

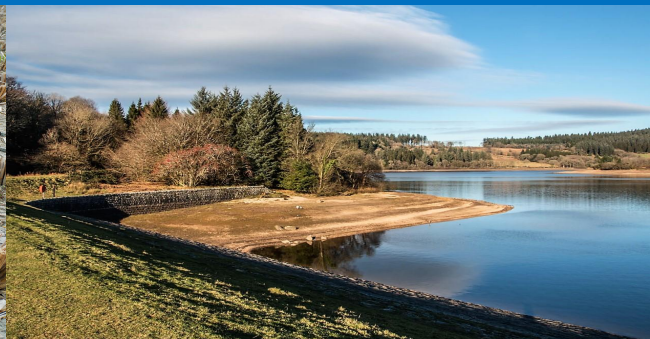


# Drought Information Statement for the Central Tennessee Valley

Issued by: WFO Huntsville, AL

Contact information: [sr-hun.webmaster@noaa.gov](mailto:sr-hun.webmaster@noaa.gov)

- Since very little of the area is still in D1 (Moderate) drought, this will be the last planned update. Statements will be issued again when drought conditions deteriorate or return to the area.
- Please see all currently available products at <https://drought.gov/drought-information-statements>
- Please visit <https://www.weather.gov/hun/DroughtInformationStatement> for previous statements





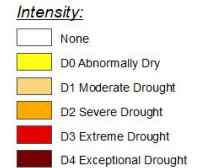
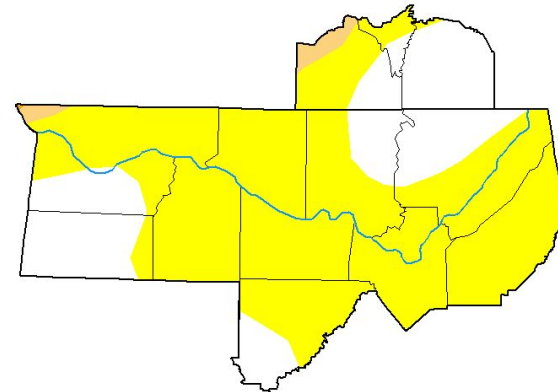
# U.S. Drought Monitor

Latest U.S. Drought Monitor Map

- **Drought intensity and Extent**
  - **D4 Exceptional Drought:** None
  - **D3 Extreme Drought:** None
  - **D2 Severe Drought:** None
  - **D1 Moderate Drought:** Small northwest portions of Lauderdale, Lincoln, and Moore Counties
  - **D0 Abnormally Dry:** A complex shaped area encompassing all of DeKalb, Marshall, Morgan, Limestone, and Lawrence Counties, most of Lauderdale, NW and E portions of Colbert, E portions of Franklin (AL), W and S portions of Madison, Central portion of Lincoln, northern Moore, about the northern 2/3rds of Cullman, much of southern and eastern Jackson, and a small area of northwestern Franklin (TN) Counties.

U.S. Drought Monitor  
Huntsville, AL WFO

February 13, 2024  
(Released Thursday, Feb. 15, 2024)  
Valid 7 a.m. EST



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:**  
Deborah Bathke  
National Drought Mitigation Center



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

Image Caption: U.S. Drought Monitor valid 7AM CDT, February 13th, 2024.



# Recent Change in Drought Intensity

- One Week U.S. Drought Monitor Class Change
  - **Drought Worsened:** No areas
  - **No Change:** Small portions of the area
  - **Drought Improved:** Drought conditions improved one category from last week across much of the area, with most locations now in D0 (Abnormally Dry) status.

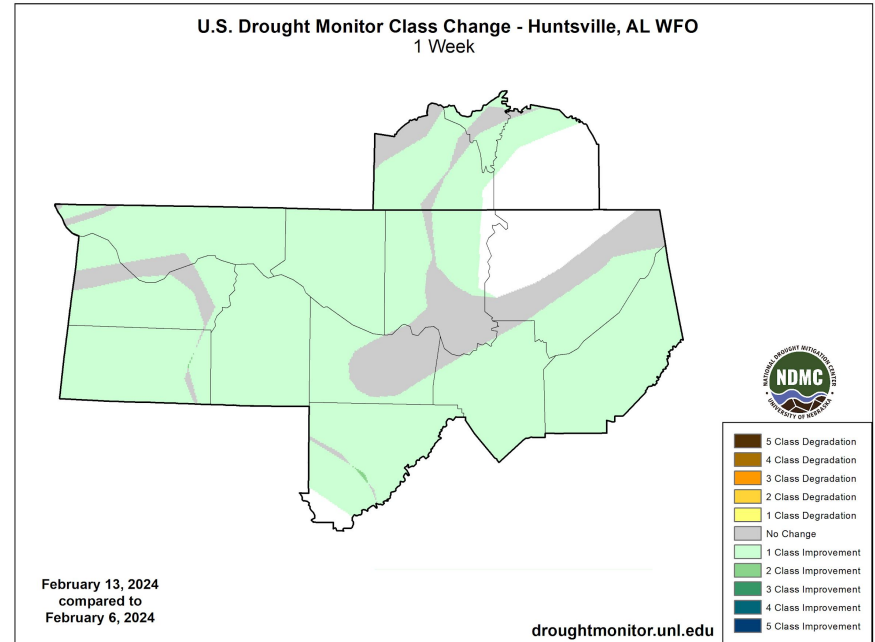
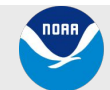


Image Caption: U.S. Drought Monitor 1-week change map valid 7AM CDT Feb 13, 2024.



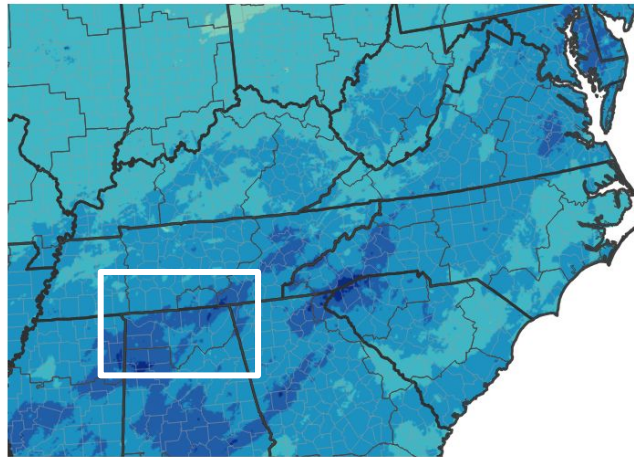


# Precipitation - Past 90 Days

## Main Takeaways

- Rainfall has largely ranged around 14 to 20 inches over the past 90 days.
- These rainfall amounts are around 100-125% of normal for the past 90 day period. However, some locations, especially in the current D1 (Moderate Drought) along and near the southern TN border, and along Sand Mountain in Marshall and DeKalb Counties still indicate slightly below normal rainfall for the period.

### 90-Day Precipitation Accumulations (Inches)



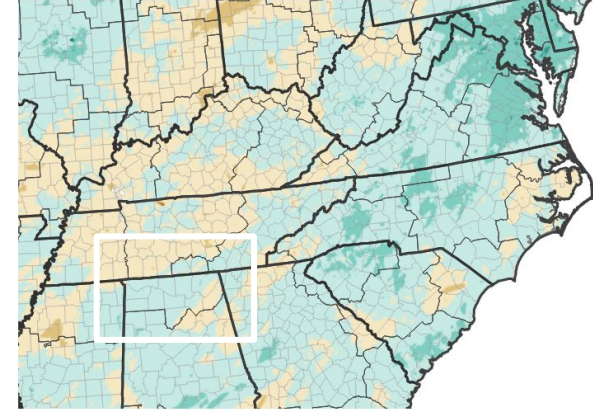
Inches of Precipitation



Source(s): National Weather Service Multi-Radar Multi-Sensor System; image courtesy of Drought.gov

Last Updated: 02/16/24

### 90-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: 02/16/24

Left - 90-Day Precipitation Totals, Right - 90-Day Percent of Normal Precipitation. Data ending February 16, 2024





# Summary of Impacts

## Hydrologic Impacts

- No hydrologic impacts of note currently, although streamflows fell significantly during the late summer and fall due to the dry weather. Streams have made significant recovery since late fall.
- See next slide for more hydrologic information and streamflows and lake levels.

## Agricultural Impacts

- USDA Crop and Progress Condition Reports late summer into fall noted that operators had been delayed from planting winter wheat crops. Pastures for grazing were reported to be in poor to very poor condition due to the lack of ability to plant grazing grasses in many areas. Please see the 2023 Crop and Progress Condition Reports for [Alabama](#) and [Tennessee](#) from the USDA for more information. (Note: these reports will not be available again until spring.)

## Fire Hazard Impacts

- Due to the very dry weather late last summer into the fall, the Alabama Forestry Commission (AFC) was issuing Fire Alerts across the area. On December 4th, the 'No Burn' order was lifted across Alabama. Thus, burn permits will be issued as normal. Debris burn permits are currently required in TN counties as usual this time of year. [AFC link](#); [TN Wildland Fire Link](#).

## Drought Mitigation Actions

- On January 31, 2024, The Alabama Dept. of Economic and Community Affairs - Office of Water Resources placed Drought Region 1 in a Drought Advisory. Drought Region 3 (which includes Cullman County) is in a Drought Watch.
- Water managers are urged to carefully monitor conditions and encourage the wise and efficient use of our water resources.
- Public water system customers are encouraged to follow their local water system's recommendations regarding water use.
- All other water users should make prudent decisions on their water use to protect available resources
- You can see the latest Alabama Drought Declaration here... <https://adeca.alabama.gov/wp-content/uploads/DroughtDeclaration.pdf>.
- Please refer to your municipality and/or water provider for any mitigation information in the future.





# Hydrologic Conditions

## Main Takeaways

- Improvements have occurred in recent weeks and months due to increased rainfall. At this time, 14-day streamflows are generally in the 70th to 80th ranking percentile.
- Lake/Reservoir levels are generally near to slightly above normal.

Additional data:

None at this time to report

## Thursday, February 15, 2024 14-Day Avg Streamflow Percentiles

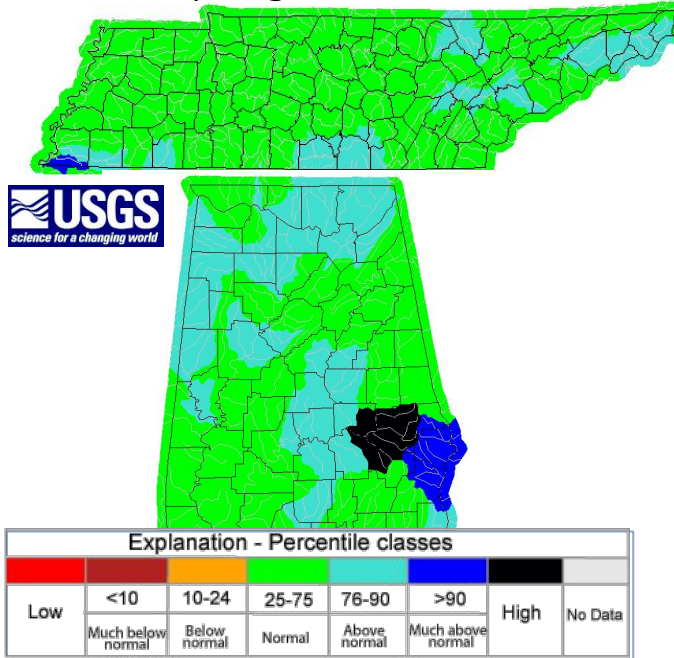
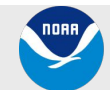


Figure Caption: USGS 14-day streamflow percentiles for Tennessee and Alabama, valid Feb 15, 2024

## Lake Stages

Reservoir/ Lake	Pool Elevation (ft)	Current Elevation (ft)	Percent Full
Bear Creek	570	580	>100%
Little Bear Creek	610	612	>100%
Cedar Creek	569	571	>100%
Tim's Ford	877	880	>100%
Nickajack	633-635	634	Within Operating Range (WOR)
Guntersville	593-594	594	WOR
Wheeler	551-552	555	Above OR
Wilson	505-506	506	WOR
Pickwick	408-410	414	Above OR
Lewis Smith	502	506	>100%

Table caption: Reservoir conditions as of Feb 16, 2024



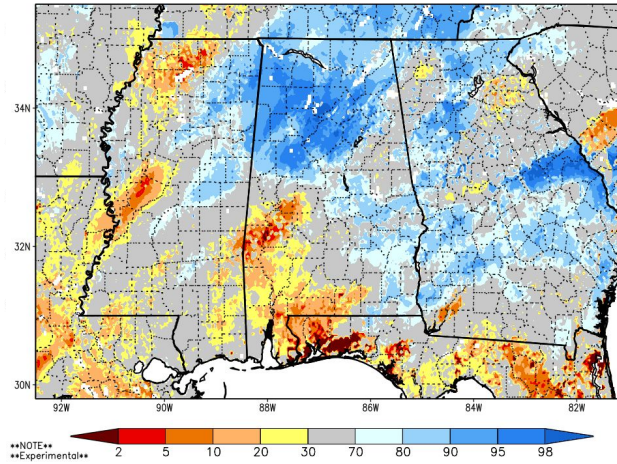


# Agricultural Impacts

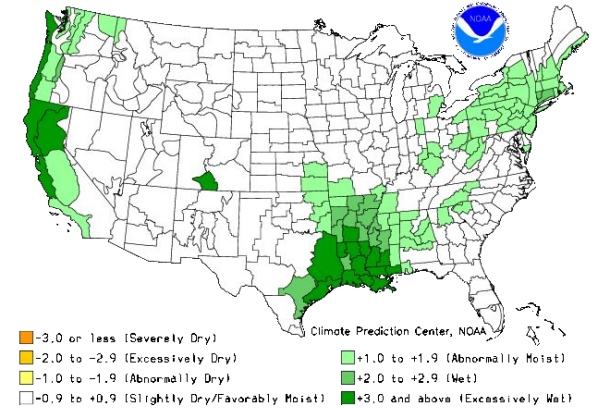
## Main Takeaways

- Soil Moisture values have increased in recent weeks due to increased rainfall, with amounts now largely above normal for this time of year).
- 0-200 cm depth soil moisture percentiles (left image) indicate values largely around the 80th to 90th ranking percentile for this time of year.
- Meanwhile, the crop moisture index (right image) indicates values are now Abnormally Moist mainly for western portions of the area for the period ending Feb 10, 2024.

SPoRT-LIS 0-200 cm Soil Moisture percentile valid 16 Feb 2024



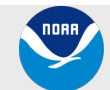
Crop Moisture Index by Division  
Weekly Value for Period Ending FEB 10, 2024  
Short Term Need vs. Available Water in a Shallow Soil Profile



## Image Captions:

Left: NASA Short-term Prediction Research and Transition Center 0-200 cm Soil Moisture Ranking Percentile based on a 33-year climatology (1981-2013), Feb 9, 2024

Right: Crop Moisture Index by Division. Weekly value for period ending Feb 3, 2024





# Other Impacts

## Main Takeaways

- Lack of normal rainfall from late August to mid-November led to impacts especially to the agricultural industry. Rainfall amounts during the fall period were among the lowest in the historical record at some locations. Wetter than normal conditions began to return to much of the area in late December, and have continued into mid-February, which have gradually led to replenishment of water in the regional hydrologic system. Small portions of the area are still under a D1 (Moderate Drought) designation (as of Feb 13, 2024) due to rainfall deficits extending back into fall. However, streamflows and soil moisture have improved significantly in recent weeks.

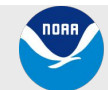
## Impacts

- The overall lack of normal rainfall over the late summer and fall period resulted in very dry soils and lack of necessary grasses and forages for livestock farmers. Numerous reports from around the region over that period indicate that the lack of grass and ability to grow cold season grasses resulted in the need for supplemental hay feeding. Also, stress to livestock was reported due to the dry, hard ground conditions. Farm water resources such as retention ponds had dried up in some locations, resulting in increased hauling of outside water resources. Some producers indicated the need to sell livestock.
- Some reports had indicated increased wildlife foraging near people.

You can go to the [Condition Monitoring Observer Reports](#) page from the National Drought Mitigation Center to see individual reports of drought impacts at various timescales across the region.

## Further Drought Mitigation Actions

- All counties in the Huntsville County Warning and Forecast area have been placed as Primary Counties in the USDA Secretarial Disaster Declaration for Drought. To learn more, go to the [USDA Disaster Designation Information](#) web page.







# Seven Day Precipitation Forecast

- Next 7 days:
  - Around 0.25-0.75 inches of rainfall is expected over the next week, through February 24th.
  - Around 1.25 inches of precipitation is normal for this time of year for a weekly period.

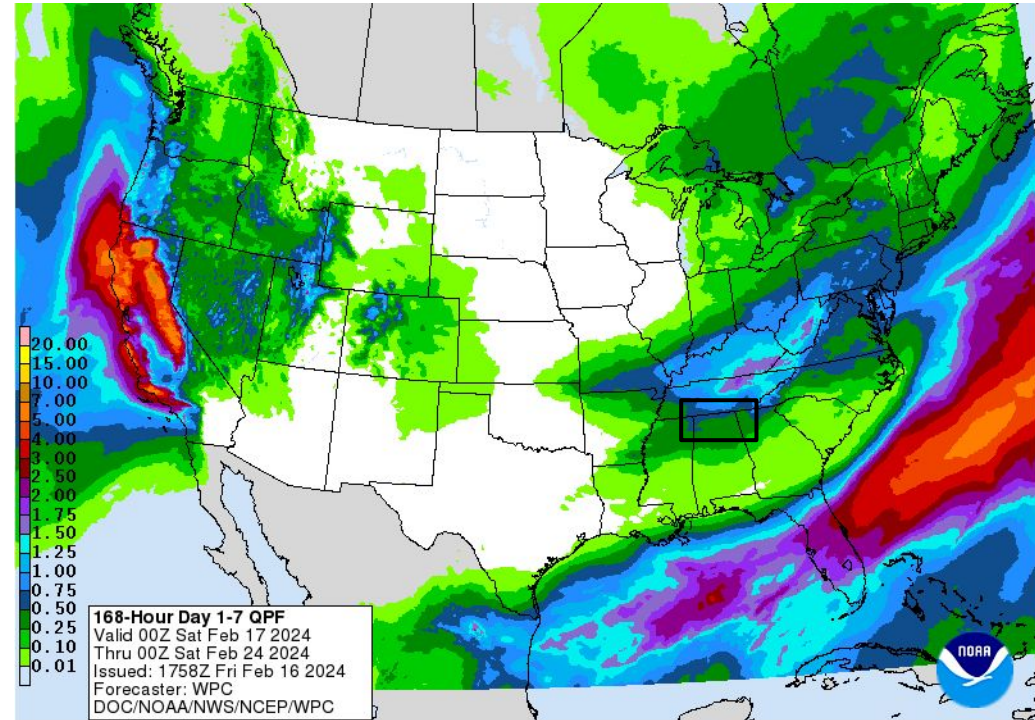
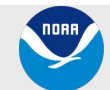


Image Caption: Weather Prediction Center 7-day precipitation forecast valid 7PM Feb 17 – 7PM Feb 24 (CST)





# 8-14 Day Outlook

## Temperature and Precipitation Outlook

### Main Takeaways

- Above Normal temperatures are moderately favored for the area.
- Above Normal Precipitation is slightly favored for the area.

### Possible Impact

Conditions may be near steady-state during the 8-14 day period.

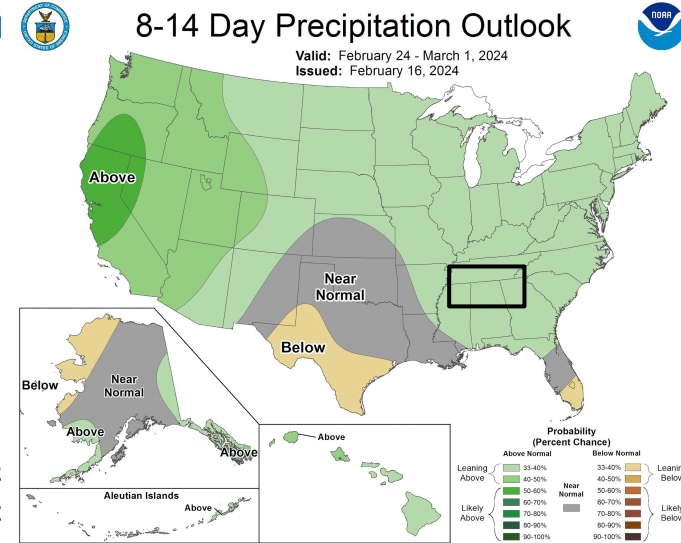
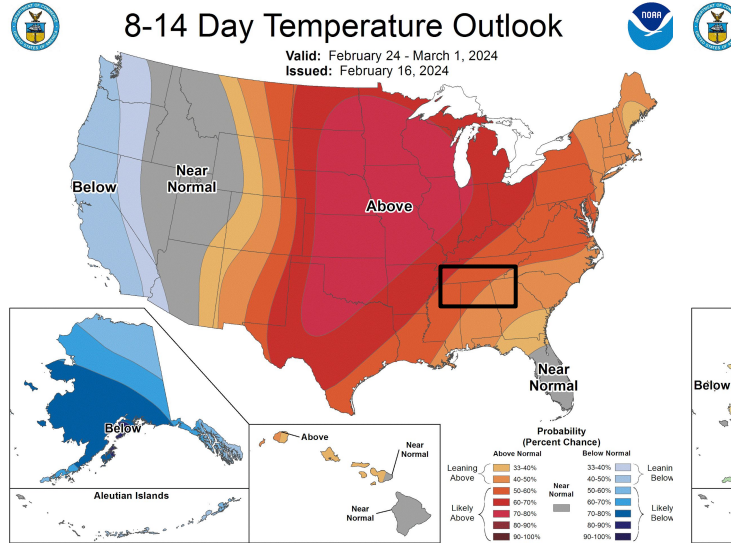


Image Captions:  
Left - Climate Prediction Center 8-14 Day Temperature Outlook  
Right - Climate Prediction Center 8-14 Day Precipitation Outlook  
Valid February 24-March 1, 2024





# Monthly Outlooks - March 2024

## Monthly Temperature and Precipitation Outlook

### Main Takeaways

- Below Normal temperatures are slightly favored (33-40% chance) for southwest portions of the area, with Equal Chances for Below, Near, or Above Normal Temperatures elsewhere.
- Equal Chances for Below, Near, or Above Normal precipitation exist across the area during March. Essentially, there is no apparent signal favoring any of the categories.

### Possible Impact

Given the lack of broader sub-seasonal signals during this period, there is too much uncertainty to indicate possible impacts. Nevertheless, a signal for wetter/cooler conditions close to our south would suggest small potential to return to drought conditions at this time.

