Image submitted to the Montana Drought Impact Reporter, Musselshell County, June 6/16/2024

Montana Drought Status

Troy Blandford

June 27, 2024

Takeaways from Previous Meeting (March)

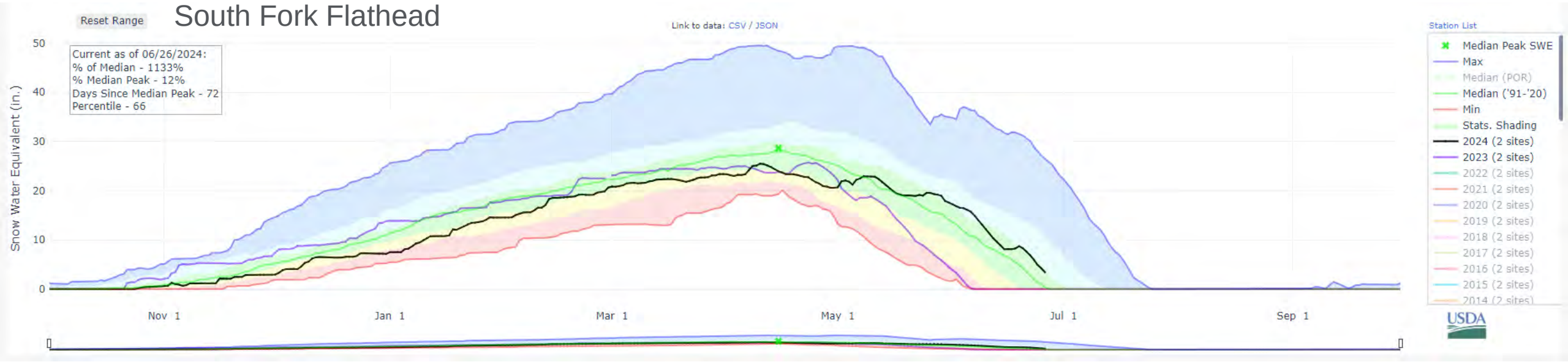
What to watch for this Spring

- Will the snow accumulation season finish strong?
- Do above average temperatures continue through Spring?
- How flashy is Spring precipitation?
- **Above normal precipitation and reasonable temperatures are needed the next three months for a favorable drought situation before summer.**

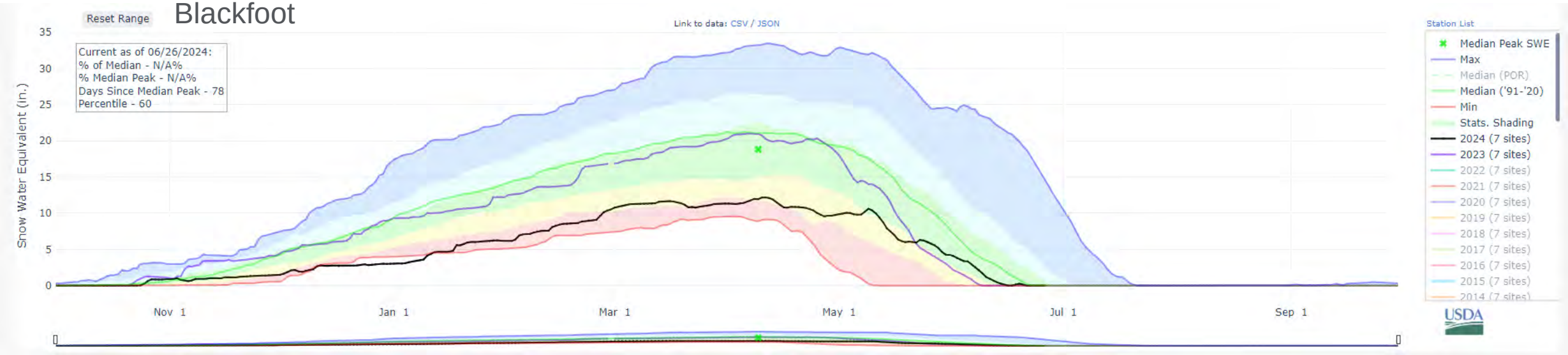
Spring Synopsis (April – June, the critical months)

- Spring storms, especially in May, accompanied by colder temperatures built late-season, high-elevation snowpack and prolonged (saved) melt.
- Temperatures closer to normal
- Precipitation: April down, May up, June down
  - Much of the state could finish June at 50-60% or less
- US Drought Monitor changes have been a mix of improvements and degradations. Overall sitting better than in March.
- Moisture conditions subpar as of late. **Concerning at 30-45 days.**
  - June is a critical month for Montana precipitation, and it did not pan out for much of the state.

South Fork Flathead



Blackfoot



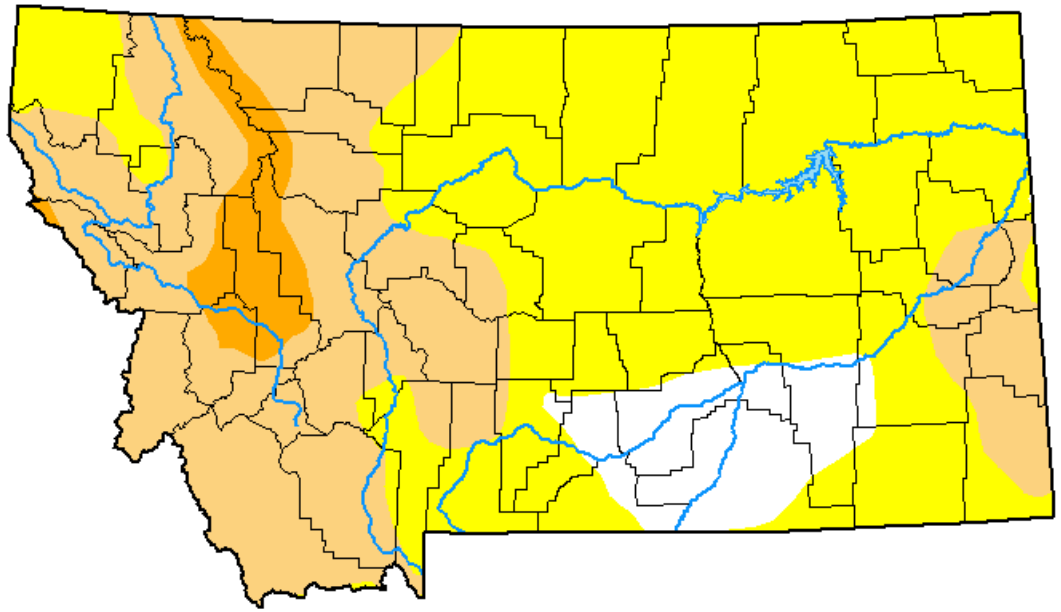
U.S. Drought Monitor

Montana

June 25, 2024

(Released Thursday, Jun. 27, 2024)

