



# Drought Information Statement for the Missouri Ozarks

Valid November 7, 2024

Issued By: *WFO Springfield, MO*

Contact Information: *contact.sgf@noaa.gov*

- This product will be updated December 5, 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/sgf/SGFDroughtMonitor> for additional information.





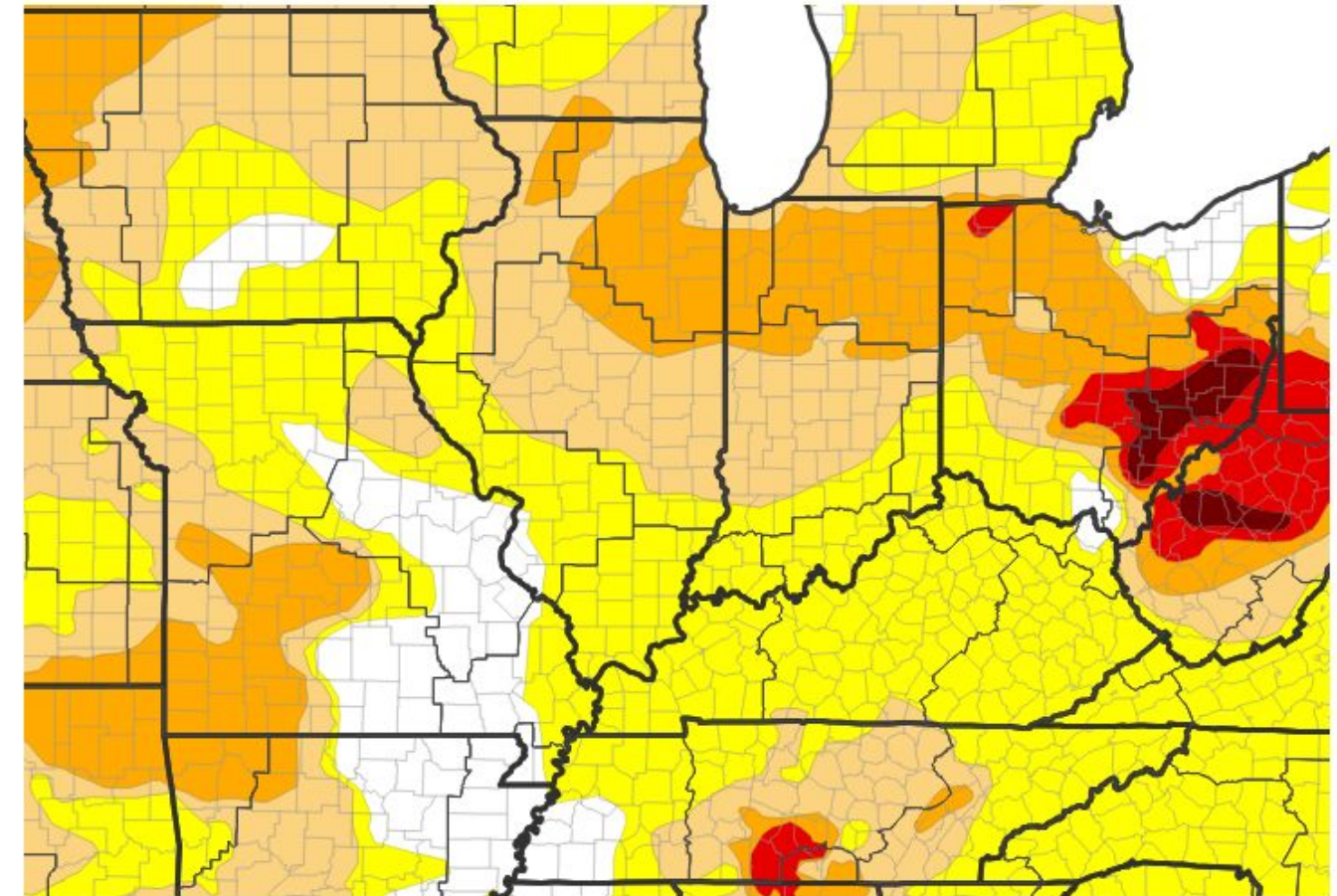
# U.S. Drought Monitor

November 7, 2024  
1:41 PM

Link to the [Latest U.S. Drought Monitor](#) for Lower Midwest

- **Drought Generally Decreases across the Ozarks Region.**
- **Drought Intensity and Extent**
  - D2 (Severe Drought): Portions of McDonald, Newton, Jasper, Barton, Barry, Stone, Taney, Christian, Douglas, Webster, Greene, Dade, Morgan, Miller, Maries, Camden, Pulaski, Laclede, Dallas, St. Clair, Benton, Polk, Hickory, and Cedar counties in Missouri, as well as portions of Cherokee, Crawford Counties in Kansas.
  - D1 (Moderate Drought): Portions of previously mentioned D2 areas, in addition to portions of Ozark, Phelps, and Vernon Counties in Missouri and Bourbon County in Kansas.
  - D0: (Abnormally Dry): Portions of some previously mentioned D1 areas, as well as portions of Dent County in Missouri.

U.S. Drought Monitor



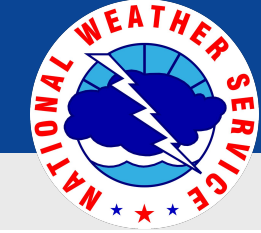
U.S. Drought Monitor



Source(s): NDMC, NOAA, USDA; image courtesy of Drought.gov

Data Valid: 11/05/24





# Drought Monitor - Last Week vs. This Week

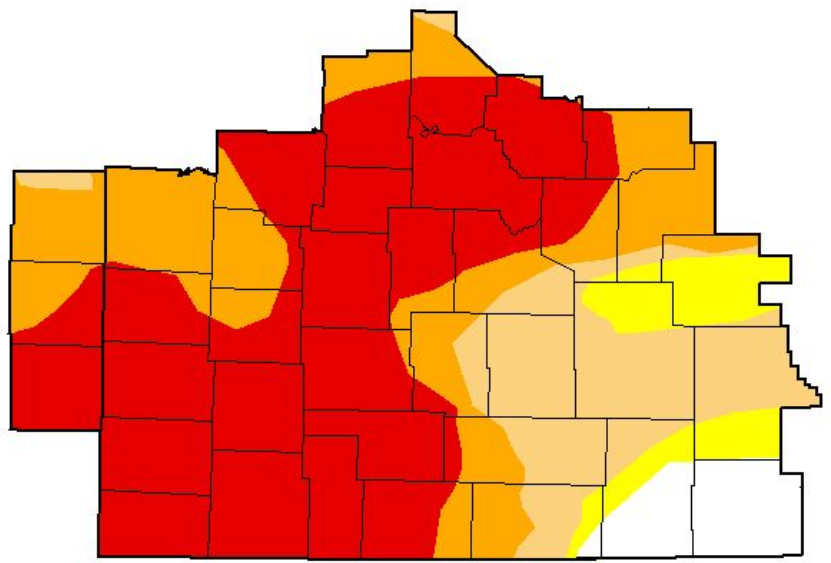
November 7, 2024  
1:41 PM

Link to the [Latest U.S. Drought Monitor](#) for Lower Midwest

## Last Week (Oct 29)

## Latest (Nov 5)

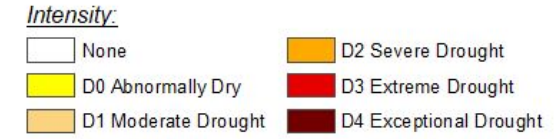
### U.S. Drought Monitor Springfield, MO WFO



### October 29, 2024 (Released Thursday, Oct. 31, 2024) Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	5.43	94.57	88.49	72.34	49.43	0.00
<b>Last Week</b> 10-22-2024	5.52	94.48	84.81	55.43	18.47	0.00
<b>3 Months Ago</b> 07-30-2024	78.56	21.44	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> 01-02-2024	14.22	85.78	71.72	39.81	0.55	0.00
<b>Start of Water Year</b> 10-01-2024	20.98	79.02	51.60	25.72	0.00	0.00
<b>One Year Ago</b> 10-31-2023	39.96	60.04	39.07	20.13	2.85	0.00

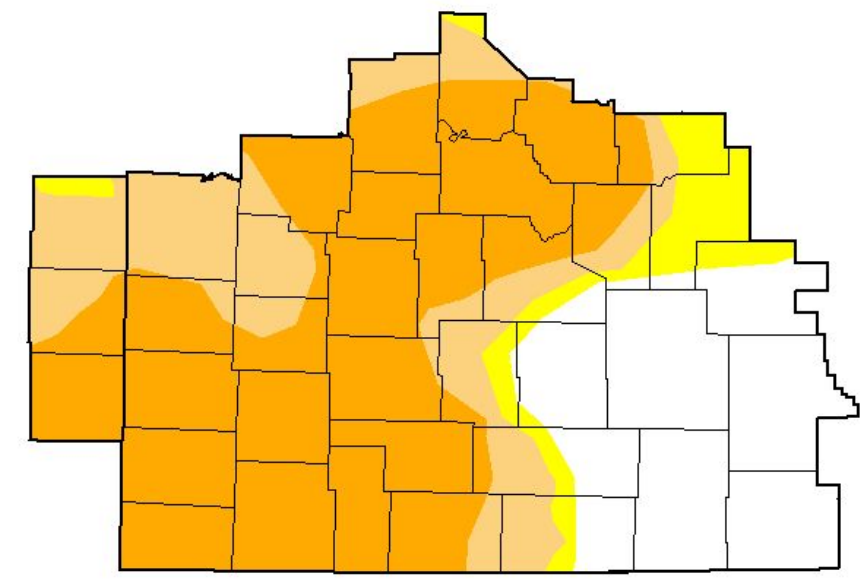


The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

**Author:**  
Brian Fuchs  
National Drought Mitigation Center



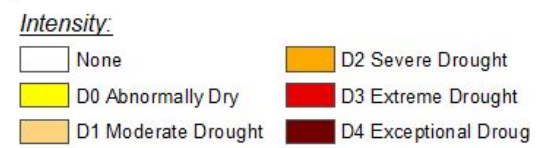
### U.S. Drought Monitor Springfield, MO WFO



### November 5, 2024 (Released Thursday, Nov. 7, 2024) Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	24.32	75.68	68.82	49.47	0.00	0.00
<b>Last Week</b> 10-29-2024	5.43	94.57	88.49	72.34	49.43	0.00
<b>3 Months Ago</b> 08-06-2024	59.72	40.28	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> 01-02-2024	14.22	85.78	71.72	39.81	0.55	0.00
<b>Start of Water Year</b> 10-01-2024	20.98	79.02	51.60	25.72	0.00	0.00
<b>One Year Ago</b> 11-07-2023	39.80	60.20	38.96	20.13	0.70	0.00



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:**  
Brian Fuchs  
National Drought Mitigation Center