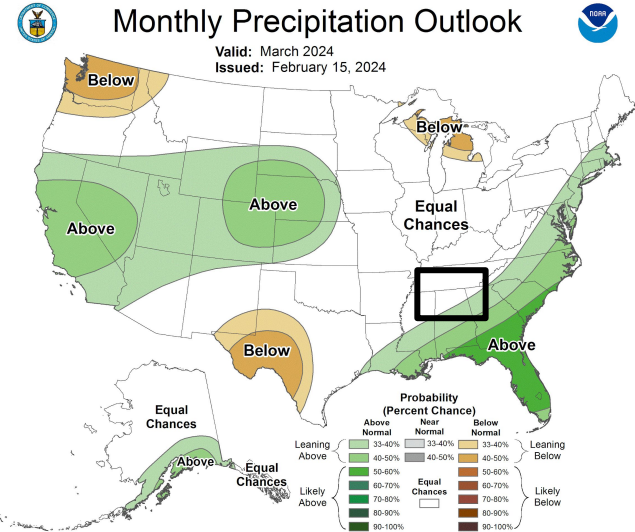
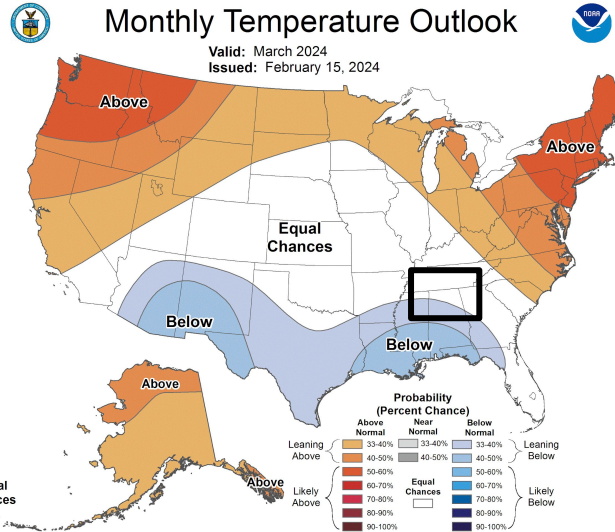


Image Captions:  
 Left - Climate Prediction Center Monthly Temperature Outlook.  
 Right - Climate Prediction Center Monthly Precipitation Outlook.  
 Valid March 2024





# Seasonal Outlook (March to May)

## Seasonal Temperature and Precipitation Outlook

### Main Takeaways

- **Temperatures:** Above Normal temperatures are slightly favored for NE portions of the area, with Equal Chances for Below, Near, or Above Normal temperatures elsewhere.
- **Precipitation:** Above Normal precipitation is moderately favored (40-50% chance) for the area.

### Possible Impact

The possibility for wetter than normal conditions may keep the region from slipping back into drought during this period.

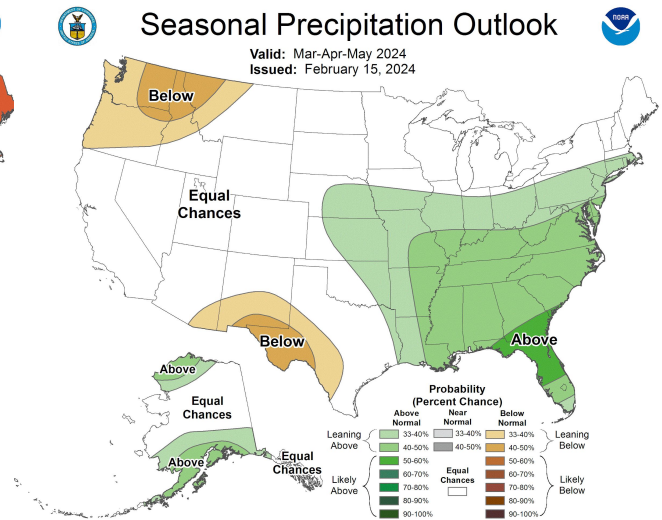
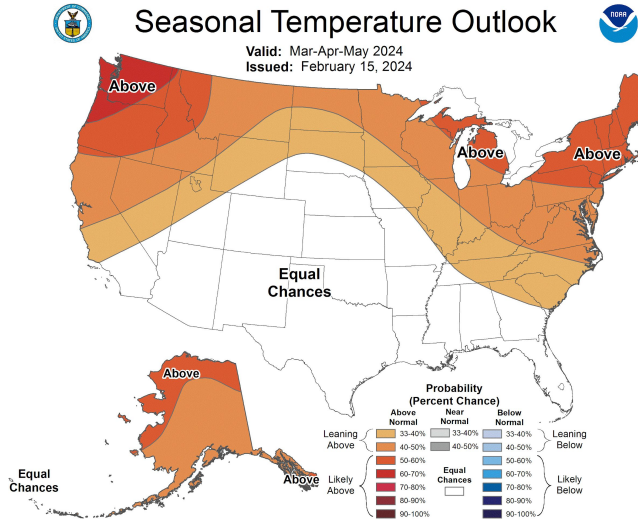
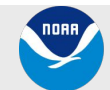


