Wyoming State Engineer's Office

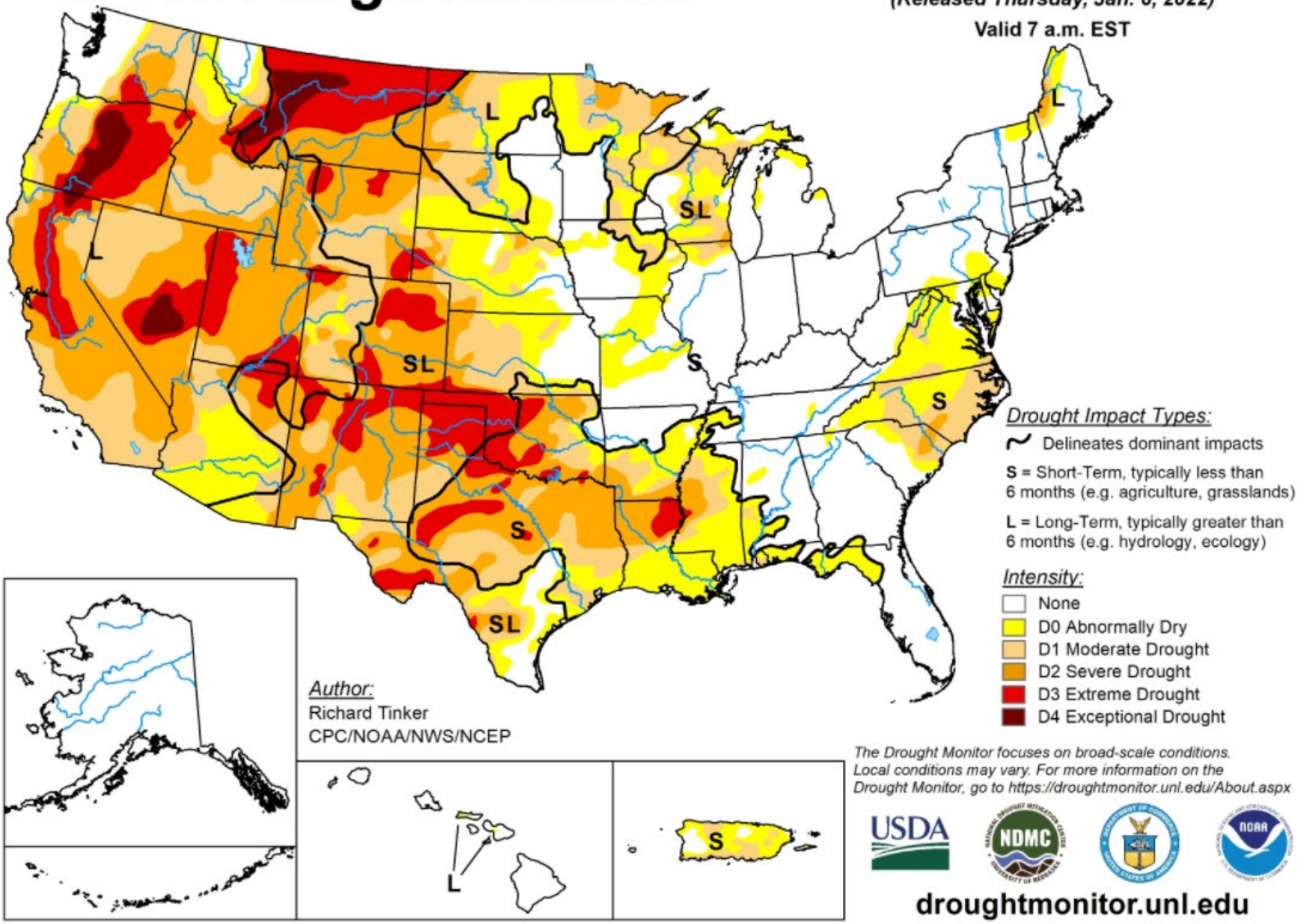
Jeff Cowley
Administrator, Interstate Streams

