

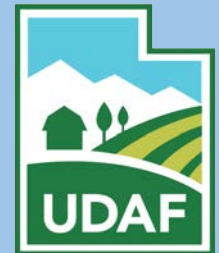


Utah Water Assessment & Conditions Monitoring (Drought Webinar)

The meeting will begin shortly



Thank you to our contributors

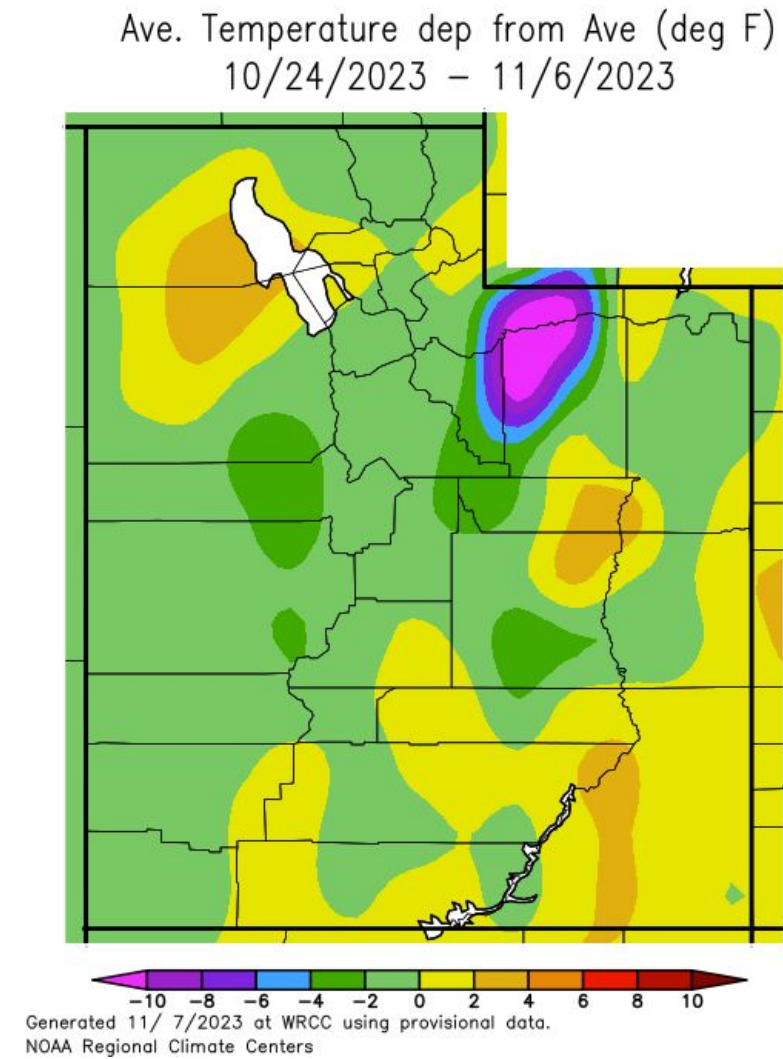
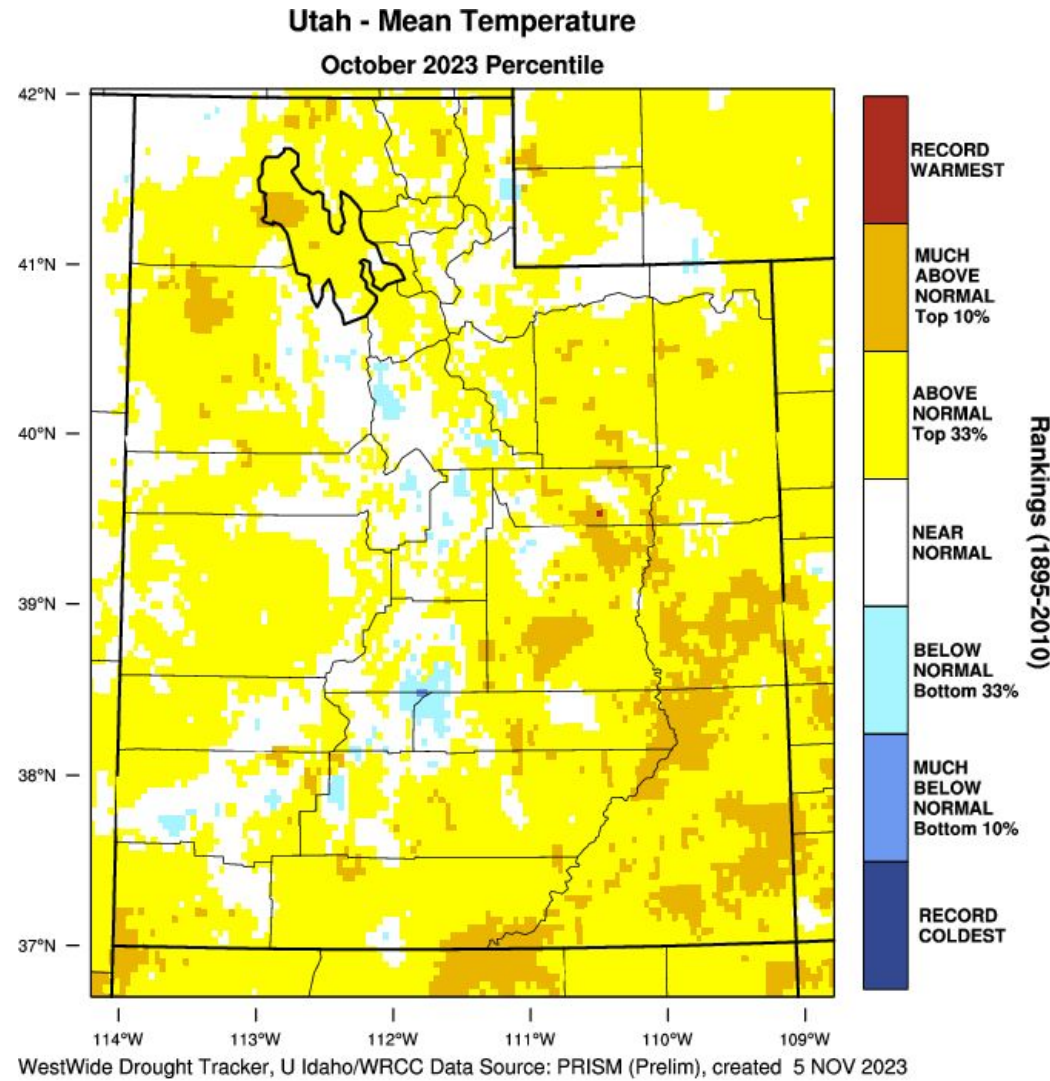




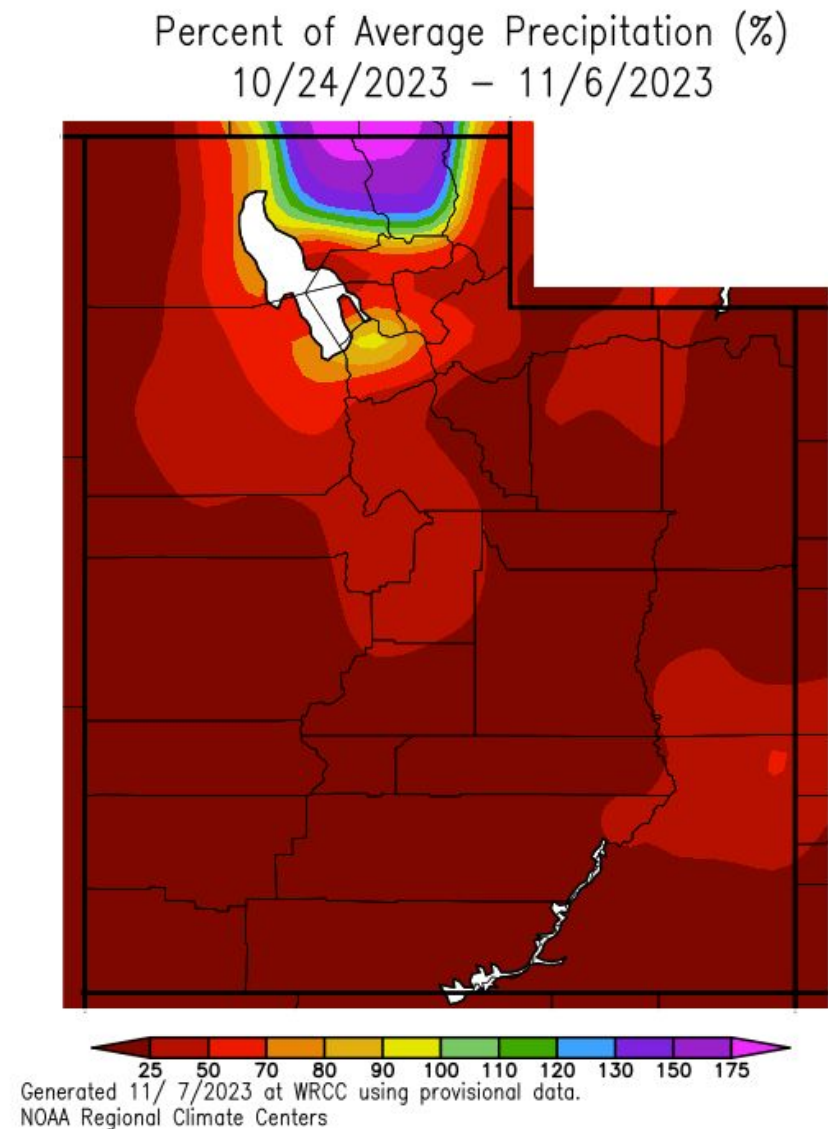
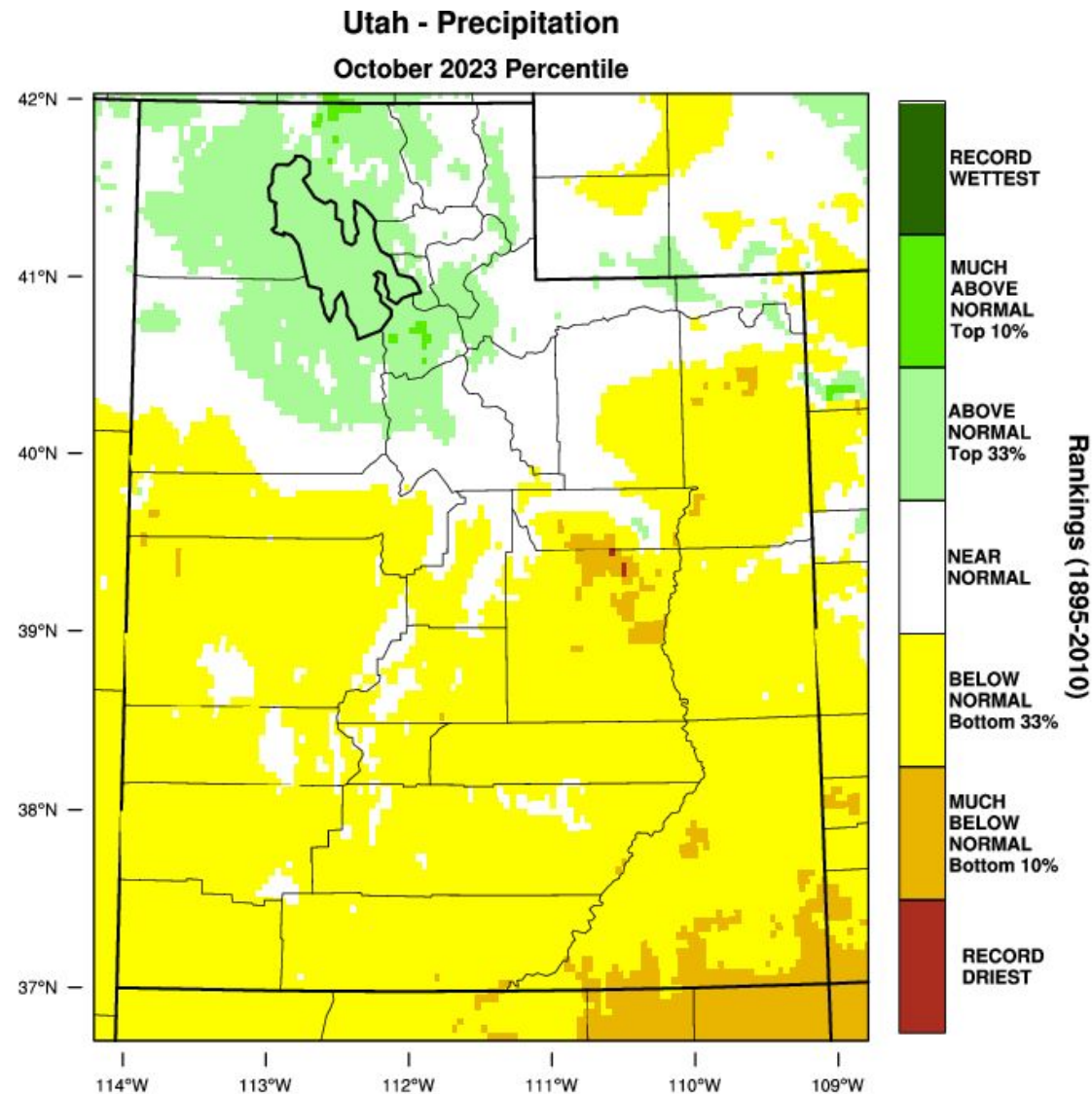
Utah Water Assessment & Conditions Monitoring Webinar