Image Captions:  
Left - Climate Prediction Center Seasonal Temperature Outlook.  
Right - Climate Prediction Center Seasonal Precipitation Outlook.  
Valid March - May 2024







# Seasonal Drought Outlook

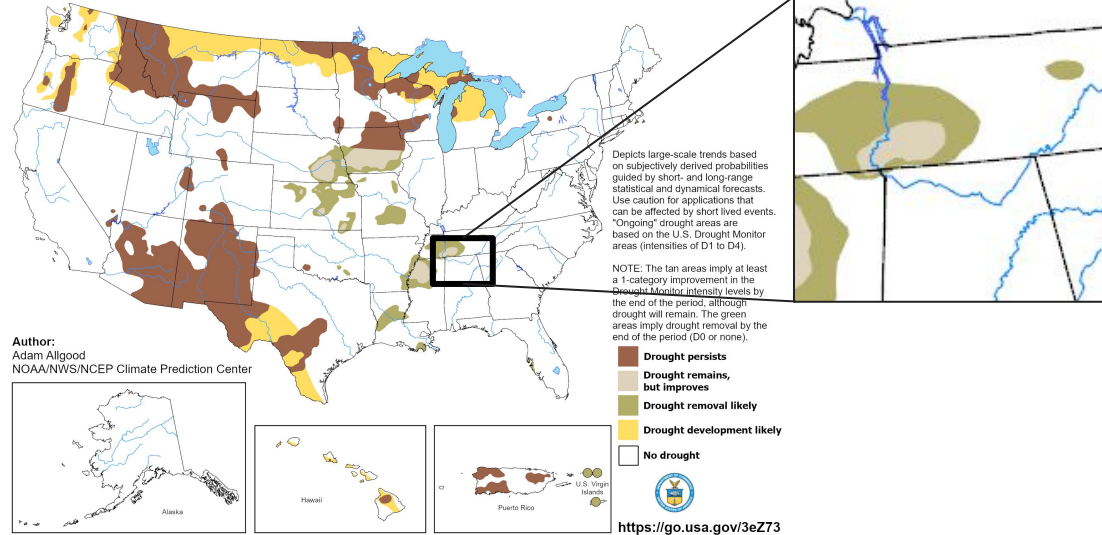
Seasonal Outlook

## Main Takeaways

- As of the latest Seasonal Drought Outlook issued on February 15, 2024, drought conditions were anticipated to improve across the small areas of D1 (Moderate) Drought remaining in the area.

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

Valid for February 15 - May 31, 2024  
Released February 15, 2024



### Image Caption:

Climate Prediction Center Seasonal Drought Outlook for February 15th – May 31st, 2024, released February 15, 2024 ([https://www.cpc.ncep.noaa.gov/products/expert\\_assessment/season\\_drought.png](https://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.png))