



Utah Water Assessment & Conditions Monitoring (Drought Webinar)

The meeting will begin shortly



Thank you to our contributors

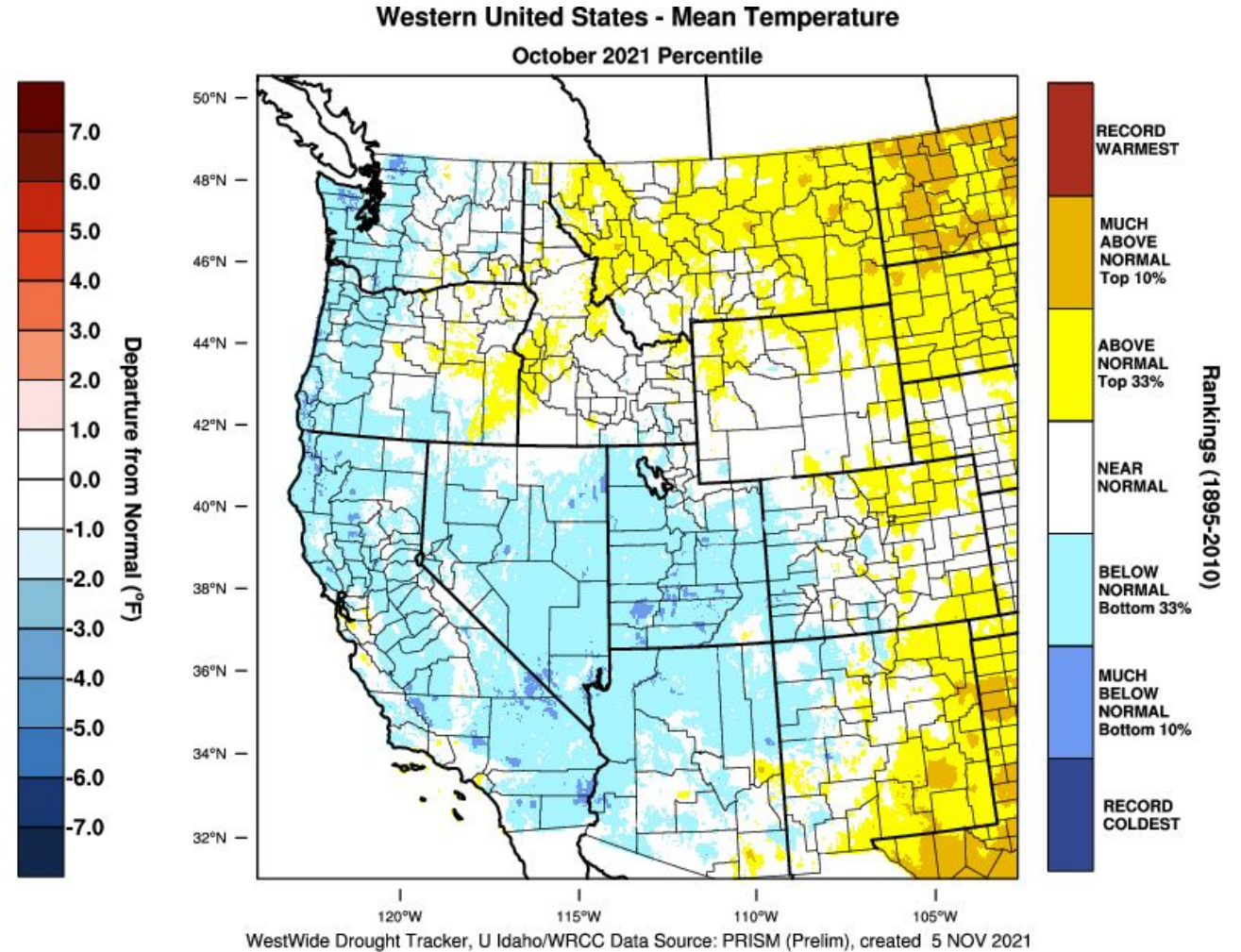
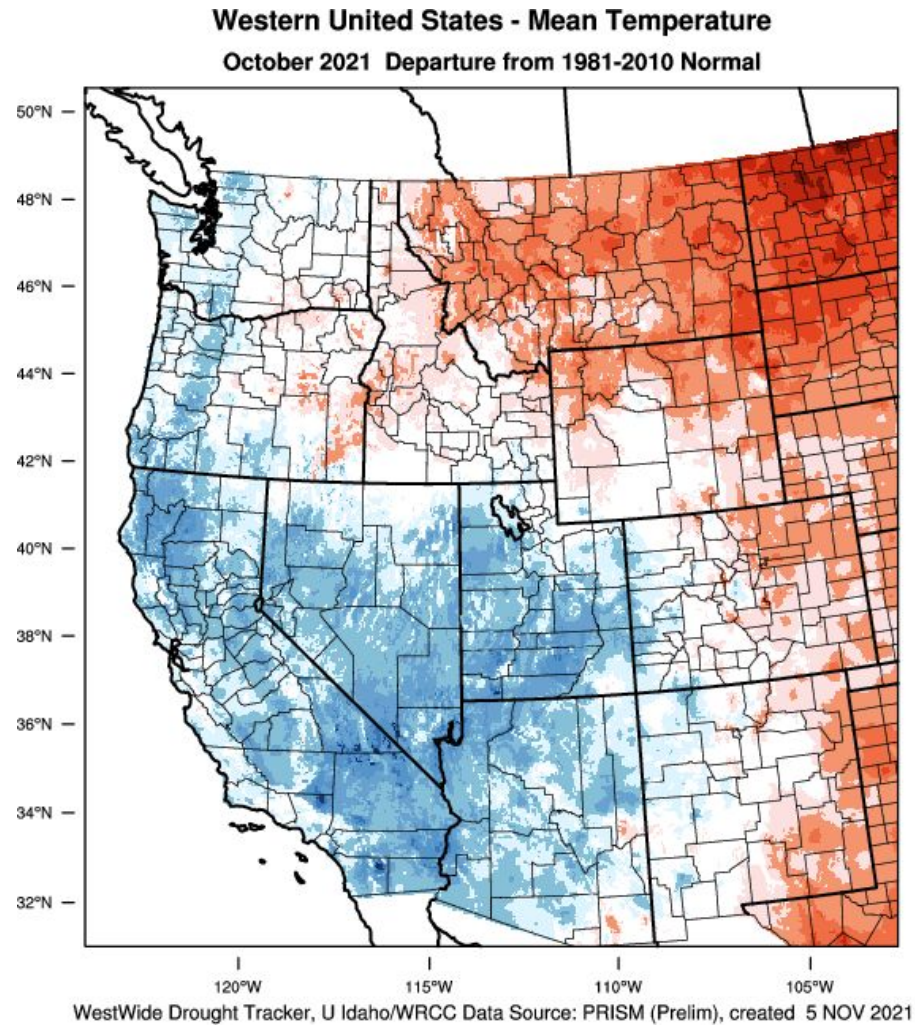




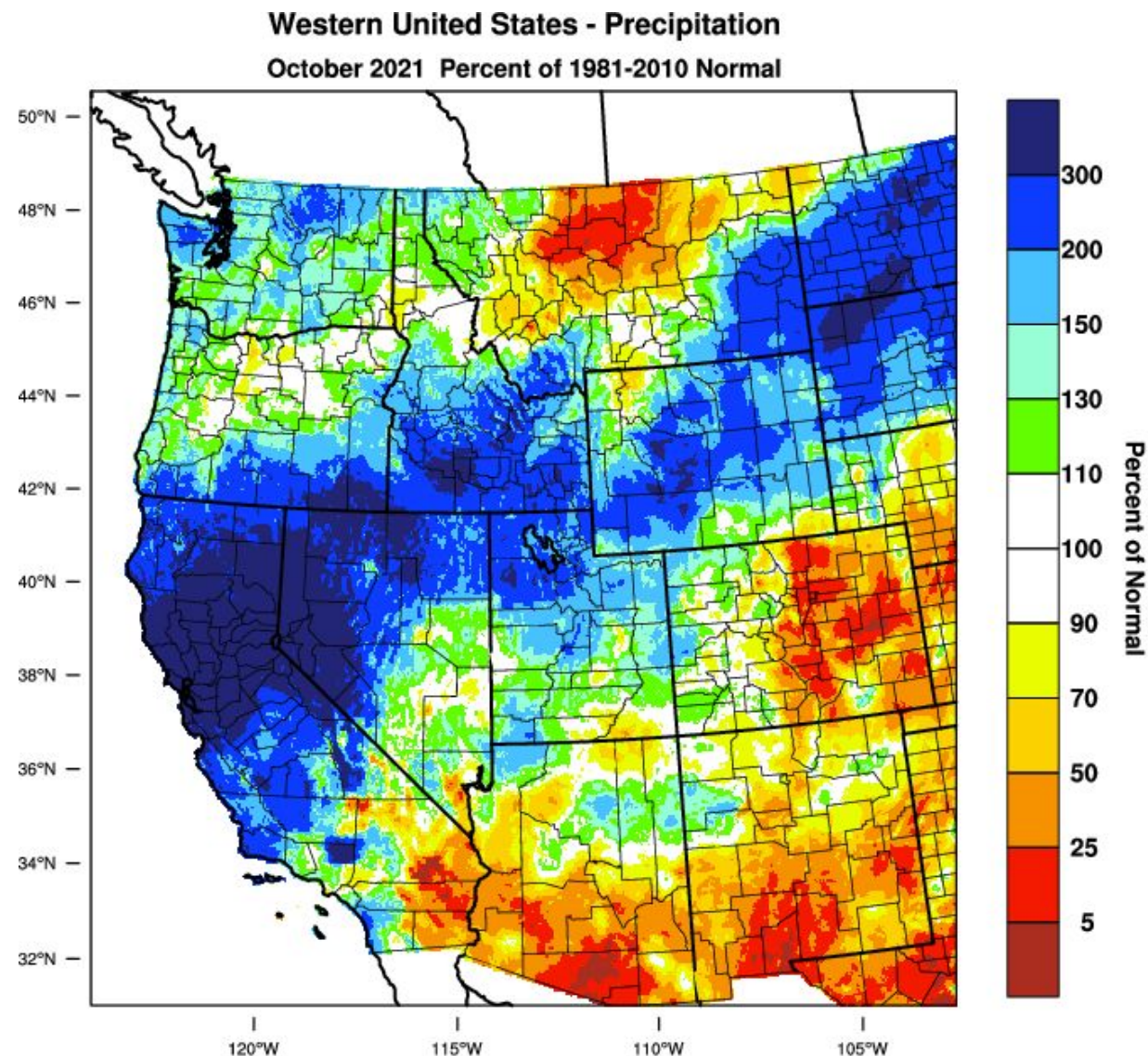
Utah Water Assessment & Conditions Monitoring Webinar

November 9, 2021

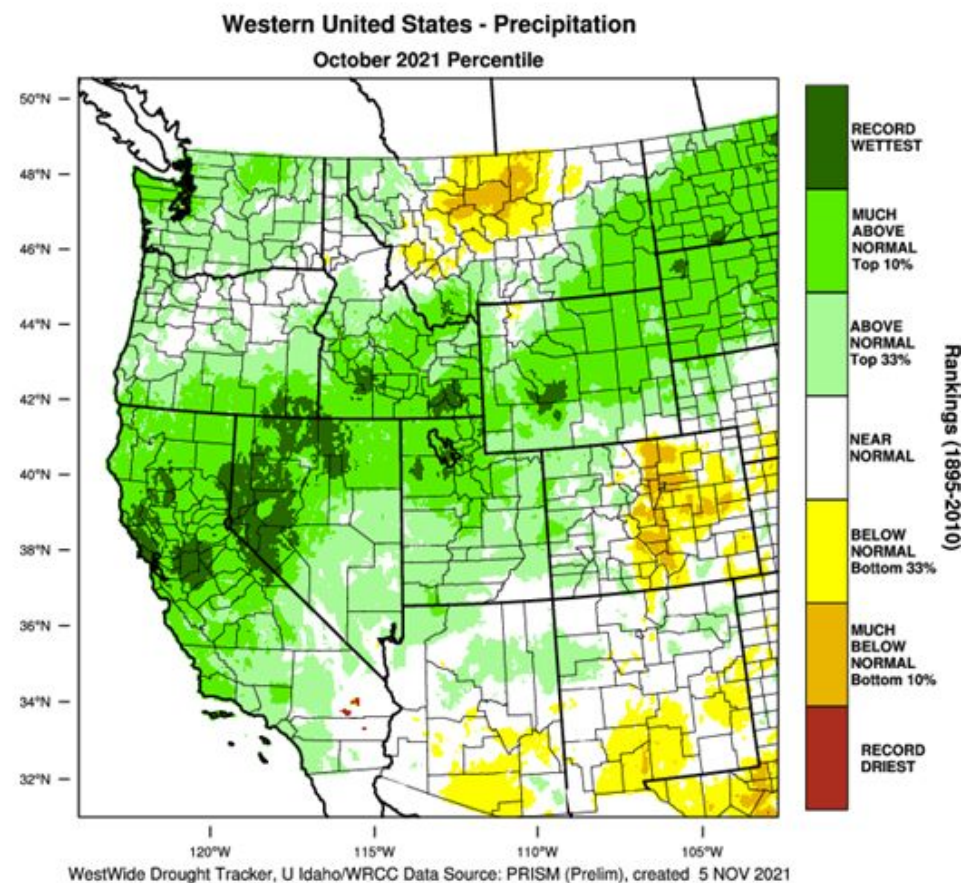
Temperature



Precipitation (Percent of Average)

