

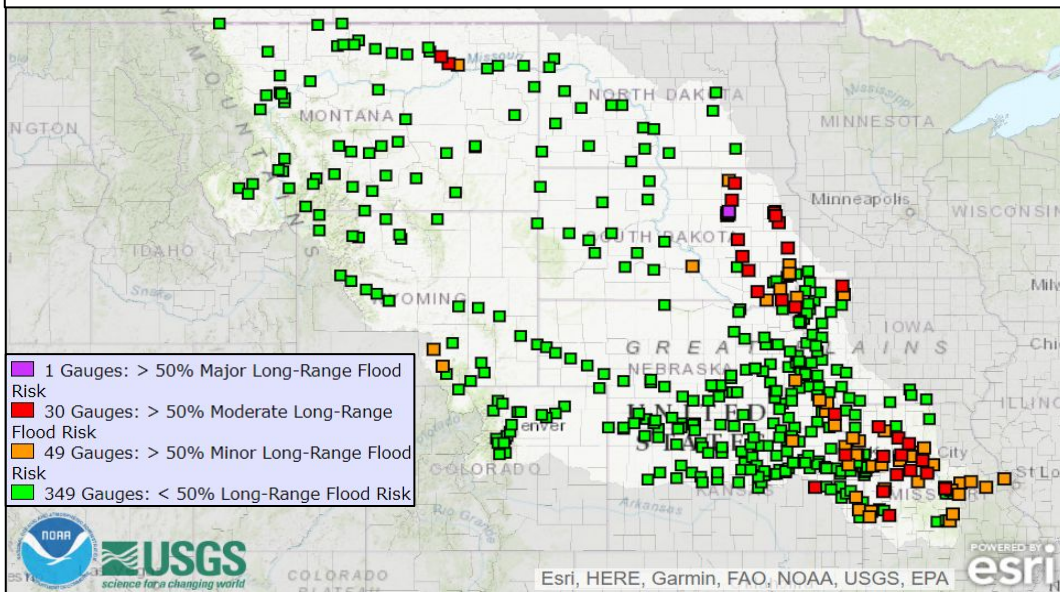
## Missouri Basin Spring Hazard Outlook

### Areas of Minor to Major Flooding Expected Across Eastern Parts of the Basin

#### Flood Risk

While the flood risk across the Missouri Basin varies for this spring, much of the basin is expected to have a reduced flood risk due to the ongoing drought. However, there are parts of the basin where near-normal or even enhanced flood risk is possible due to near-to-above average mountain snowpack and a significant plains snowpack. Below normal mountain runoff is expected for all but the North Platte basin, where an above normal runoff year is expected.

#### Spring Flood Outlook



#### Flood Risk Considerations

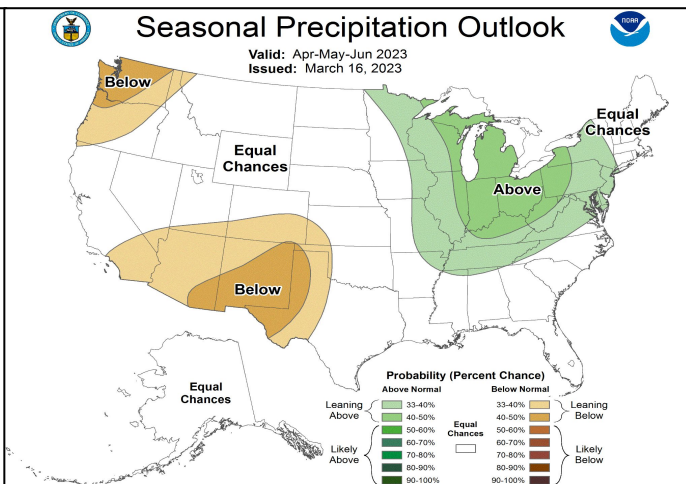
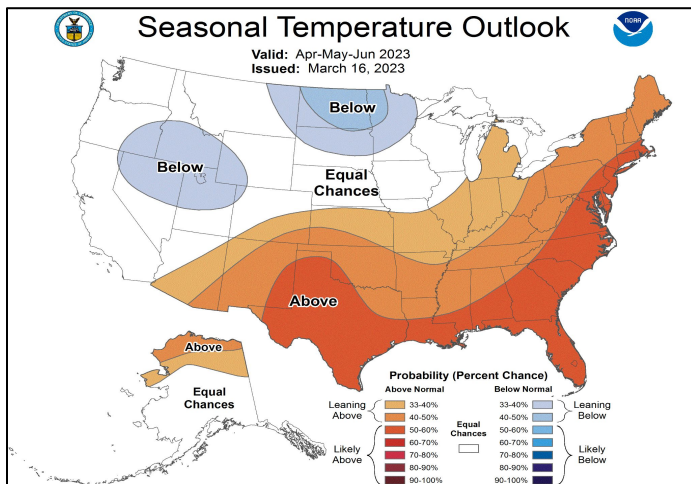
- Soils are still very dry across much of the Missouri Basin.
- Frozen ground is not expected to influence runoff concerns.
- Risk for river ice break-up flooding is considered low.
- Springtime thunderstorm activity will likely drive some of the spring flood risk across the lower part of the basin.

LEFT:  
90 Day Spring Flood Outlook, 50% Probability of Exceedance  
(Source: [MBRFC](#))

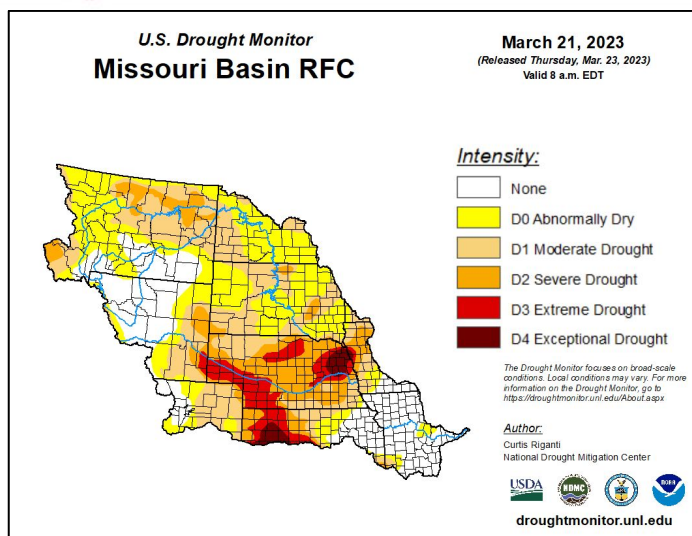
#### Apr-May-June Temperature and Precipitation Outlook

In March, La Niña conditions ended and transitioned to ENSO-neutral. These ENSO-neutral conditions are expected to continue through the spring and into early summer 2023. The current seasonal temperature and precipitation outlooks reflect a blend of ENSO model guidance, model trends, and soil moisture, as applicable.

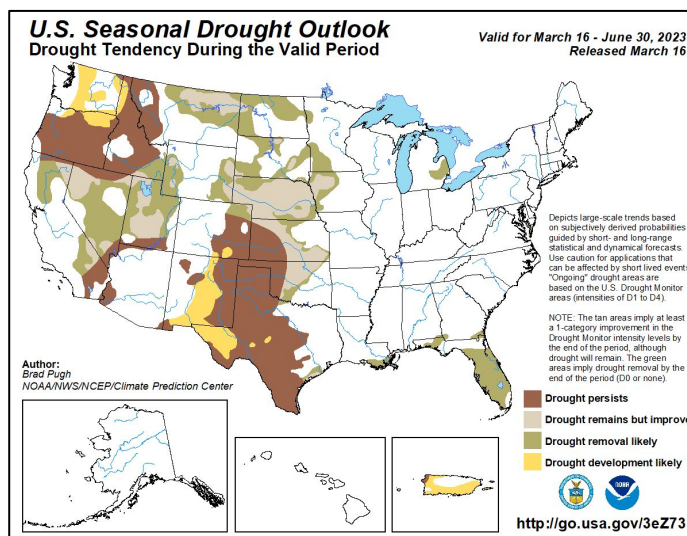
The spring outlook for April through June 2023 slightly favors increased chances for warmer than normal conditions across the southern part of the basin in the Central Plains with slightly increased chances for cooler than normal conditions across eastern Montana and the Dakotas. Elsewhere across the basin, the outlook favors equal chances for above, below, or near normal seasonal temperatures through the spring. As for precipitation, the outlook favors equal chances for above, below, or near normal precipitation across most of the basin.



LEFT:  
Temperature and Precipitation Outlooks for the 3-month period of April through June 2023.  
(Source: [CPC](#))



ABOVE: U.S. Drought Monitor as of March 21, 2023  
(Source: [U.S. Drought Monitor](http://droughtmonitor.unl.edu))



ABOVE: Seasonal Drought Outlook through June 30, 2023 (Source: [CPC](http://go.usa.gov/3eZ73))

## Drought Conditions and Drought Outlook

The late March U.S. Drought Monitor update notes that 48% of the Missouri River Basin is experiencing some degree of drought conditions (compared to 73% of the region experiencing drought conditions at the beginning of December 2022), with nearly 22% of the region currently experiencing severe, extreme, or exceptional drought. The seasonal drought outlook suggests some areas of improvement in drought conditions across the basin, with persisting drought conditions across western Kansas.

## Agricultural Information

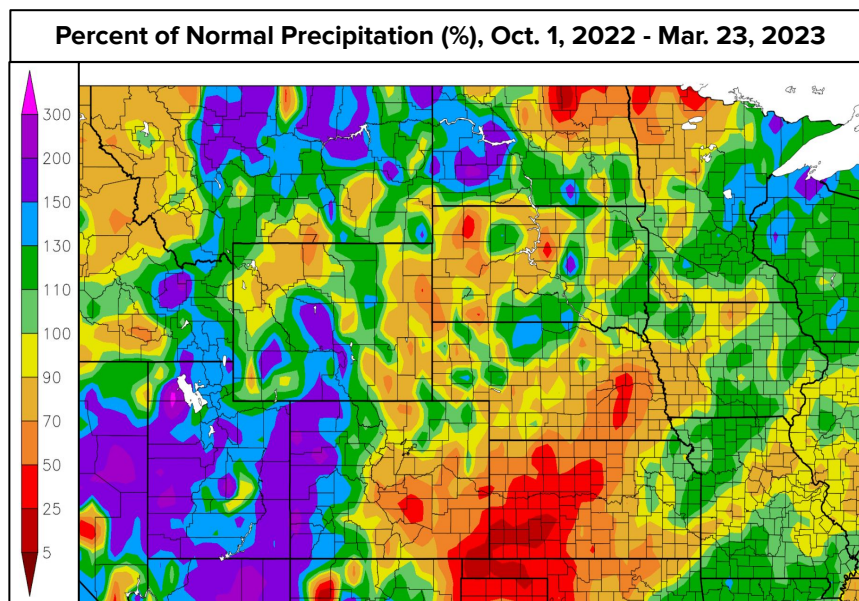
The spring outlooks across the basin suggest the following potential agricultural impacts across parts of the basin:

- With areas of heavy snowpack across northwest Iowa and further north, there is uncertainty in how much water the soil will soak up vs. how much will run off.
- Continued winter wheat damage from ongoing drought.
- Low water in stock ponds due to dry conditions.

## Water Resource Information

At or below normal streamflow and water levels, along with dry soils for parts of the basin, suggest the following potential impacts to water resources:

- Lower flow on parts of the Missouri River.
- Potential impacts for water recreation and/or tourism.
- Increase in water quality issues.



ABOVE: Percent of 1991-2020 Normals Precipitation from Oct. 1, 2022 to Mar. 23, 2023. (Source: [HPRCC](http://hprcc.noaa.gov))

## For more information visit:

Local Forecast – [weather.gov](http://weather.gov)

Long-Range Outlooks – [cpc.ncep.noaa.gov](http://cpc.ncep.noaa.gov)

River Forecasts – [water.weather.gov/ahps/forecasts.php](http://water.weather.gov/ahps/forecasts.php)

Weather & Climate Data – [ncei.noaa.gov](http://ncei.noaa.gov)

Fire Outlook – [nifc.gov/nicc](http://nifc.gov/nicc)

Drought Information – [drought.gov](http://drought.gov)

Agricultural Outlook – [usda.gov/oce/ag-outlook-forum](http://usda.gov/oce/ag-outlook-forum)

Streamflow Data -

<https://waterwatch.usgs.gov/index.php?id=ww>

