



# Drought Information Statement for MONTANA

Valid: September 27, 2024

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

Contact Information:

- This product will be updated, October 31, 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.

- D4 - Exceptional drought conditions continue across a portion of western Montana.
- D3 - Extreme drought conditions continue across an area of western MT, and isolated areas of far northeastern and far southeastern MT. There has been some expansion to the southeastern MT area.





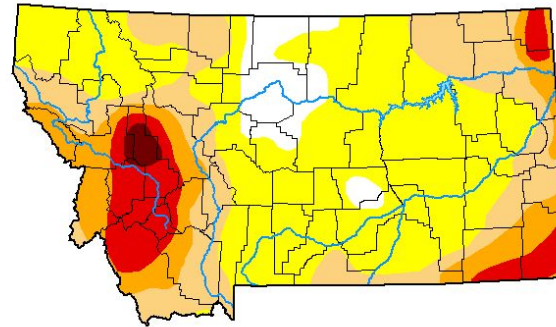
# U.S. Drought Monitor

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

## U.S. Drought Monitor Montana

**September 24, 2024**  
(Released Thursday, Sep. 26, 2024)  
Valid 8 a.m. EDT

- Drought intensity and Extent
  - **D4 (Exceptional Drought)**: Isolated area in western MT
  - **D3 (Extreme Drought)**: A portion of western MT and isolated areas in eastern MT
  - **D2 (Severe Drought)**: Portions of western, central, and eastern MT
  - **D1 (Moderate Drought)**: Portions of western, north central, central, southern and eastern MT
  - **D0: (Abnormally Dry)**: Much of the remainder of the state



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	6.87	93.13	44.30	20.76	9.25	0.90
Last Week 09-17-2024	0.00	100.00	58.66	22.74	9.25	0.90
3 Months Ago 06-25-2024	8.01	91.99	39.54	4.63	0.00	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 09-26-2023	56.28	43.72	37.28	23.21	9.51	0.00

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:

Brad Rippey  
U.S. Department of Agriculture



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

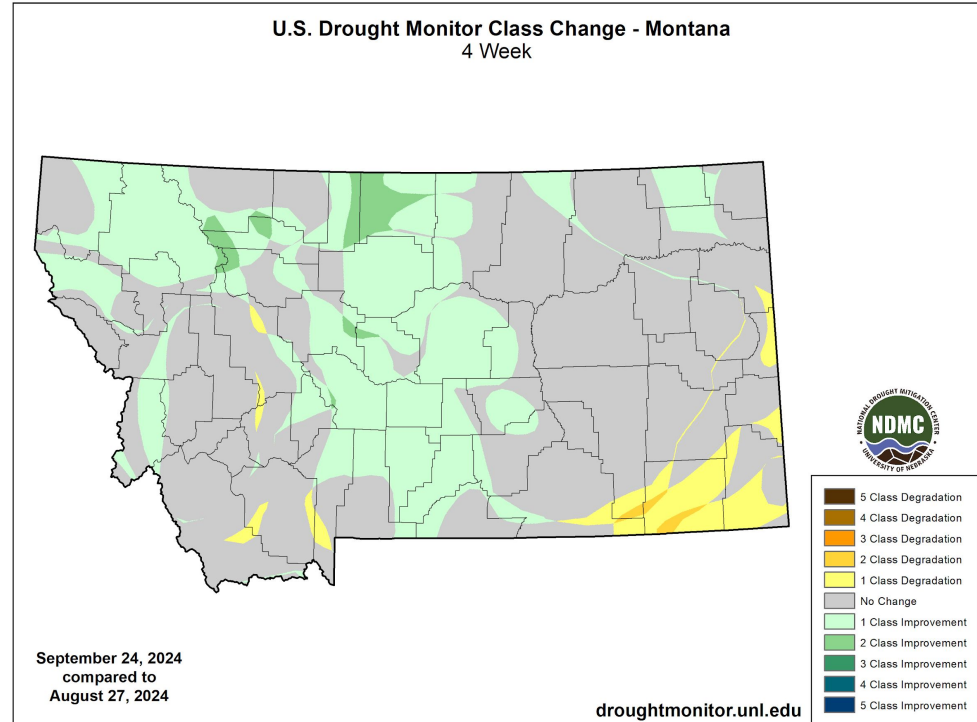




# Recent Change in Drought Intensity

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

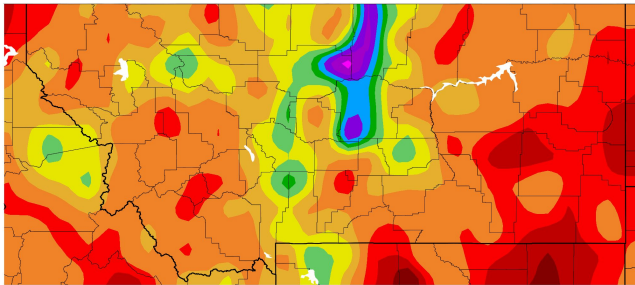
- Four Week Drought Monitor Class Change
  - **Drought Worsened:** Across isolated areas of central, southwestern and far eastern MT, as well as, portions of southeastern MT, during the past four weeks.
  - **No Change:** No change in drought conditions, over the past month, were observed over a large portion of the state.
  - **Drought Improved:** Across portions of western, north central, central and southern MT, with isolated areas of improvement in northeastern MT.





# Precipitation

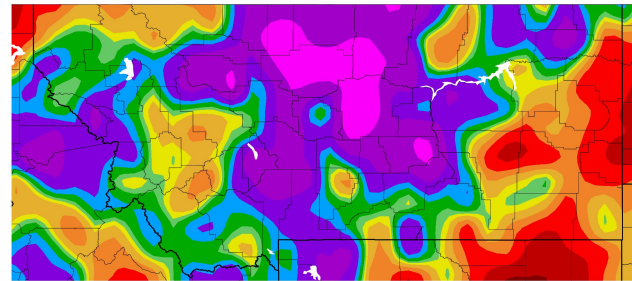
Precipitation (in)  
8/27/2024 – 9/25/2024



Generated 9/26/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)  
8/27/2024 – 9/25/2024



Generated 9/26/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- **Precipitation (in):** During the past month, much of the state received 1.0” to 3.0” of precipitation, with some areas receiving more than 3.0” of moisture. Some areas of the state received less than 1.0” of precipitation. In general, eastern MT received the least amount of precipitation.
- **Percent of Normal Precipitation (%):** A large portion of the state received above normal precipitation, while some areas received below normal precipitation amounts. Far eastern and southeastern MT represent an area of widespread below normal precipitation.

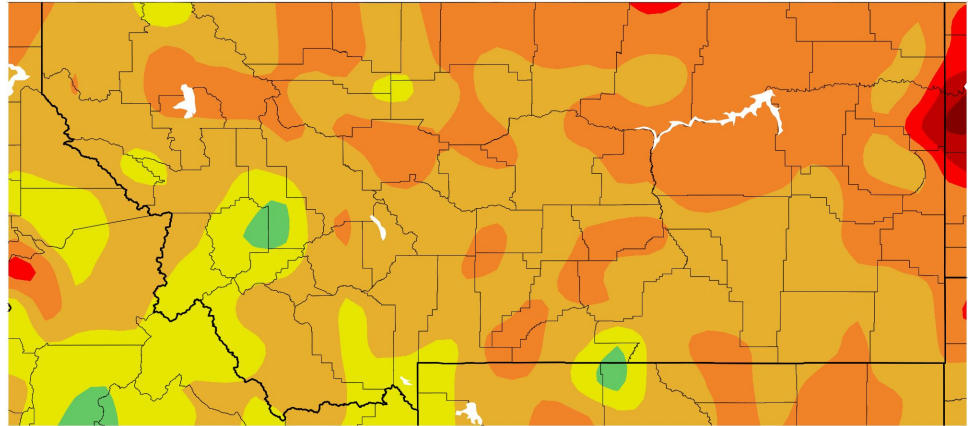




# Temperature

## Departure from Normal Temperature (F) 8/27/2024 – 9/25/2024

- Generally, The Treasure State experienced warmer than normal temperatures, for the past month, with isolated areas of far northeastern MT experiencing a greater than 5F warm departure from normal.
- There are only a couple isolated areas that received cooler than normal temperatures over, the last month.



Generated 9/26/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

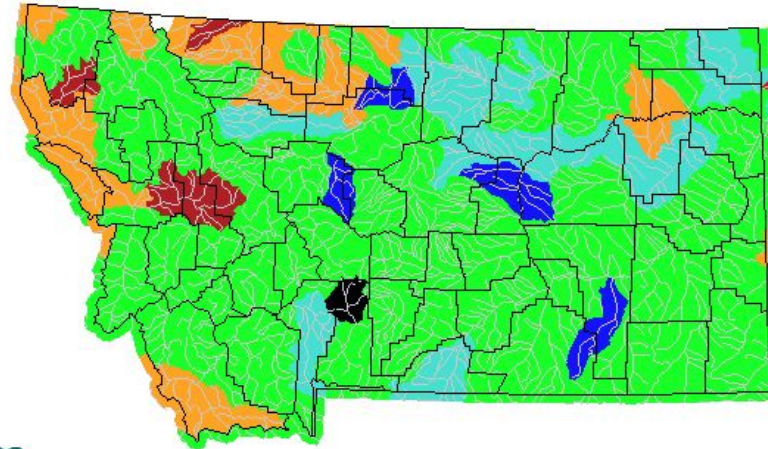




# Hydrologic Conditions and Impacts

Tuesday, September 24, 2024

- **Above Normal:** Some of our basins, east of The Divide are included in the, “above normal,” to, “much above normal,” percentile class, with a portion of the Upper Yellowstone Basin included in the, “high,” range.
- **Normal:** The average streamflow for much of MT, is at a level that is considered, “normal.”
- **Below Normal:** Some basins located across portions of western, north central, central, southwestern, northeastern and far eastern MT are experiencing, “much below normal,” to, “below normal,” average stream flow.



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		

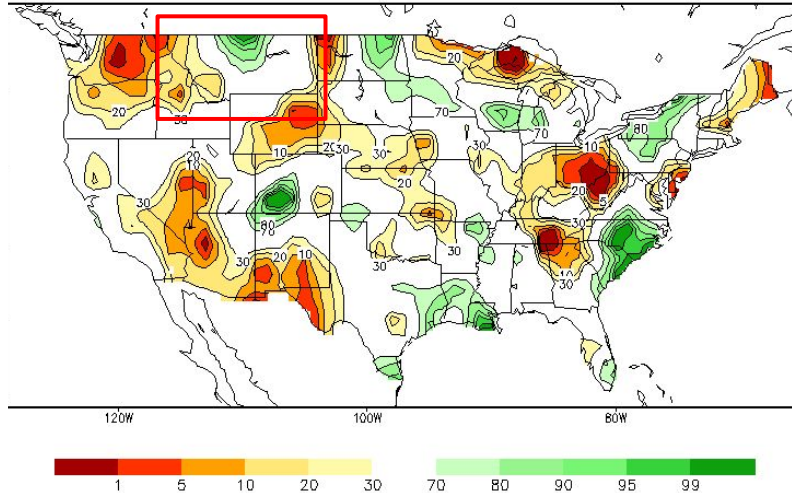
Image Caption: USGS 7-day Average Streamflow HUC Map, valid: September 24, 2024





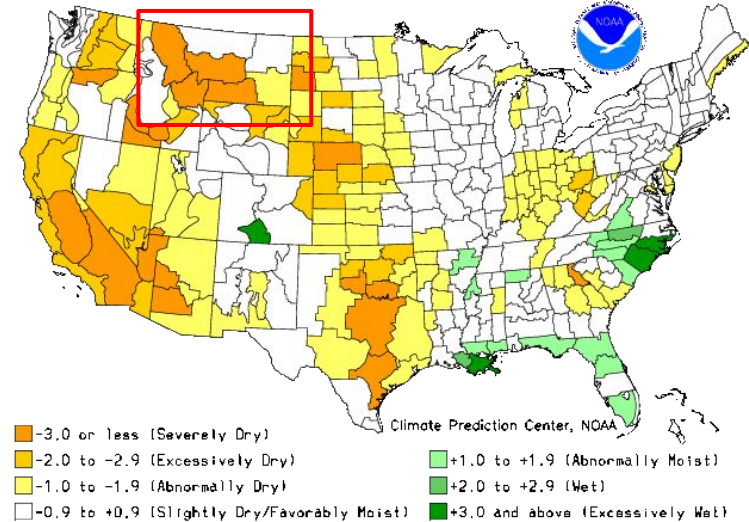
# Agricultural Impacts

Calculated Soil Moisture Ranking Percentile  
SEP 25, 2024



- The Soil Moisture Ranking Percentile resides in the lower range across western, southwestern and portions of far eastern MT. North central and central MT have moved into the 70 to 100 percentile range, with the remainder of the state in the 30 to 70 percentile range.

Crop Moisture Index by Division  
Weekly Value for Period Ending SEP 21, 2024  
Short Term Need vs. Available Water in a Shallow Soil Profile



- The Crop Moisture Index includes western, central and much of southern MT in an area identified as, “severely dry,” while soil moisture values for southeastern MT are, “abnormally dry.” North central and northeastern MT are considered, “slightly dry/favorably moist.”

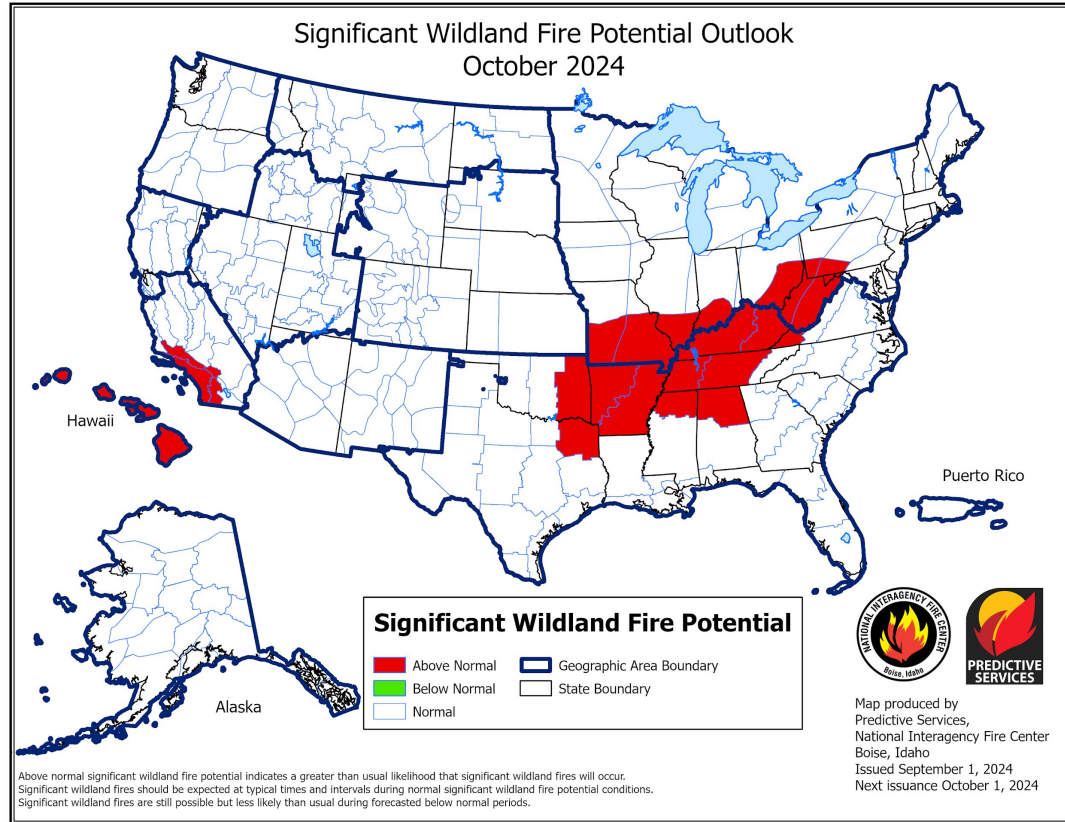




# Fire Hazard Impacts

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

- For the month of October, the state of MT is included in an area of normal significant wildland fire potential conditions. Significant wildland fires should be expected at typical times and intervals.

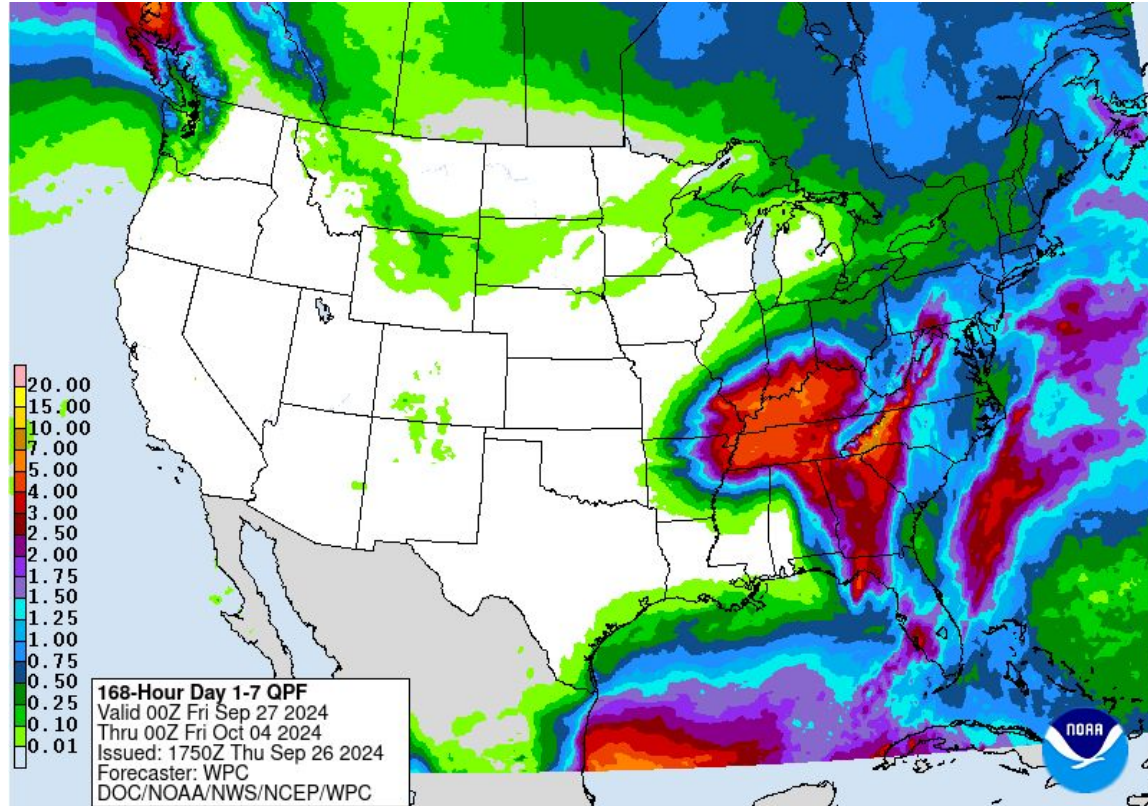






# Seven Day Precipitation Forecast

- During the week of, September 27 through October 4, 2024, much of southwestern and eastern MT is forecast to receive less than 0.01" of liquid precipitation.
- From northwestern, through central, south central and continuing across portions of southeastern MT, generally, 0.01" to 0.25" of liquid precipitation is forecast. Some isolated areas may receive up to 0.5", during this period.