U.S. Drought Monitor

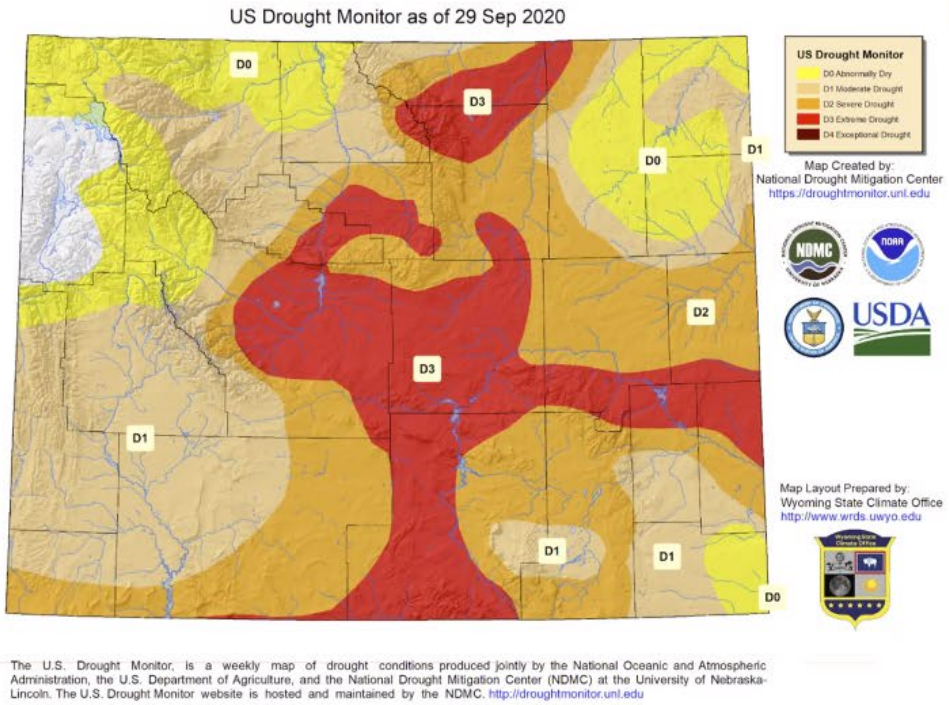
January 4, 2022

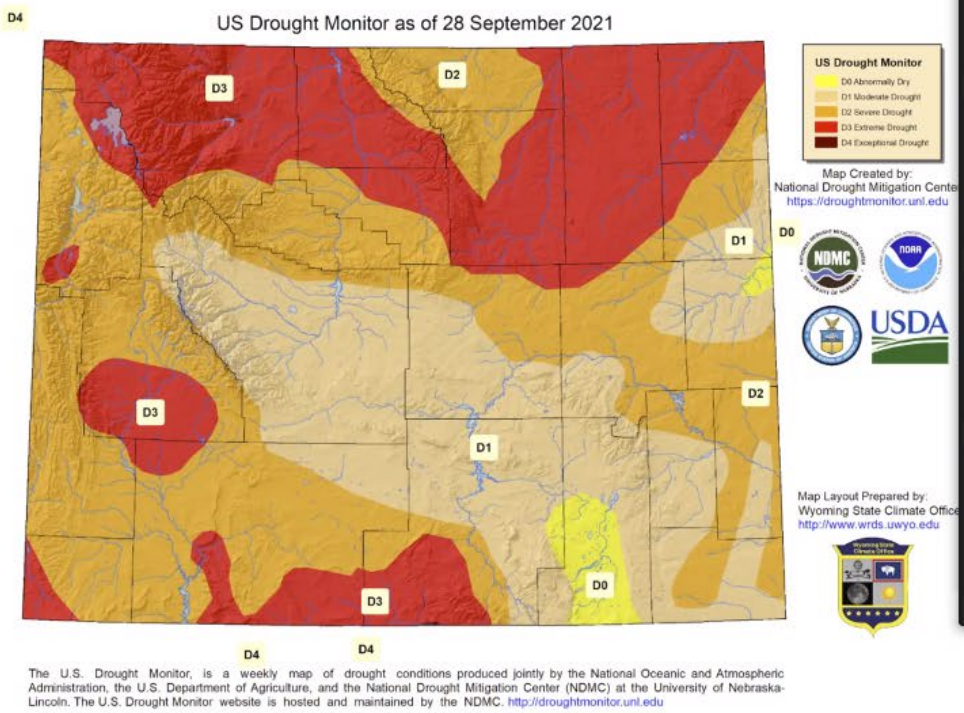
(Released Thursday, Jan. 6, 2022)