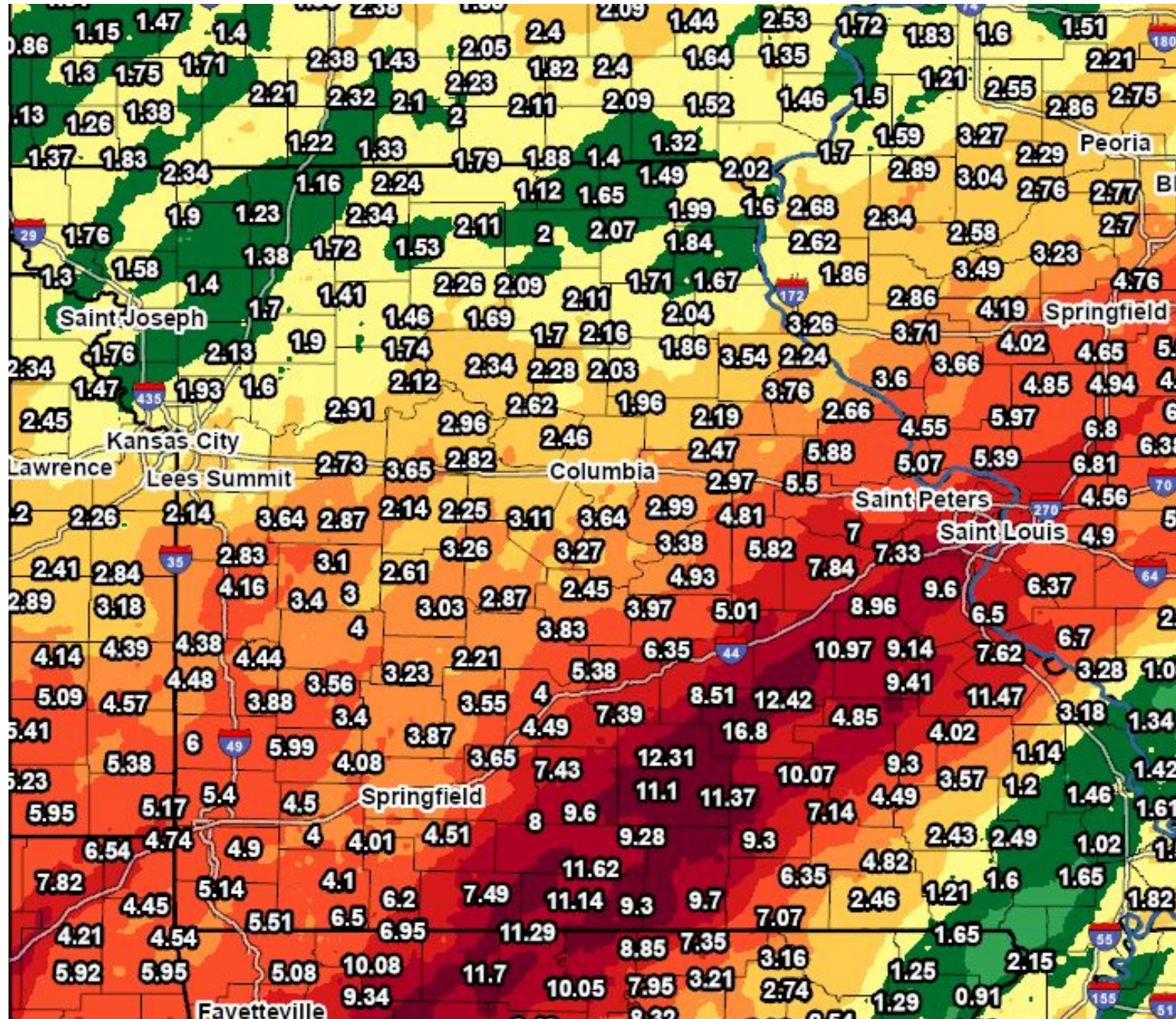
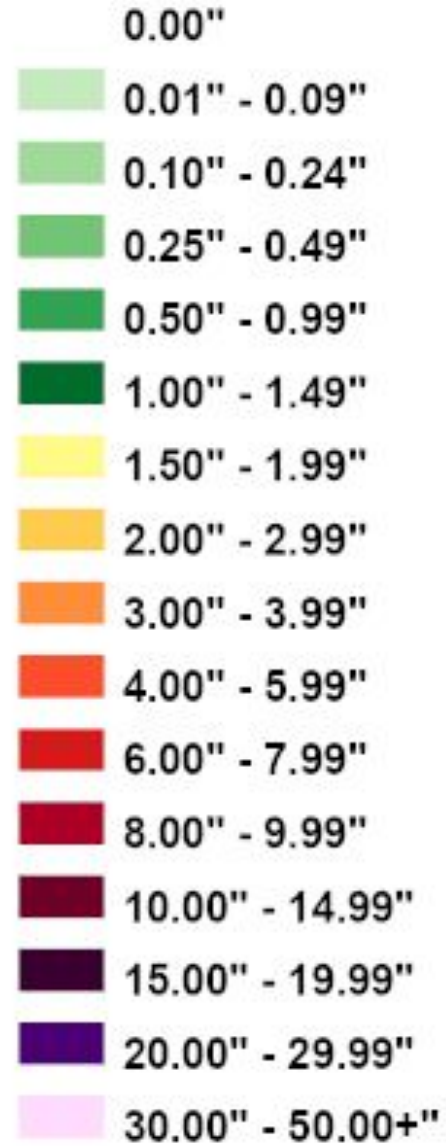




# Observed Precipitation in Last 7 Days

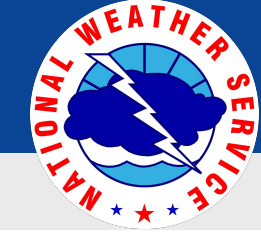
November 7, 2024  
1:41 PM

## Precipitation (in)



- Several rounds of heavy rain between November 2 and November 5 brought widespread accumulations of 2-4" of rain, with a large swath of central and south-central Missouri receiving over 11-12" of rain in 48 hours.
- Between November 2 and November 7, there was major to record-breaking river flooding on the Gasconade, Big Piney, Jacks Fork, and Current Rivers.
- Flooding is generally receded in most of the eastern Ozarks, but lingering elevated river levels could remain into the early weekend.



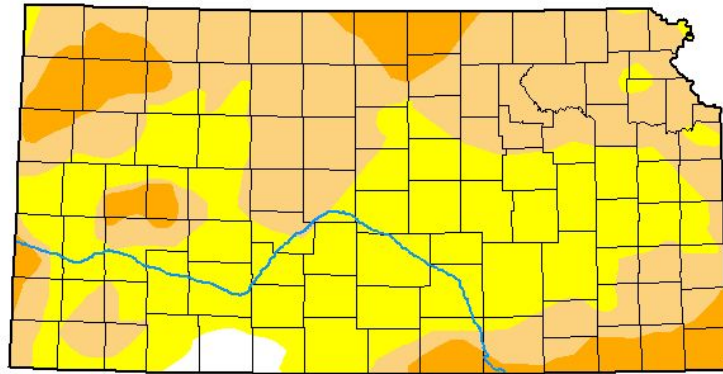


# State Drought Monitor

November 7, 2024  
1:41 PM

Link to [Recent Change Maps](#)

## U.S. Drought Monitor Kansas



November 5, 2024  
(Released Thursday, Nov. 7, 2024)  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	1.52	98.48	53.69	11.41	0.00	0.00
Last Week 10-29-2024	1.56	98.44	76.84	31.96	3.92	0.00
3 Months Ago 08-06-2024	7.05	92.95	46.64	6.52	0.00	0.00
Start of Calendar Year 01-02-2024	20.54	79.46	53.43	19.44	2.88	0.00
Start of Water Year 10-01-2024	7.48	92.52	50.40	8.34	0.00	0.00
One Year Ago 11-07-2023	15.39	84.61	63.39	39.62	7.63	0.00

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>

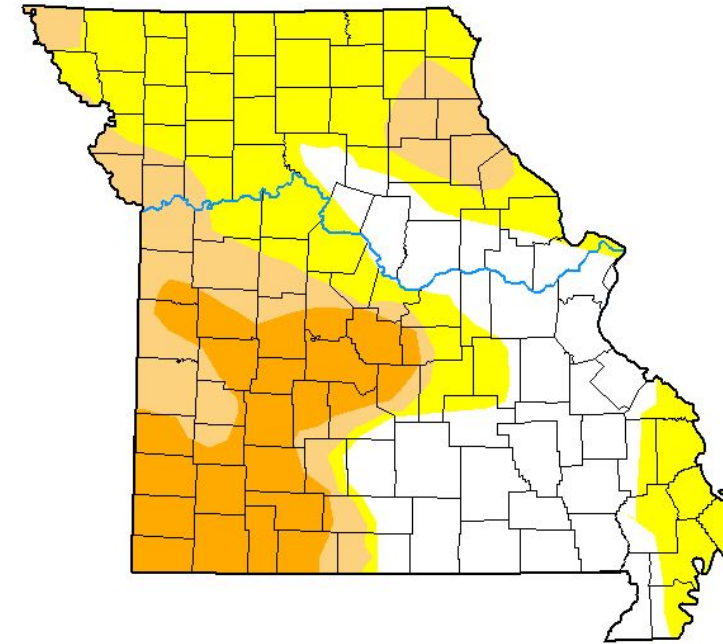
Author:

Brian Fuchs  
National Drought Mitigation Center



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

## U.S. Drought Monitor Missouri



November 5, 2024  
(Released Thursday, Nov. 7, 2024)  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	30.19	69.81	35.12	17.85	0.00	0.00
Last Week 10-29-2024	5.19	94.81	74.04	37.72	17.84	0.00
3 Months Ago 08-06-2024	63.51	36.49	0.00	0.00	0.00	0.00
Start of Calendar Year 01-02-2024	6.73	93.27	71.50	30.45	1.09	0.00
Start of Water Year 10-01-2024	39.30	60.70	23.73	7.95	0.00	0.00
One Year Ago 11-07-2023	24.98	75.02	51.91	17.75	0.91	0.00

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:

Brian Fuchs  
National Drought Mitigation Center



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

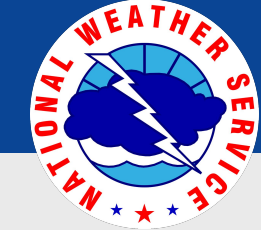
### Main Takeaways

- D3 Drought has been eliminated in all areas previously under D3 conditions.
- Eastward extent of all drought conditions decreased.
- All rainfall through November 5 was included in the making of this update.



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

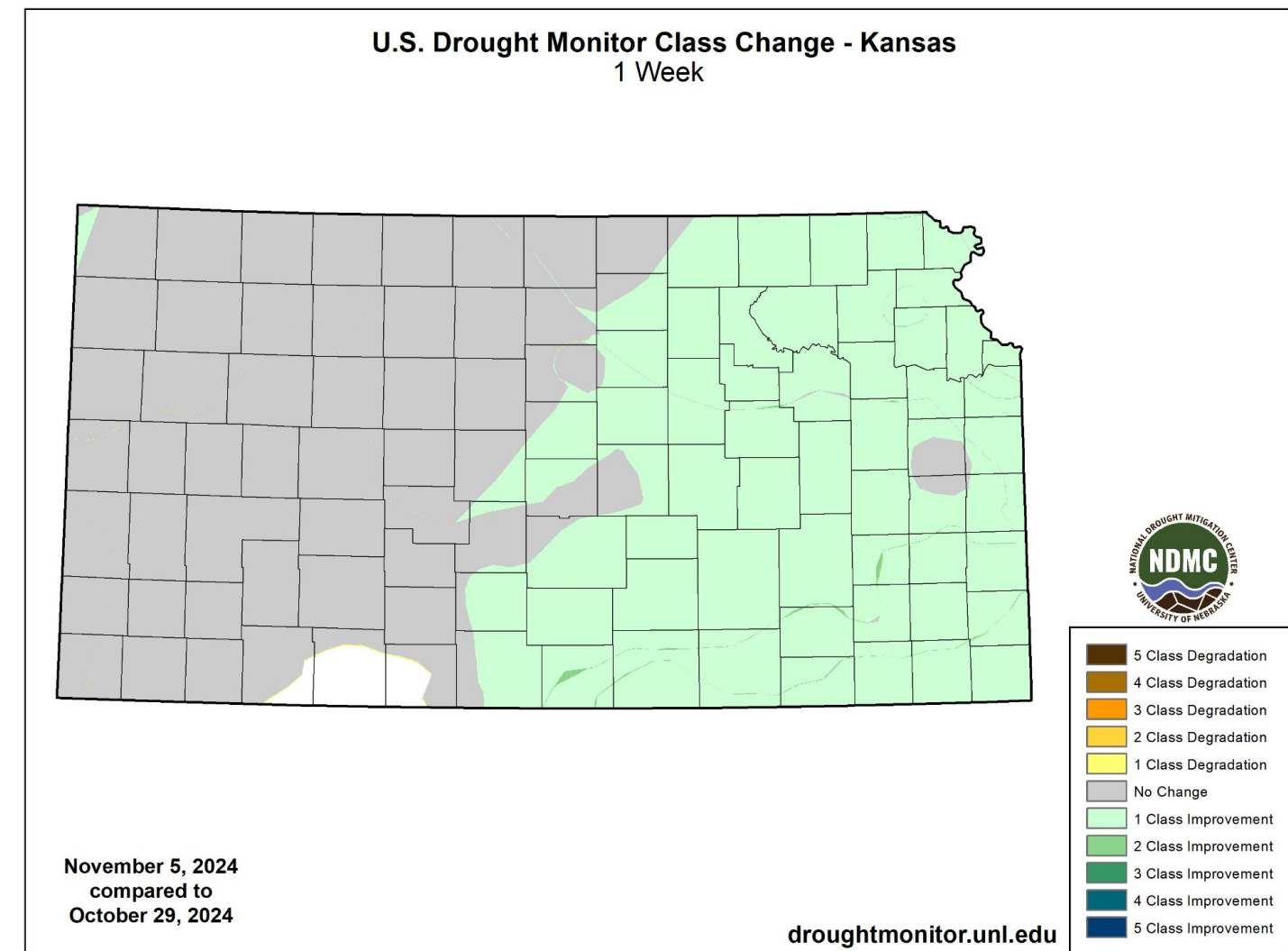
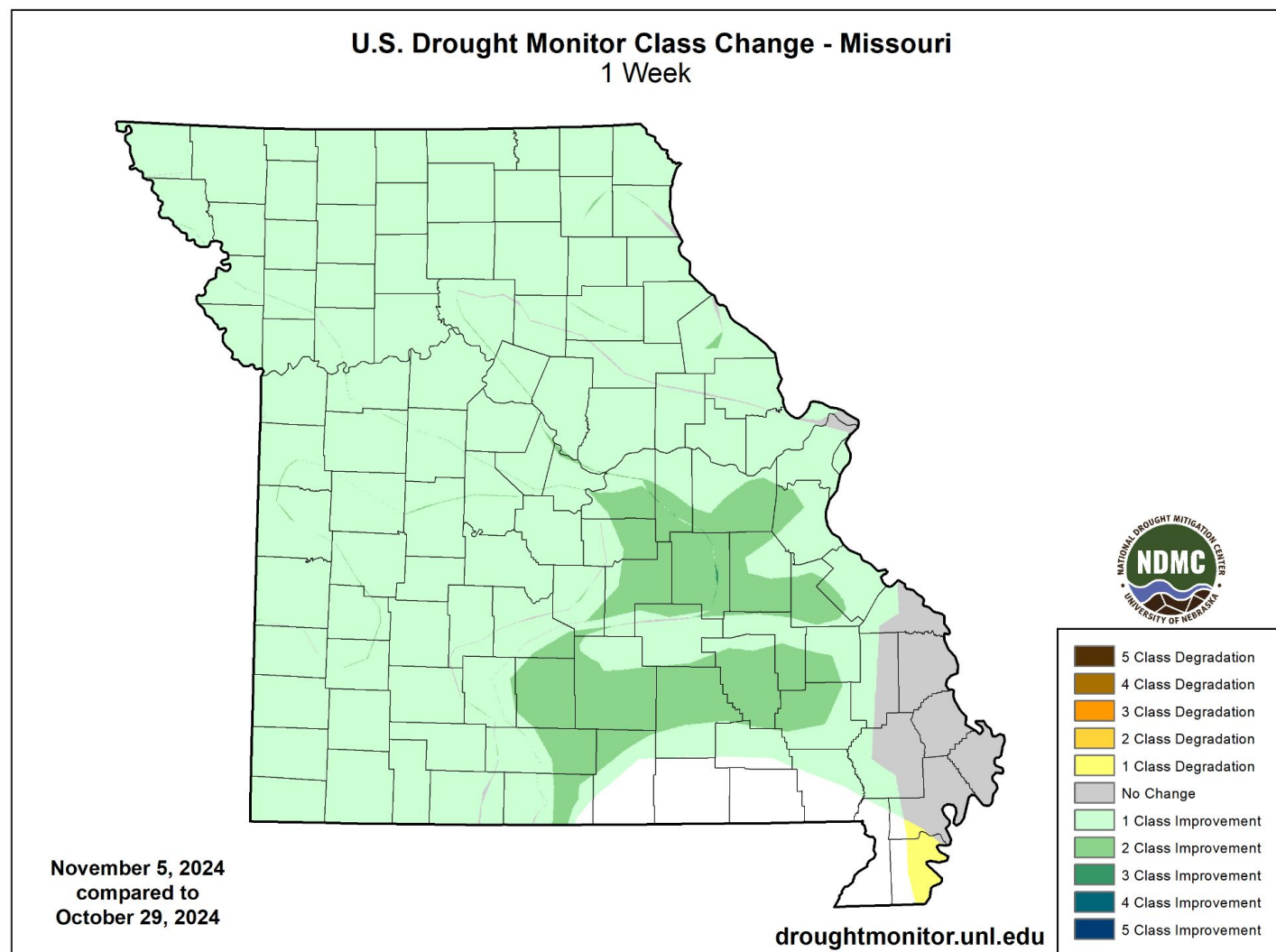
National Weather Service  
Springfield, MO



# Recent Change in Drought Intensity

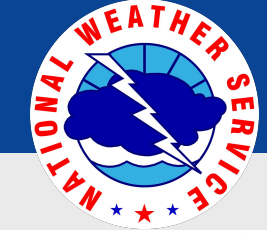
November 7, 2024  
1:41 PM

[Link to Recent Change Maps](#)



## Main Takeaways

- Drought improved across all of southwest Missouri and much of southeast Kansas.
- Drought even improved by two categories in portions of central and south-central Missouri that received over 10" of rain.

