



# Final Spring Flood Outlook – Snowmelt Flood Threat is Minimal

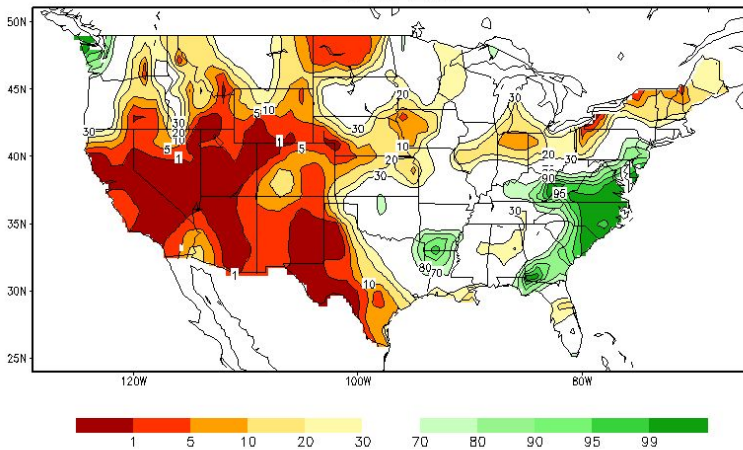
- Current conditions suggest that the threat of major spring flooding is **lower** than we've seen for a few years, and is **below normal**. Most of the snow is now melted, so any flooding would be the result of heavy precipitation from here out.

## Where do we stand now?

### Soil Moisture is...Below Normal!

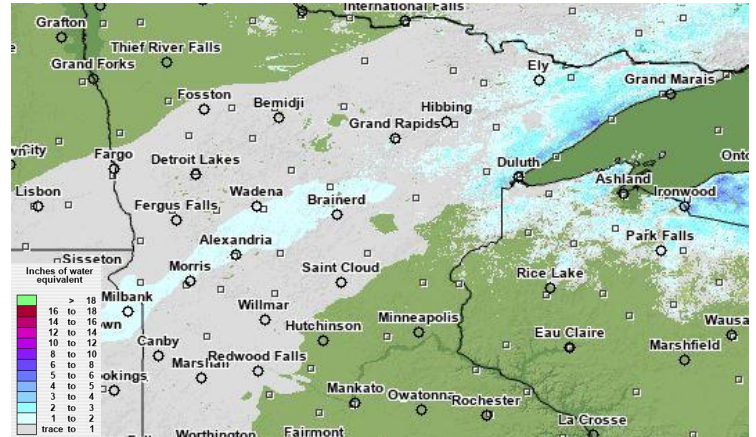
After two years of record high soil moisture, 2021 starts with near to below normal soil moisture over the entire area, thanks to a dry autumn. This will allow for the soil to absorb more snowmelt once the thaw occurs.

Calculated Soil Moisture Ranking Percentile  
MAR 10, 2021



### Snow Water Content is Very Low

Even after yesterday's snowfall, only up to an inch or so of water is still available to melt in the upper Minnesota, Mississippi, and Chippewa (WI) basins. There is some melted water waiting to move once the thaw occurs, but some of that will be retained by the drier than normal soil.



Mar 11, 2021 Modeled Snow Water Equivalent (SWE)

## What does this mean?

While rivers will continue a steady rise, and mainstem rivers will peak over the next couple of weeks, widespread or significant snowmelt flooding is not expected this year.

It will take heavy rainfall to create widespread major flooding in the Minnesota/St. Croix/Chippewa/Upper Mississippi Rivers this season.



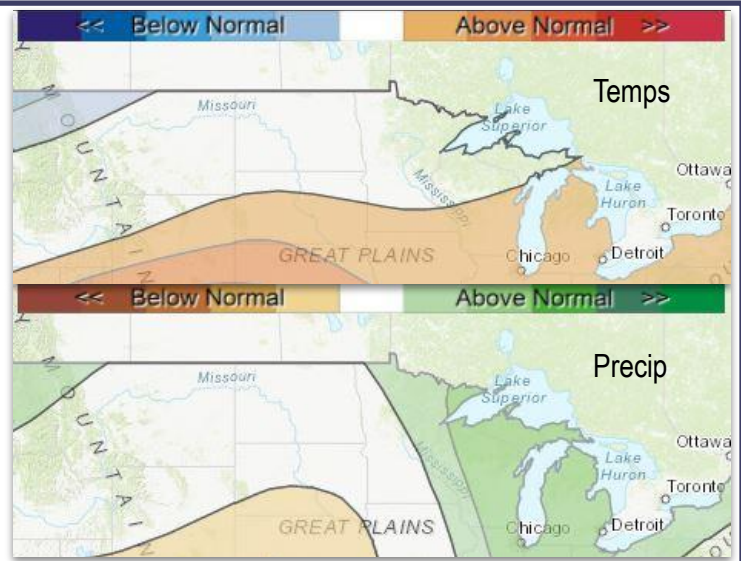
### Spring Flood Threat Checklist (as of early March)

