Central Region
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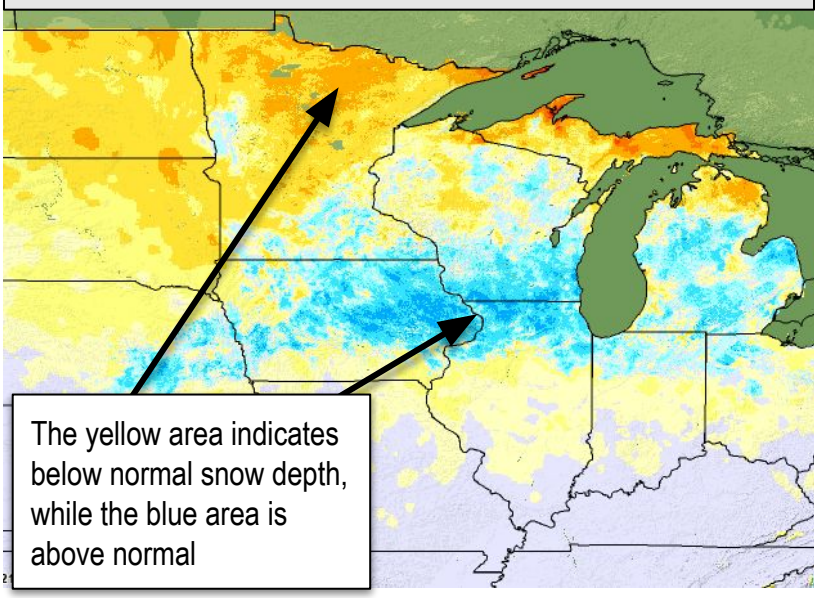
Upper Mississippi Valley Spring Hazard Outlook:
Drier Conditions Lowers Risk of Widespread Significant Flood

Setting the Stage:
Precipitation and Soil Moisture

Most of the Great Lakes and Upper Mississippi River Valley region had experienced a drier-than-normal meteorological winter (December-February), coming on the heels of a dry fall for many locations. Snowfall this winter had been well below normal across the northern half of the region, and while the southern half had above-normal snowfall in places, that moisture is somewhat localized.

Therefore, portions of the Upper Mississippi Valley region remain abnormally dry, with some areas in moderate to severe drought.

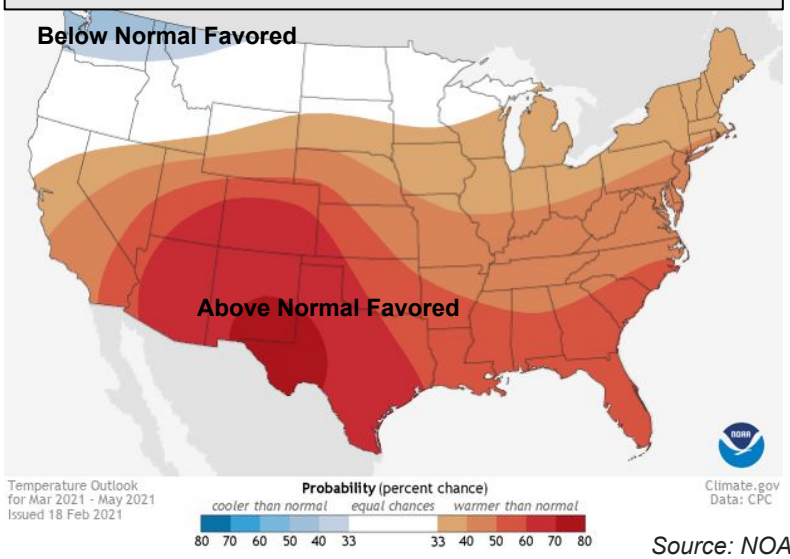
Snow Depth Departure from Normal



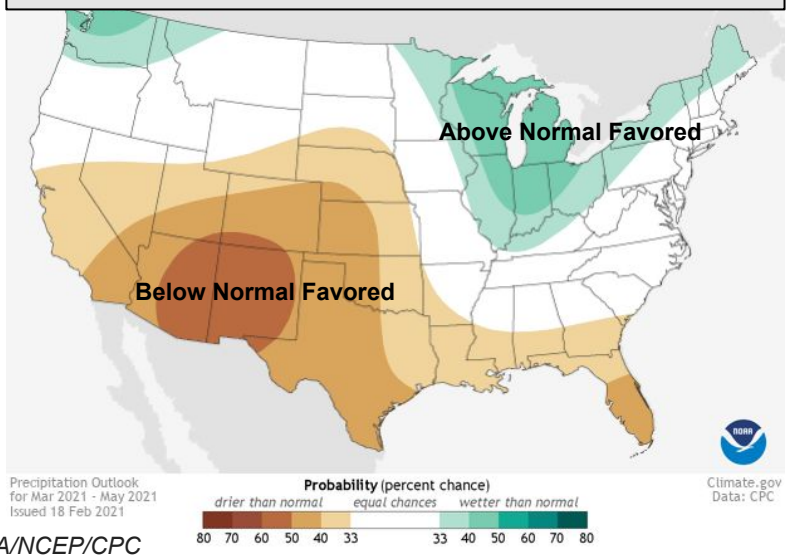
ABOVE: The northern half of the North Central Basin is experiencing well below normal snow depths, while the southern half of the basin is above normal and localized.
Source: NOAA/NWS/NOHRSC

Spring Climate Outlooks (March-May):

Temperature Outlook



Precipitation Outlook



Source: NOAA/NCEP/CPC

We are heading into the spring with mainly drier-than-normal soils, lower moisture in the snowpack for most of the region, and the latest guidance shows that several rivers and streams are running at or below normal for this time of year.