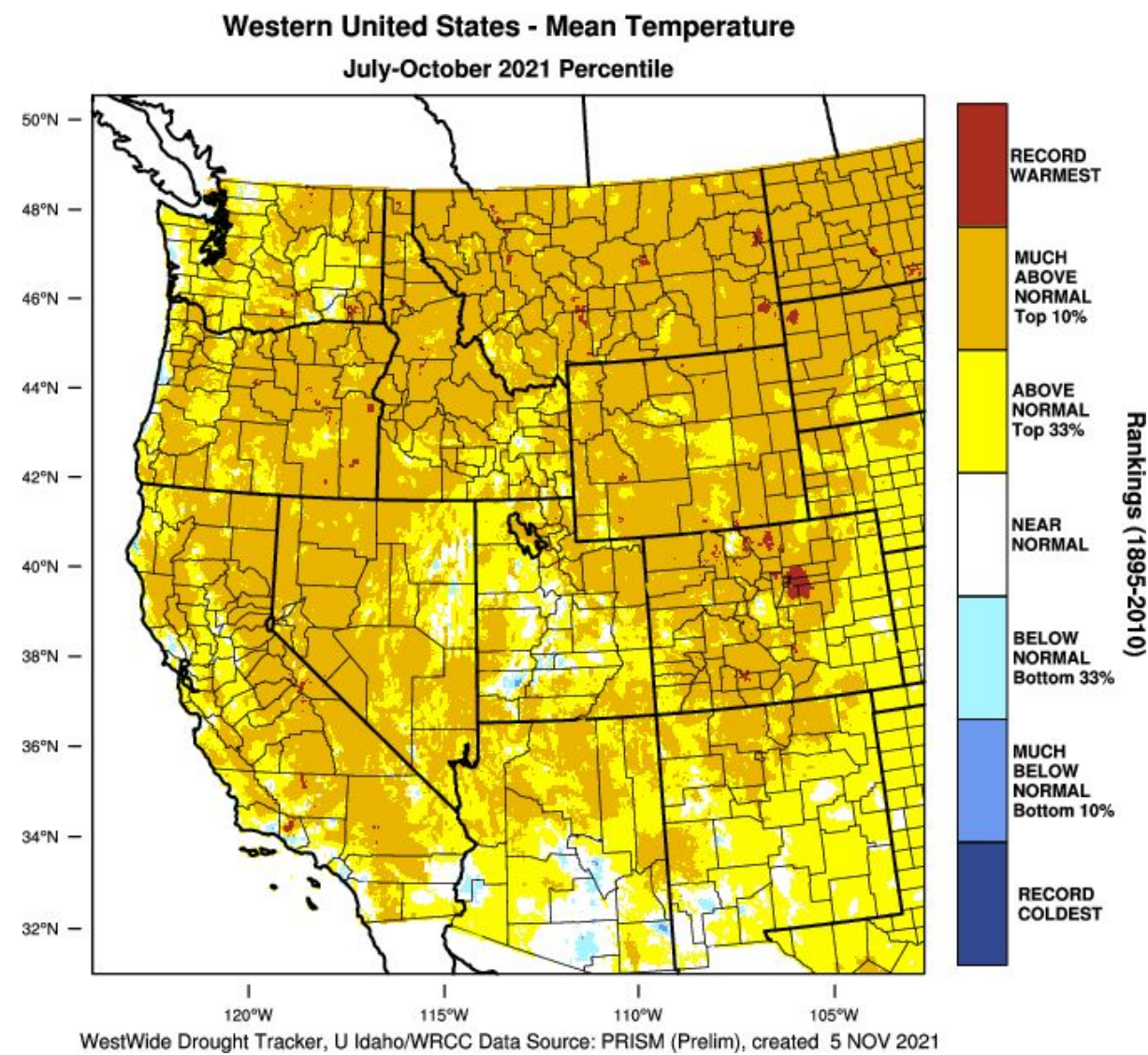
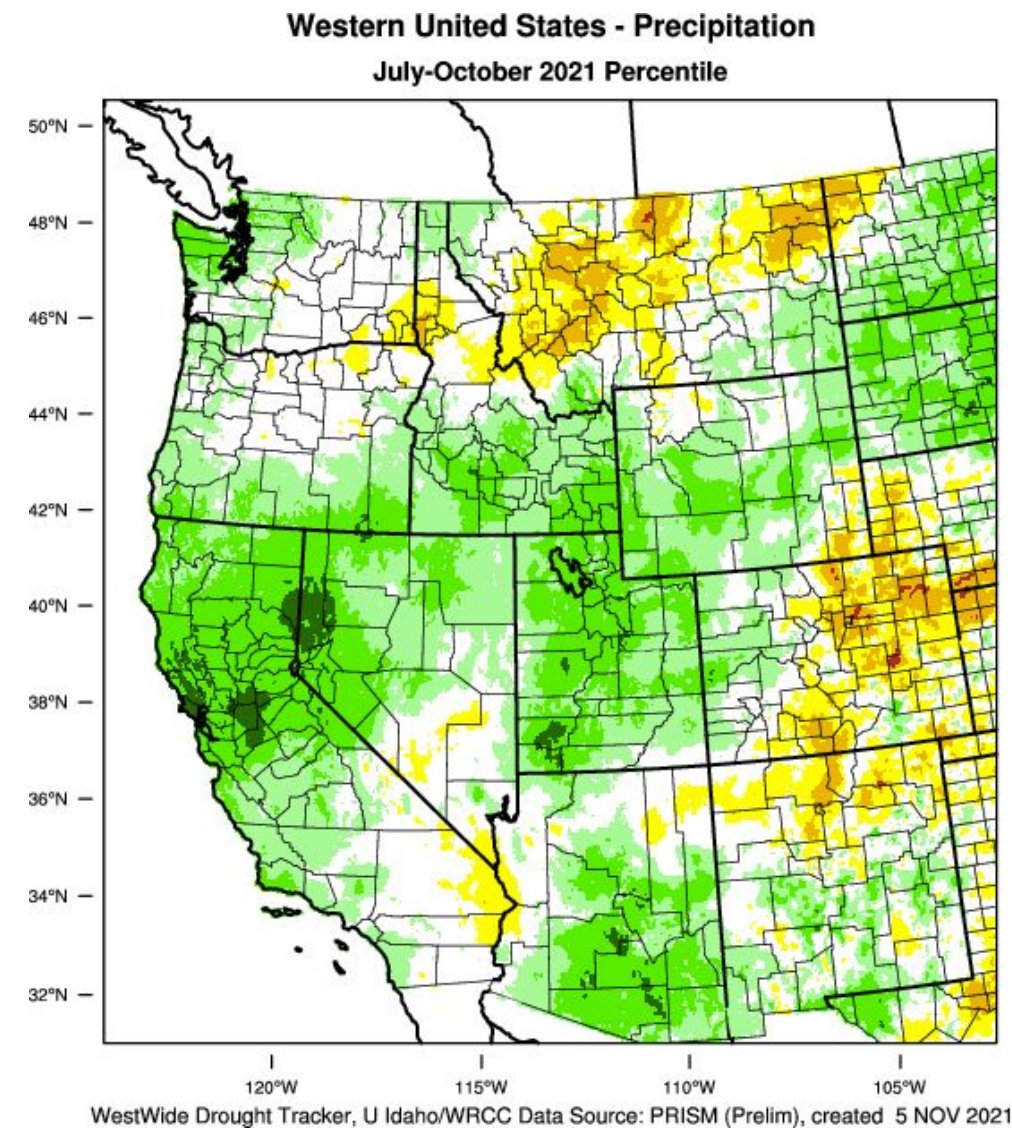


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 NOV 2021

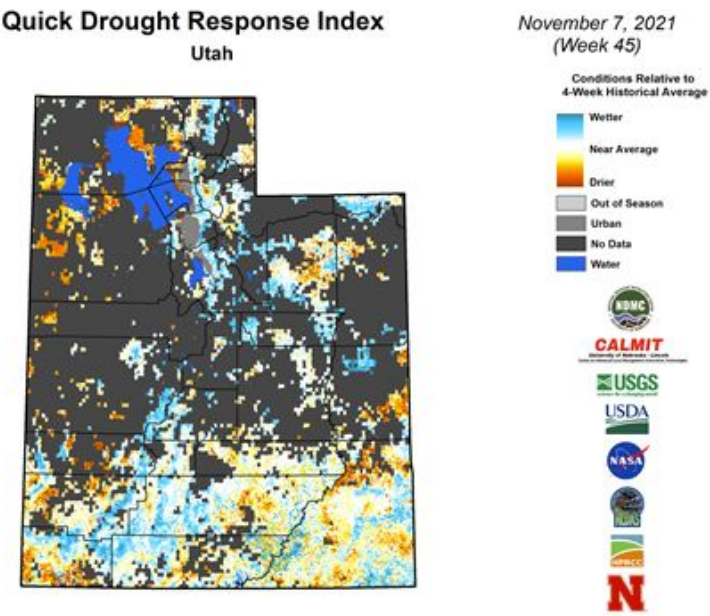
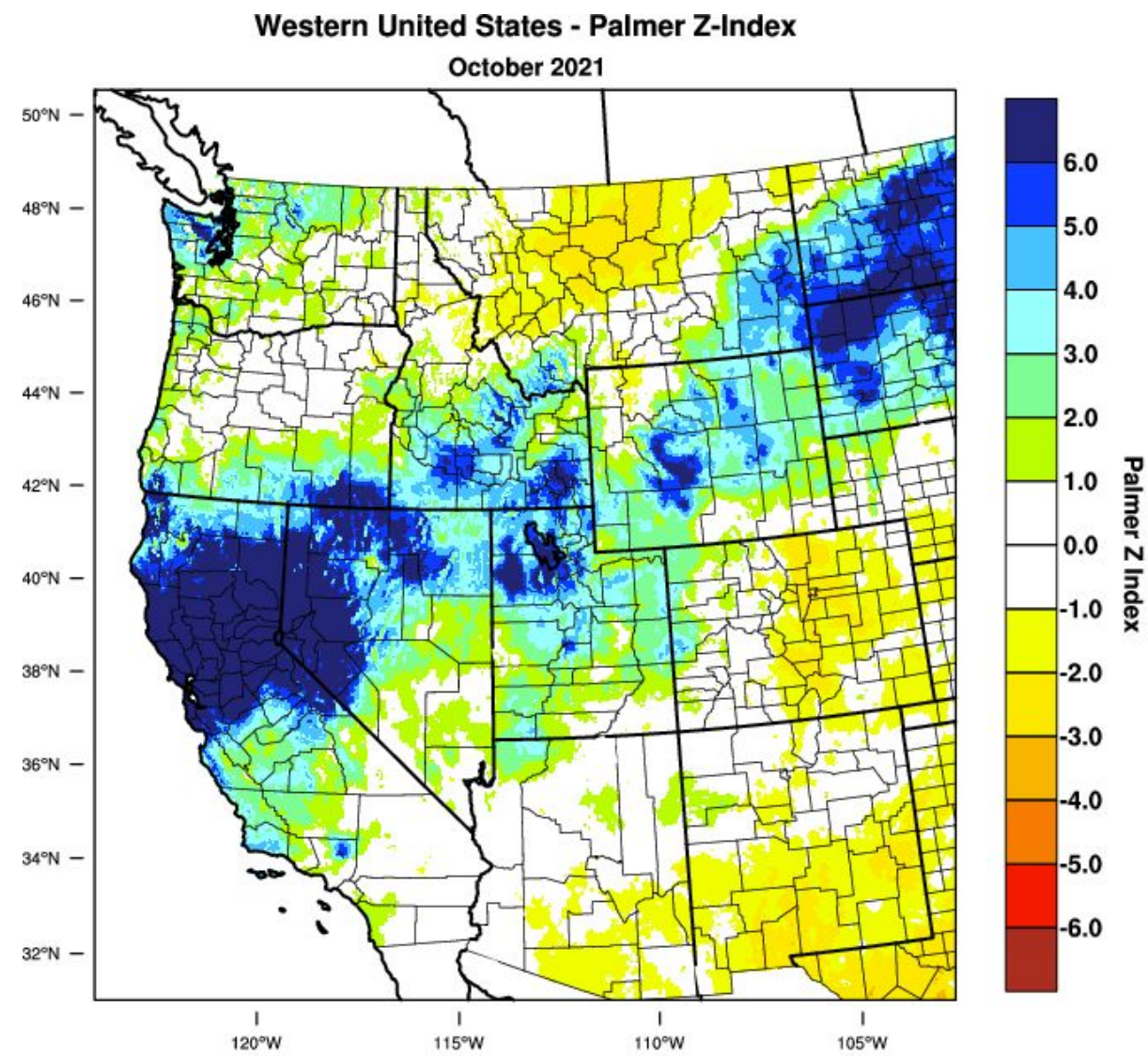


