



WY Conditions & Outlooks:

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

October 21, 2021



Presentation Outline

- Current Conditions
- Outlooks
- How to Get Involved



Current Conditions

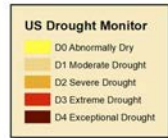
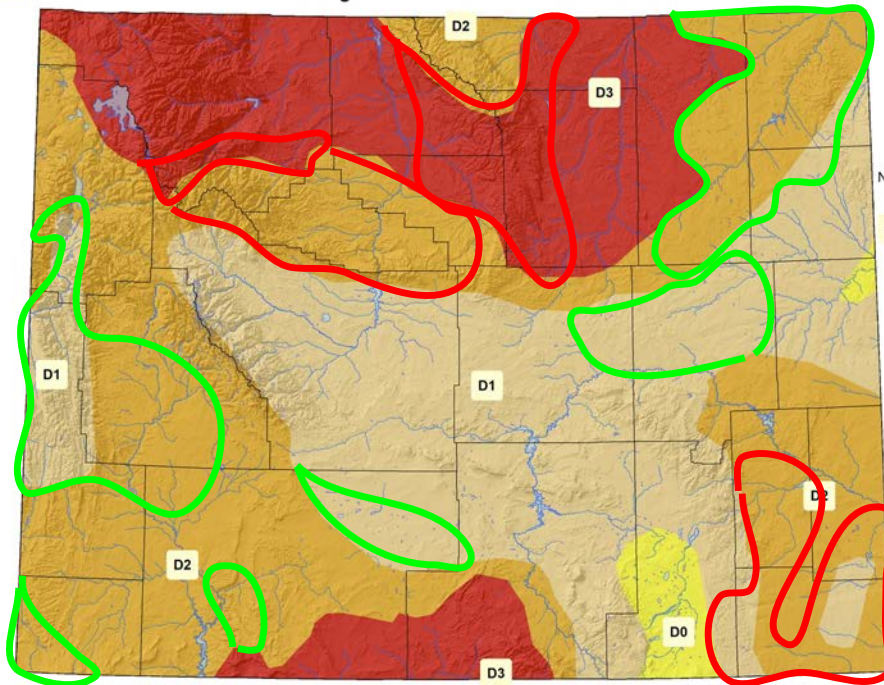
US Drought Monitor for October 19, 2021

(Released Thursday, October 21, 2021)

Valid 8 a.m. EDT

D4

US Drought Monitor as of 19 October 2021



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

D0



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



D4

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>

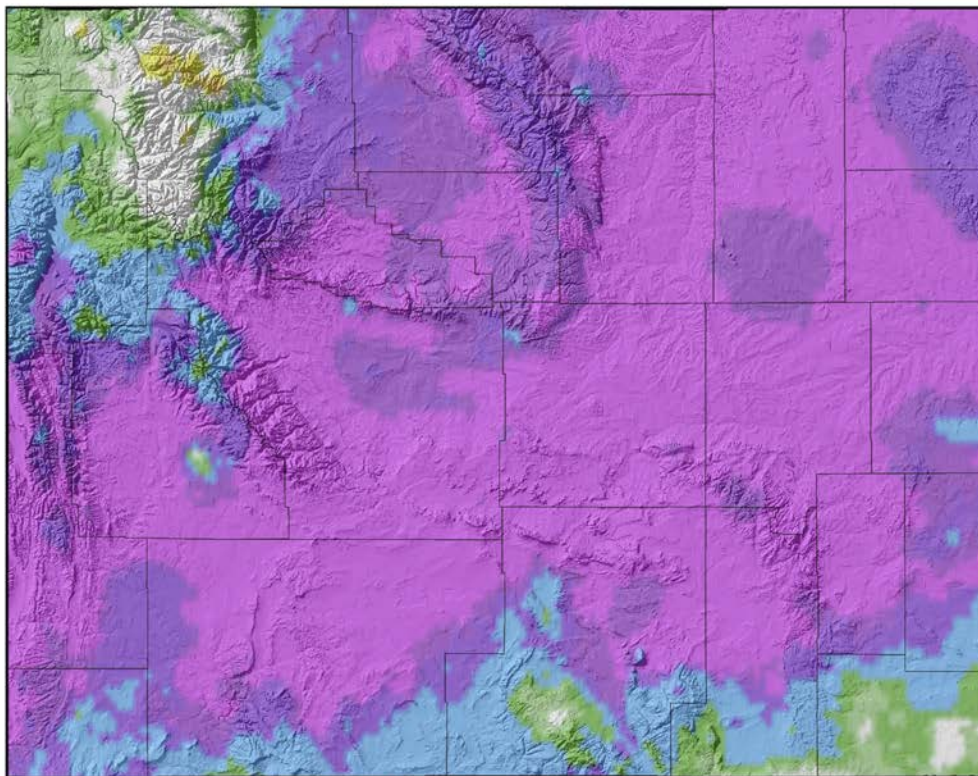
| Drought Level | Percentile |
|--------------------------|------------|
| None | >30 |
| D0 (Abnormally Dry) | 21 to 30 |
| D1 (Moderate Drought) | 11 to 20 |
| D2 (Severe Drought) | 6 to 10 |
| D3 (Extreme Drought) | 3 to 5 |
| D4 (Exceptional Drought) | 0 to 2 |

Improvements in western and southwestern Wyoming along with the northeast since the last webinar but also **degradations** over southeastern, northwest, and north central Wyoming.



14-Day Precipitation Percentile (07 Oct 2021 to 20 Oct 2021)

14-Day Precipitation (Percentile) for 07 Oct 2021 to 20 Oct 2021



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



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



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 21 Oct 2021 <http://www.wrds.uwyo.edu>
Daily percentiles created from PRISM daily precipitation grids

Above Median:

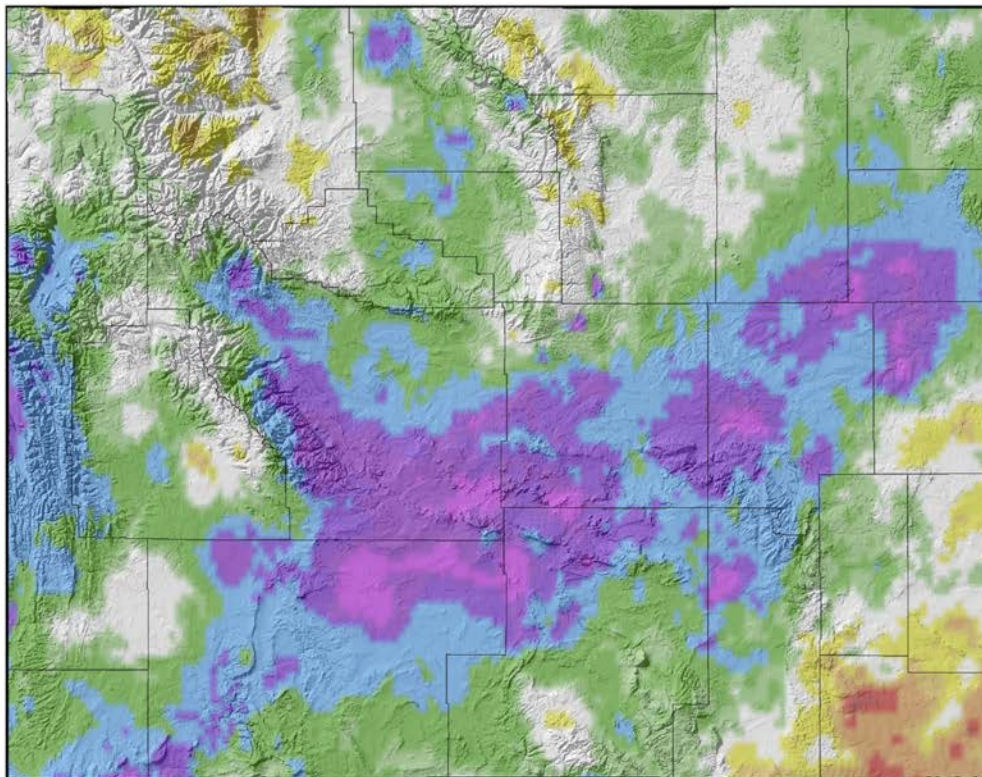
- Almost statewide

Below Median (Areas of Concern):

- Minor area of central Park County

90-Day Precipitation Percentile (23 Jul 2021 to 20 Oct 2021)

90-Day Precipitation (Percentile) for 23 Jul 2021 to 20 Oct 2021



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>



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 21 Oct 2021 <http://www.wrds.uwyo.edu>
Daily percentiles created from PRISM daily precipitation grids

Above Median:

- Especially central Wyoming
- Lincoln/Southern Teton Counties
- Southwest
- Northeast
- Bighorn Basin

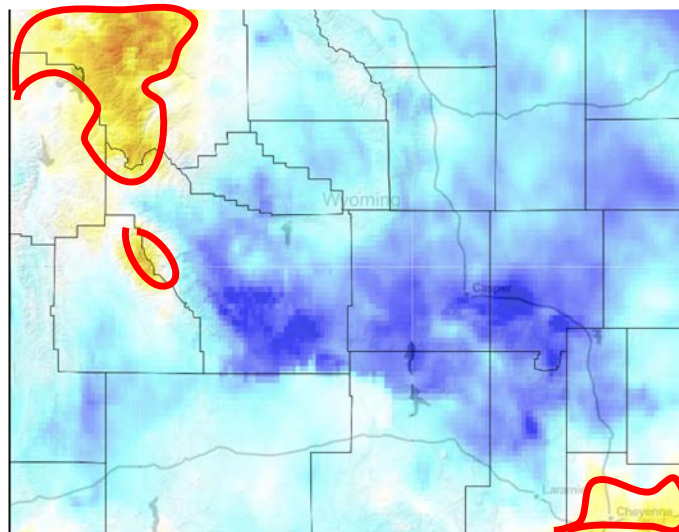
Below Median (Areas of Concern):

- Laramie County
- To Lesser Extent
- Goshen County
- Southern Albany County
- Southern Niobrara County
- Park County
- Eastern Bighorns

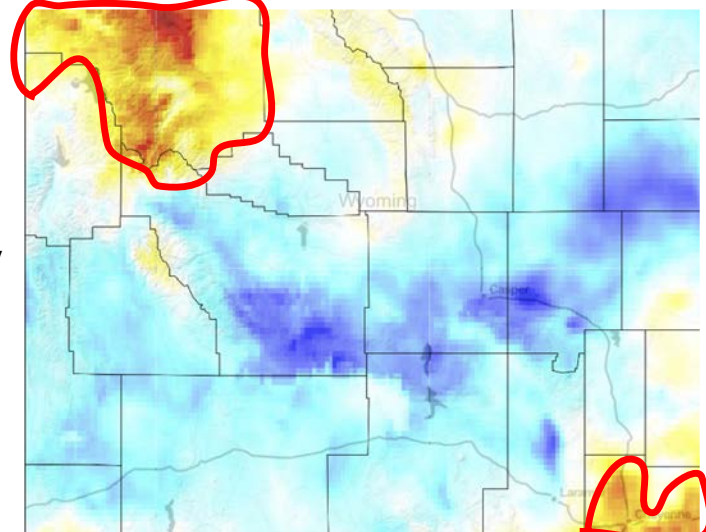
Current SPI



30-Day



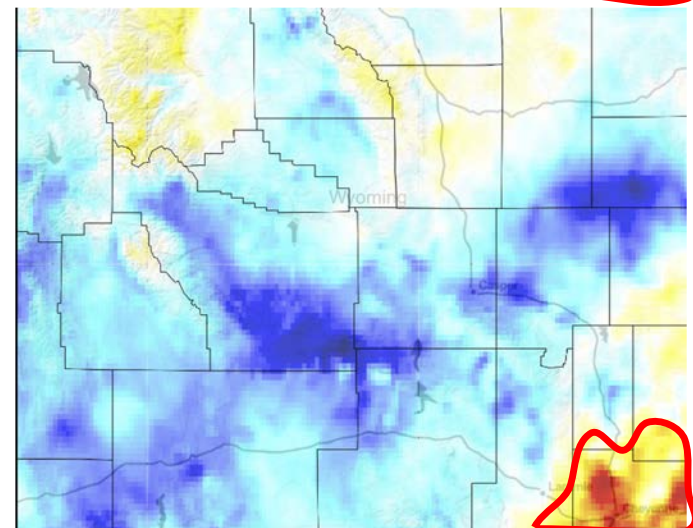
60-Day

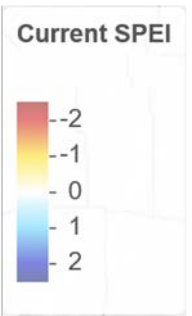


Standardized Precipitation Index (SPI)

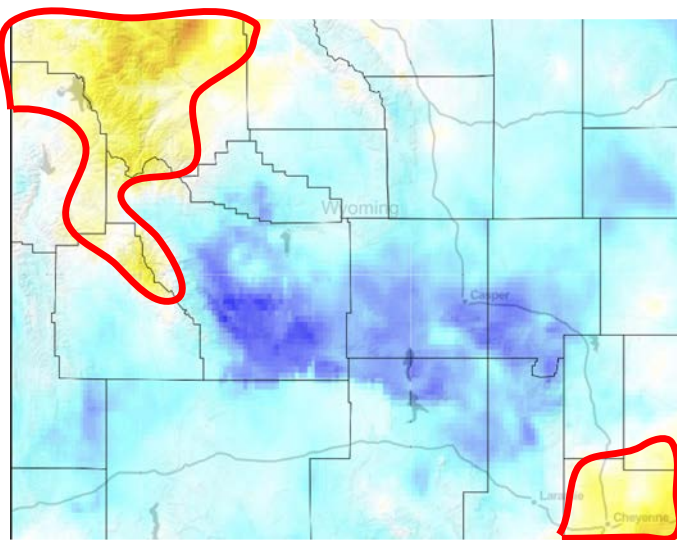
- Still some areas of concern despite recent snows. Wetness has allowed for improvement.

90-Day

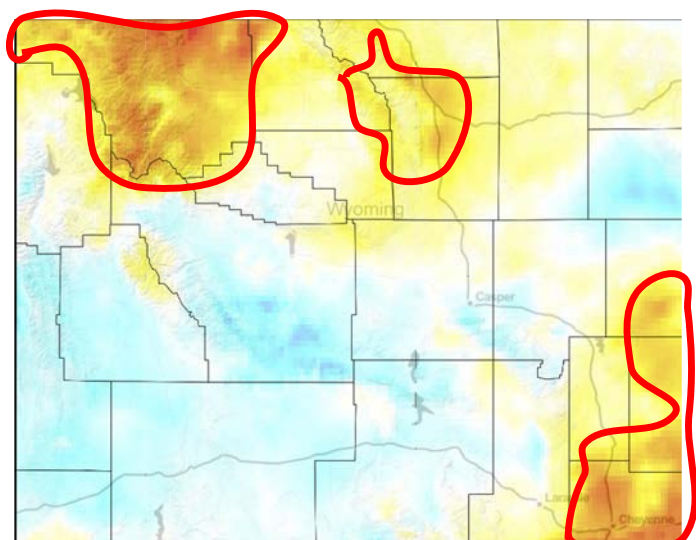




30-Day



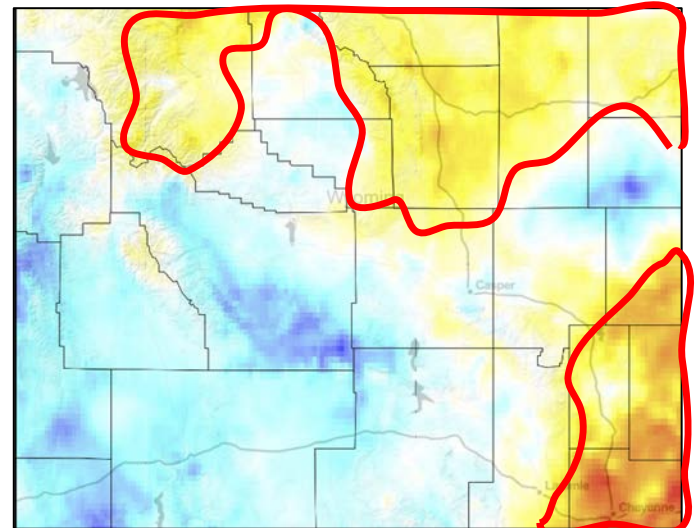
60-Day



Standardized Precipitation Evapotranspiration Index (SPEI)

- Still some areas of concern despite recent snows. Wetness has allowed for improvement.

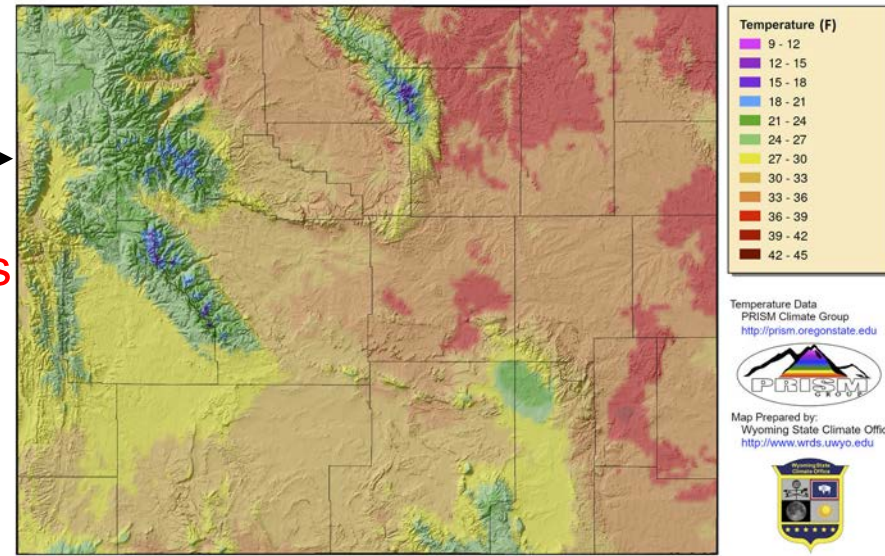
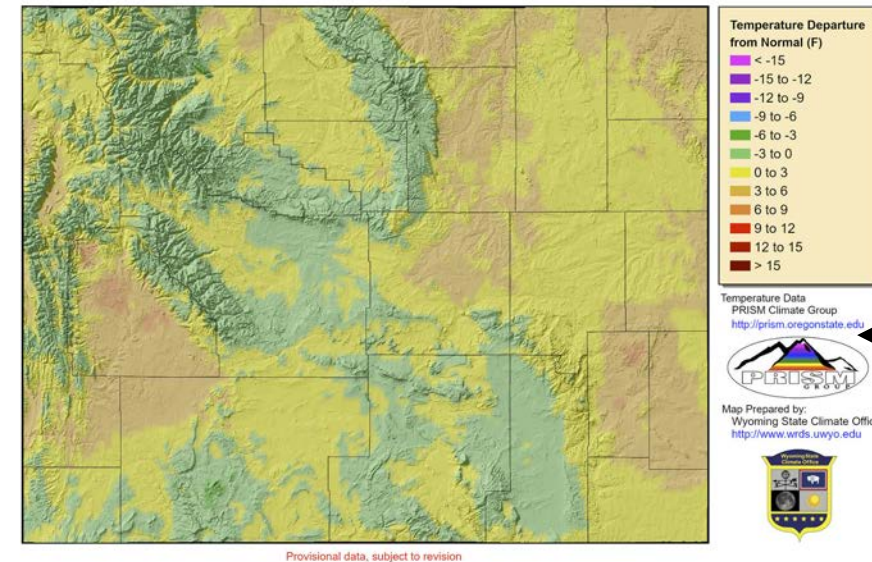
90-Day



14-Day Average Minimum Temperature (07 Oct to 20 Oct)

- Upper 30s in northwest and eastern plains
- Low to mid-20s in higher elevations

14-Day Average Minimum Temperature (Departure from 1991-2020 Average) for 07 Oct 2021 to 20 Oct 2021



Daily Temperature data from PRISM Climate Group, Copyright ©2021, PRISM Climate Group, Oregon State University, <http://prism.oregonstate.edu>
Map Created 21 Oct 2021 <http://www.wrds.uwyo.edu>
Temperature averages created from PRISM daily temperature grids

