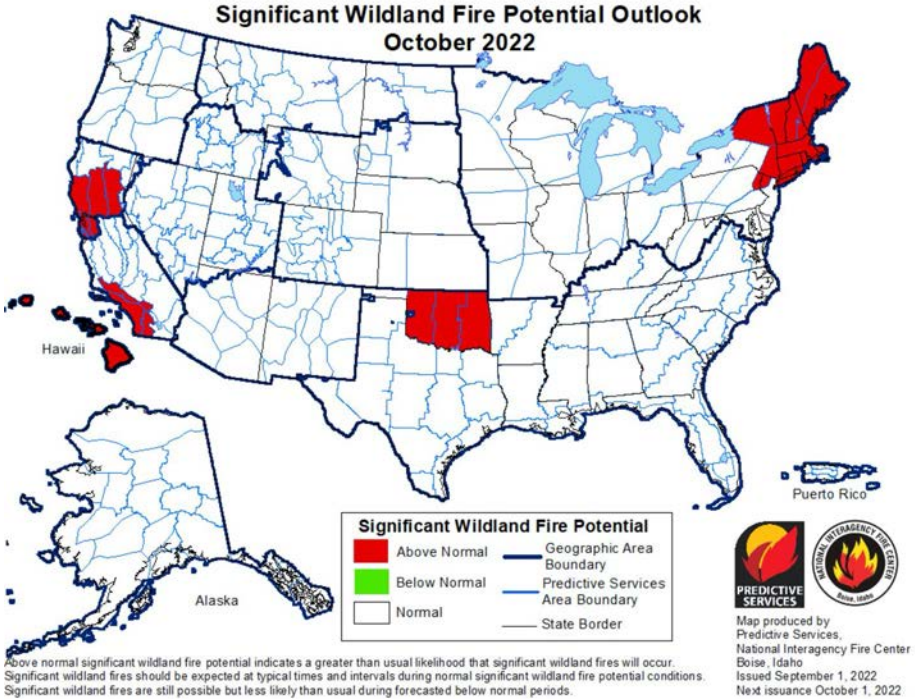


Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur.
Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions.
Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.

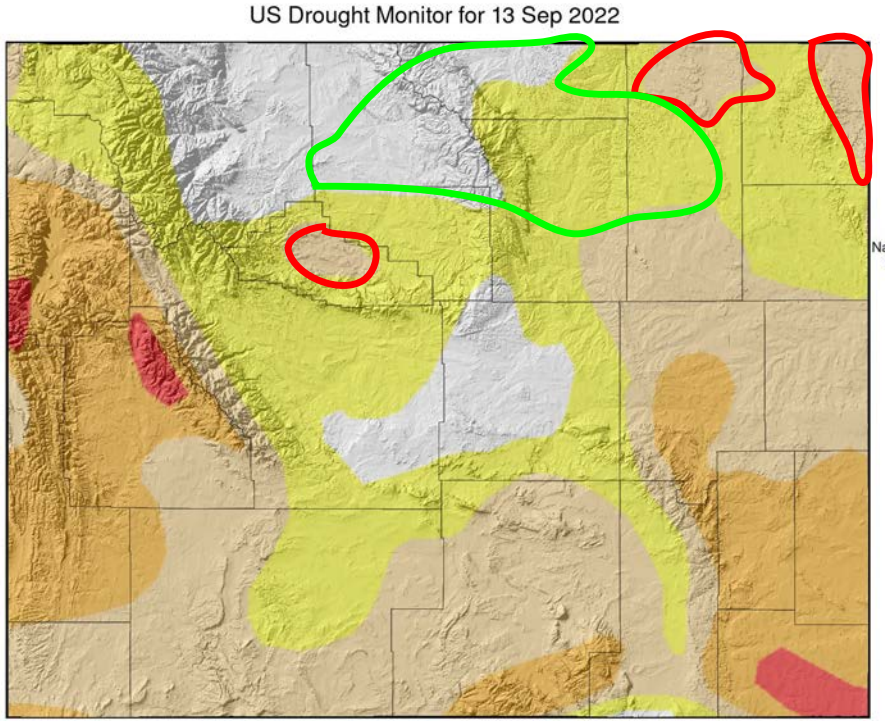
How to get involved ...

US Drought Monitor for September 13, 2022

(Released Thursday, September 15, 2022)

Valid 8 a.m. EDT

Drought Level	Percentile
None	>30
D0 (Abnormally Dry)	21 to 30
D1 (Moderate Drought)	11 to 20
D2 (Severe Drought)	6 to 10
D3 (Extreme Drought)	3 to 5
D4 (Exceptional Drought)	0 to 2



https://youtu.be/45MQ1GB-uTc

Improvements and degradations since the last webinar. Recent precipitation in the north has resulted in Improvements in a large area of north central Wyoming. Degradation in Hot Springs County as well as in the northeast prior to last week's precpitation,

https://droughtmonitor.unl.edu

droughtmonitor.unl.edu

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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! Questions?