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 NOV 2021

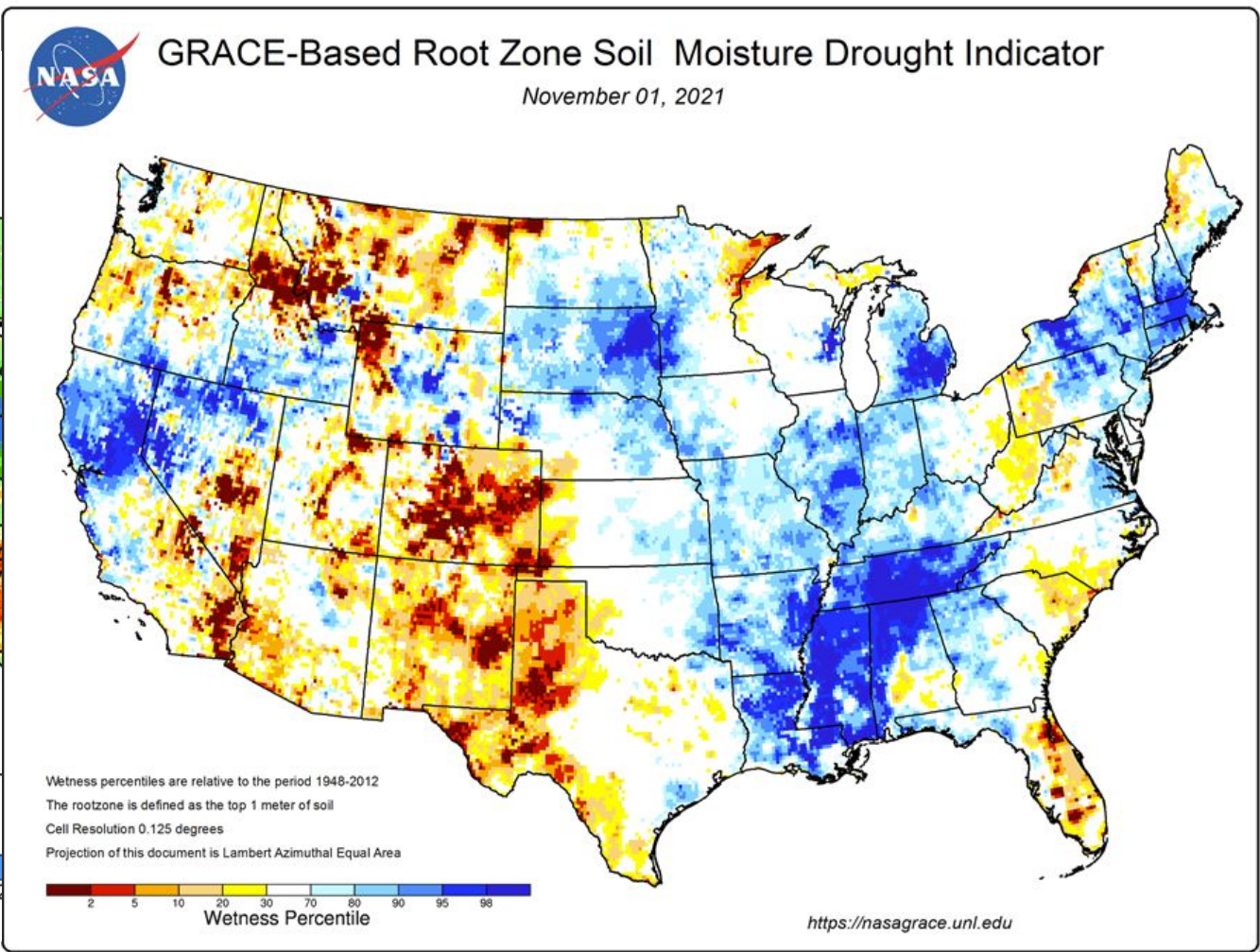
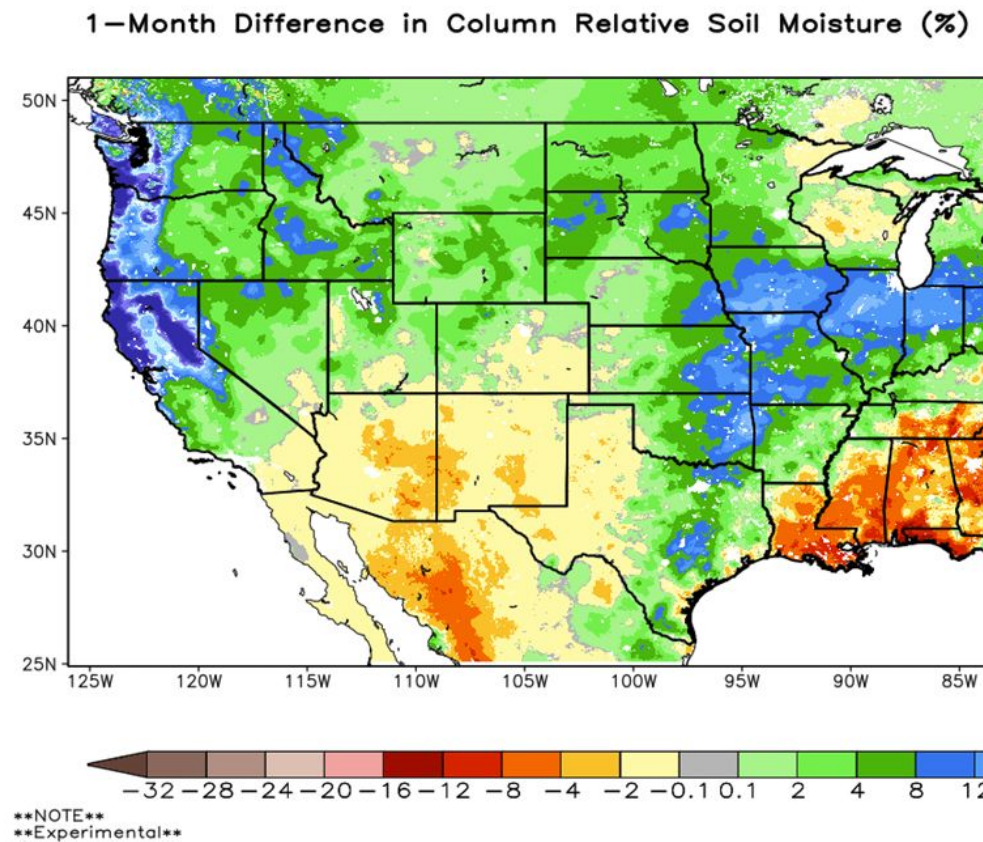
Conditions since July



Short-term drought relief



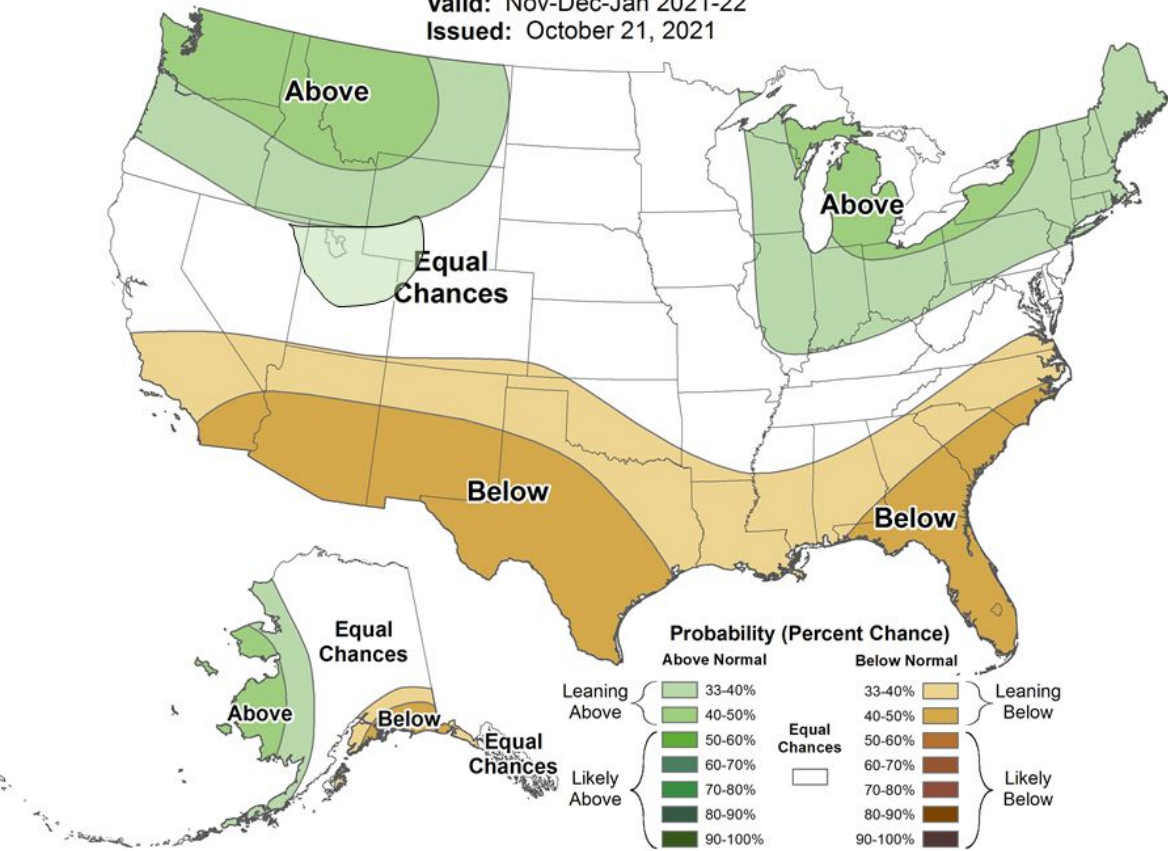
Soil Moisture Improvements Continue



CPC 3-month climate outlook

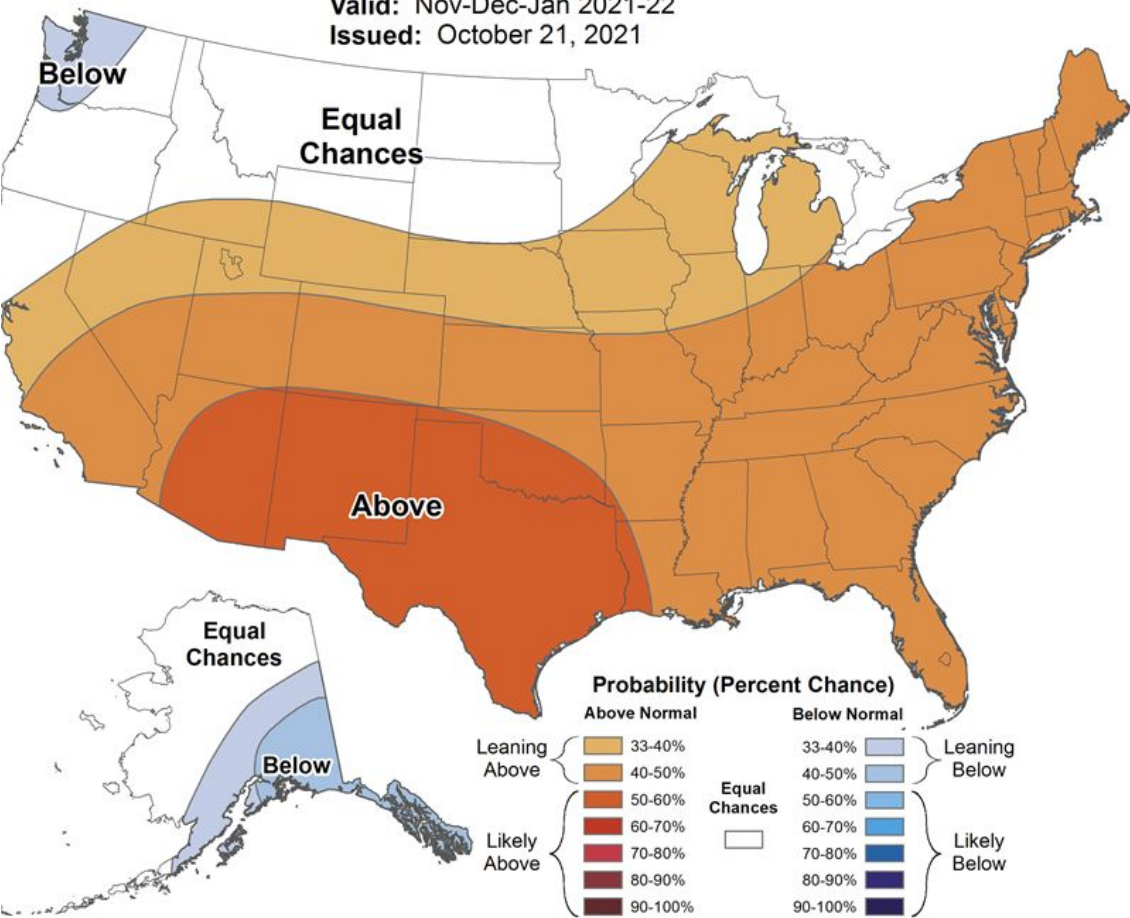
Seasonal Precipitation Outlook

Valid: Nov-Dec-Jan 2021-22
Issued: October 21, 2021

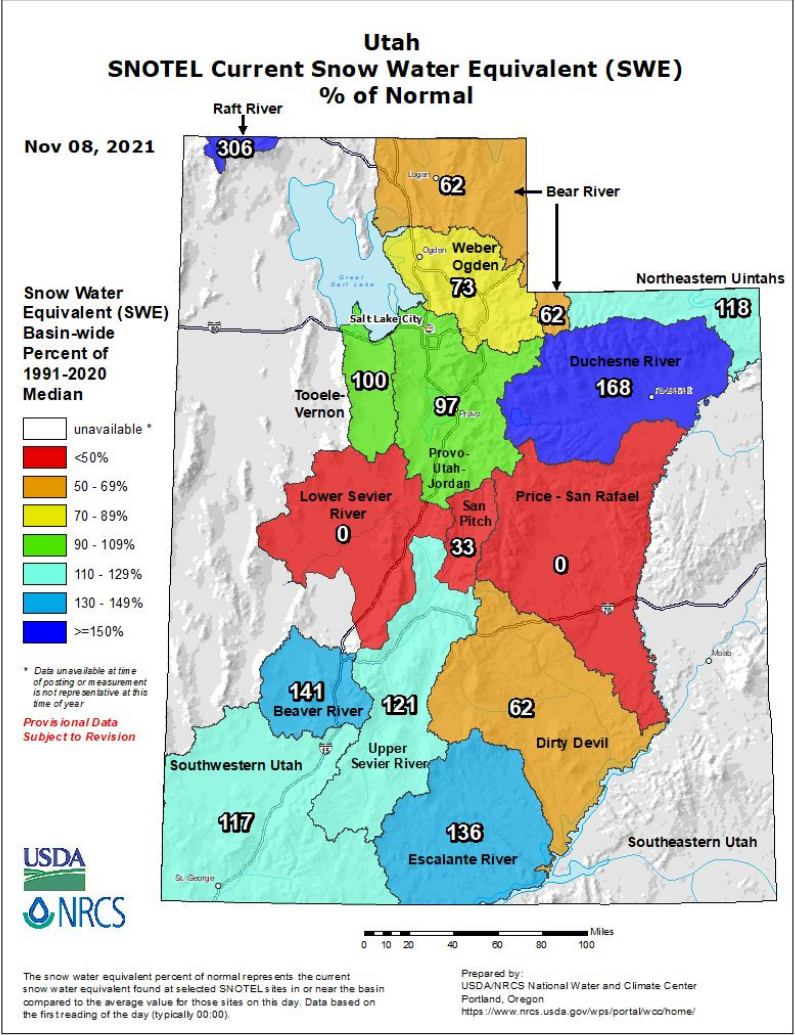
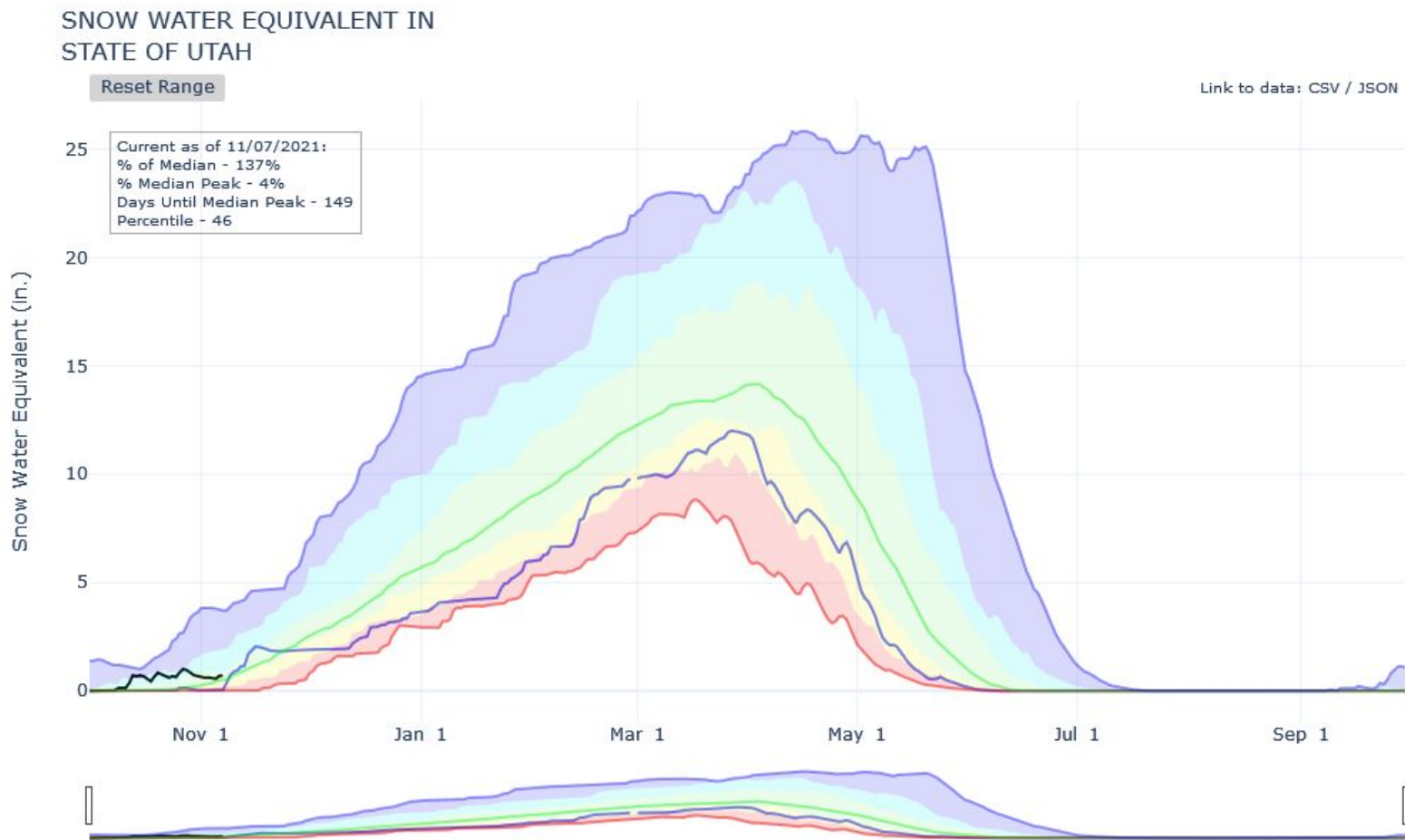