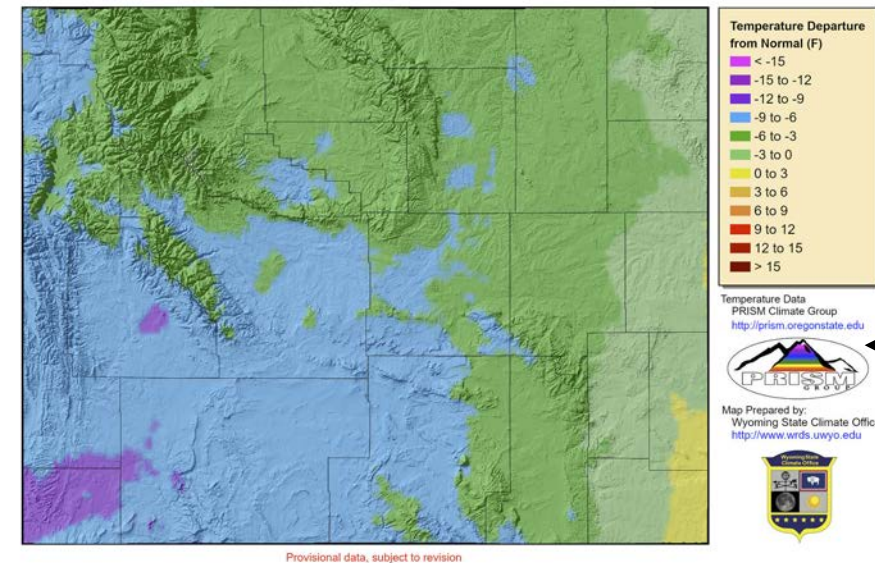
14-Day *Departure from Normal* Average Minimum Temperature

- +/- 3F compared to average
- Upper Green & Powder/Tongue Basins; Crook, Goshen, Platte Counties up to 6F above average

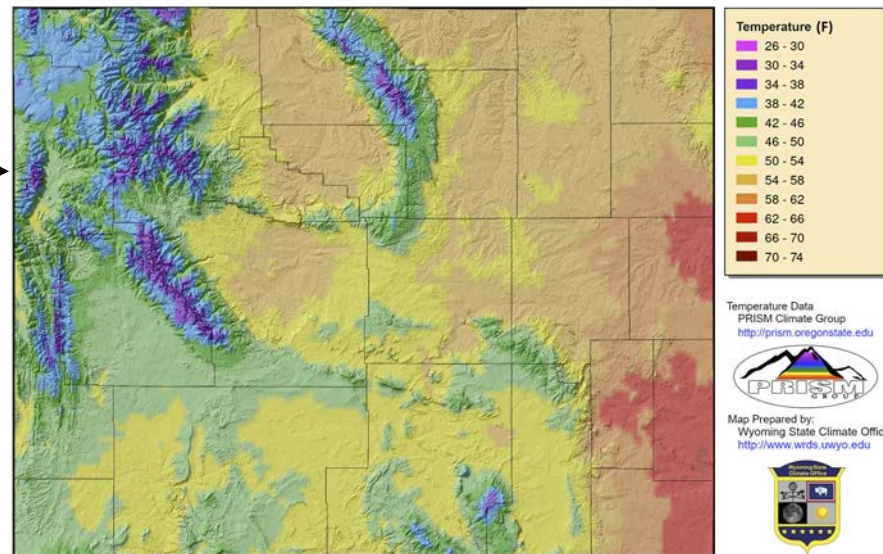
14-Day Average Maximum Temperature (07 Oct to 20 Oct)

- Lowest Daytime highs in low 30s
- 60s in eastern plains

14-Day Average Maximum Temperature (Departure from 1991-2020 Average) for 07 Oct 2021 to 20 Oct 2021



14-Day Average Maximum Temperature for 07 Oct 2021 to 20 Oct 2021



Daily Temperature data from PRISM Climate Group, Copyright ©2021, PRISM Climate Group, Oregon State University, <http://prism.oregonstate.edu>
Map Created 21 Oct 2021 <http://www.wrds.uwyo.edu>
Temperature averages created from PRISM daily temperature grids

14- Day *Departure from Normal* Average Maximum Temperature

- Daytime highs below average, up to 12F below in SW.
- Small area of SE up to 3F above average

Snow?



Snow?

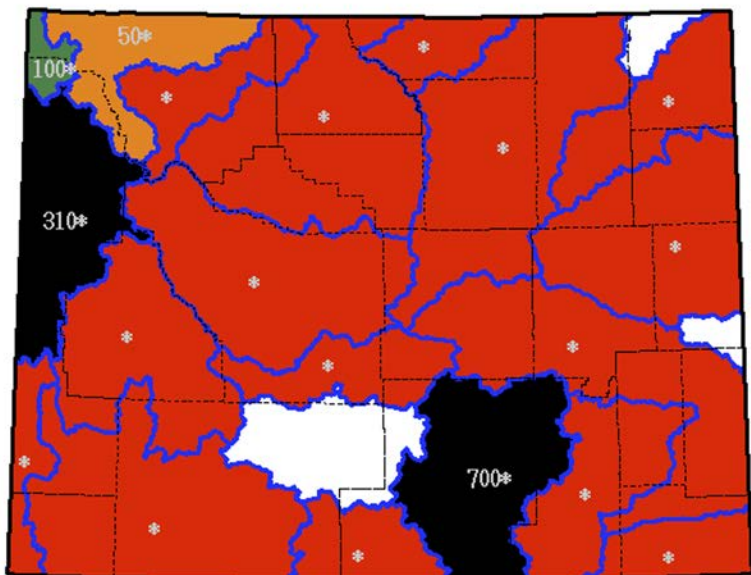
**A bit early, but we
can take a look.....**



Basin Snow Water Equivalent (SWE) Percent of Median

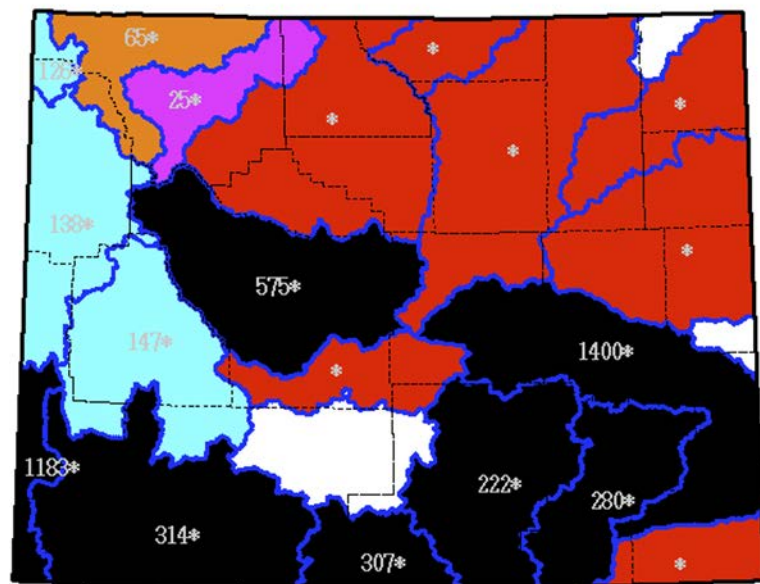
2 Weeks Ago (07 Oct 2021)

SWE % of Median as of Thursday, 07 October 2021



Today (21 Oct 2021)

SWE % of Median as of Thursday, 21 October 2021



Produced by the Wyoming Water Resources Data System: <http://www.wrds.uwyo.edu>
* Data may not provide a valid measure of conditions

Produced by the Wyoming Water Resources Data System: <http://www.wrds.uwyo.edu>
* Data may not provide a valid measure of conditions

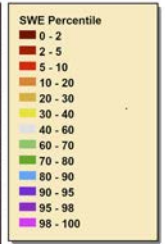
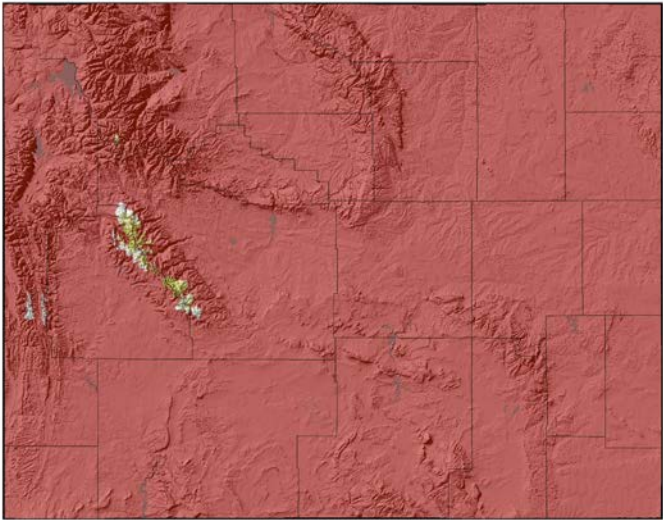
Percentages at this time are **NOT** good indicators of conditions.

Modeled Snow Water Equivalent (SWE)

2-Week Comparison

07 Oct 2021

Snow Water Equivalent Percentile for 07 Oct 2021 (2004-2021 Period)



Snow Water Equivalent
NOHRSC
<https://doi.org/10.7265/NSTB14TC>

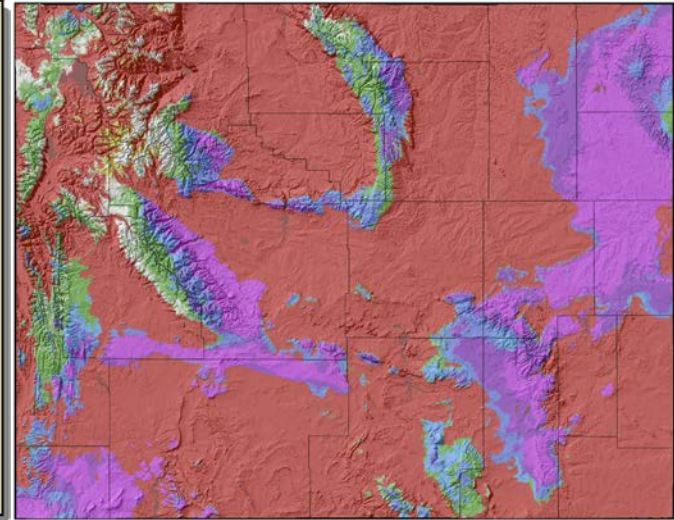
Map Prepared by:
Wyoming State Climate Office
<http://www.wrds.uwyo.edu>



Provisional data, subject to revision

21 Oct 2021

Snow Water Equivalent Percentile for 21 Oct 2021 (2004-2021 Period)



Snow Water Equivalent
NOHRSC
<https://doi.org/10.7265/NSTB14TC>

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



Provisional data, subject to revision

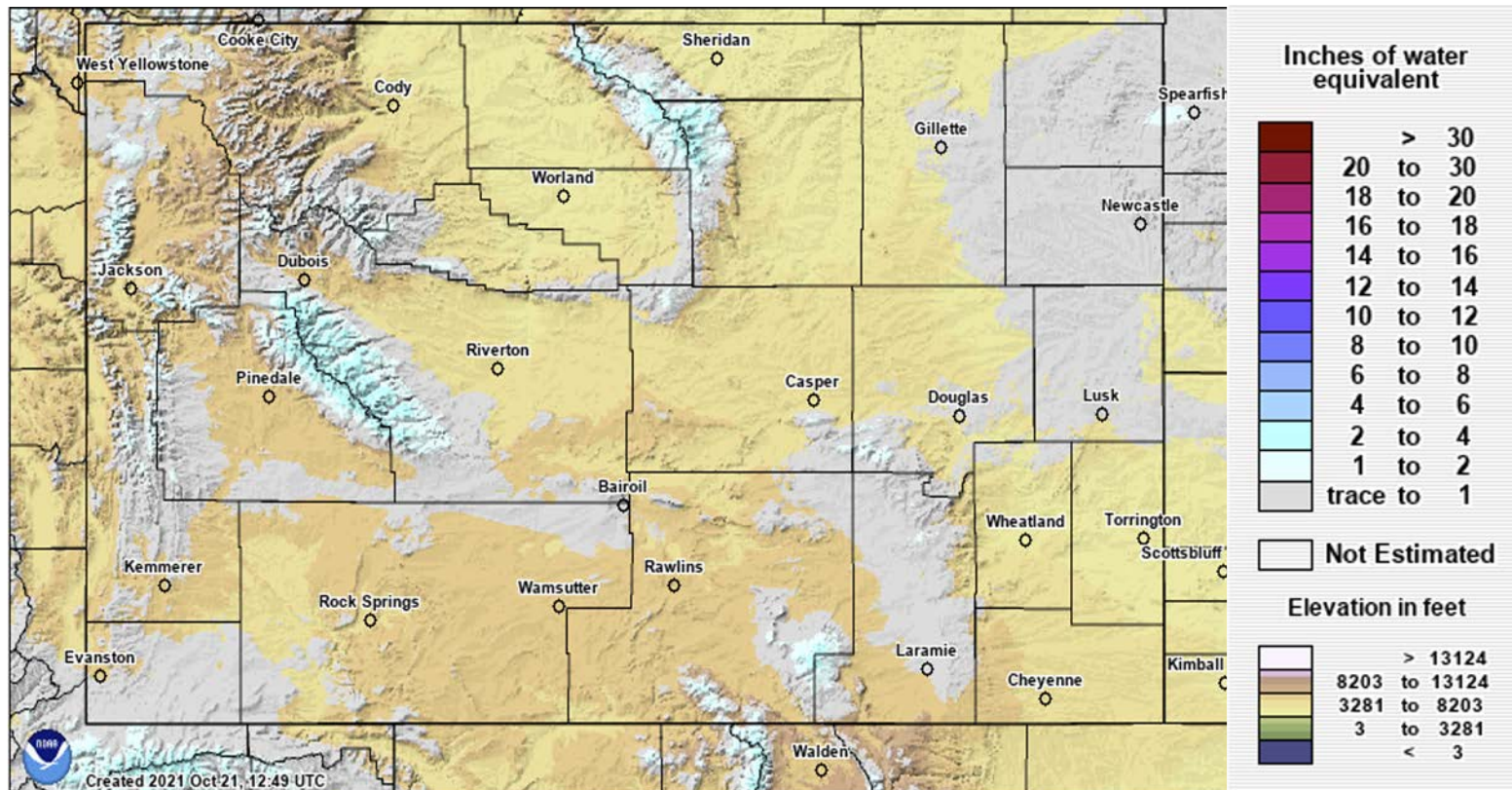
Modeled Snow Water Equivalent from National Operational Hydrologic Remote Sensing Center. 2004. Snow Data Assimilation System (SNODAS) Data Products at NSIDC, Version 1. Boulder, Colorado USA. NSIDC: National Snow and Ice Data Center. doi: <https://doi.org/10.7265/NSTB14TC>. Daily Percentiles and Percents created by Wyoming State Climate Office. Map Created 07 Oct 2021 - <http://www.wrds.uwyo.edu>

Modeled 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/NSTB14TC>. Daily Percentiles and Percents created by Wyoming State Climate Office. Map Created 21 Oct 2021 - <http://www.wrds.uwyo.edu>



Modeled Snow Water Equivalent (SWE)

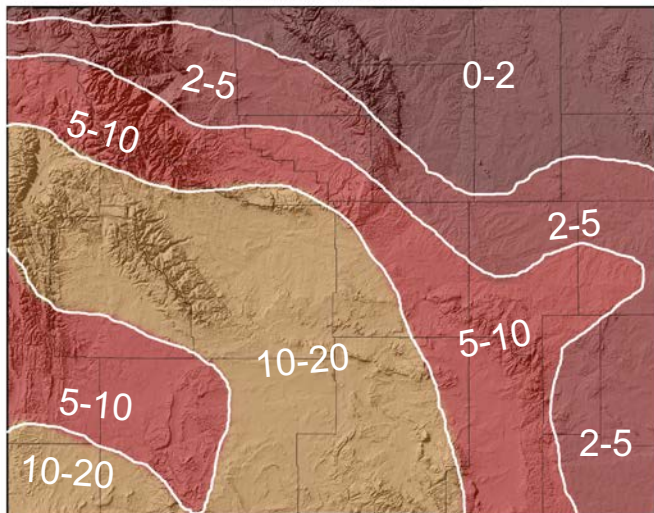
21 October 2021



Soil Moisture Percentile

Two Weeks Ago
07 Oct 2021

Soil Moisture Percentile for 07 Oct 2021



Soil Moisture Percentile
Climate Prediction Center

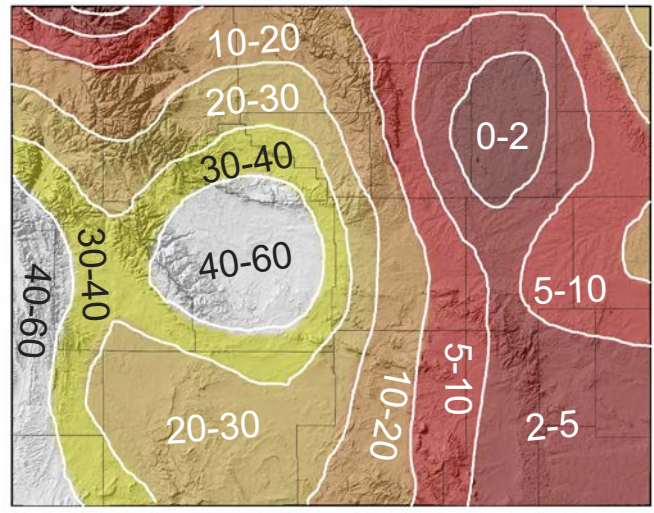
Map Prepared by:
Wyoming State Climate Office
<http://www.wrds.uwyo.edu>

Provisional data, subject to revision

Modeled Soil Moisture Percentile https://www.cpc.ncep.noaa.gov/products/GIS/GIS_DATA/USDM_Products/soil/soil_percentile.php
Map Created 08 Oct 2021 <http://www.wrds.uwyo.edu>

20 Oct 2021

Soil Moisture Percentile for 20 Oct 2021



Soil Moisture Percentile
Climate Prediction Center

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

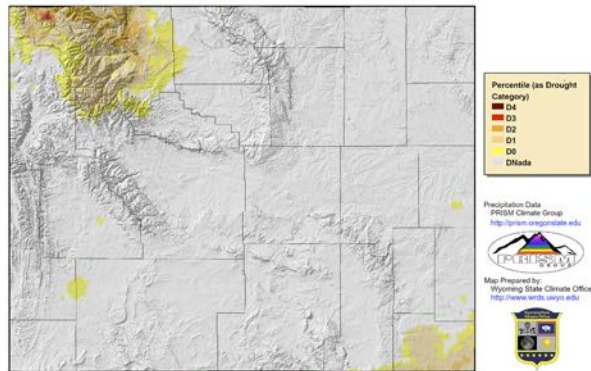
Provisional data, subject to revision

Modeled Soil Moisture Percentile https://www.cpc.ncep.noaa.gov/products/GIS/GIS_DATA/USDM_Products/soil/soil_percentile.php
Map Created 21 Oct 2021 <http://www.wrds.uwyo.edu>

October precipitation led to improvements throughout much of Wyoming

Input to the US Drought Monitor

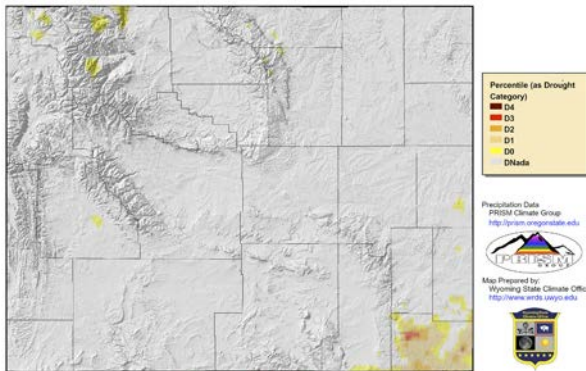
60-Day Precipitation Percentile (as Drought Category) for 22 Aug 2021 to 20 Oct 2021



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 21 Oct 2021 <http://www.wrds.wyo.gov>
Daily percentiles created from PRISM daily precipitation grids.

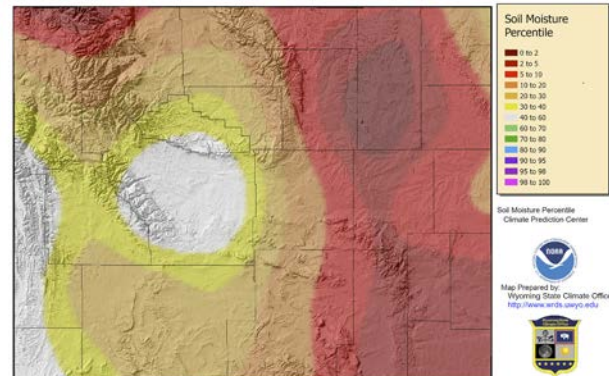
90-Day Precipitation Percentile (as Drought Category) for 23 Jul 2021 to 20 Oct 2021



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 21 Oct 2021 <http://www.wrds.wyo.gov>
Daily percentiles created from PRISM daily precipitation grids.