November 11, 2023

Temperature History

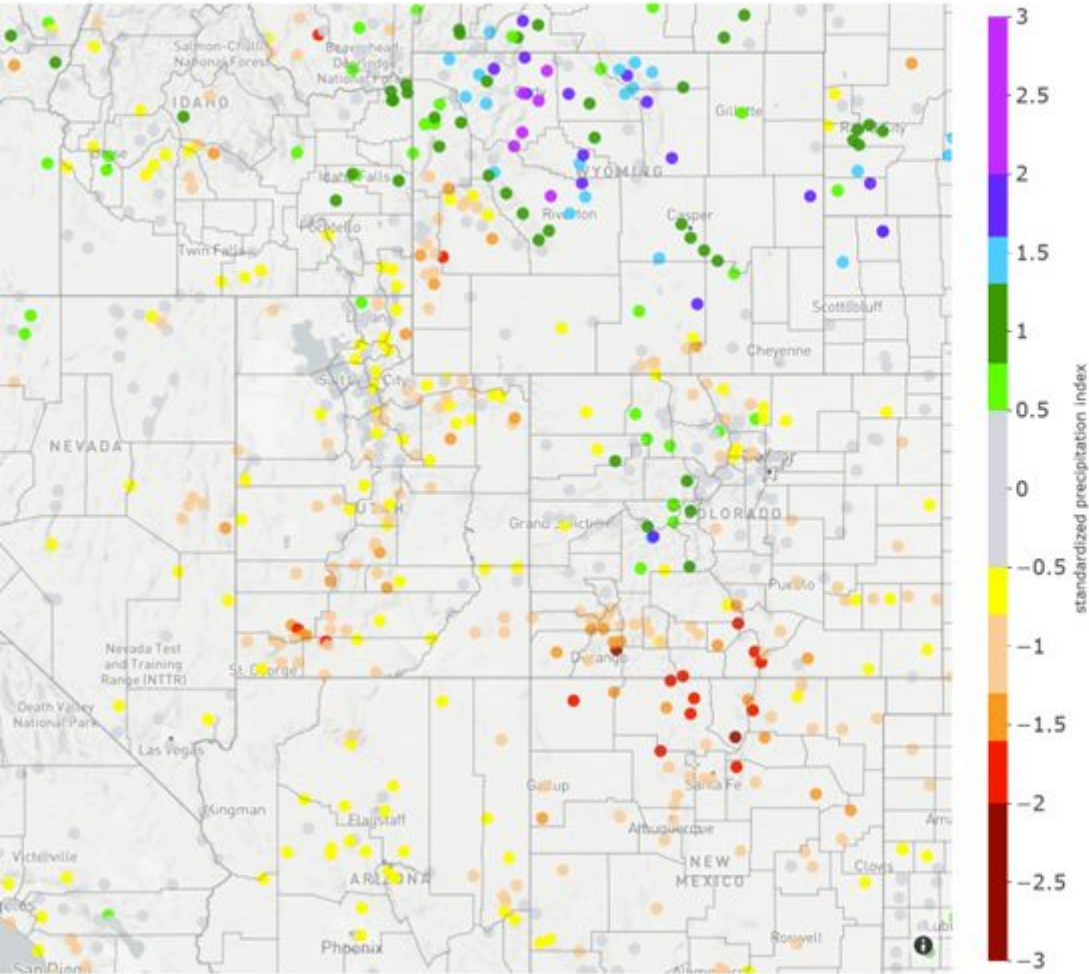


Precipitation History

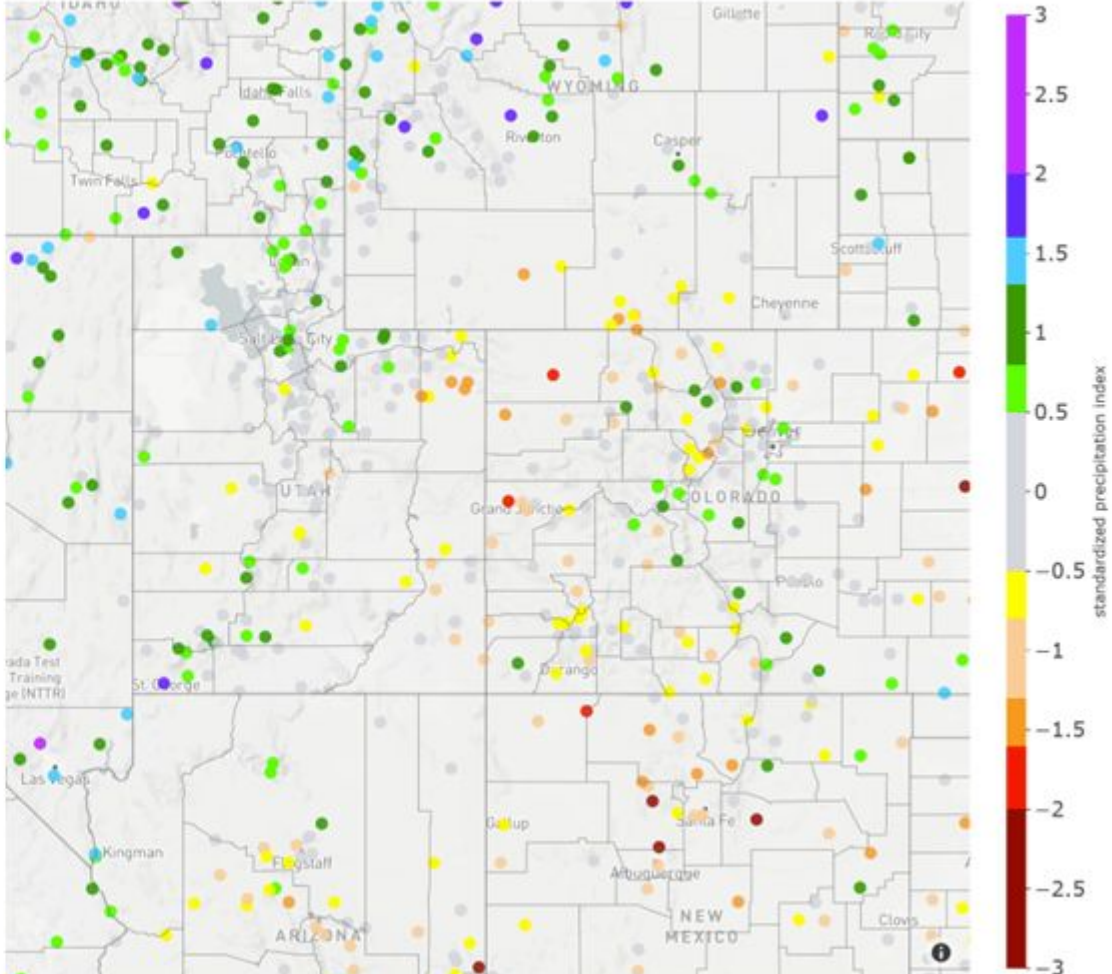


Standardized Precipitation Index (SPI)

30-day Standardized Precipitation Index: 2023/10/07 - 2023/11/05

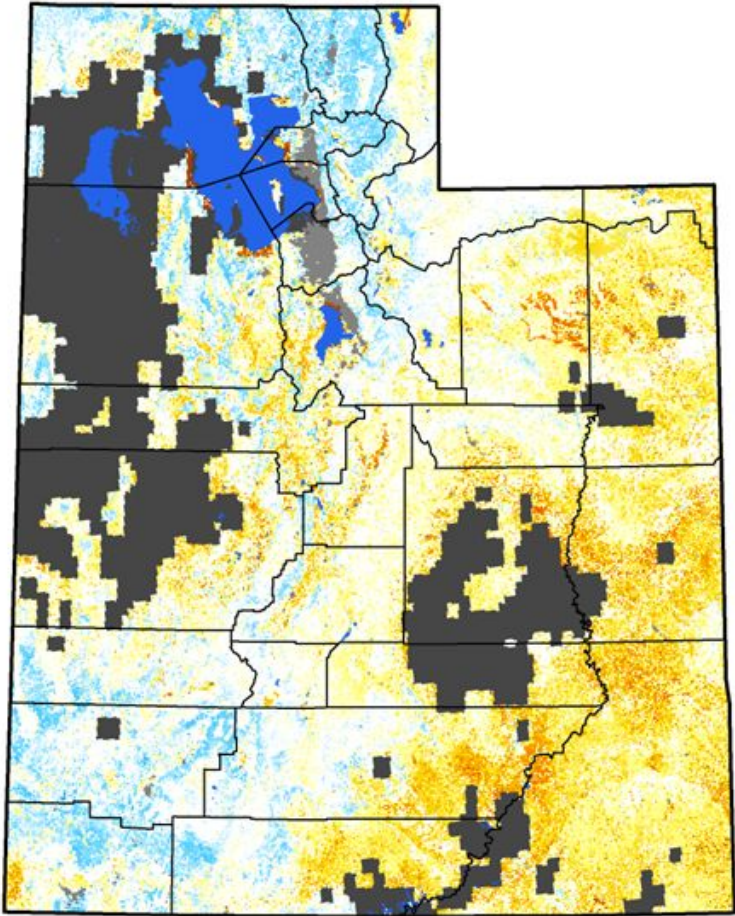


90-day Standardized Precipitation Index: 2023/08/08 - 2023/11/05



Quick Drought Response Index
Utah

October 29, 2023
(Week 44)



Conditions Relative to
4-Week Historical Average

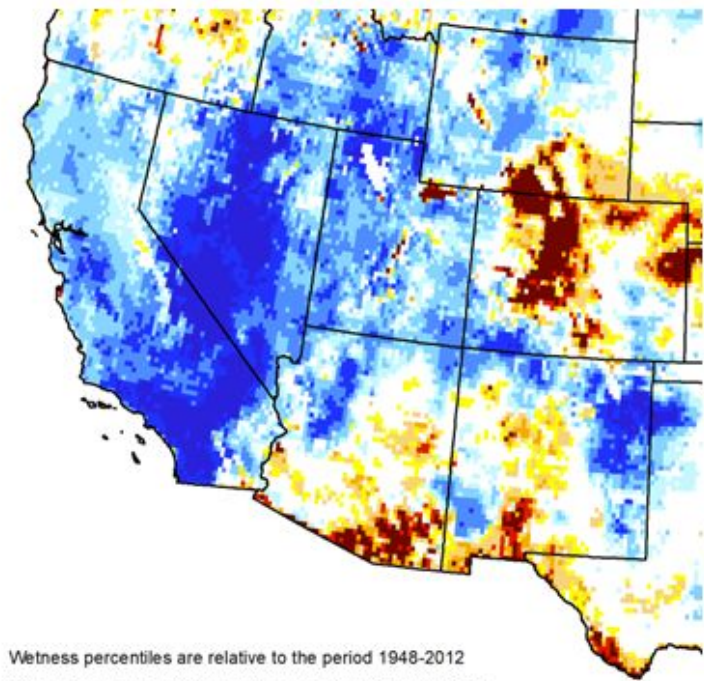
- Wetter
- Near Average
- Drier
- Out of Season
- Urban
- No Data
- Water



Soil Moisture Conditions

GRACE-Based Surface Soil Moisture Drought Indicator

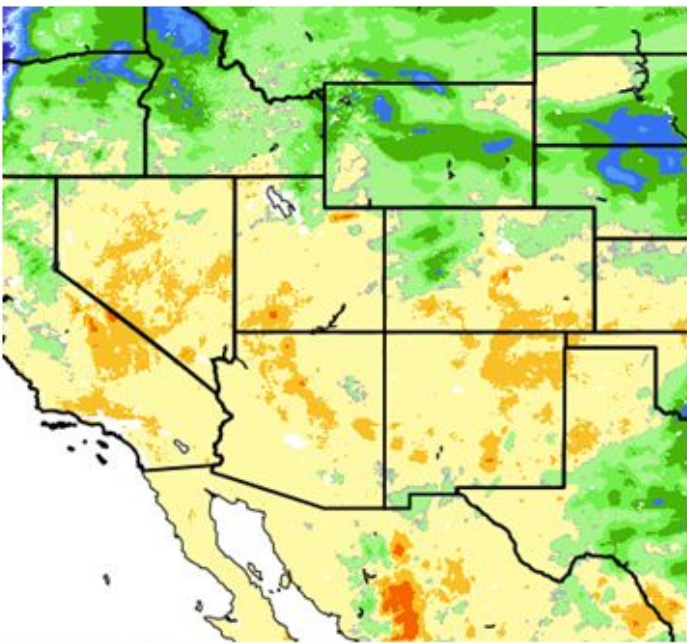
October 02, 2023



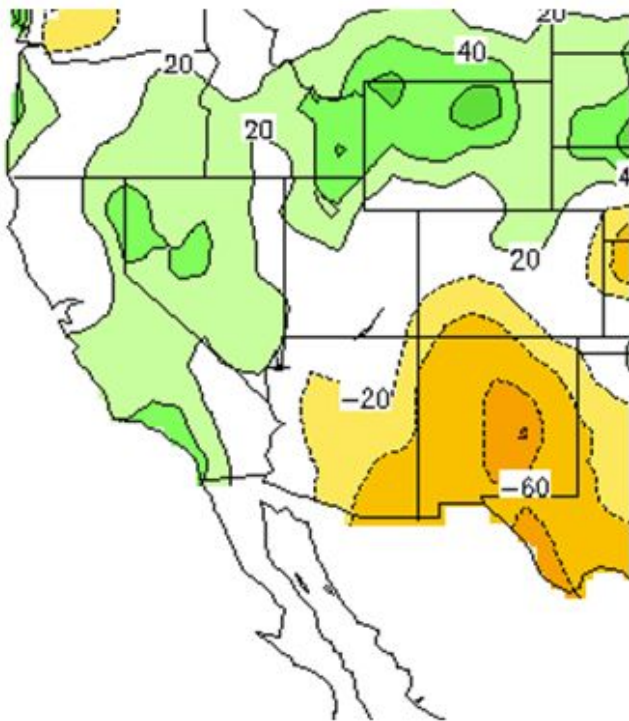
Wetness percentiles are relative to the period 1948-2012
The surface layer is defined as the top 2 centimeters of soil
Cell Resolution 0.125 degrees
Projection of this document is Lambert Azimuthal Equal Area



1-Month Difference in Column Relative Soil Moisture (%)

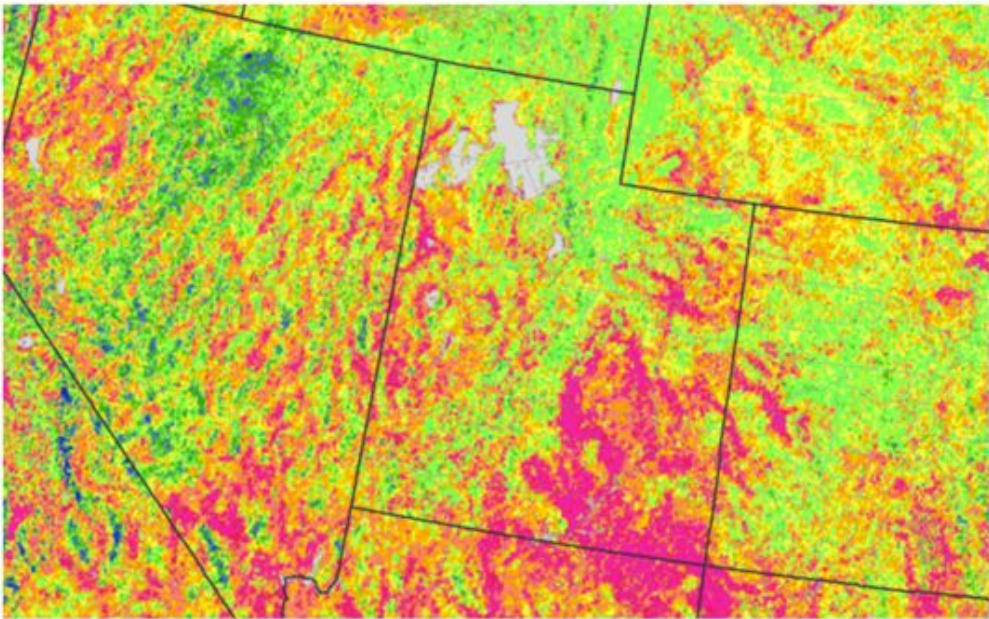


Calculated Soil Moisture Anomaly (mm)
NOV 06, 2023



Vegetation and Landscape Conditions

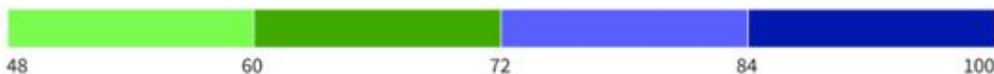
Vegetation Health Index



Unfavorable Conditions



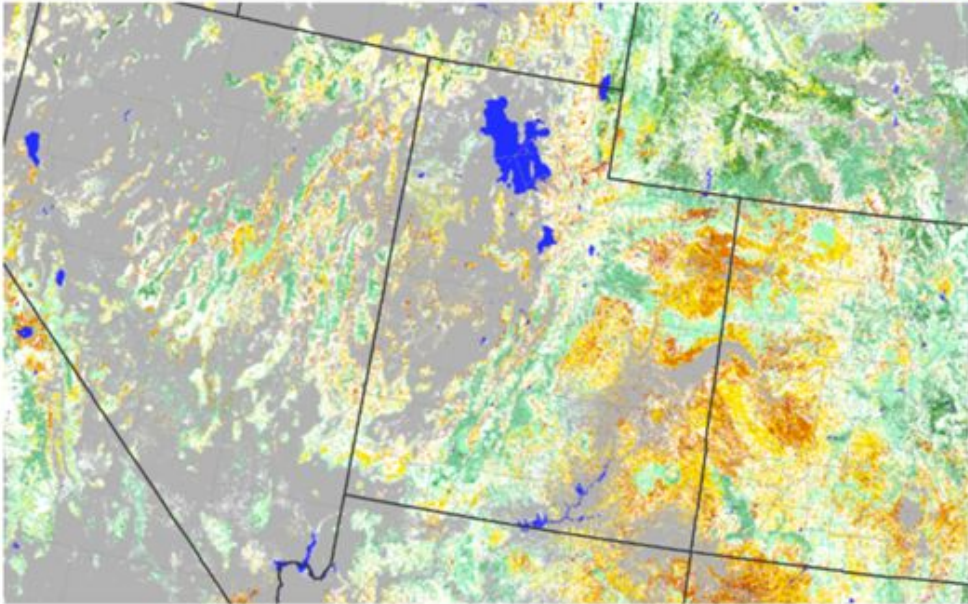
Favorable Conditions



Source(s): NOAA STAR
Data Valid: 11/01/23

Drought.gov

Vegetation Drought Response Index (VegDRI)