Seasonal Temperature Outlook

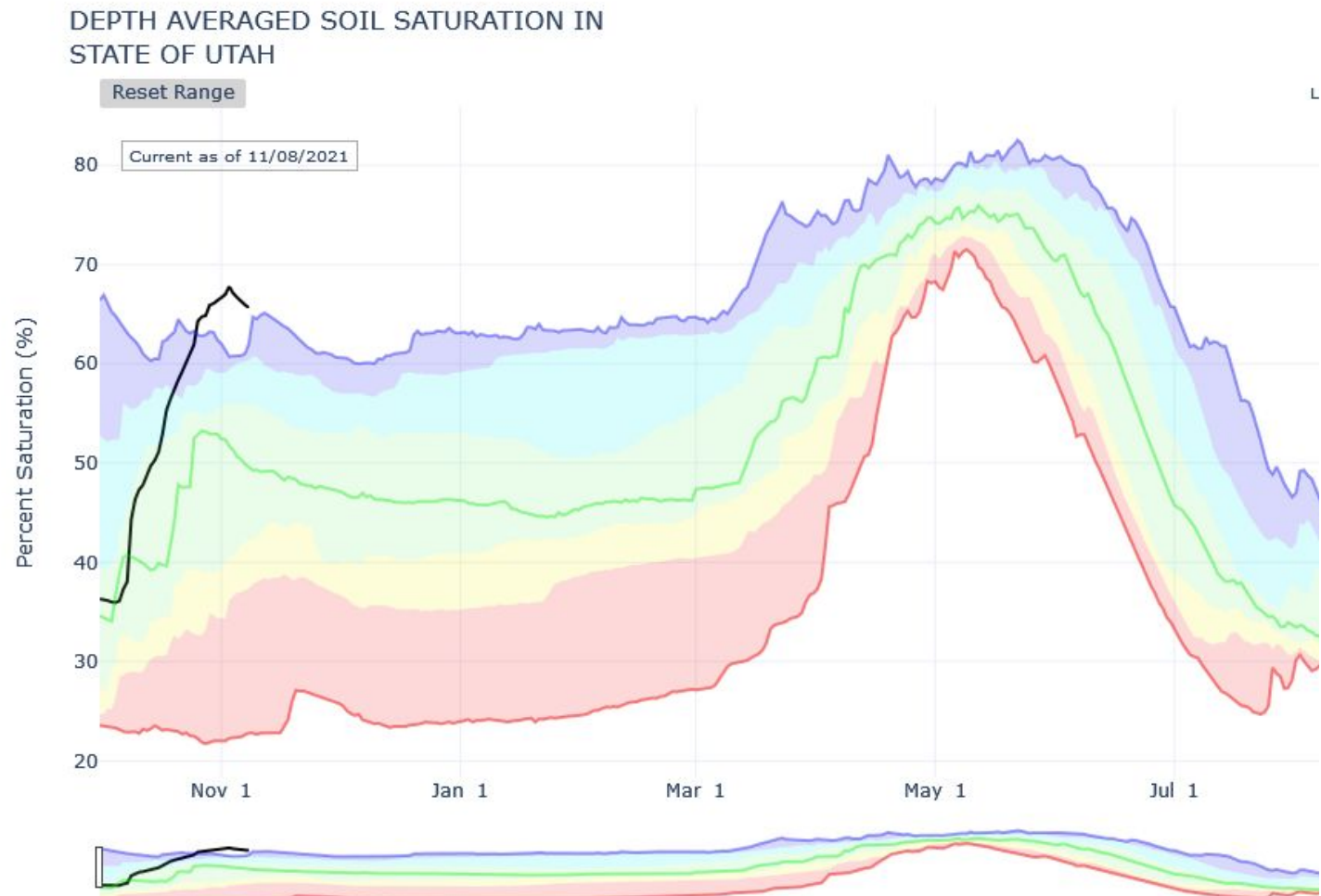
Valid: Nov-Dec-Jan 2021-22
Issued: October 21, 2021



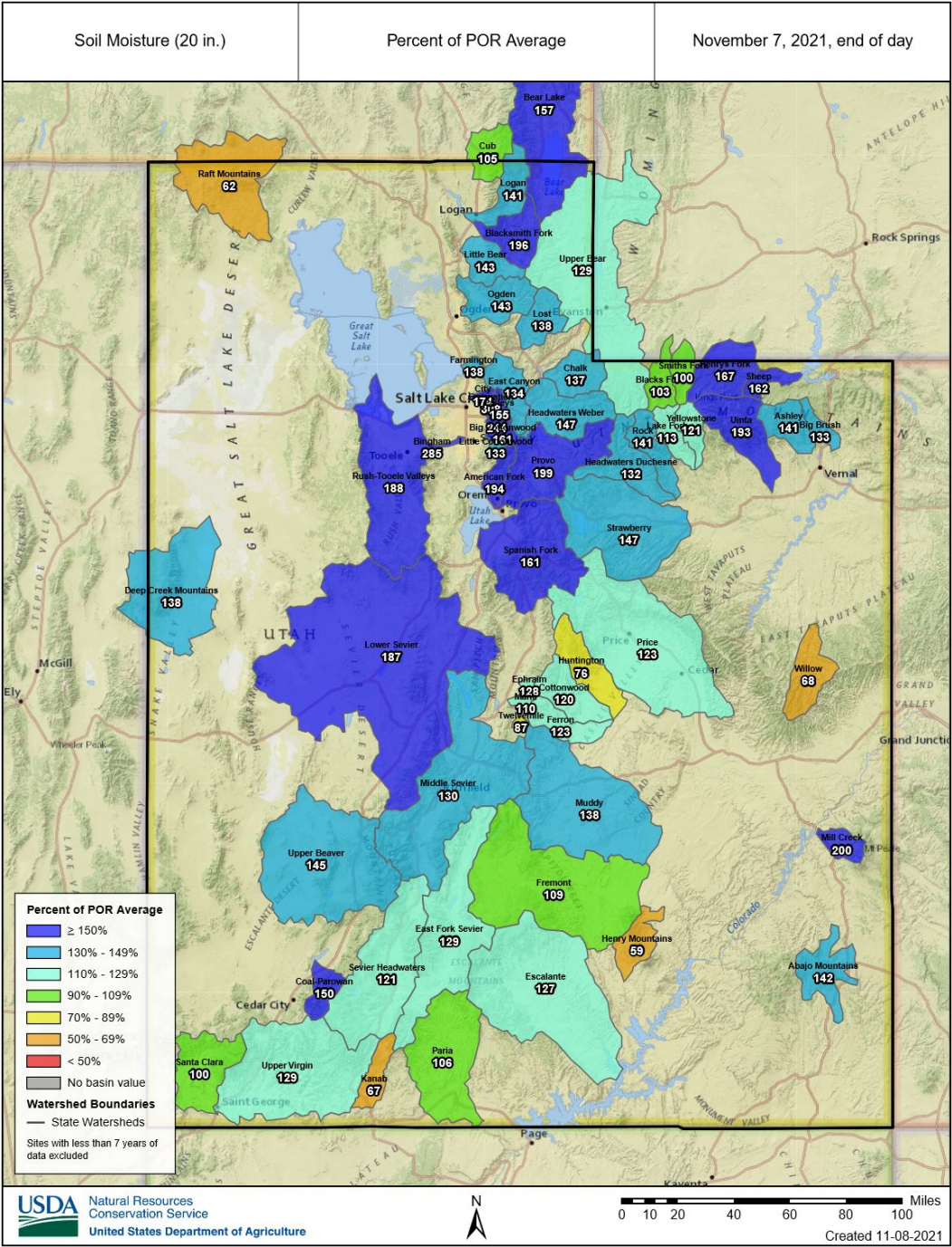
Snowpack (Water Year to date Percent of Average)

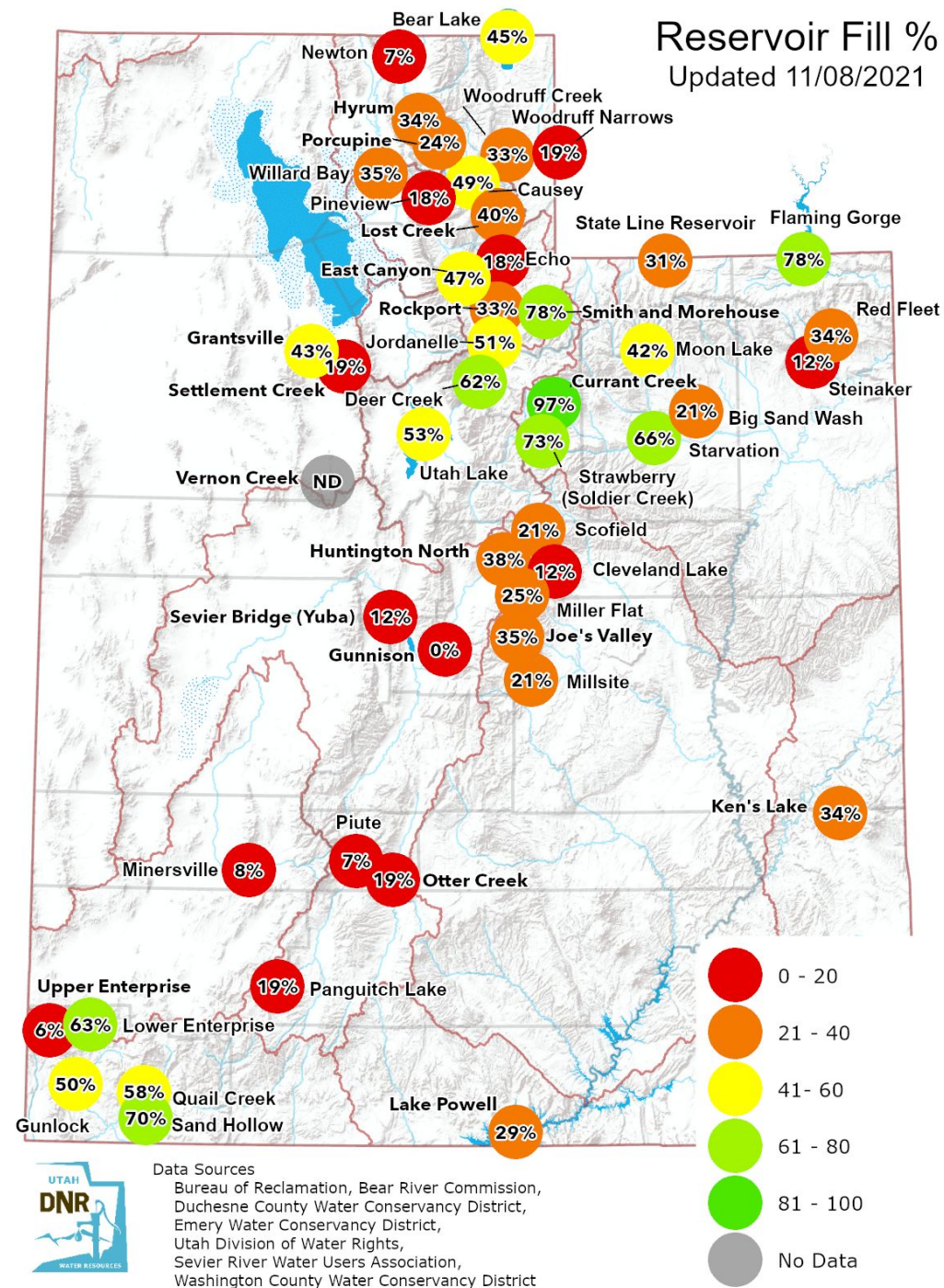


Soil Moisture (Current)