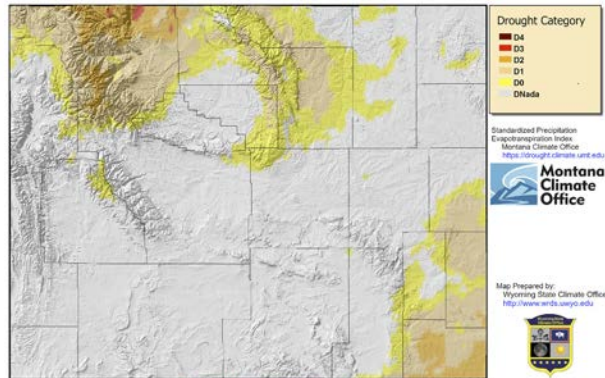
Soil Moisture Percentile for 20 Oct 2021



Provisional data, subject to revision

Modeled Soil Moisture Percentile https://www.cpc.ncep.noaa.gov/products/GIS/GIS_DATA/USDM_Products/soilmoist_percentile.gp
Map Created 21 Oct 2021 <http://www.wrds.wyo.gov>

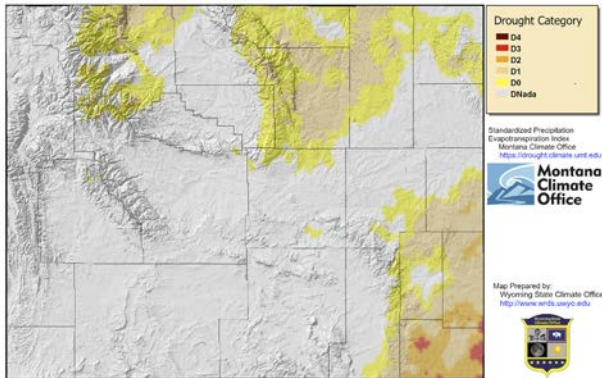
60-Day Standardized Precipitation Evapotranspiration Index as Drought Category (21 Aug 2021-19 Oct 2021)



Provisional data, subject to revision

Standardized Precipitation Evapotranspiration Index Created by Montana Climate Office <https://drought.climate.umt.edu>
Map Created 21 Oct 2021 <http://www.wrds.wyo.gov>

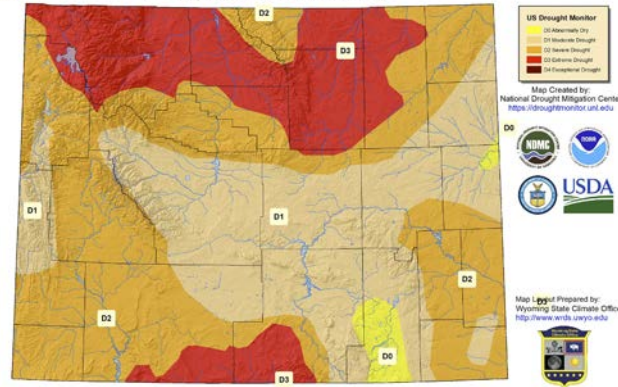
90-Day Standardized Precipitation Evapotranspiration Index as Drought Category (22 Jul 2021-19 Oct 2021)



Provisional data, subject to revision

Standardized Precipitation Evapotranspiration Index Created by Montana Climate Office <https://drought.climate.umt.edu>
Map Created 21 Oct 2021 <http://www.wrds.wyo.gov>

US Drought Monitor as of 19 October 2021

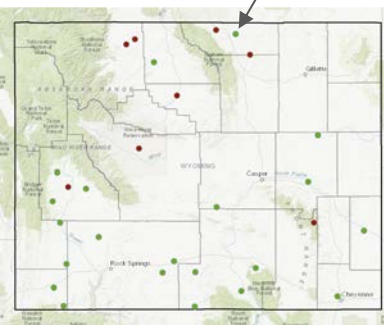


The U.S. Drought Monitor is a weekly map of drought conditions produced jointly by the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture, and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln. The U.S. Drought Monitor website is hosted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



Sheridan - Noon 10 Oct 2021

~7 Miles ESE Sheridan



SEM4

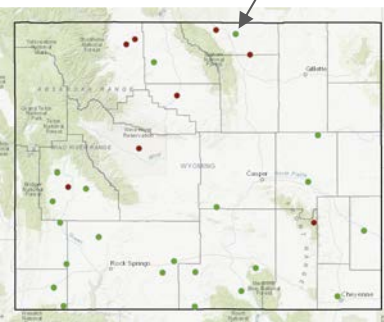
10 Oct: Bare ground

2021/10/10 17:50:30



Sheridan - Noon 11 Oct 2021

~7 Miles ESE Sheridan



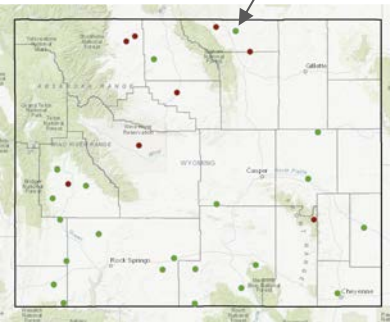
11 Oct: Rain

2021/10/11 17:50:30



Sheridan - Noon 12 Oct 2021

~7 Miles ESE Sheridan



SHMW4

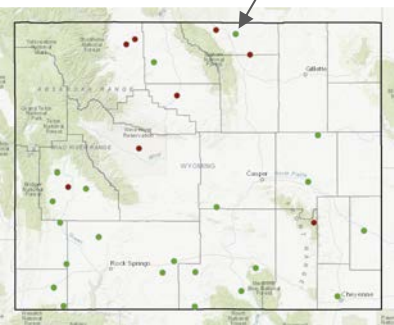
12 Oct: Snowfall

2021/10/12 17:49:36



Sheridan - Noon 13 Oct 2021

~7 Miles ESE Sheridan



SHMW4

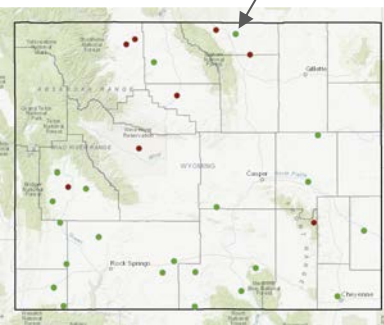
13 Oct: Melting

2021/10/13 17:49:36



Sheridan - Noon 14 Oct 2021

~7 Miles ESE Sheridan



SHMW4

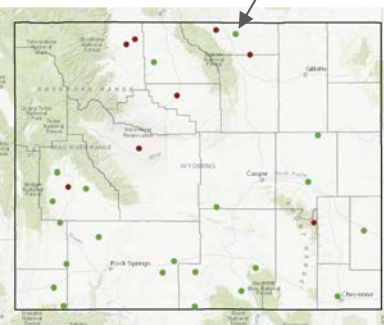
14 Oct: More melting

2021/10/14 17:49:36



Sheridan - Noon 15 Oct 2021

~7 Miles ESE Sheridan



SHMW4

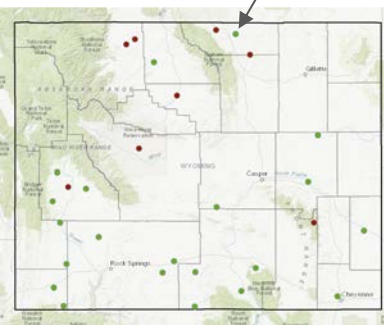
15 Oct: Almost melted

2021/10/15 17:49:36



Sheridan - Noon 16 Oct 2021

~7 Miles ESE Sheridan



SHMW4

16 Oct: Melted

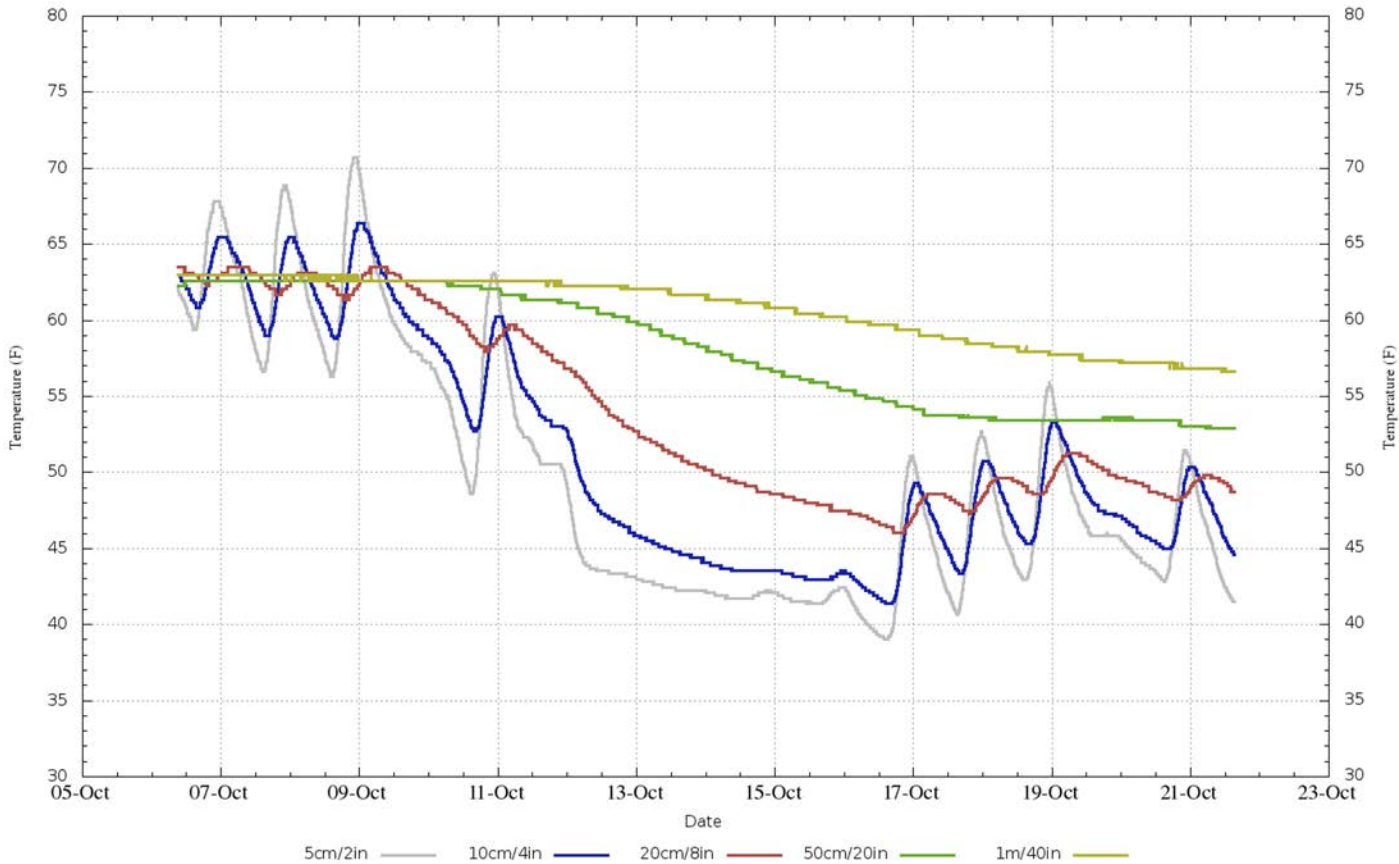
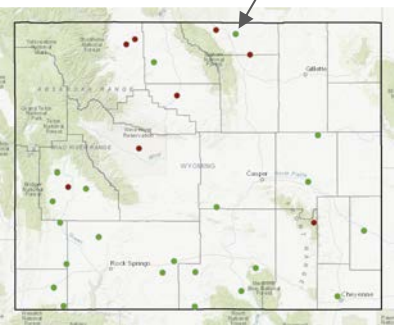
2021/10/16 17:49:36



Soil Temperature at Sheridan

~7 Miles ESE Sheridan

Sheridan - 2021-10-21 15:10:00



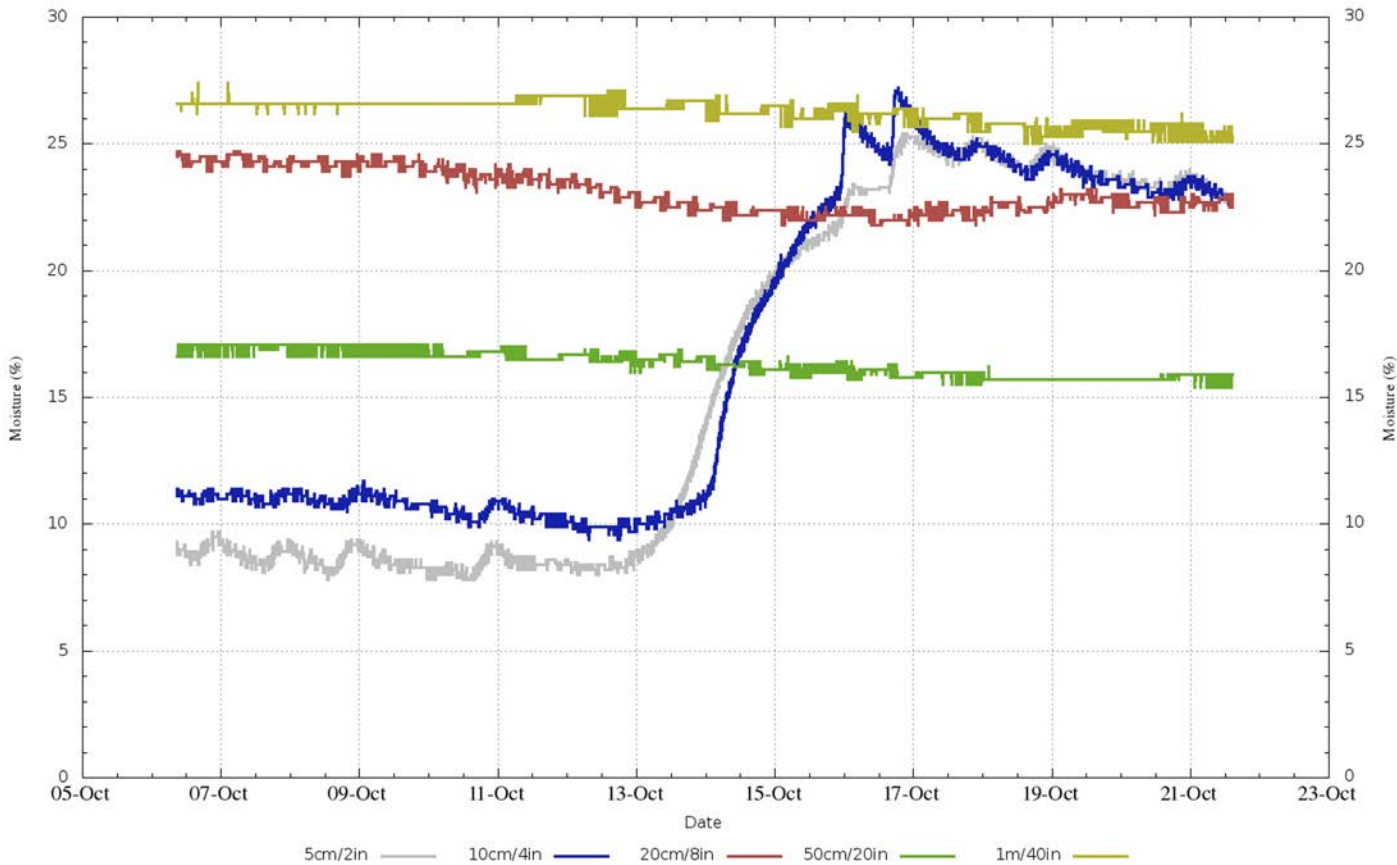
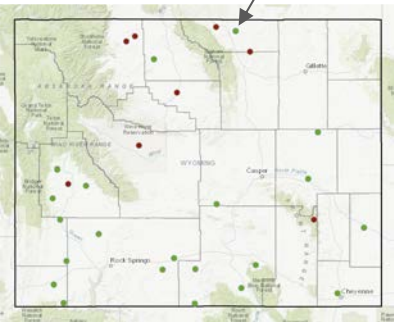
Snow blanket has caused a drop in soil temperature but still above freezing at all depths allowing for melting snow to “seep in”



Soil Moisture at Sheridan

~7 Miles ESE Sheridan

Sheridan - 2021-10-21 14:30:00

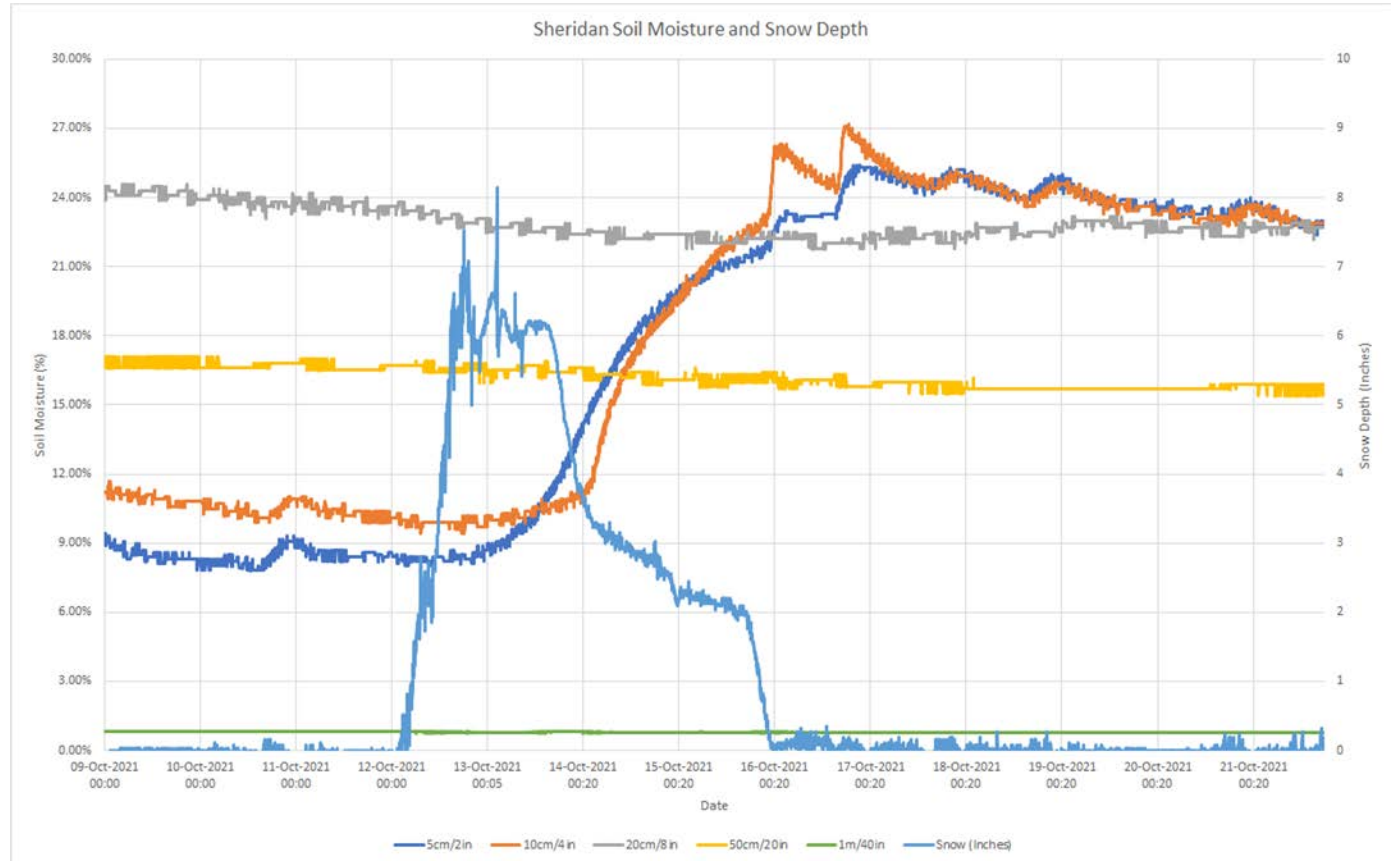
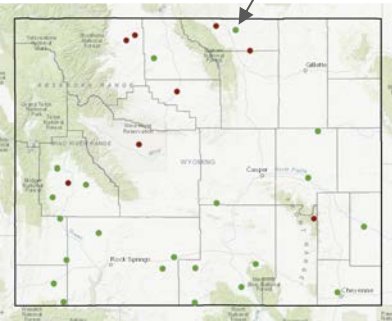


Melt from 12 Oct snowfall going into the soil.



