



Utah Water Assessment & Conditions Monitoring (Drought Webinar)

The meeting will begin shortly



Thank you to our contributors

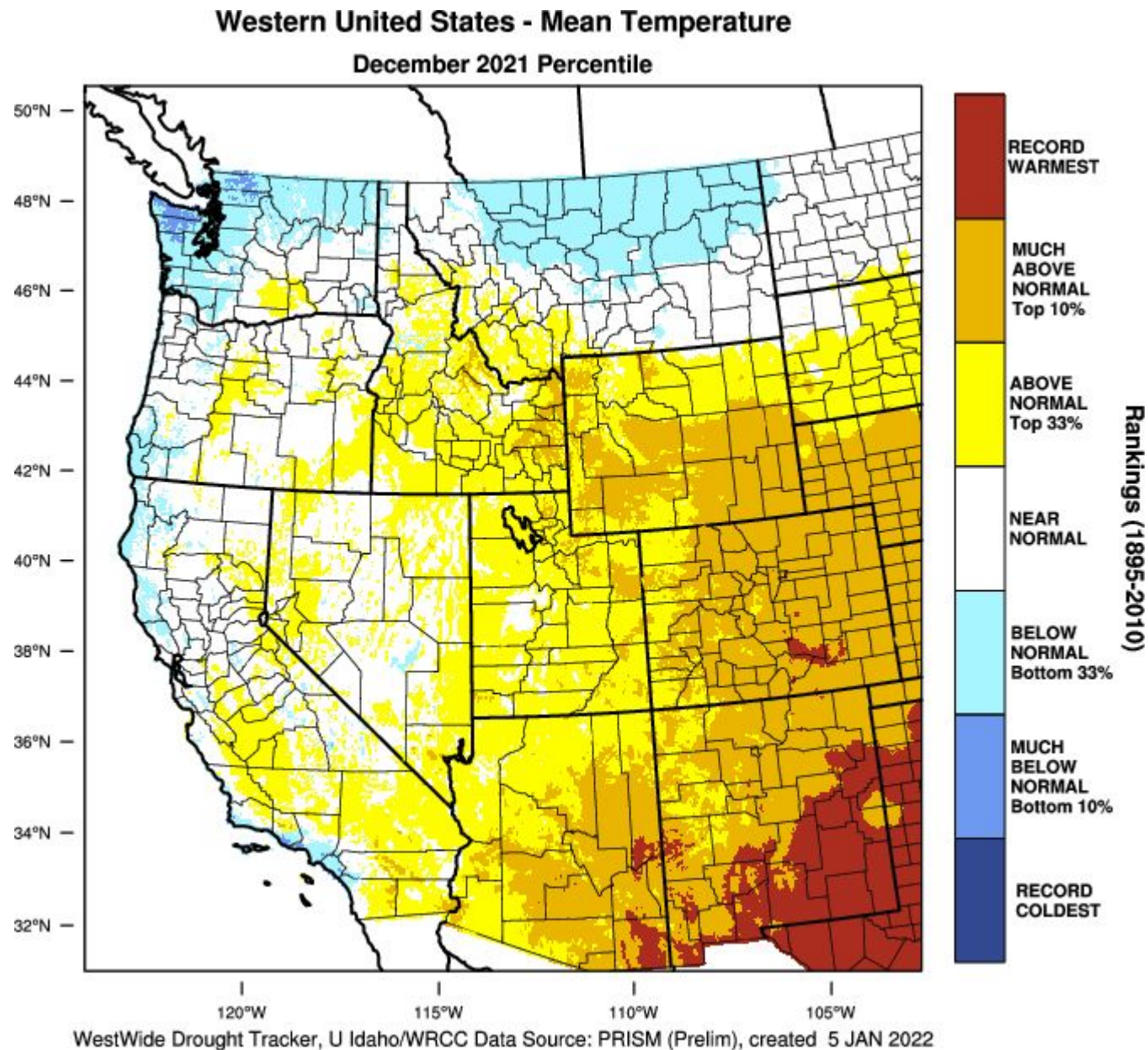




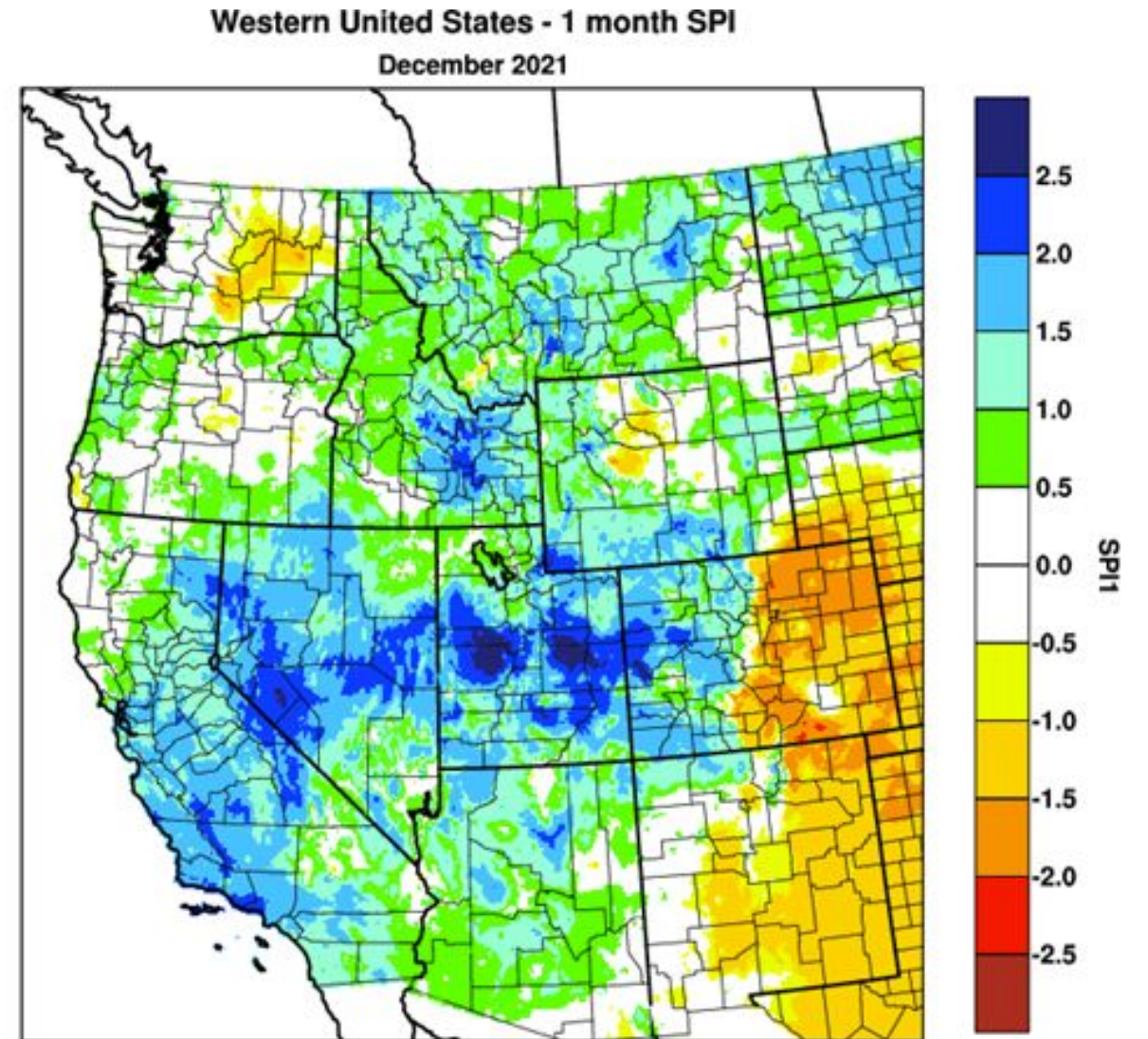
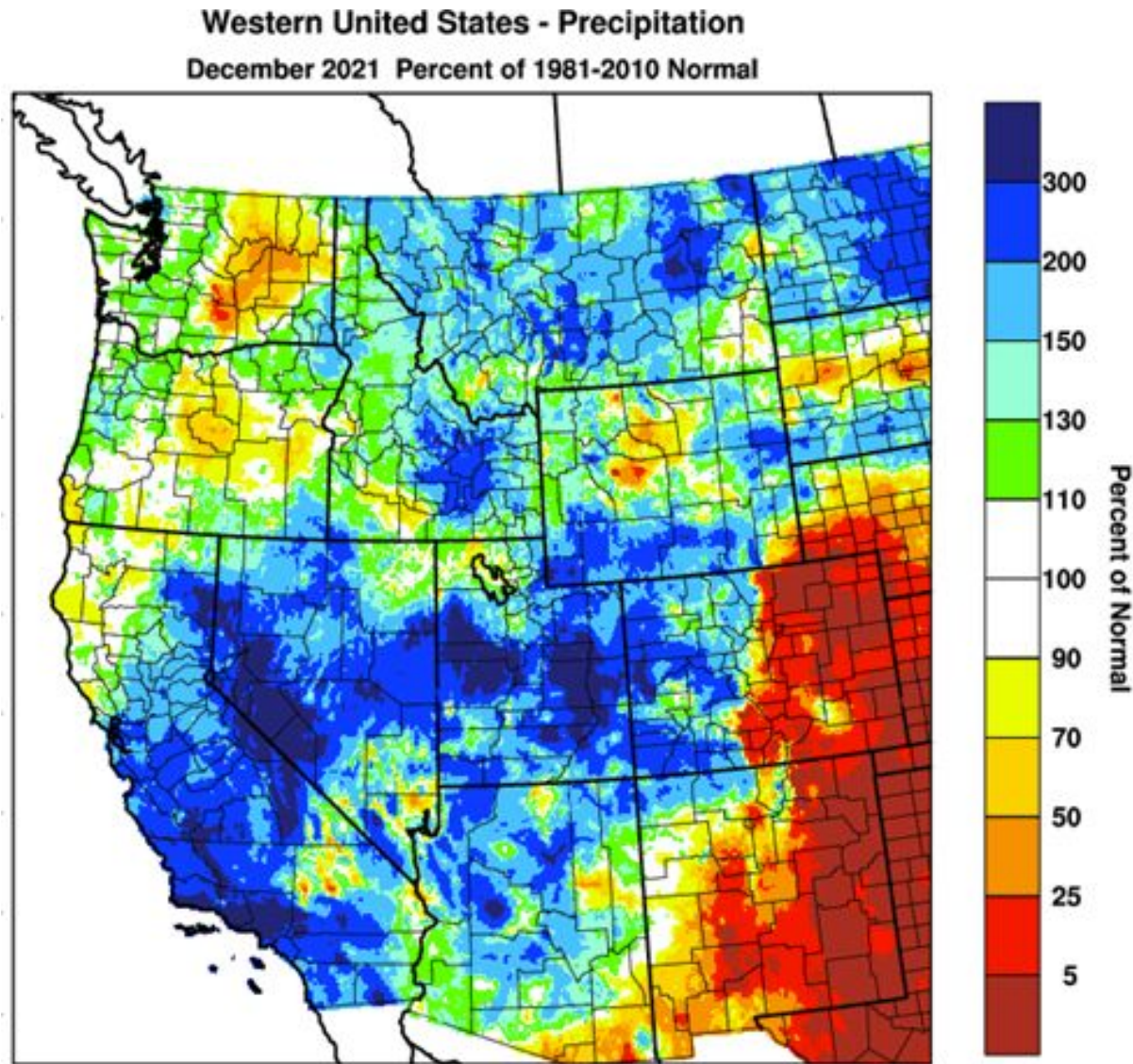
Utah Water Assessment & Conditions Monitoring Webinar