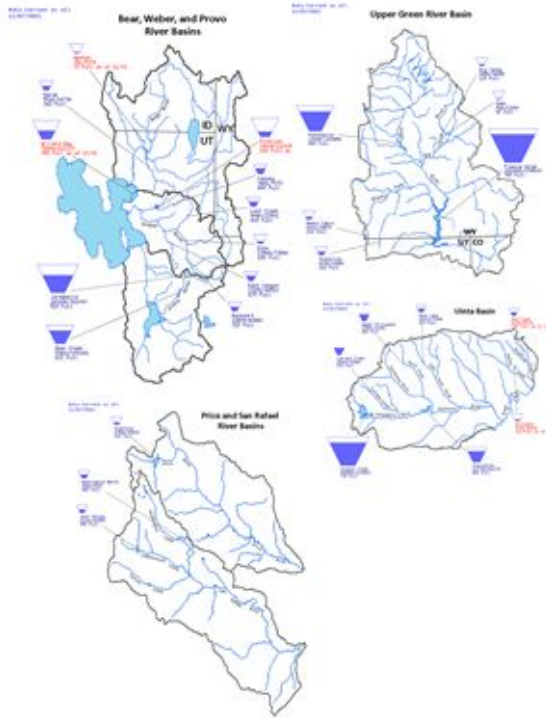


Agency - NRCS Snow Survey
Presenter - Jordan Clayton





Teacup Diagrams

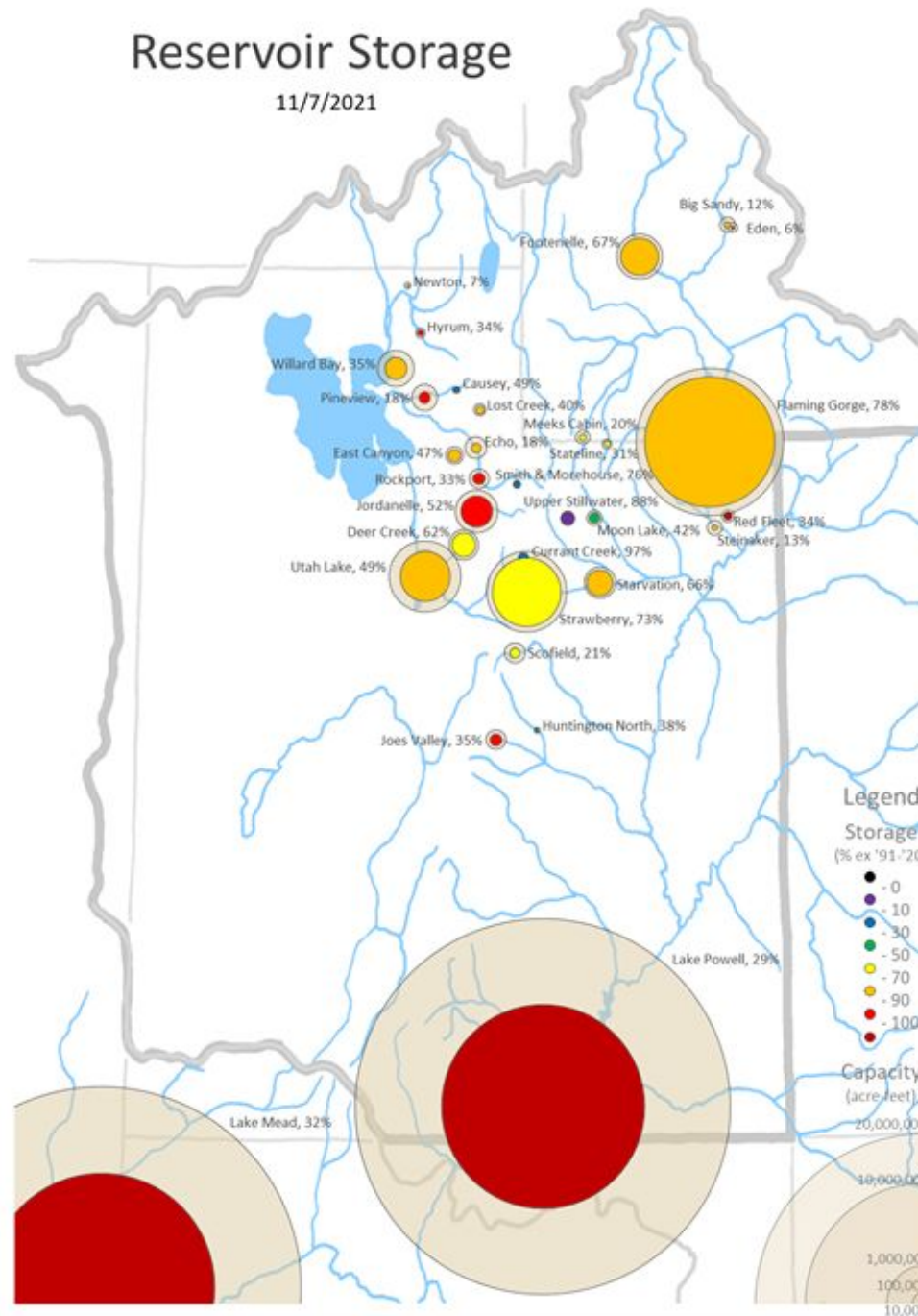


<https://www.usbr.gov/uc/water/basin/index.html>

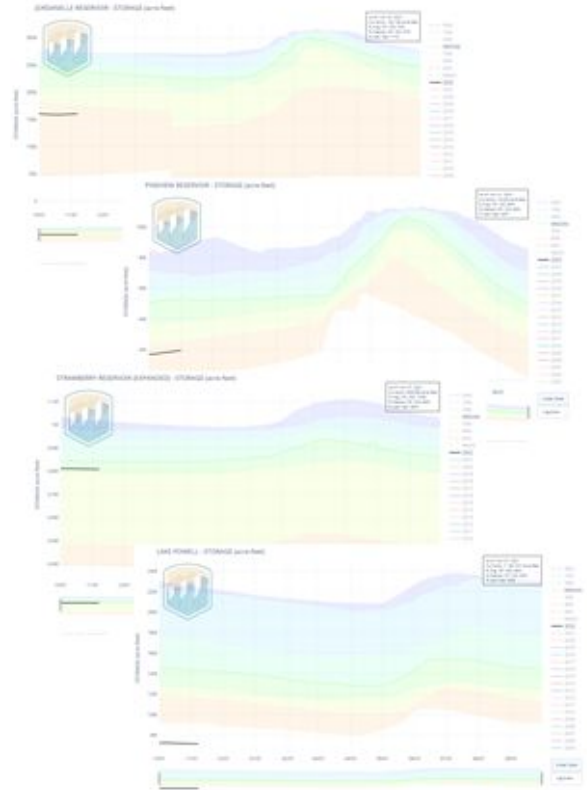
Agency - USBR Provo Area Office
Presenter - Gary Henrie