Soil Moisture at Sheridan

~7 Miles ESE Sheridan



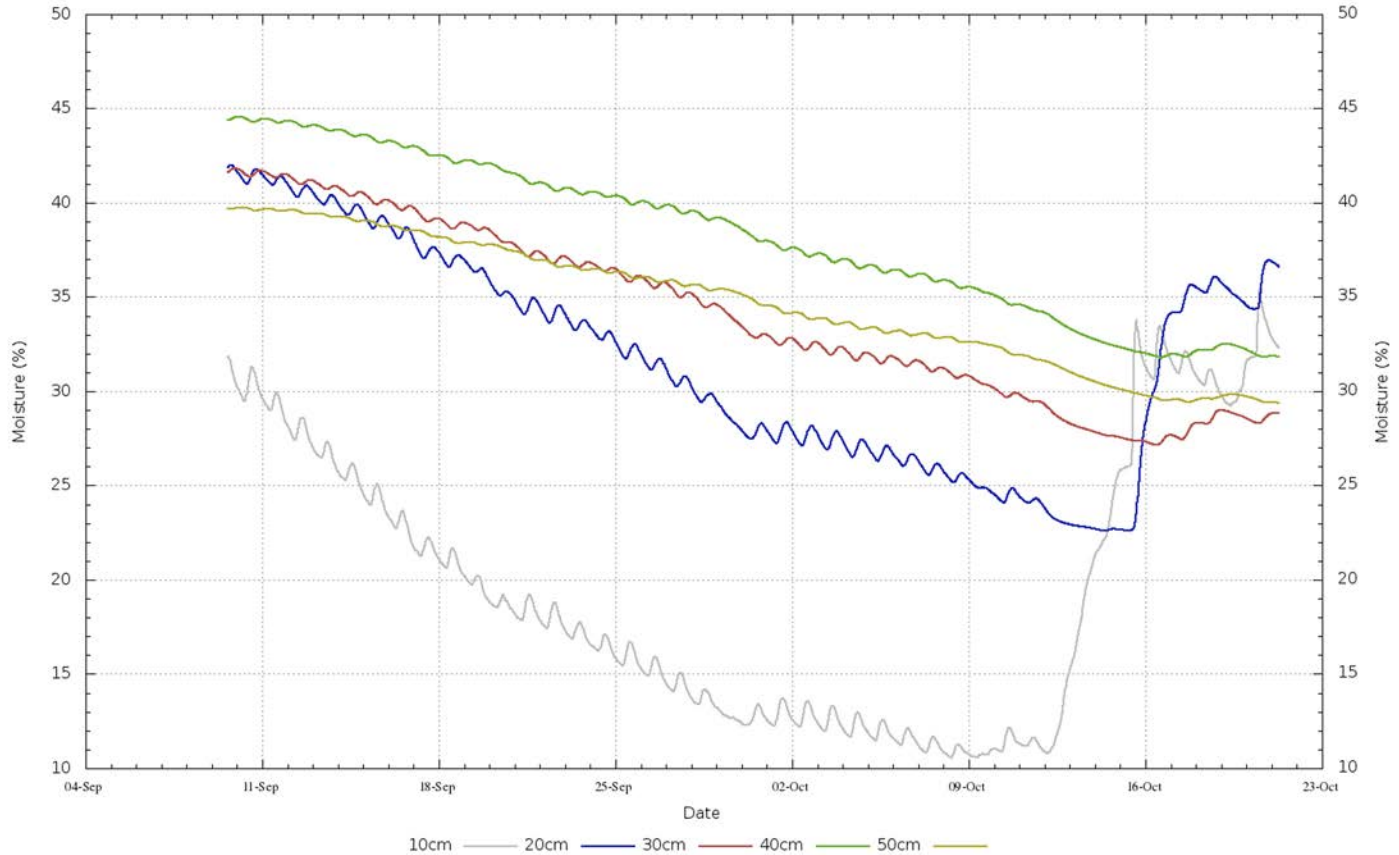
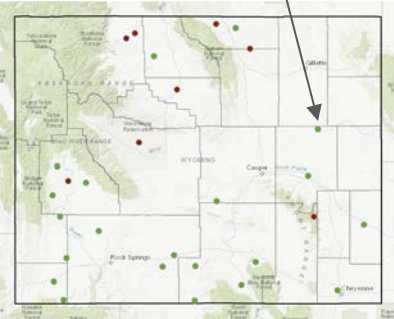
Melt from 12 Oct snowfall going into the soil.



Soil Moisture at Thunder Basin Grasslands

Campbell/Converse County Line Area

Thunder Basin Grasslands - 2021-10-21 07:00:00 (Created Thu Oct 21 08:05:01 MDT 2021)

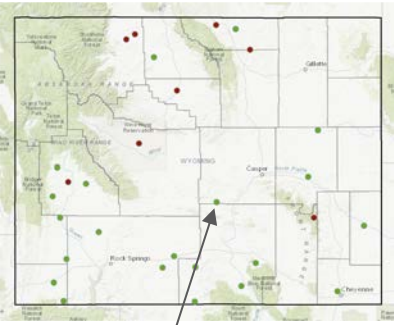


12 Oct snow.
Moisture increase at
10 and 20 cm and a
leveling of the
decline at deeper
depths

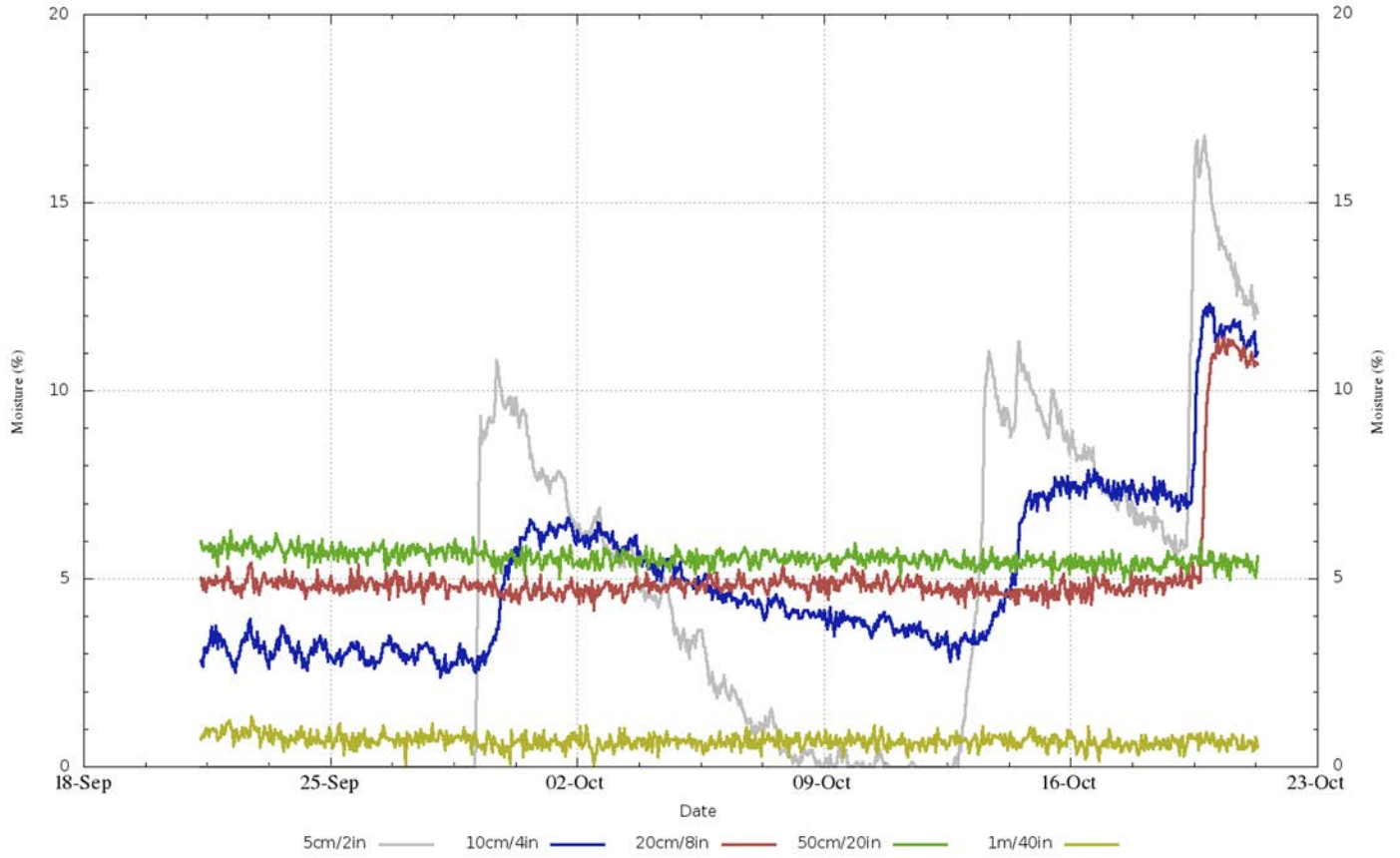


Soil Moisture at Devil's Gate

West of 220 near Natrona/Carbon County Line



Devils Gate - 2021-10-21 07:00:00



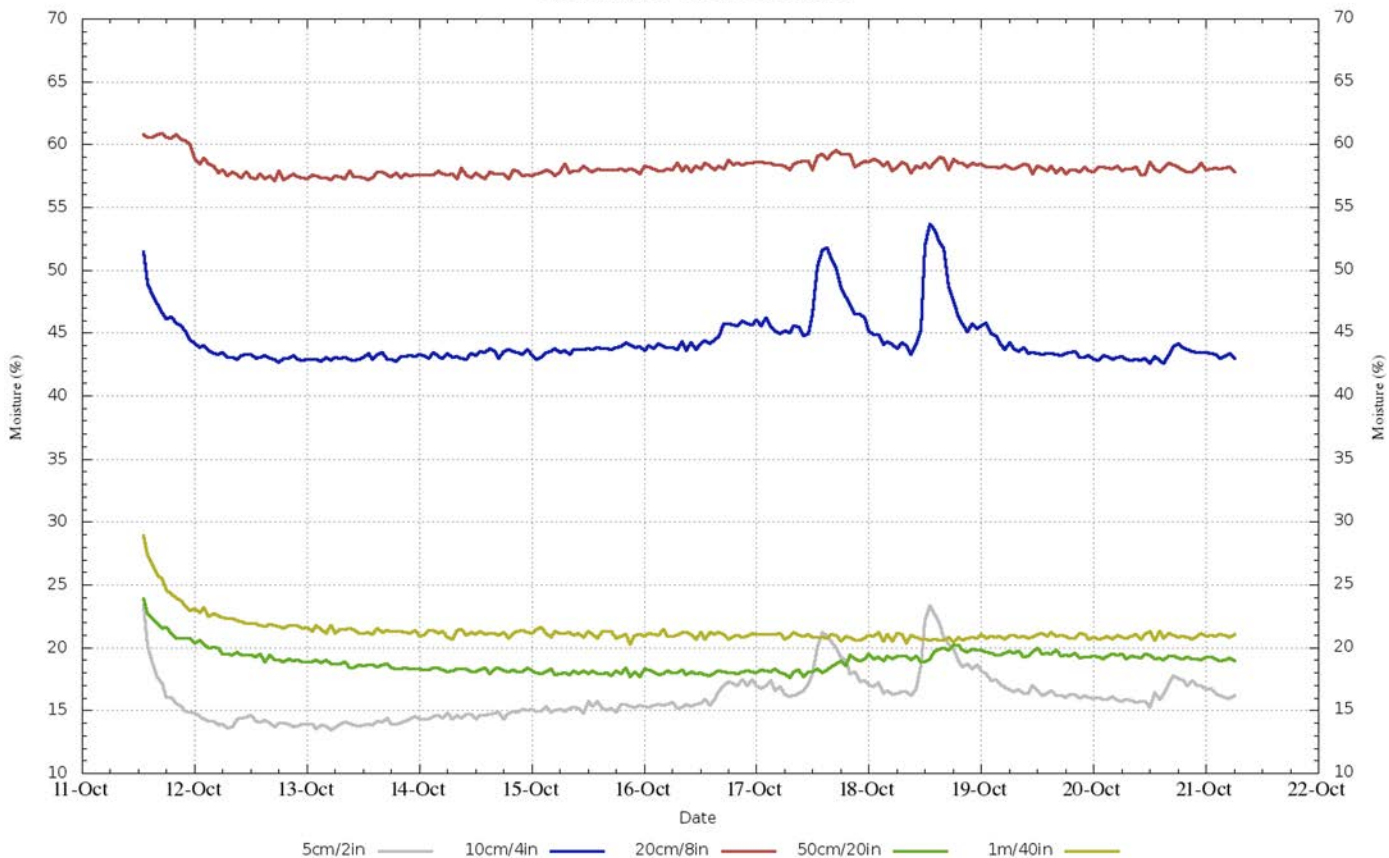
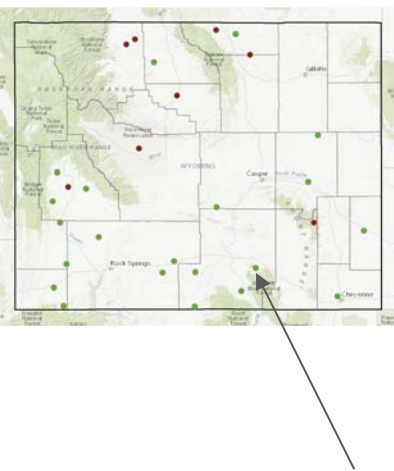
Increases from recent precipitation events showing up at 20 cm (8 inches).



Soil Moisture at Elk Mountain

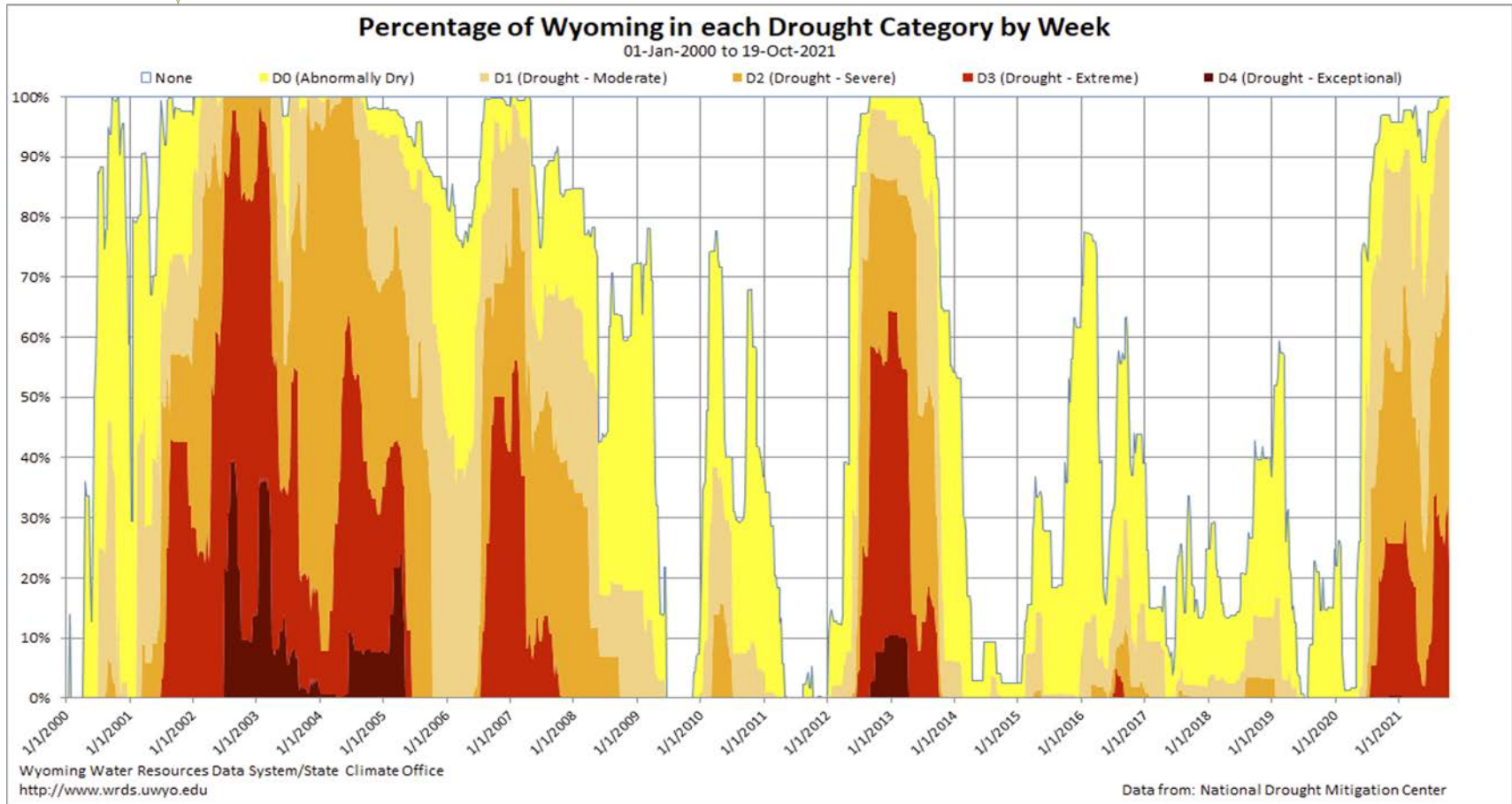
Elk Mountain

Elk Mountain 6S - 2021-10-21 06:00:00



Only brief increases in soil moisture at 5 cm and 10 cm from recent precipitation. Dries out quickly.

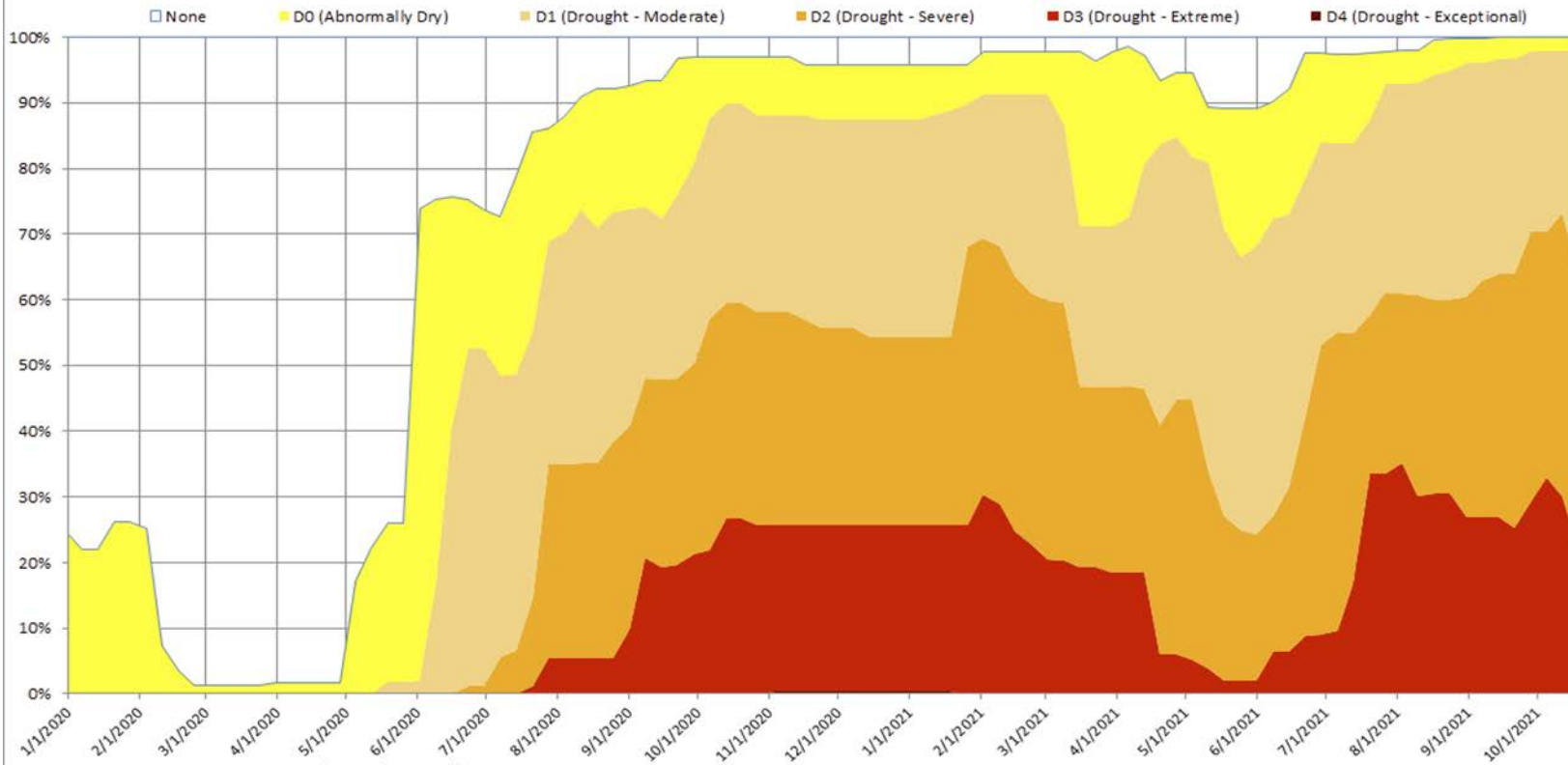
Wyoming Area Affected: 100% D0-D4 ; 96.76% D1-D4