January 11, 2022

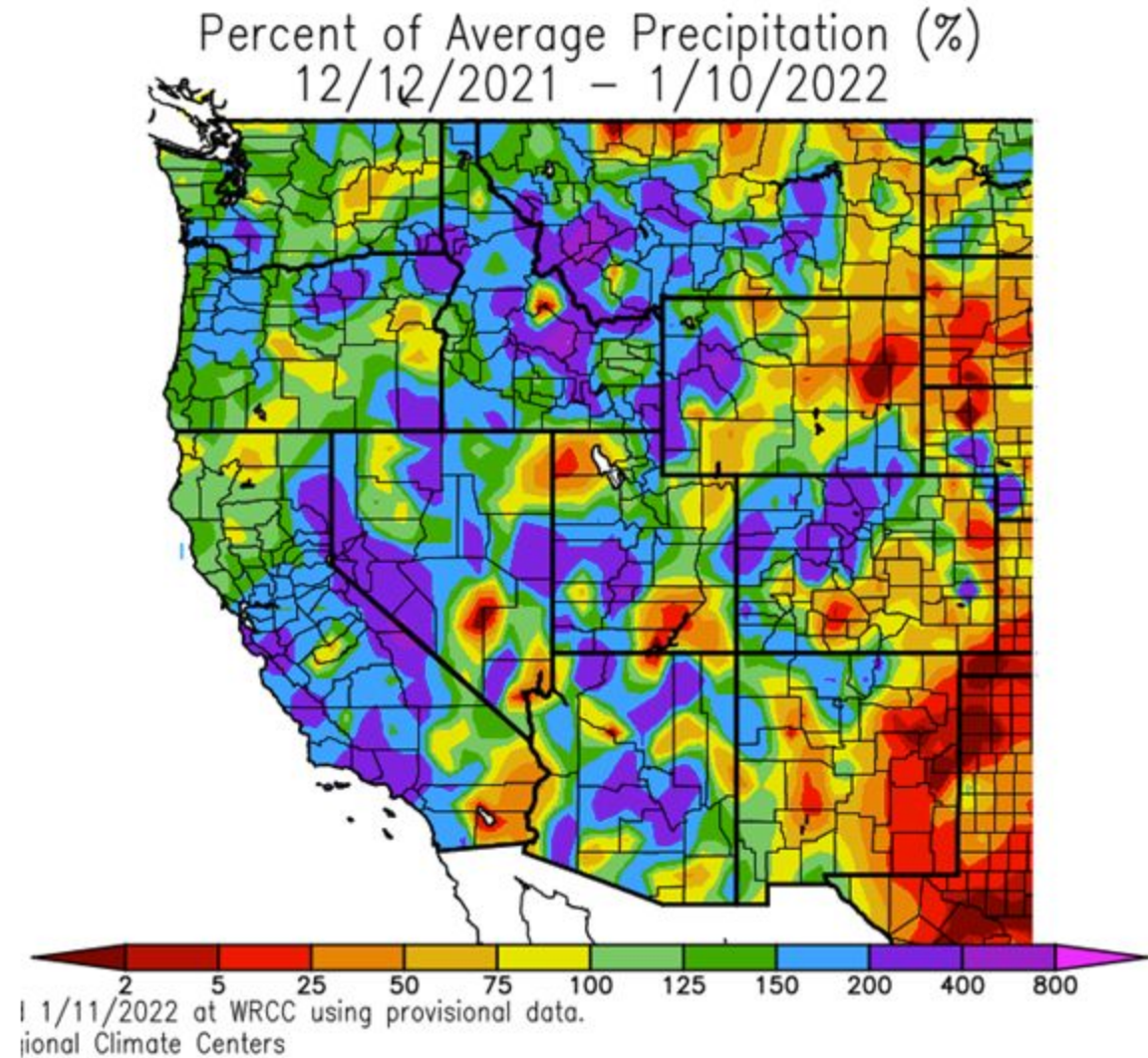
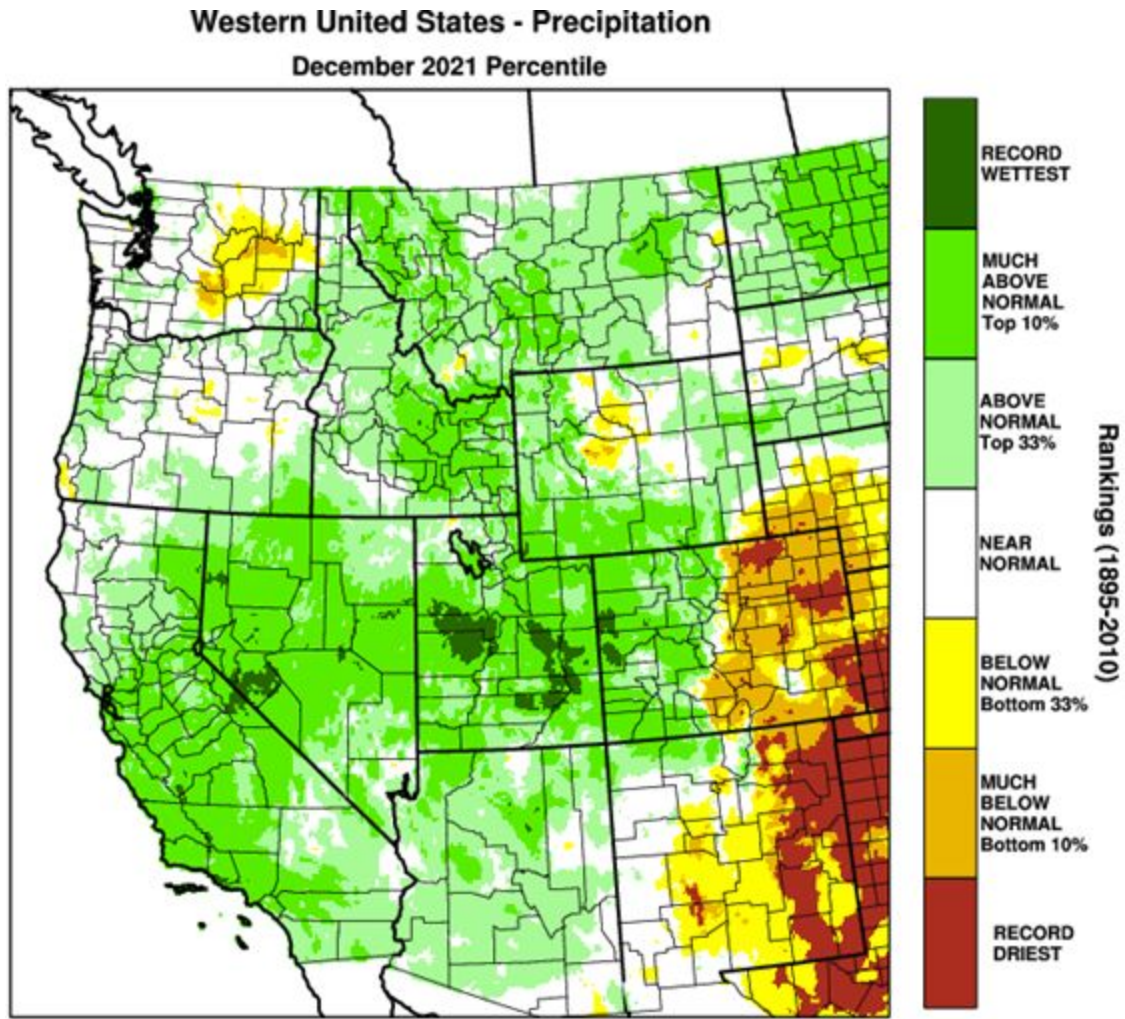
December's Temperatures