Reservoir Storage

11/7/2021



Reservoir Storage

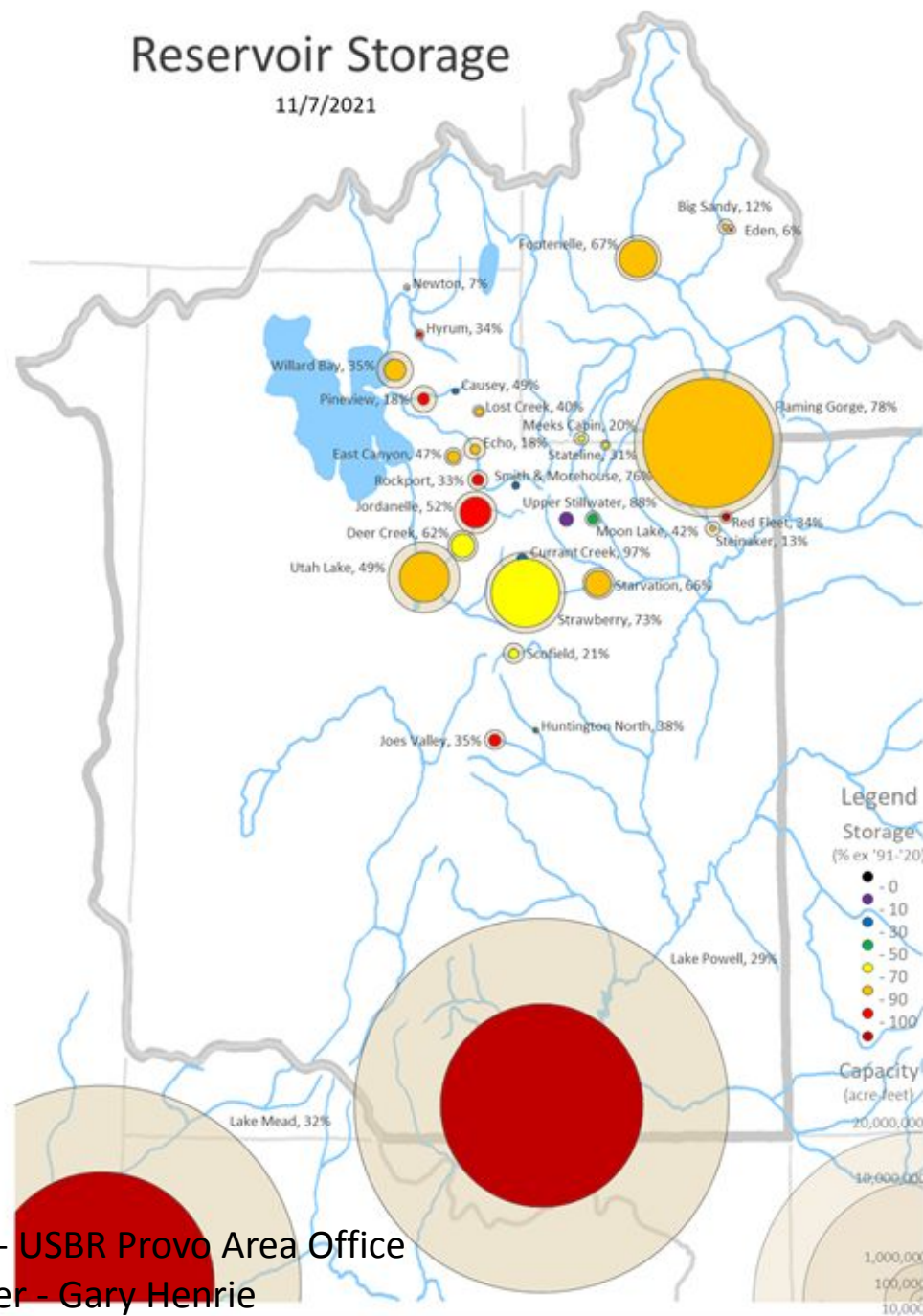


https://www.usbr.gov/uc/water/hydrodata/reservoir_data/site_map.html



Reservoir Storage

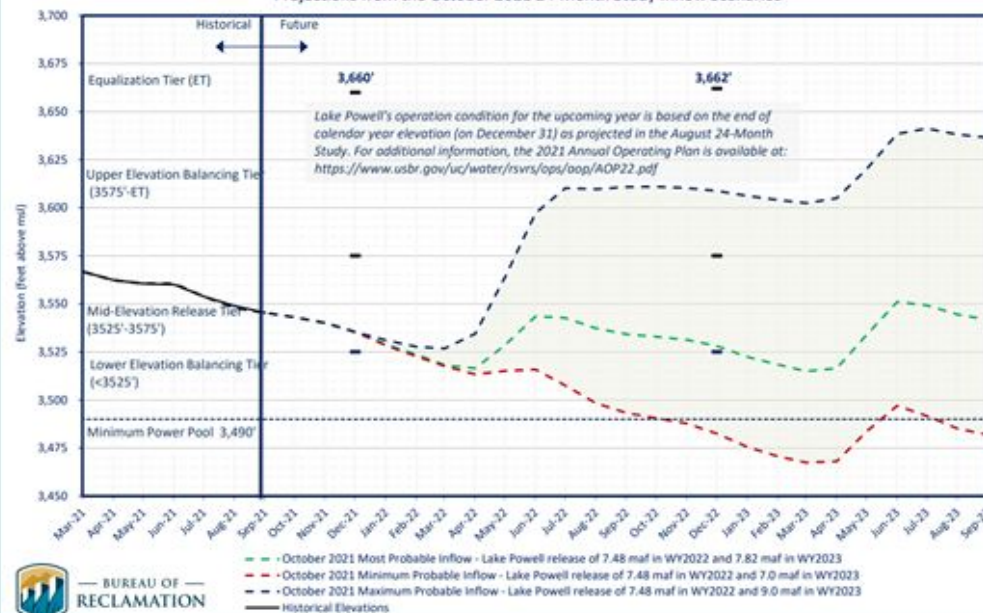
11/7/2021



Agency - USBR Provo Area Office
Presenter - Gary Henrie

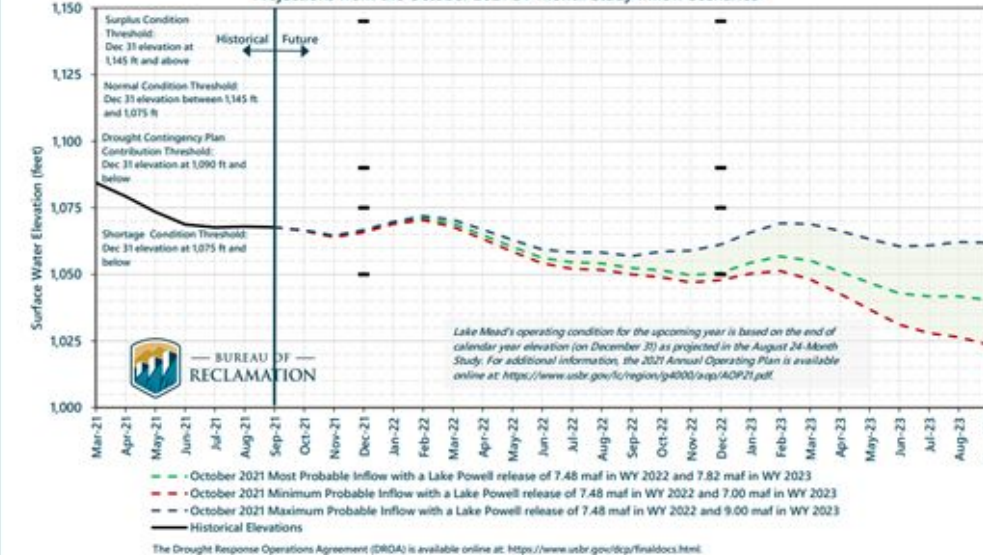
Lake Powell End of Month Elevations

Projections from the October 2021 24-Month Study Inflow Scenarios



Lake Mead End of Month Elevations

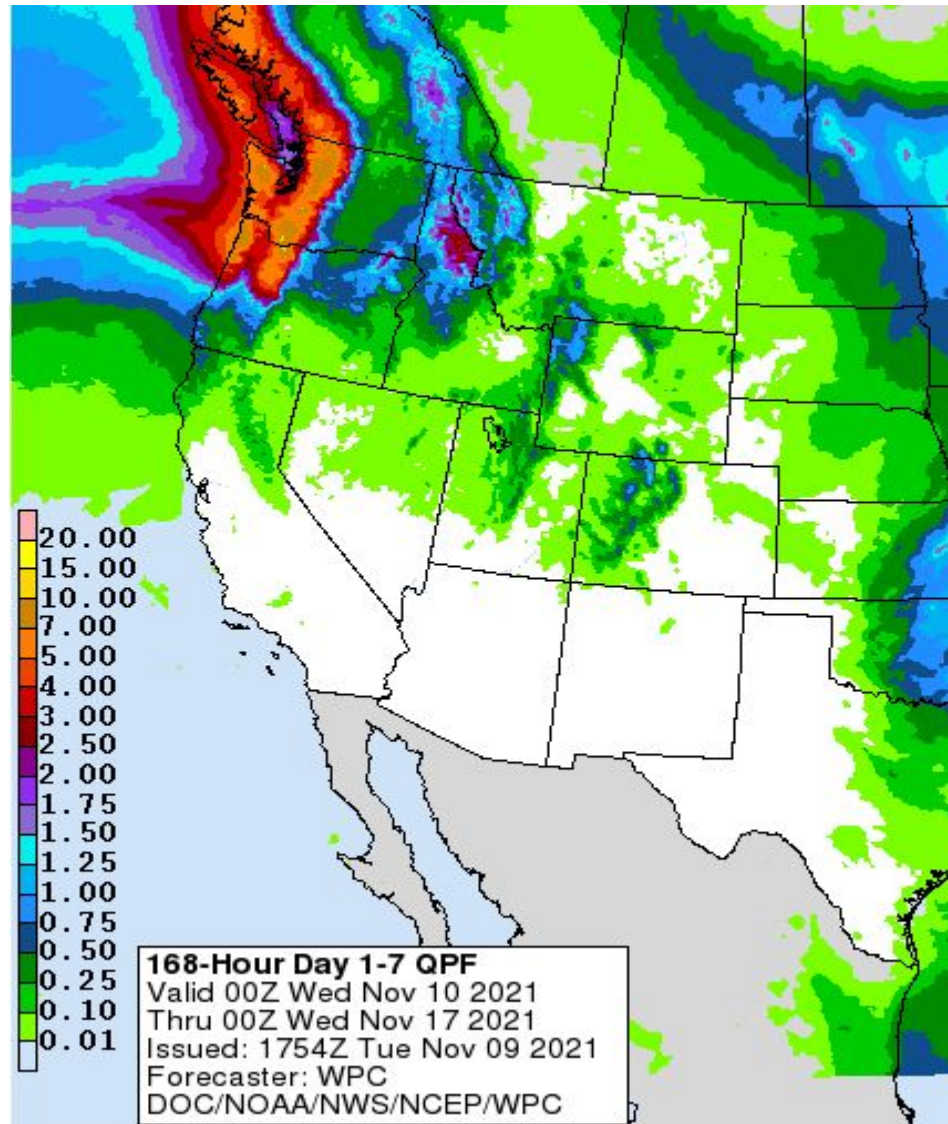
Projections from the October 2021 24-Month Study Inflow Scenarios



<https://www.usbr.gov/uc/water/crsp/studies/images/PowellElevations.pdf>



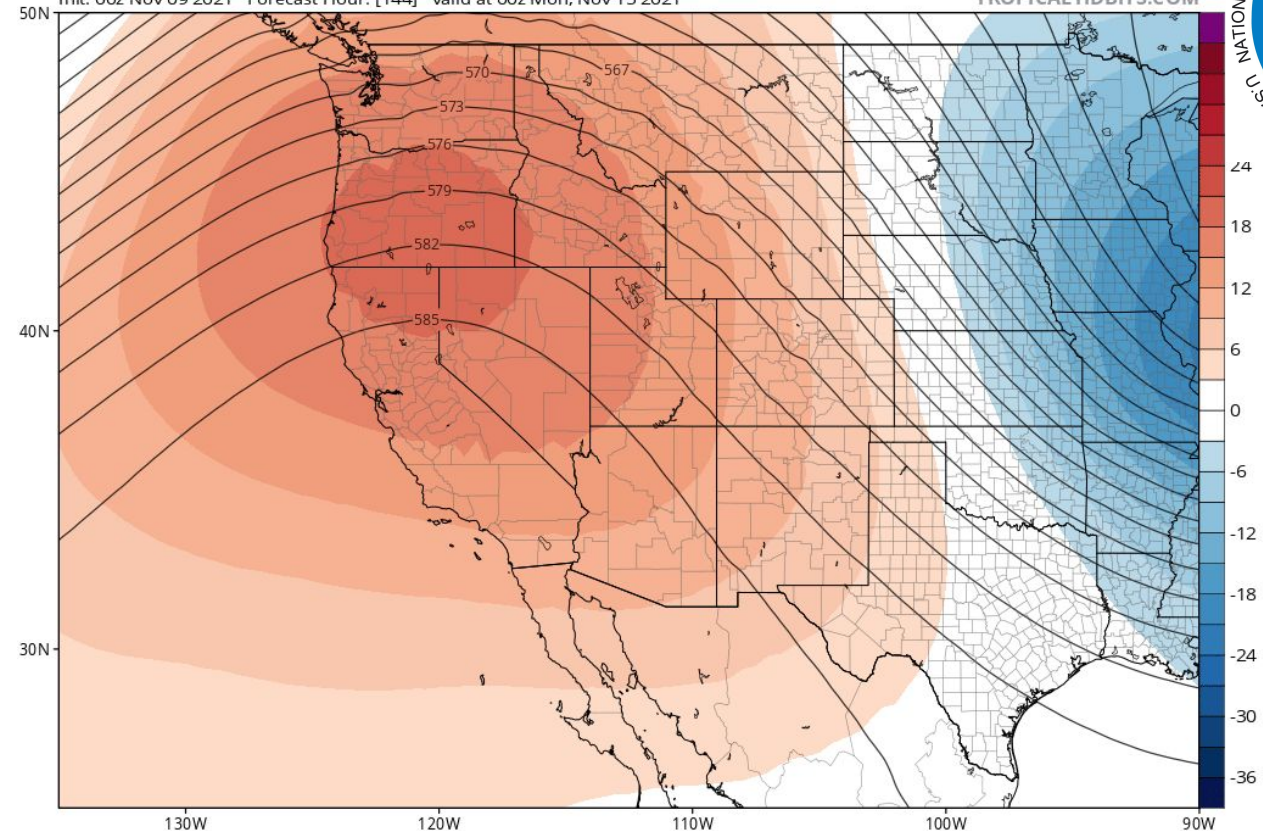
Weather Forecast Office Utah Day 1-7 Outlook



EPS 500mb Geopotential Height & Anomaly (dam) (based on CFSR 1981-2010 Climatology)

Init: 00z Nov 09 2021 Forecast Hour: [144] valid at 00z Mon, Nov 15 2021

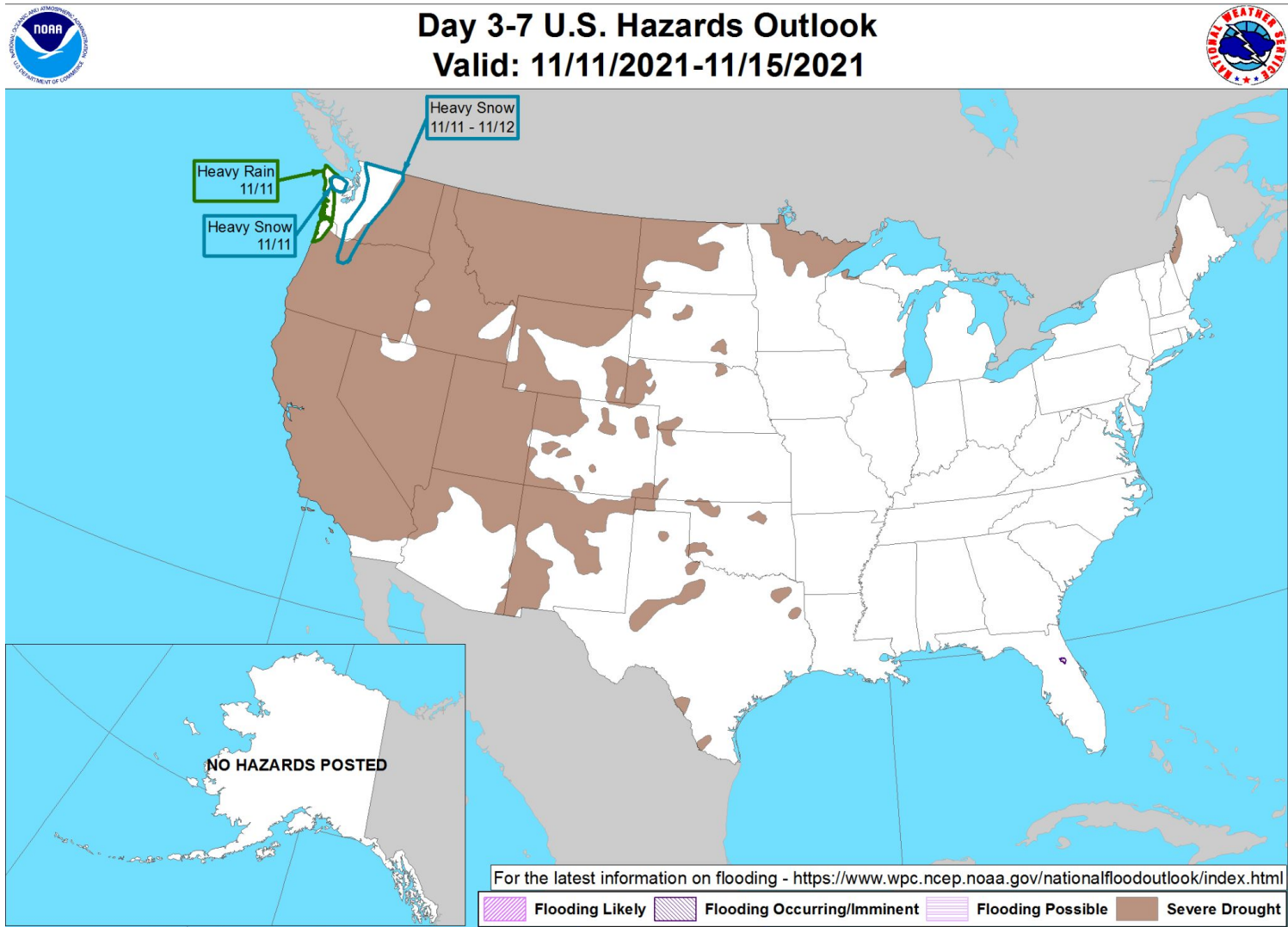
TROPICALTIDBITS.COM



- Quick hitting storm today - tonight. Northern mountains largely 4-8" snow above 8000ft, with locally higher amounts up to 12".
- High pressure builds in late week into early next week. Temps 5-10 degrees above normal
- Uncertainty exists regarding trough evolution heading into midweek next week.



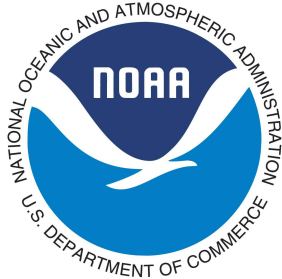
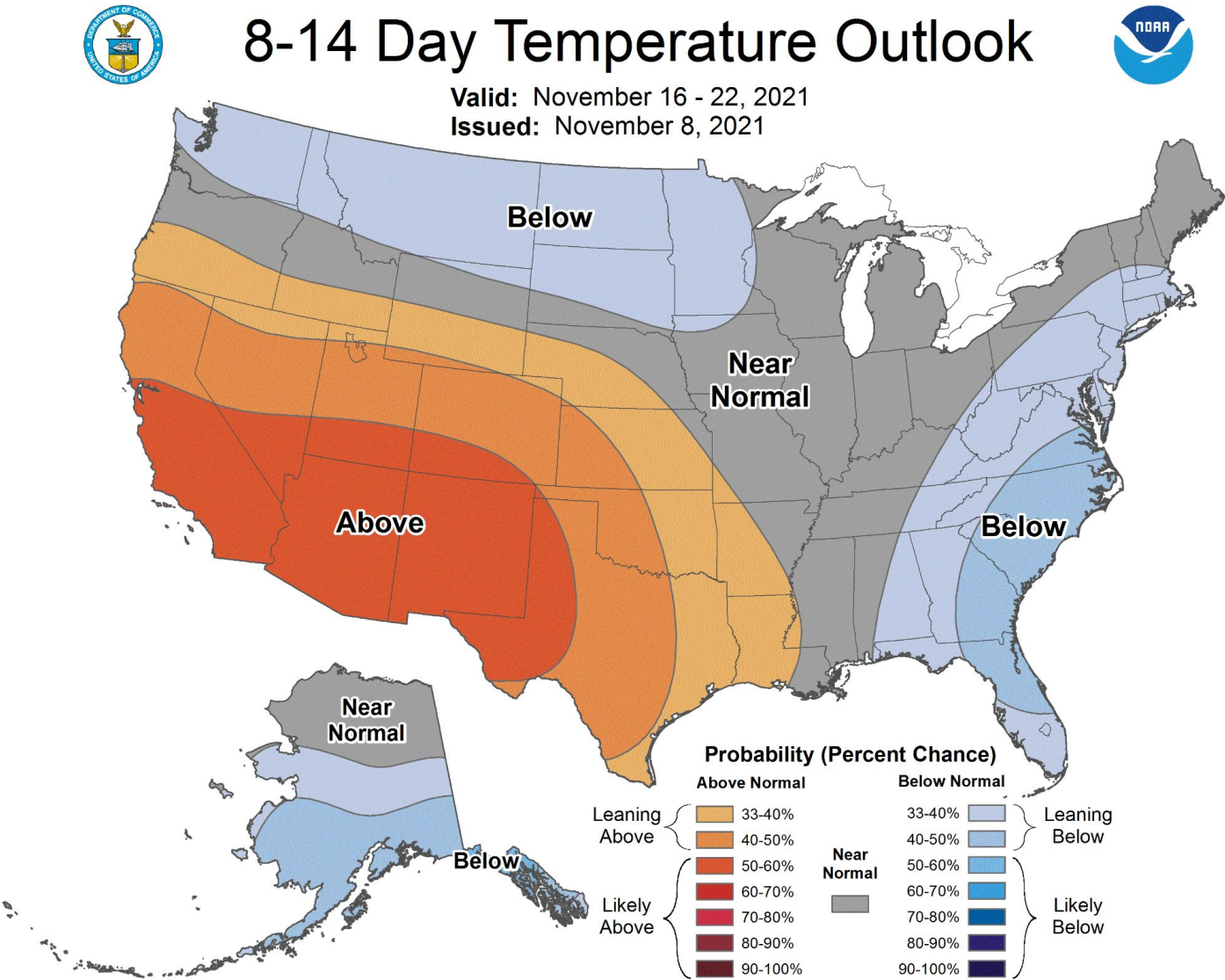
Weather Prediction Center U.S. Day 3-7 Hazards Outlook