Percentage of Wyoming in each Drought Category by Week

01-Jan-2020 to 19-Oct-2021

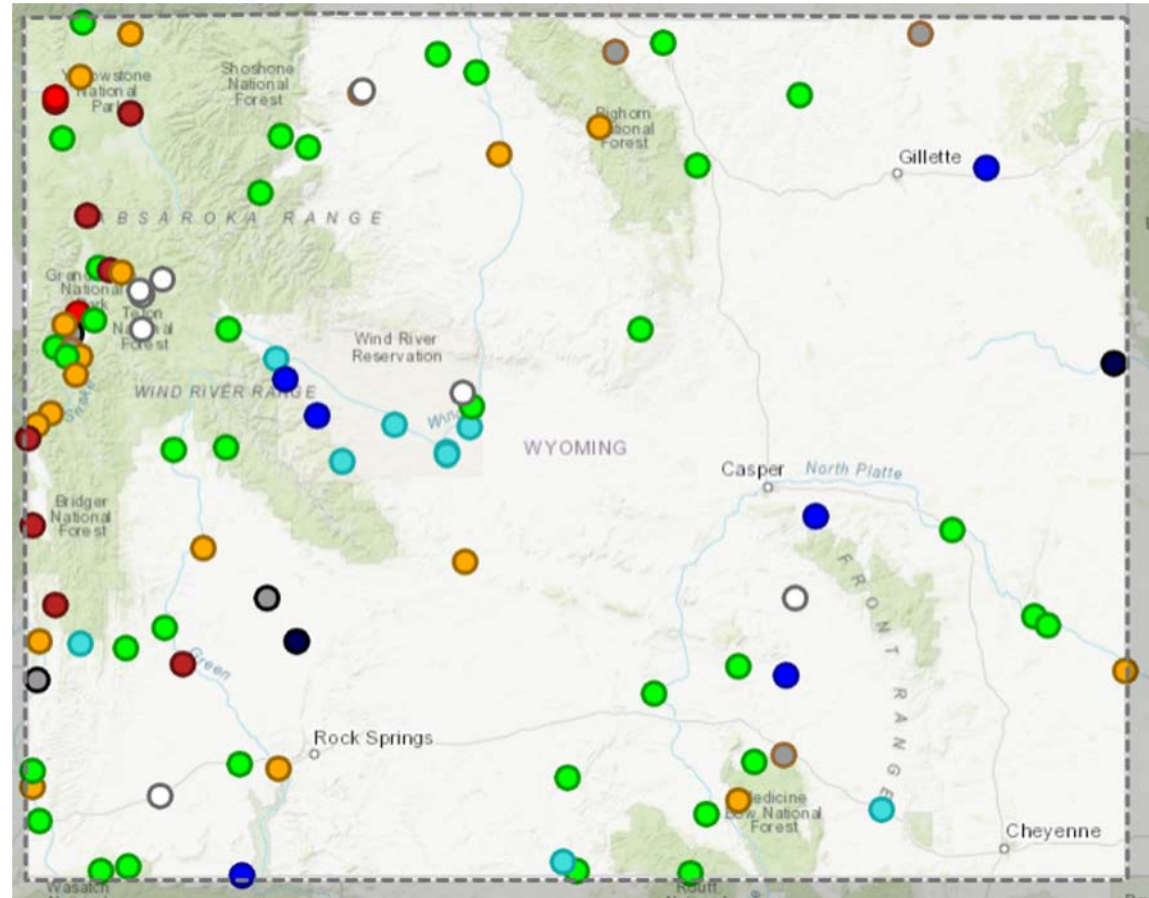


Current Streamflow Conditions (October 21, 2021)

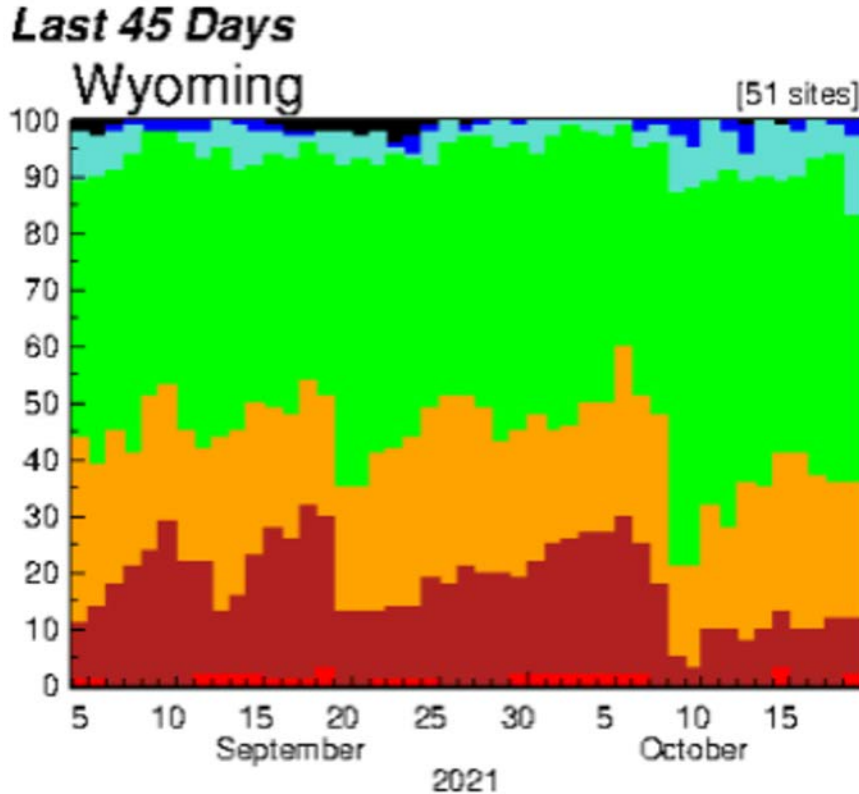
Stream Flow Status

Streams: Flow status

- All-Time Low for this Day 0th percentile (minimum)
- Much Below Normal <10th percentile
- Below Normal 10th – 24th percentile
- Normal 25th – 75th percentile
- Above Normal 76th – 90th percentile
- Much Above Normal >90th percentile
- All-Time High for this Day 100th percentile (maximum)
- Not Flowing 0 cubic feet per second
- Above NWS Flood Stage See Comments
- Not Ranked See Comments



Flow Trends since early August



Only sites with 30 yrs record and no missing values.

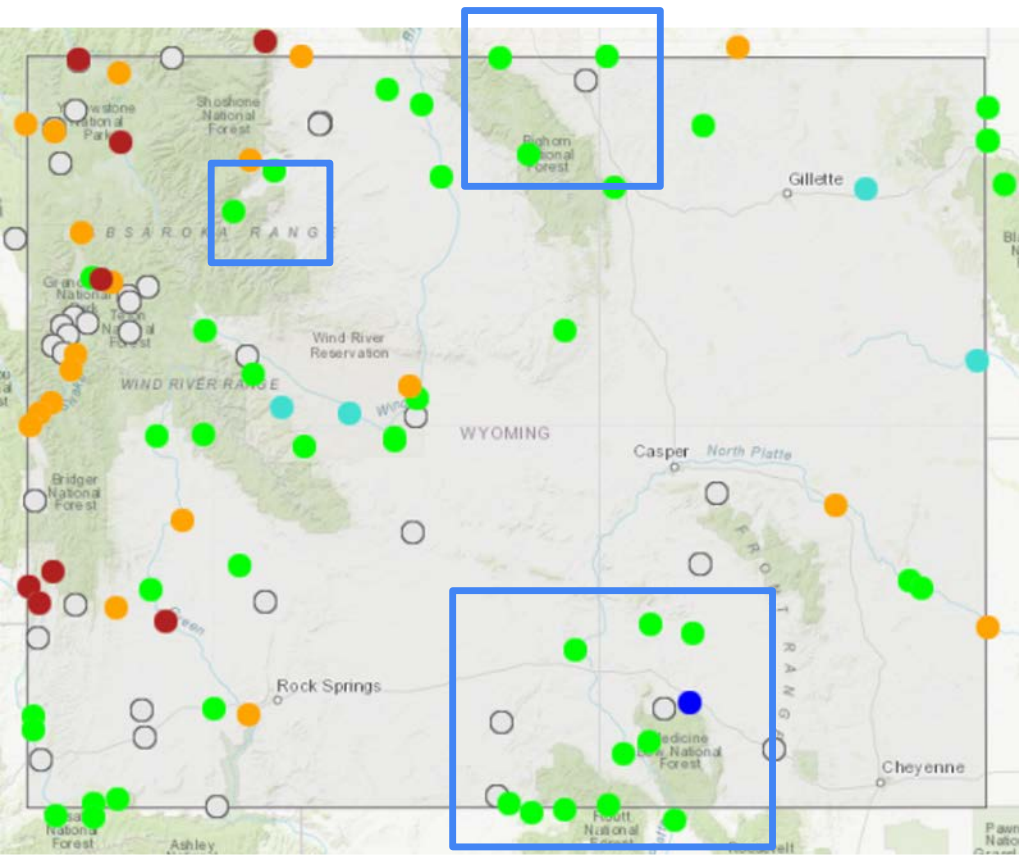
Trend during last 2 weeks is towards Normal conditions

Record Daily Low Flow

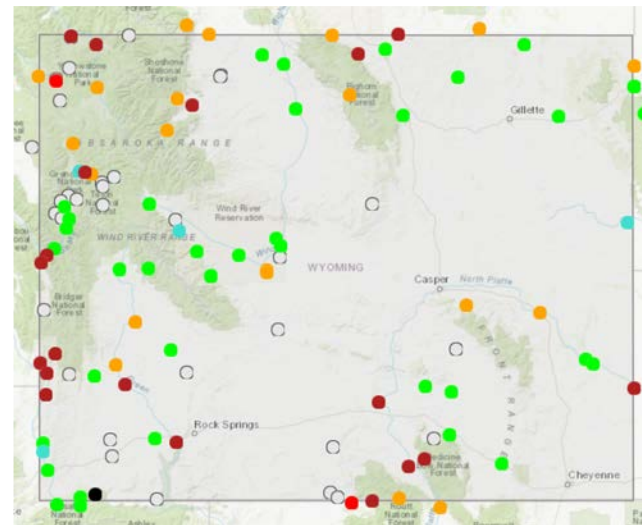
- Gibbon River at Madison Junction, YNP
- Snake River at Moose, WY

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

7-Day Avg Compared to last Month (Oct 20)



Sep 16

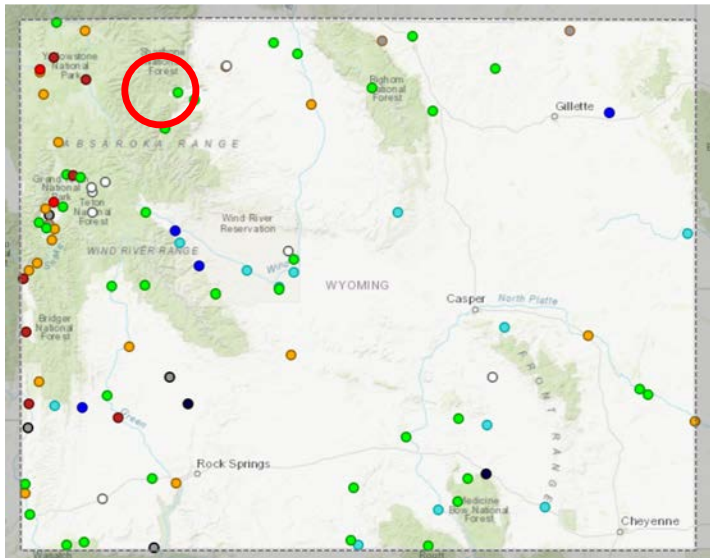


| Explanation - Percentile classes | | | | | | | |
|----------------------------------|--------------------------|-----------------------|-----------------|-----------------------|--------------------------|------|------------|
| | | | | | | | |
| Low | <10 Much below normal | 10-24 Below normal | 25-75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

<https://waterwatch.usgs.gov>

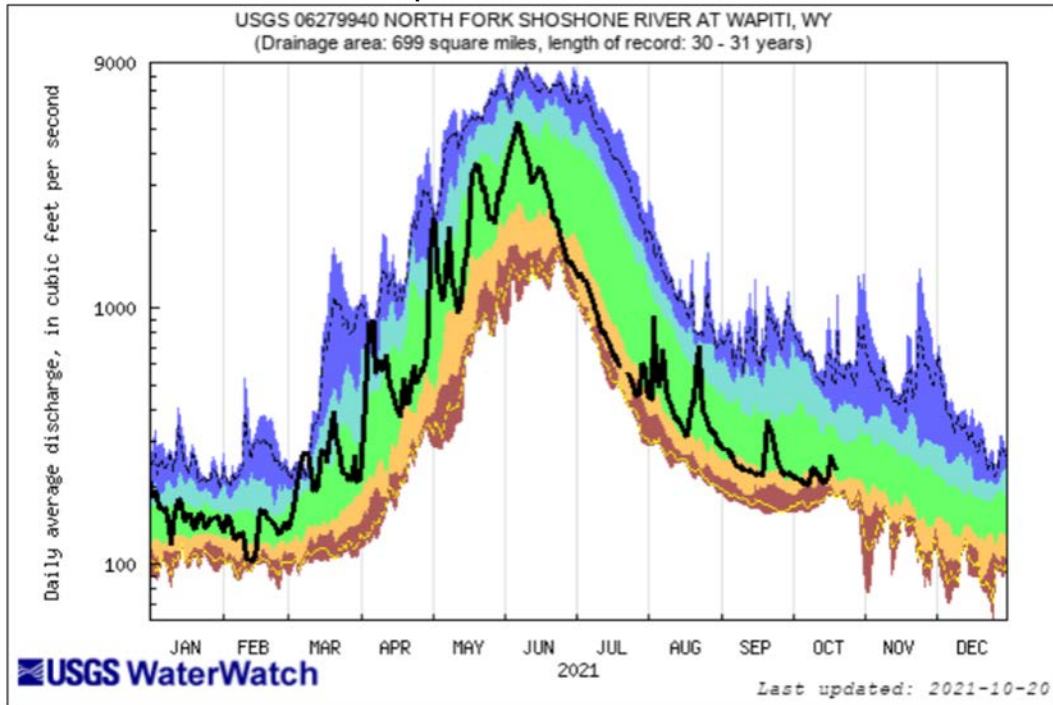
- More sites trending towards normal
- NW, WC - Still dry

Select WY Streamflows



N Fork Shoshone River at Wapiti, WY

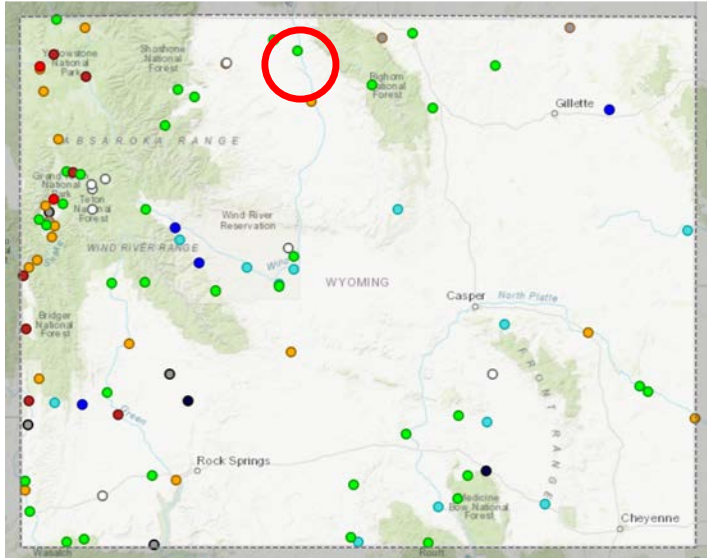
Last updated Oct. 20, 2021



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

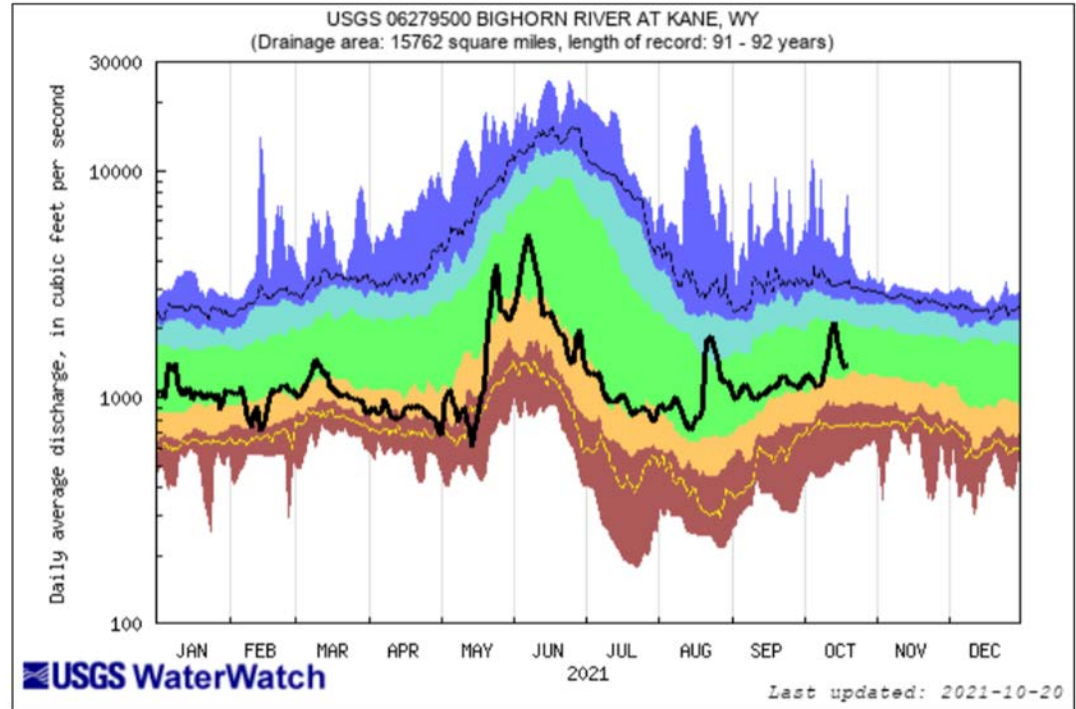
| Explanation - Percentile classes | | | | | | |
|----------------------------------|--------------|--------|--------------|-------------------|----|--------------------------|
| lowest-10th percentile | 5 | 10-24 | 25-75 | 76-90 | 95 | 90th percentile -highest |
| Much below Normal | Below normal |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