Vegetation Conditions



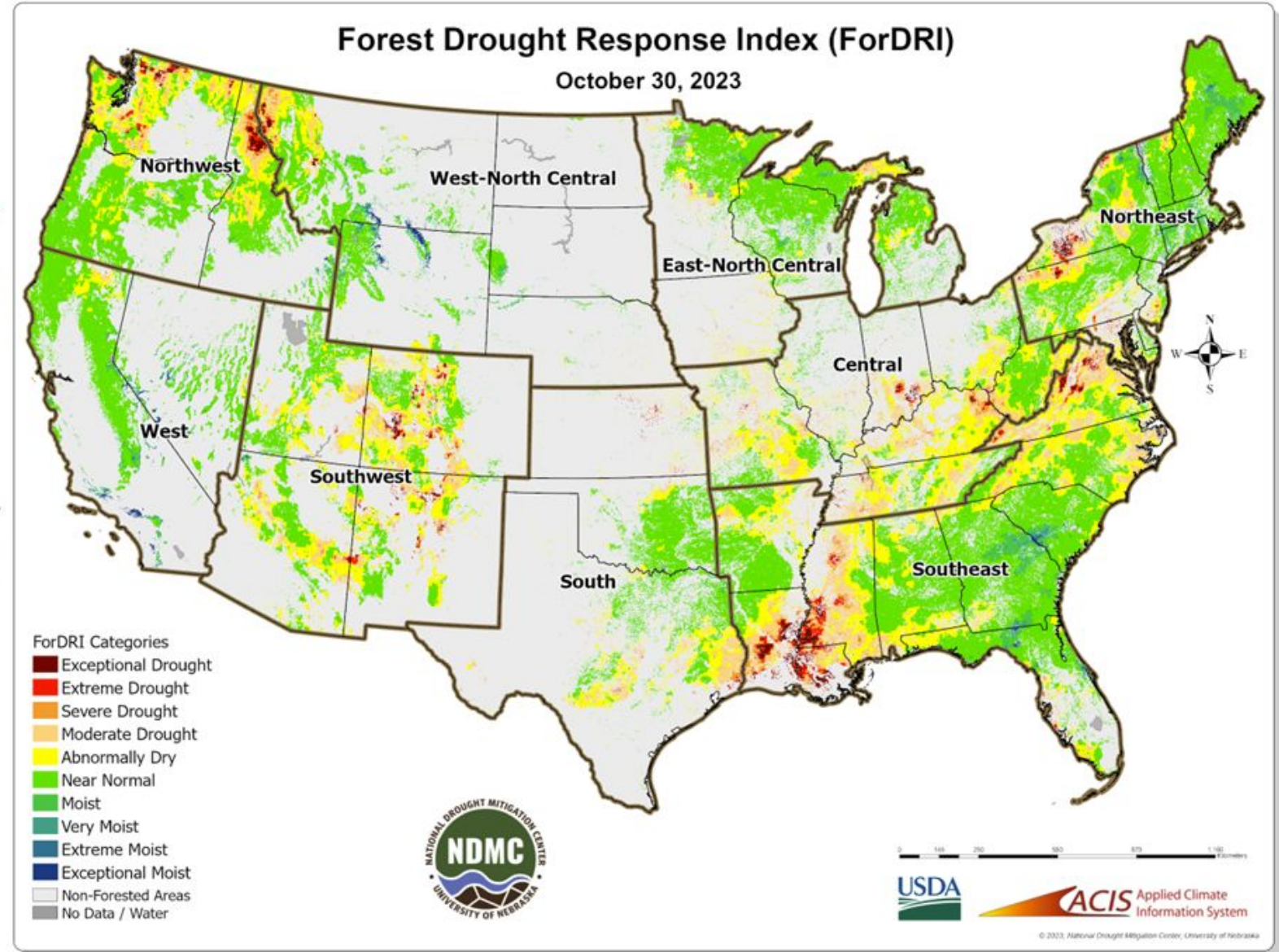
Source(s): NDMC, USGS, HPRCC
Updates Weekly: 11/05/23

Drought.gov

New Tool Alert! ForDRI (Forest Drought Response Index)

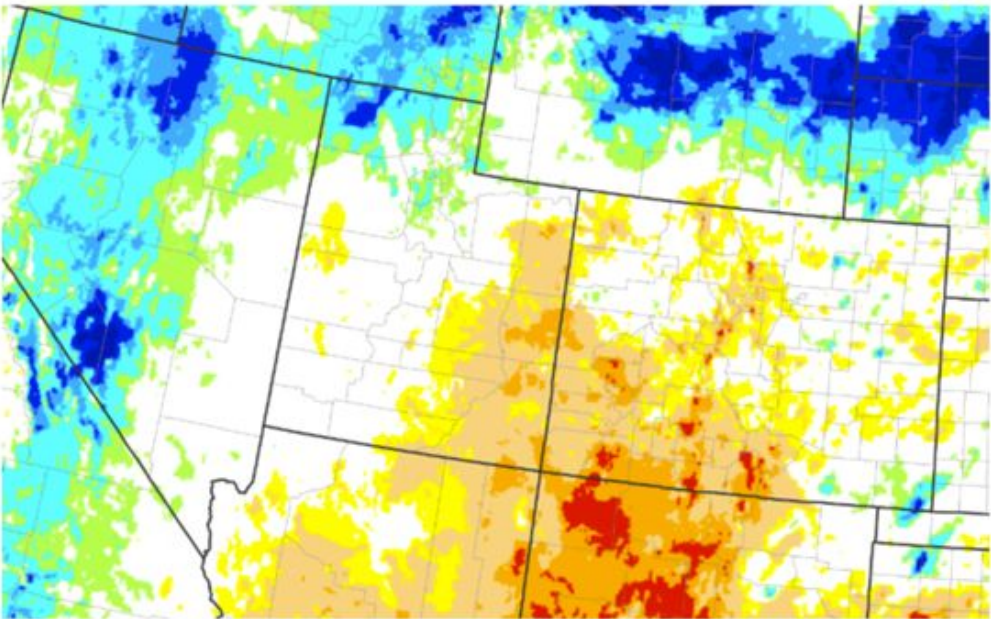
The Forest Drought Response Index (ForDRI) is a new combined indicator tool to monitor forest drought conditions. The ForDRI presents a weekly depiction of drought-related forest stress across the continental U.S.

ForDRI works by combining 12 data types including satellite, climate, evaporative demand, groundwater, and soil moisture. The model uses Principal Components Analysis (PCA), which assigns a weight to each variable based on historical data and how the variables change together over time.



NIDIS Multi-Indicator Drought (MIDI) Index

Short-Term Multi-Indicator Drought Index (MIDI)



Dry Conditions



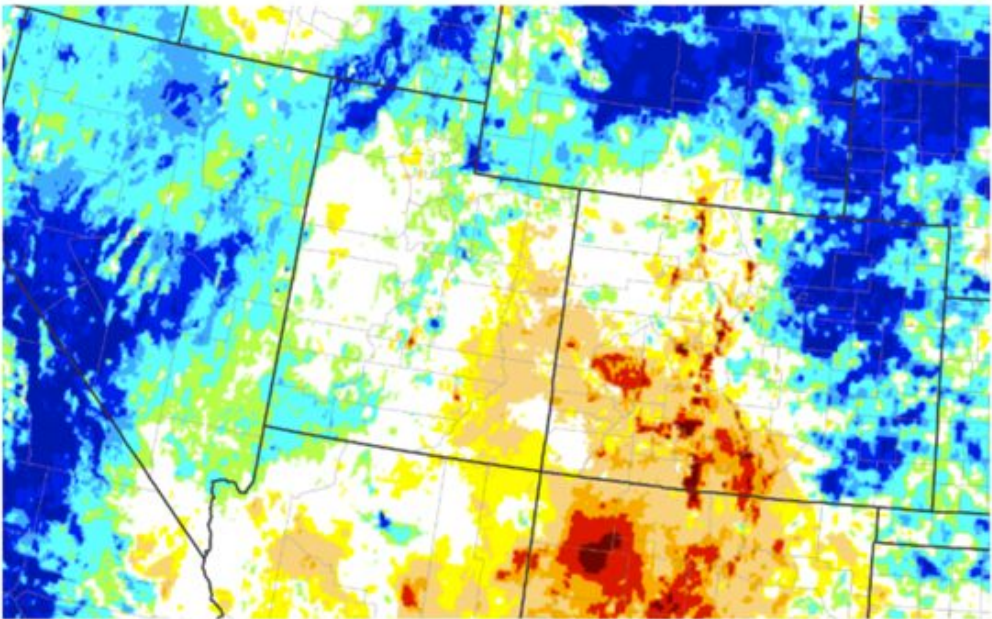
Wet Conditions



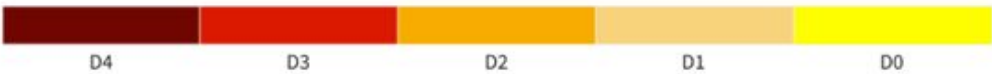
Source(s): UC Merced, via Climate Engine
Data Valid: 10/27/23

Drought.gov

Long-Term Multi-Indicator Drought Index (MIDI)



Dry Conditions



Wet Conditions



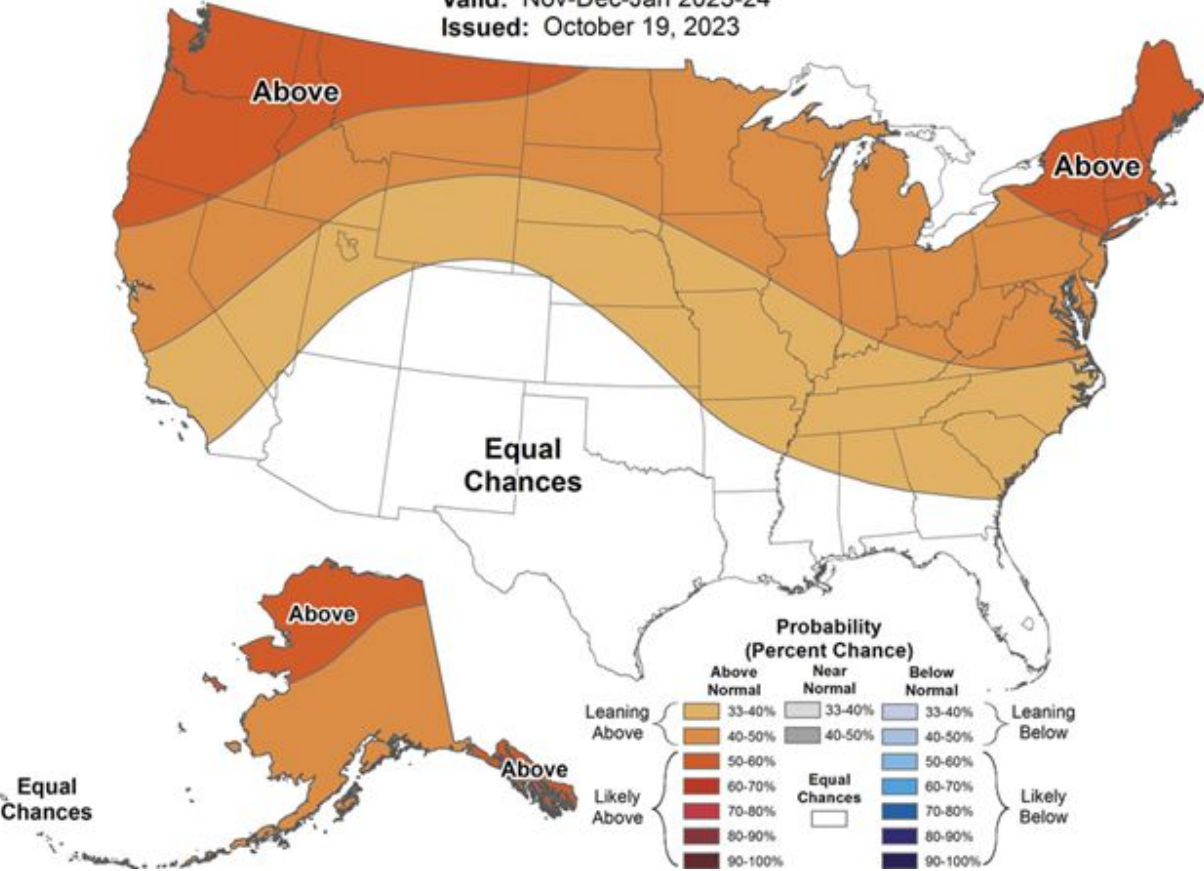
Source(s): UC Merced, via Climate Engine
Data Valid: 10/27/23