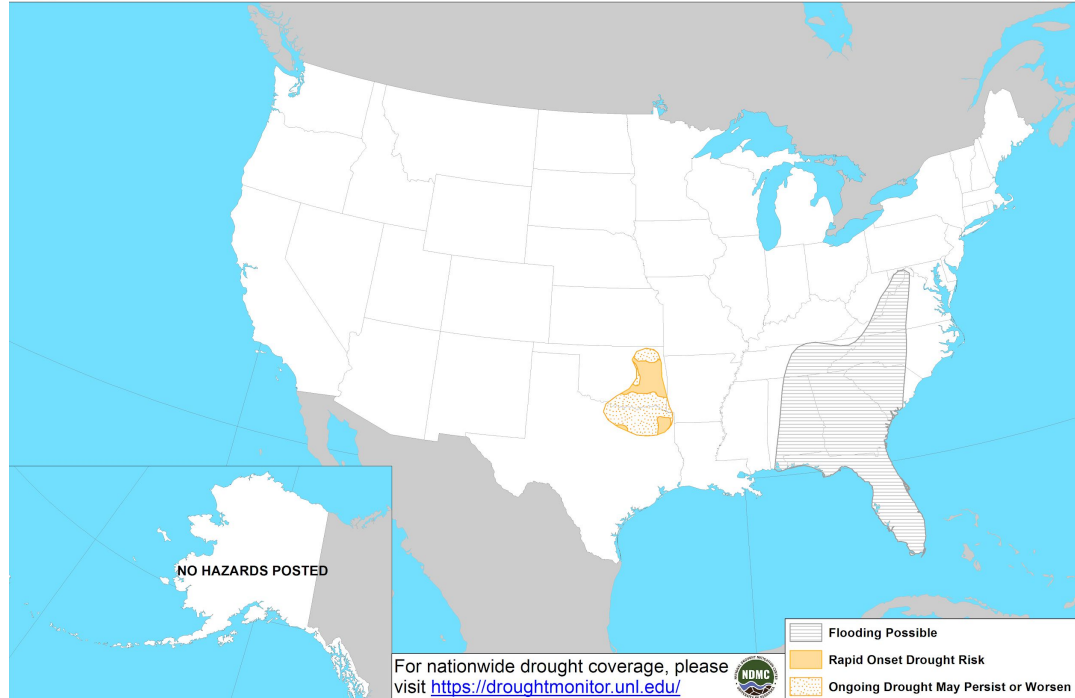
# Rapid Onset Drought Outlook

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, October 3rd to 9th.



Day 8-14 U.S. Hazards Outlook  
Valid: 10/03/2024-10/09/2024



Climate Prediction Center  
Made: 09/25/2024 3PM EDT

Follow us:   
[www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)





# Long Range Outlooks

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

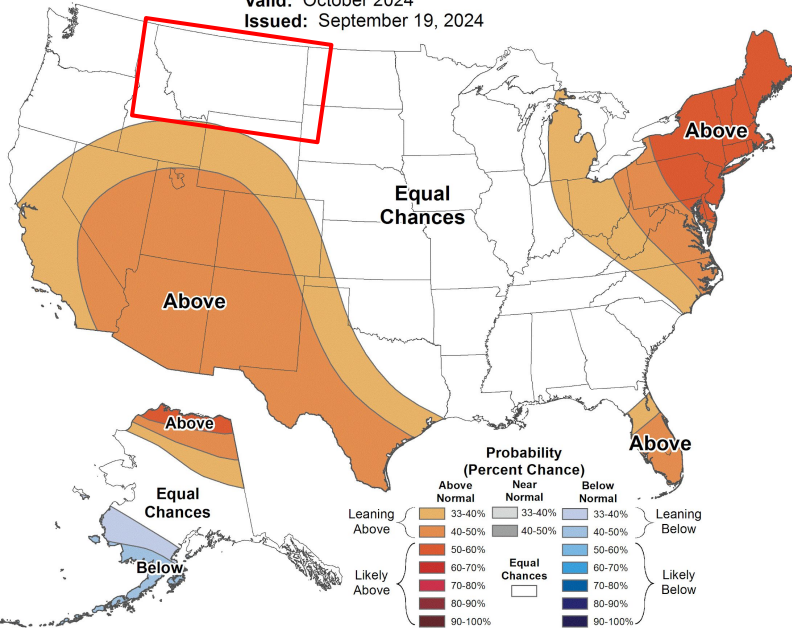
- Looking ahead to October, the Temperature and Precipitation Outlooks show equal chances for above or below normal temperatures and precipitation, statewide.