December's Precipitation

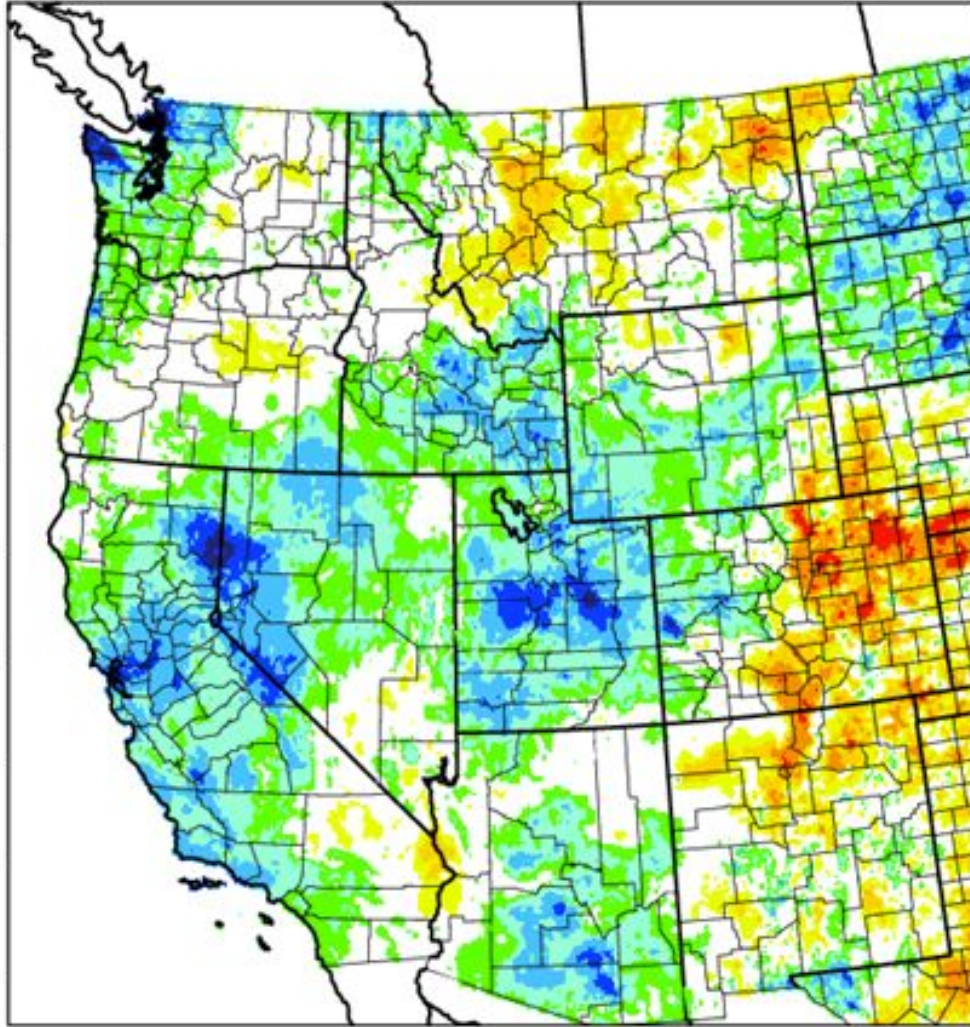


30-day Precipitation

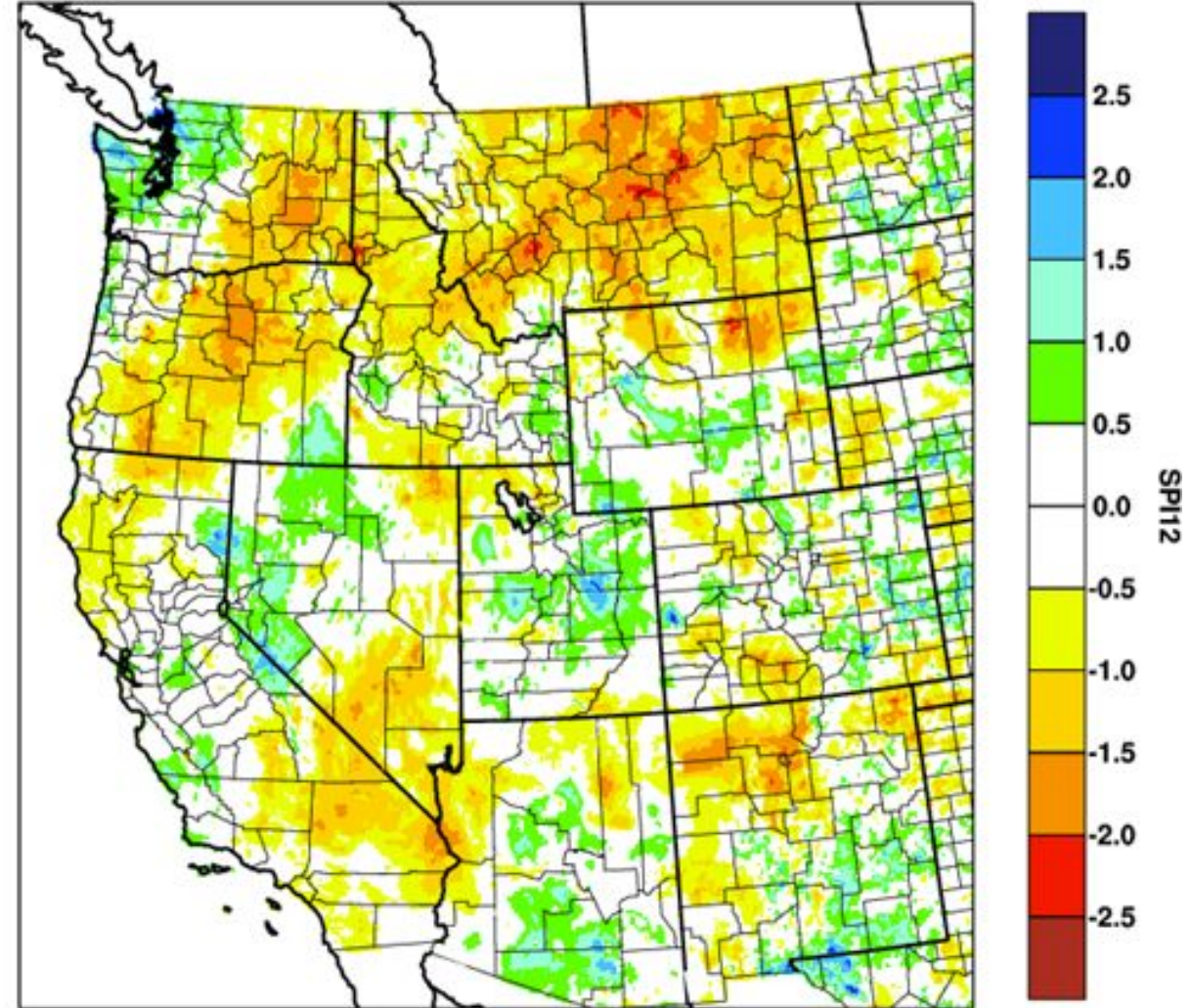


2021 Precipitation Overview

Western United States - 6 month SPI
December 2021

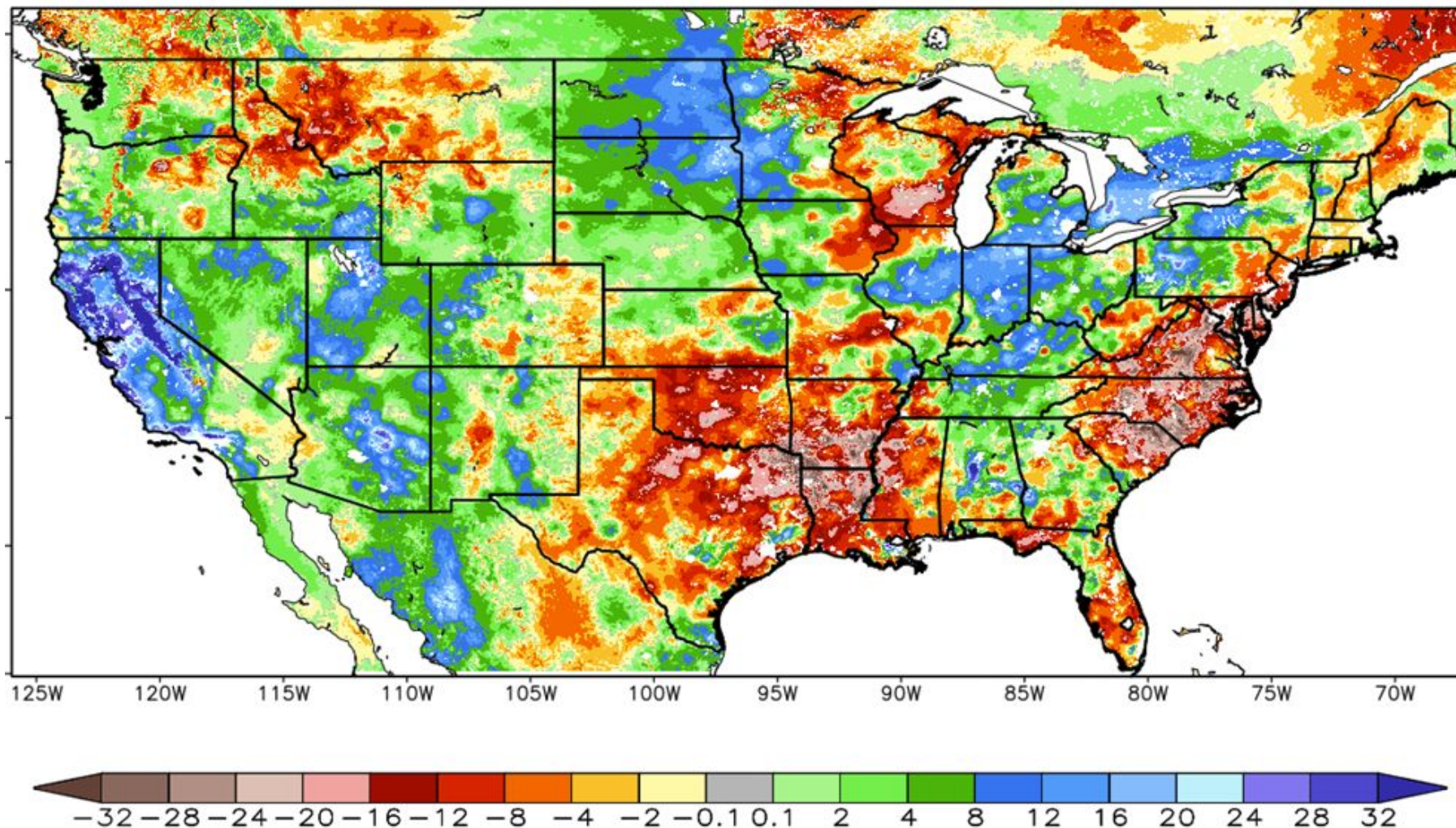


Western United States - 12 month SPI
December 2021



Year-over-Year Soil Moisture Improvements

1-Year Difference in Column Relative Soil Moisture (%) valid 12z 11 Jan 2022

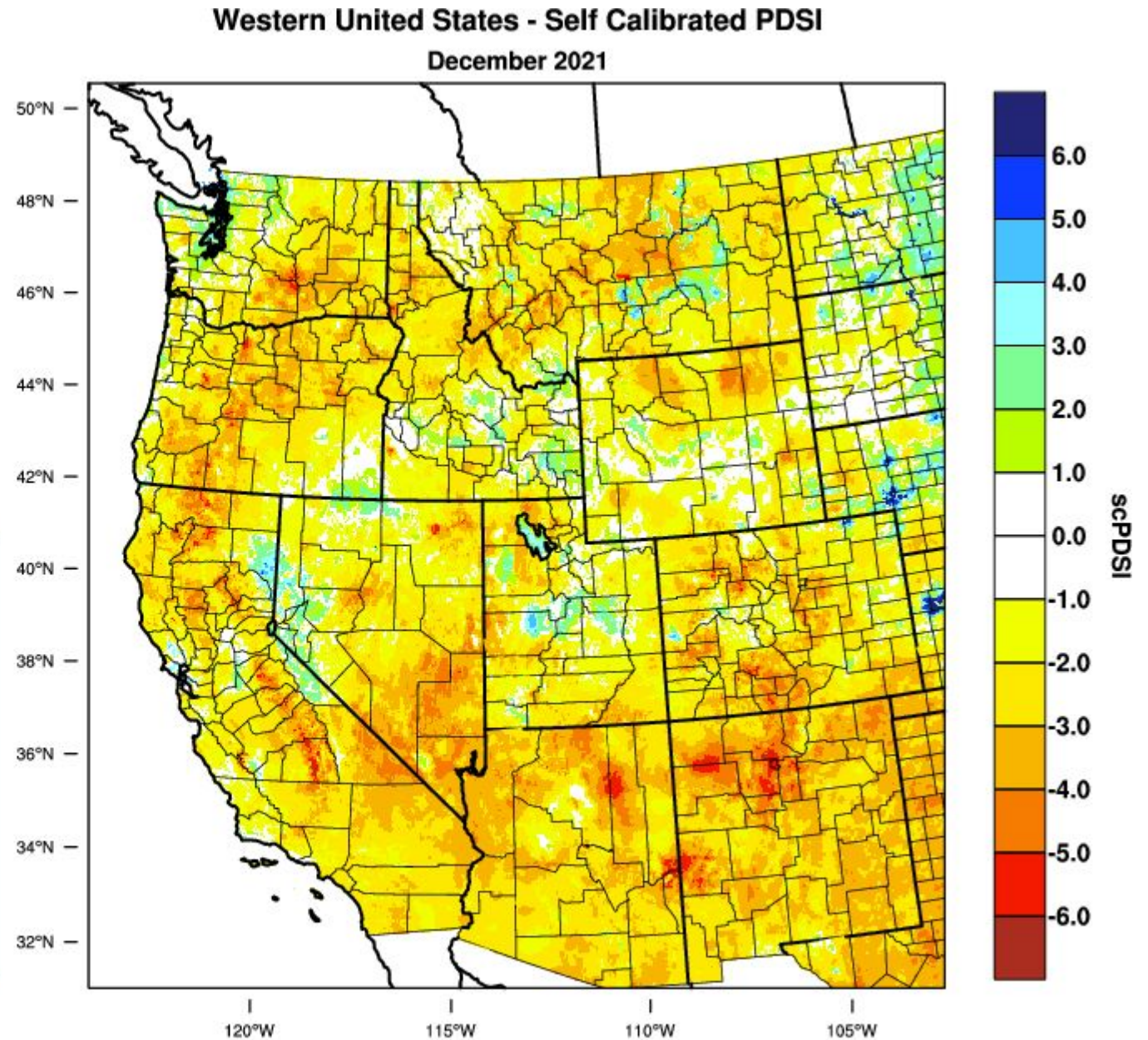


Agency - Utah Climate Center

Presenter - Jon Meyer

December's Palmer Drought Severity Index

Palmer Drought Severity Index. PDSI is based on a simplified water budget that considers water supply (precipitation), demand (evapotranspiration) and loss (runoff). PDSI uses temperature, precipitation, and soil data to determine the accumulated water excess or deficit.



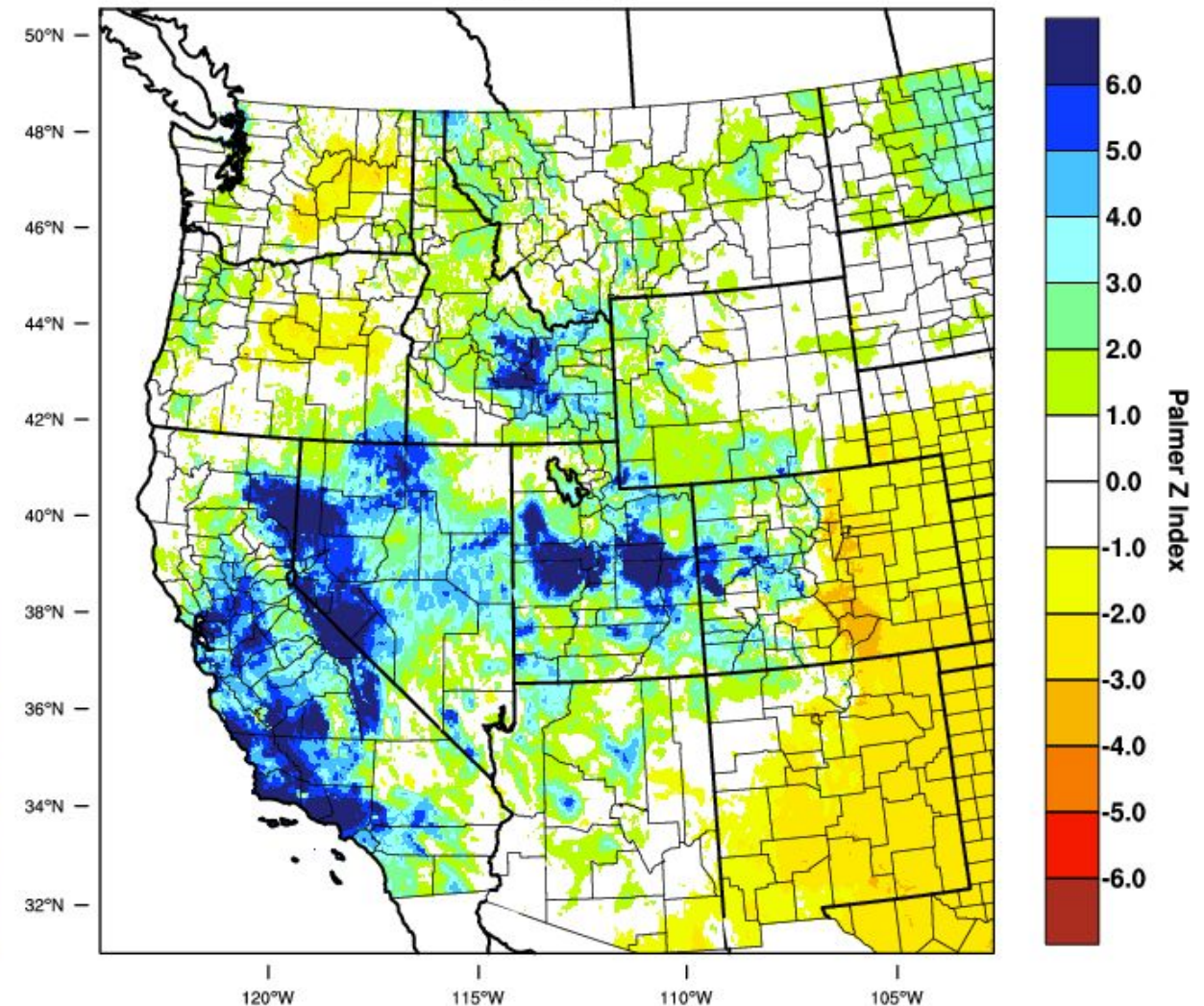
WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 JAN 2022

December's PDSI Z-Index (Short-Term Perspective)

The Palmer Z Index measures short-term drought on a monthly scale. The Z-value is also referenced to the specific location and the climate for that time of year.