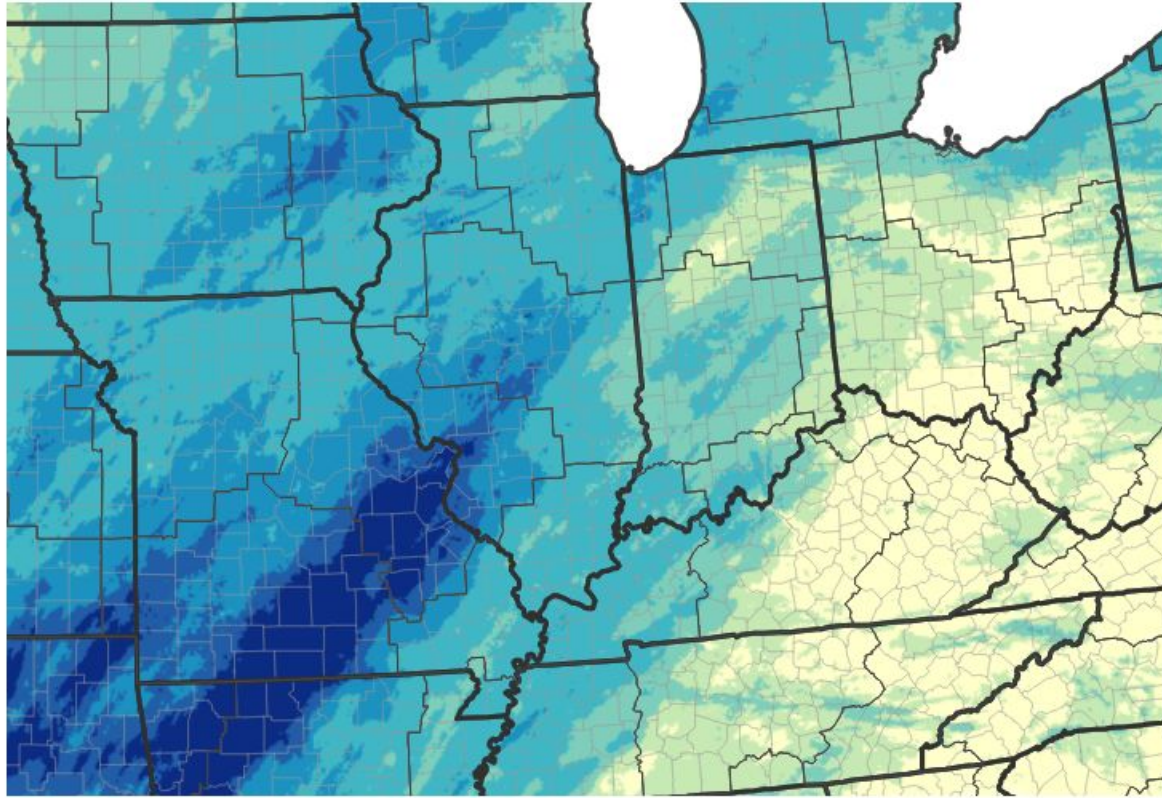


# 30 Day Precipitation

November 7, 2024  
1:41 PM

## Measured Rainfall

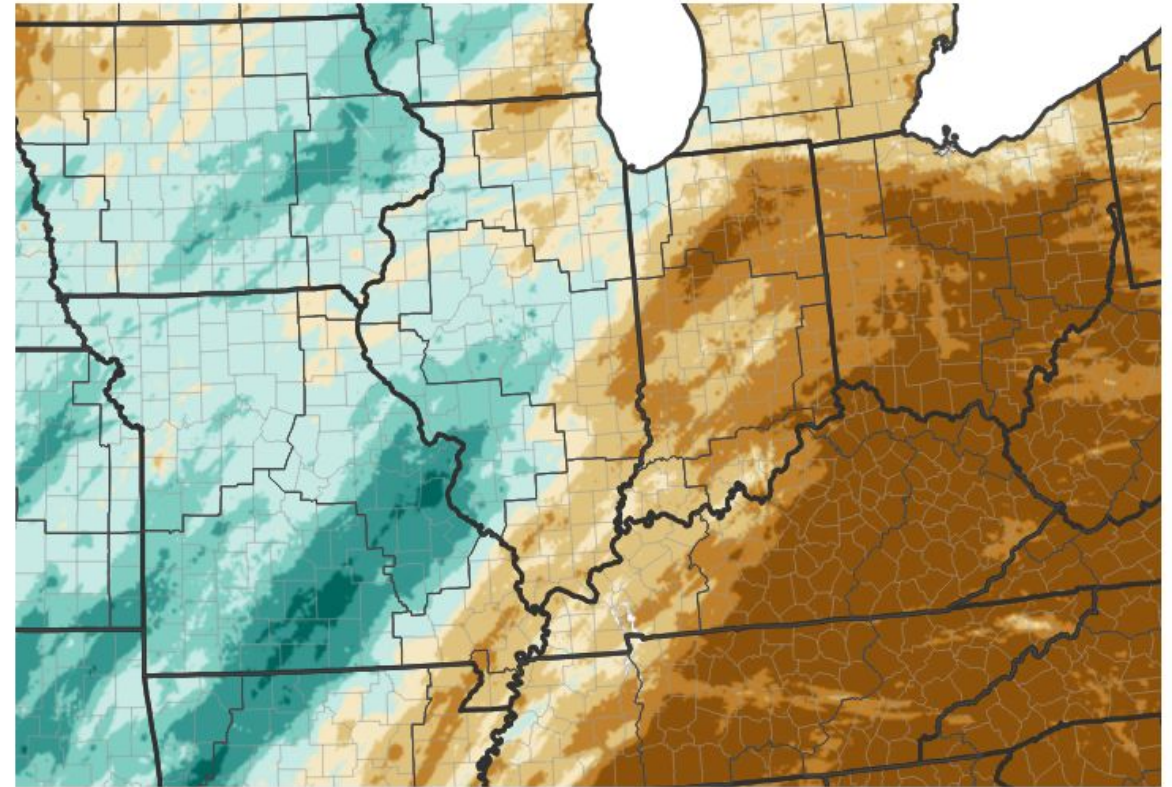
### 30-Day Precipitation Accumulations (Inches)



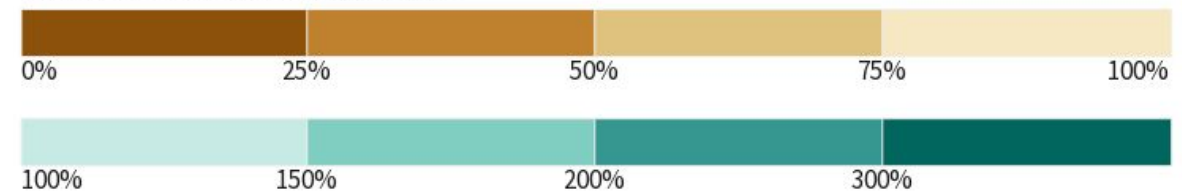
Inches of Precipitation



### 30-Day Percent of Normal Precipitation



Percent of Normal Precipitation (%)



## Main Takeaways

- Recent heavy rainfall has significantly decreased 30 day precipitation deficit compared to normal, especially in south-central Missouri.



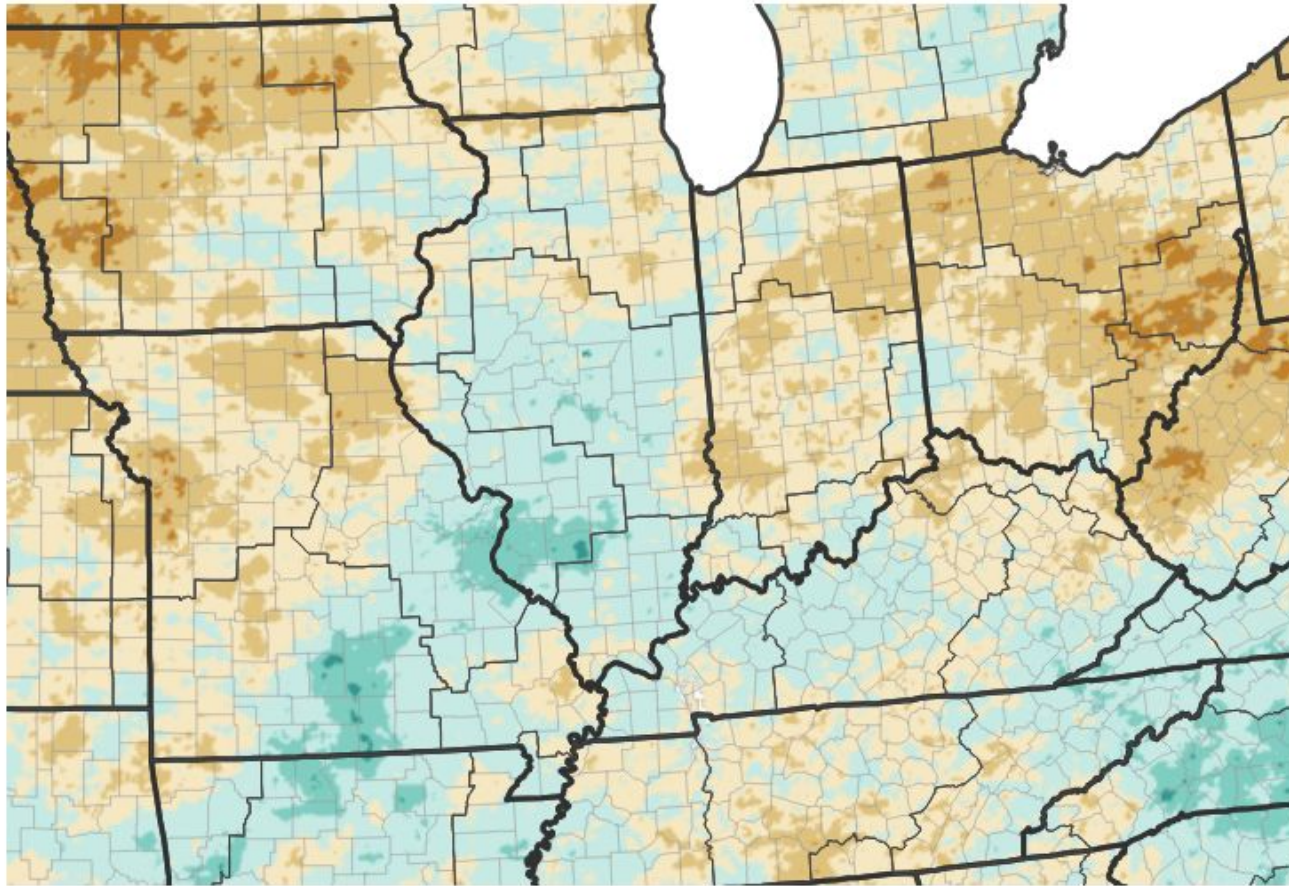


# 120 Day Precipitation

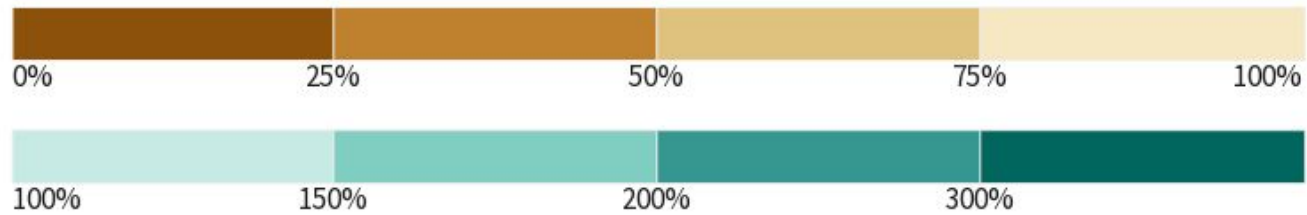
November 7, 2024  
1:41 PM

## 120-Day Percent of Normal Precipitation

### 120-Day Percent of Normal Precipitation



#### Percent of Normal Precipitation (%)



Source(s): National Weather Service Multi-Radar Multi-Sensor System; image courtesy of Drought.gov  
Last Updated: 11/07/24

### Main Takeaways

- However, the recent heavy rainfall has only made a dent in sub-seasonal precipitation deficits across the region.
- Only the eastern Ozarks in south-central Missouri have seen above normal precipitation over the last four months.
- Areas in worse drought conditions farther west remain near normal to below normal for four-month average precipitation values.



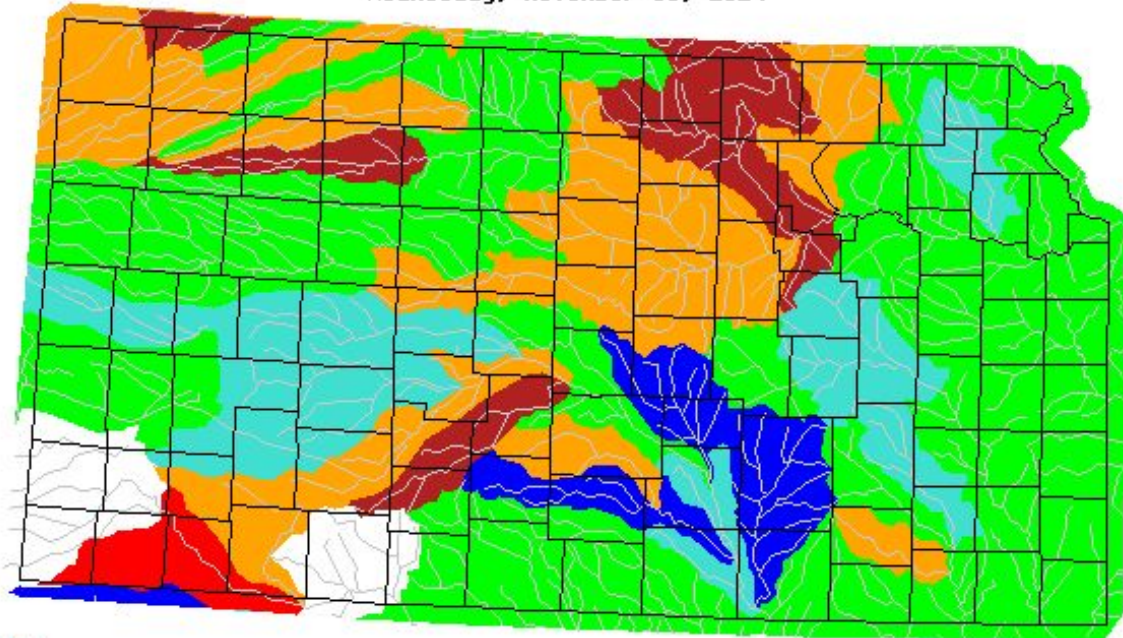




# Hydrologic Conditions and Impacts

November 7, 2024  
1:41 PM

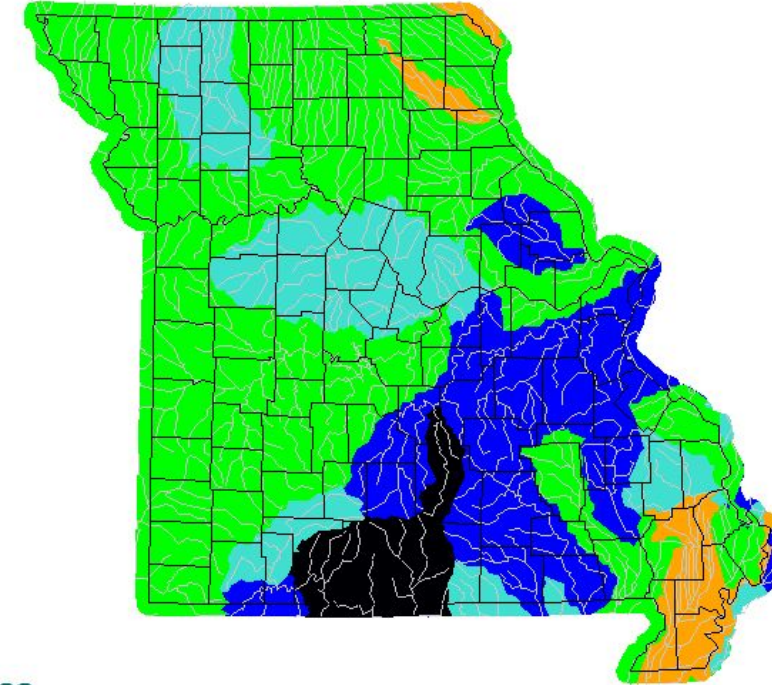
Hednesday, November 06, 2024



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 - Kansas](#)

Hednesday, November 06, 2024



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 - Missouri](#)

## Main Takeaways

- Streamflows have returned to normal in southeast Kansas and western Missouri.
- Many south-central and central Missouri basins and tributaries have much above normal or high streamflows in the wake of historic river flooding after the recent heavy precipitation in these areas.





# Summary of Impacts

November 7, 2024

1:41 PM

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

## Hydrologic Impacts

- Significant rainfall deficiencies were noted over southeast Kansas and across areas along and west of Highway 65 in Missouri. The Marmaton and Spring Rivers as well as most smaller creeks including some east of Highway 65 were in a low water threshold.

## Agricultural Impacts

- Fall plantings have been impacted with wilting and bug infestation reported, some estimates show extreme degree of loss to near crop failure.
- Pastures are providing very little to no feed, requiring supplemental feeding in some regions.

## Fire Hazard Impacts

- Local Fire Chiefs have reported a significant increase in grass fires and fire starts.
- Some area counties and municipalities have implemented burn bans due to dry conditions.

## Mitigation actions

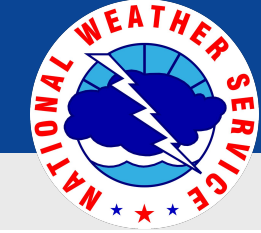
- The Missouri Department of Agriculture has an AgriStress Helpline at 833-897-2474.
- The University of Missouri Extension Office has set up a Psychological Service Clinic to aid farmers and ranchers.
- More information is available at [muext.us/PSCFarmRanch](http://muext.us/PSCFarmRanch).



National Oceanic and  
Atmospheric Administration

U.S. Department of Commerce

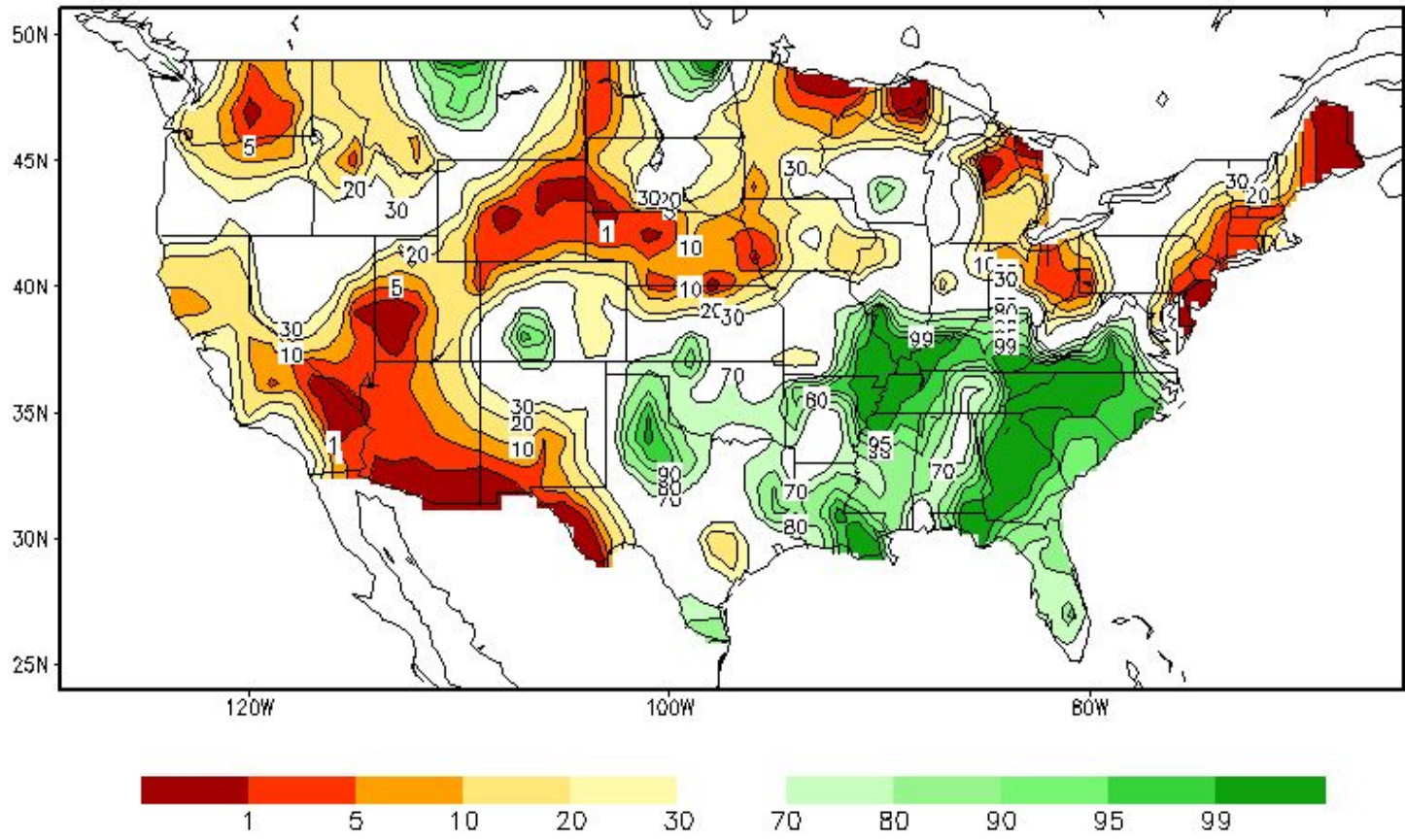
**National Weather Service**  
**Springfield, MO**



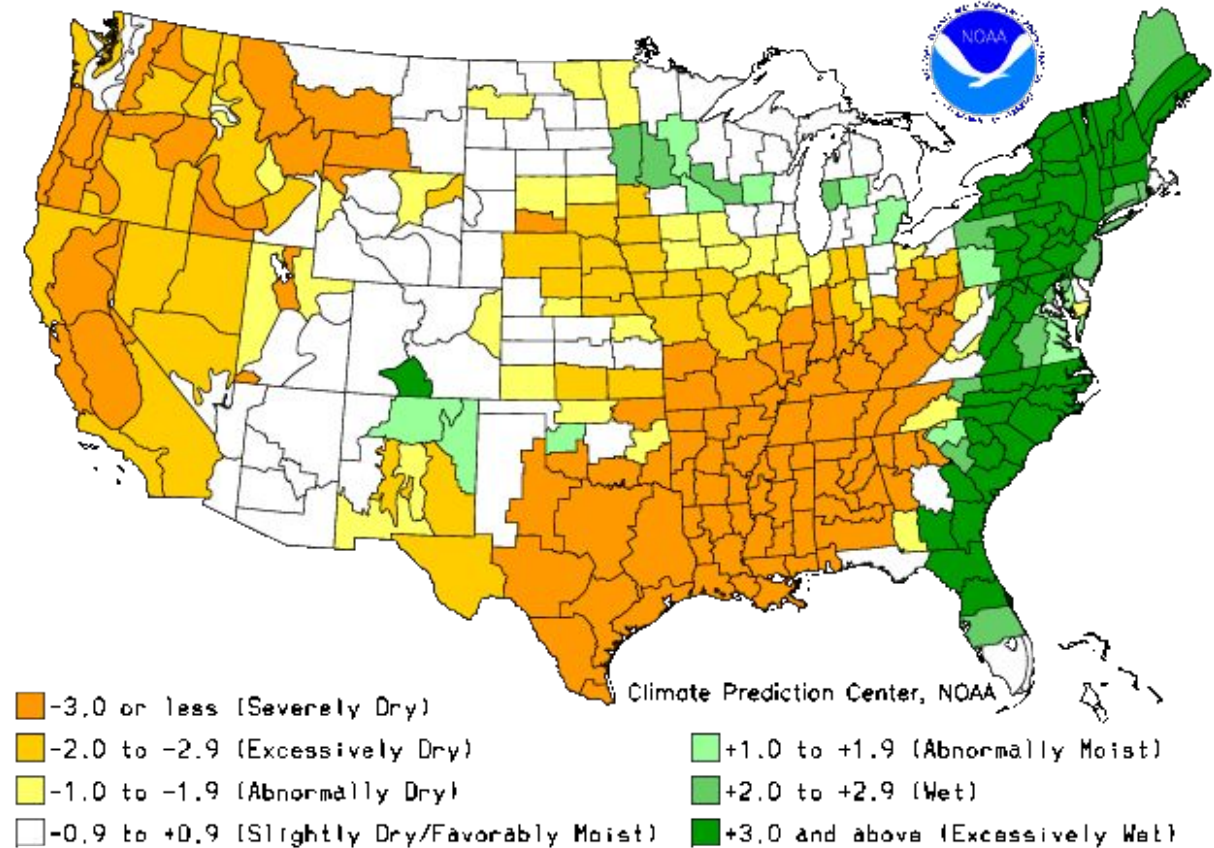
# Agricultural Impacts

November 7, 2024  
1:41 PM

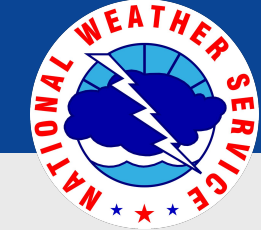
### Calculated Soil Moisture Ranking Percentile NOV 06, 2024



### Crop Moisture Index by Division Weekly Value for Period Ending OCT 26, 2024 Short Term Need vs. Available Water in a Shallow Soil Profile



- Significant portions of the Missouri Ozarks and and far SE Kansas recorded as many as 31 days without measurable rainfall. For some locations this extended period was in the Top 5 longest stretches of no rainfall on record.



# 8 to 14 Day Outlooks

November 7, 2024  
1:41 PM

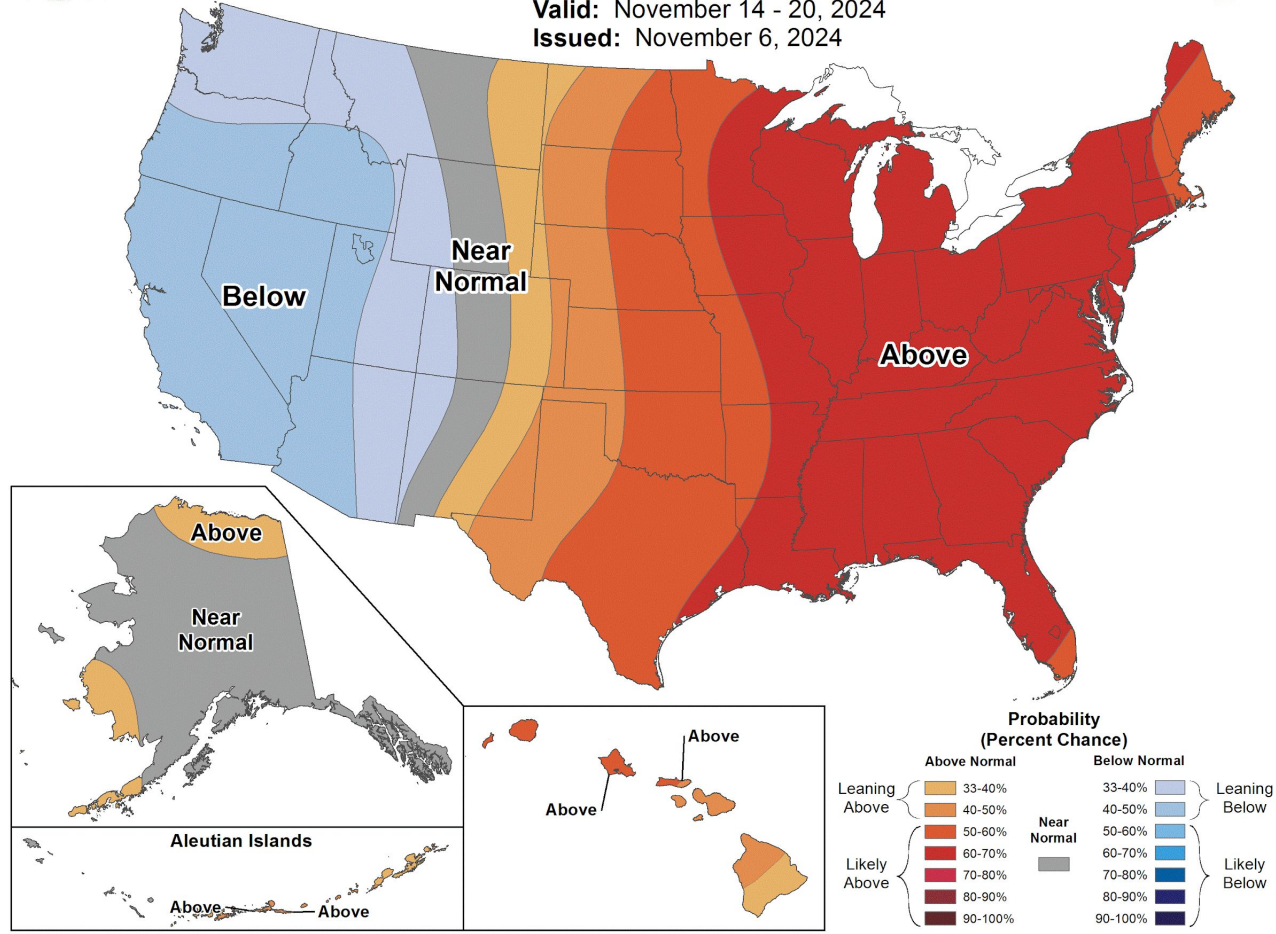
The Latest Monthly and Seasonal Outlooks can be Found on the [CPC homepage](#)



## 8-14 Day Temperature Outlook



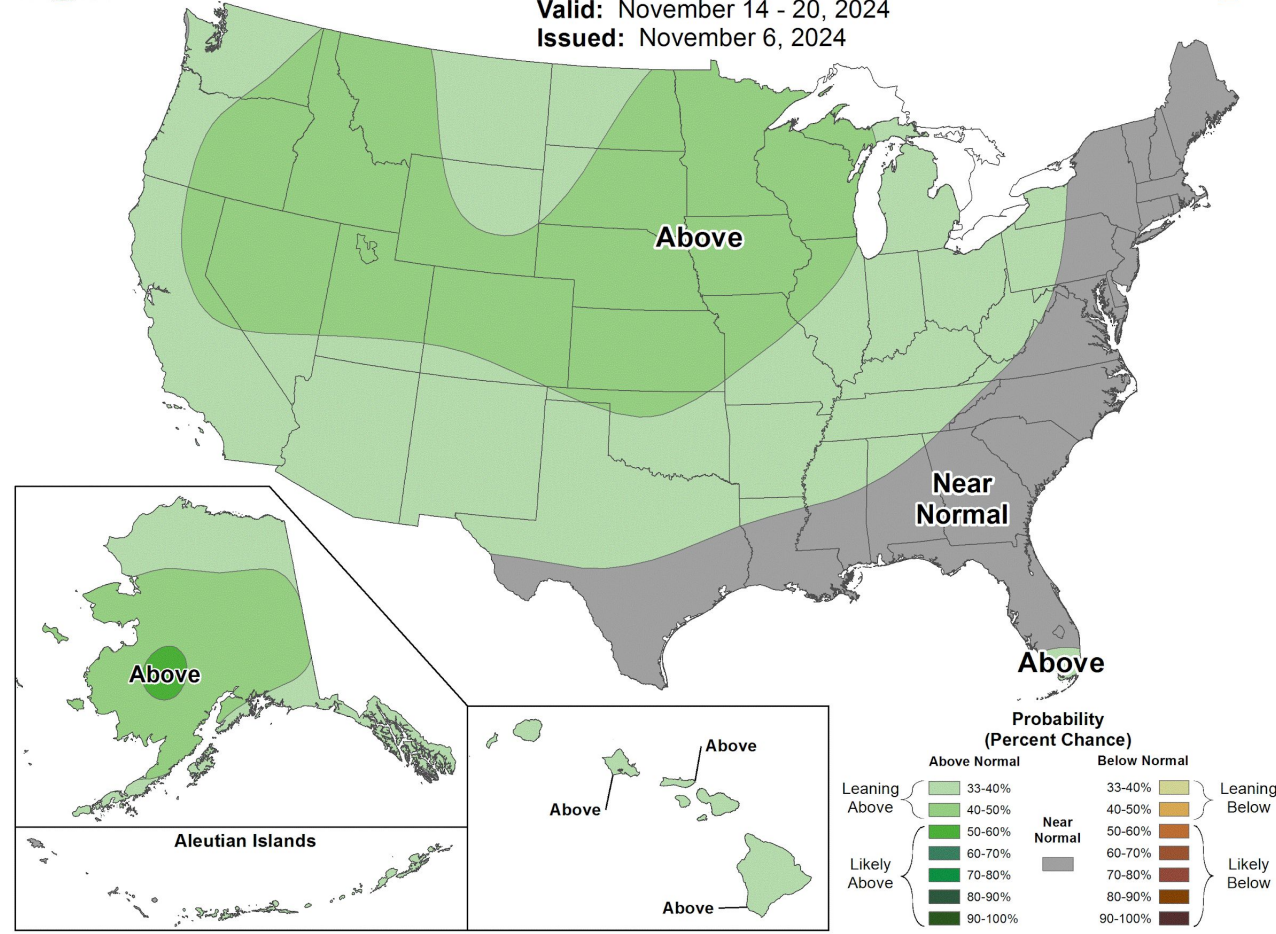
Valid: November 14 - 20, 2024  
Issued: November 6, 2024



## 8-14 Day Precipitation Outlook



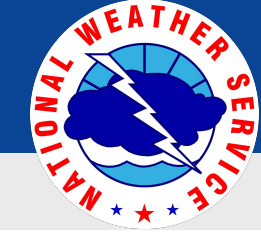
Valid: November 14 - 20, 2024  
Issued: November 6, 2024



### Main Takeaways

- Above-average temperatures look to continue into at least mid-November.
- Precipitation slightly leans toward an above-average outlook into mid-November.