## Monthly Temperature Outlook



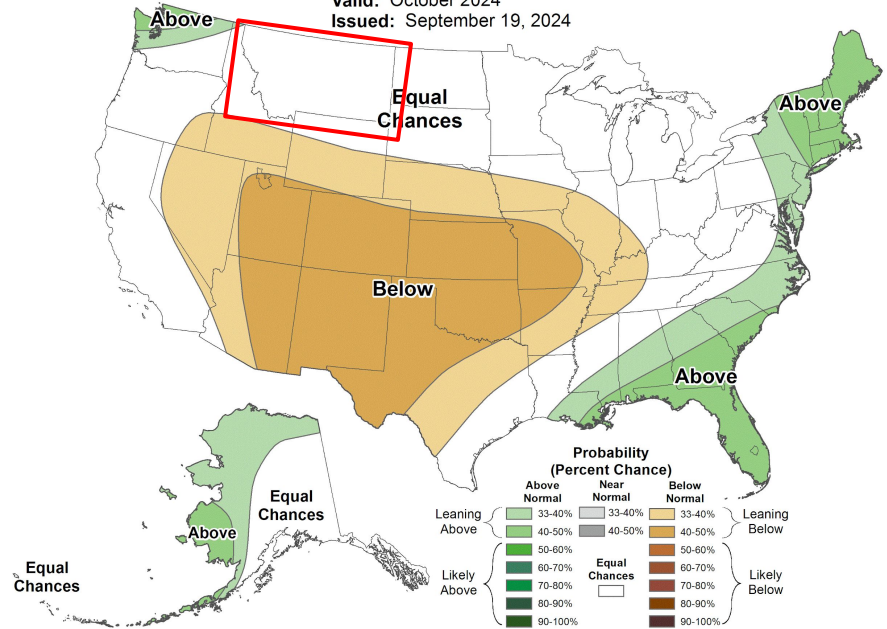
Valid: October 2024  
Issued: September 19, 2024



## Monthly Precipitation Outlook



Valid: October 2024  
Issued: September 19, 2024





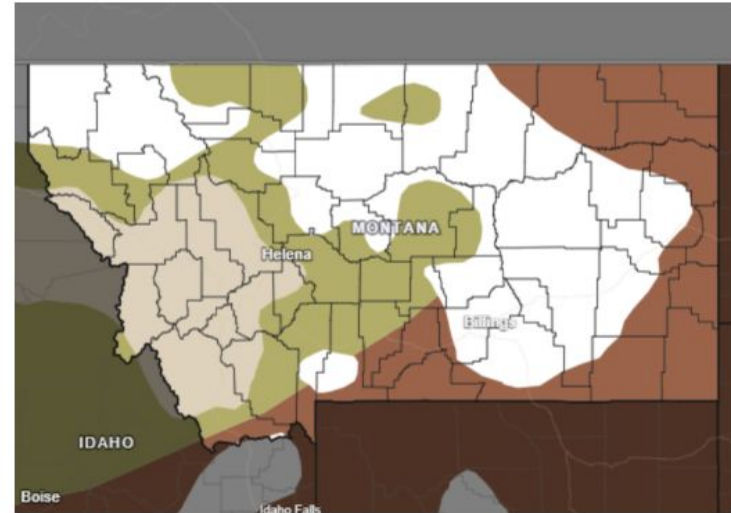
# Drought Outlook

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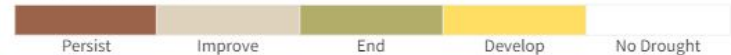
- **Persisting:** Drought conditions are predicted to persist across portions of southern and eastern MT.
- **Developing:** None
- **Improving:** Improving drought conditions cover portions of western, central and southwestern MT.
- **Ending:** Drought conditions are predicted to enter the ending process across portions of western, north central, central, southwestern and southern MT.
- **No Drought:** Portions of northwestern, north central, central and eastern MT, with an isolated area of southern MT, are included in an area of, “no drought.”

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

## Seasonal (3-Month) Drought Outlook for September 19–December 31, 2024



Drought Is Predicted To...



The Seasonal Drought Outlook predicts whether drought will develop, remain, improve, or be removed in the next 3 months or so.

Source(s): Climate Prediction Center  
Last Updated: 09/19/24

**Drought.gov**

Links to the latest:

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





# Summary of Impacts

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

## Hydrologic Impacts

- About 28% of the state of Montana is reported, “moderately dry,” with an additional, 56% reported, “severely dry.” This is a 15% increase in severely dry reports, since, August 30, 2024.

Montana State Library | National Drought Mitigation Center. 2024. Drought Impacts. [accessed September 27, 2024].

<https://storvmaps.arcgis.com/stories/76204aa1271a4a7f8a775fc2bba9ef83>

## Agricultural Impacts

- Impacts to crops and grasslands

## Fire Hazard Impacts

- As fire season gradually approaches an end, drought and dead fuels remain ongoing fire concerns.

## Other Impacts

- Burn scar flash flooding remains a high focus.
- Fishing closed for some areas.

## Mitigation Actions

- We continue to monitor potential drought and flooding impacts.
- Messaging concerns to the public is essential to public safety, and as such, remains a high priority.