Valid 7 a.m. EST



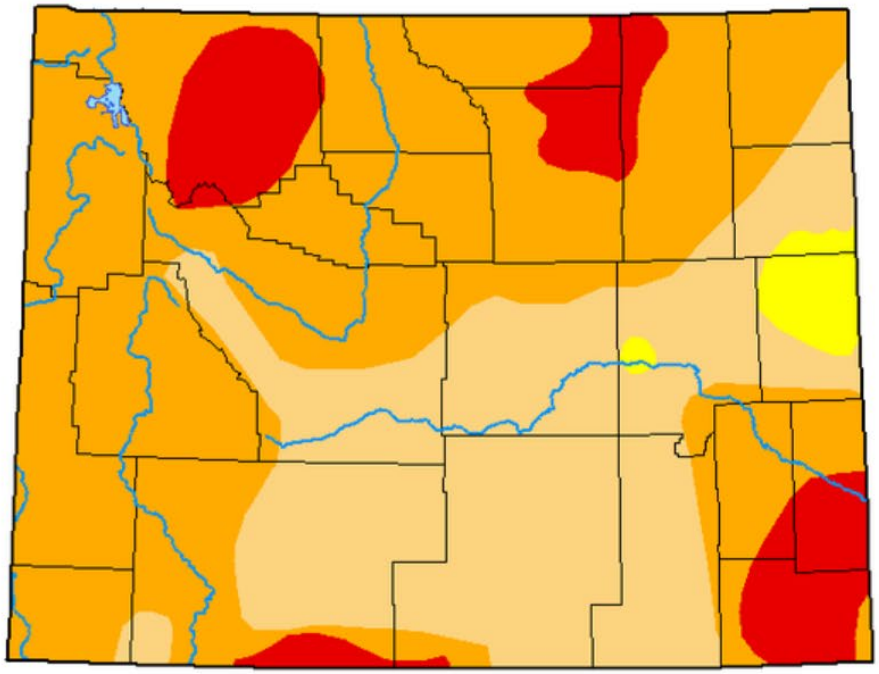
Drought at Start and End of Water Year 2021





Current Drought in Wyoming

Wyoming



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Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	97.93	65.27	10.98	0.00
Last Week *12-28-2021*	0.00	100.00	96.71	61.30	14.20	0.00
3 Months Ago *10-05-2021*	0.00	100.00	97.90	70.36	32.99	0.00
Start of Calendar Year *01-04-2022*	0.00	100.00	97.93	65.27	10.98	0.00
Start of Water Year *09-28-2021*	0.00	100.00	97.89	70.36	29.29	0.02
One Year Ago *01-05-2021*	4.26	95.74	87.47	54.22	25.78	0.36