# October Monthly Outlooks

November 7, 2024  
1:41 PM

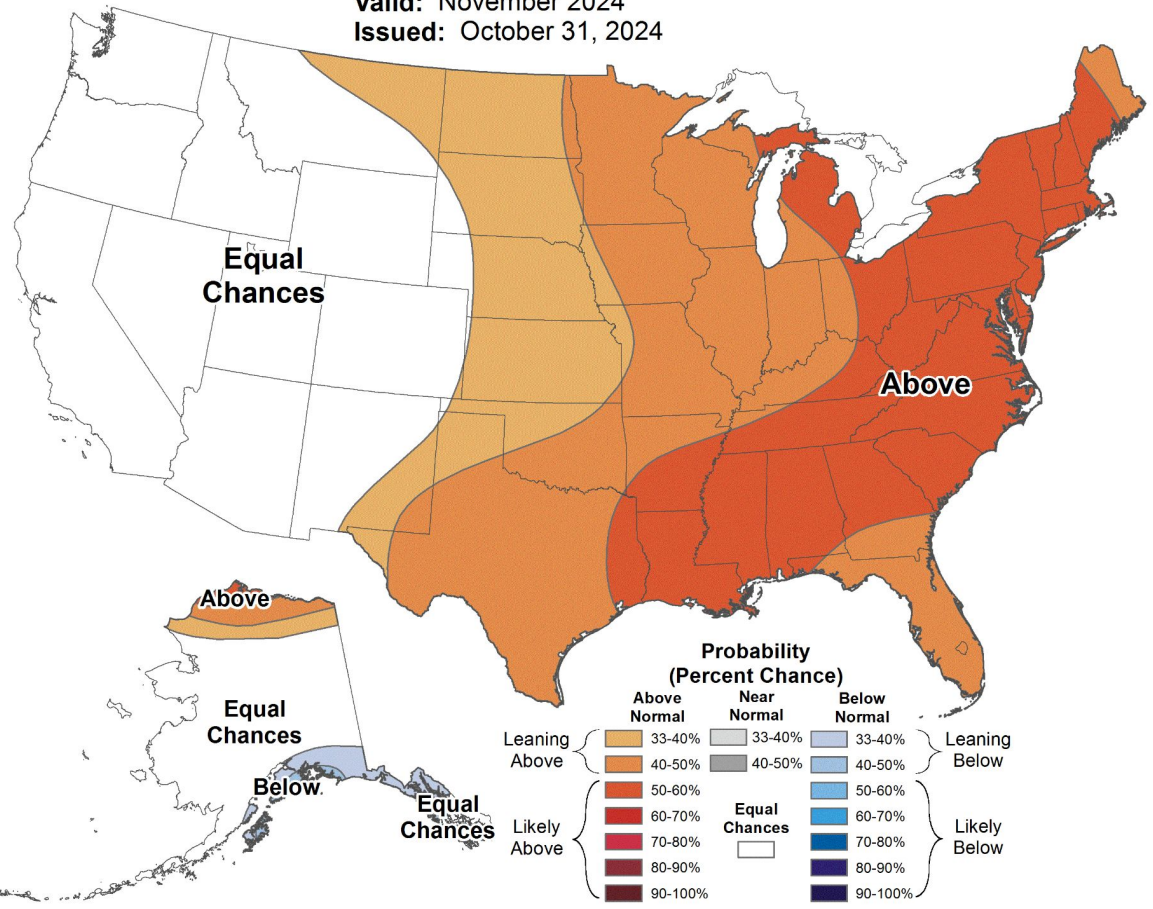
The Latest Monthly and Seasonal Outlooks can be Found on the [CPC homepage](#)



## Monthly Temperature Outlook



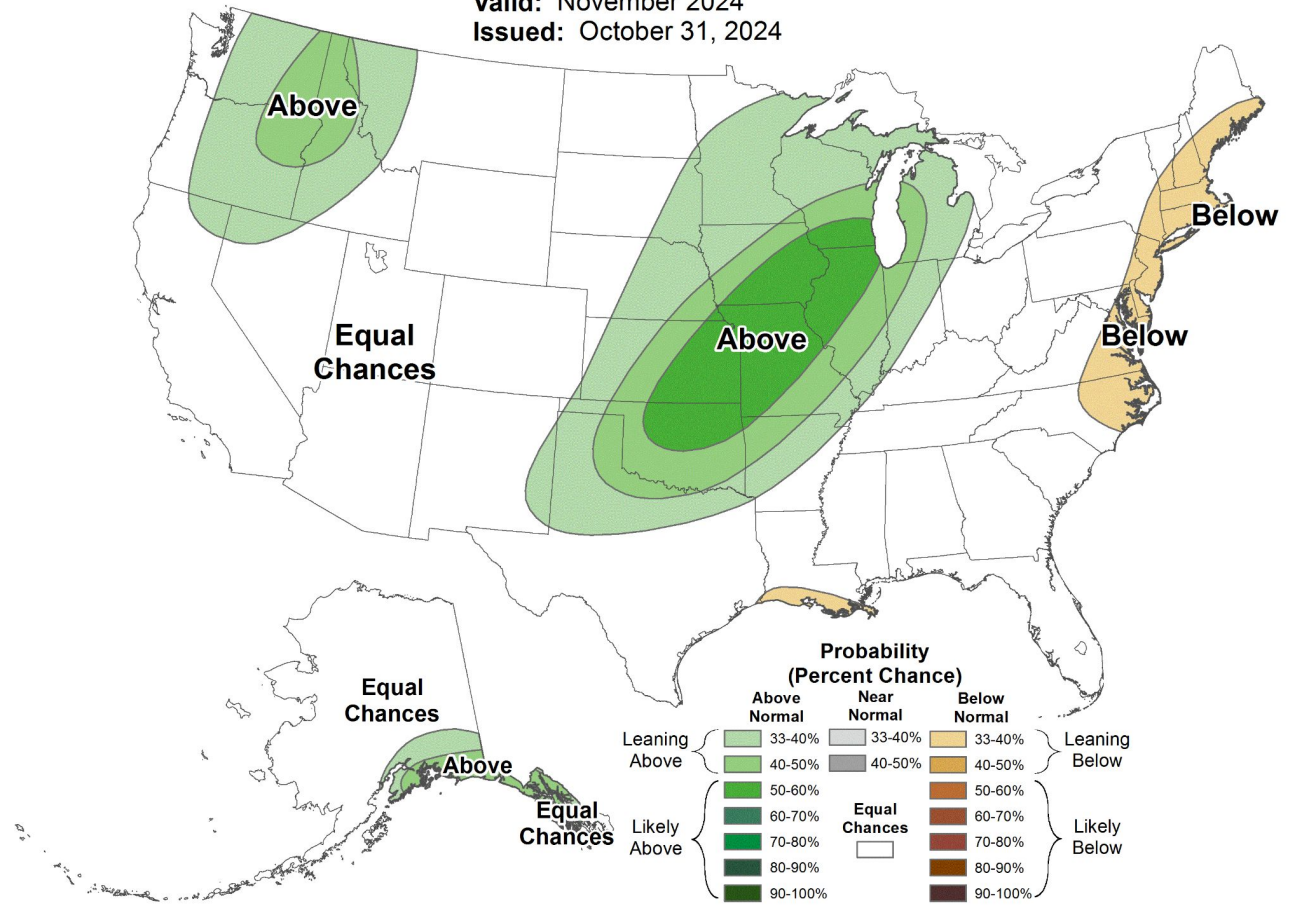
Valid: November 2024  
Issued: October 31, 2024



## Monthly Precipitation Outlook



Valid: November 2024  
Issued: October 31, 2024



### Main Takeaways

- The temperature pattern is leaning toward above-normal temperatures for November.
- The precipitation outlook favors an above-normal amount of rainfall in November, which is partially due to a strong bias from the recent heavy rainfall event during the first week of November.





# Seasonal Outlooks

November 7, 2024  
1:41 PM

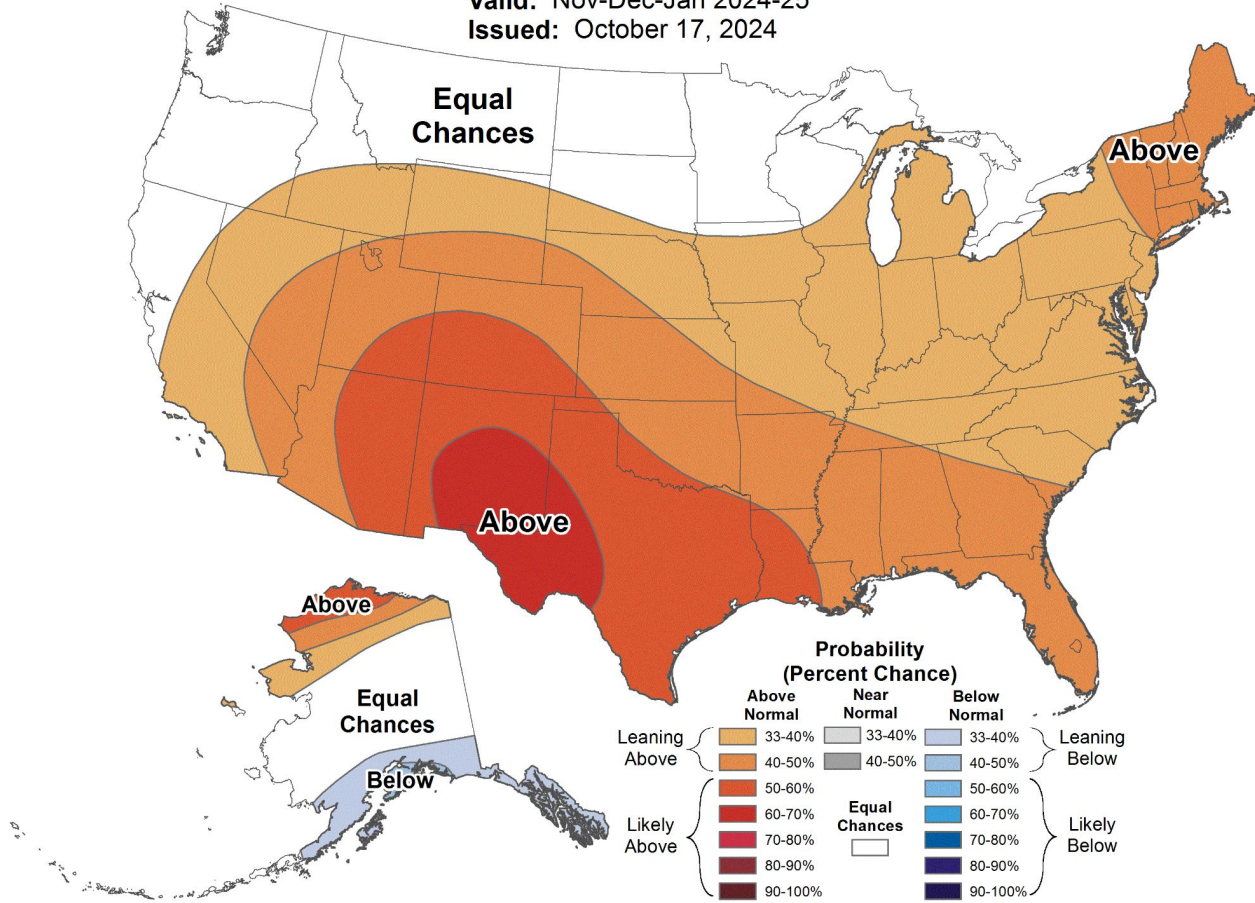
The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)



