



National Weather Service Updated Spring Flood Outlook

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National Weather Service – Hastings, NE

March 11, 2021





Short Term Outlook



Short Term Outlook: March 11th - March 18th

- Widespread rainfall of 2.5” to 3.5” this weekend.
- This will be a steady rainfall over a 24-36 hour period.
- Soil moisture conditions continue to be drier than normal so we expect that good infiltration will minimize runoff.
- Flooding is not expected from this rainfall, but rivers could be running rather full.





Long Term Outlook



Long Term Outlook: March 11th through May 28th

● **South Central Nebraska and North Central Kansas:**

There is a **Below normal to Near normal risk** for spring flooding. This is due to the following factors:

- *Dry soil moisture conditions.*
- *Long term climate forecast hedging towards drier than normal*





Spring Flood Outlook Factors

As of March 11th



Flood Risk Contribution Factor	Contribution to Flood Risk
Snowpack (South Central Nebraska)	All Snow Has Melted
Snowpack (North Central Kansas)	All Snow Has Melted
Snowpack (Mountains)	Below to Near Normal
Soil Moisture	Below Normal
Streamflow	Normal
3 Month Precipitation Outlook	Below Normal
River Ice and Ice Jams	All River Ice Has Melted





**The following slides provide
additional details for each flood risk factor**

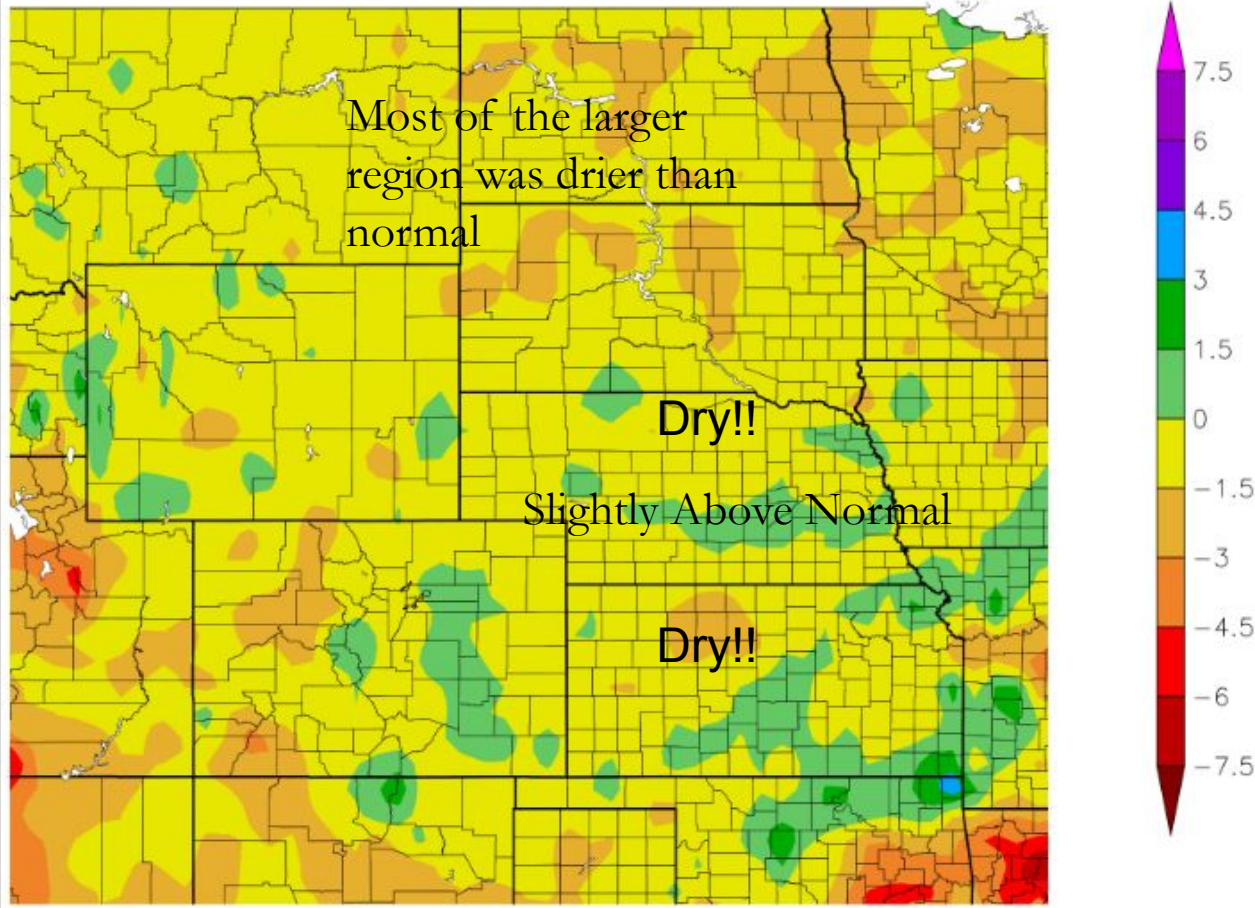




Last 3 Months Precipitation (Near to Slightly Above Normal)



Departure from Normal Precipitation (in)
11/11/2020 - 3/10/2021



- Heavy snows along I-80 corridor from late January through mid February have pushed our 3 month precipitation totals to above normal in a few spots locally.
- However, big picture for the larger region indicates that most surrounding areas especially to our north and west were drier than normal.