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

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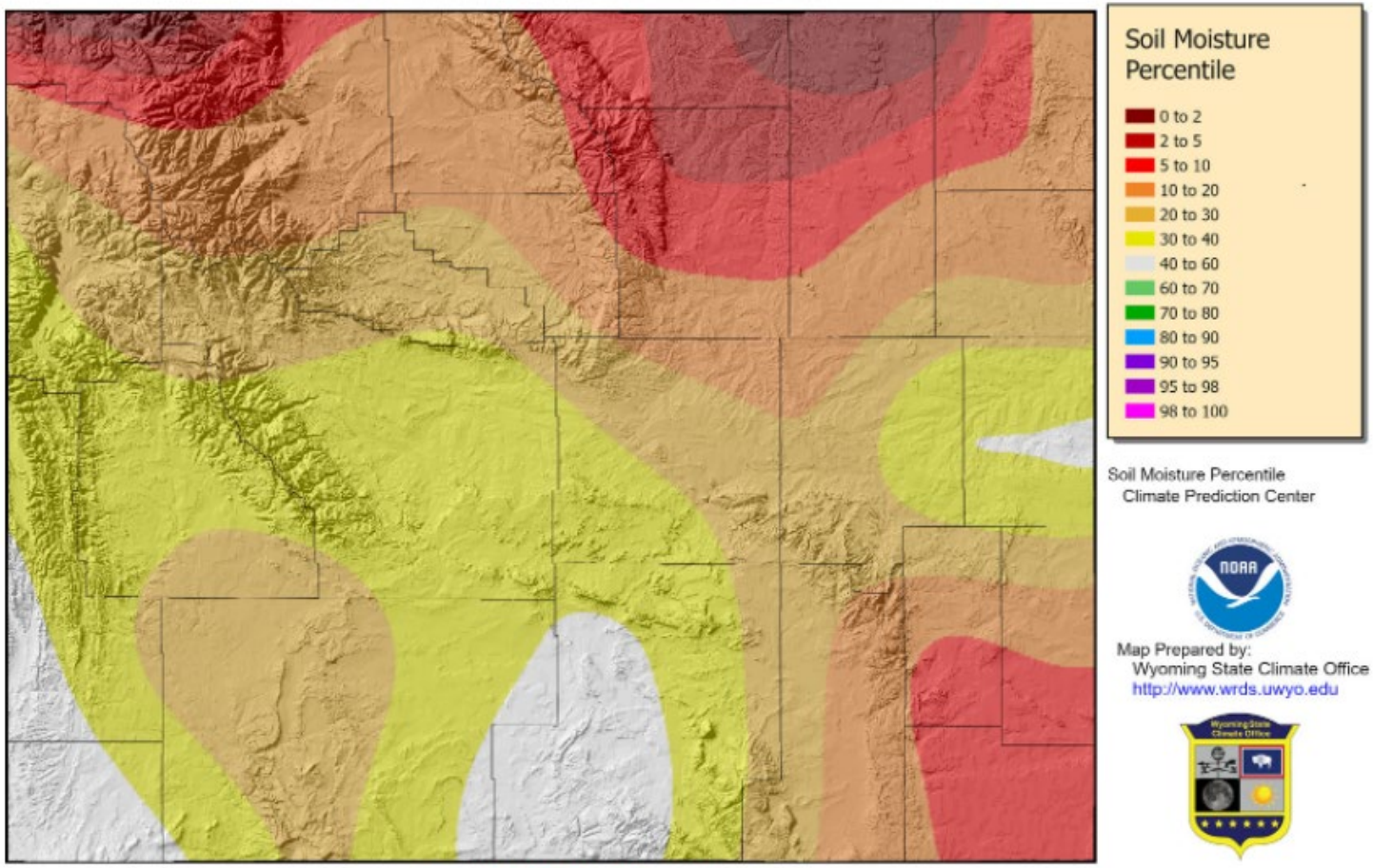
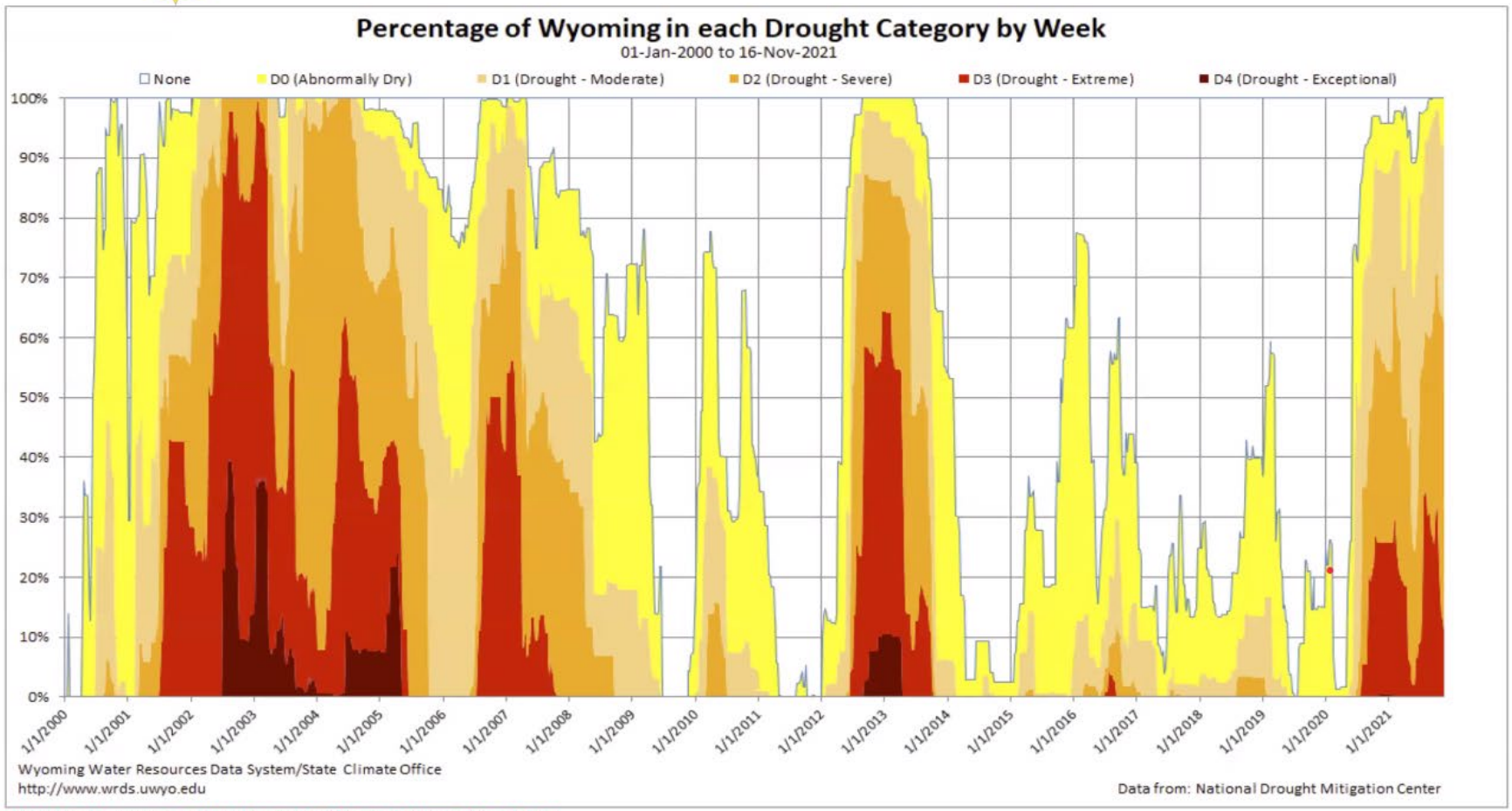
Current Soil Moisture

