



Drought Information Statement for MONTANA

Valid: MAY 24, 2024

Issued By: NWS Great Falls, NWS Missoula, NWS Glasgow, NWS Billings

Contact Information:

- This product will be updated by June 30, 2024 or sooner if drought conditions change significantly.
 - Please see all currently available products at <https://drought.gov/drought-information-statements>.
 - Please visit <https://www.weather.gov/TFX/DroughtInformationStatement> for previous statements.
-
- D3 Drought conditions continue west of the divide.





U.S. Drought Monitor

Link to the [latest U.S. Drought Monitor](#) for Montana

U.S. Drought Monitor Montana

May 21, 2024

(Released Thursday, May, 23, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	40.03	59.97	34.89	9.36	1.20	0.00
Last Week 05-14-2024	38.69	61.31	38.81	9.36	1.47	0.00
3 Months Ago 02-20-2024	11.99	88.01	42.72	21.01	1.35	0.00
Start of Calendar Year 01-02-2024	39.20	60.80	21.30	2.68	0.00	0.00
Start of Water Year 09-26-2023	56.28	43.72	37.28	23.21	9.51	0.00
One Year Ago 05-23-2023	32.01	67.99	29.09	3.61	0.00	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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:

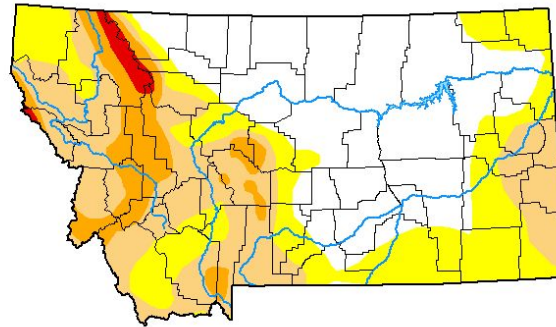
David Simeral
Western Regional Climate Center



droughtmonitor.unl.edu

Drought intensity and Extent

- **D4 (Exceptional Drought):** None occurring
- **D3 (Extreme Drought):** West of the divide over the Northern Rockies and around Borax and Saltese in far Western MT.
- **D2 (Severe Drought):** A portion of western MT, with a few areas across portions of central and southwestern MT
- **D1 (Moderate Drought):** Much of western and southwestern MT and portions of central and eastern MT
- **D0: (Abnormally Dry):** Much of western and southwestern MT and portions of central, southern and eastern MT



National Oceanic and
Atmospheric Administration

U.S. Department of Commerce

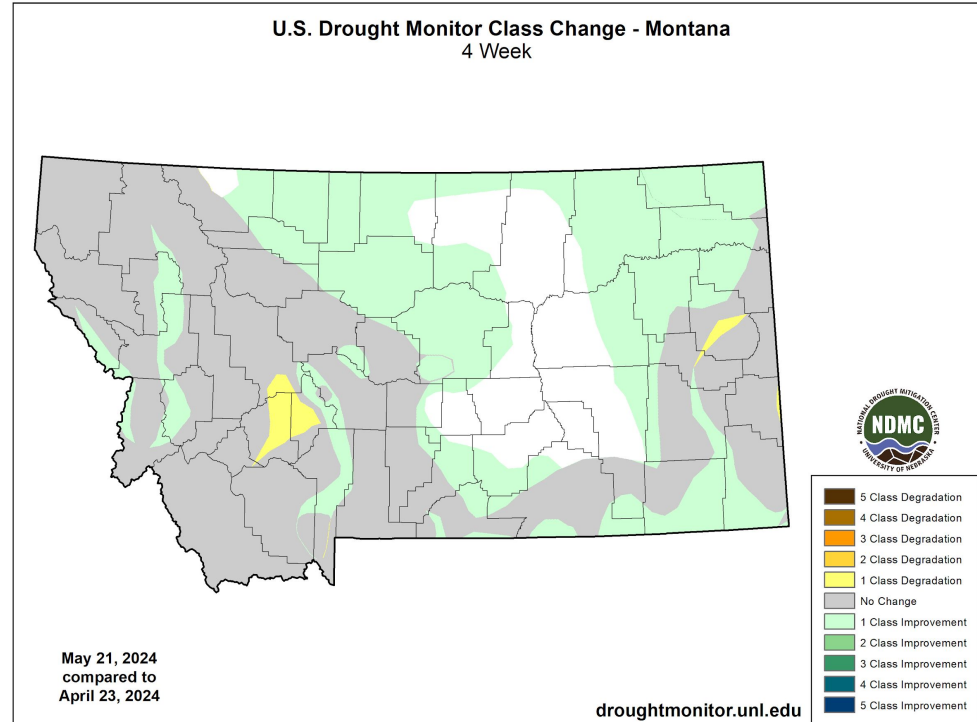
National Weather Service
Great Falls, Montana



Recent Change in Drought Intensity

Link to the latest [4-week change map](#) for Montana

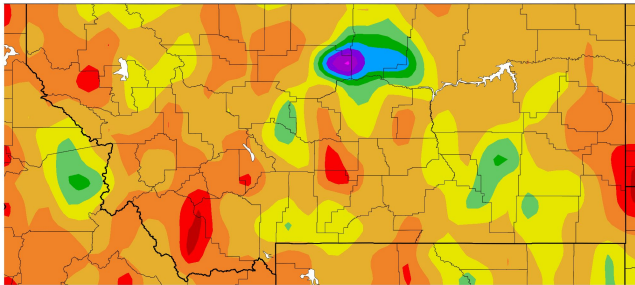
- Four Week Drought Monitor Class Change
 - **Drought Worsened:** Drought conditions worsened slightly for areas around Helena and the Elkhorn Mountains.
 - **No Change:** No change in drought conditions, over the past month, were observed over most of western and southwestern MT, and portions of central, south central and eastern MT.
 - **Drought Improved:** Areas of improvement occurred over scattered areas of western, southwestern, south central and southeastern MT, as well as, significant portions of north central, central and northeastern MT.





Precipitation

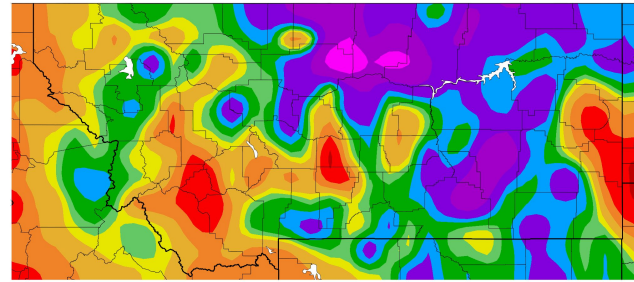
Precipitation (in)
4/23/2024 – 5/22/2024



Generated 5/23/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)
4/23/2024 – 5/22/2024



Generated 5/23/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- **Precipitation (in):** During the past month, most of the state received 1.0” to 3.5” of precipitation, with some isolated areas receiving more than 5.0” of moisture. A few isolated areas of the state received less than 1.0” of precipitation.
- **Percent of Normal Precipitation (%):** Generally, the western third of the state received below normal precipitation, while the eastern two thirds of the state received above normal precipitation amounts.

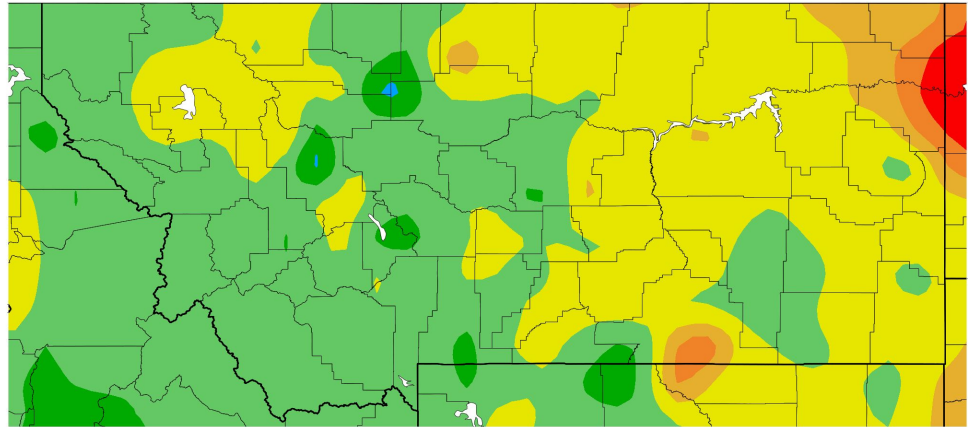




Temperature

Departure from Normal Temperature (F)
4/23/2024 – 5/22/2024

- The western half of MT generally experienced cooler than normal temperatures, while the eastern portions of the state experienced mostly warmer than normal temperatures.



Generated 5/23/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

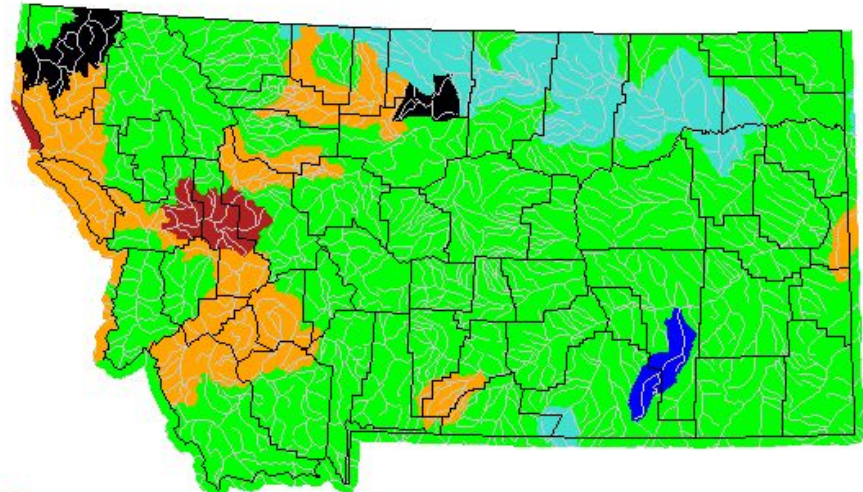




Hydrologic Conditions and Impacts

Wednesday, May 22, 2024

- **Above Normal:** Above normal stream flows are generally along the Milk River and a few rivers southeast of Billings.
- **Normal:** The average streamflow for most of MT, is at a level that is considered normal.
- **Below Normal:** Most areas of below normal streamflow are located across western MT.



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			

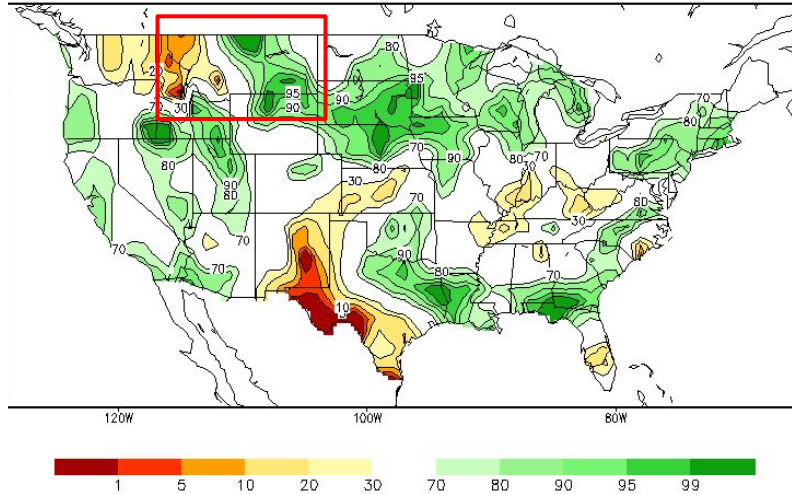
Image Caption: USGS 7-day average streamflow HUC map valid: May 22, 2024





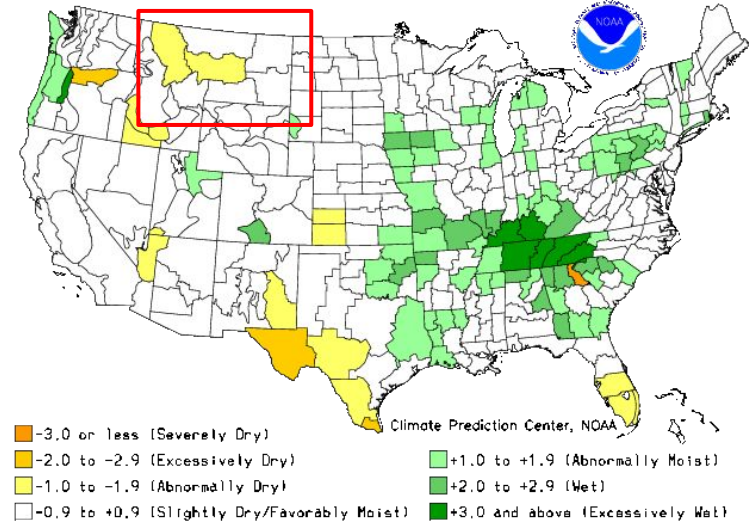
Agricultural Impacts

Calculated Soil Moisture Ranking Percentile
MAY 22, 2024



- The Soil Moisture Ranking Percentile resides in the low range across western MT, while the eastern half of the state, generally, ranks 70% or higher.

Crop Moisture Index by Division
Weekly Value for Period Ending MAY 18, 2024
Short Term Need vs. Available Water in a Shallow Soil Profile



- The Crop Moisture Index includes western MT in an area identified as, “abnormally dry,” while soil moisture values for the rest of the state continue, “slightly dry/favorably moist.”

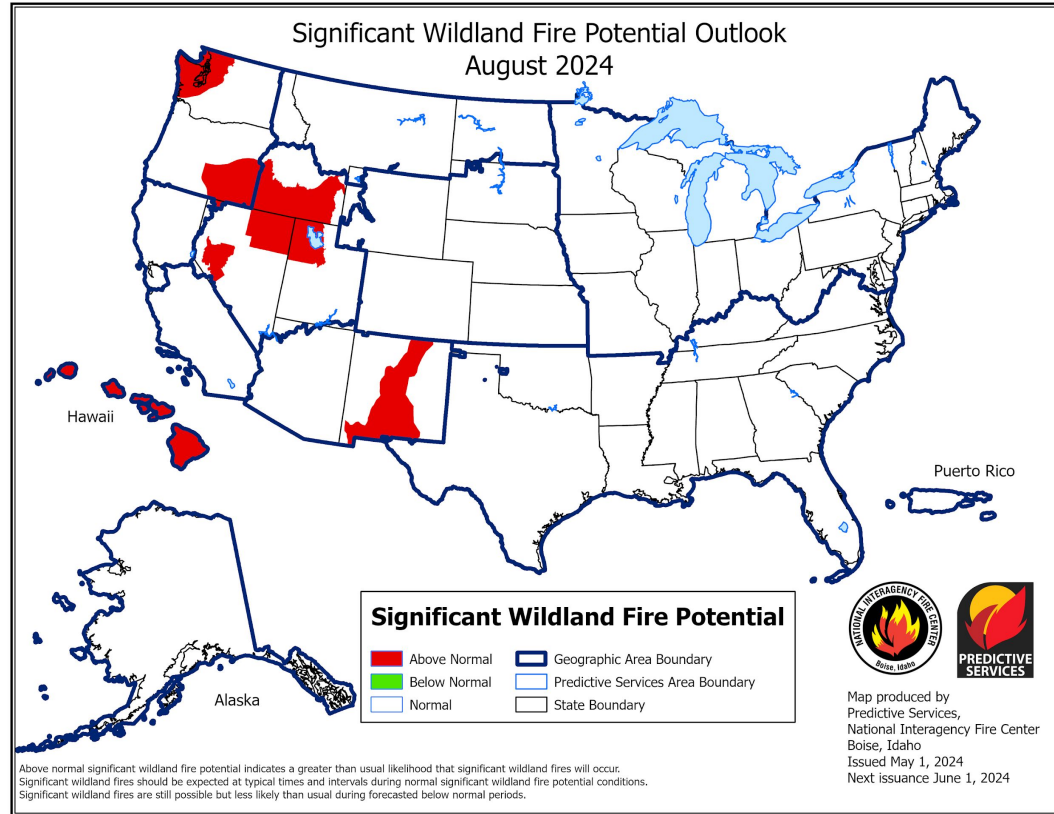




Fire Hazard Impacts

Link to [Wildfire Potential Outlooks from the National Interagency Coordination Center](#).