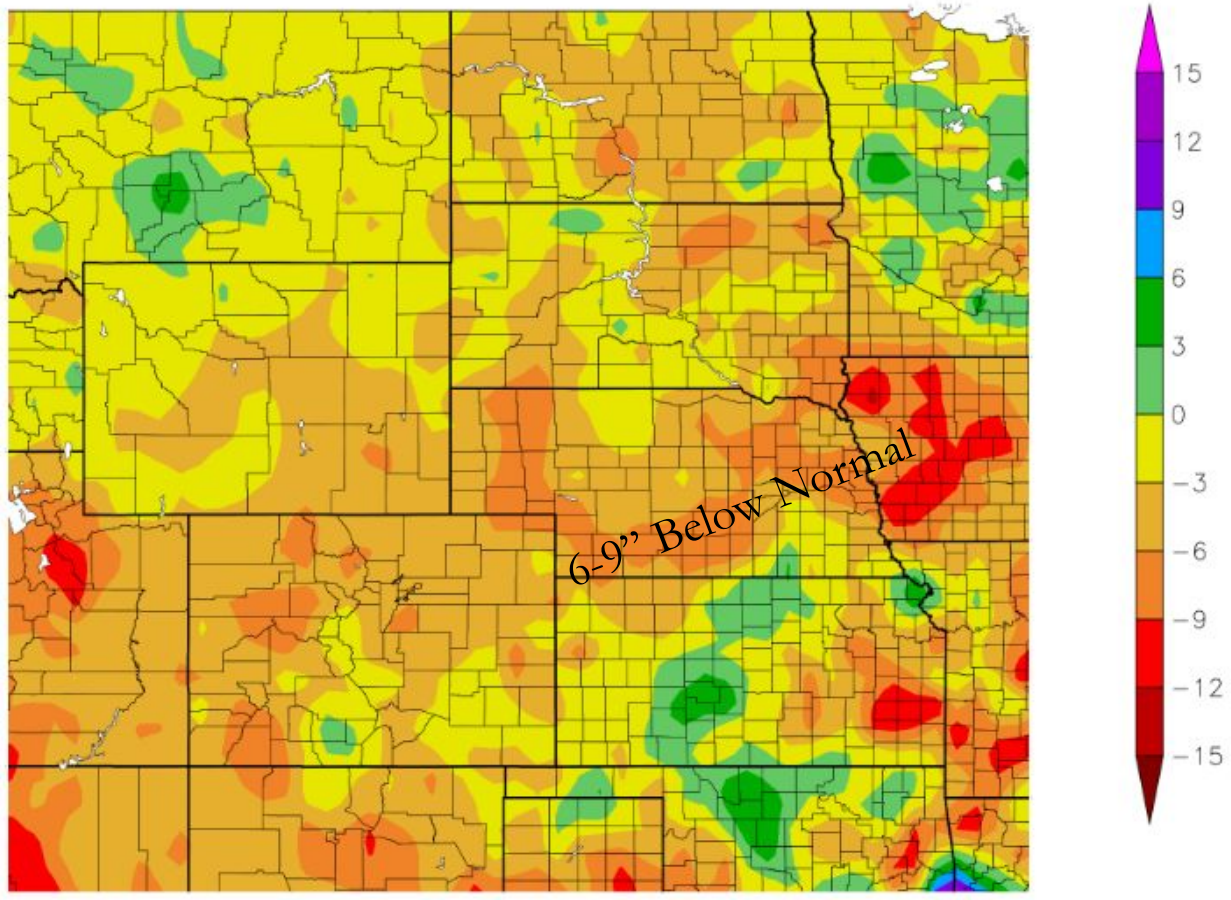




Last 9 Months Precipitation (Well Below Normal)



Departure from Normal Precipitation (in)
6/11/2020 – 3/10/2021



- Although we have been wet/snowy lately. It only puts a very small dent into what is still a 6-9" moisture deficit that exists across much of our area over the longer 9 month period.

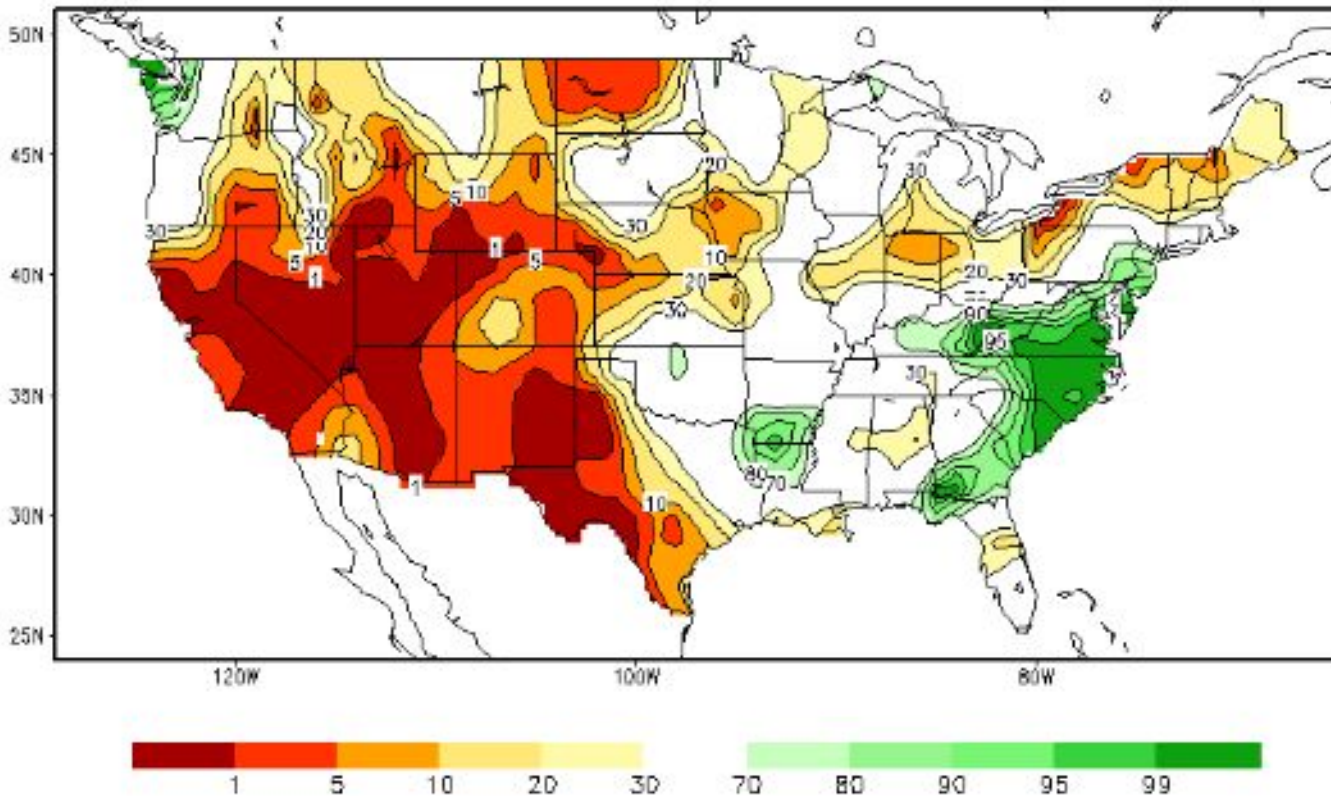




Soil Moisture (Below Normal)

Soil moisture values have been very low and certainly drier than normal thanks to our summer of drought. This soil will continue to be able to absorb a good deal of moisture.

Calculated Soil Moisture Ranking Percentile
MAR 10, 2021





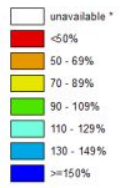
Mountain Snowpack (Feeds Platte River)



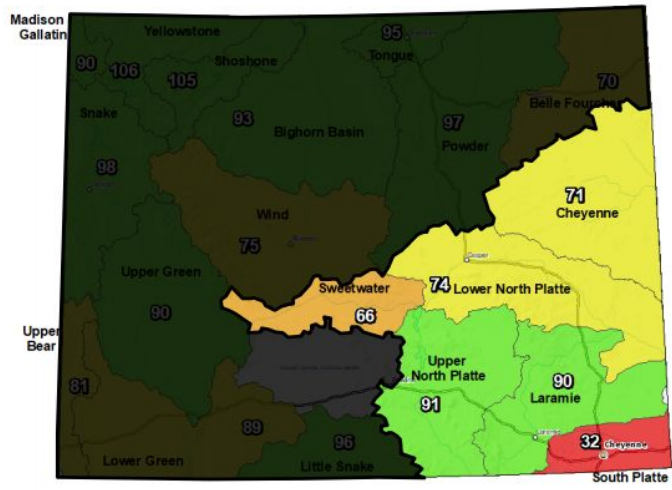
Wyoming SNOTEL Current Snow Water Equivalent (SWE) % of Normal

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Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median



Provisional Data Subject to Revision



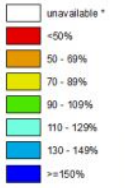
SNOTEL Current Snow Water Equivalent % of Normal

- The snow water equivalent within the North Platte River Basin of southeastern Wyoming is below normal for this time of year.
- The snow water equivalent within the South Platte River Basin of northeastern Colorado is below normal for this time of year.
- We should see these numbers rise closer to normal after this weekends expected mountain snowfall.

Colorado SNOTEL Current Snow Water Equivalent (SWE) % of Normal Laramie and North Platte

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Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median



* Data unavailable at time of posting or measurement is not representative at this time of year

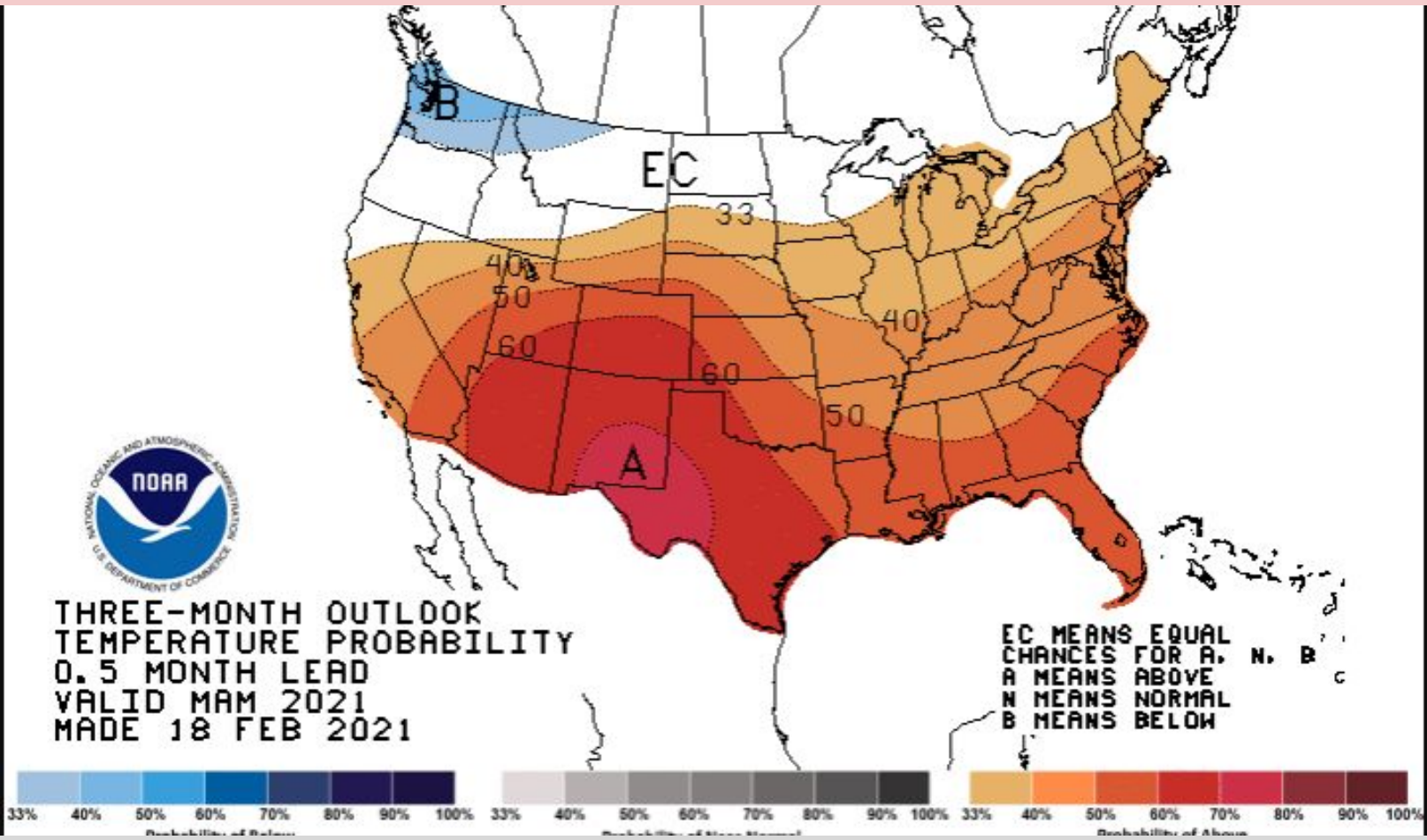
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Long Range Temperature Outlook

We are more likely to see overall warmer than normal conditions
March-May

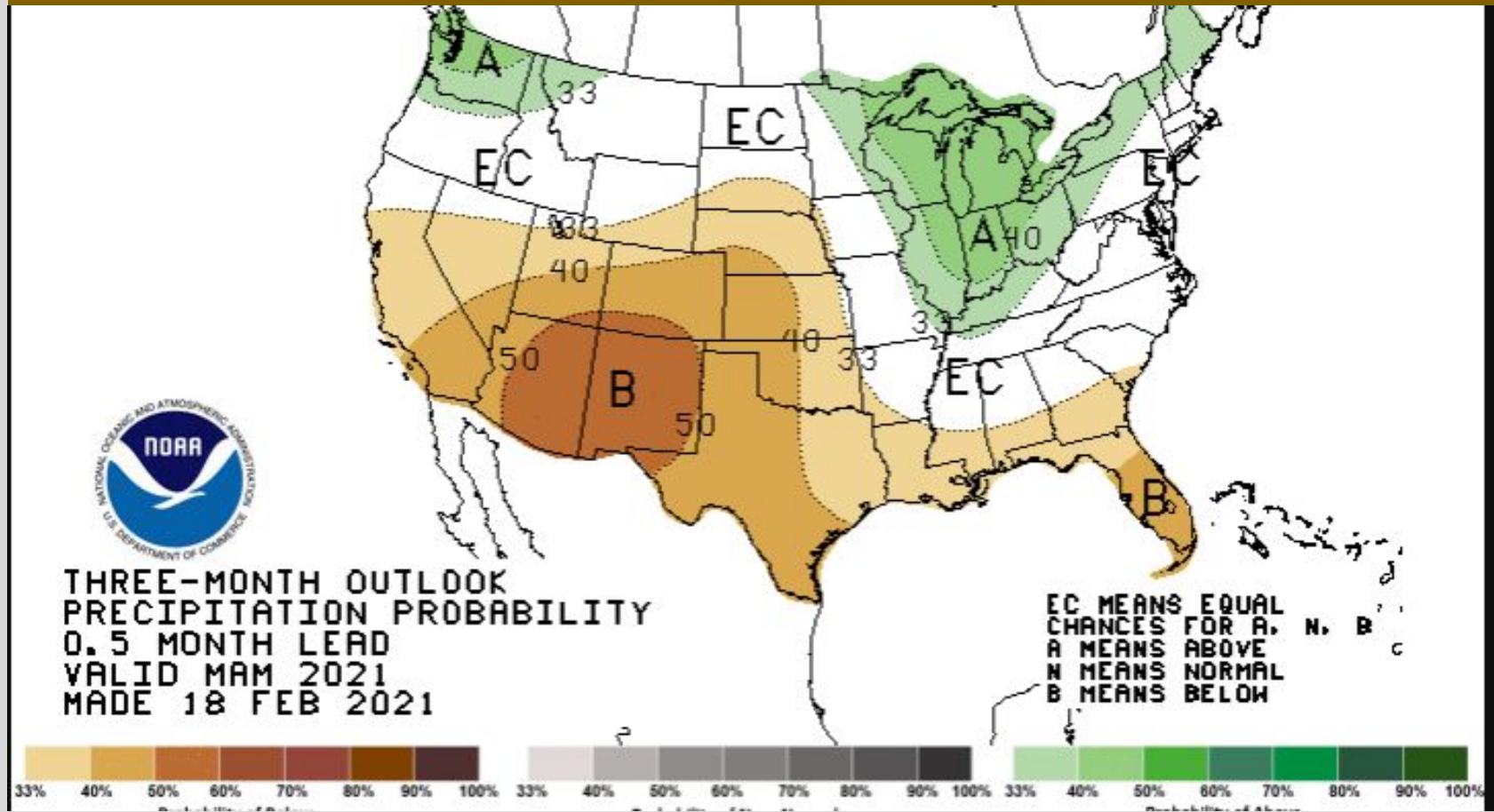


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Long Range Precipitation Outlook

We are more likely to see overall drier than normal conditions
March-May





Summary



- **Overall flood risk this spring:**
 - For the most part the flood risk is below normal to near normal.
 - Even in dry periods localized flooding events do occur.





National Weather Service Spring Flood Outlook



For questions & additional information:

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<http://www.weather.gov/hastings>

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