## Seasonal Temperature Outlook



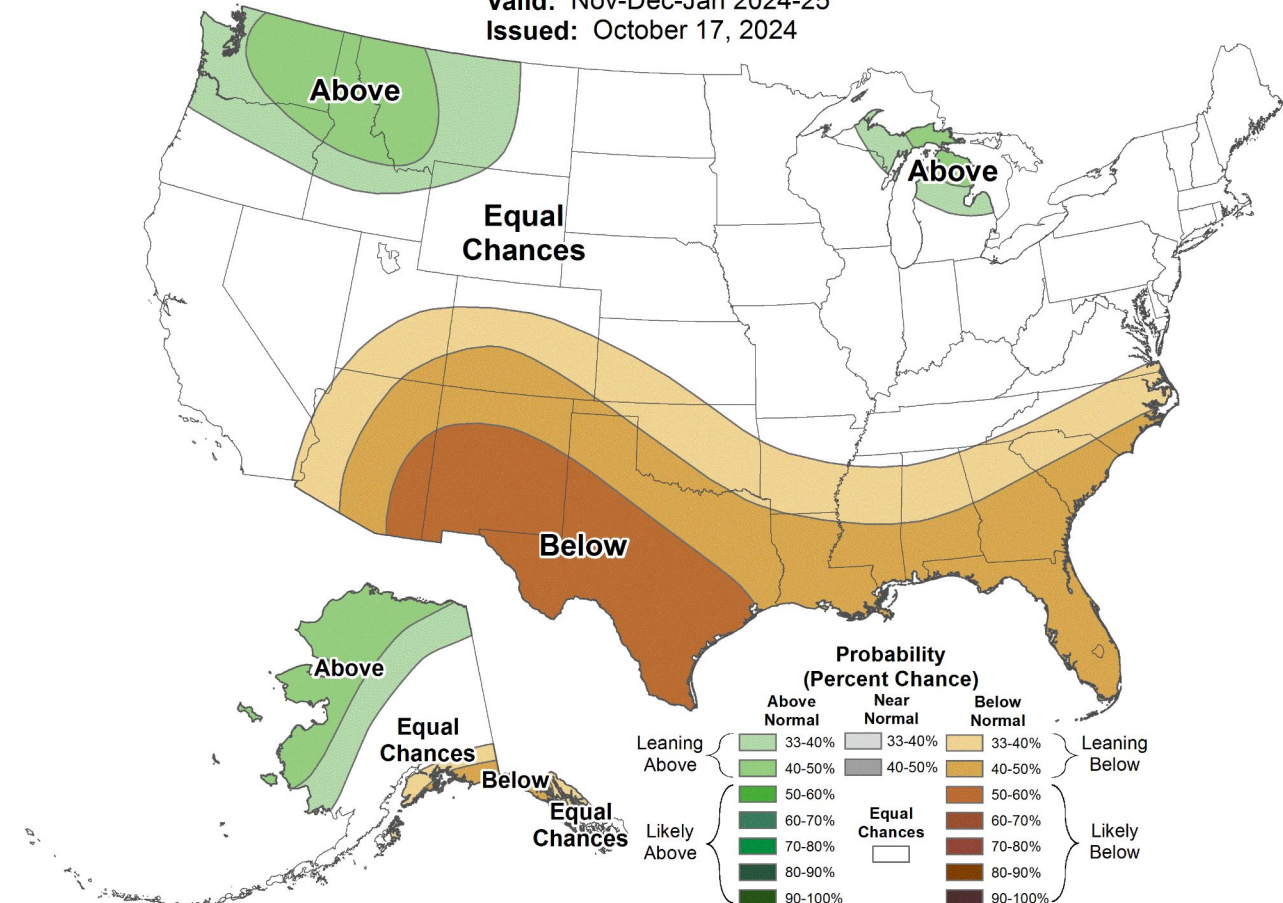
Valid: Nov-Dec-Jan 2024-25  
Issued: October 17, 2024



## Seasonal Precipitation Outlook



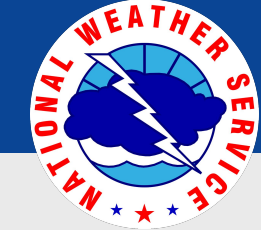
Valid: Nov-Dec-Jan 2024-25  
Issued: October 17, 2024



### Main Takeaways

- Outlooks very slightly favor above average temperatures and near average precipitation





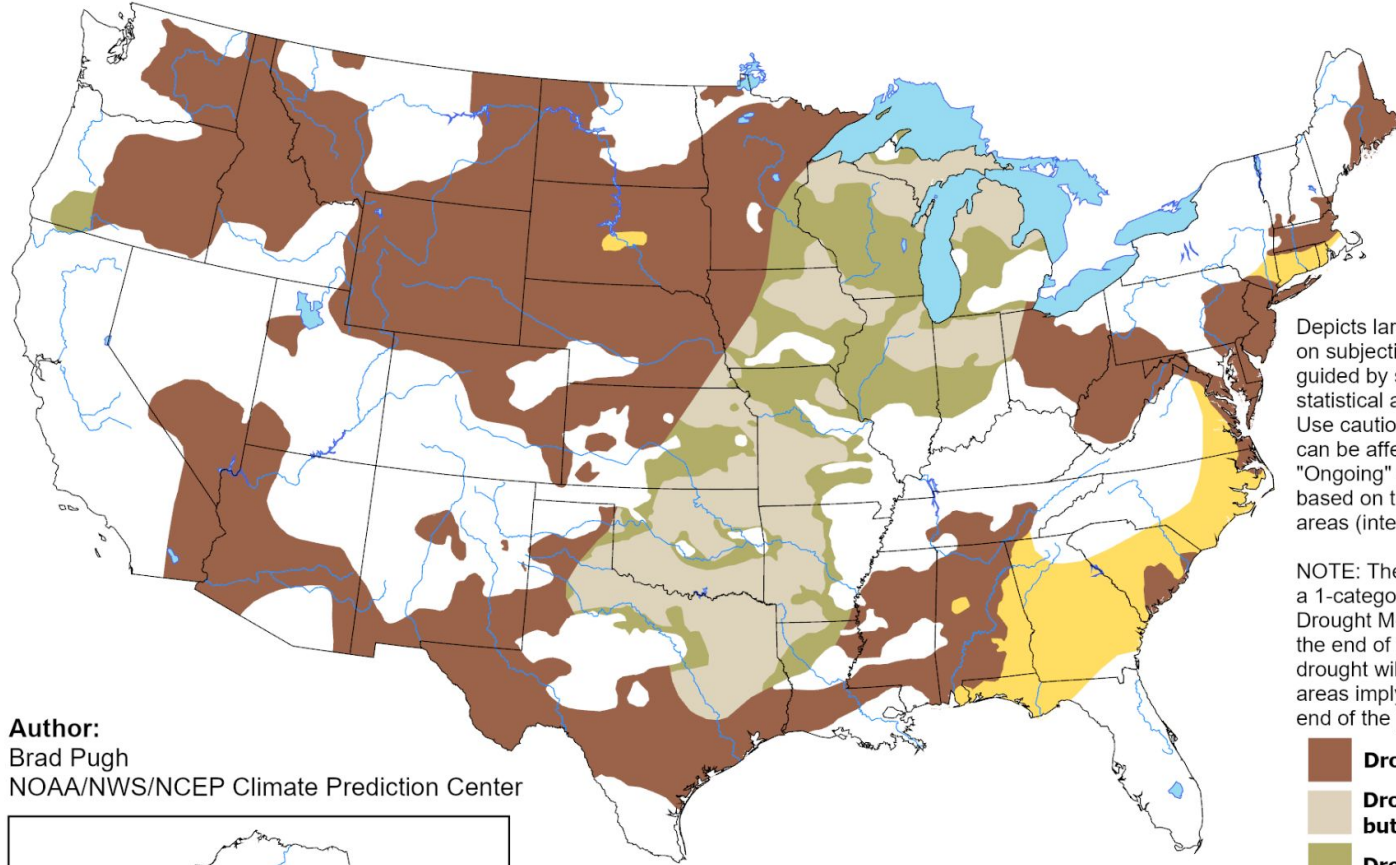
# Drought Outlook

November 7, 2024  
1:41 PM

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

## U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

Valid for November 2024  
Released October 31, 2024

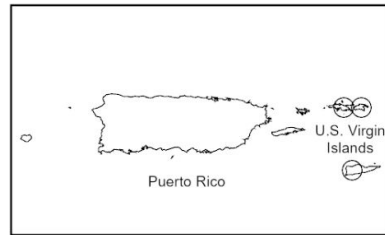
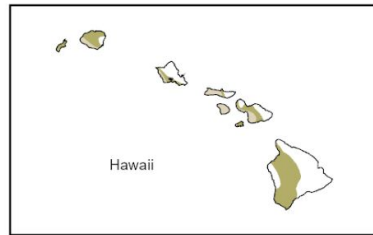
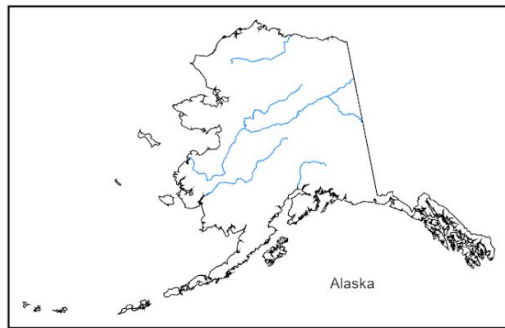


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to 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:  
Brad Pugh  
NOAA/NWS/NCEP Climate Prediction Center



<https://go.usa.gov/3eZGd>

### Main Takeaways

- Drought should improve or be removed altogether in most of southwest Missouri and southeast Kansas.



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

National Weather Service  
Springfield, MO



## For Additional Information

- [NWS Springfield Webpage | IDSS Point Forecasts](#)
- [NWS Springfield Drought Monitor Resources](#)
- [Graphical Hazardous Weather Outlook](#)
- [Missouri Drought Monitor | Kansas Drought Monitor](#)
- [Drought Monitor Archive](#)
- [CPC Drought Information](#)
- [National Integrated Drought Information System \(NIDIS\)](#)
- [National Drought Mitigation Center \(NDMC\)](#)
- [Missouri USGS Streamflows | Kansas USGS Streamflows](#)
- [Drought Safety](#)

## Drought Impacts



### Agriculture

Farms, ranches, and grazing lands suffer, and increases the cost of their products



### Public Health

A decrease of water can lead to an increase of illness, disease, mortality rates, and adverse mental health



### Ecosystems

Harms fish, wildlife, and plants, as well as the benefits these ecosystems provide



### Wildfire Management

Dry, hot, and windy weather combined with dried out vegetation can lead to more large-scale wildfires



### Manufacturing

Interruptions in the water supply can result in a reduction of productivity or closure of facilities



### Energy

Production of all types of energy requires water, and drought can severely impact energy systems and prices



## During a Drought be Vigilant

Conserve Water

Practice Fire Prevention

Follow Directions from Local Officials

Trinity Lake, CA, dry lakebed during California Drought, 2014. Photo: USGS