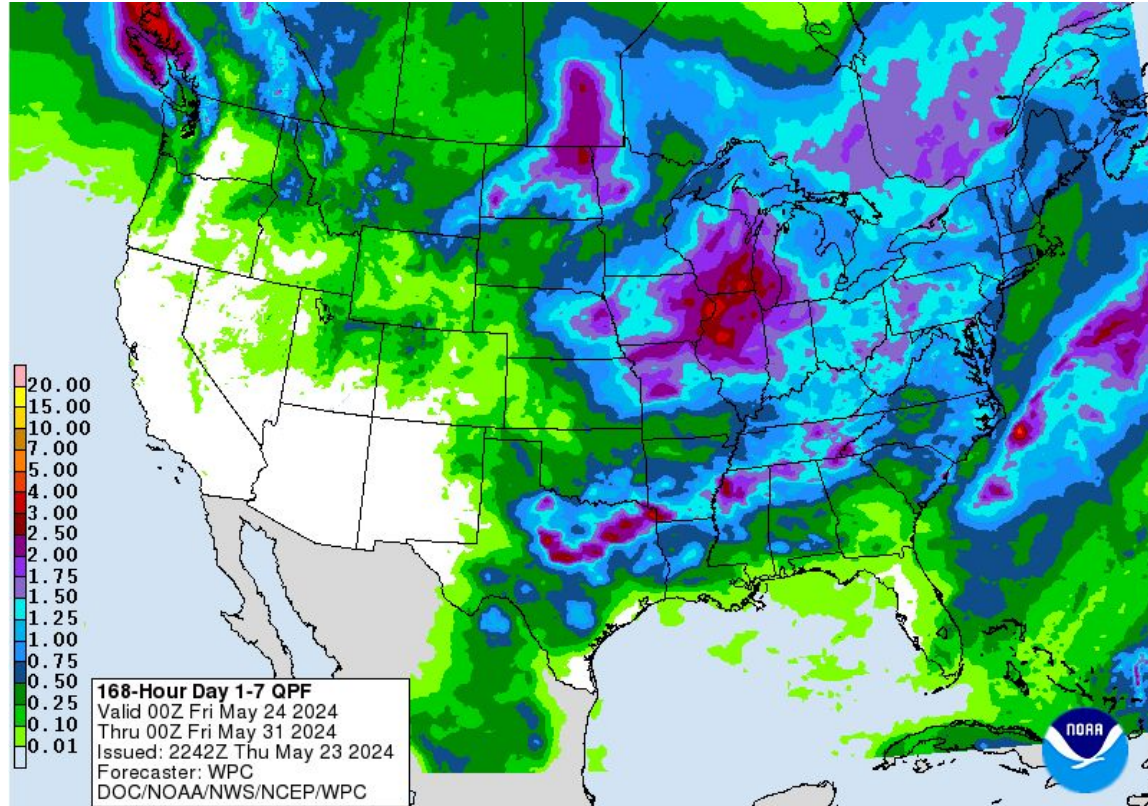
- **Grasslands:** Fire impacts continue possible a few weeks after fuels dry out.
- **Mountains:** Fire season begins after the snow melts out.





Seven Day Precipitation Forecast

- During the week of, May 24-31, 2024, generally light precipitation amounts are forecast to fall over Montana.
- Just some mountain areas and far Southeast MT have the highest chances for receiving over 1 inch of precipitation.
- This is the wettest time of year in MT, and much of these precipitation amounts are near normal for this time of year.





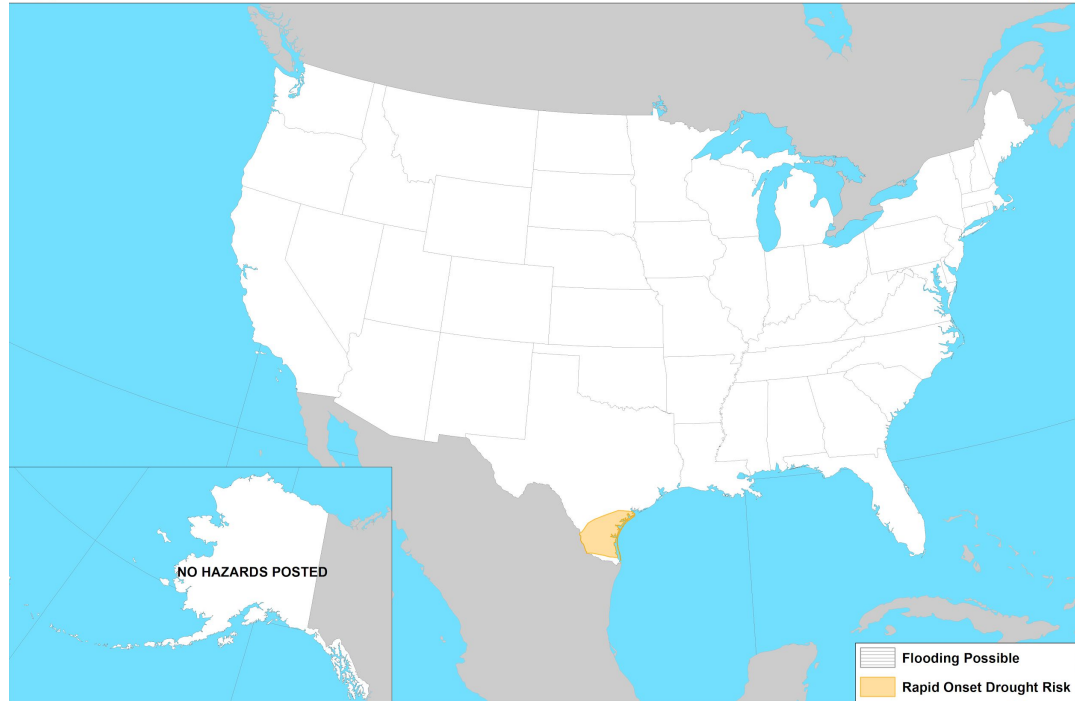
Rapid Onset Drought Outlook

Links to the latest Climate Prediction Center 8 to 14 day [Temperature Outlook](#) and [Precipitation Outlook](#).

- As of this time, no significant hazards are forecast to occur across The Treasure State from, May 31th through June 6th.



Day 8-14 U.S. Hazards Outlook
Valid: 05/31/2024-06/06/2024



Climate Prediction Center
Made: 05/23/2024 3PM EDT

Follow us:
www.cpc.ncep.noaa.gov





Long Range Outlooks

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- Looking ahead to the month of June, there is a higher probability for the western two thirds of the state to experience warmer than normal temperatures, while the outlook shows equal chances for warmer or cooler than normal temperatures for the rest of the state.

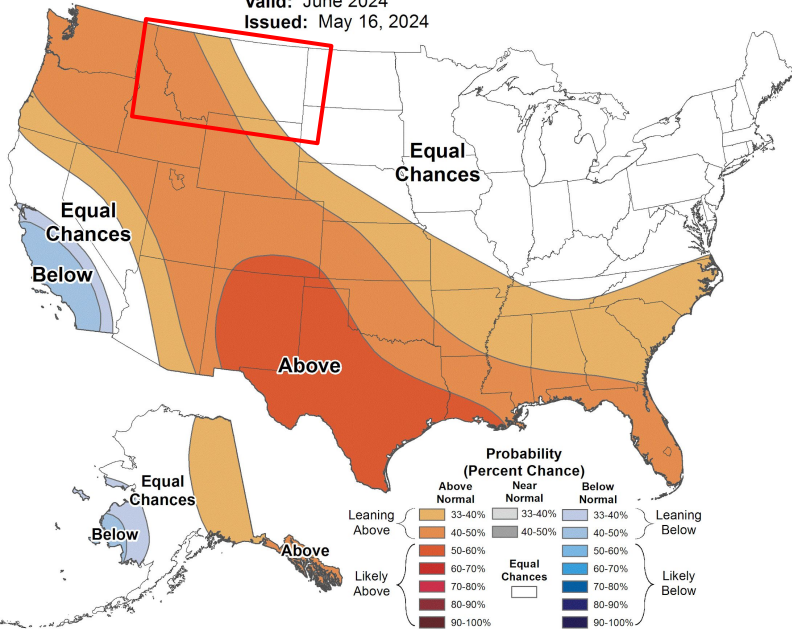
- Western and portions of southwestern MT show a better chance for below normal moisture, while there are equal chances for above or below normal precipitation for the rest of MT.