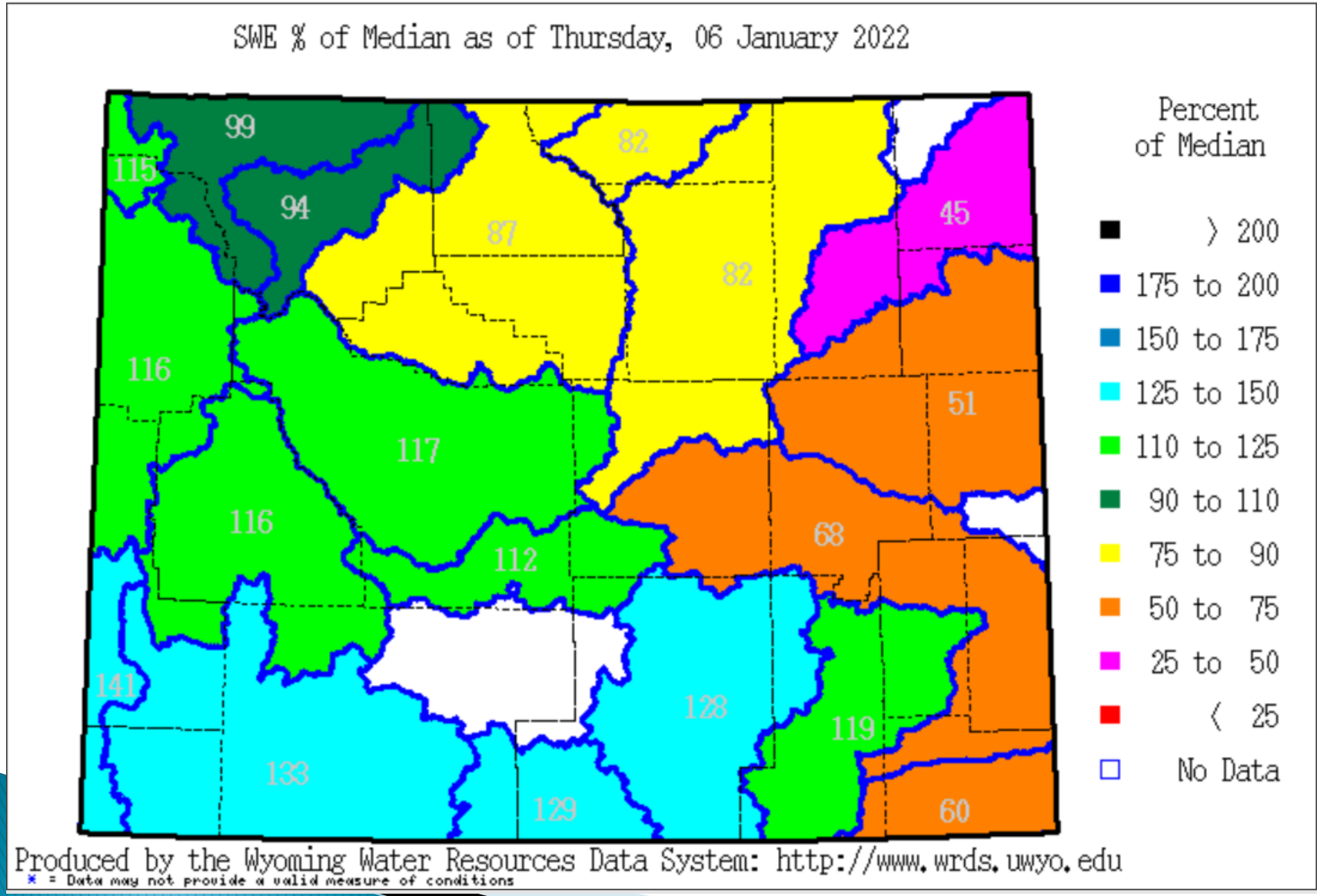


Wyoming Area Affected: 100% D0-D4 ; 92.07% D1-D4

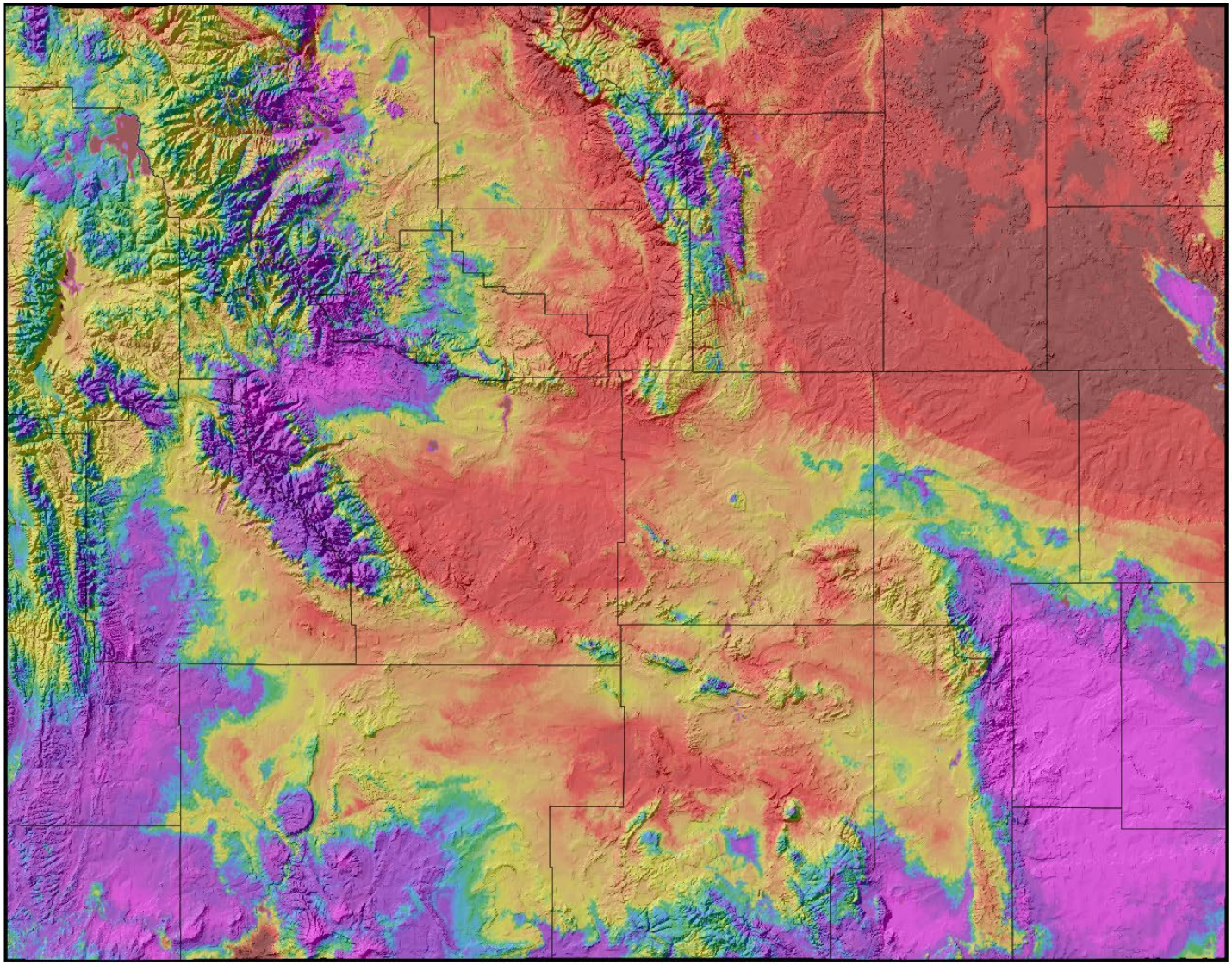


http://www.wrds.uwyo.edu/drought/droughttimeline.html

Some Good News!!!



Snow Water Equivalent Percent of Average (2004-2020) for 06 Jan 2022



SWE Percent of Normal

- < 5%
- 5% - 25%
- 25% - 50%
- 50% - 70%
- 70% - 90%
- 90% - 95%
- 95% - 105%
- 105% - 110%
- 110% - 130%
- 130% - 150%
- 150% - 200%
- 200% - 300%
- > 300%