Weather Prediction Center
Made: 11/08/2021 3PM EST

Follow us: www.facebook.com/WeatherPredictionCenter
www.wpc.ncep.noaa.gov

Climate Prediction Center 8 to 14 Day Outlooks - Temperature



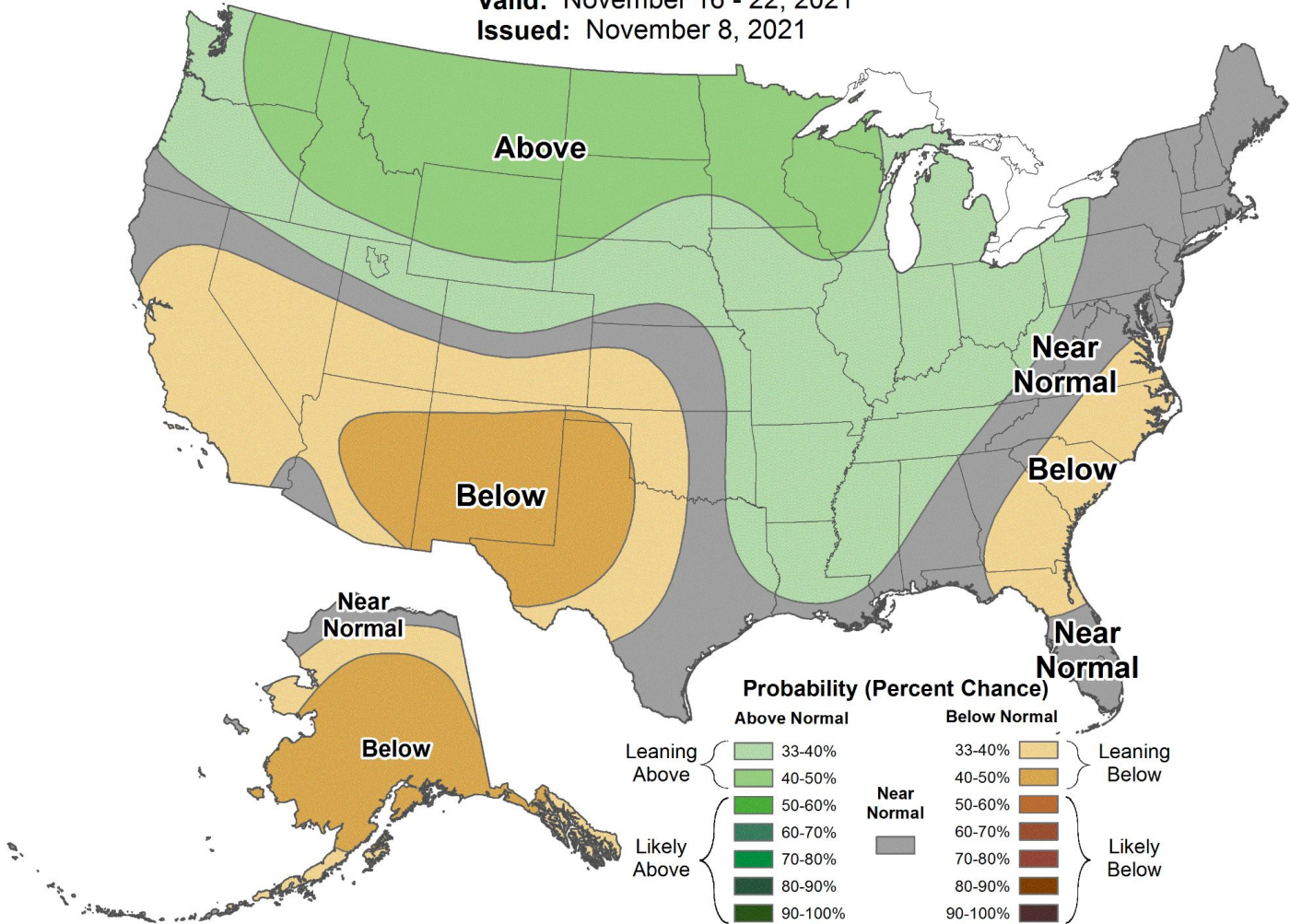
Climate Prediction Center 8 to 14 Day Outlooks - Precipitation



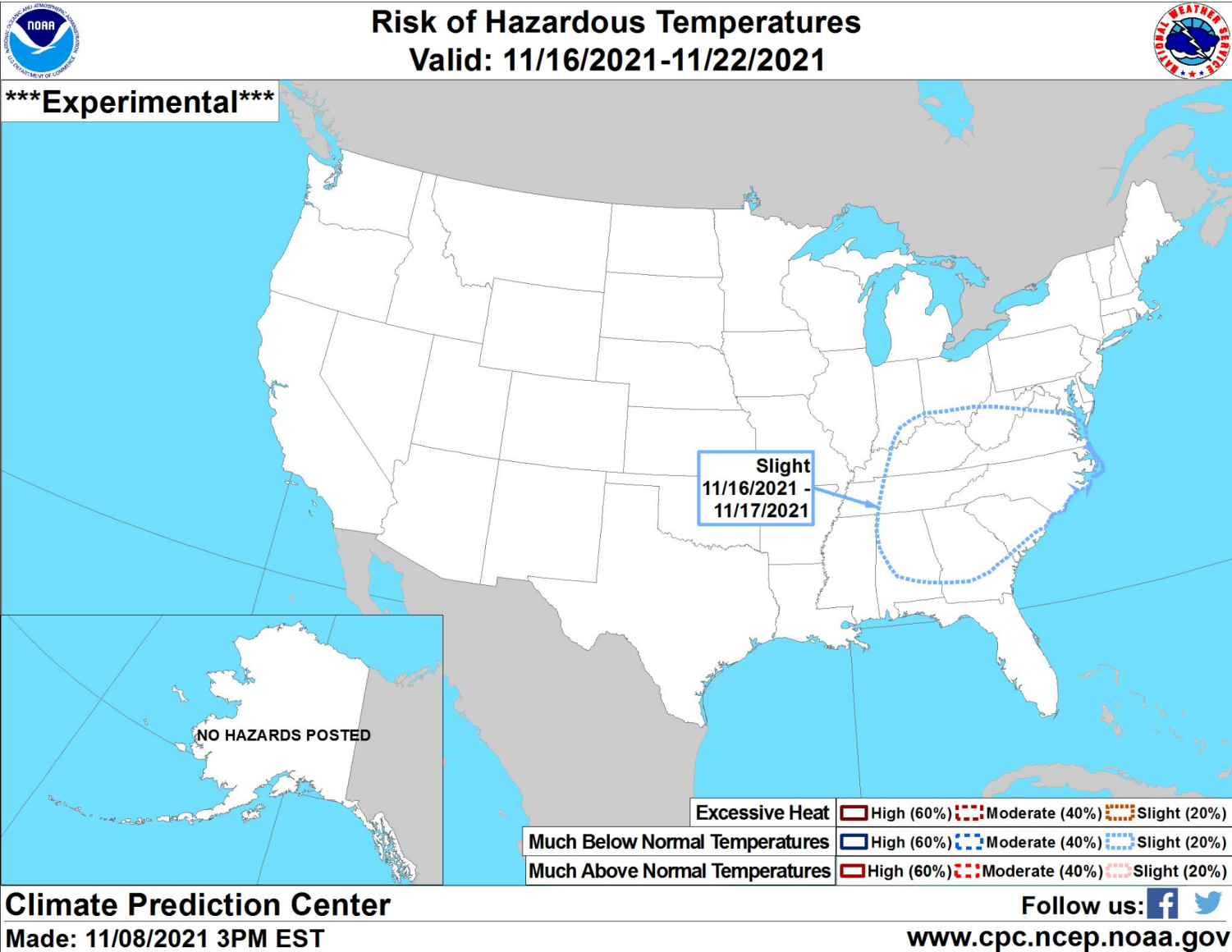
8-14 Day Precipitation Outlook



Valid: November 16 - 22, 2021
Issued: November 8, 2021



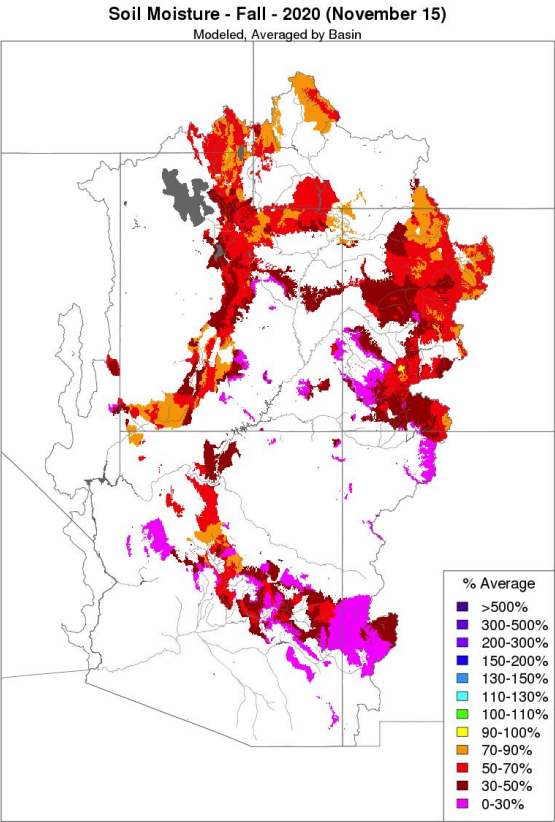
Climate Prediction Center U.S. Week-2 Hazards Outlook



Water Supply Forecasts Resume January 1, 2022

Our Initialized Gridded Soil Moisture Map will be published November 16th. This is our annual model tuning activity once all consumptive agricultural uses have finished and seasonal precipitation affects and primes the basins for winter. Adjusting the models tanks before winter precipitation begins in earnest, translates to better water supply forecast come spring 2022 as higher soil moistures lead to more efficient runoff.

Fall 2020

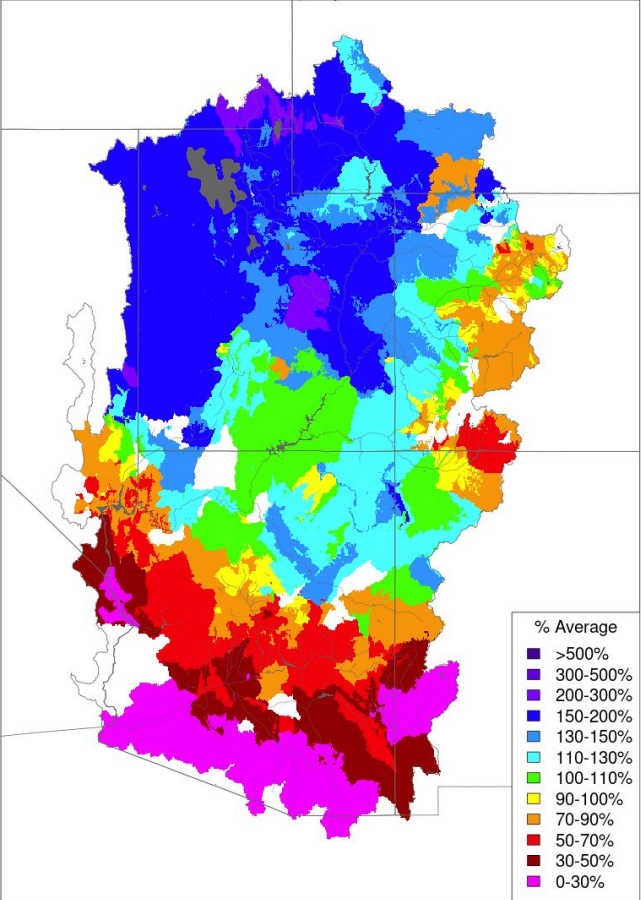


Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

Fall 2021
Precipitation

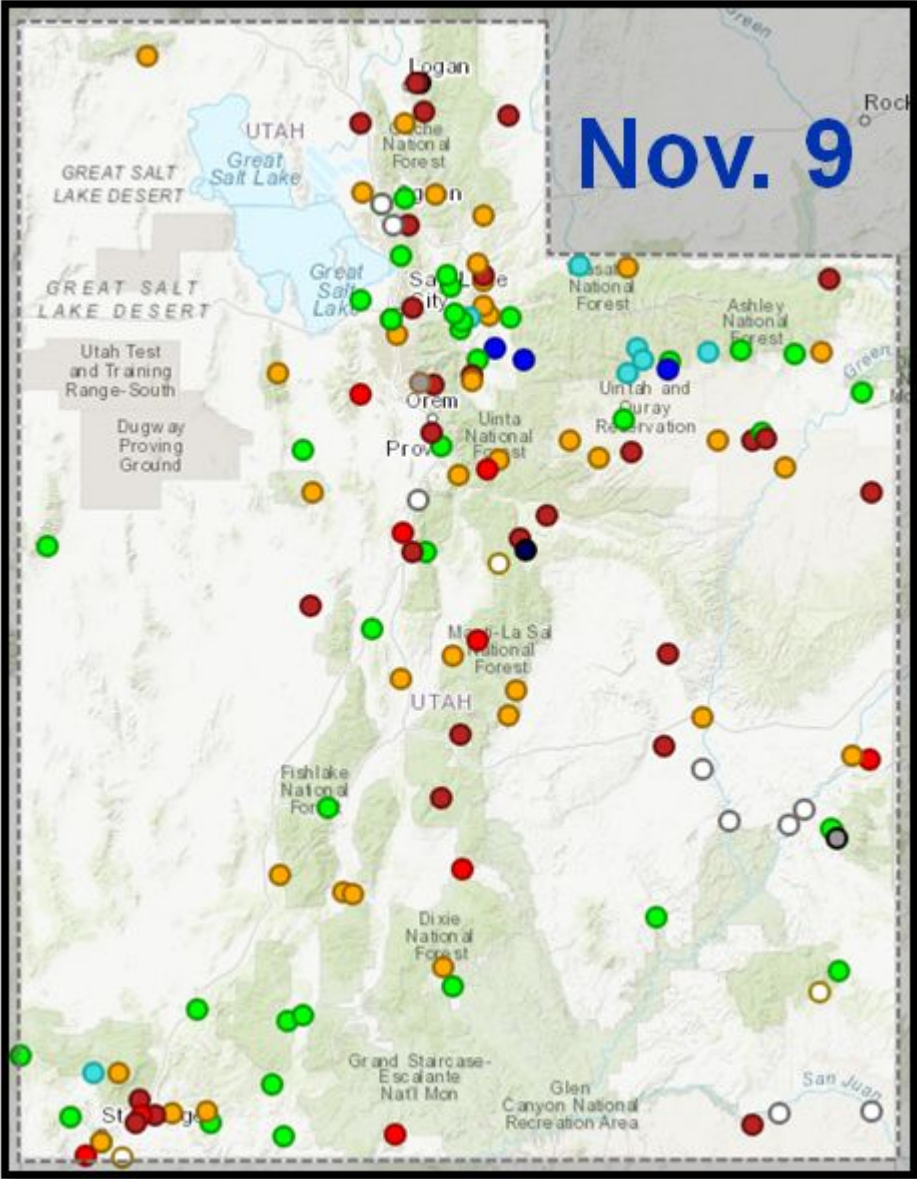
Given the following pattern, when the Fall 2021 Soil Moisture Map is published next week we anticipate that it will be a big improvement over fall 2020 due to the active monsoon and above average precipitation since late August 2021 should show a marked improvement over fall 2020.