Drought.gov

CPC 3-month (Nov.-Jan.) Outlook

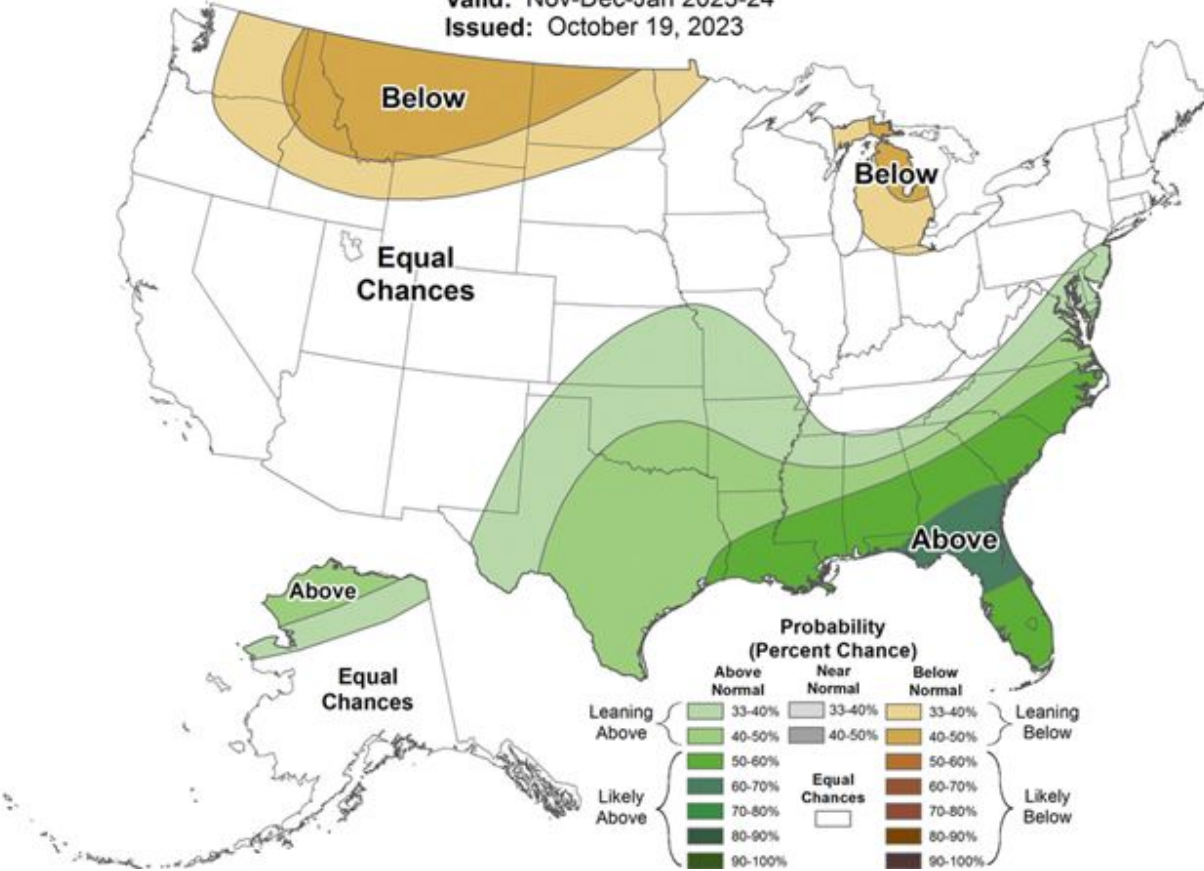
Seasonal Temperature Outlook

Valid: Nov-Dec-Jan 2023-24
Issued: October 19, 2023



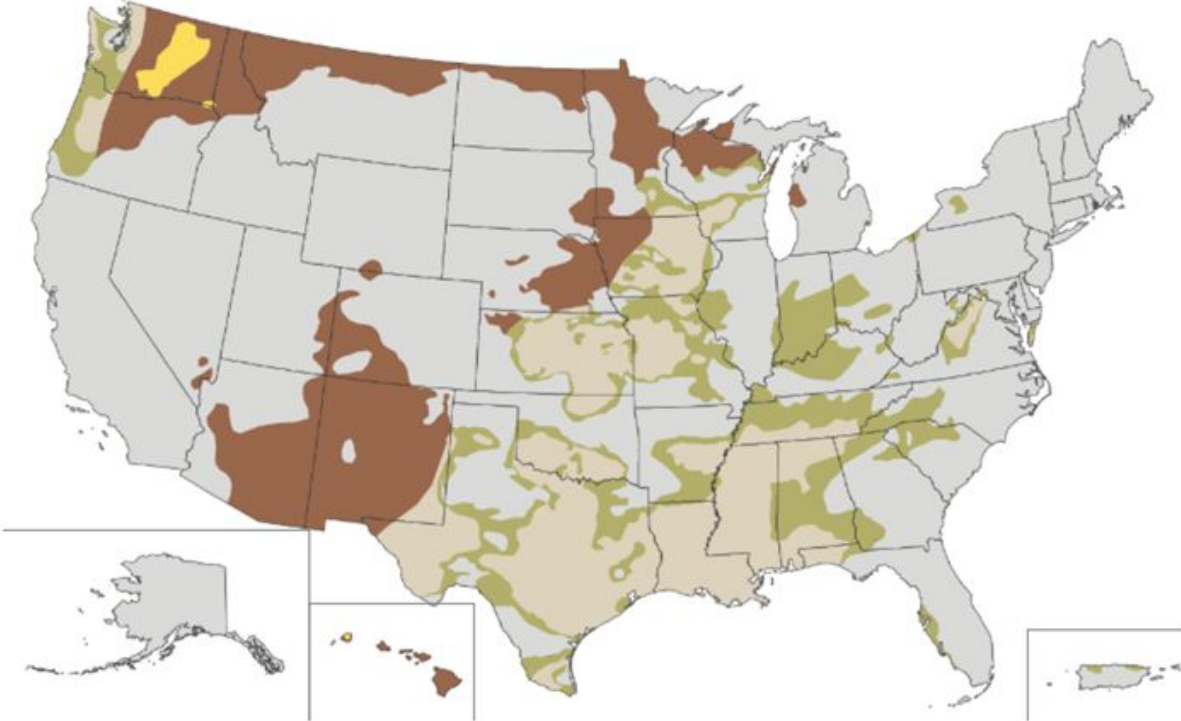
Seasonal Precipitation Outlook

Valid: Nov-Dec-Jan 2023-24
Issued: October 19, 2023



CPC Drought Outlook

U.S. Seasonal (3-Month) Drought Outlook

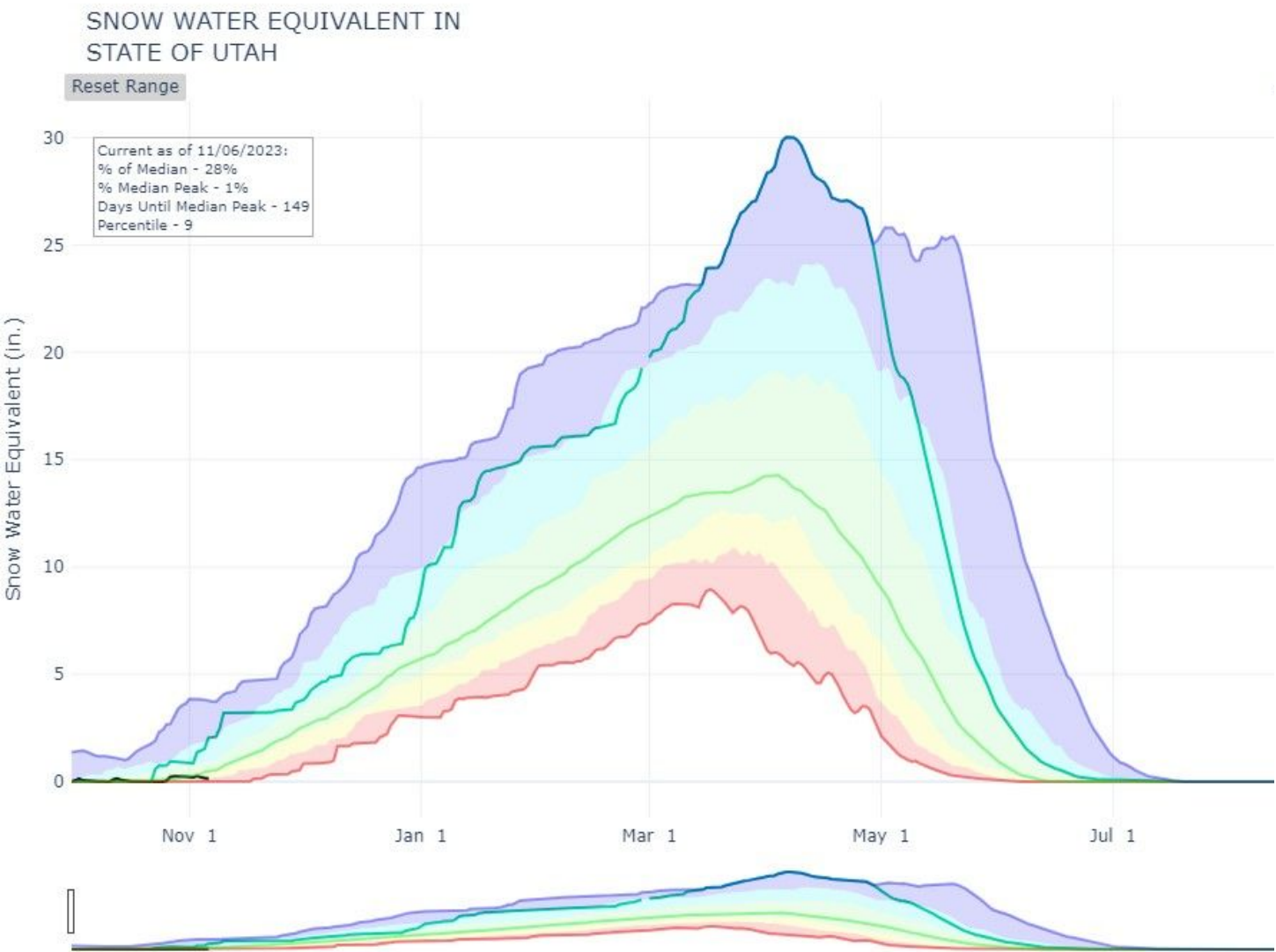


Drought Outlook Category		% of U.S.
	Drought persists	12.5%
	Drought remains but improves	11.9%
	Drought removal likely	9.0%
	Drought development likely	0.5%

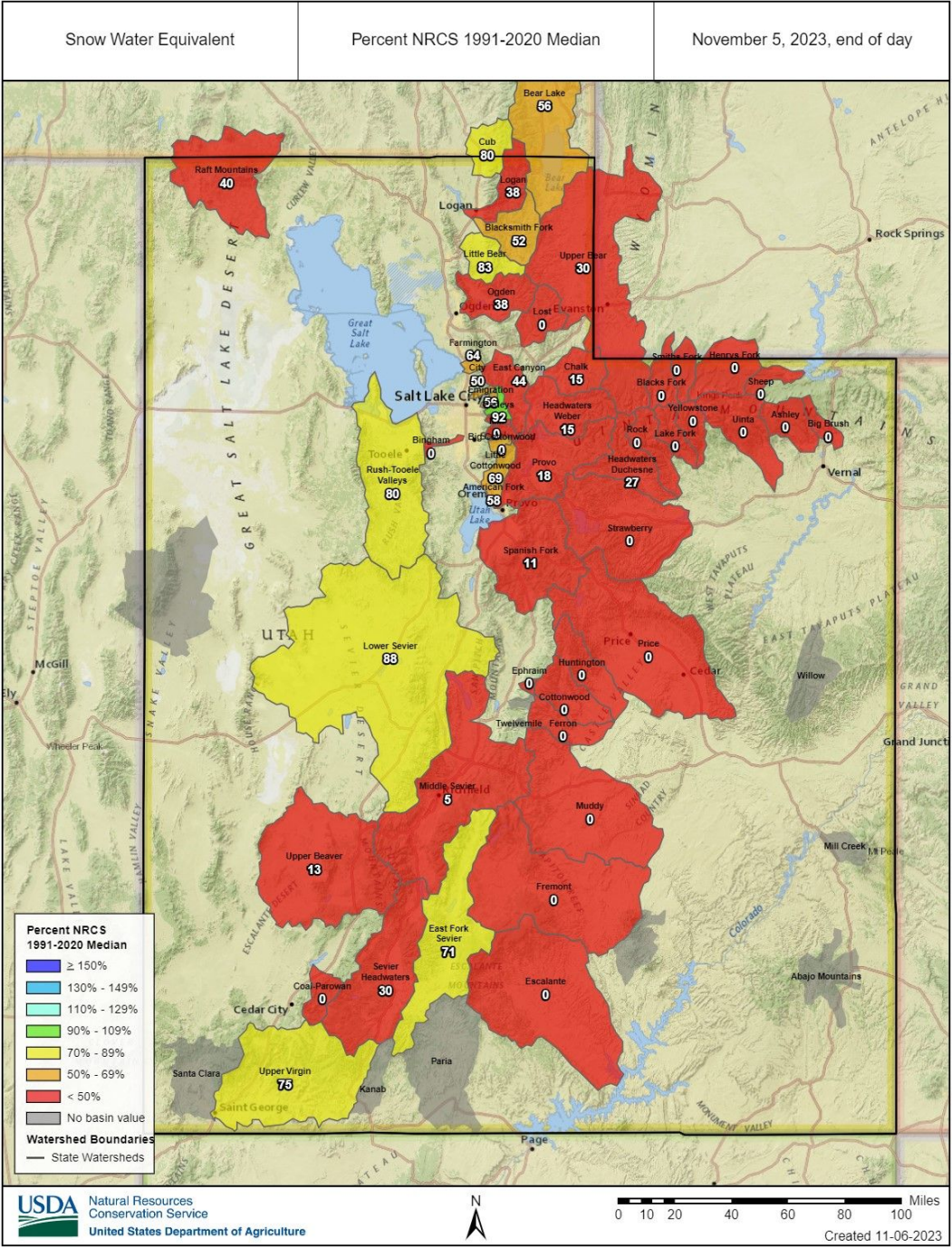
Source(s): Climate Prediction Center
Updates Monthly: 10/31/23

[Drought.gov](https://drought.gov)

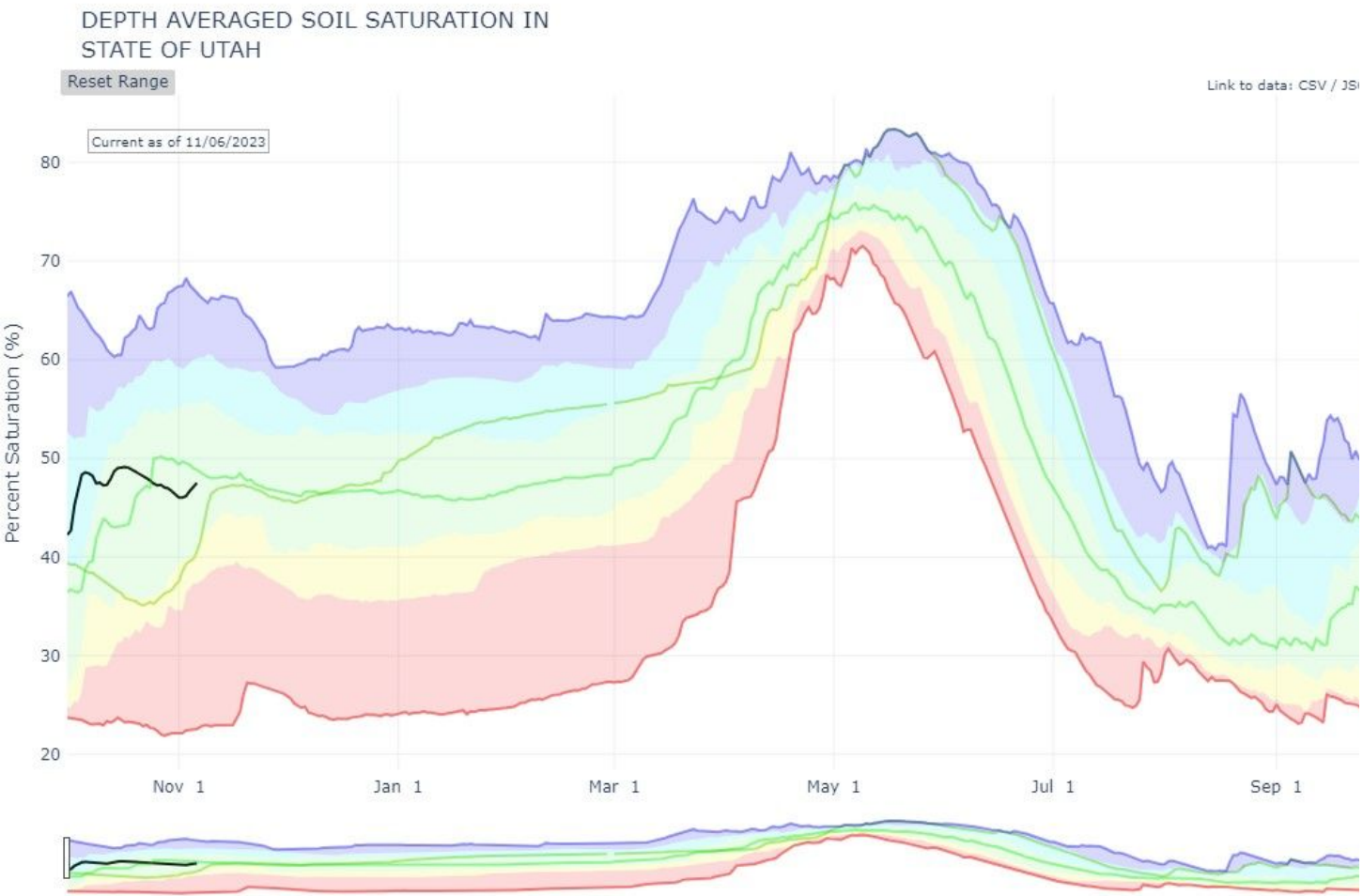
Snowpack



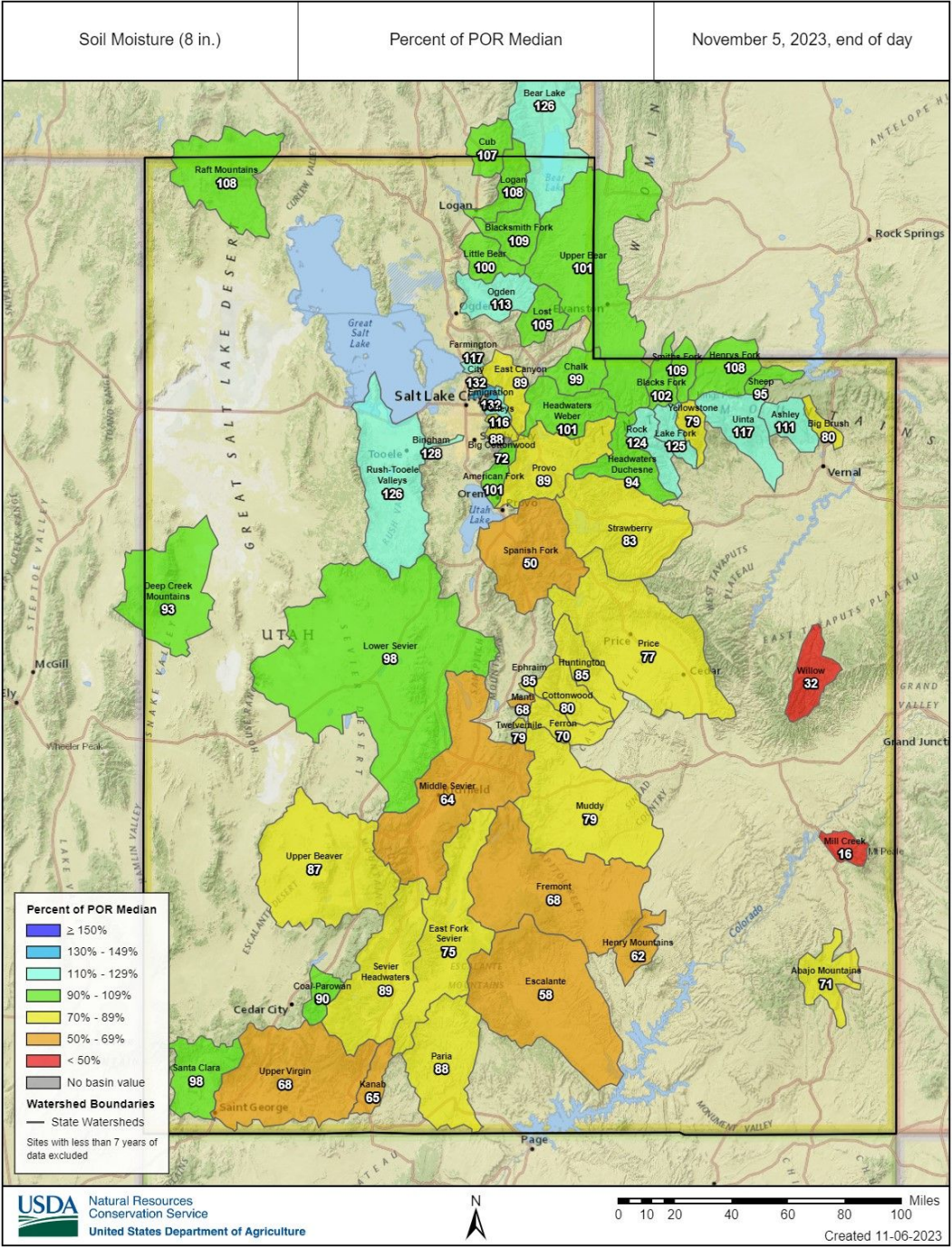
Agency - NRCS Snow Survey
Presenter - Jordan Clayton



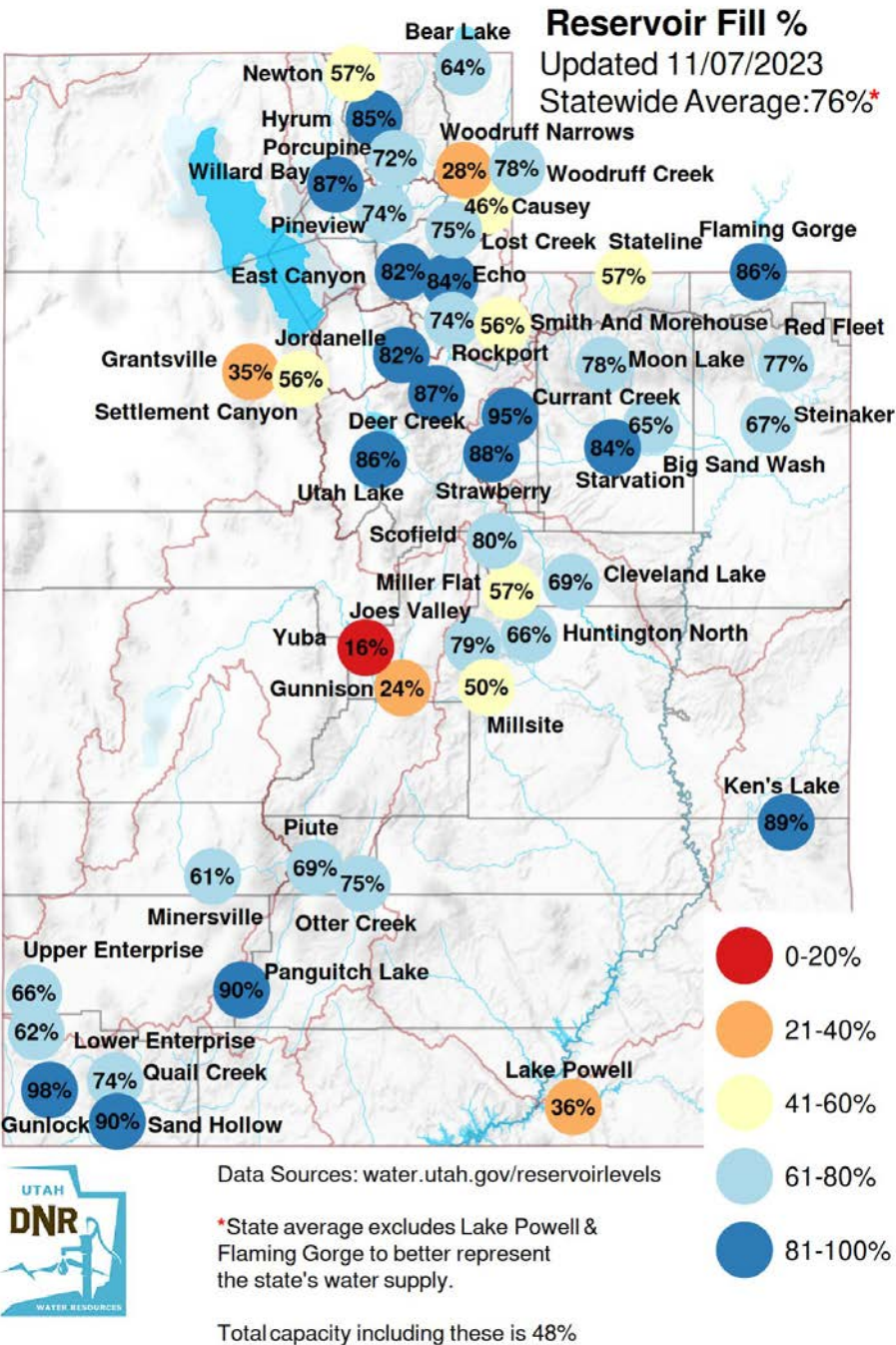
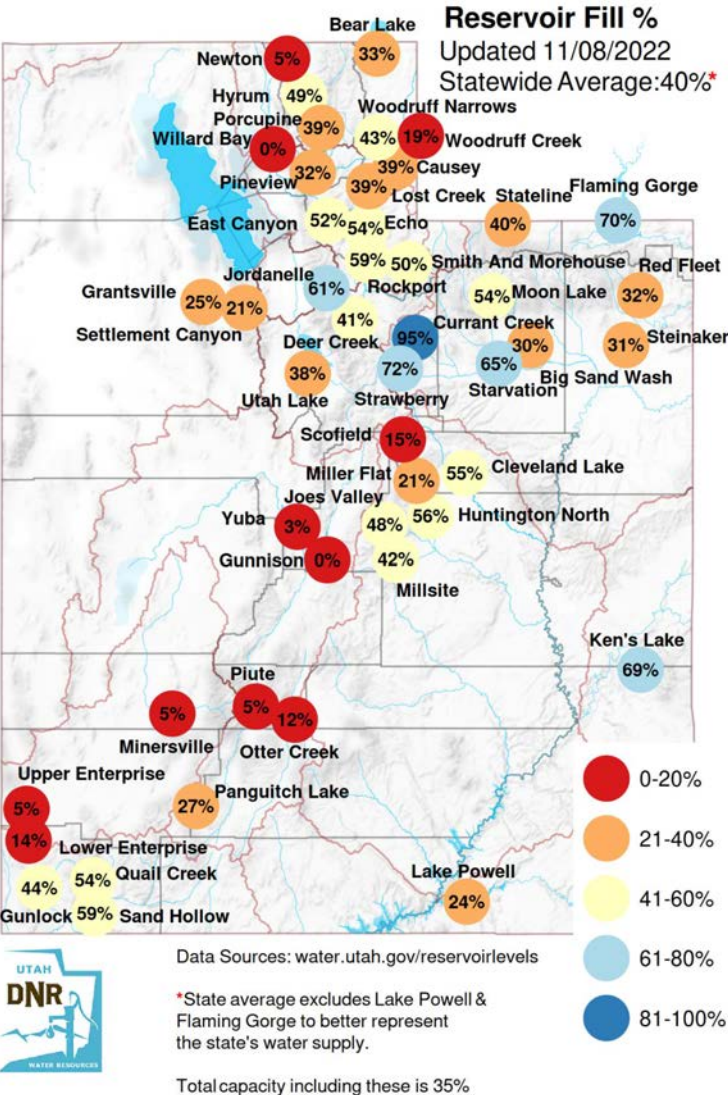
Soil Moisture



Agency - NRCS Snow Survey
Presenter - Jordan Clayton



Reservoir Fill 11/2022

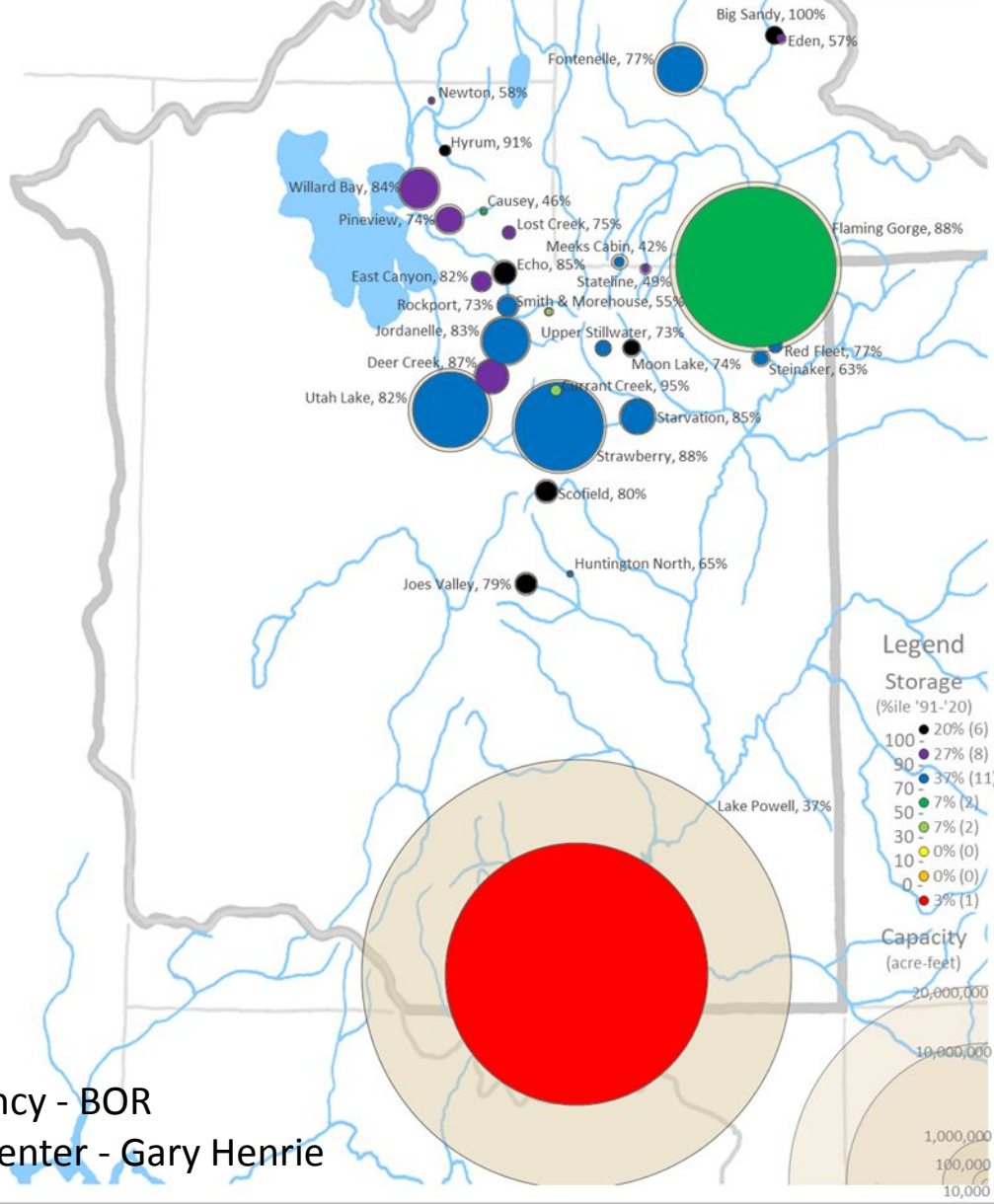


Reservoir Storage

11/6/2023

83% full

(Excluding Fontenelle,
Flaming Gorge, Lake Powell)
Last Month: 84% full
Last Year: 52% full



• Current Storage

- 83% full (excl. Font, FG, LP)

- last month: 84% full

- last year: 52% full

- Very high for this time of year

- ~All reservoirs >70th percentile

• 2024 Storage Outlook

- Good chance of filling all reservoirs

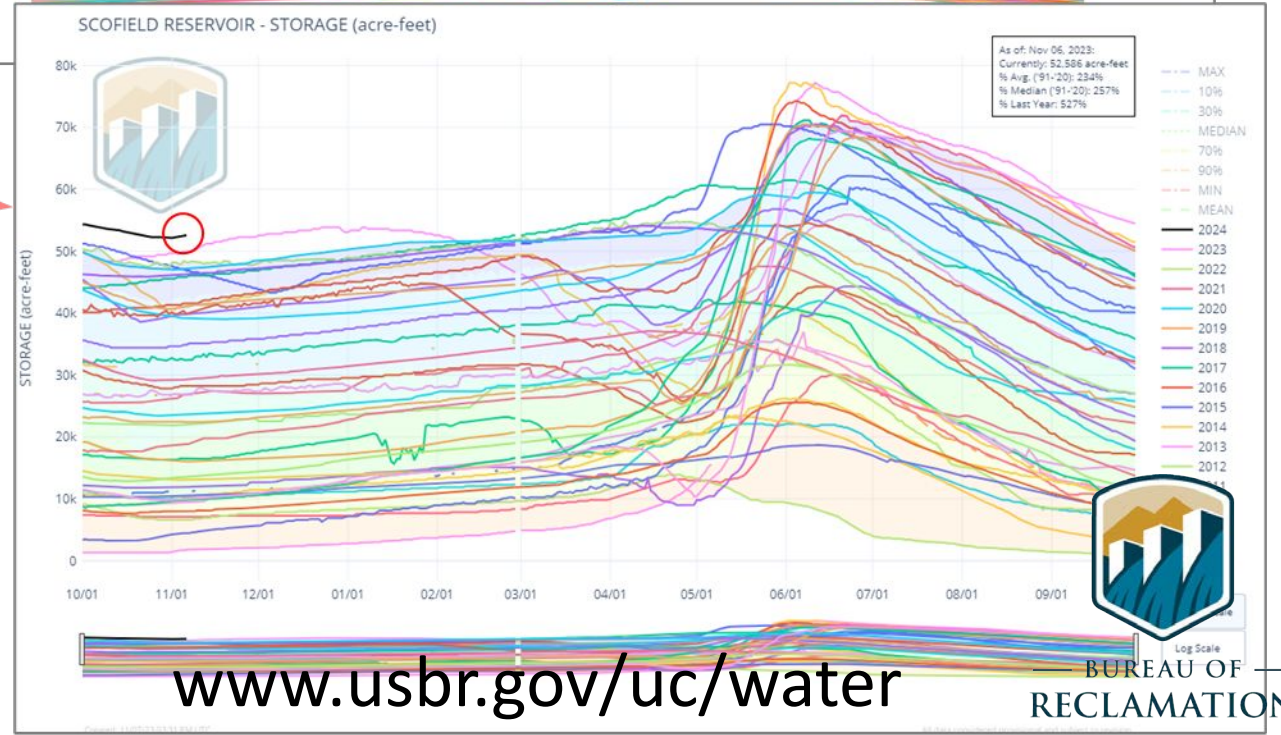
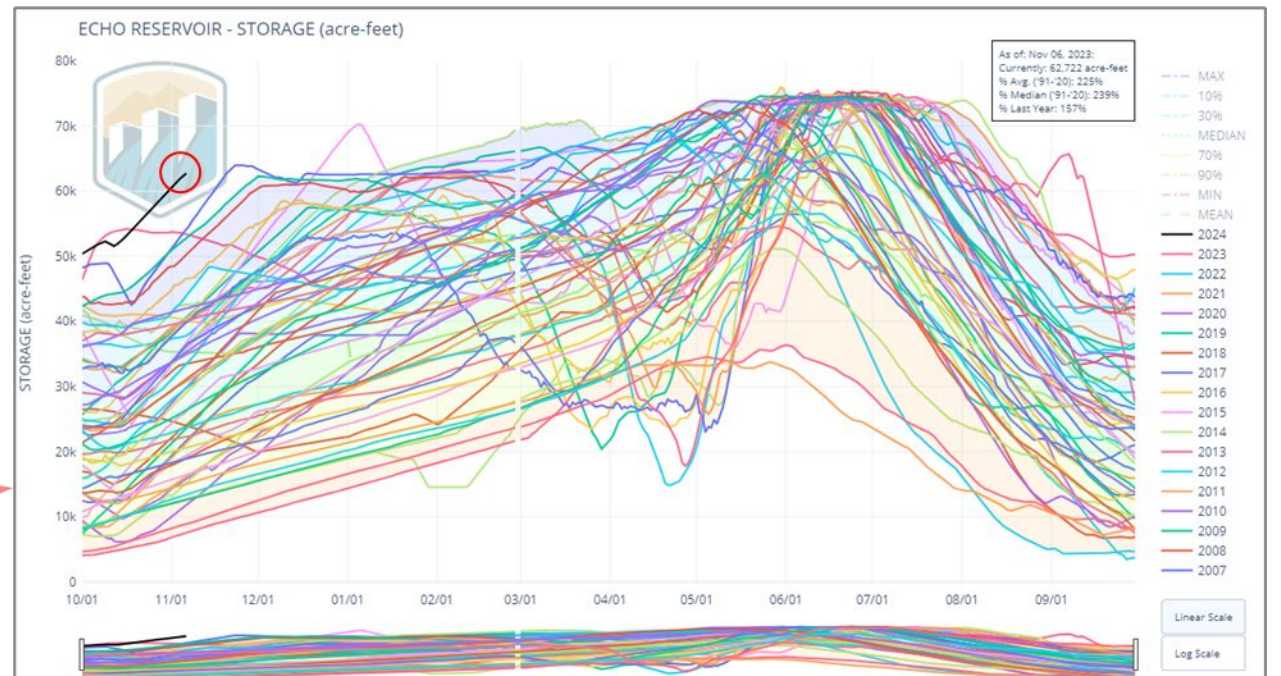
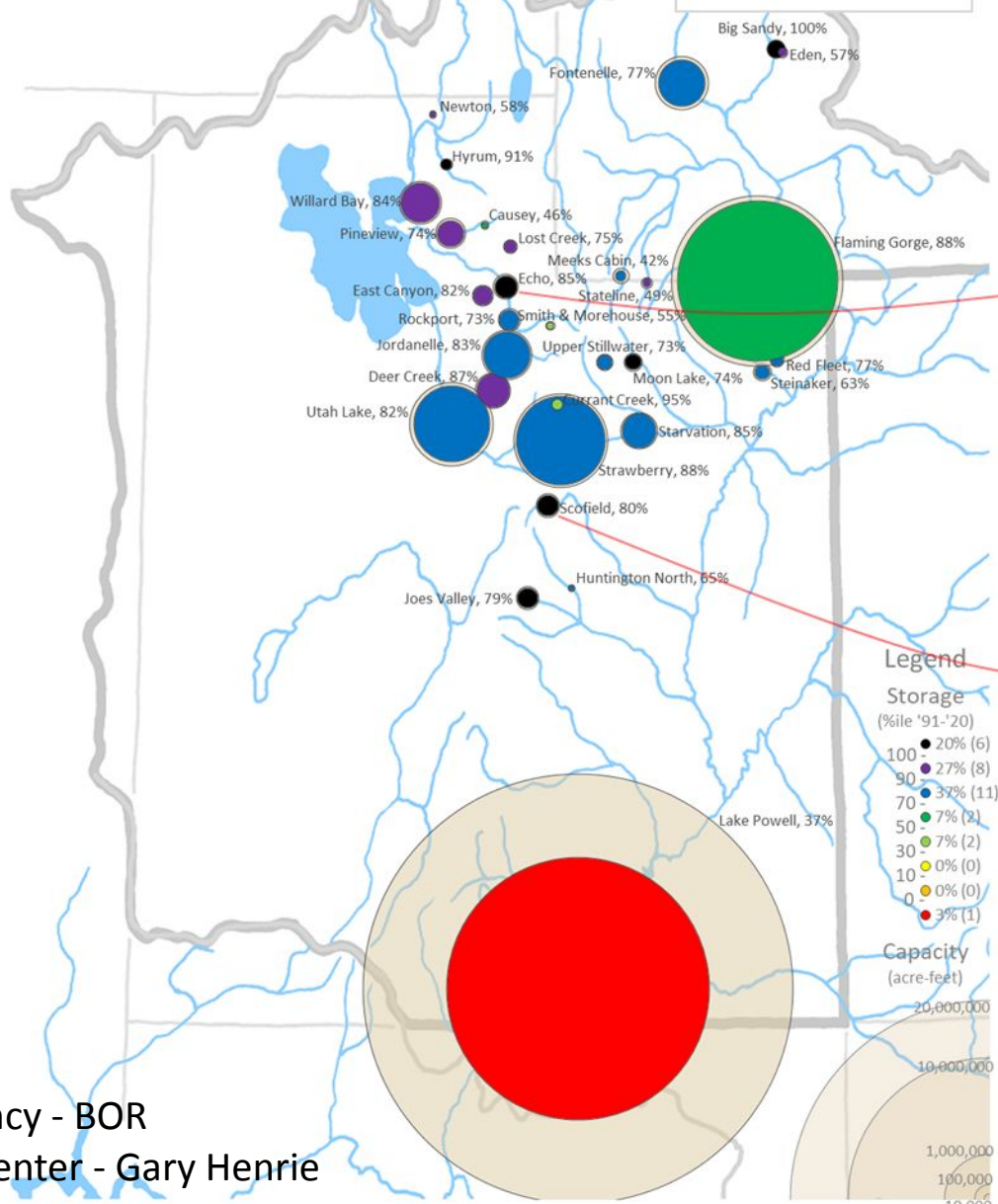