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

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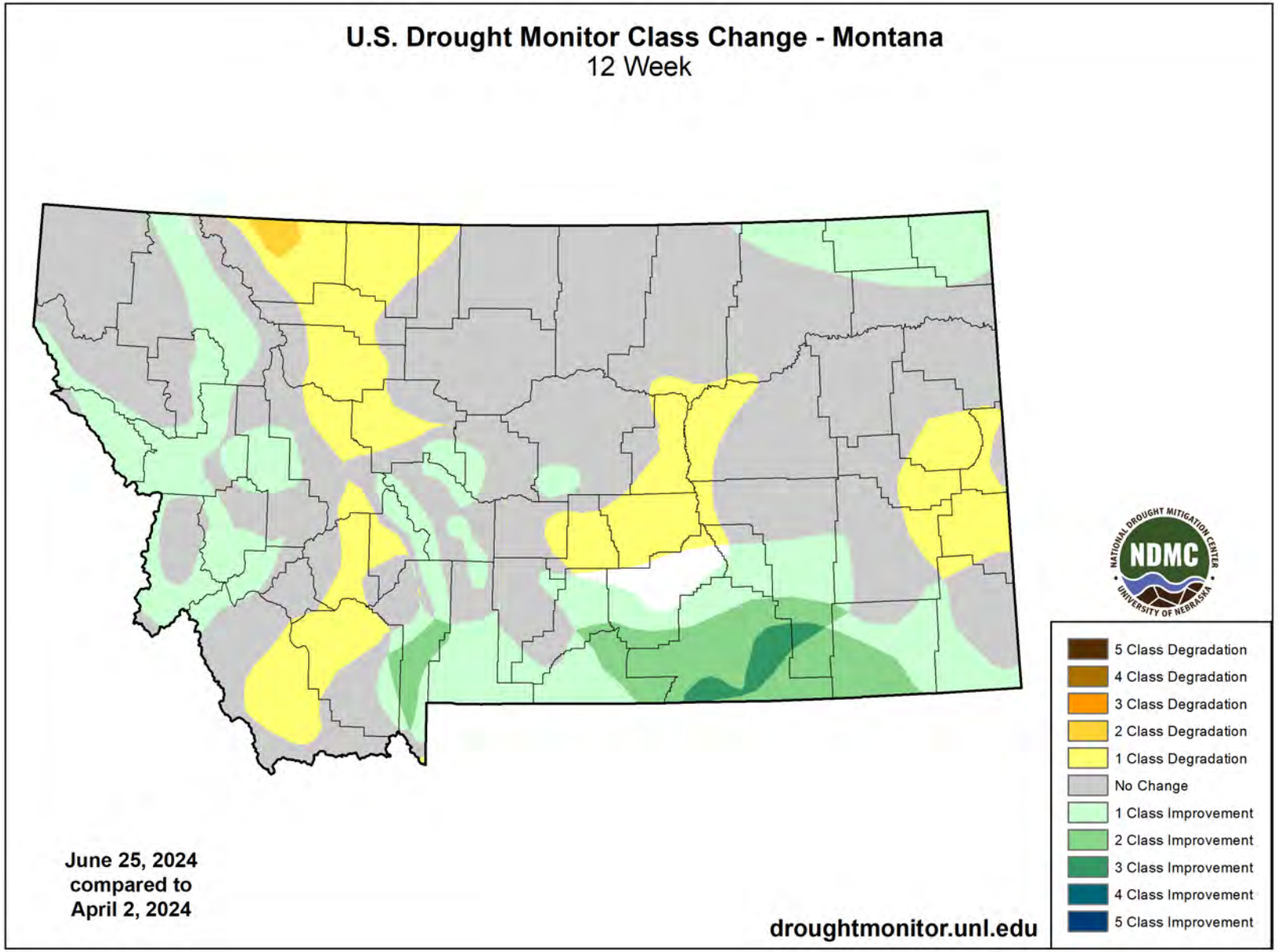
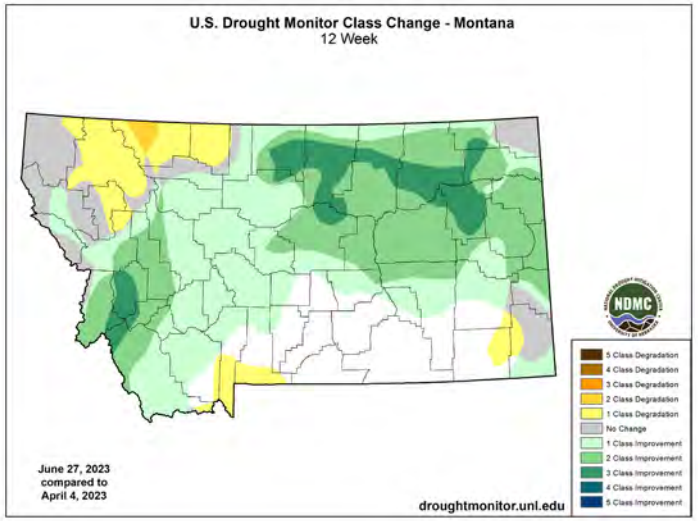
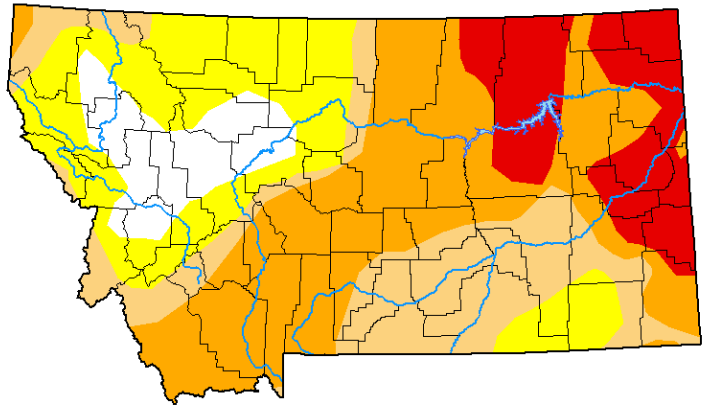