The latest 2021 Spring Outlook suggests that odds favor an **increased chance of precipitation** across the Great Lakes and Upper Mississippi Valley, with higher confidence near the Great Lakes. We are also expecting **warmer-than-normal temperatures** as you head further south, which increase the chances for quick warm up and above-normal temperatures.

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Potential Impacts this Spring

Flooding Risk:

Flooding variations are still possible across the Upper Mississippi Basin. Across the northern half of the basin, with the current dry soils as well as the general lack of past precipitation and snow depth, it appears that there is a lower risk to widespread significant flooding. For the southern half of the basin, the combination of melting snow, spring temperatures, and future precipitation will continue to play a primary role in the severity and timing of any flooding. If a rapid warm-up occurs with additional precipitation, the risk will increase.

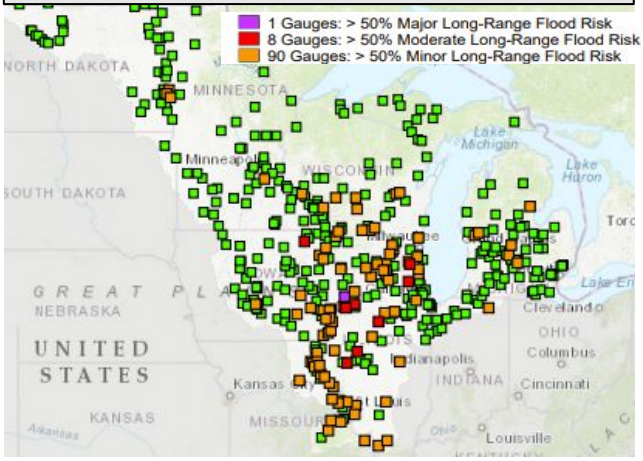
Drought Potential:

While there is a dry soil trend and a lack of snowpack, especially across the northern areas, the current drought conditions may improve due to early indications of a wet spring. However, there could still be periods of abnormally dry conditions through the spring months, but the overall trend for the basin is that drought will likely be improved or be removed in the Upper Mississippi Basin.

Fire Risk:

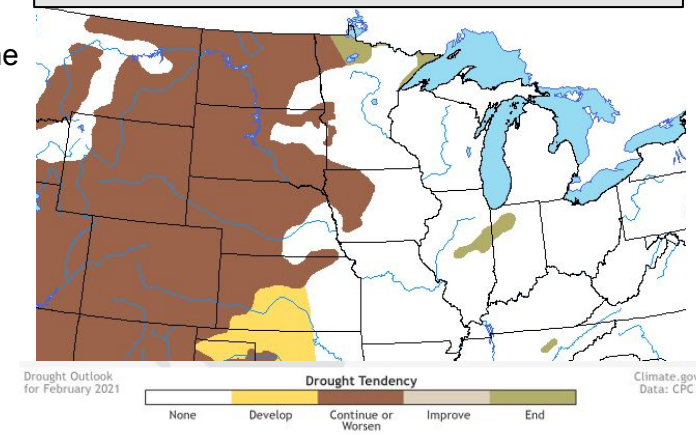
Near-normal significant fire potential is forecast across the region into May. If the wetter-than-normal conditions do occur, fire potential may be curtailed through the spring. The spring fire season may begin earlier than normal across parts of the northern tier if precipitation events do not increase into March.

Spring Flood Outlook (March-May)



Source: NOAA/NWS/AHPS

Seasonal Drought Outlook



Source: NOAA/NCEP/CPC

Water Resources Information:

At or below streamflow, water levels, and abnormally drier soil suggest the following potential impacts for water resources:

- **Stress on water resources for communities**
- **Decrease in water recreation and/or other recreational activities for tourism**
- **Increase water quality issues, including algal production**

Agricultural Information:

The abnormally dry soil and lack of snowpack suggest the following potential impacts for those with agricultural interest:

- **Earlier than average crop planting may be possible - delays not likely**
- **Isolated water issues are possible with crop stress potential further west**
- **Increased vulnerability to specialty crops if drought persists**

For more information visit:

Local Forecast – weather.gov
Long-Range Outlooks – cpc.ncep.noaa.gov
River Forecasts – water.weather.gov/ahps/forecasts.php
Weather & Climate Data – ncei.noaa.gov
Fire Outlook – nifc.gov/nicc
Drought Information – Drought.gov
Agricultural Outlook – usda.gov/oce/ag-outlook-forum
Streamflow Data - https://waterwatch.usgs.gov/index.php?id=ww