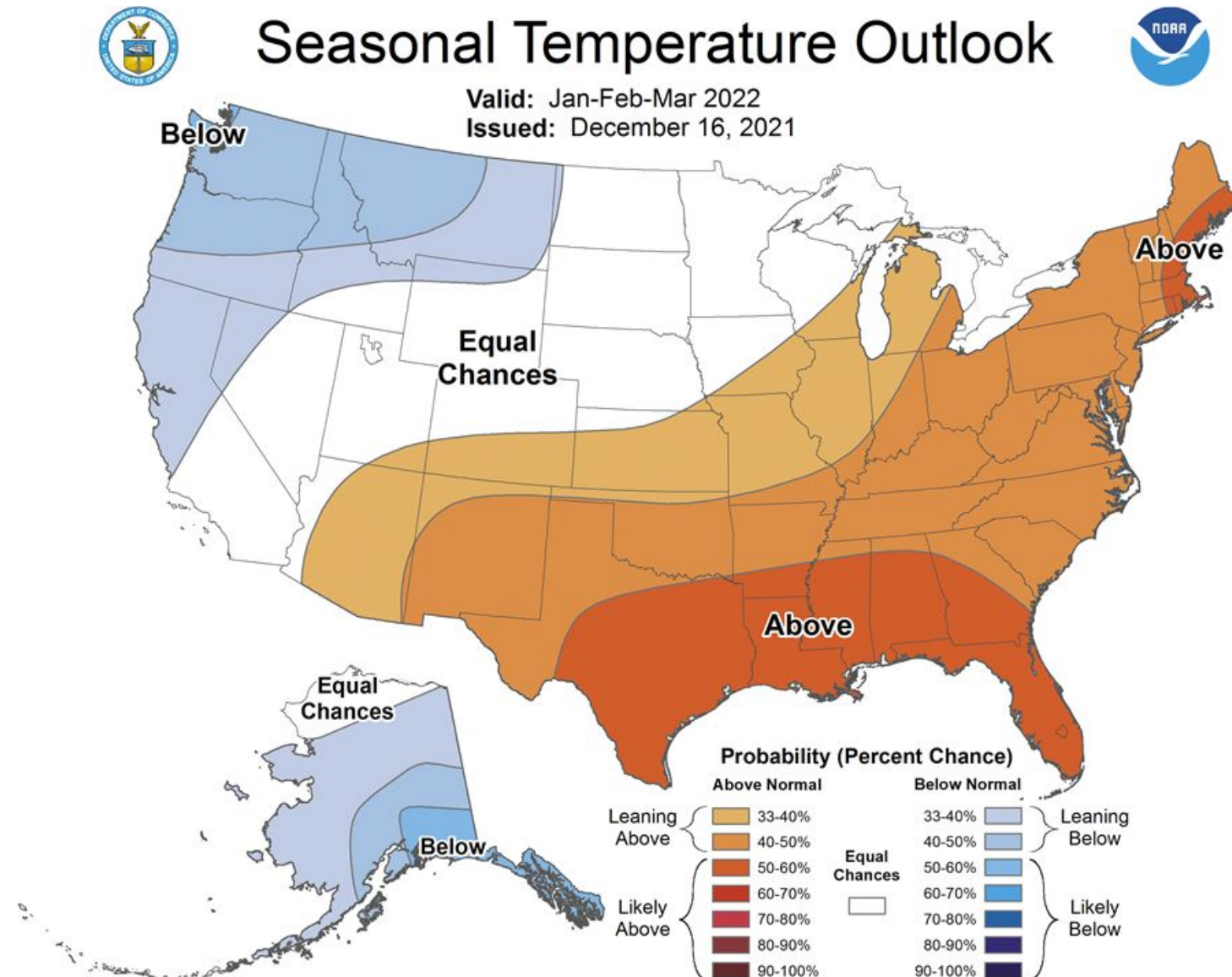
Western United States - Palmer Z-Index

December 2021

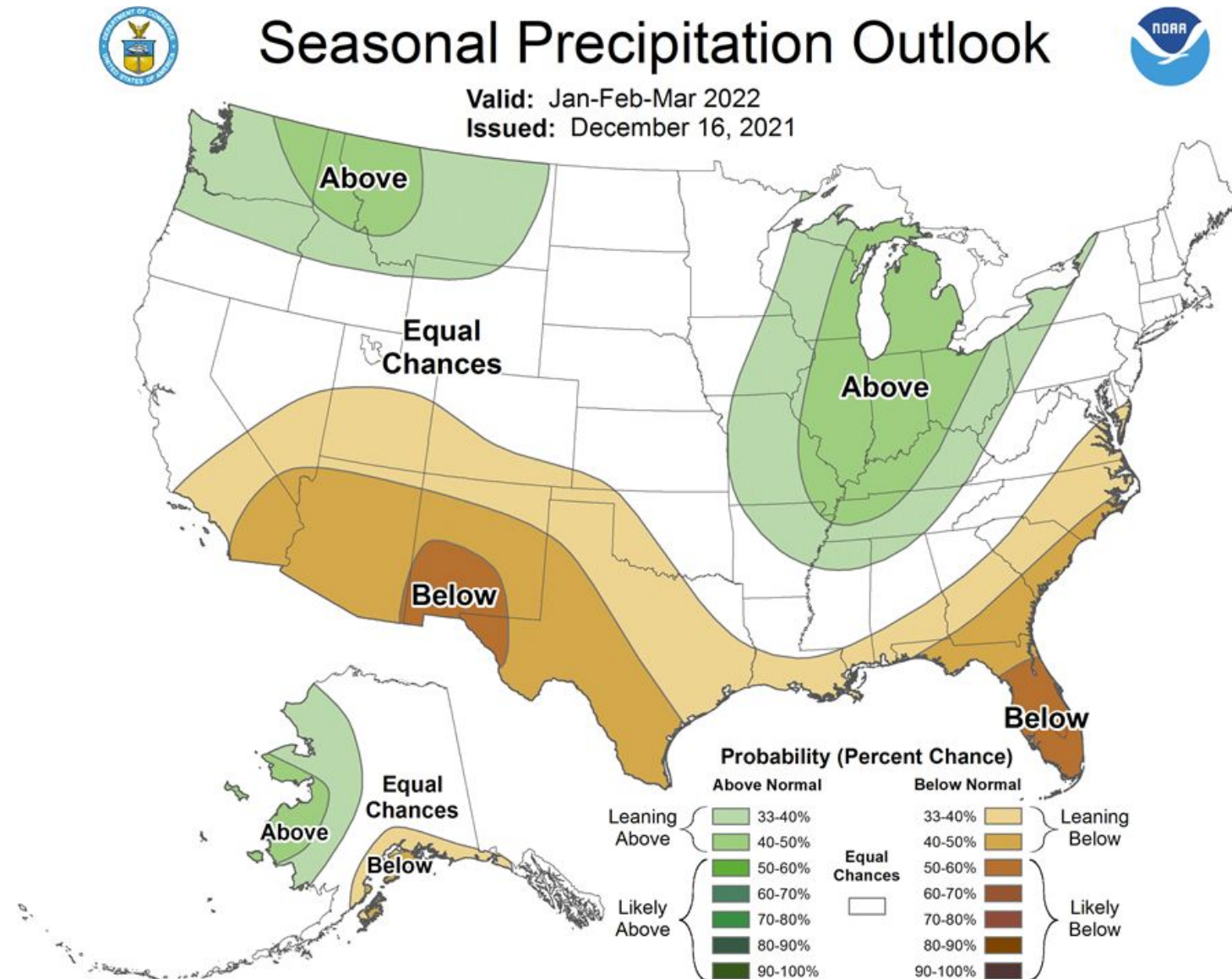


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 JAN 2022

CPC Jan-March Temperature Outlook

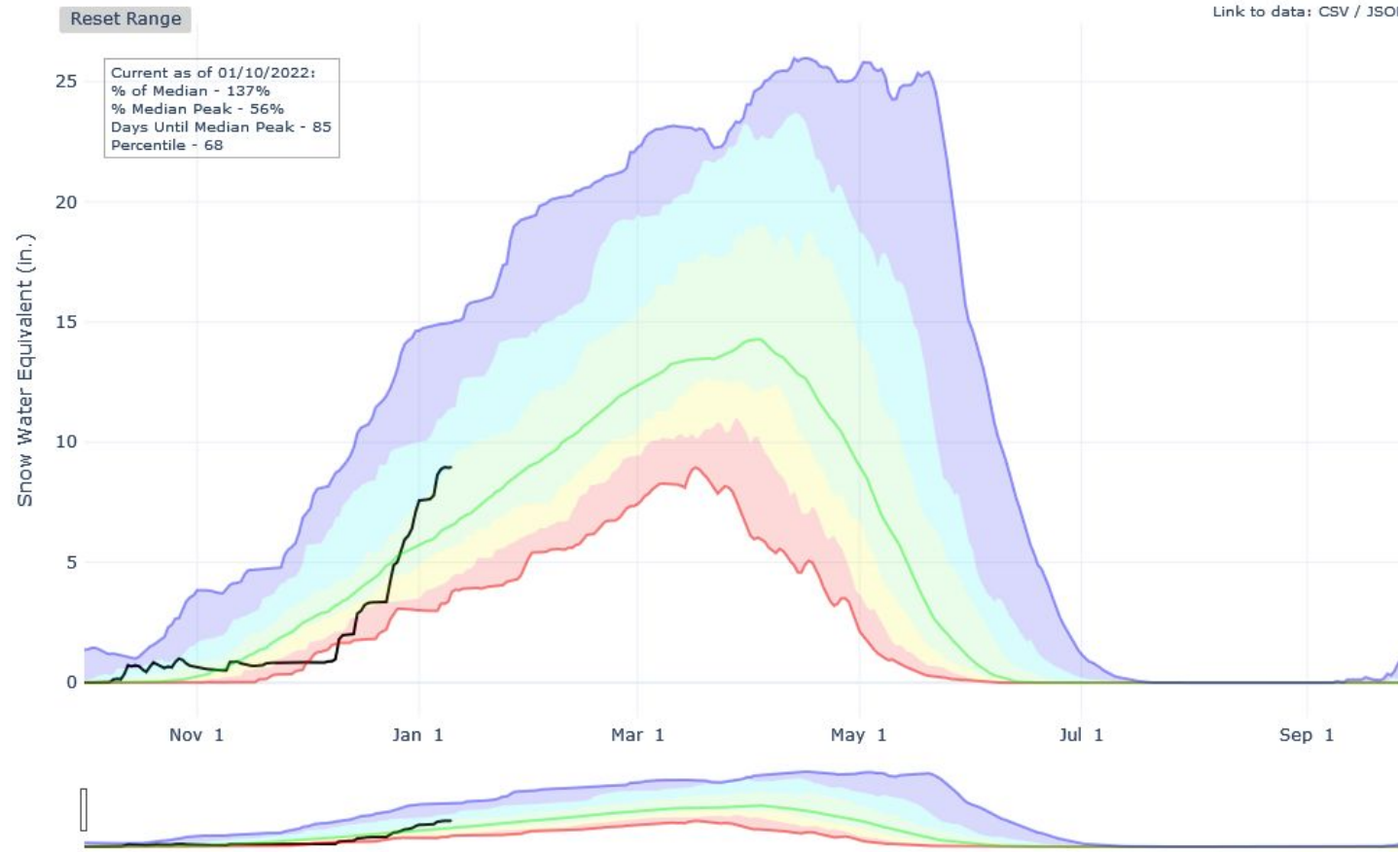


CPC Jan-March Temperature Outlook

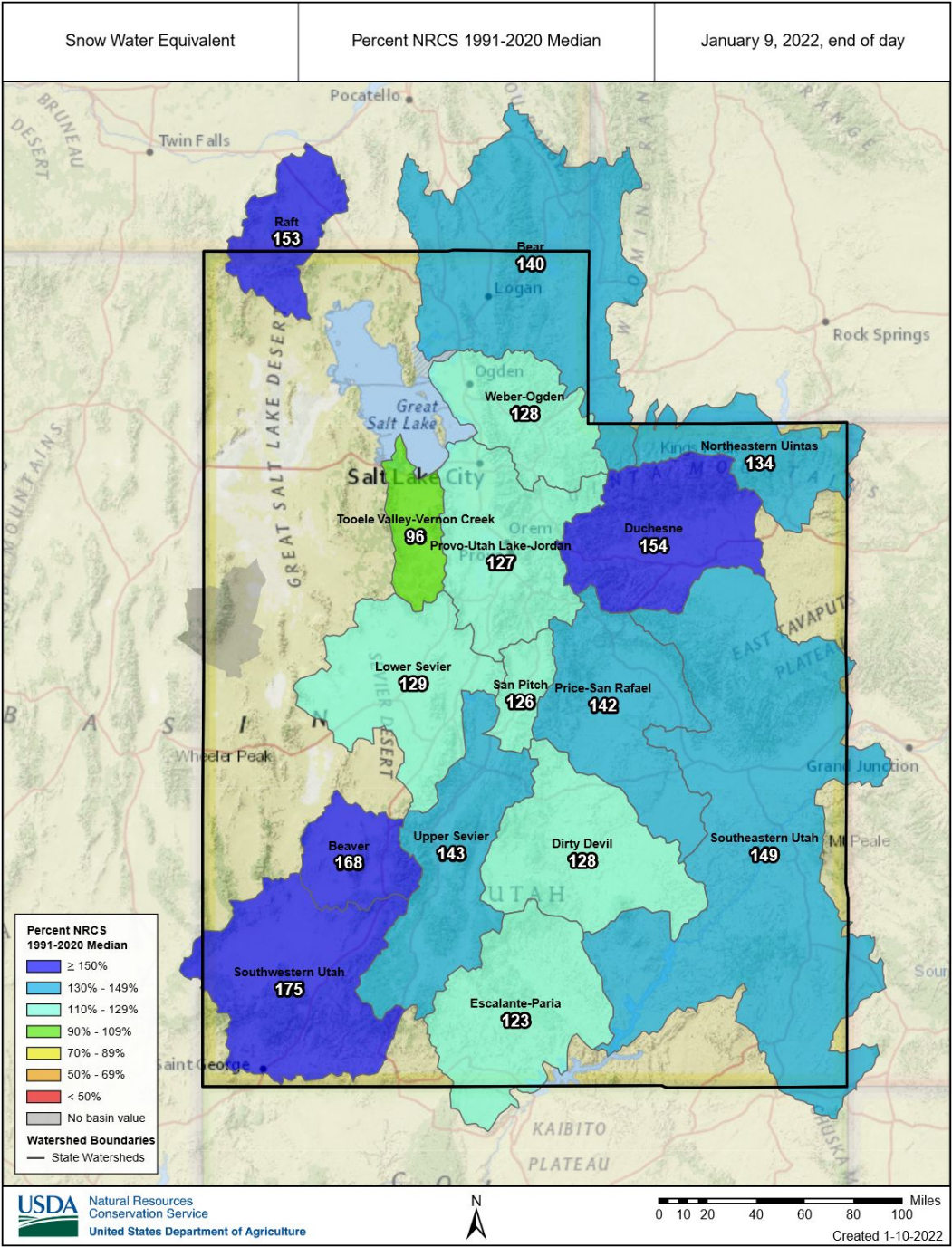


Snowpack

SNOW WATER EQUIVALENT IN STATE OF UTAH



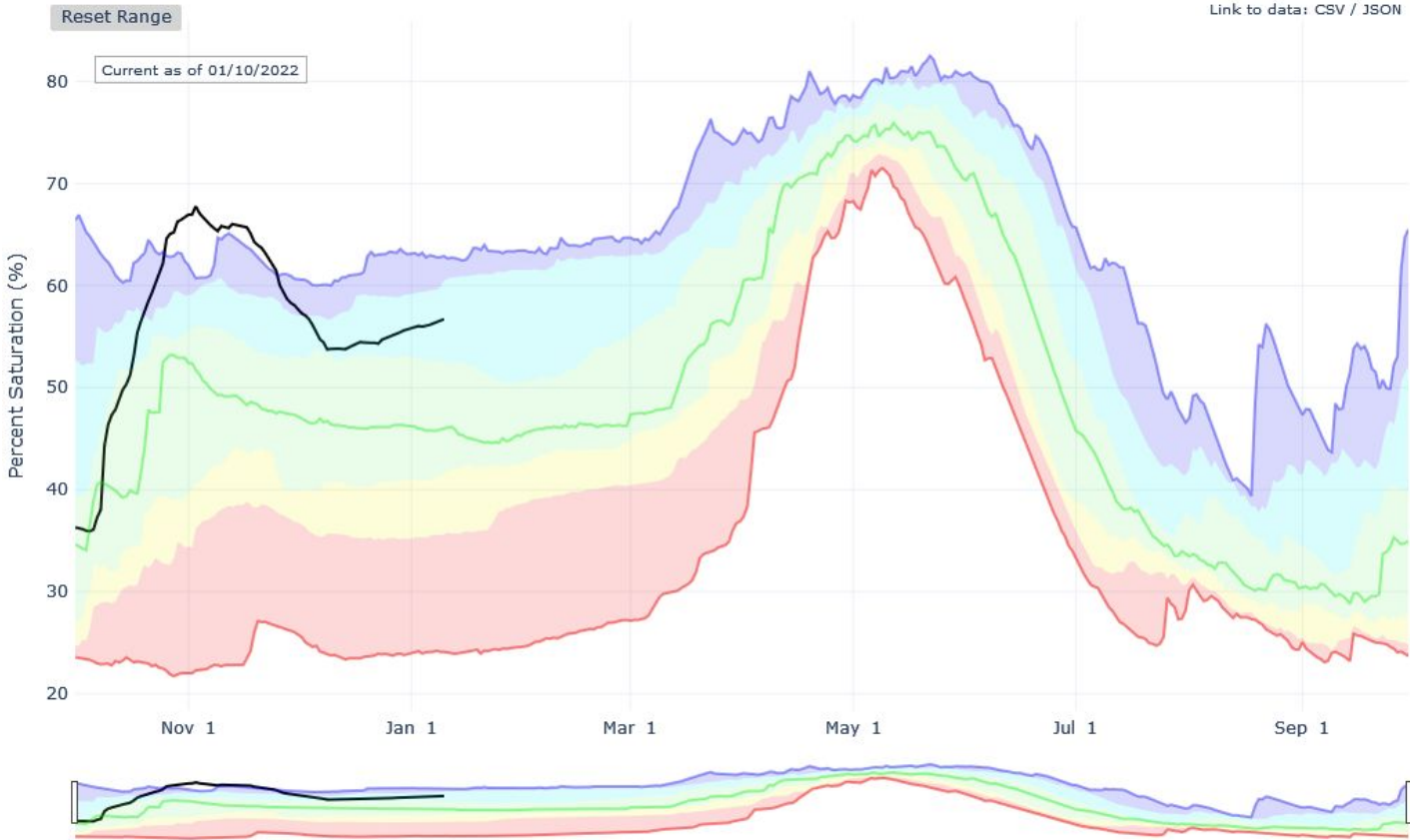
Agency - NRCS Snow Survey
Presenter - Kent Sutcliffe