Reservoir Storage

11/6/2023

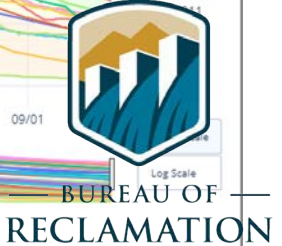
83% full

(Excluding Fontenelle,
Flaming Gorge, Lake Powell)
Last Month: 84% full
Last Year: 52% full



Agency - BOR
Presenter - Gary Henrie

www.usbr.gov/uc/water

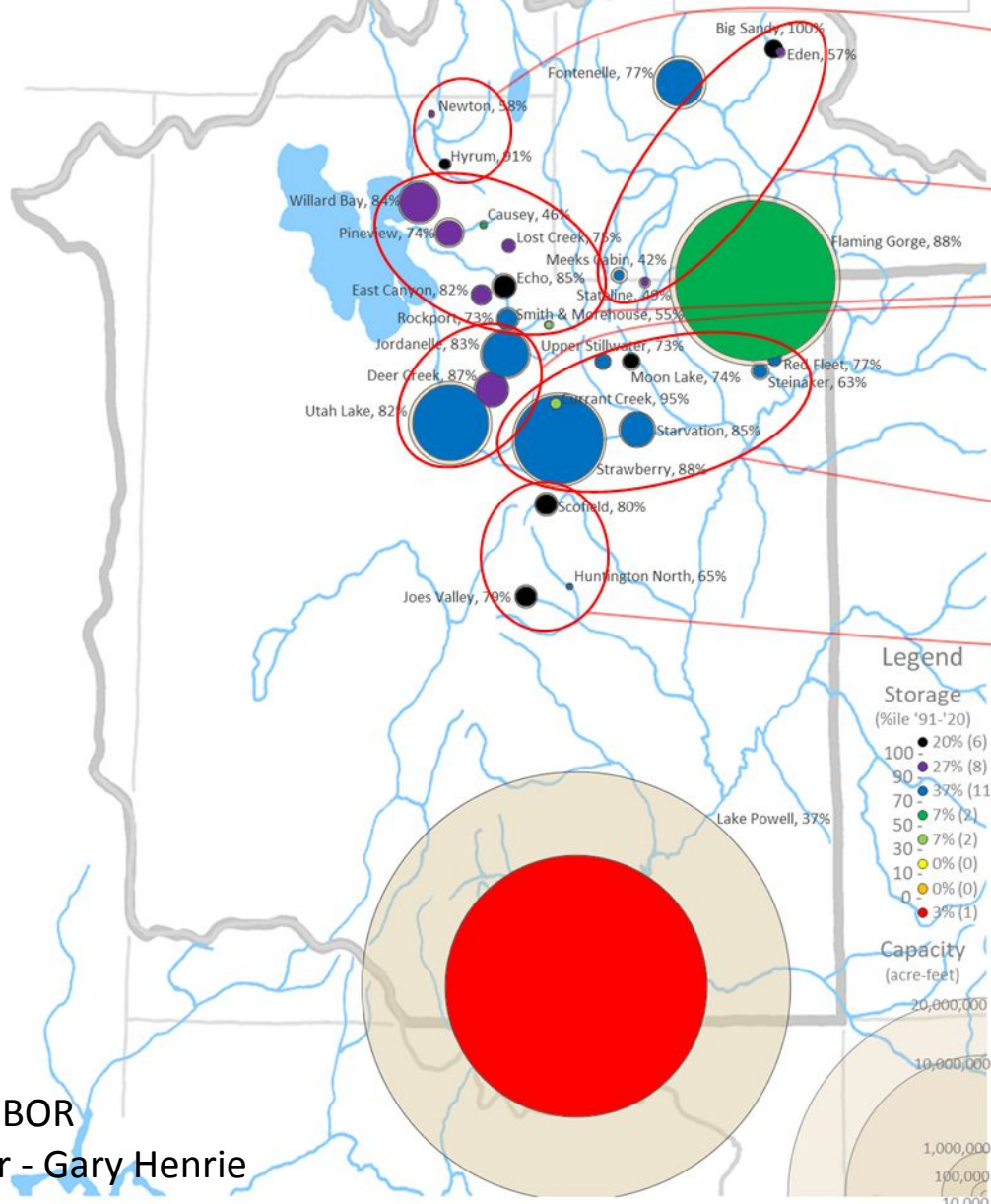


Reservoir Storage

11/6/2023

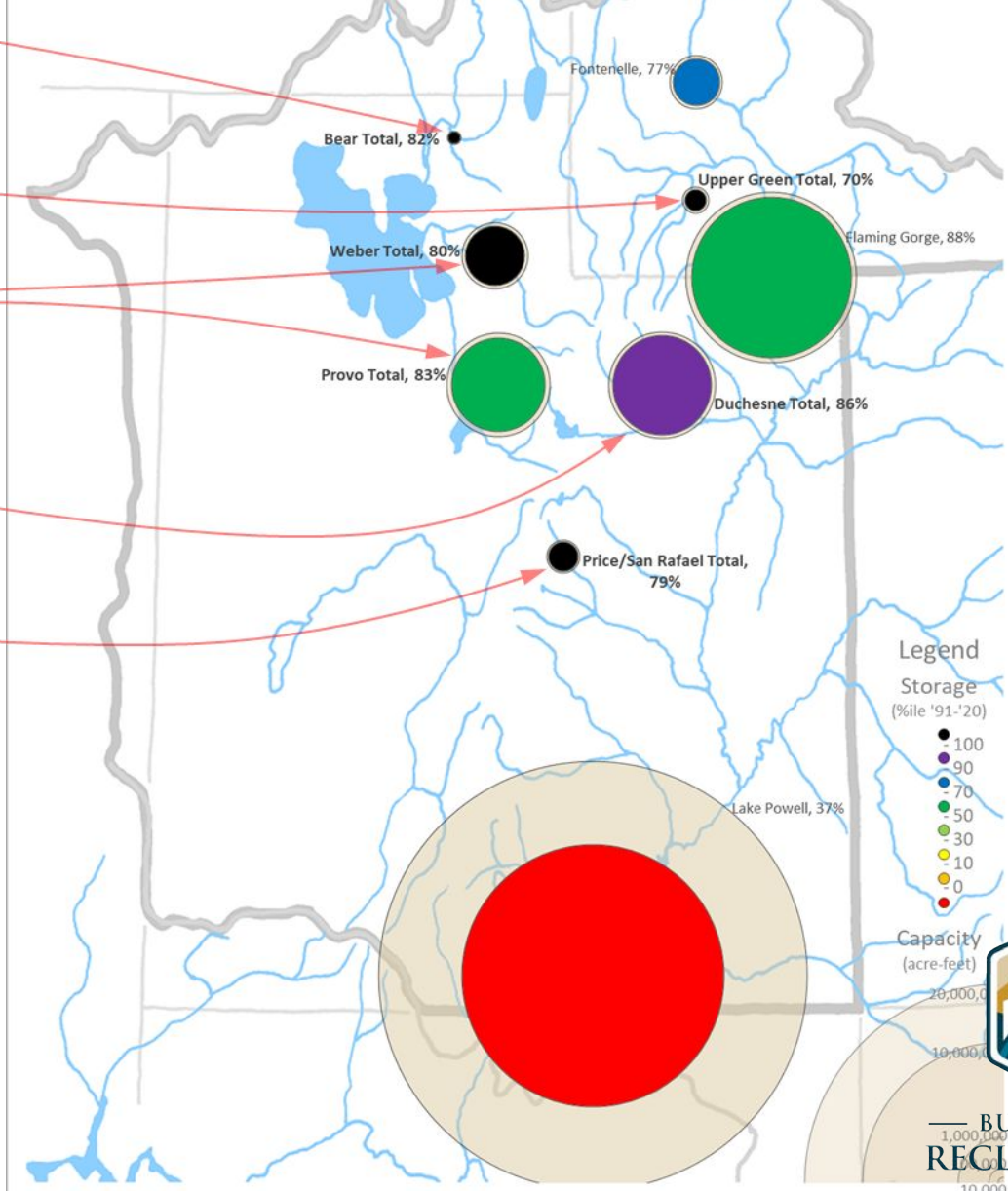
83% full

(Excluding Fontenelle,
Flaming Gorge, Lake Powell)
Last Month: 84% full
Last Year: 52% full

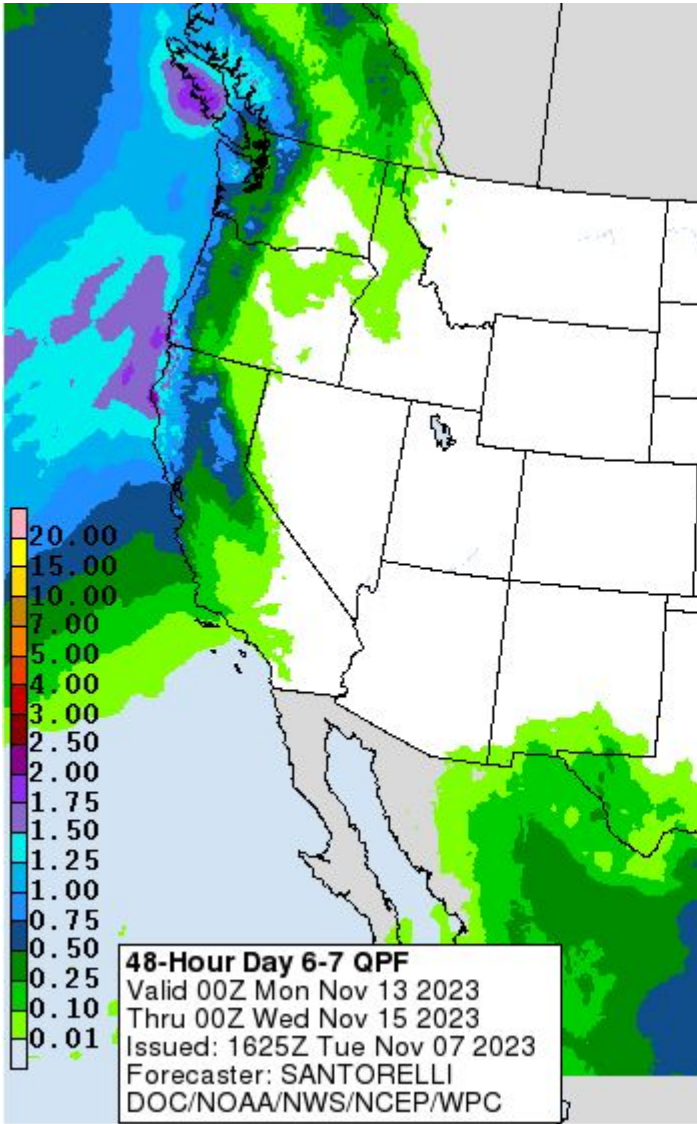
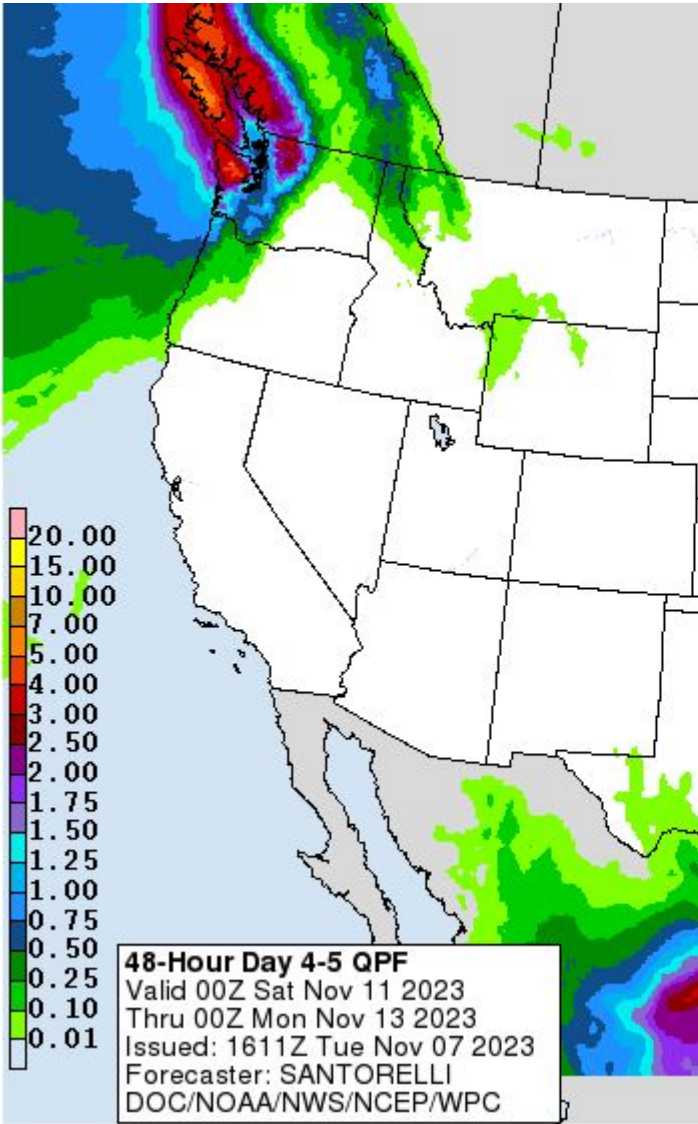
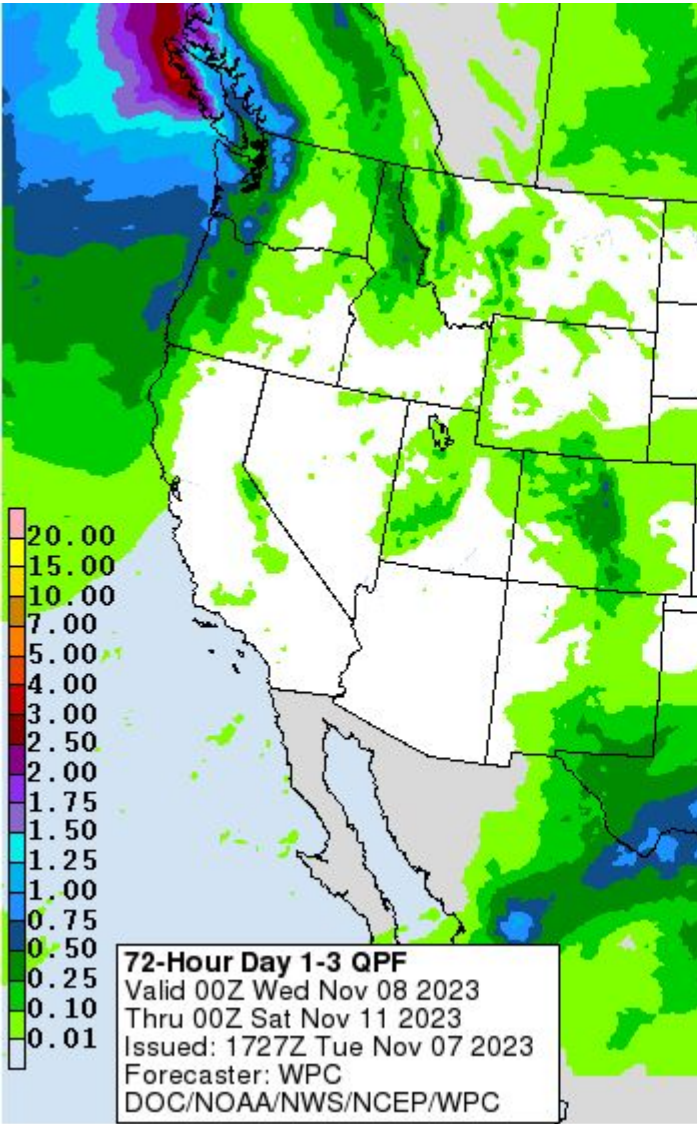


Basin Storage

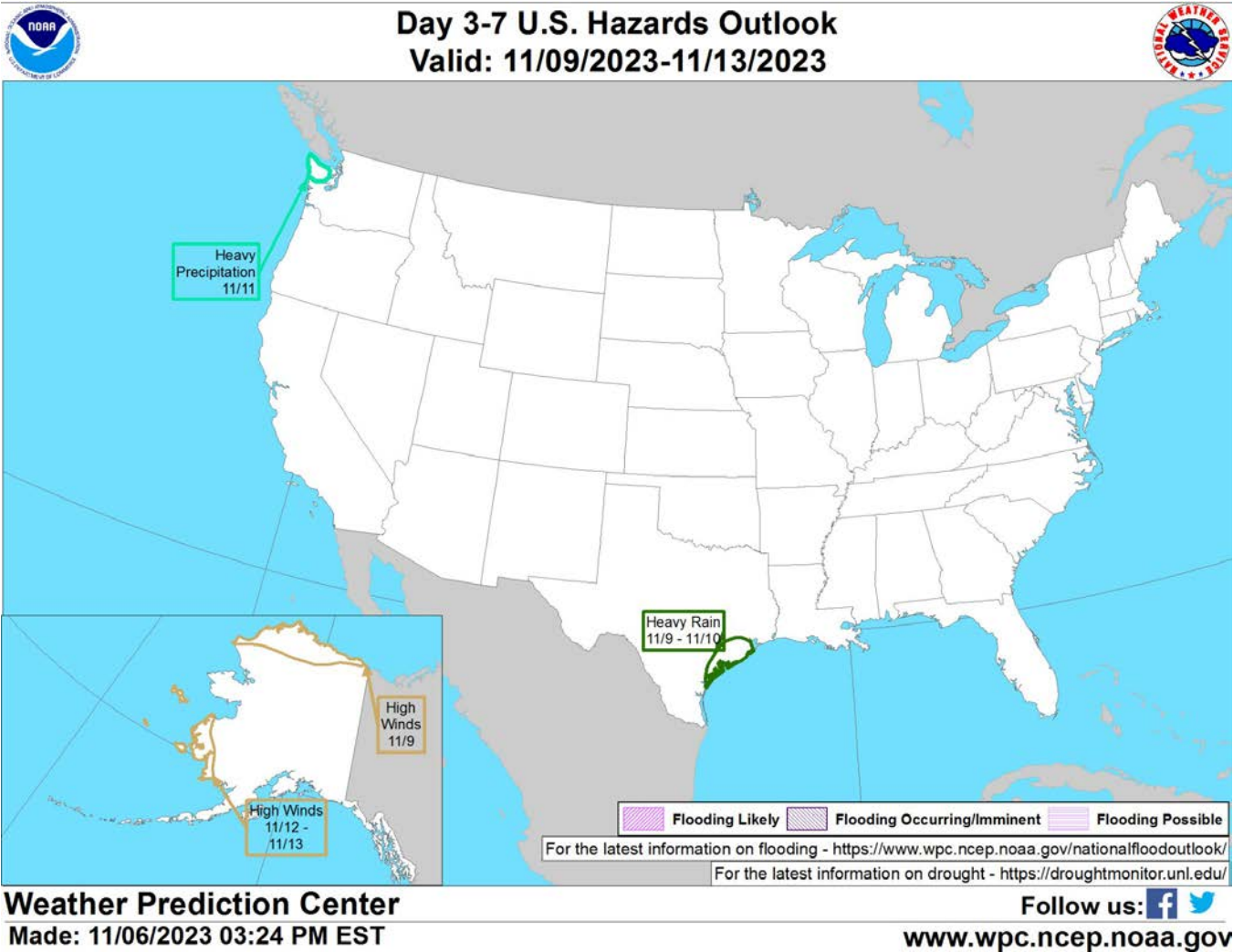
11/6/2023



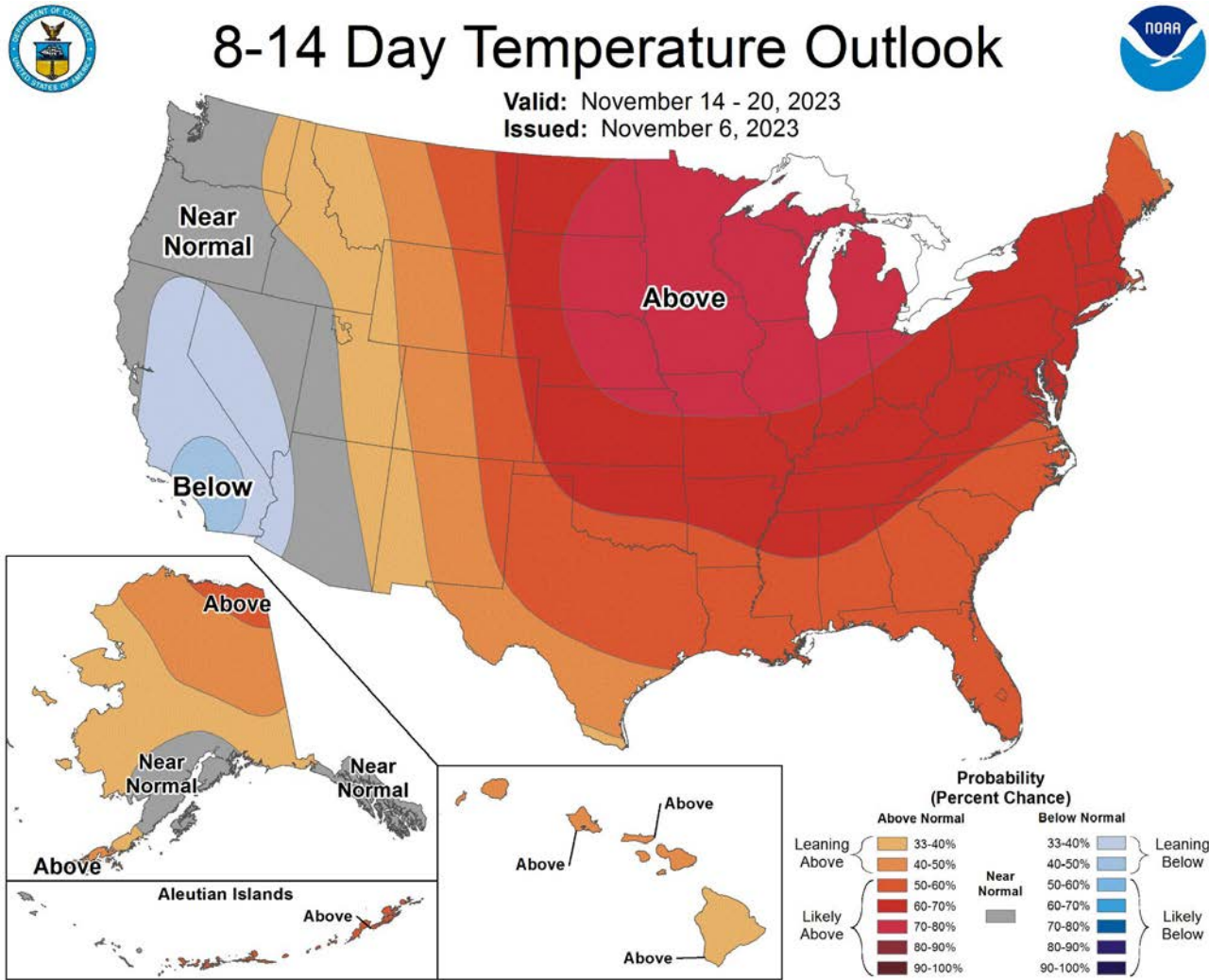
Weather Forecast Office Utah Day 1-7 Outlook



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



Climate Prediction Center 8 to 14 Day Outlooks - Temperature



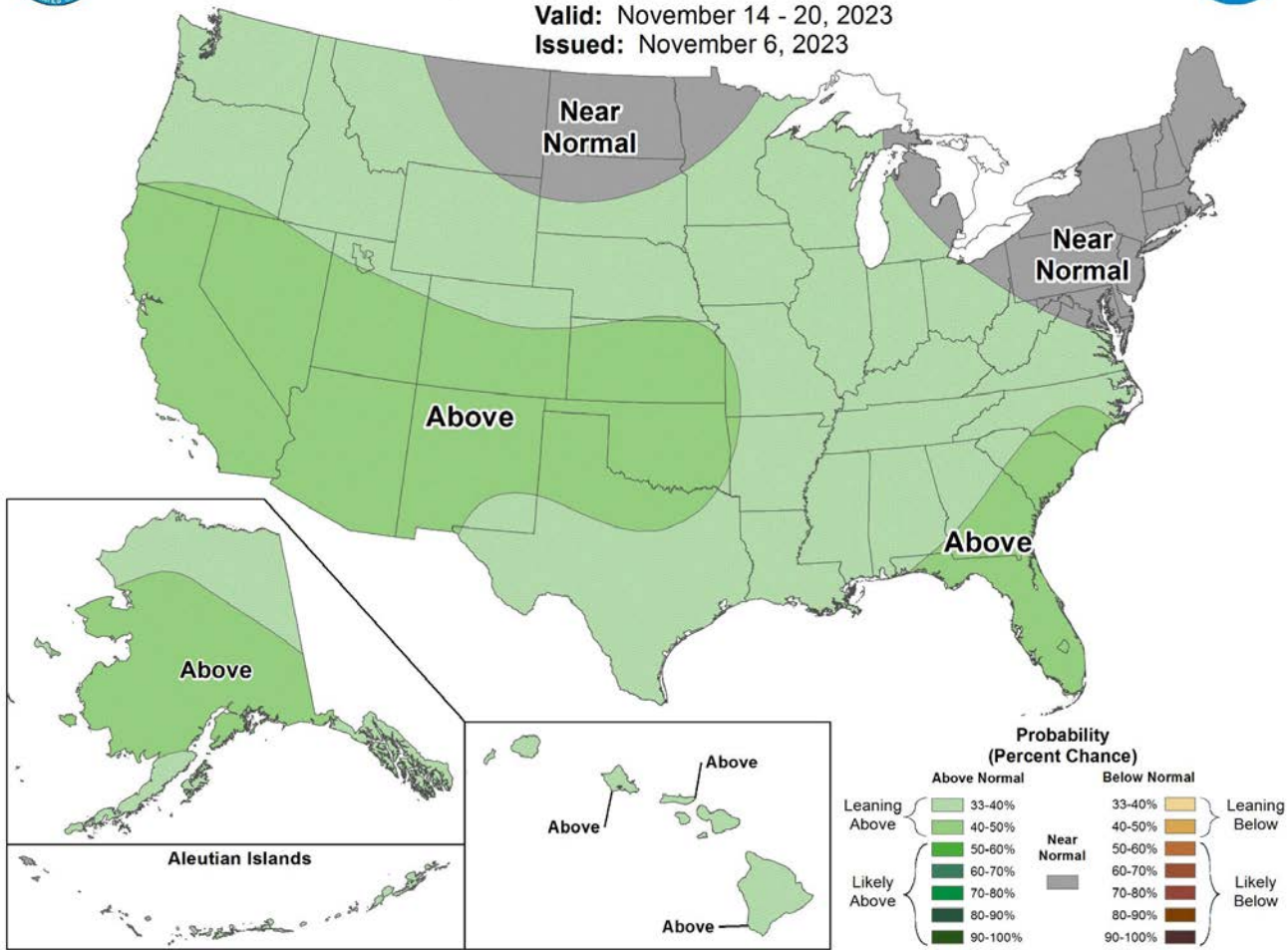
Climate Prediction Center 8 to 14 Day Outlooks - Precipitation



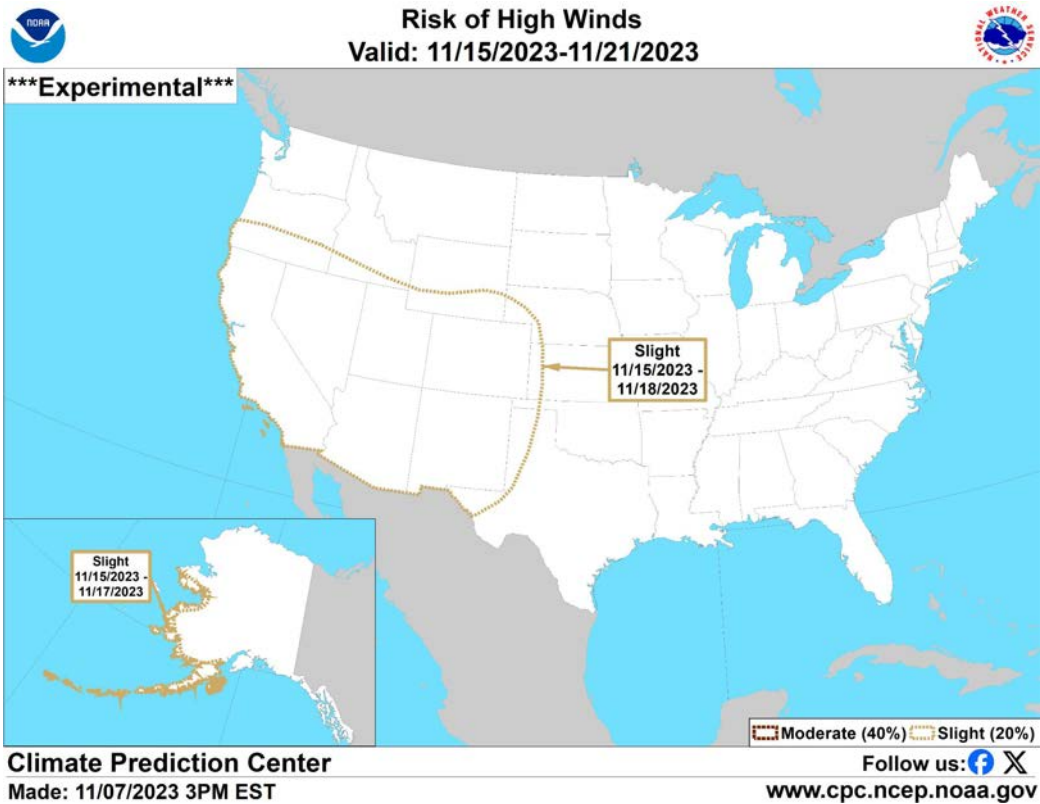
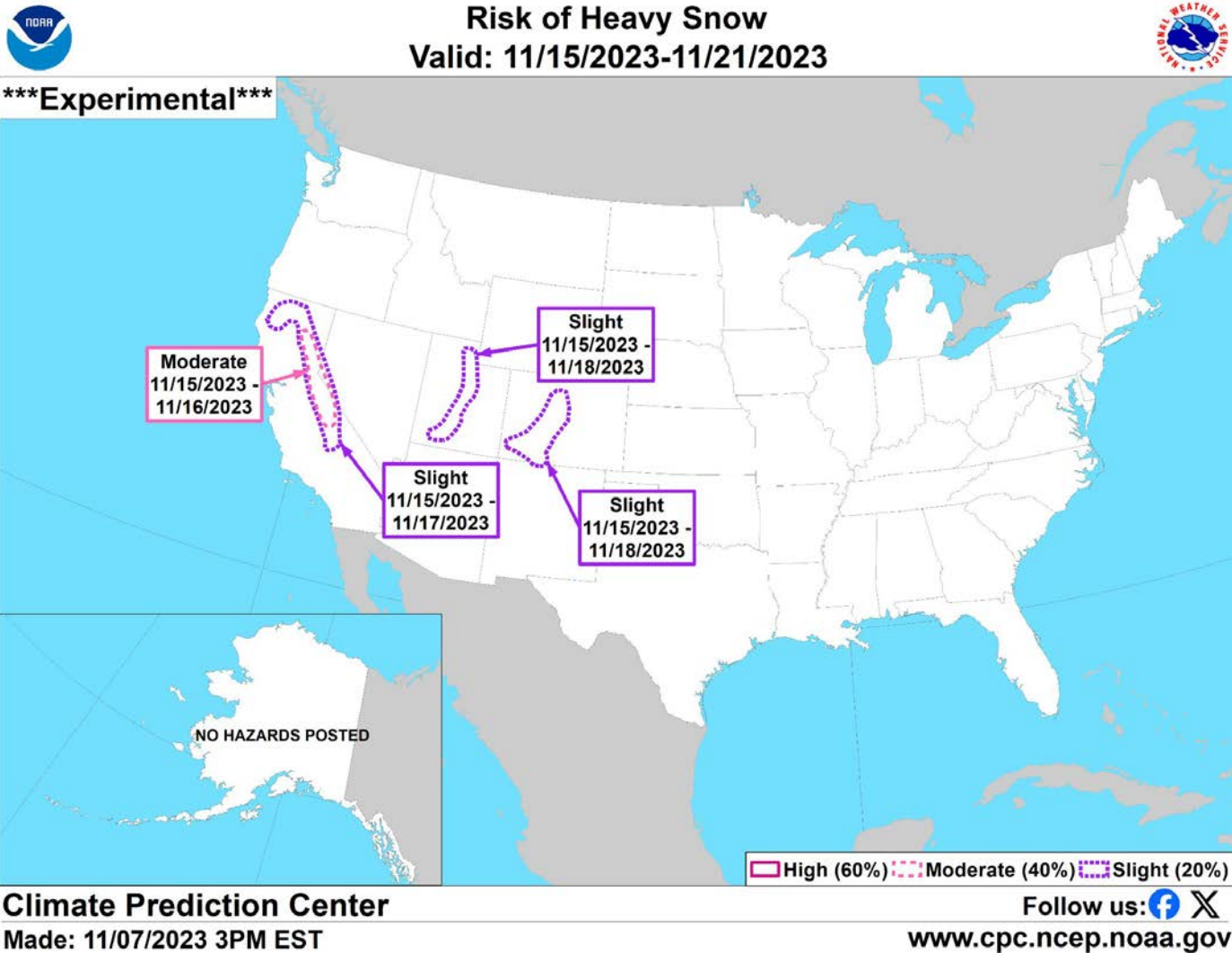
8-14 Day Precipitation Outlook