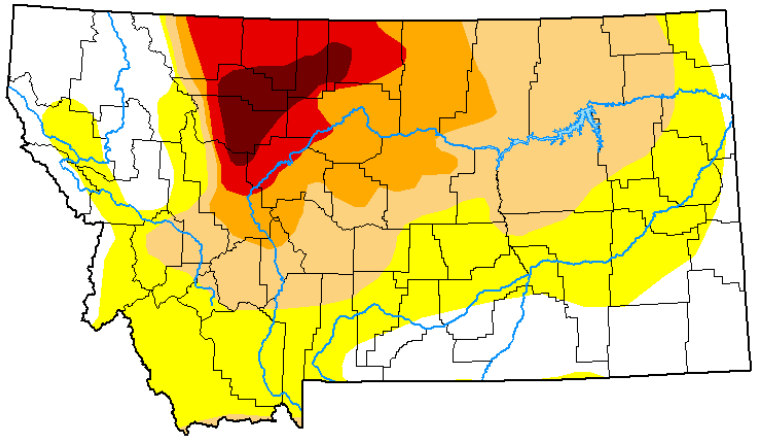
Last year at this time



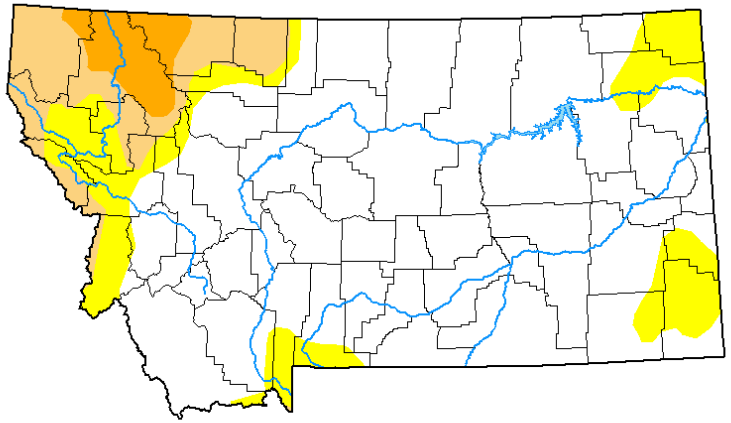
June 2021



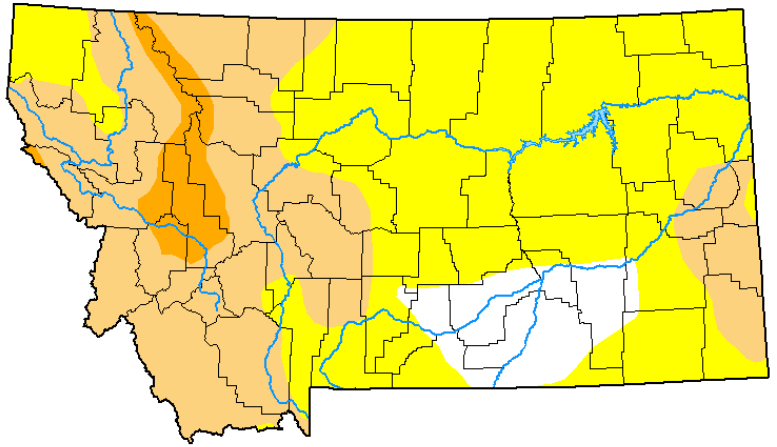
June 2022



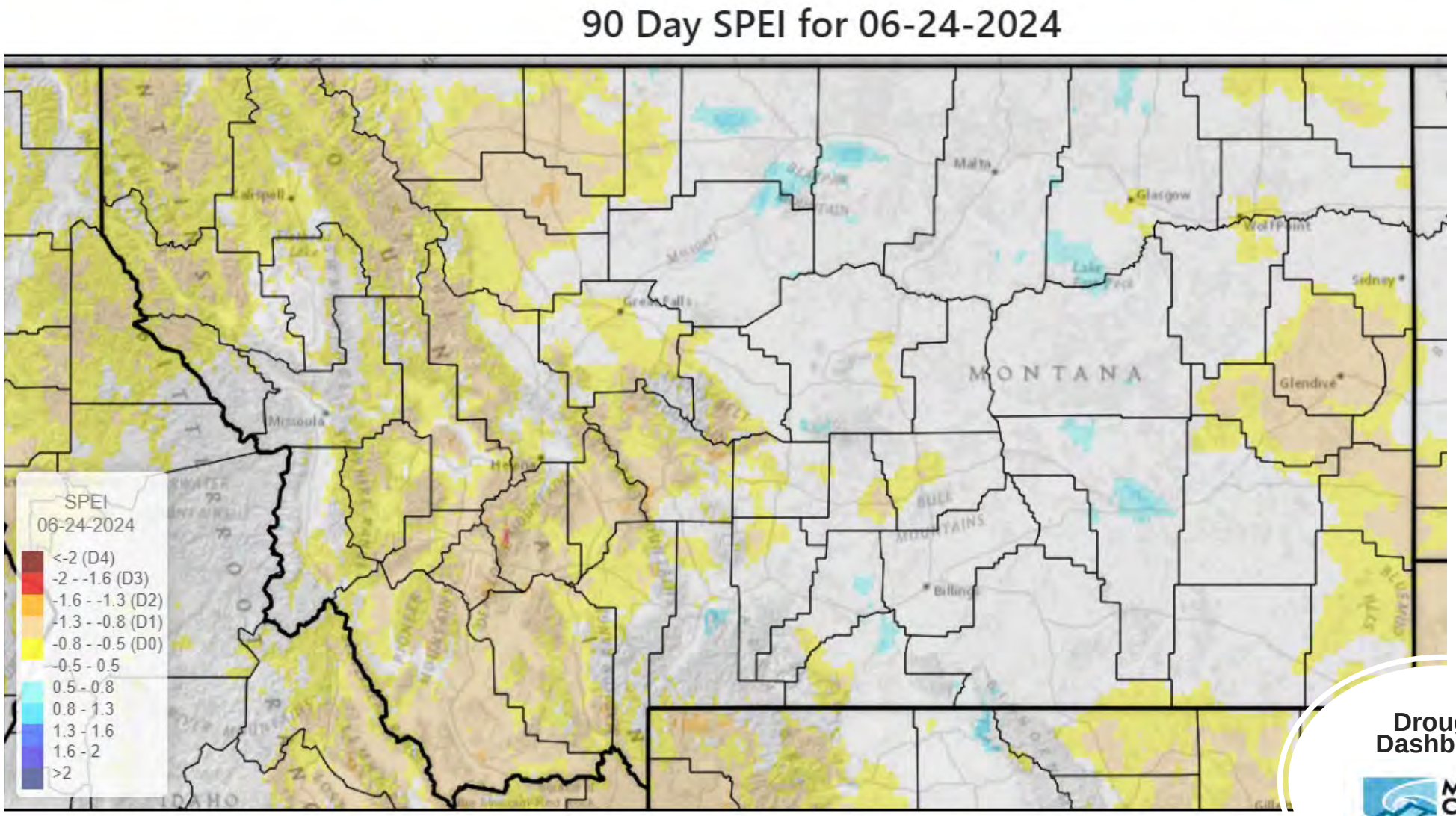
June 2023



June 2024

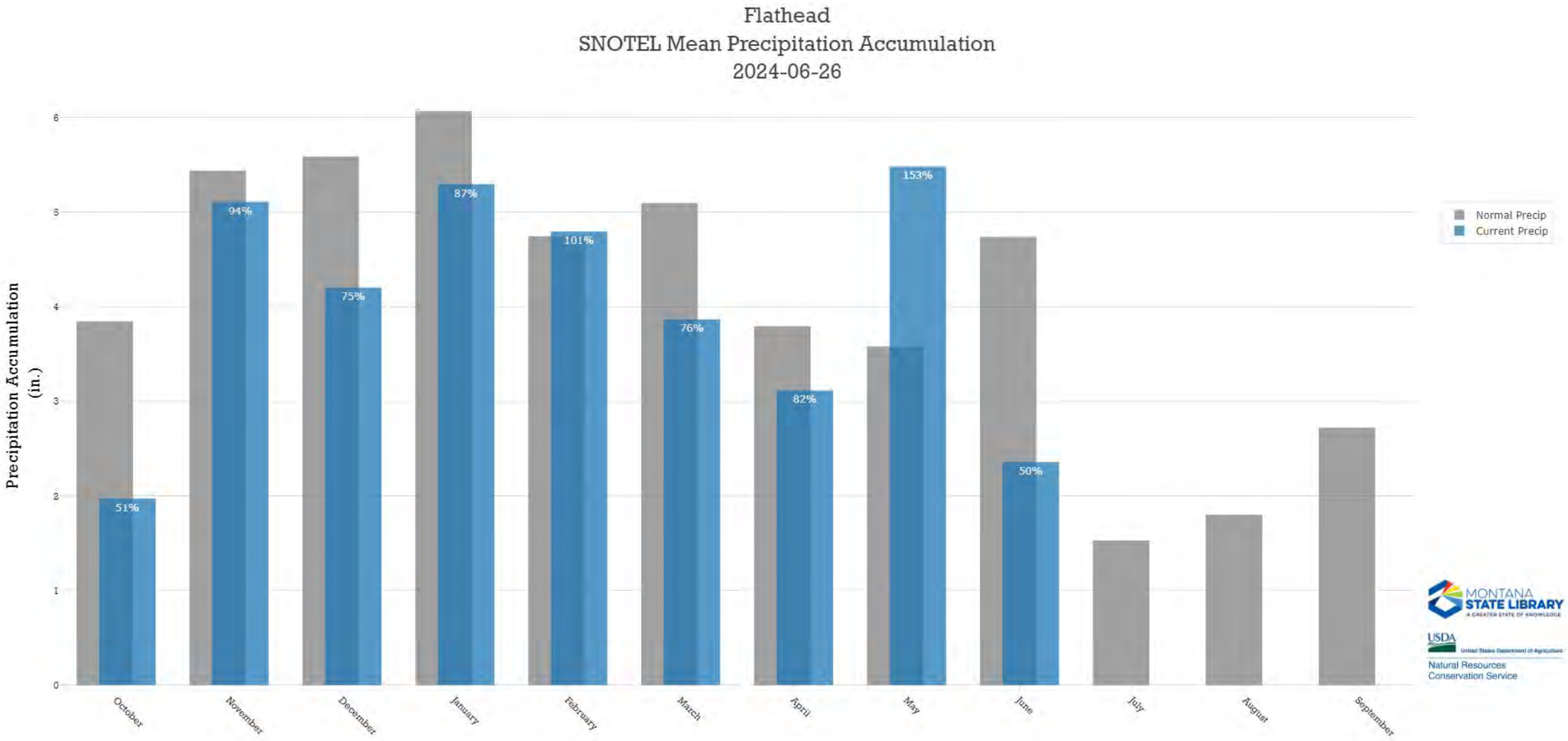


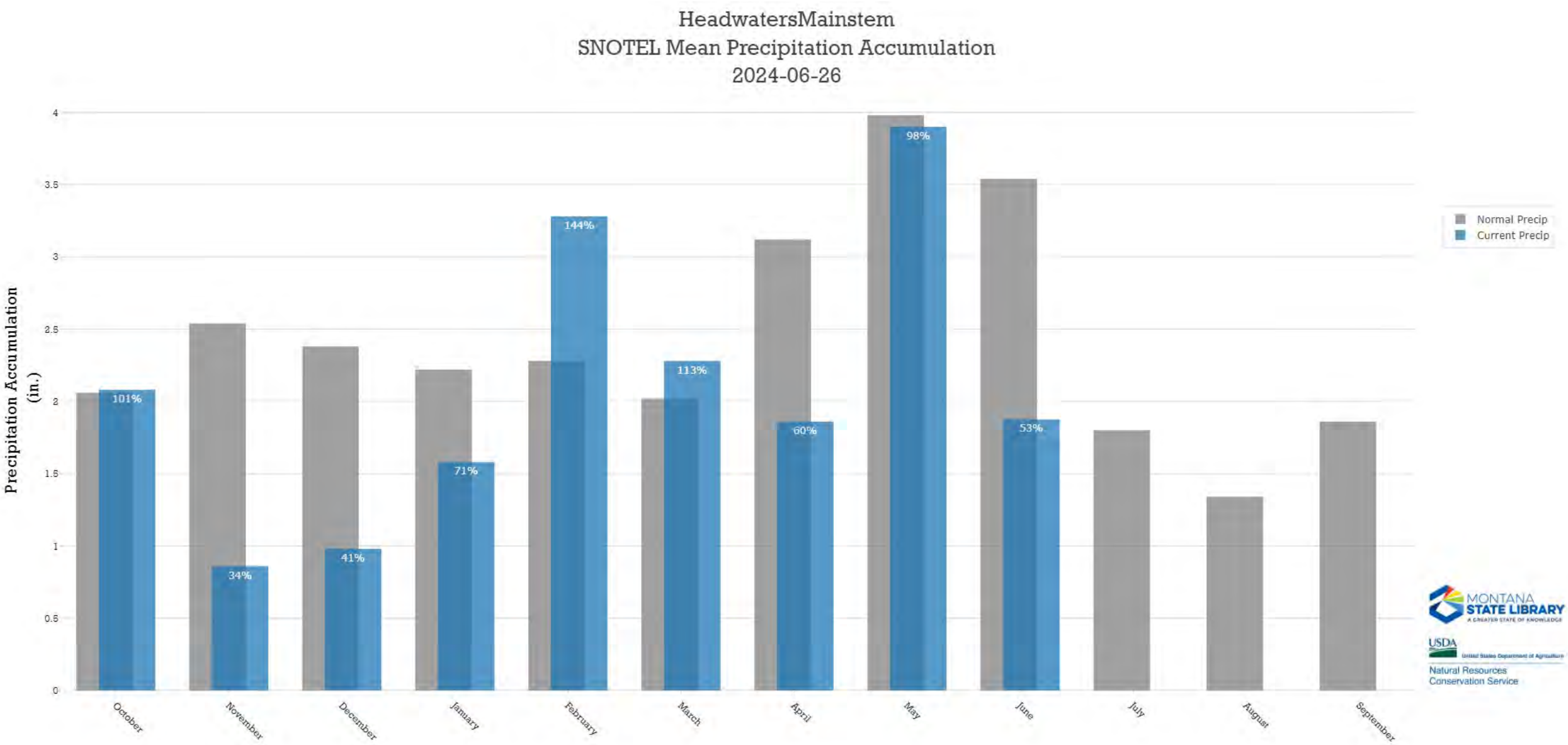
Drought Indicators Dashboard



Drought Dashboard

Montana Climate Office


Flathead
SNOTEL Mean Precipitation Accumulation
2024-06-26
Precipitation Accumulation (in.)
0
1
2
3
4
5
6
October
November
December
January
February
March
April
May
June
July
August
September
51%
94%
75%
87%
101%
76%
82%
153%
50%
Normal Precip
Current Precip
MONTANA STATE LIBRARY
A GREATER STATE OF KNOWLEDGE
USDA
United States Department of Agriculture
Natural Resources Conservation Service


HeadwatersMainstem
SNOTEL Mean Precipitation Accumulation
2024-06-26
Precipitation Accumulation (in.)
0
0.5
1
1.5
2
2.5
3
3.5
4
101%
34%
41%
71%
144%
113%
60%
98%
53%
October
November
December
January
February
March
April
May
June
July
August
September
Normal Precip
Current Precip
MONTANA STATE LIBRARY
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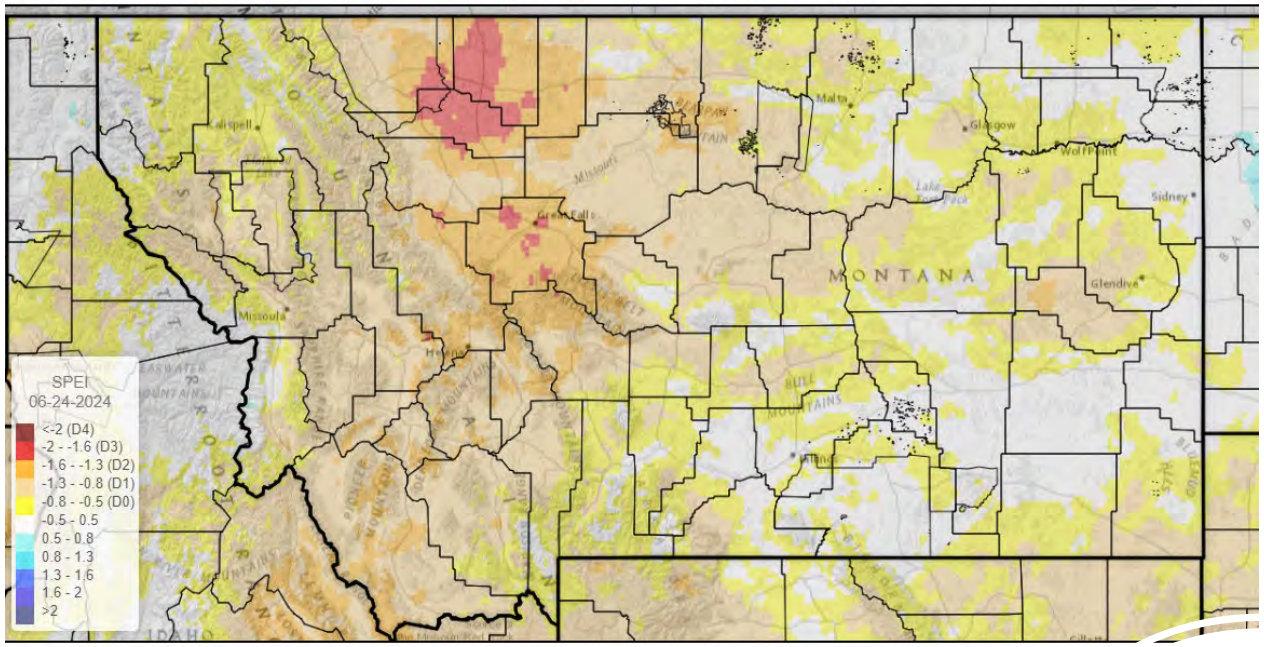
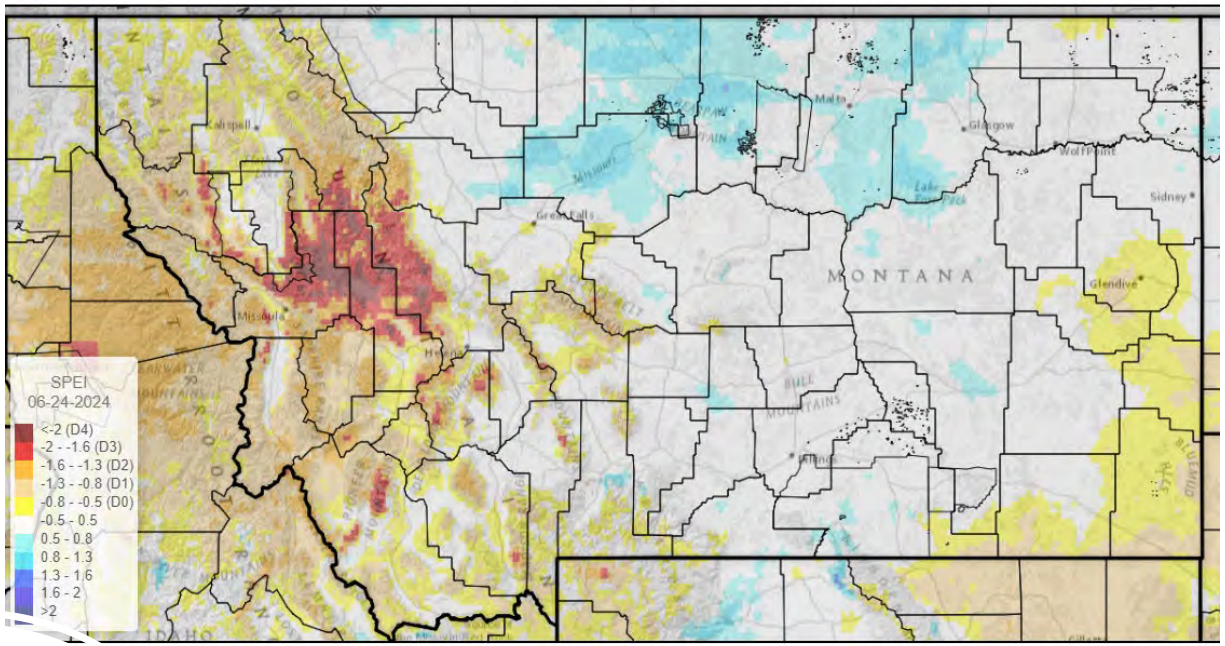
USDA
United States Department of Agriculture
Natural Resources Conservation Service

45 Day SPEI for 06-24-2024



Water Year SPEI for 06-24-2024

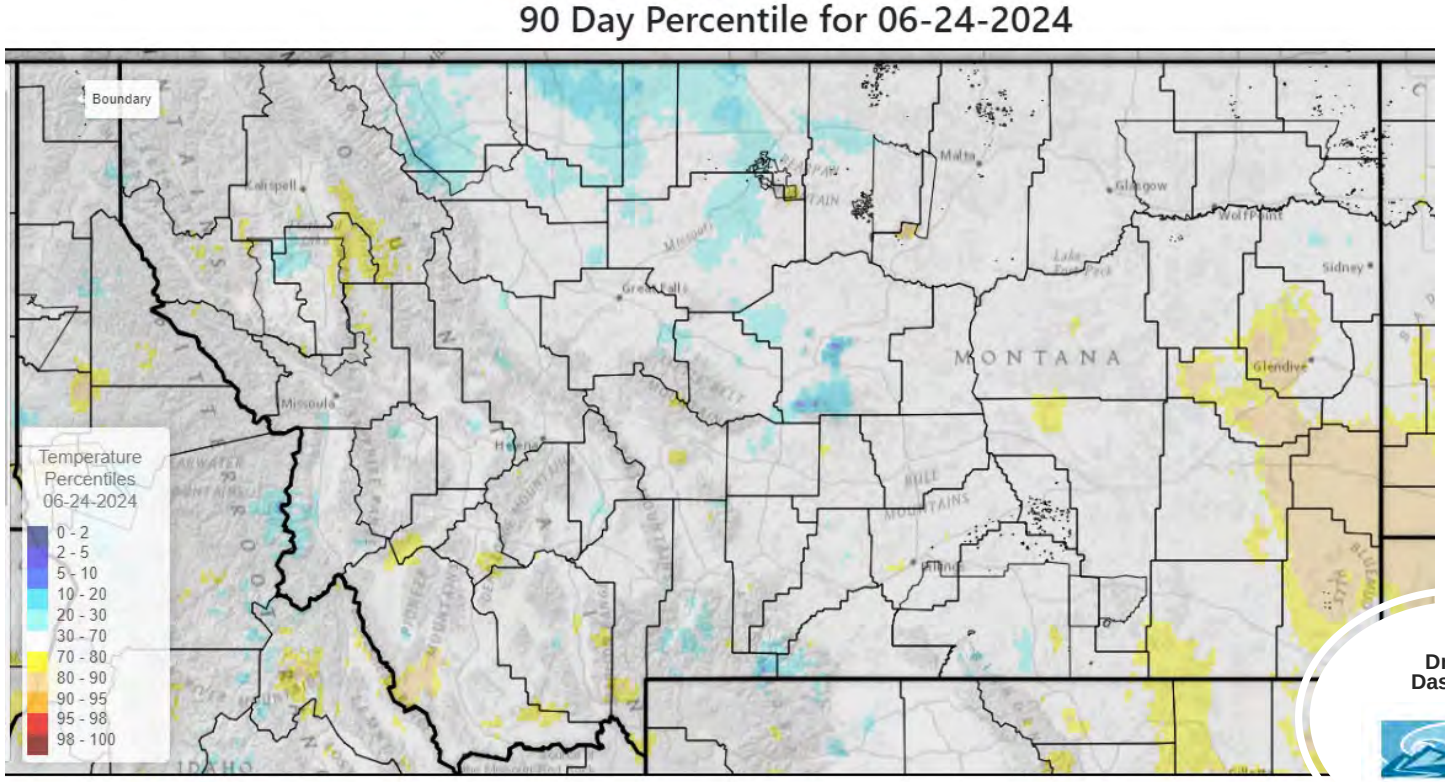


Drought Dashboard

Montana Climate Office

Temperature

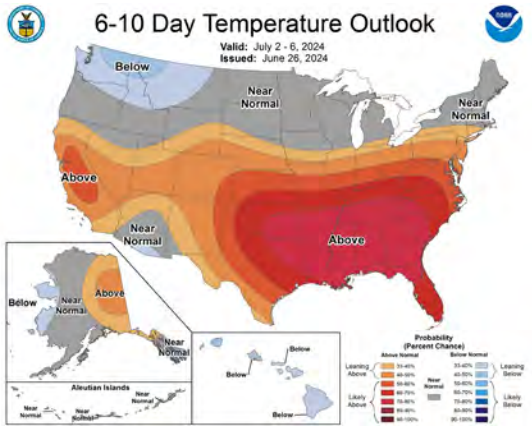
April - June

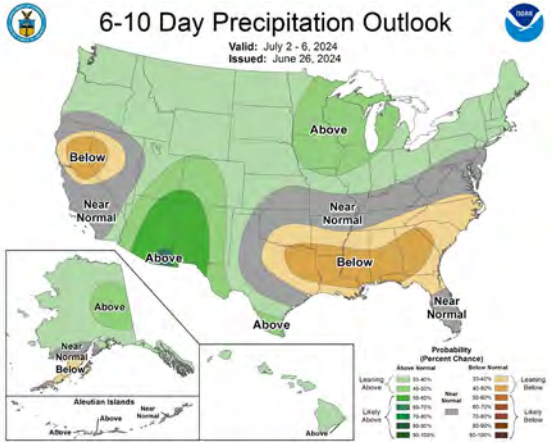


October 2023 – May 2024

Oct 2023–May 2024 **8-Month**	34.8°F (1.6°C)	31.5°F (-0.3°C)	3.3°F (1.8°C)	120th Coolest	Coolest since:	2023	1899
				10th Warmest	Warmest since:	2016	1934, 2000