Threat	Impact to Potential Spring Flooding	Link to Image
Current River Levels	Near Normal/Decreased Threat	<a href="#">USGS WaterWatch</a>
Soil Moisture	Low/Decreased Threat	<a href="#">CPC Soil Moisture</a>
Winter Precipitation	Below Normal	<a href="#">Winter Outlook</a>
Snowpack/Liquid Equivalent	Below Normal	<a href="#">Snow Analysis</a>
Frost Depth	Near/Below Normal	<a href="#">Frost Depth Map</a>
Spring Temperatures	Not problematic	<a href="#">Temperature/Wind fcst graph</a>
Spring Precipitation	To Be Determined	<a href="#">Precip Forecast</a>

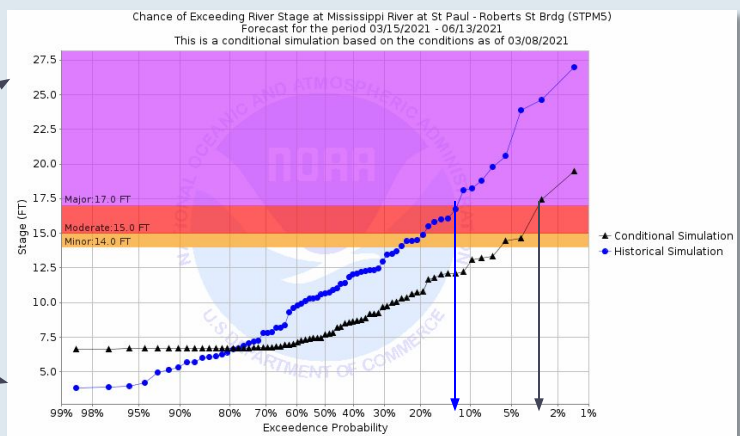
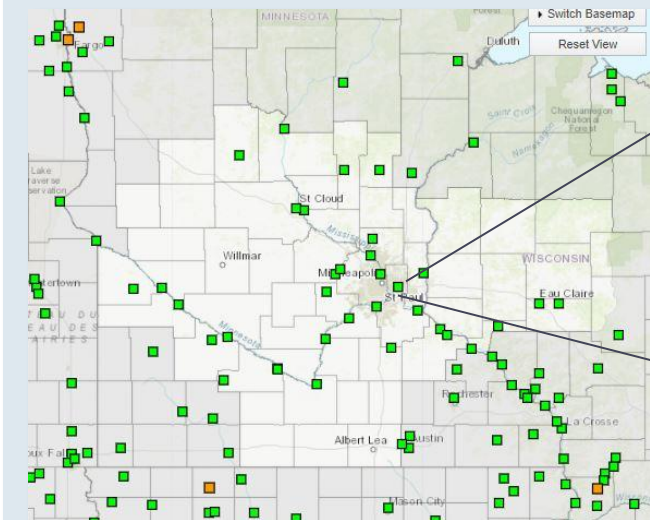
### Spring 2021: *Weather Outlook*

CPC outlooks for March-April-May indicate a slight signal for above normal temperatures just to our south, and models for the next two weeks look close to normal. There is a slight chance of above normal precipitation on our east side, which has been in the models for quite awhile now.

*Keep in mind, even in a below normal snowmelt season, ponding or minor flooding of low areas and fields can be expected. Some ice jams are occurring during breakup in the north, with little impact due to lower base river levels.*



**Spring Streamflow Probabilities available here:** [https://water.weather.gov/ahps2/long\\_range.php?wfo=mpx](https://water.weather.gov/ahps2/long_range.php?wfo=mpx)



Black Line represents the newest forecast – Blue Line represents historical average. Probability of reaching major flood stage (purple) this spring is about 3 percent, which is below the 12% historical average.

*This is the final Spring Outlook for 2021*