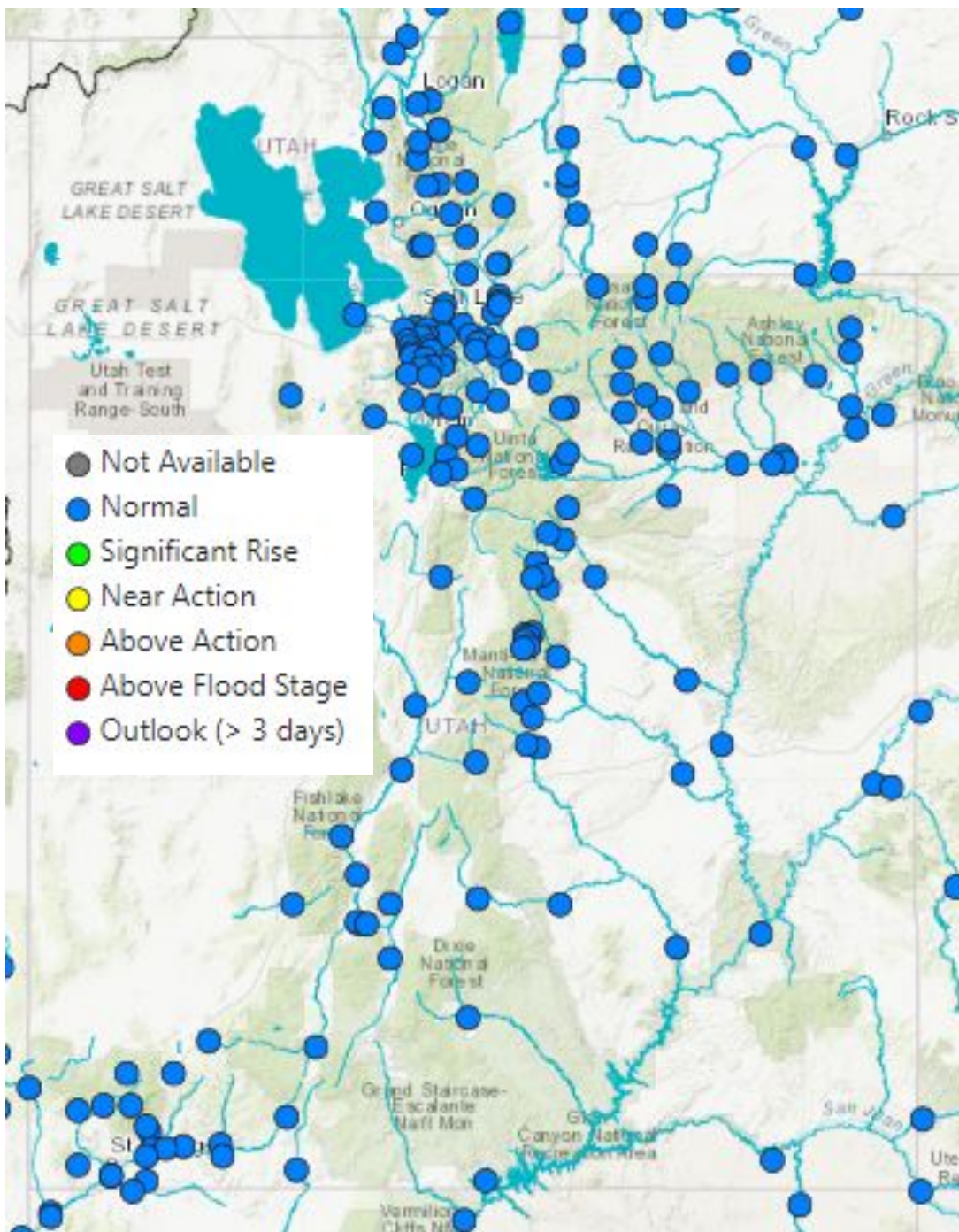


Valid: November 14 - 20, 2023
Issued: November 6, 2023



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

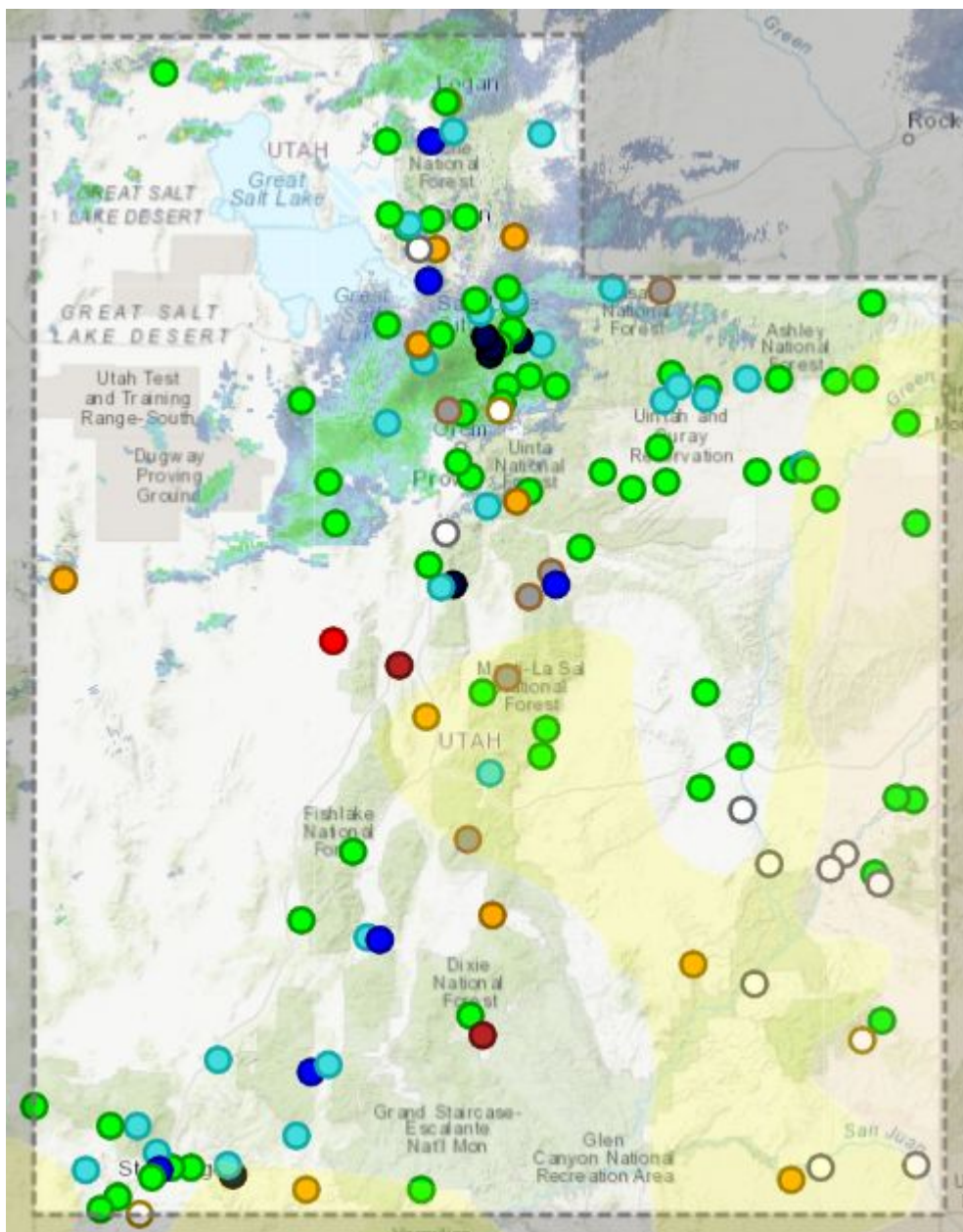




We are currently working to solidify our modeled soil moisture states and should have an updated Fall Soil Moisture Map available in the next 1-2 weeks

Our Stakeholder Engagement Meeting is tomorrow

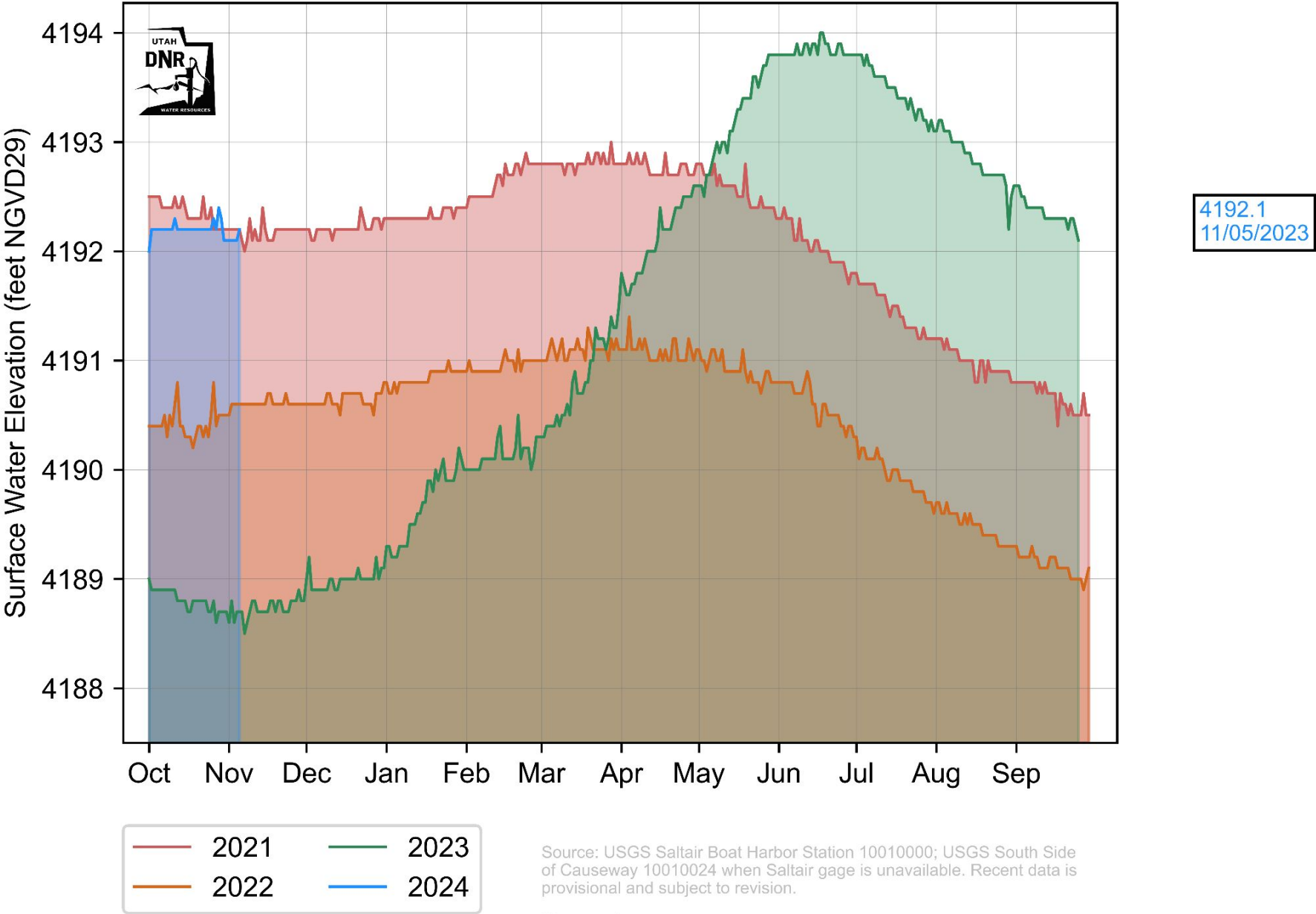
Patrick Kormos is taking a new position with the NRCS, Trevor Grout will be taking over forecasting duties throughout the Great Basin



Streamflow: Status

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

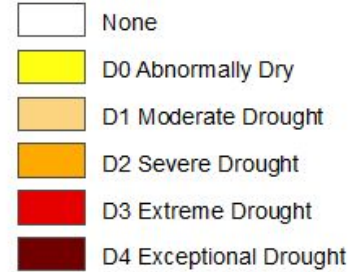
Great Salt Lake South Arm Elevation



U.S. Drought Monitor Utah

October 31, 2023
(Released Thursday, Nov. 2, 2023)
Valid 8 a.m. EDT

Intensity:



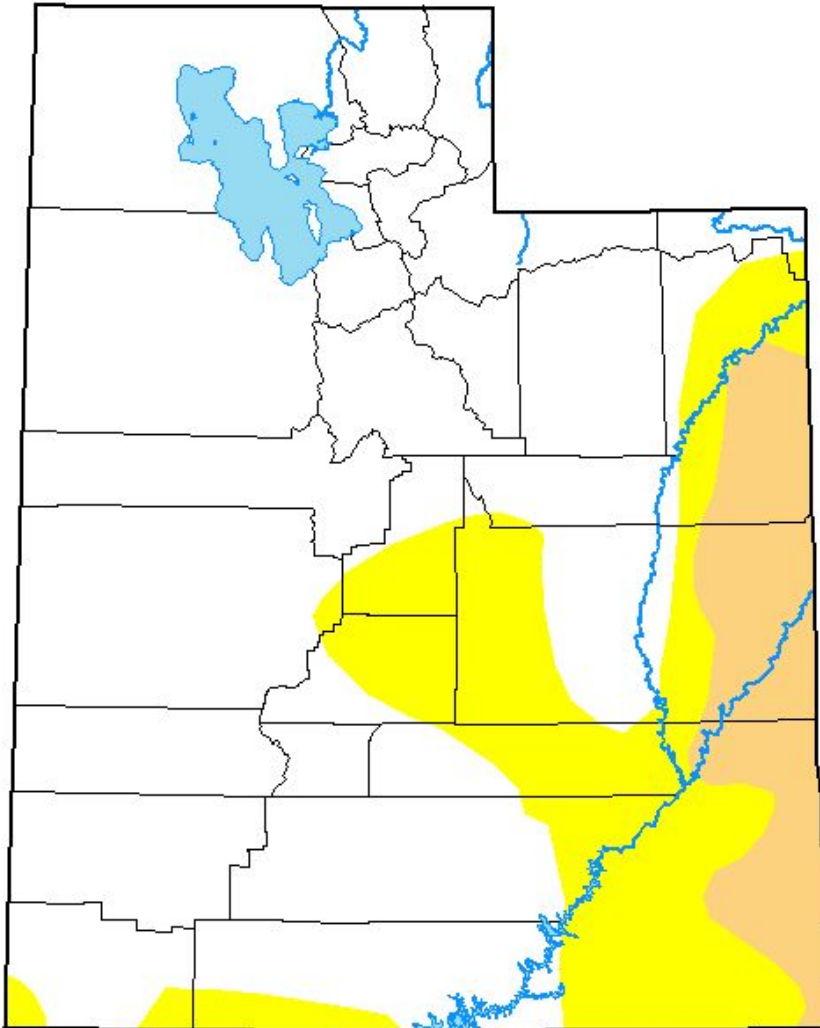
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu



To report on conditions between meetings:

Submit a report on CMOR drought website

Email Lhaskell@utah.gov

email drought@utah.gov