NOAA NCEI Climate at a Glance

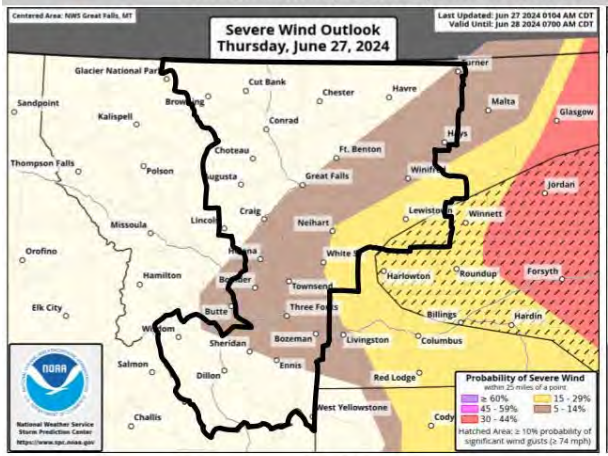


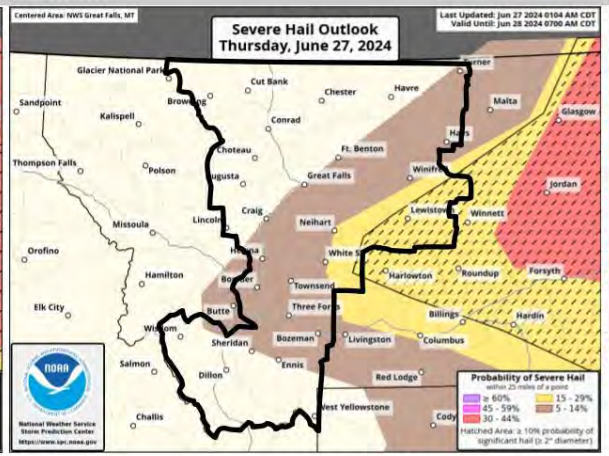


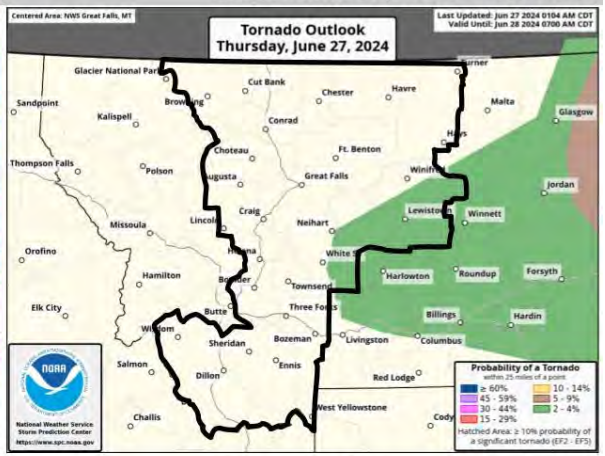
Thunderstorm Threats for Today

North Central, Central, and Southwest Montana

Issued: June 27, 2024 - 4:20 AM







Severe Winds (58+ mph Gusts):

- Brown ( ) shading
  - 5-14% probability of **Severe Wind** within 25 miles of a point
- Yellow ( ) shading
  - 15-29% probability
- Hatched ( ) area
  - ≥ 10% probability of **Significant Wind** gusts (≥ 74 mph)

Severe Hail (1+ inch diameter):

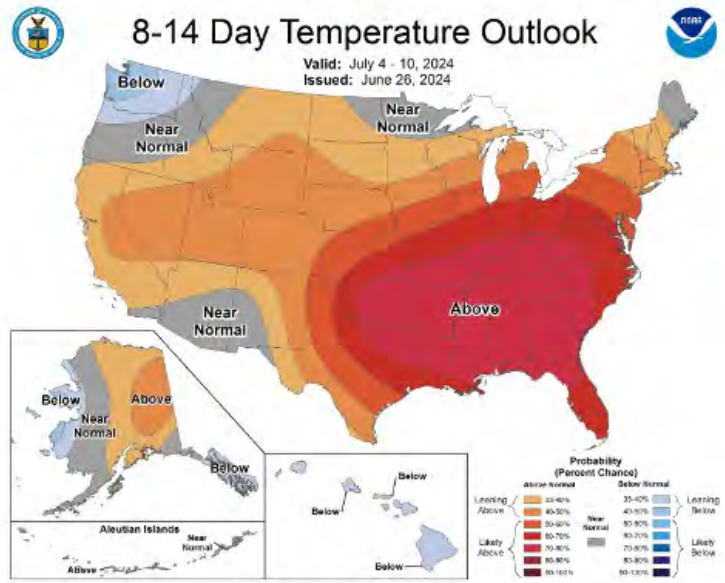
- Brown ( ) shading
  - 5-14% probability of **Severe Hail** within 25 miles of a point
- Yellow ( ) shading
  - 15-29% probability
- Hatched ( ) area
  - ≥ 10% probability of **Significant Hail** (≥ 2 inch diameter)

Tornado:

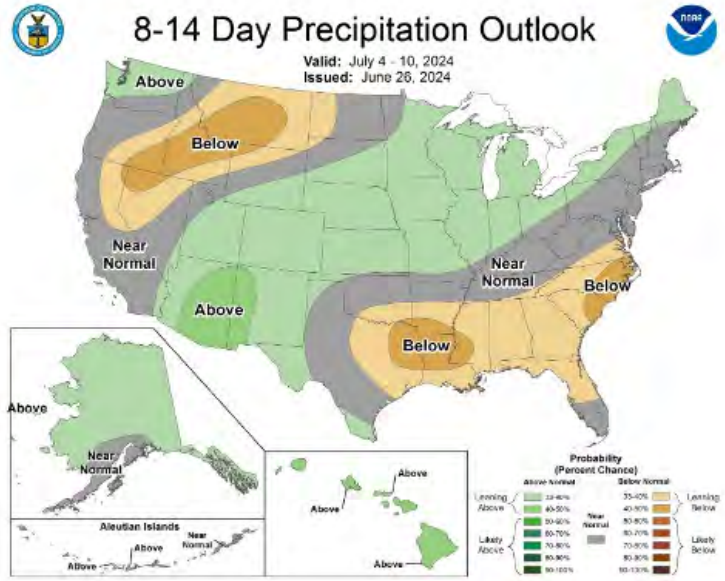
- Green ( ) shading
  - 2-4% probability of a **Tornado** within 25 miles of a point

NATIONAL WEATHER SERVICE
National Oceanic and Atmospheric Administration
WEATHER.GOV/GREATFALLS

Temperature Probability



Precipitation Probability



Related Topics:

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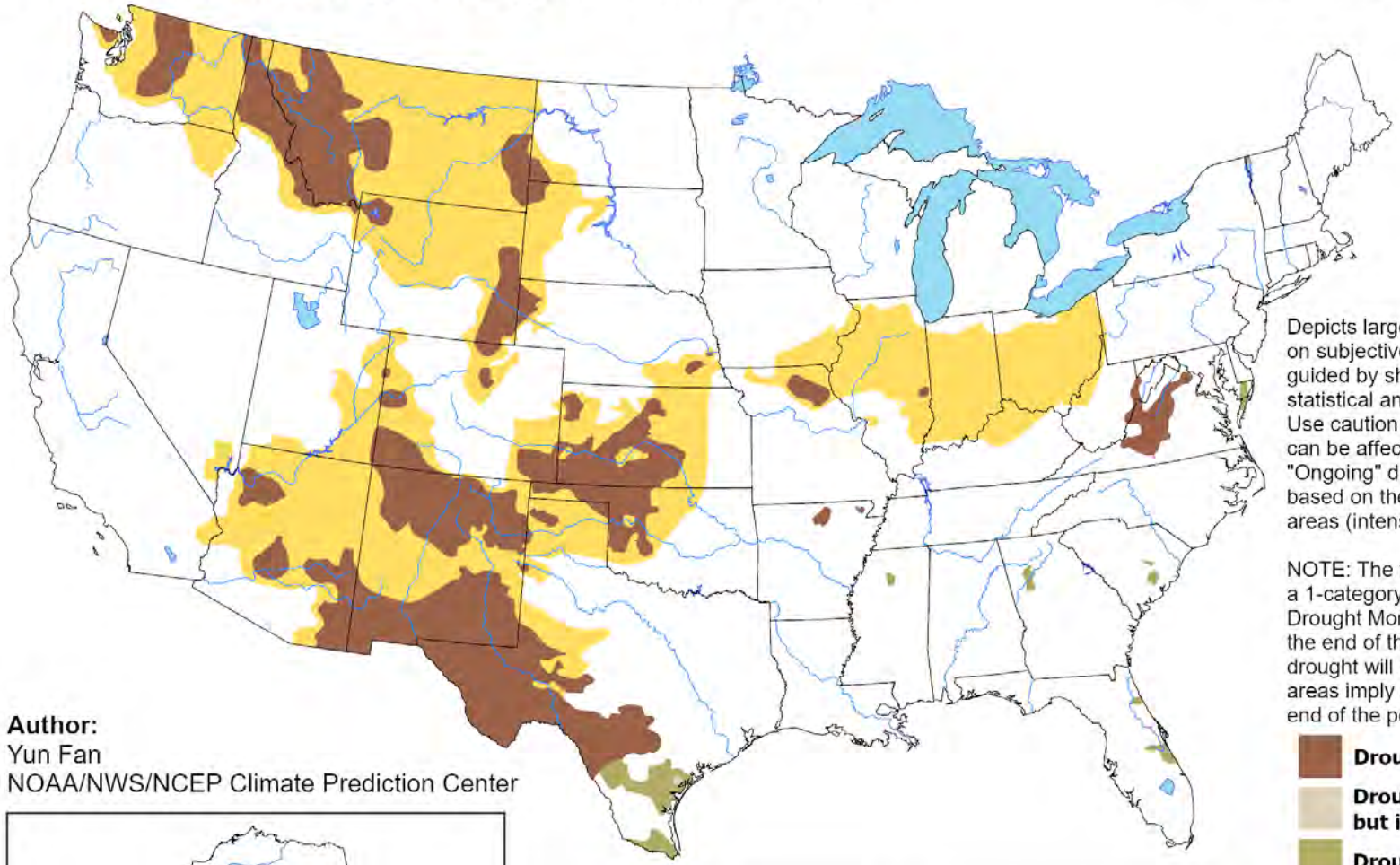
U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for June 20 - September 30, 2024
Released June 20, 2024

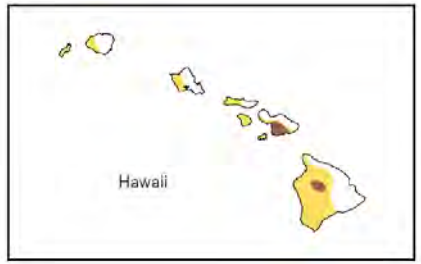


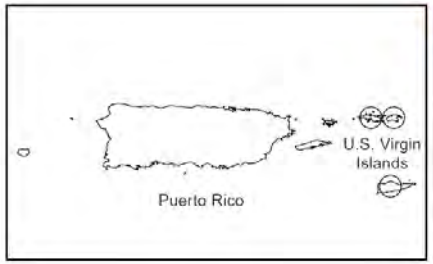
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- **Drought persists**
- **Drought remains, but improves**
- **Drought removal likely**
- **Drought development likely**
- **No drought**

Author:
Yun Fan
NOAA/NWS/NCEP Climate Prediction Center





https://go.usa.gov/3eZ73

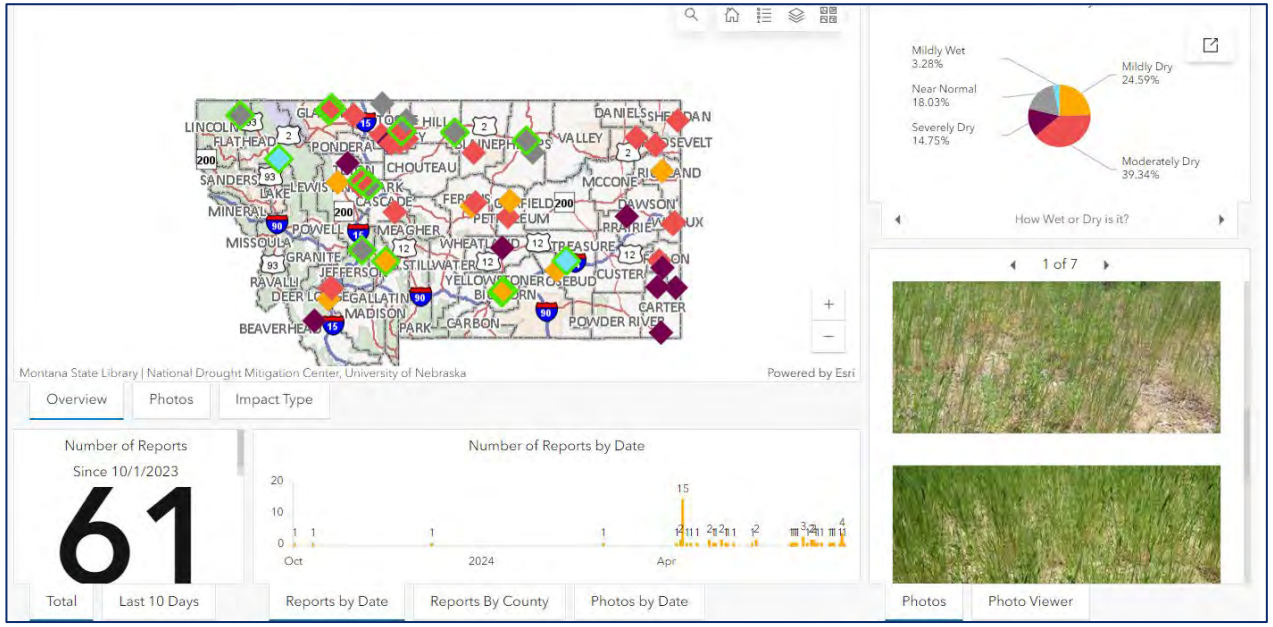
Montana Drought Impact Reporter

Reports received since 10/1/2023

- **Wibaux County 6/25–**

moderately dry

“The south end of the county has had hail and less rain. The entire county we have had reports from producers the grass hay is short and headed out already, we have had several Notice of Losses for NAP, grasshoppers seem to be an issue again this year. Some say the rain came to late for the grass hays Wibaux County has had an extreme amount of wind so whatever moisture we get the wind dries it out. I was out in the field 06/24/24 and the grass is short and thin some corn is questionable if it will make it. We had cooler weather in May and late frost.”



https://nris.mt.gov/droughtsurvey

Takeaways
What to watch for this Summer

- Drought persists and likely further develops. Vast improvements in intensity or extent are unlikely.
- How many days are above 90F and how much wind? Avoid the super high evap. days.
- The drier months are ahead. How atypical is it? Do the thunderstorms produce in some of the key drought areas?
- Now is when drought impacts show themselves.
- **Above normal precipitation and below normal temperatures are needed over the summer to hold steady (status quo at best).**

Thank you.
Questions?

Troy Blandford
tblandford@mt.gov

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