Monthly Temperature Outlook



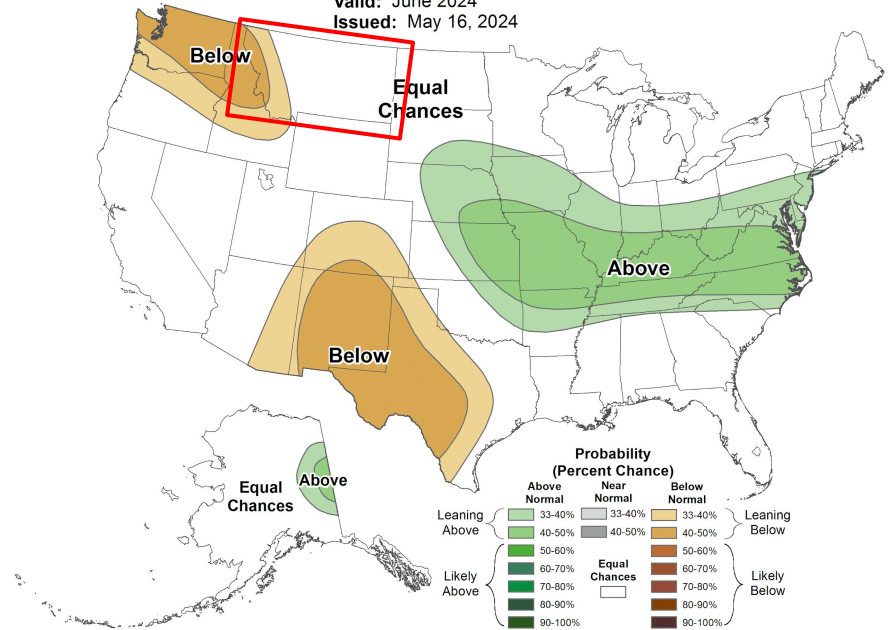
Valid: June 2024
Issued: May 16, 2024



Monthly Precipitation Outlook



Valid: June 2024
Issued: May 16, 2024





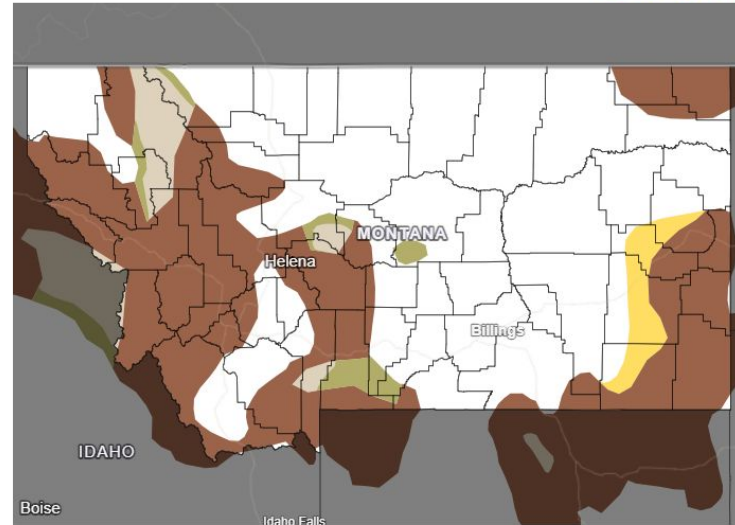
Drought Outlook

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- **Persisting:** Drought conditions are predicted to persist across much of western MT, as well as, portions of central, southern and eastern MT.
- **Developing:** Portions of eastern MT
- **Improving:** Isolated areas of northwestern, central and southwestern MT
- **Ending:** Isolated areas of northwestern, central and south central MT

<https://www.drought.gov/states/montana>

1-Month Drought Outlook



Drought Is Predicted To...



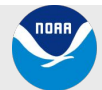
The Monthly Drought Outlook predicts whether drought will develop, remain, improve, or be removed in the next calendar month.

Source(s): Climate Prediction Center
Data Valid: 04/30/24

Drought.gov

Links to the latest:

- [Climate Prediction Center Monthly Drought Outlook](#)
- [Climate Prediction Center Seasonal Drought Outlook](#)



National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Great Falls, Montana



Summary of Impacts

Links: See/submit [Condition Monitoring Observer Reports \(CMOR\)](#) and view the [Drought Impacts Reporter](#)

Hydrologic Impacts

- Some fairly nice improvements in the mountain snowpack has occurred in May.

Agricultural Impacts

- Possible impacts to crops and grasslands

Fire Hazard Impacts

- Moisture replacement from now through June, along with the temperature trend during the last two weeks of June and the first week of July, will aid in assessing the summer season's fire impacts.

Other Impacts

- Impacts to outdoor recreation, especially river activities, are possible as we approach the Memorial Day Holiday, and the tourism season.

Mitigation Actions

- Low snowpack does not equate to an absence of flooding. Flooding is possible at any time until the snow melts out of the mountains.
- Additionally, heavy spring rains could result in some areal flooding at any time.