Seasonal to Date Precipitation, October 01 - November 09 2021
Averaged by Basin



Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

Current Streamflow Conditions

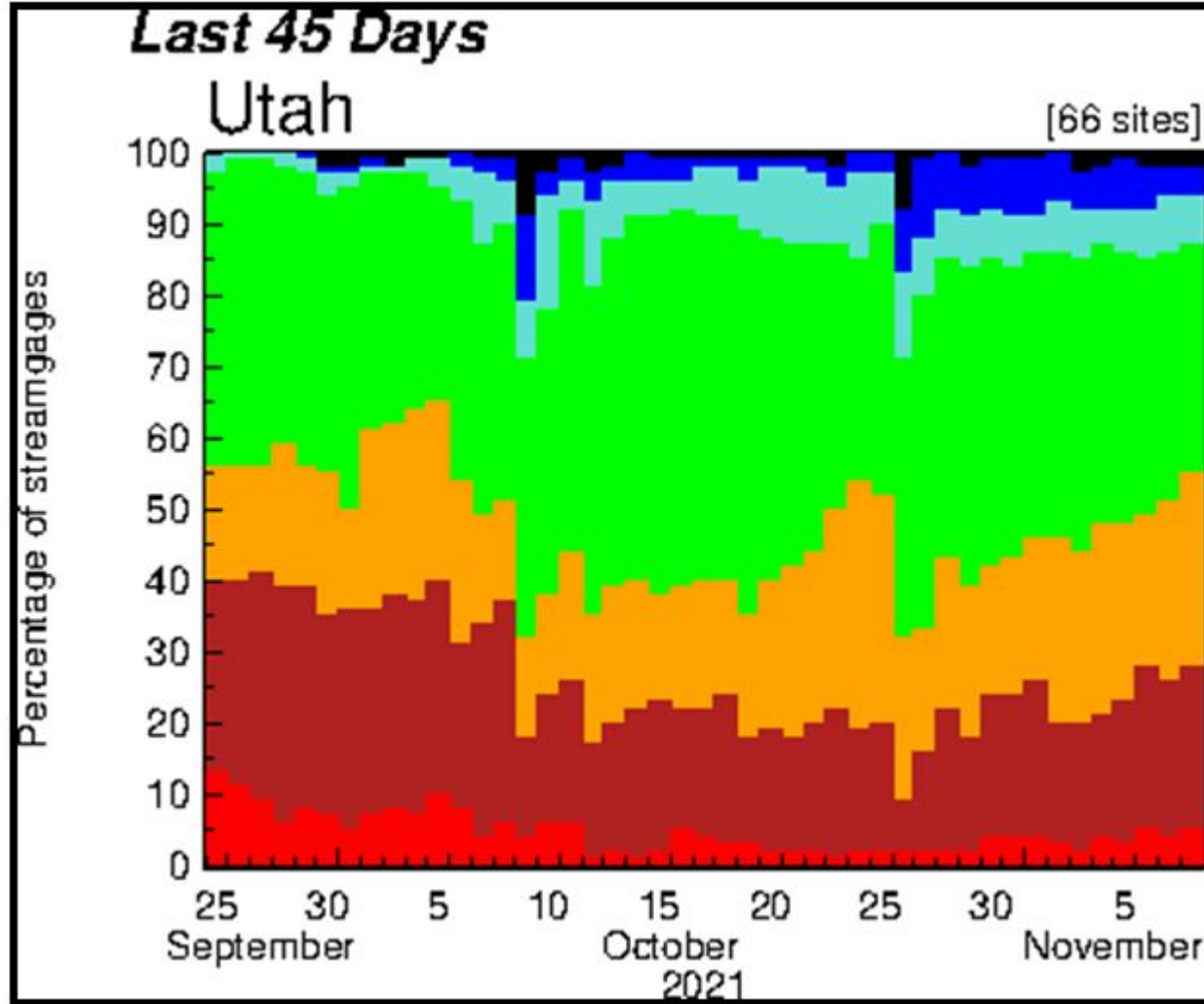


Day-of-Year Status	# Gages	% Gages
All-time high for this day-of-year	1	0.7%
Much above normal for this day-of-year	3	2.2%
Above normal for this day-of-year	7	5.1%
Normal for this day-of-year	38	27.7%
Below normal for this day-of-year	36	26.3%
Much below normal for this day-of-year	28	20.4%
All-time low for this day-of-year	9	6.6%
Not ranked - insufficient record	10	7.3%
Not ranked - stream not flowing	2	1.5%
Not ranked - no recent measurement	3	2.2%

Streamflow: Status	
	Above flood stage
	All-time high for this day 100 th percentile (maximum)
	Much above normal >90 th percentile
	Above normal 76 th – 90 th percentile
	Normal 25 th – 75 th percentile
	Below normal 10 th – 24 th percentile
	Much below normal <10 th percentile
	All-time low for this day 0 th percentile (minimum)
	Not flowing
	Not ranked
	Measurement flag
	Recent measurement unavailable

Agency - USGS Utah Water Science Center
Presenter - Laura Haskell on behalf of Ryan Rowland

Current Streamflow Conditions

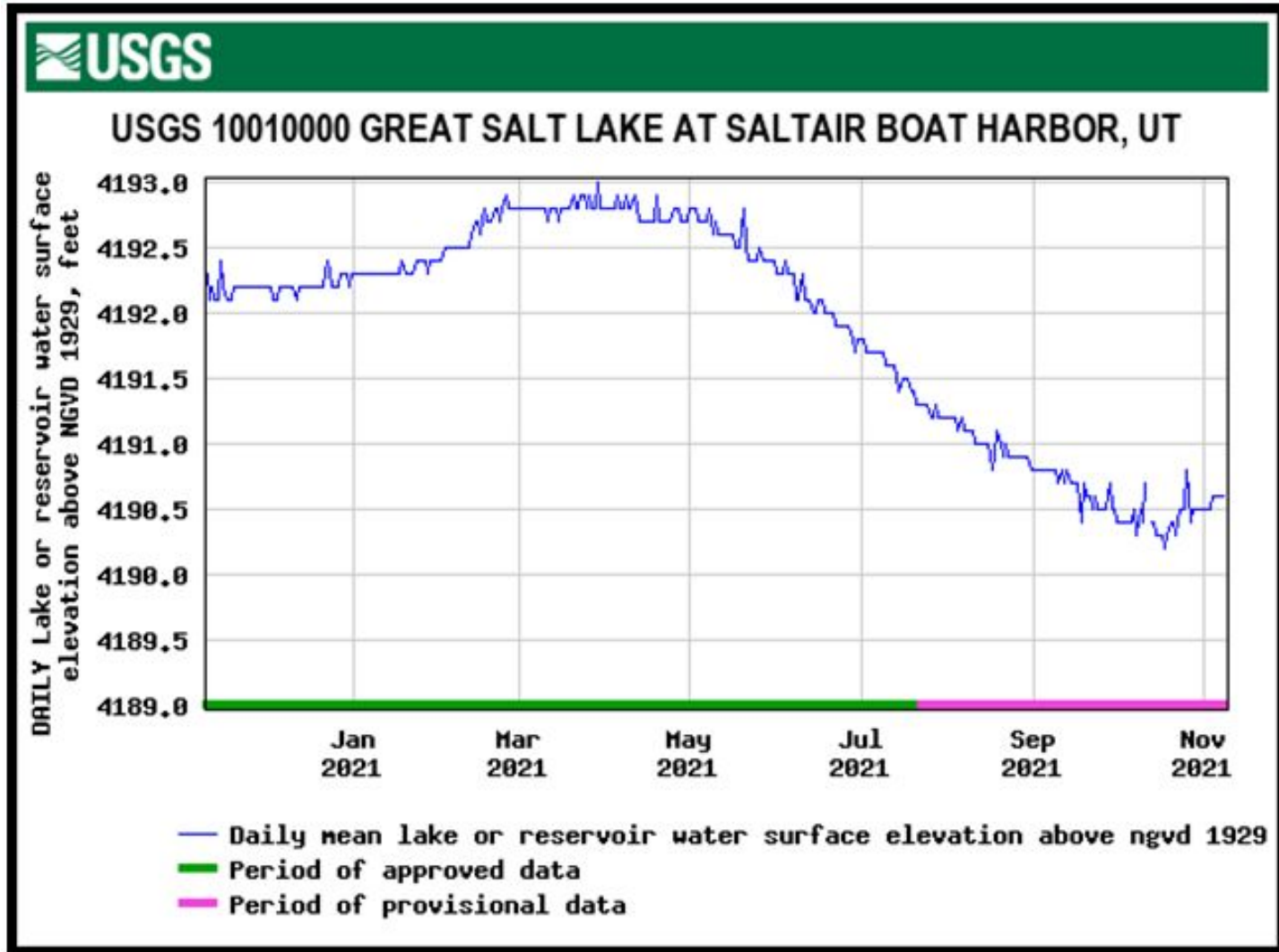


Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

- ☐ Mean daily Streamflow compared to historical streamflow for the day of the year
- ☐ Sites must have at least 30 years of record to be included in this graphic

Agency - USGS Utah Water Science Center
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Great Salt Lake Water Surface Elevation

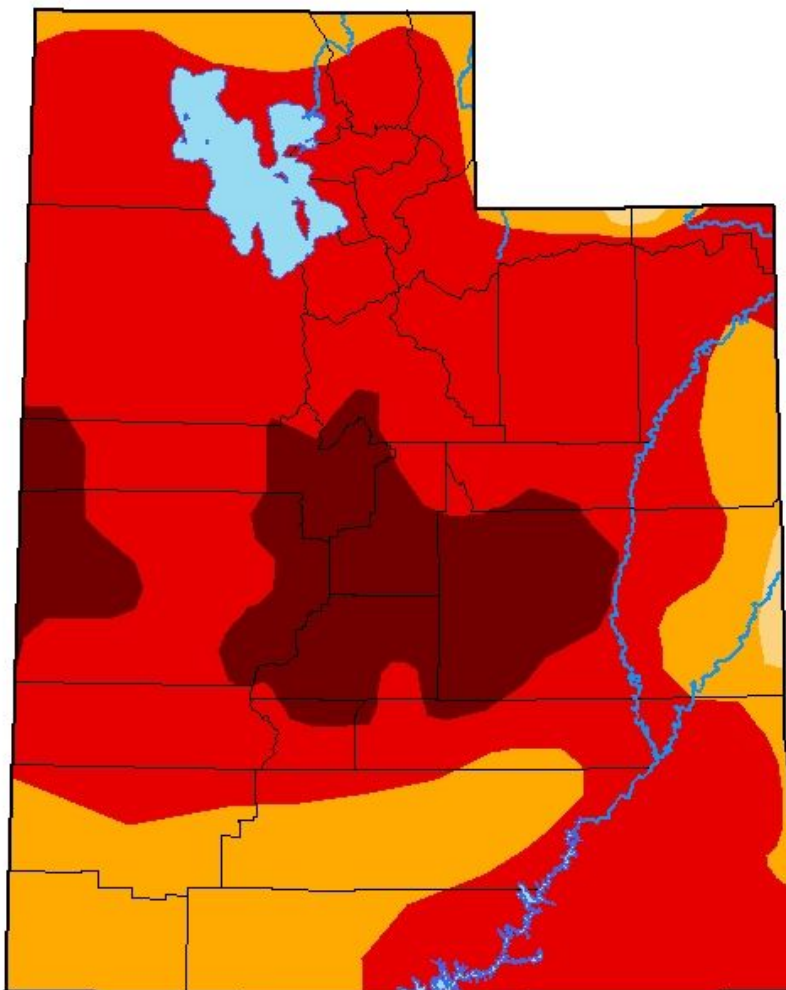


- ❑ Mean daily value 11/8/2021 = 4,190.6'
- ❑ 4,190.2' 10/18/2021 (potential new historic low)







U.S. Drought Monitor

Utah

November 2, 2021
(Released Thursday, Nov. 4, 2021)
Valid 8 a.m. EDT



Intensity:

-  None
-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Adam Hartman
NOAA/NWS/NCEP/CPC

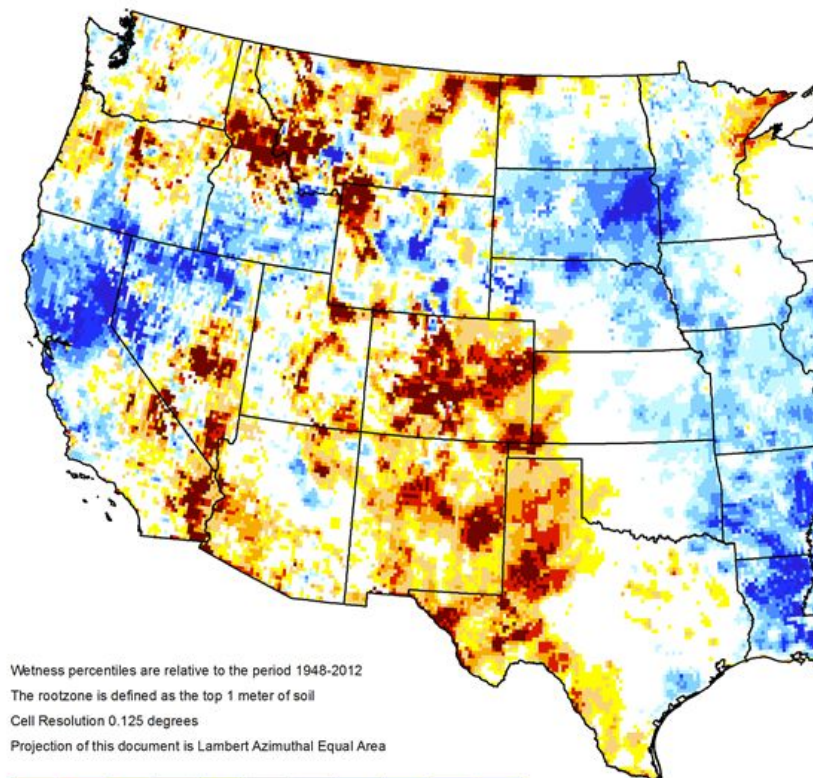


droughtmonitor.unl.edu



GRACE-Based Root Zone Soil Moisture

November 01, 2021



Wetness percentiles are relative to the period 1948-2012

The rootzone is defined as the top 1 meter of soil

Cell Resolution 0.125 degrees

Projection of this document is Lambert Azimuthal Equal Area



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