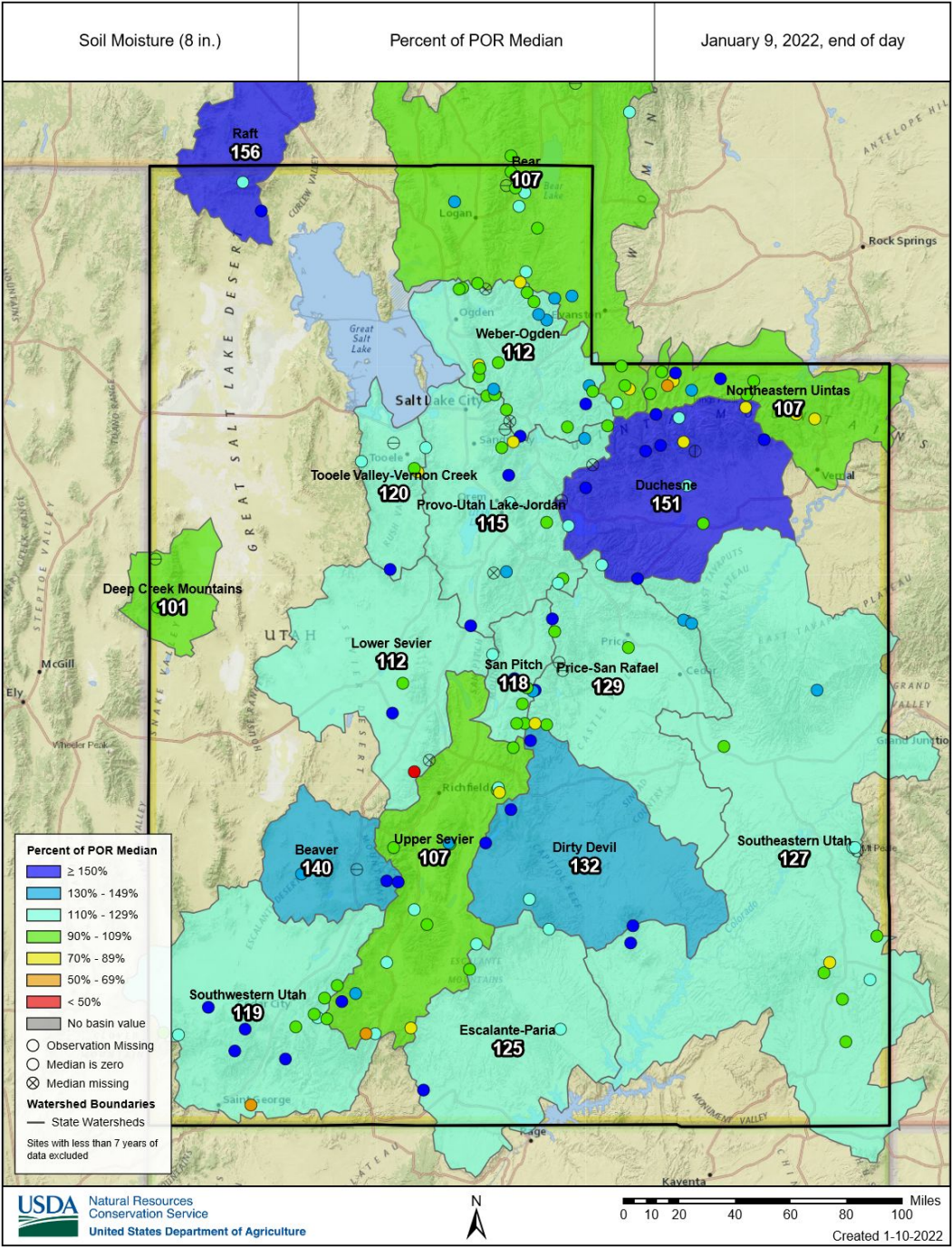
Soil Moisture

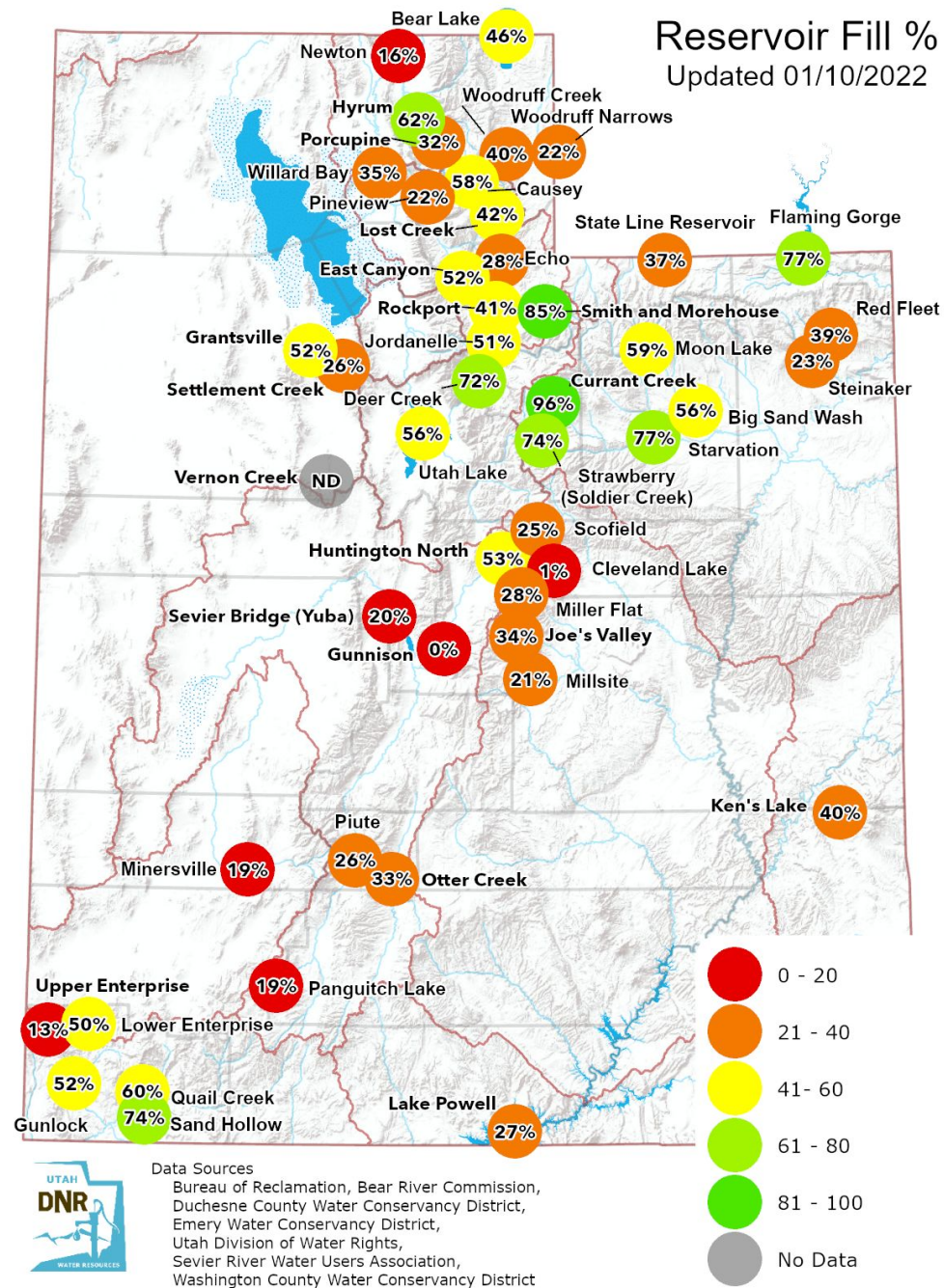
DEPTH AVERAGED SOIL SATURATION IN
STATE OF UTAH

[Link to data: CSV / JSON](#)