Select WY Streamflows



Big Horn River at Kane, WY

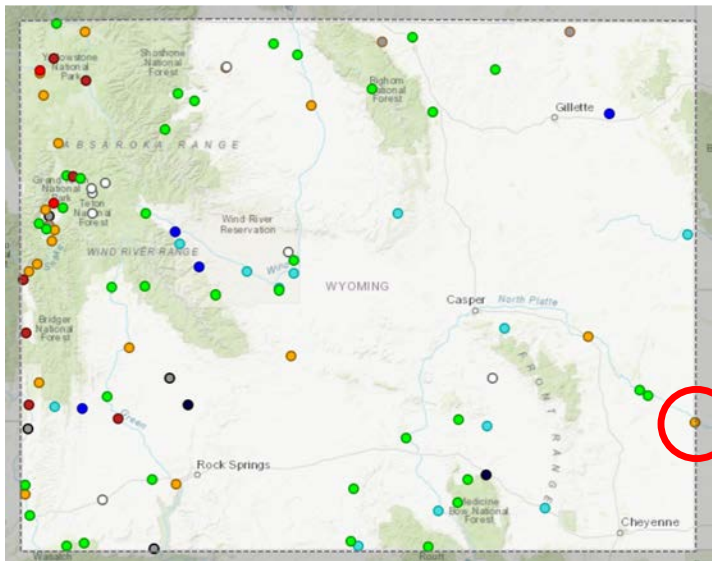
Last updated Oct. 20, 2021



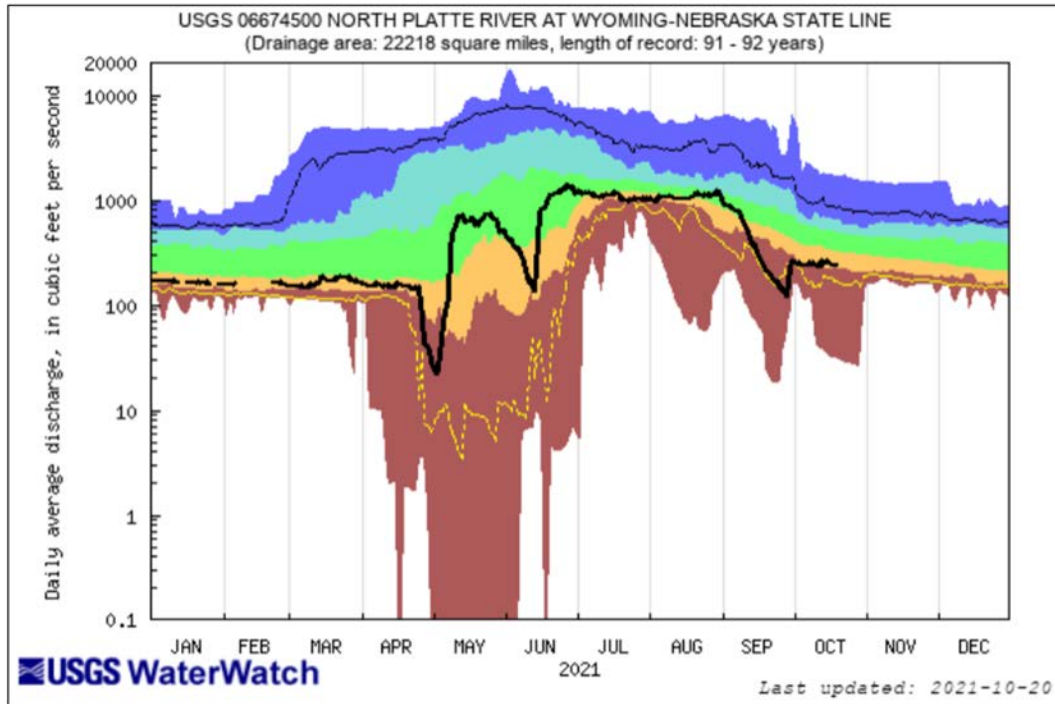
<https://dashboard.waterdata.usgs.gov/>
<https://waterdata.usgs.gov/>

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

Select WY Streamflows



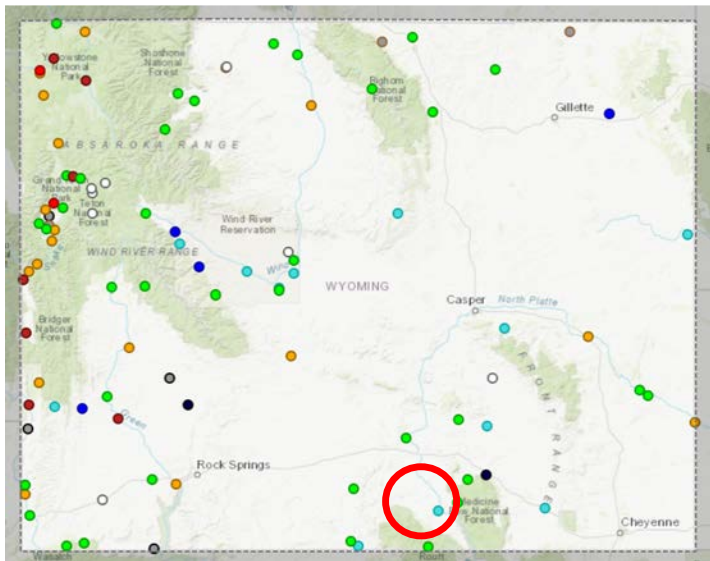
N Platte River at WY-NE State Line Last updated Oct. 20, 2021



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

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

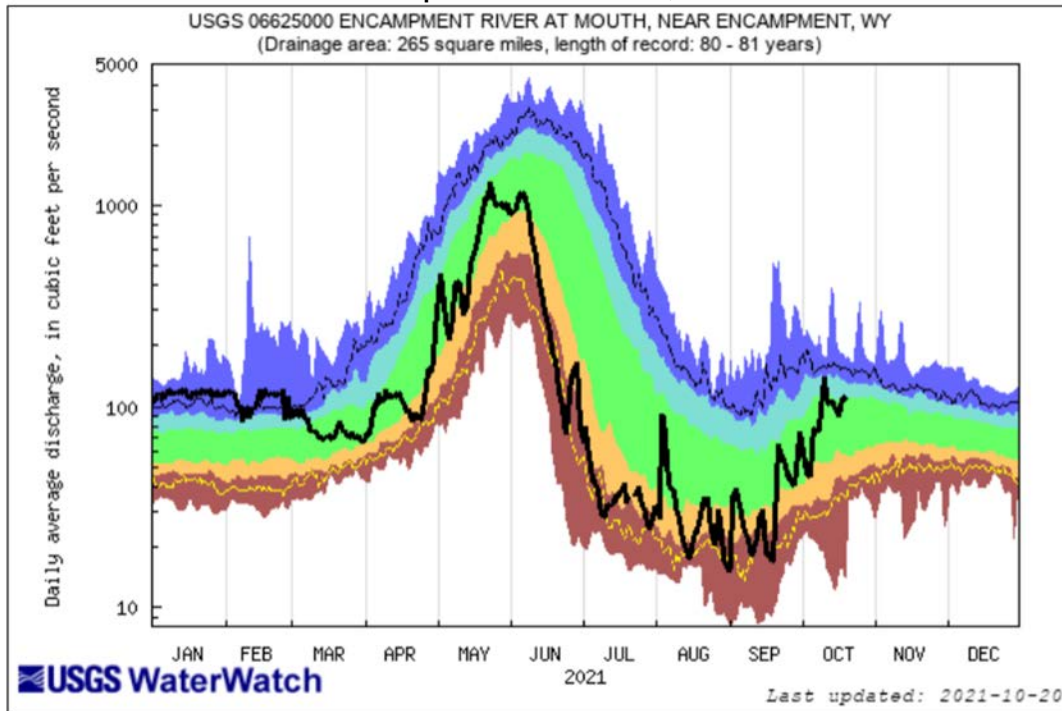
Select WY Streamflows



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

Encampment River Near Encampment, WY

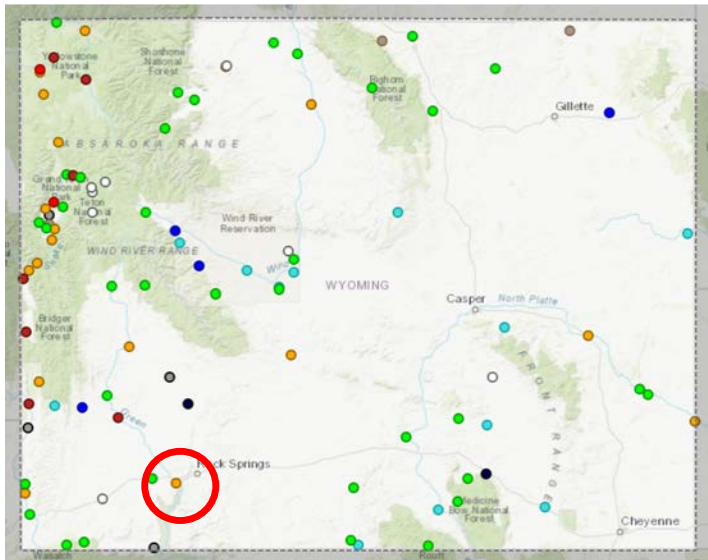
Last updated Oct. 20, 2021



Explanation - Percentile classes

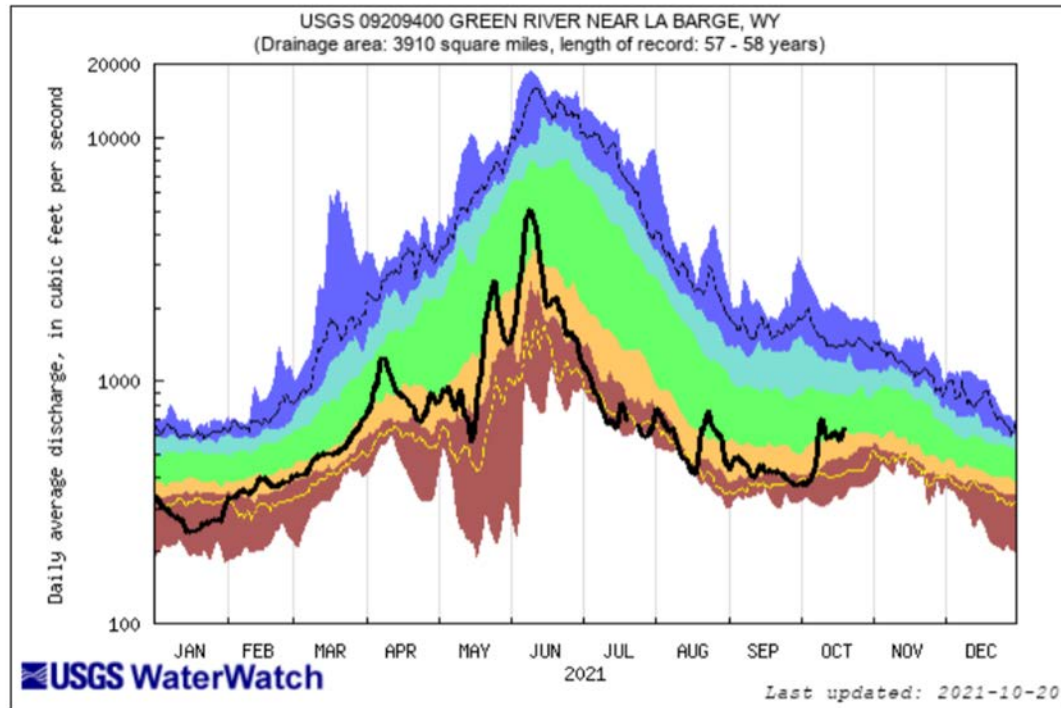
| | | | | | |
|------------------------|--------------|--------|--------------|-------------------|-----------------------------|
| | | | | | |
| lowest-10th percentile | 5 | 10-24 | 25-75 | 76-90 | 95 90th percentile -highest |
| Much below Normal | Below normal | Normal | Above normal | Much above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

Select WY Streamflows



Green River near La Barge, WY

Last updated Oct. 20, 2021



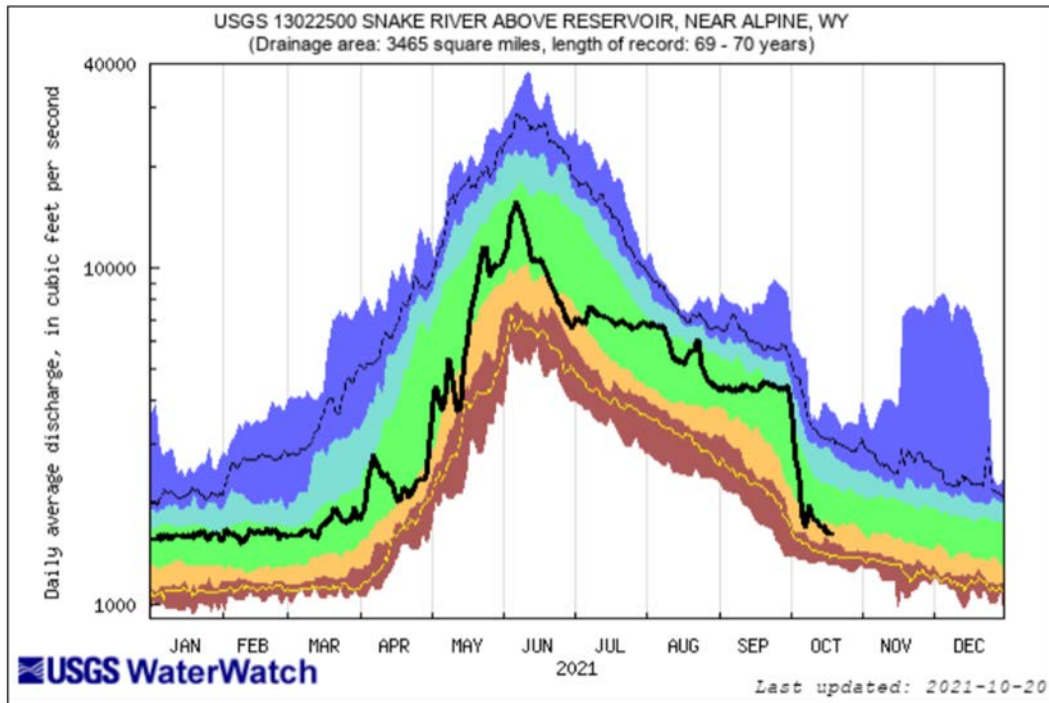
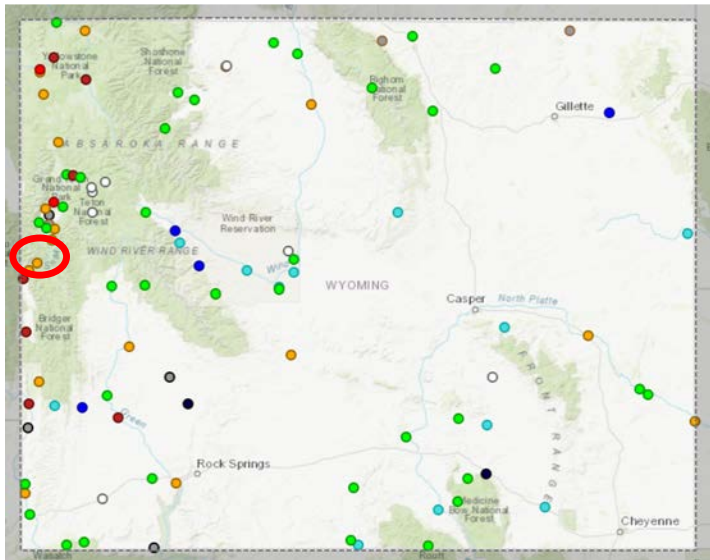
<https://dashboard.waterdata.usgs.gov/>
<https://waterdata.usgs.gov/>

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

Select WY Streamflows

Snake River Above Reservoir Near Alpine, WY

Last updated Oct. 20, 2021



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

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



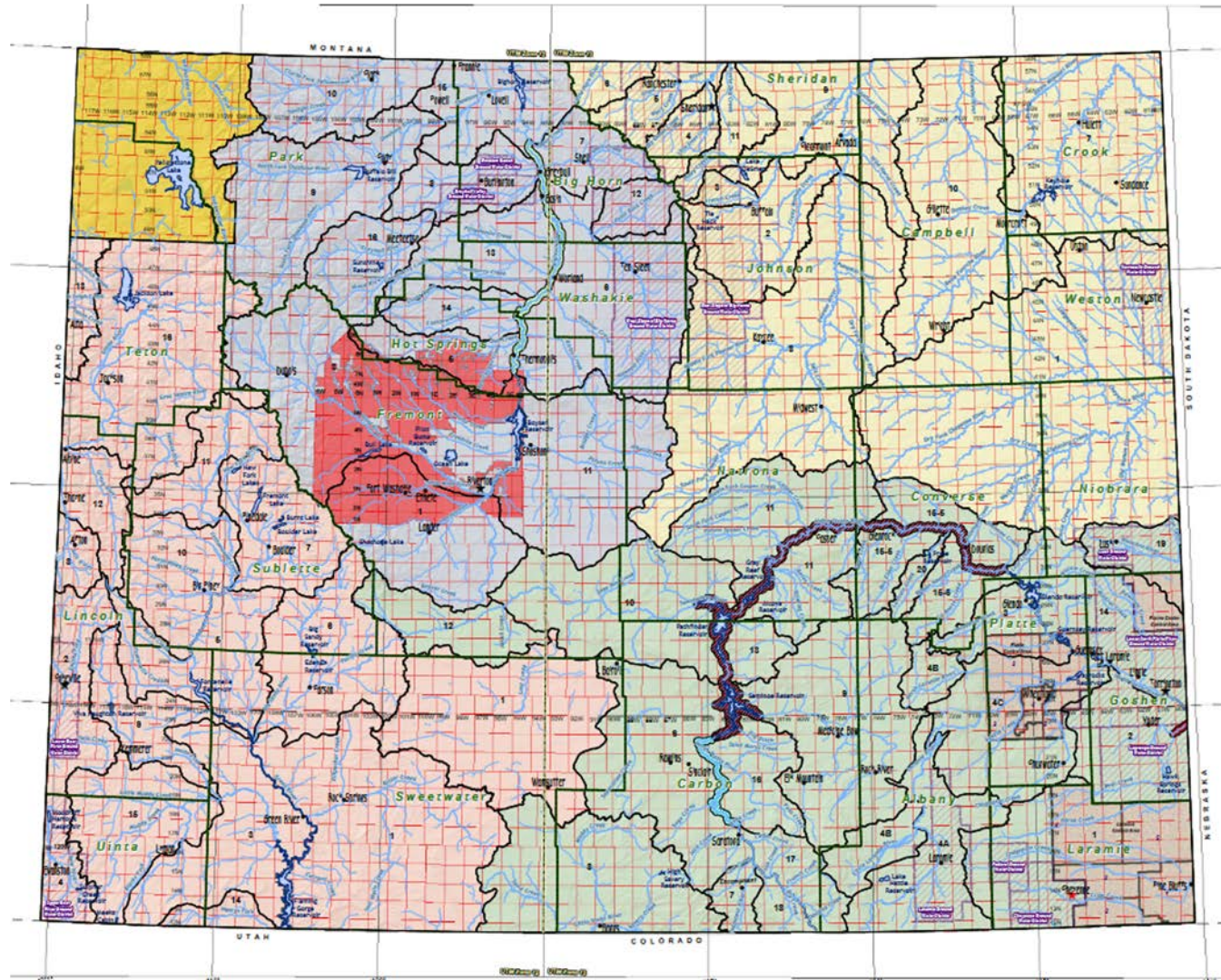
Division Superintendents:

Div I: Brian Pugsley
brian.pugsley@wyo.gov

Div II: David Schroeder
d.schroeder@wyo.gov

Div III: Loren Smith
loren.smith@wyo.gov

Div IV: Kevin Payne
kevin.payne@wyo.gov





Based on Reclamation's announcement of continual declining hydrologic conditions for the Colorado River system, 125,000 acre-feet of water from Flaming Gorge Reservoir will be released to protect storage elevations in Lake Powell.

These releases will be staged July through October, and will likely result in Flaming Gorge water elevation dropping an additional 3.5 feet by mid-autumn.

No Wyoming water rights are tied to the water being released, so **no Wyoming water right holders will be affected.**

| | Jul | Aug | Sep | Oct | Nov | Dec | |
|-------------------------|-------|-------|-------|-------|-------|-------|---------|
| | (kaf) | (kaf) | (kaf) | (kaf) | (kaf) | (kaf) | Sum |
| Flaming Gorge Reservoir | 13 | 42 | 43 | 27 | 0 | 0 | 125 |
| Blue Mesa Reservoir | 0 | 14 | 18 | 4 | 0 | 0 | 36 |
| Navajo Reservoir | 0 | 0 | 0 | 0 | 10 | 10 | 20 |
| Sum: | 13 | 56 | 61 | 31 | 10 | 10 | 181 kaf |

From Gov. Gordon's press release on July 16, 2021, and BOR 24-Month study released same day.

<https://content.govdelivery.com/accounts/WYGOV/bulletins/2e86b89?reqfrom=share>

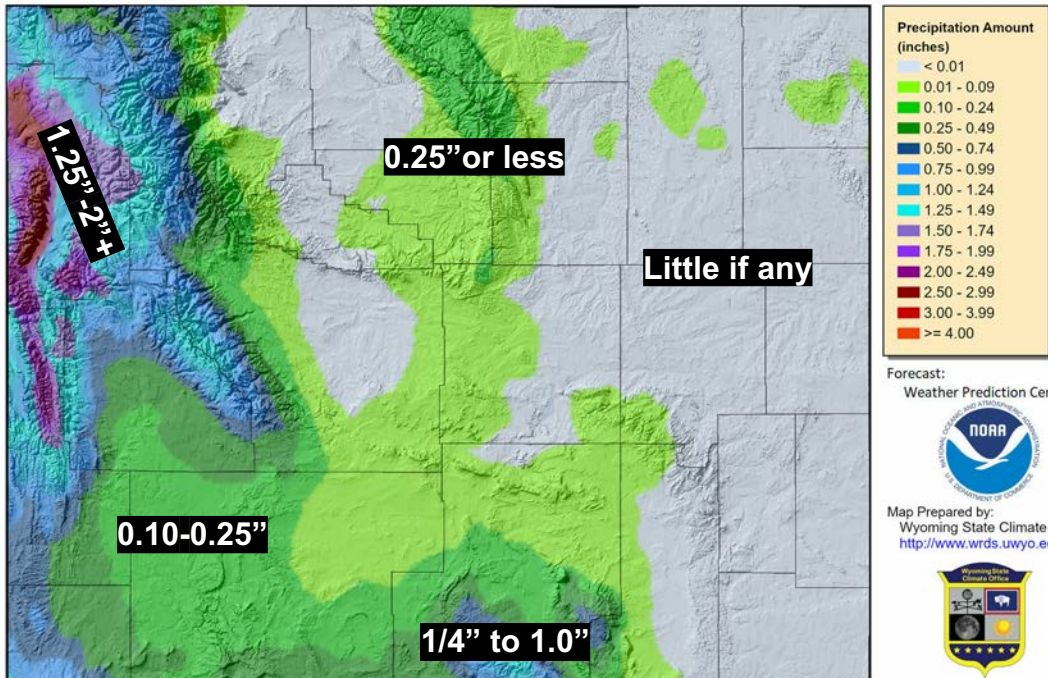


Forecasts & Outlooks



7-Day Quantitative Precipitation Forecast October 21-28

7-Day Quantitative Precipitation Forecast 21 Oct 2021



Provisional data, subject to revision

Forecast:
Weather Prediction Center



Map Prepared by:
Wyoming State Climate Off
<http://www.wrds.uwyo.edu>



Quantitative Precipitation Forecast = Liquid Precipitation Forecast

- Minimal precipitation east of the divide
- Showers Saturday - Monday
- Heaviest precipitation Tuesday through Thursday
- Temperatures start warm over the weekend, then trend down to near/below normal temps Tue/Wed, before becoming warmer again

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 21 Oct 2021 <http://www.wrds.uwyo.edu>



6-10 Day Precipitation Outlook

October 26 - 30

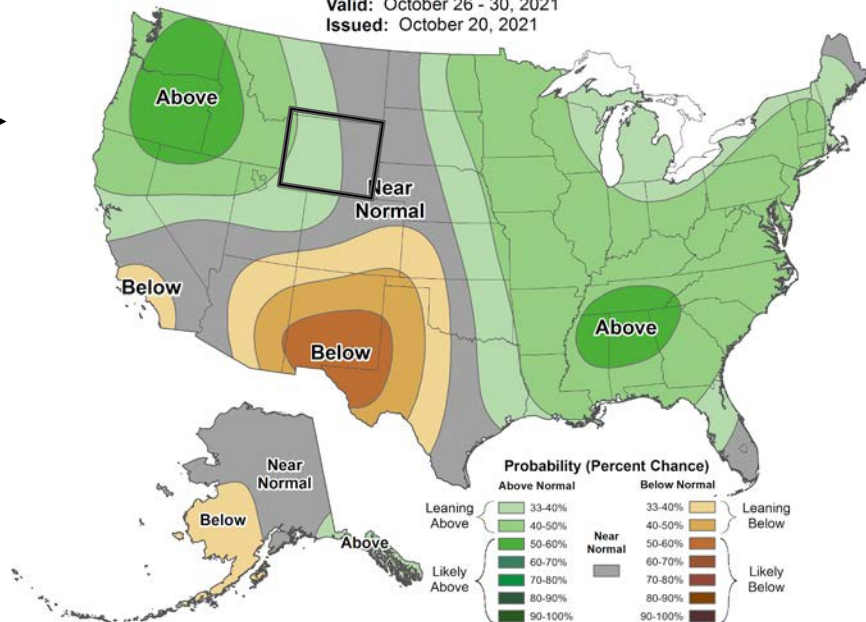
- Probability = Chance
- Above west, near average east



6-10 Day Precipitation Outlook



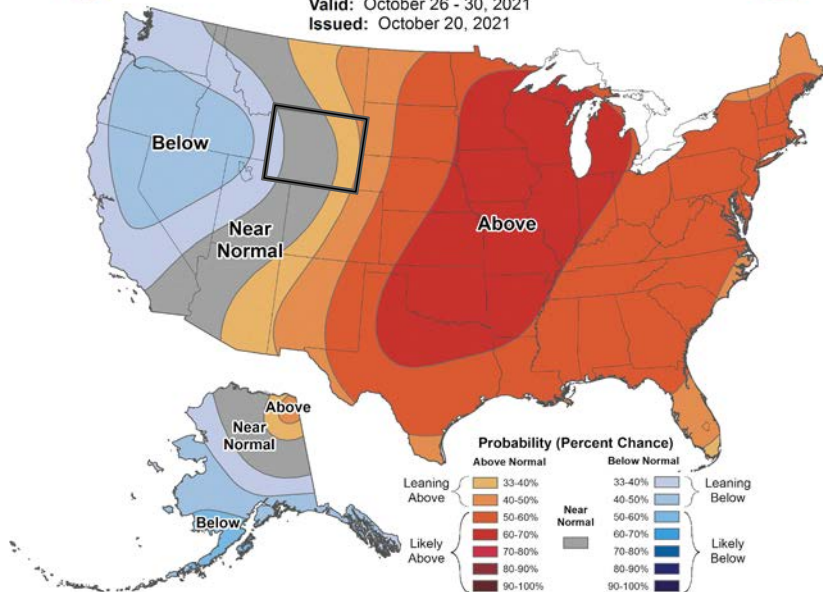
Valid: October 26 - 30, 2021
 Issued: October 20, 2021



6-10 Day Temperature Outlook



Valid: October 26 - 30, 2021
 Issued: October 20, 2021



6 - 10 Day Temperatures

Warmer East and Colder West



8-14 Day Precipitation

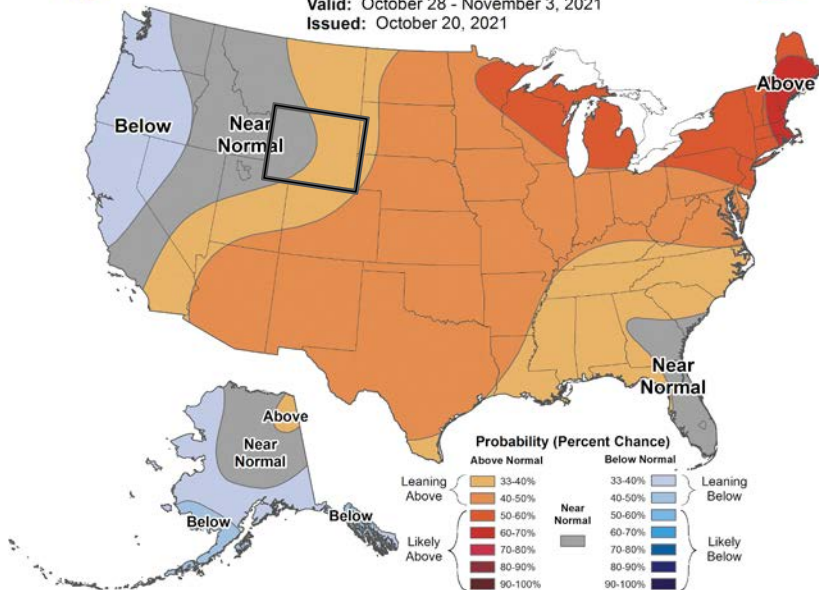
October 28 - November 3

- Probability = Chance
- **Below normal** precipitation east, near normal elsewhere



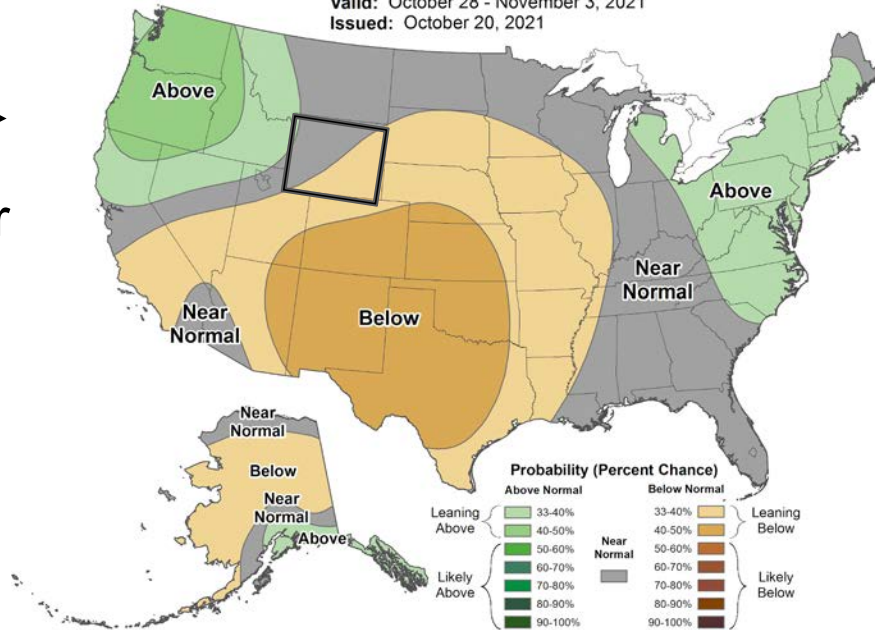
8-14 Day Temperature Outlook

Valid: October 28 - November 3, 2021
Issued: October 20, 2021



8-14 Day Precipitation Outlook

Valid: October 28 - November 3, 2021
Issued: October 20, 2021

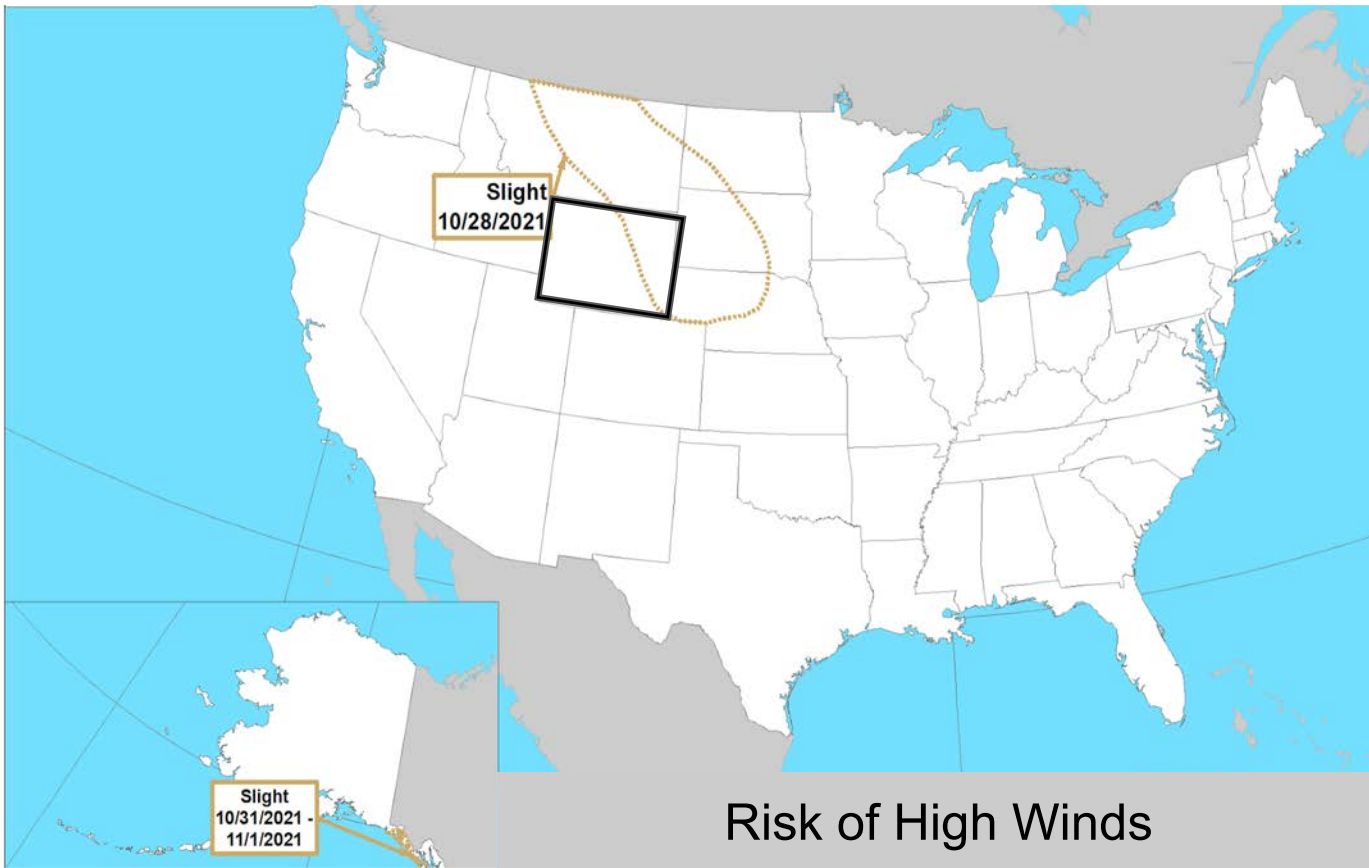


8 - 14 Day Temperatures

- **Above Normal** temperatures favored for eastern WY, more normal west.



Climate Prediction Center 8-14 Day Hazard Outlook: October 28 - November 3

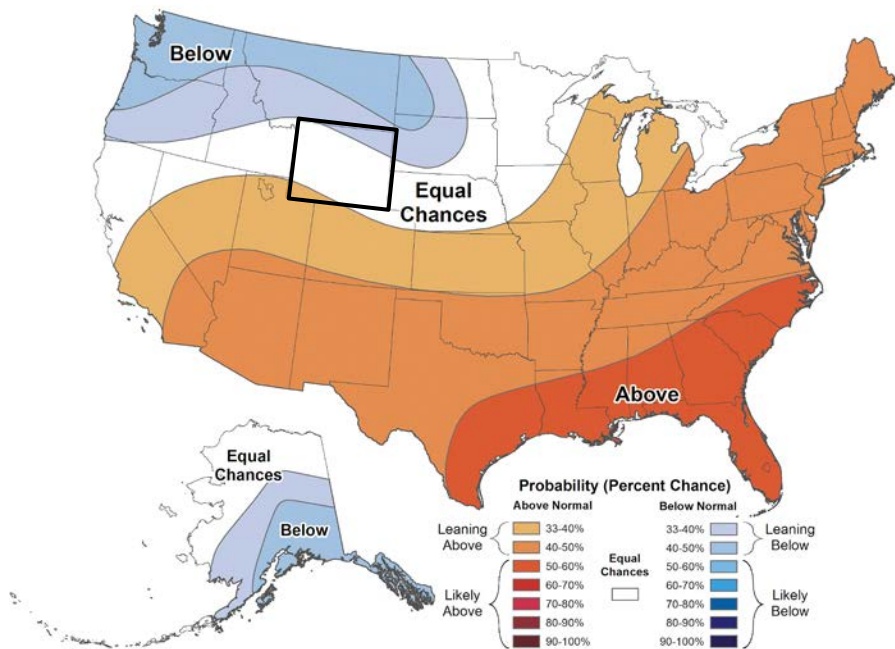




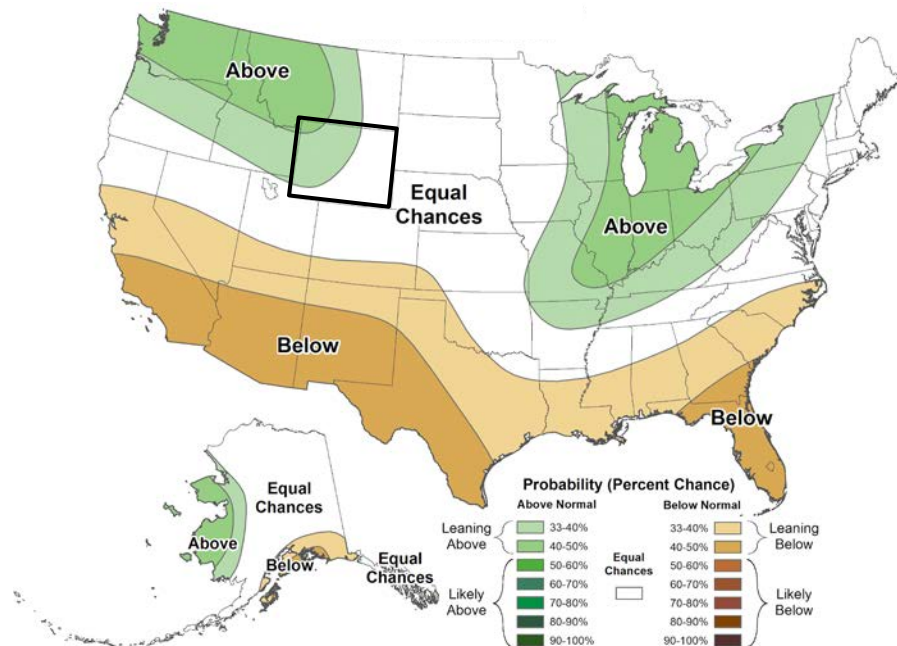
Winter Outlook

December 2021 - February 2022

Temperatures



Precipitation





Fuels Status: Energy Release Component

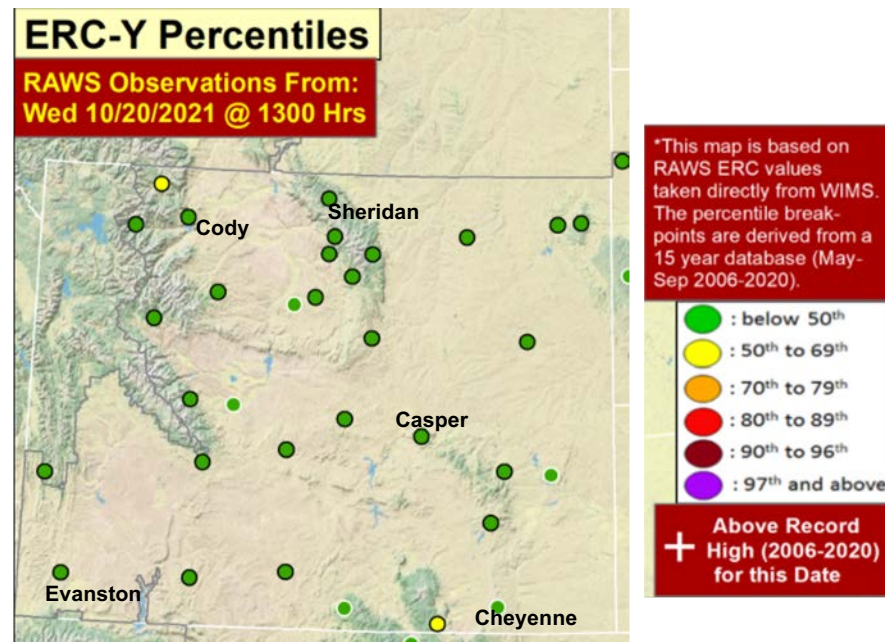
(Observation 10/20/21 @ 13:00)

ERC= Energy Release Component

- Potential total energy released per unit area within flaming zone of fire.
- Combines live & dead fuel moistures from all size classes.
- Percentiles based on May-September values from last 15 years.

Currently in Wyoming

- Values are looking great across the State.
- Small lack of moisture Northwest of Cody and West of Cheyenne.

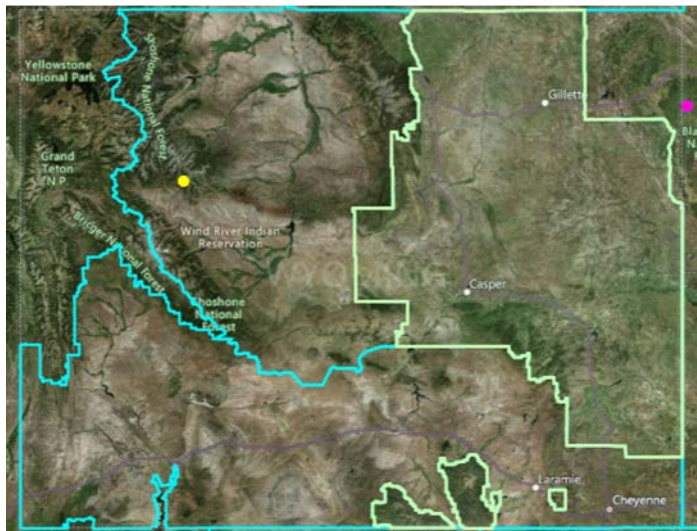




2021 Wildfire Activity to Date

A National Picture

Issued 10/21/21



New Fires Initial Attack Age < 30 hrs ●

Ongoing Fires Age < 10 days & Updated < 5 days ●

Prescribed Fires Age < 10 days & Updated < 5 days ●

National Fire Activity

| | |
|-------------------------------|------------------|
| Initial attack activity: | Light (59 fires) |
| New large incidents: | 0 |
| Large fires contained: | 1 |
| Uncontained large fires: *** | 15 |
| Area Command teams committed: | 0 |
| NIMOs committed: | 0 |
| Type 1 IMTs committed: | 3 |
| Type 2 IMTs committed: | 3 |

Wyoming Fires

Issued 10/21/21

- Fire occurrence has been limited.

<https://www.nifc.gov/nicc/sitreprt.pdf>

<https://gacc.nifc.gov/rmcc/index.php>

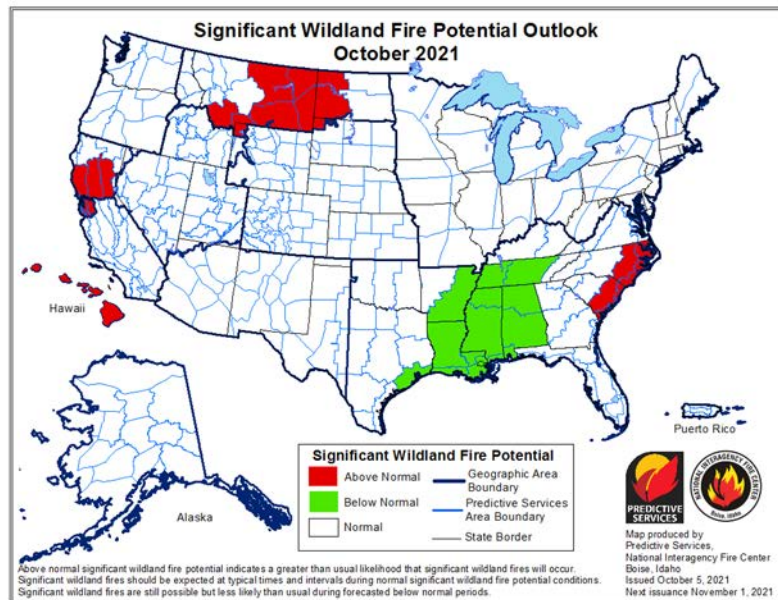
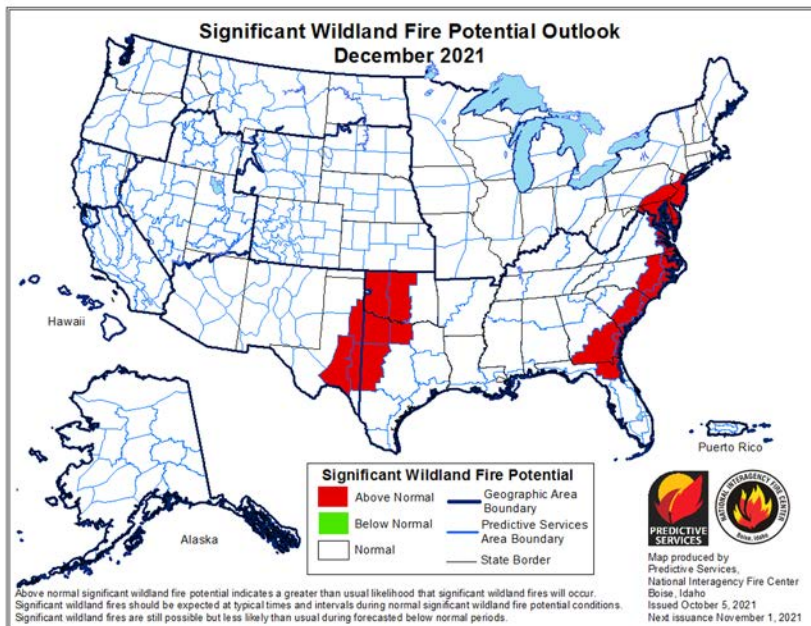


Wildland Fire Outlooks

October 2021

Issued **October 5, 2021**

- Large Drop off in Significant Fire Potential



December 2021

- Back to seasonally normal fire danger in the West.



2021 Wildfire Summary

Retrieved 10/21/21

Total Fires & Acreage by Cause and Size Class

| Number of Acres and Fires by Cause | | |
|------------------------------------|-----------------|-----------------|
| Cause | Number of Fires | Number of Acres |
| Arson | 3 | 8 |
| Campfire | 13 | 9.77 |
| Children | 8 | 4.42 |
| Debris Burning | 150 | 1033.63 |
| Equipment Use | 83 | 4493.21 |
| Lightning | 174 | 9945.88 |
| Miscellaneous | 306 | 11512.9 |
| Railroads | 35 | 266.4 |
| Smoking | 9 | 4.37 |
| Total: | 781 | 27278.58 |

| Number of Acres and Fires by Class | | |
|------------------------------------|-----------------|-----------------|
| Class | Number of Fires | Number of Acres |
| Class A - 0.25 acres or less | 260 | 25.78 |
| Class B - 0.26 to 9 acres | 419 | 807.35 |
| Class C - 10 to 99 acres | 80 | 2808.95 |
| Class D - 100 to 299 acres | 10 | 1808.1 |
| Class E - 300 to 999 acres | 6 | 3631 |
| Class F - 1000 to 4999 acres | 3 | 6720 |
| Class G - 5000 acres or more | 3 | 11477.4 |
| Total: | 781 | 27278.58 |



How to get involved ...

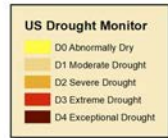
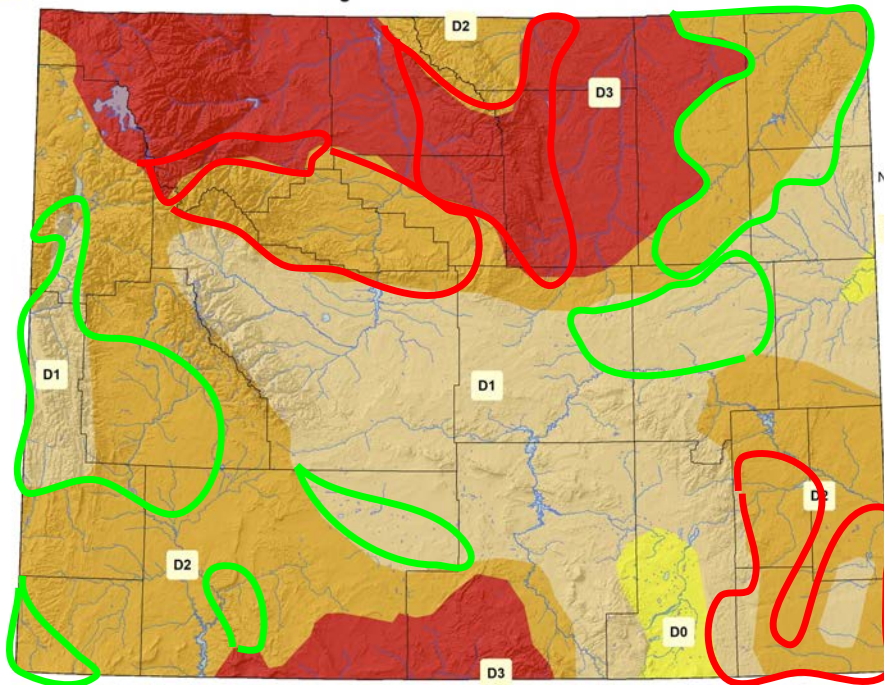
US Drought Monitor for October 19, 2021

(Released Thursday, October 21, 2021)

Valid 8 a.m. EDT

D4

US Drought Monitor as of 19 October 2021



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

D0



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



D4

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>

| 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 |

Improvements in western and southwestern Wyoming along with the northeast since the last webinar but also **degradations** over southeastern, northwest, and north central Wyoming.

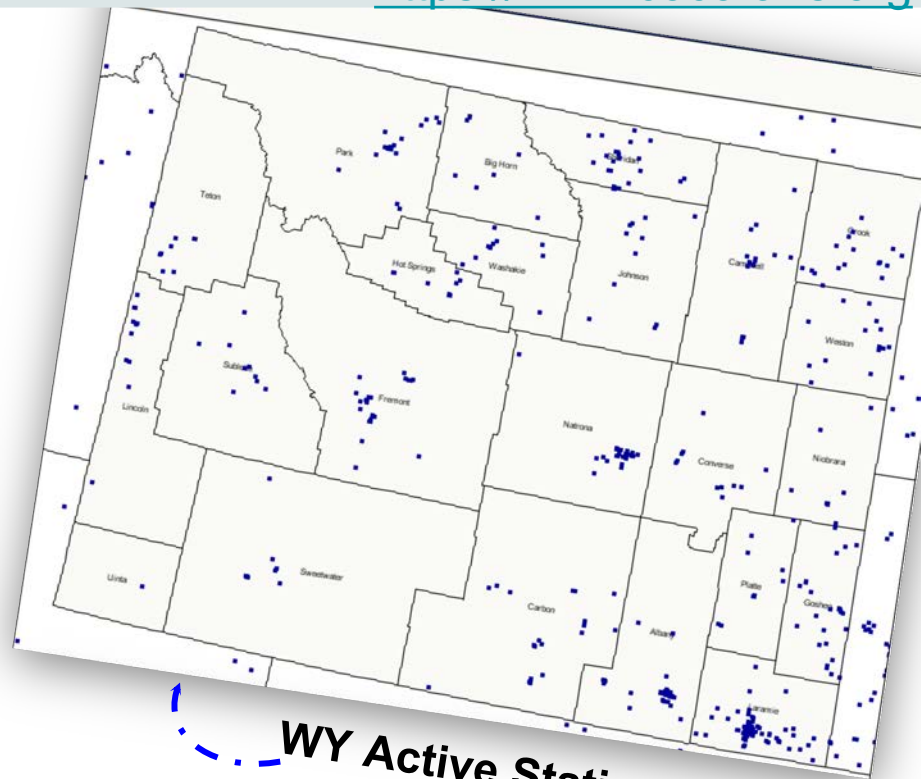
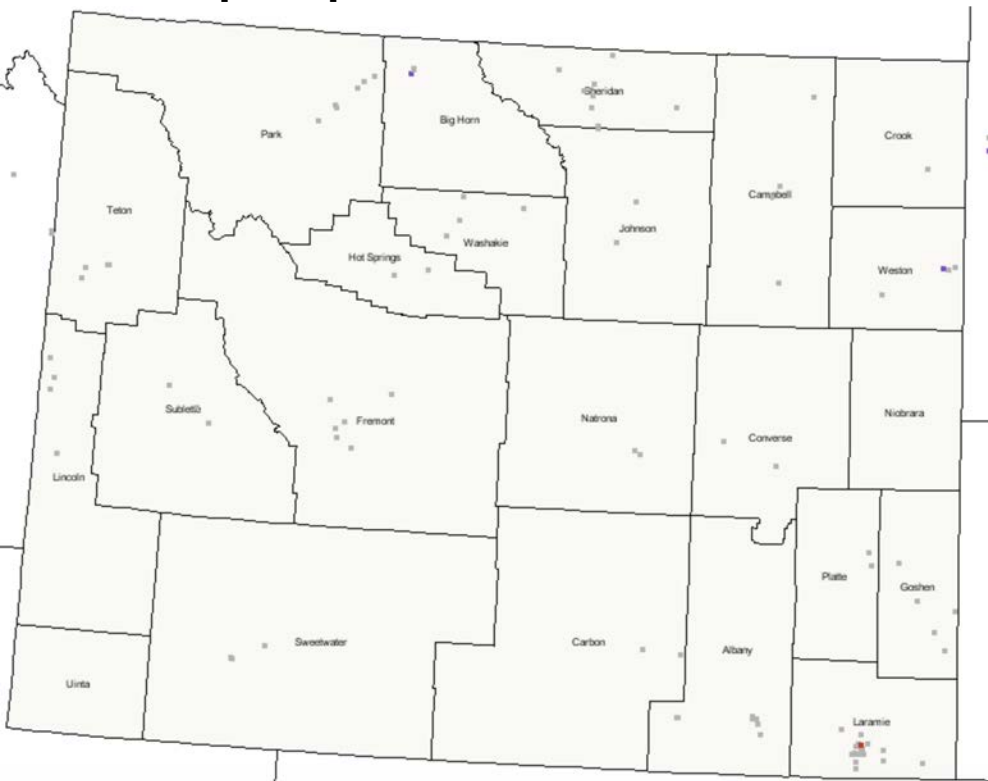




CoCoRaHS Mapping System

<https://www.cocorahs.org>

**October 21, 2021:
24-hour precip as of ~ 7 am**



WY Active Station Locations

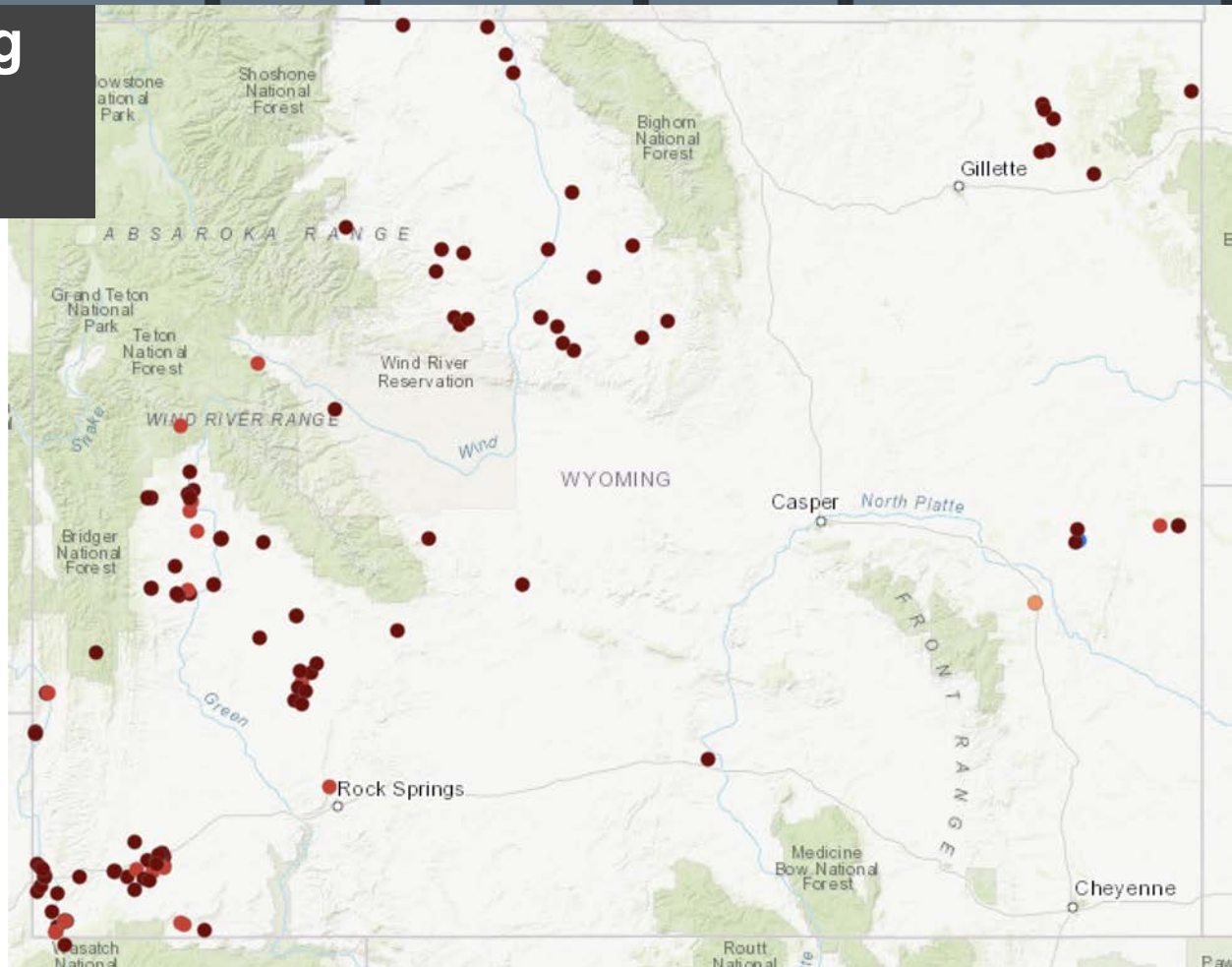
0.0 Trace 0.01-0.01 0.01-0.02 0.02-0.03 0.03-0.04 0.04-0.05 0.05-0.06



Condition Monitoring Observer Reports

<https://bit.ly/CMOReports>

- Severely Dry
- Moderately Dry
- Mildly Dry
- Near Normal
- Mildly Wet
- Moderately Wet
- Severely Wet



Condition Monitoring Observer Reports

<https://bit.ly/CMOReports>

- Comparison photos
- Regular reporting is helpful (e.g., monthly)
- **Note:** Reports and photos are available to the public.

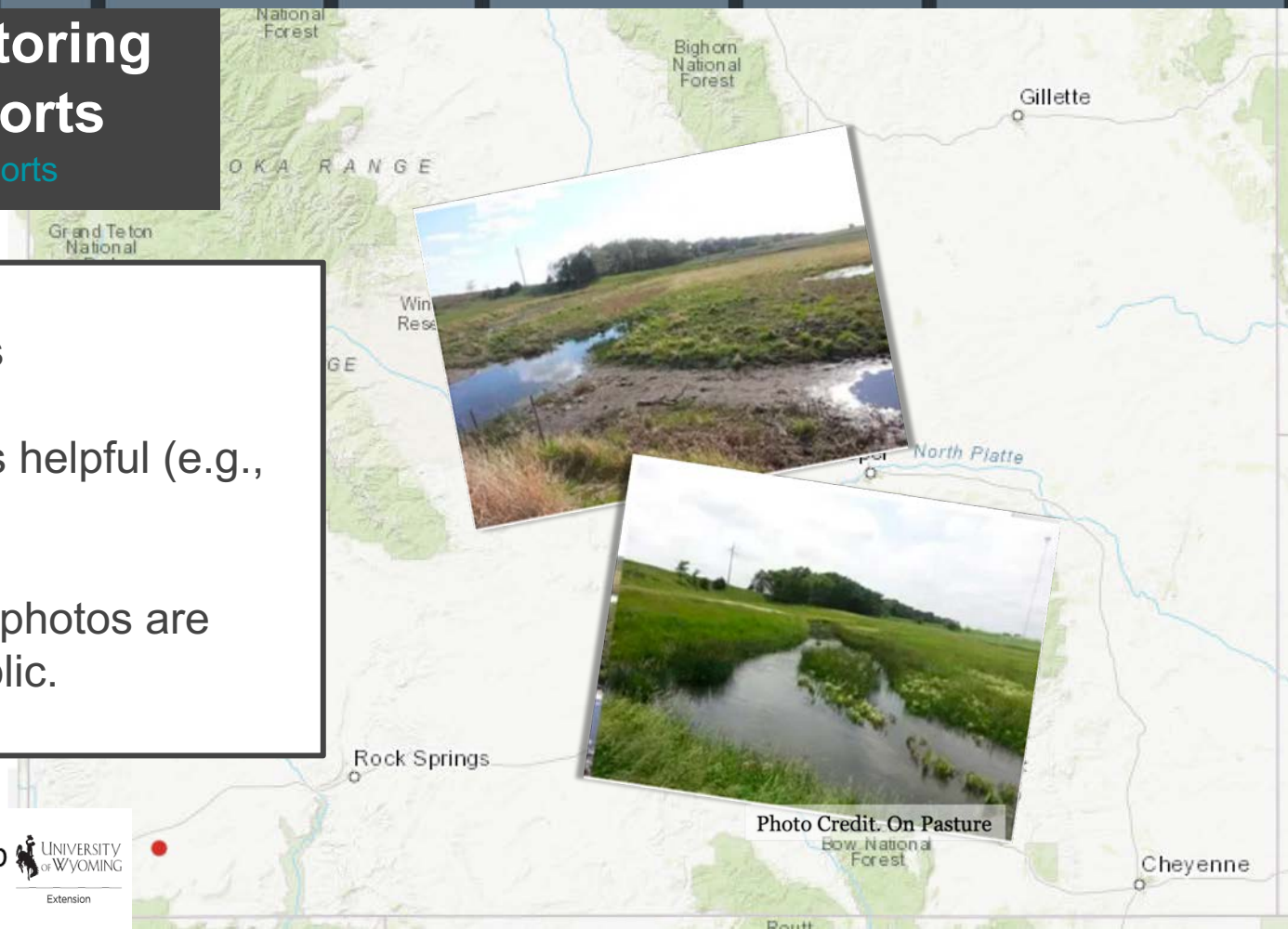


Photo Credit. On Pasture



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WRDS & State Climate Office

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WY Drought Info & Resources

<https://drought.wyo.gov>

CoCoRaHS

<https://www.cocorahs.org>

Condition Monitoring Observer Reports (CMOR)

<https://bit.ly/CMORreports>

Thank you! Questions?