Snow Water Equivalent
NOHRSC
https://doi.org/10.7265/N5TB14TC

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

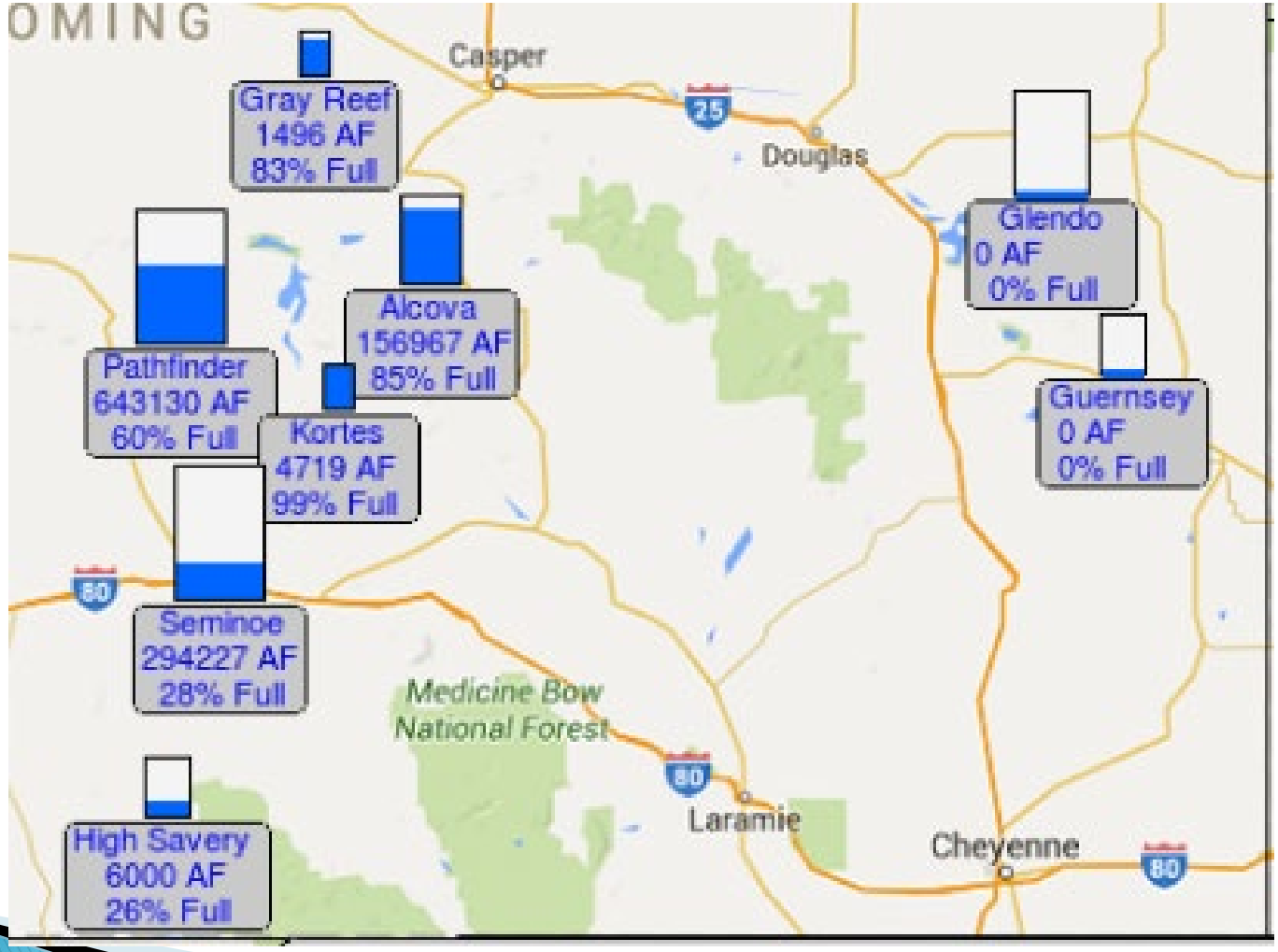
Provisional data, subject to revision

Modelled 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/N5TB14TC.
Daily Percentiles and Percentages created by Wyoming State Climate Office
Map created 06 Jan 2022

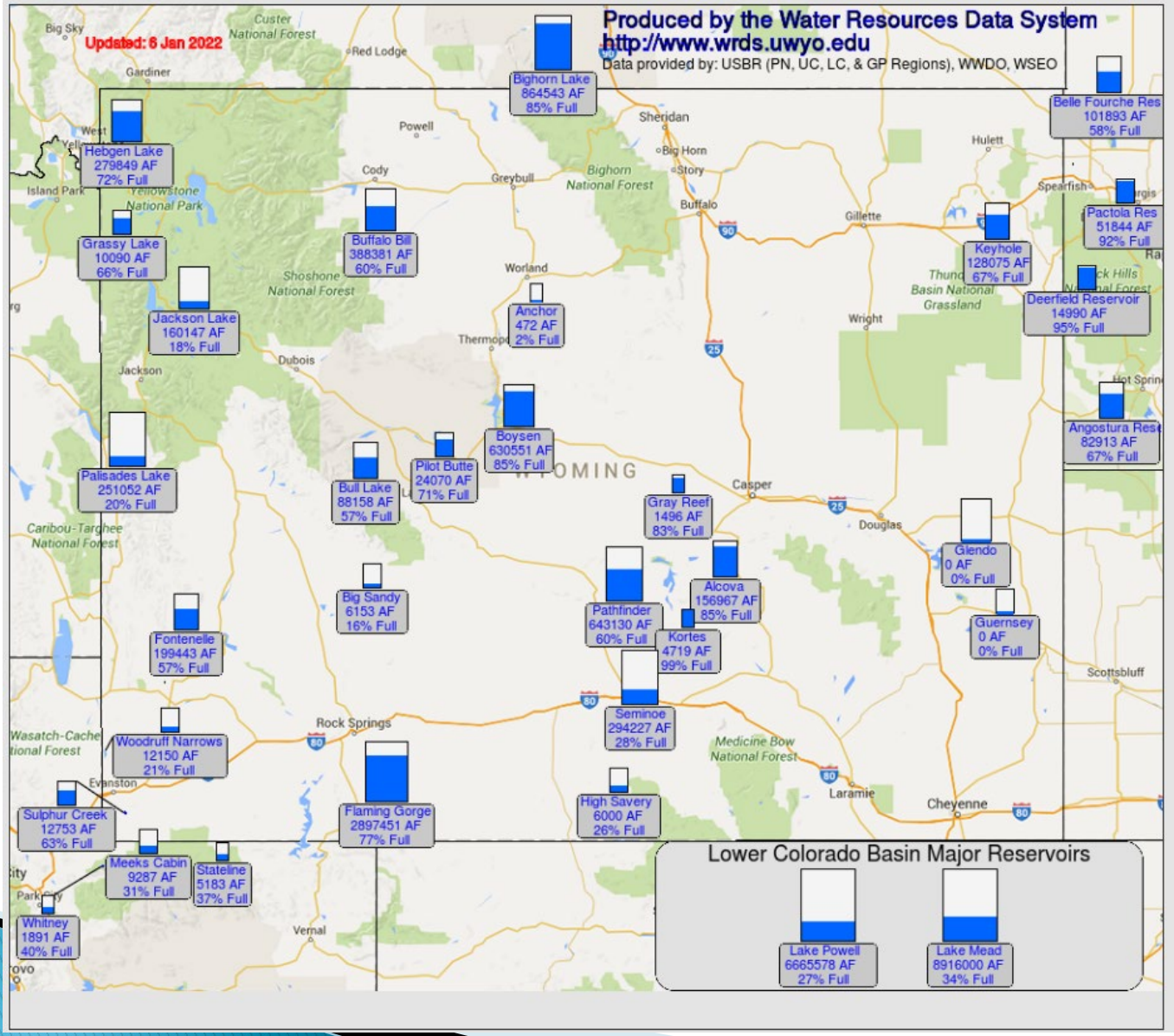
North Platte River Flows

- 2021 Peak flows at Sinclair Gage
  - 3,310 CFS
  - Average Peak 7,625 CFS
  - 2021 = 43% of average
  - Only 7 years with a smaller peak since 1940
- 2021 Total Discharge at Sinclair Gage
  - 2020 = 760,644 Acre Feet
  - 2021 = 411,721 Acre Feet
- About half the flows leads to less storage
- Less storage leads to an Allocation Year??
  - We are not there yet, but we should be prepared.

North Platte Basin Reservoir Storage



State Wide Storage



Colorado River Conditions

- Colorado River
  - 20+ years of drought in the basin
  - 1st Declared Shortage in Lower Basin
  - DROA Releases 181kAF (125 kAF Flaming Gorge)
  - Demand Management and Curtailment in WY
  - 2021 Flows into Flaming Gorge = 47% of average
  - 2021Natural Flows in Upper Basin = 51% of average

- New subcommittees every week (30+)

Colorado River Working Goup

- Governor's Charge
  - State Engineer Lead
  - Working group to discuss important topics
  - Share information with stakeholders in the basin
  - Members from Agriculture, Municipal, Industry and Legislature

- Western Water Initiative
  - Budget Exception Request for SEO/ISS

SEO Overall

- Budget and Staff Reductions
  - $1.8 Million and 6 positions
  - Retirements, turn over, recruitment, and staff retention

- Aging Infrastructure and ARPA funds??
  - Who What When and Where??

Thank You

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