Agency - NRCS Snow Survey
Presenter - Kent Sutcliffe

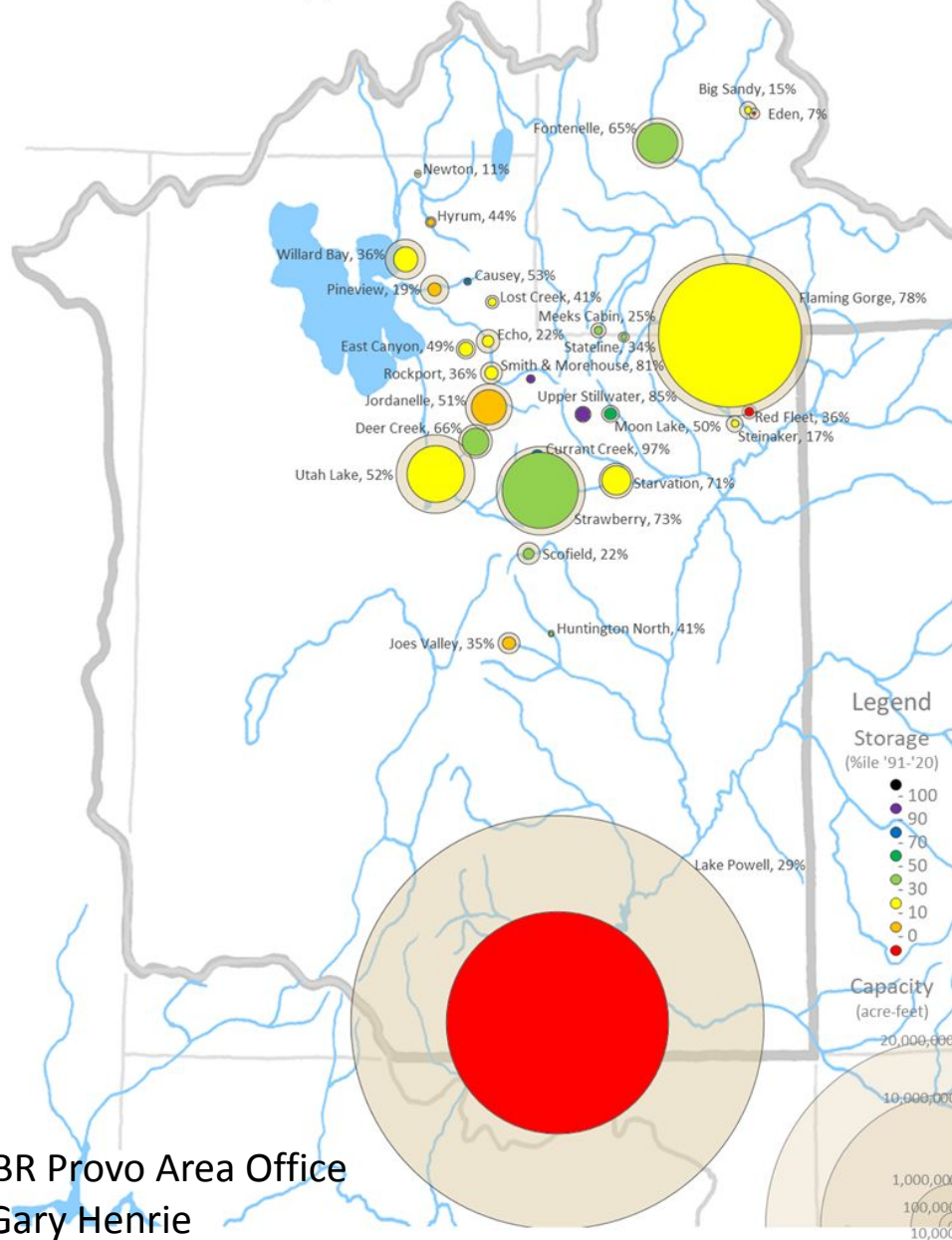




Agency - Division of Water Resources
 w/various data
 Presenter - Laura Haskell

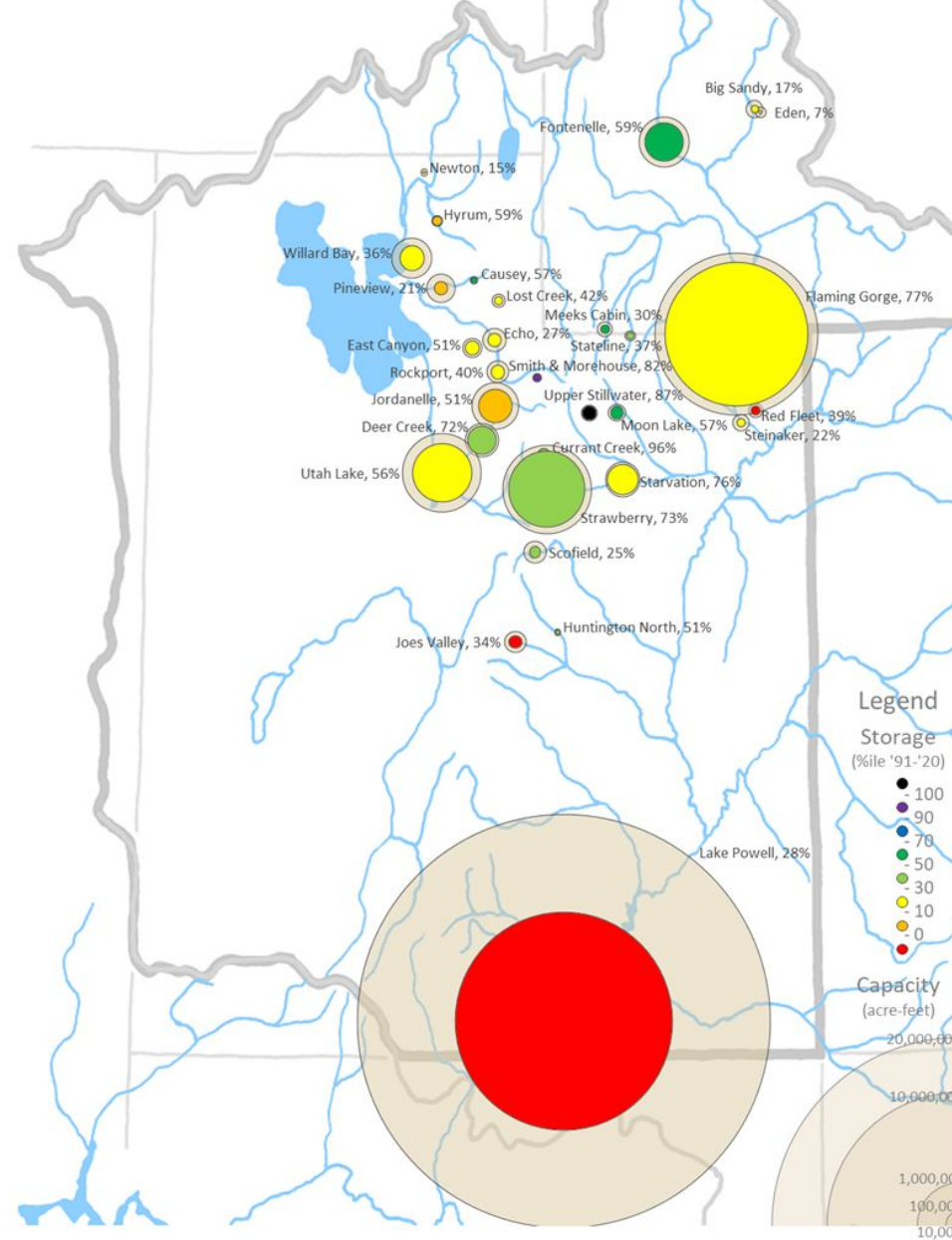
Reservoir Storage

12/1/2021



Reservoir Storage

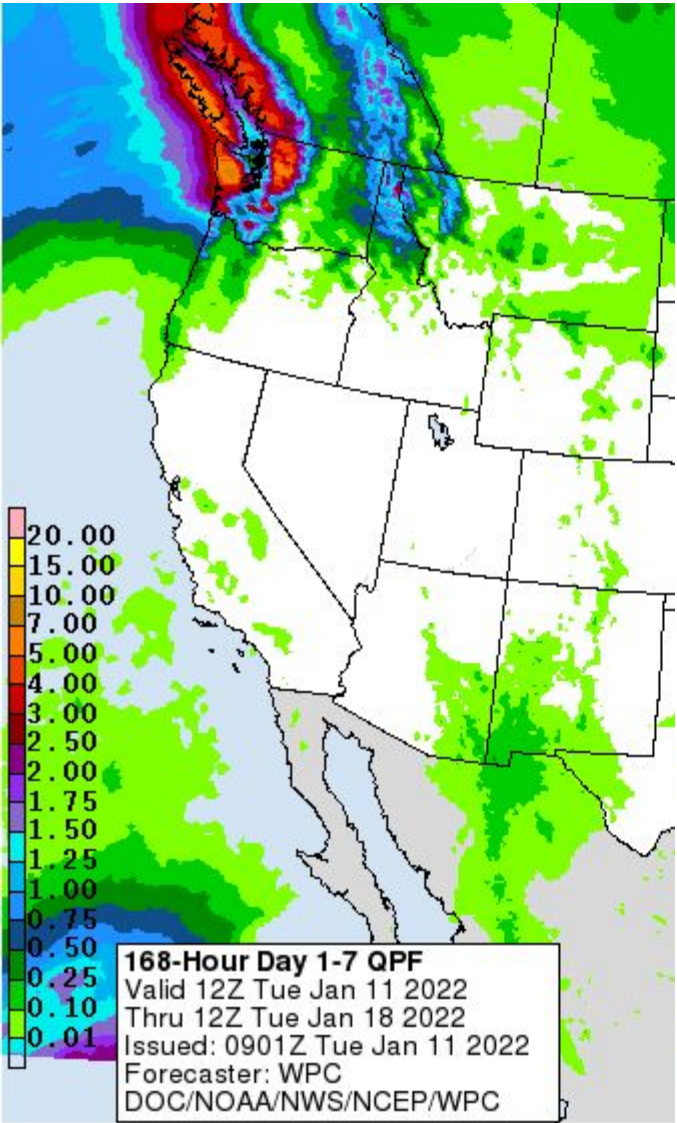
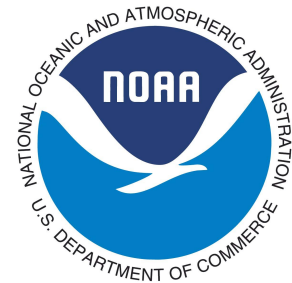
1/1/2022



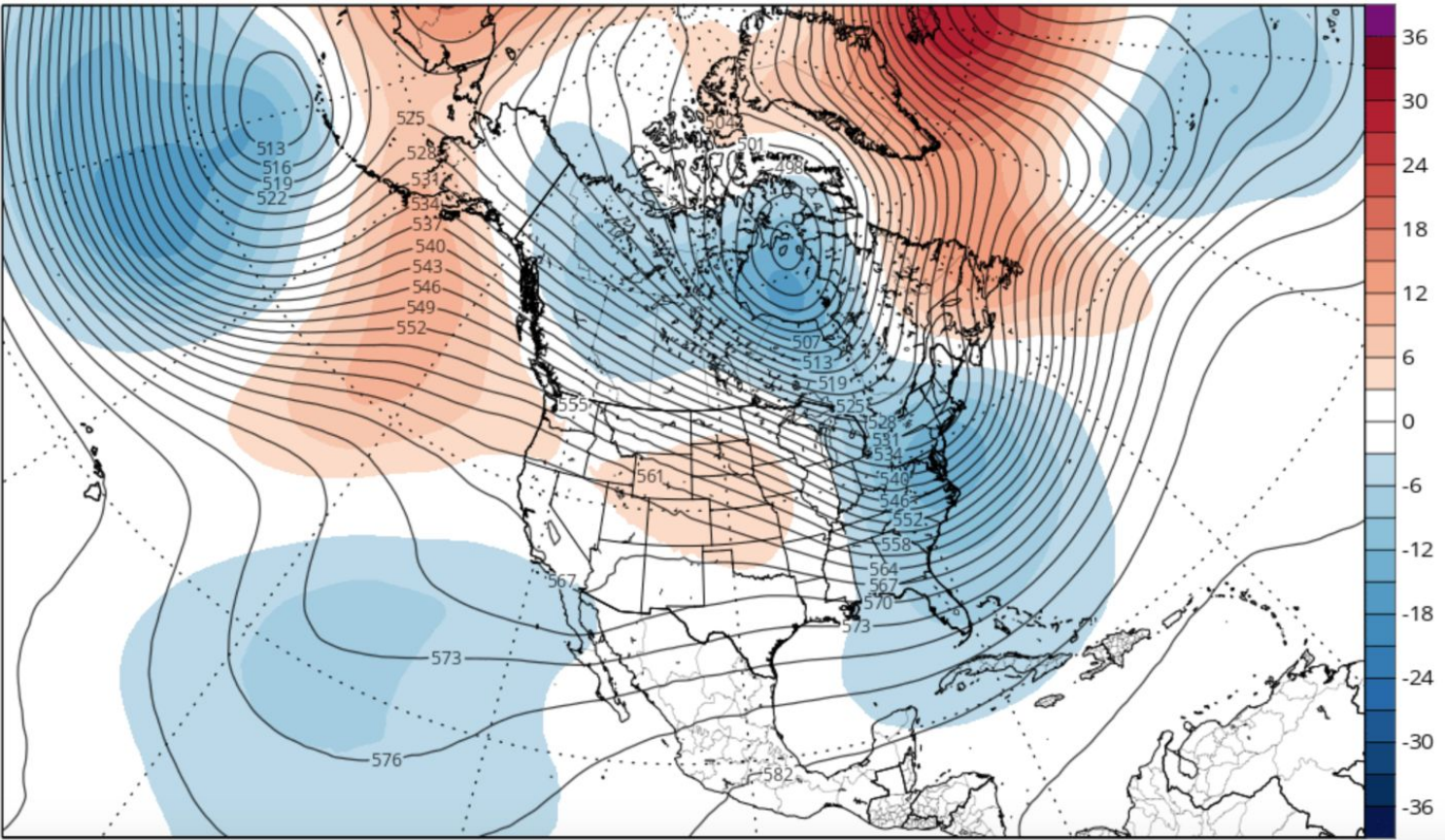
Agency - USBR Provo Area Office
Presenter - Gary Henrie



Weather Forecast Office Utah Day 1-7 Outlook



GEFS 500mb Geopotential Height & Anomaly (dam) (based on CFSR 1981-2010 Climatology)
Init: 12z Jan 11 2022 Forecast Hour: [156] valid at 00z Tue, Jan 18 2022
TROPICALTIDBITS.COM

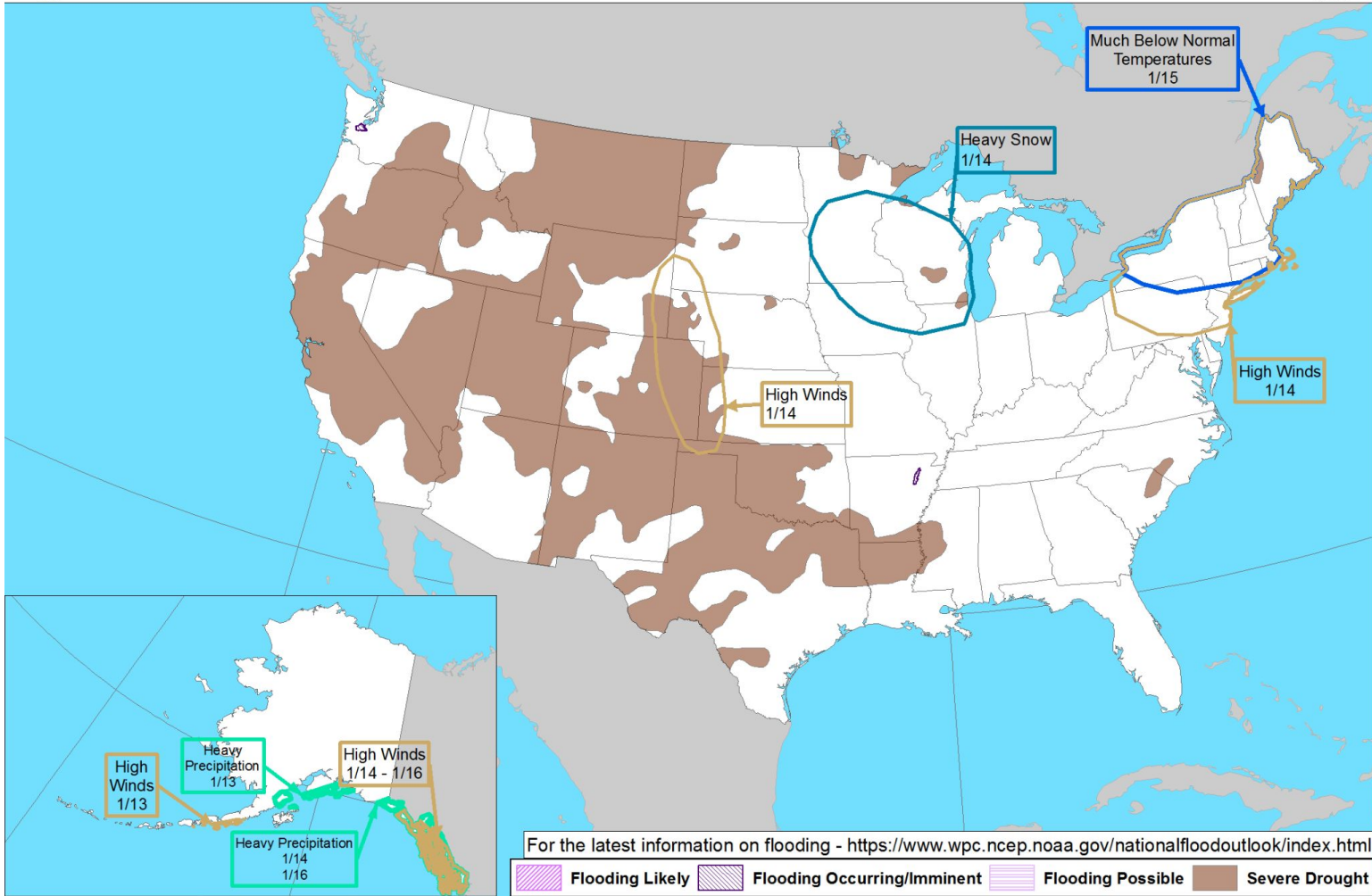
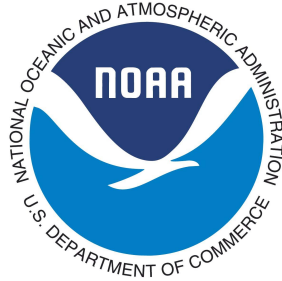


- High pressure will dominate this week
 - Above normal temperatures, especially mountains and southwest
 - Dry across the state

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



Day 3-7 U.S. Hazards Outlook
Valid: 01/13/2022-01/17/2022



Weather Prediction Center

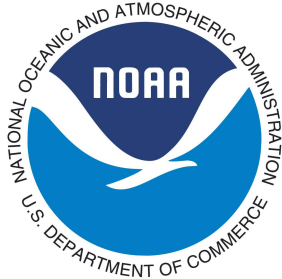
Made: 01/10/2022 3PM EST

Follow us:

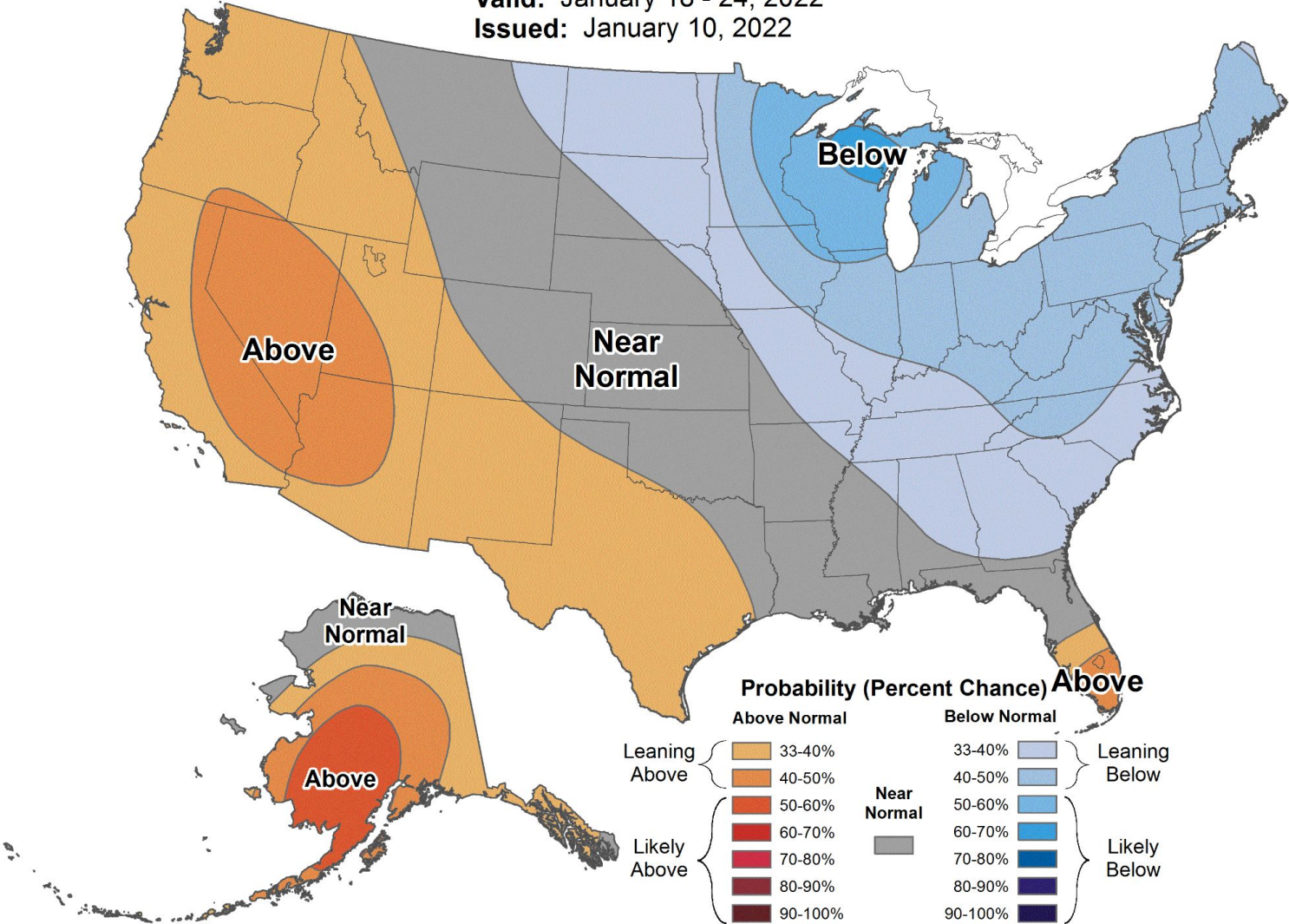
www.wpc.ncep.noaa.gov

Climate Prediction Center 8 to 14 Day Outlooks - Temperature

8-14 Day Temperature Outlook

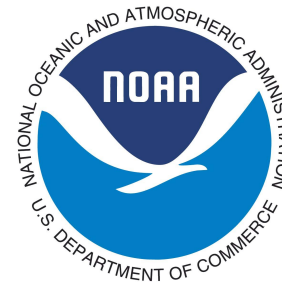


Valid: January 18 - 24, 2022
Issued: January 10, 2022

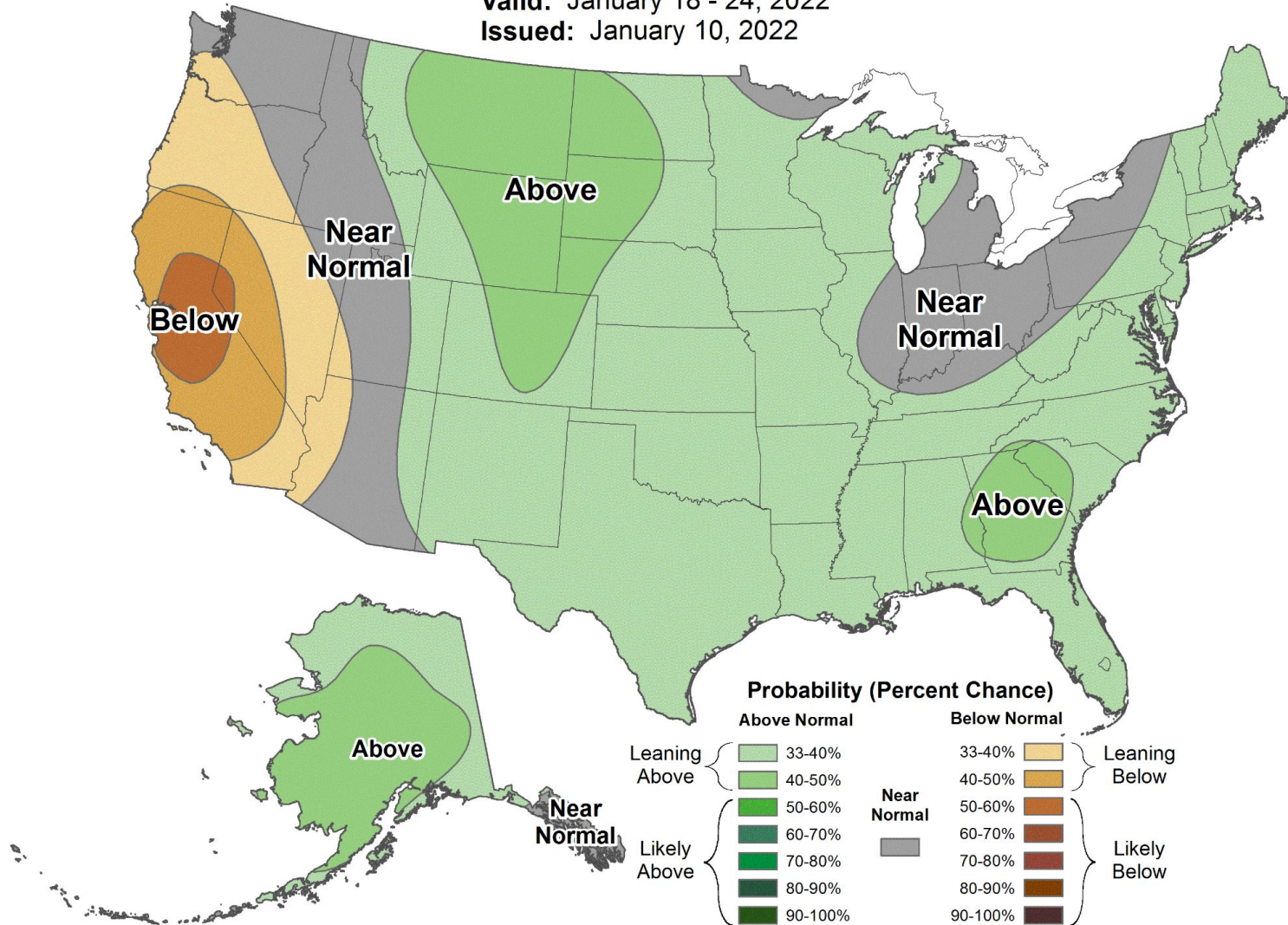


Climate Prediction Center 8 to 14 Day Outlooks - Precipitation

8-14 Day Precipitation Outlook

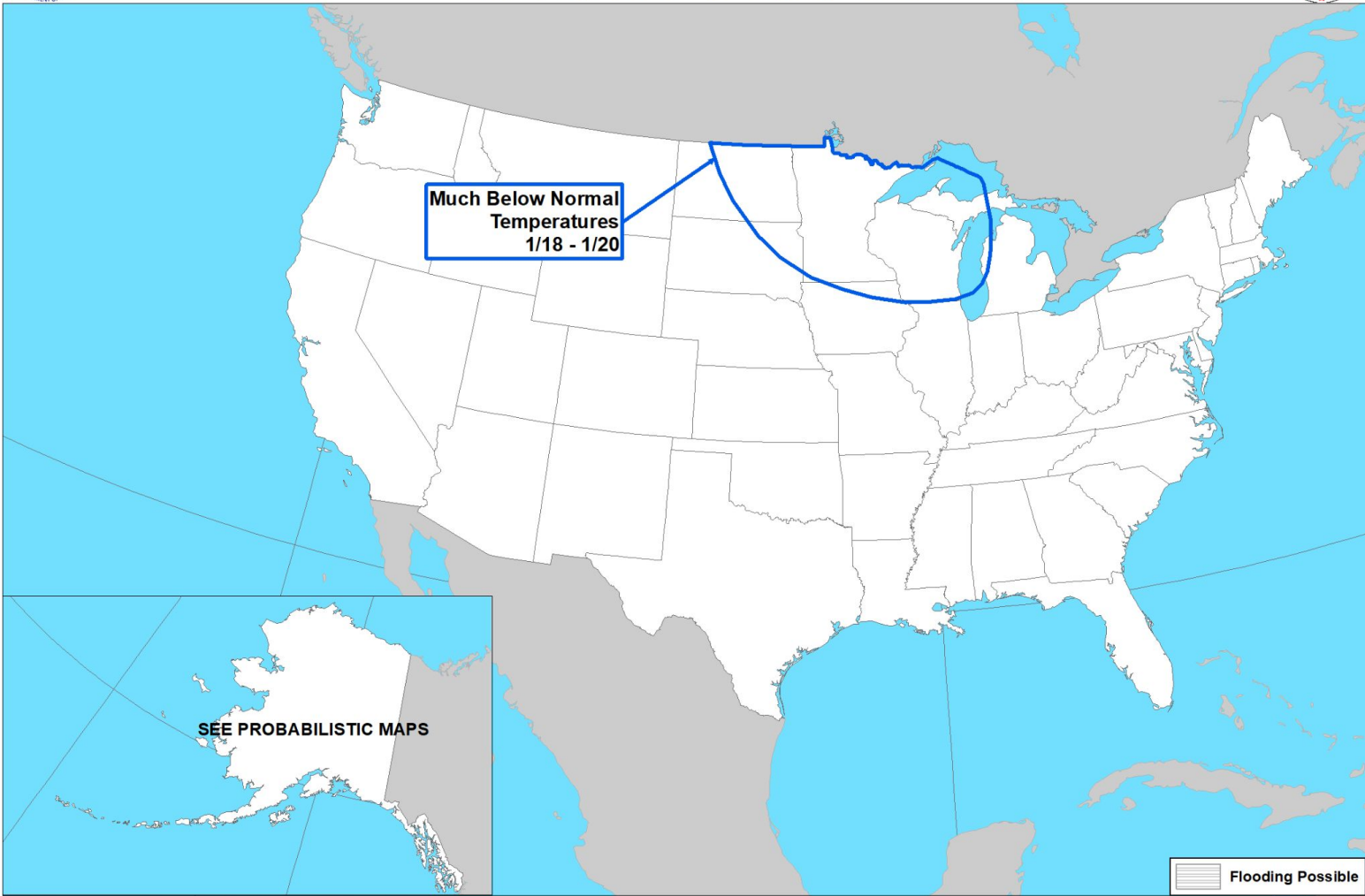
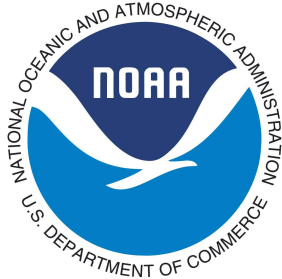


Valid: January 18 - 24, 2022
Issued: January 10, 2022



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

Day 8-14 U.S. Hazards Outlook
Valid: 01/18/2022-01/24/2022



Climate Prediction Center

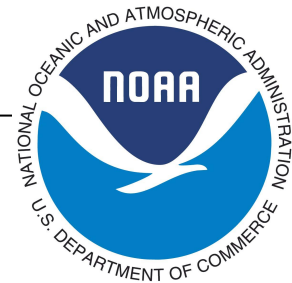
Made: 01/10/2022 3PM EST

Follow us:  

www.cpc.ncep.noaa.gov

Agency - National Weather Service Weather Forecast Office
Presenter - Glen Merrill

Utah Water Supply Forecasts - Overview

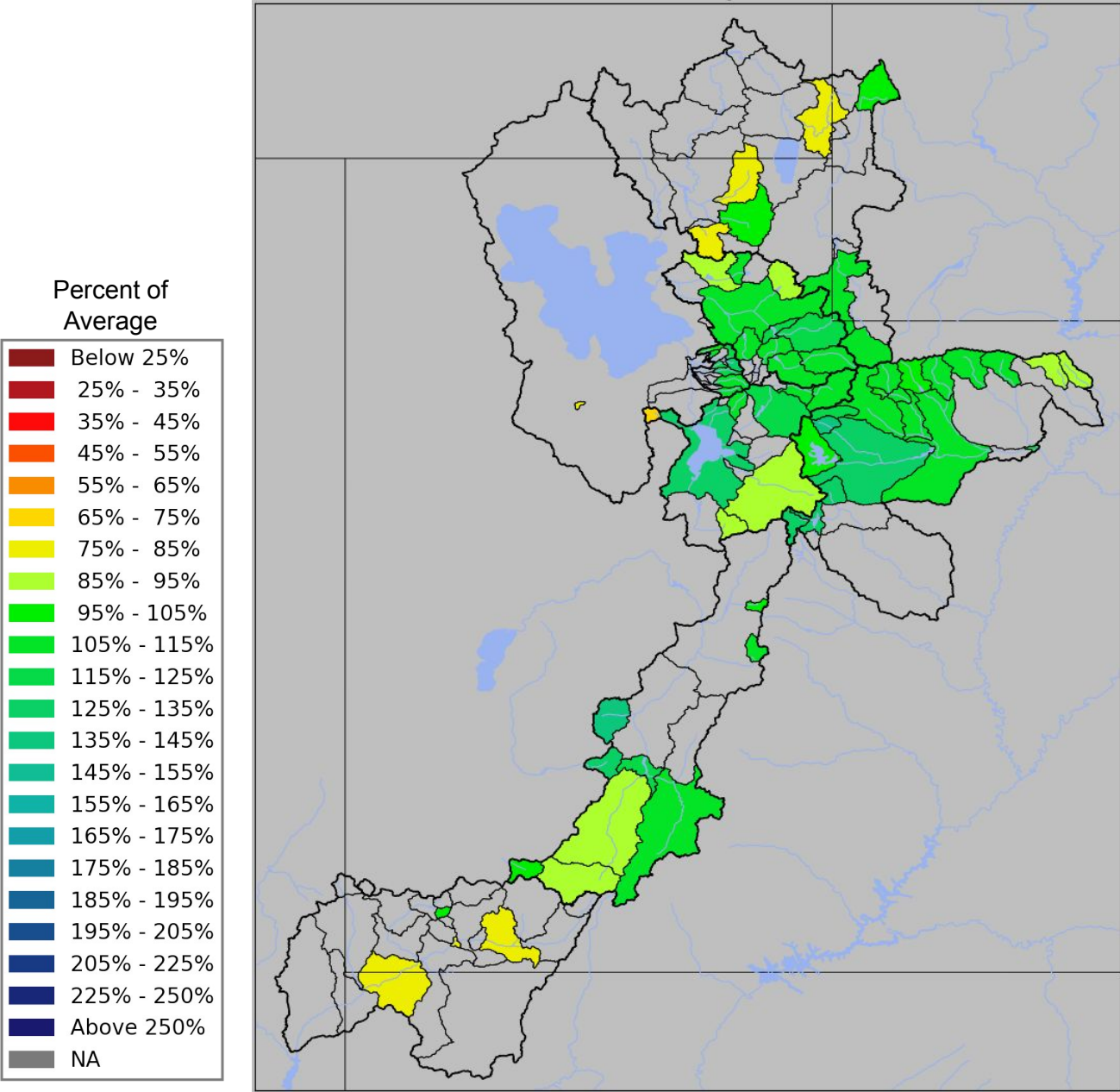


- January 1 Forecast for April-July Volume in 1000's acre feet (KAF)
- April-July Forecast Streamflow Volumes are in percent of 1991-2020 average

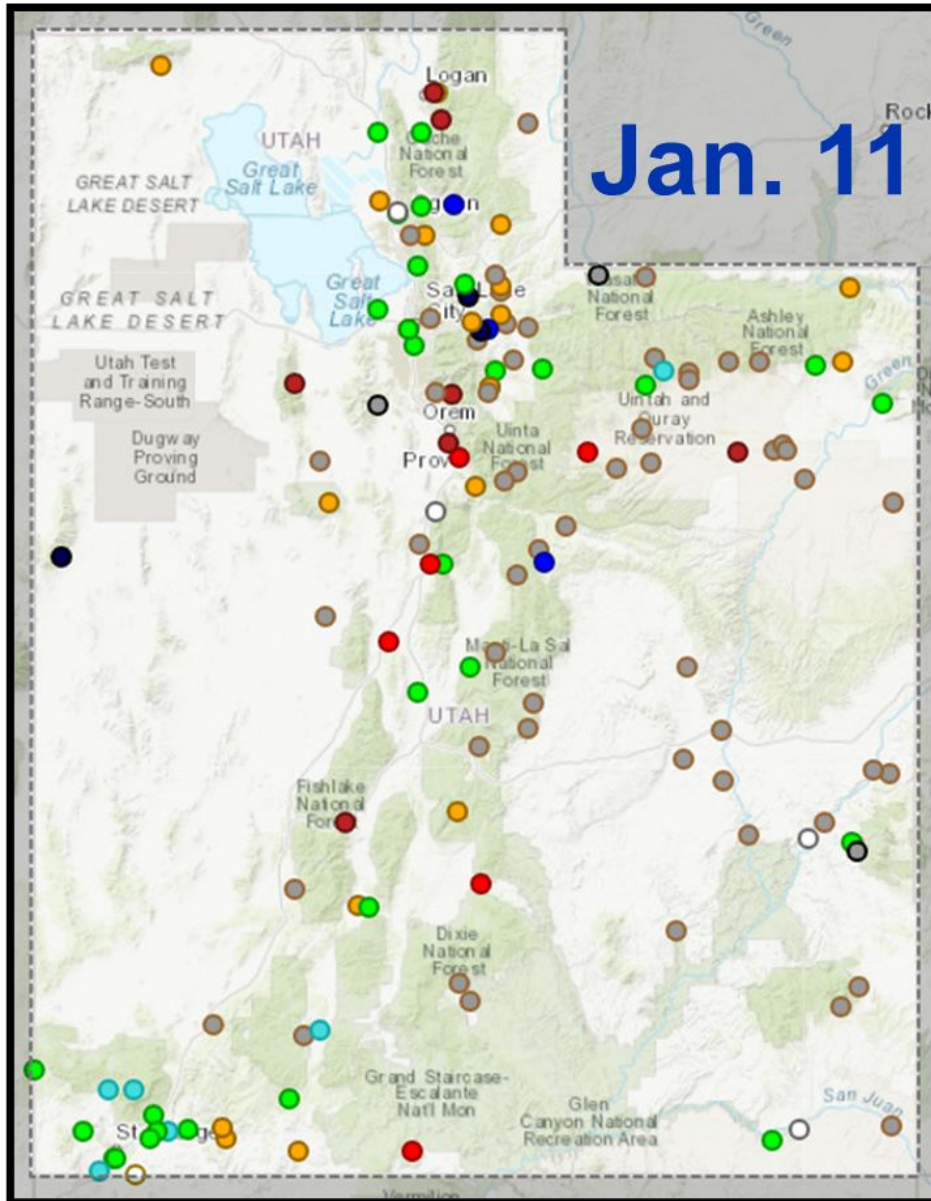
Median value of the...
...individual forecasts (in % of average)
...by Forecast Group.

Weber	110
Bear	95
Six Creeks	115
Provo / Utah Lake	110
Sevier	105
Duchesne	110
Virgin	90

www.cbrfc.noaa.gov



Current Streamflows



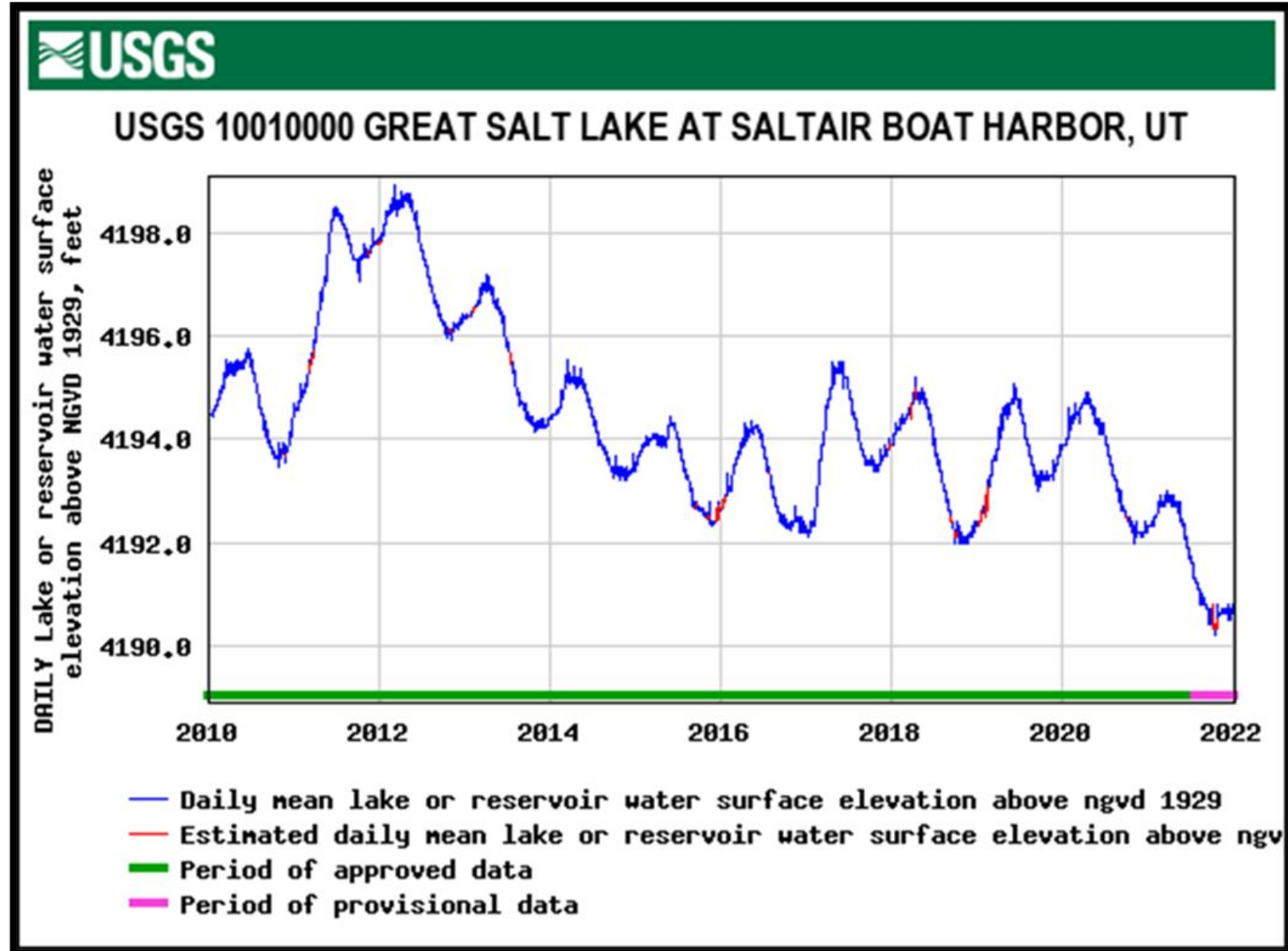
Day-of-Year Status	# Gages	% Gages
All-time high for this day-of-year	3	2.2%
Much above normal for this day-of-year	3	2.2%
Above normal for this day-of-year	6	4.4%
Normal for this day-of-year	30	21.9%
Below normal for this day-of-year	18	13.1%
Much below normal for this day-of-year	7	5.1%
All-time low for this day-of-year	6	4.4%
Not ranked - insufficient record	9	6.6%
Not ranked - no measurement	47	34.3%
Not ranked - no recent measurement	6	4.4%
Not ranked - stream not flowing	2	1.5%

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

Agency - USGS Utah Water Science Center
Presenter - Ryan Rowland

Great Salt Lake Water Surface Elevation



❑ Average seasonal increase 2.2'

❑ Average seasonal decrease 2.3'

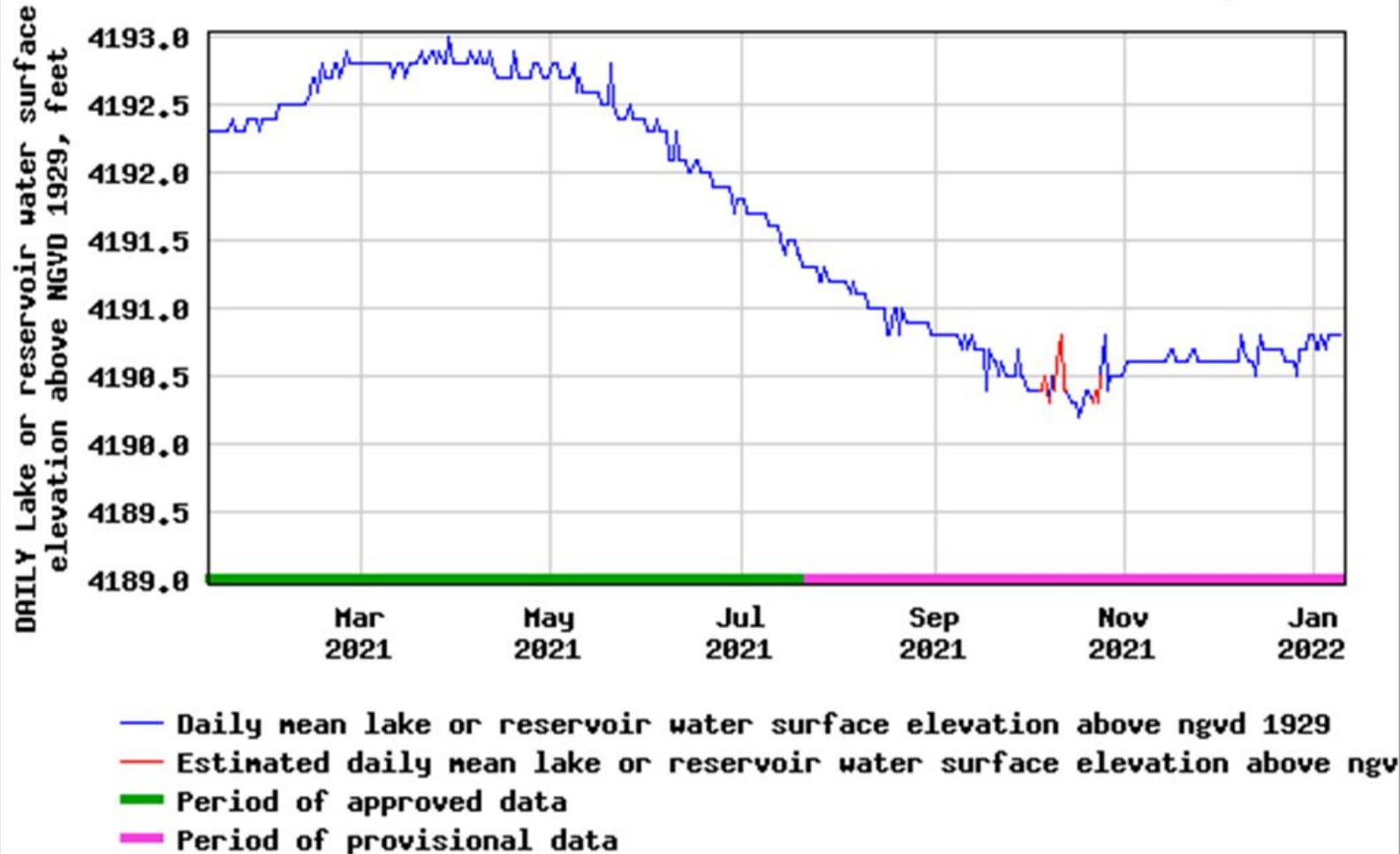
❑ Last season's increase 1.0'

❑ Last season's decrease 2.8'

Great Salt Lake Water Surface Elevation



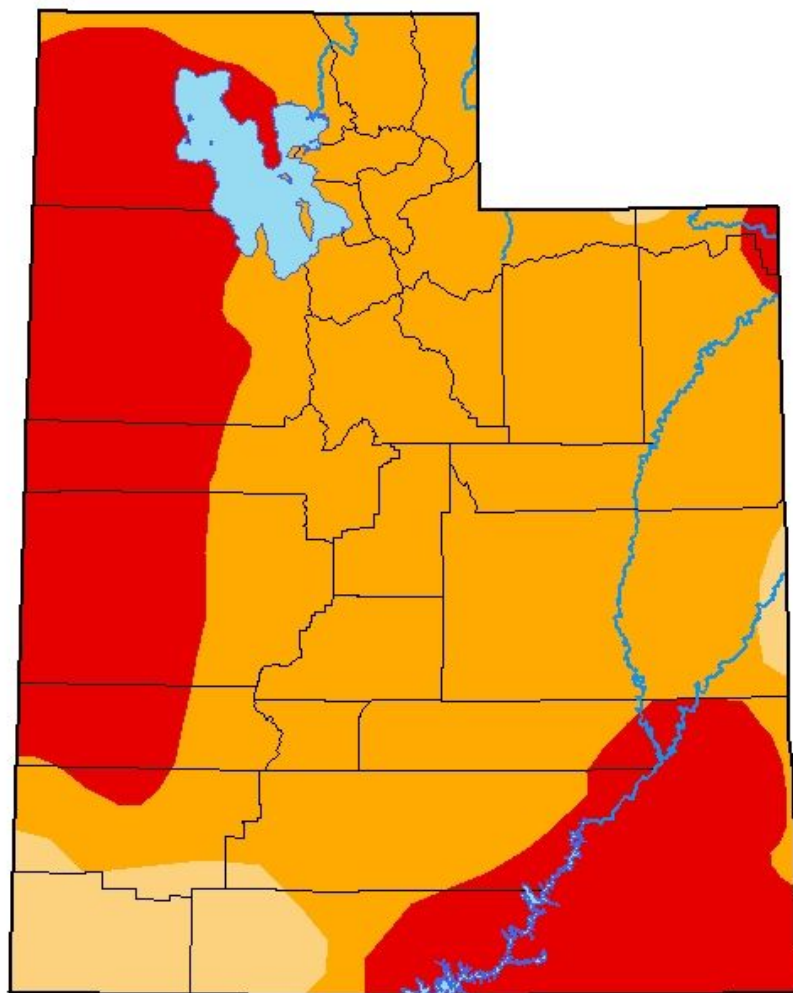
USGS 10010000 GREAT SALT LAKE AT SALTAIR BOAT HARBOR, UT









- Mean daily value
01/10/2022 = 4,190.8'
- 4,190.2'
10/18/2021
(new historic low)

U.S. Drought Monitor Utah

January 4, 2022
(Released Thursday, Jan. 6, 2022)
Valid 7 a.m. EST



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:

Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu