2025 Spring Flood Outlook #2

March 1, 2025
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NWS Hastings Hydrologic Area: Central/South Central Nebraska and North Central Kansas

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Spring Flood Outlook - Overview

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Spring Flood Risk Across Central/South Central NE and North Central KS is Mainly:

Below Normal (Overall) to Near-To-Below Normal *(VERY SHORT shorter term ice jam risk)*

- Local area snowpack is currently non-existent
  (although some limited snow cover could return during the next week)
- Mountain snowpack in the North/South Platte River Basins is mainly near-normal with plenty of storage space in upstream reservoirs such as Lake McConaughy
- Soil moisture is overall drier than normal and should be capable of absorbing plenty of moisture…especially with thawing of topsoil well-underway
- Current streamflow on most local rivers is averaging near normal to below normal
- The CPC longer range precipitation outlook (March-May) indicates a slight lean toward below normal precipitation
- VERY-SHORT-TERM ice jam risk through next few days: there could still be 1-2 more days of limited ice jam potential mainly in the Loup River system
- *NOTE: Isolated flooding is still possible even in dry years and when the overall flood risk is low.*

Spring Flood Outlook - Risk Factors

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Central/South Central Nebraska and North Central Kansas

Overall Spring Flood Risk	** *Below Normal (except low-to-elevated very short term ice jam potential)* **

Contributing Factors	Very Short Term: Early March	Longer Term: Mid March - May
Local Area Snowpack	Low/Normal	Low/Normal
Mountain Snowpack	Low/Normal	Low/Normal
River Ice/Frozen Ground	Low-to-Elevated *quickly decreasing*	Low/Normal
Soil Moisture	Low/Normal	Low/Normal
Streamflow	Low/Normal	Low/Normal
Precipitation Outlook	Low/Normal	Low/Normal

Impact Level	Low/Normal	Elevated	Significant

Bottom Line Up Front

- ***Below Normal OVERALL Spring Flood Risk:*** *Biggest factors are ongoing drought/drier soil and seasonal precipitation not forecast to be above normal.*
- ***Low-to-Elevated VERY Short Term Ice Jam Flood Risk (Platte/Loup Rivers):*** *Although MOST river ice has melted/flushed out of the rivers, there could still be 1-2 more days of limited ice jam potential mainly in the Loup River system*
- ***Streamflow:*** *Our main rivers are mostly running near-to-below normal*
- ***Precipitation Outlooks:*** *CPC indicates a mix slight lean toward below normal precip March-May across our entire area*

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Regional Snowpack (March 1)

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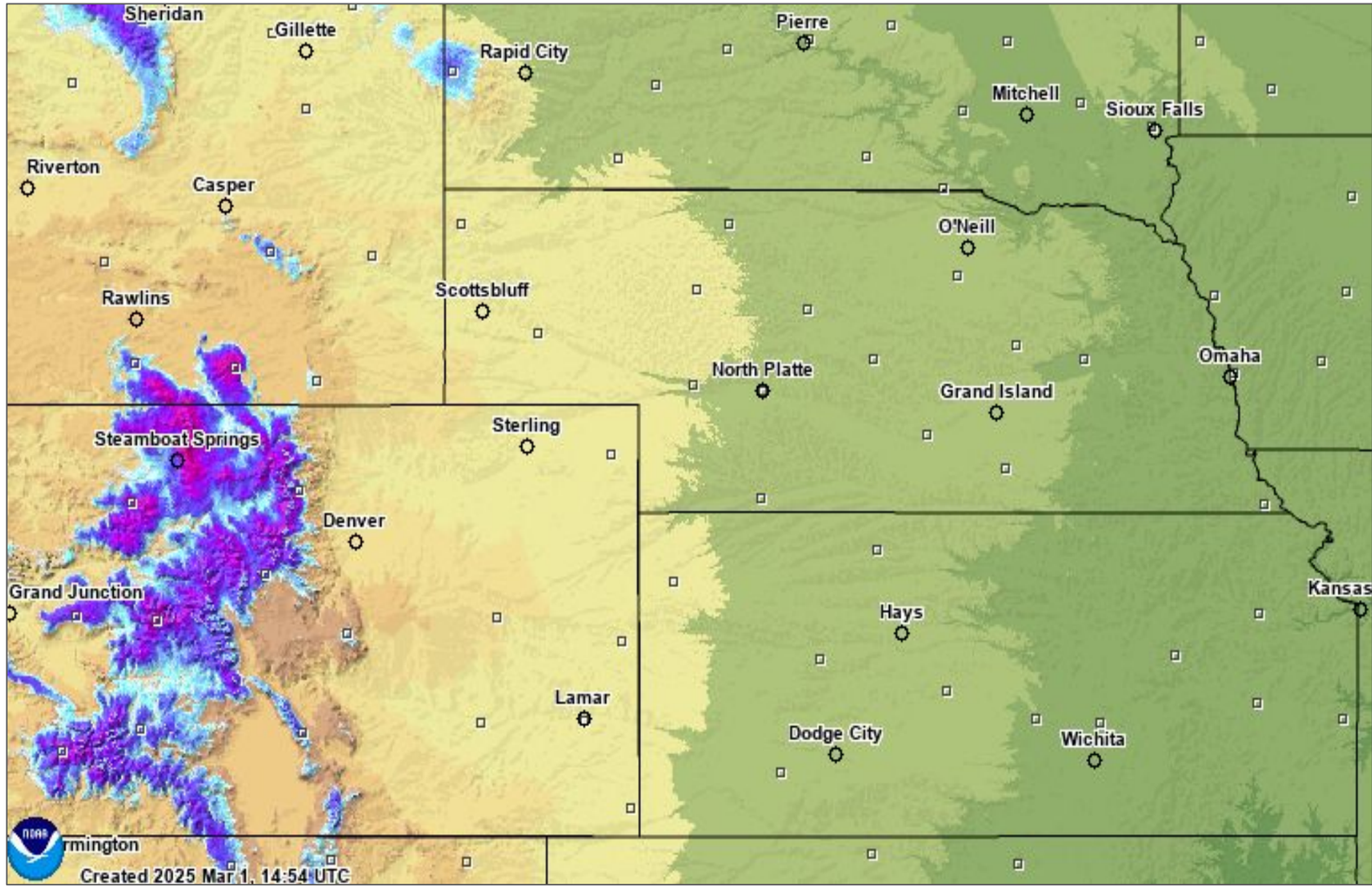
Fairly shallow in/near our region

Key Messages

➔ Recent warm-up has “obliterated” all snow cover in the Central Plains

➔ All regional snow cover currently confined to Rockies/Black Hills



2024-25 Seasonal Snowfall-To-Date

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Despite a “mid-February rally”, most of our forecast area still 4-12” below normal for the season

As of Feb. 28, 2025:

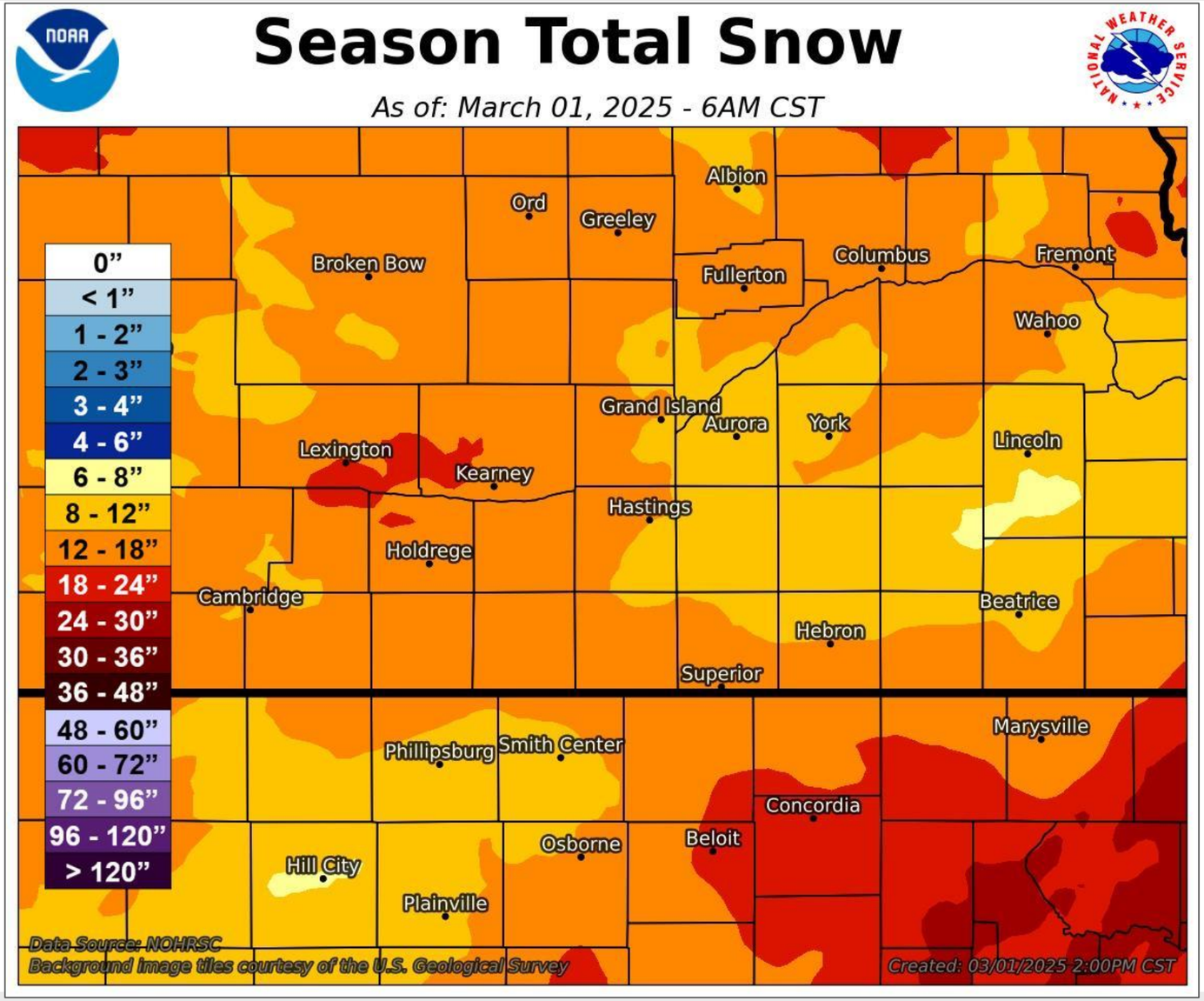
Grand Island
Seasonal Snow (since fall 2024):

Current	15.0”
Normal	22.3”
Departure	-7.3”

Grand Island
Liquid Equivalent Precipitation:

Dec. 1 - Feb. 28
(meteorological winter)

Liquid	1.26”
Normal	2.19”
Departure	-0.93”



Precipitation Trends Last 90 Days

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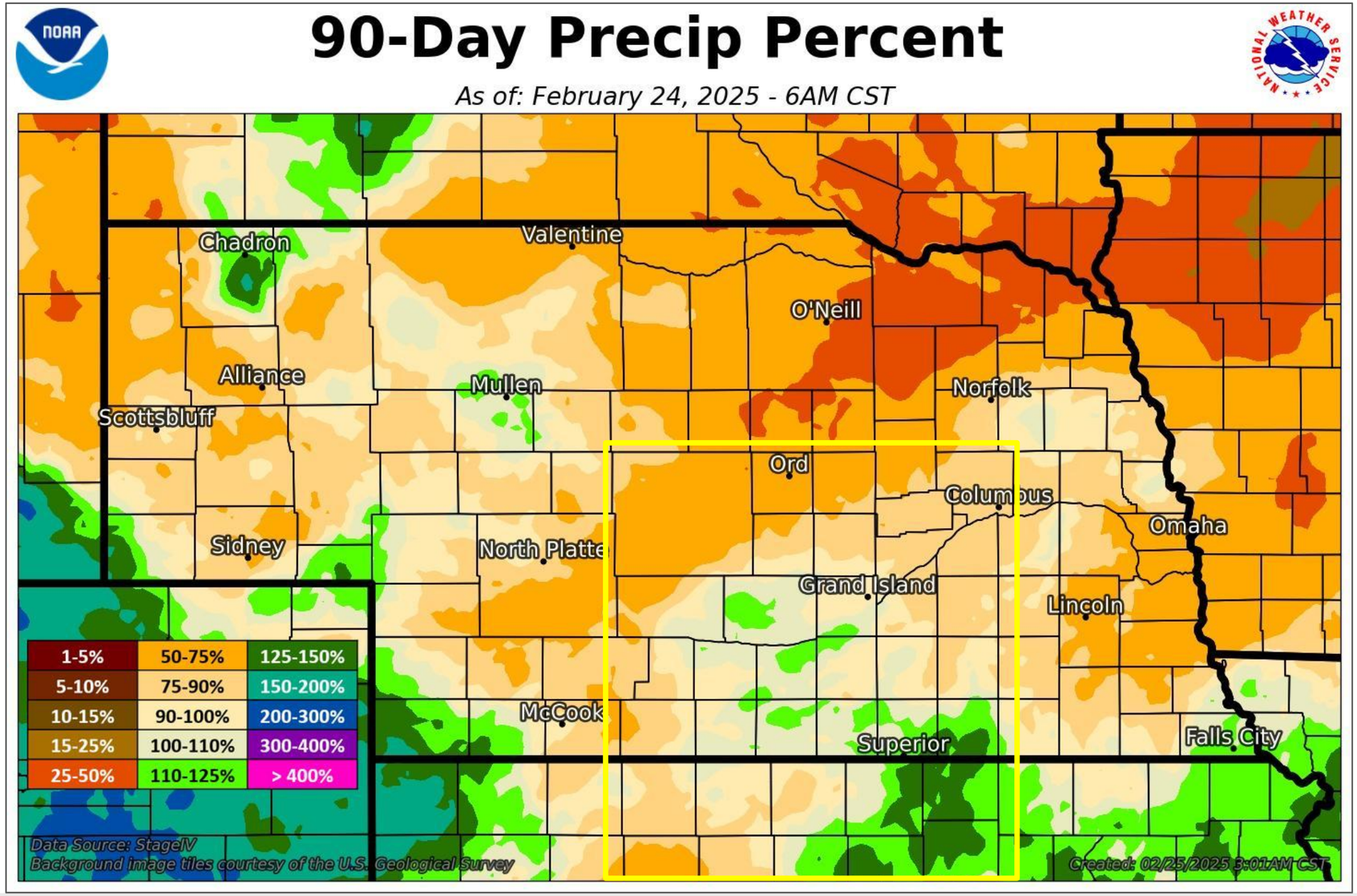
MOST of our forecast area only received 40-70% of normal precip Dec-Feb

Key Messages

- Over the last 90 days (mainly Dec-Feb), MOST of our forecast area has only received 40-70% of normal
- Overall-driest far north and west
- Overall-wettest far southeast



Western/Mountain Precipitation

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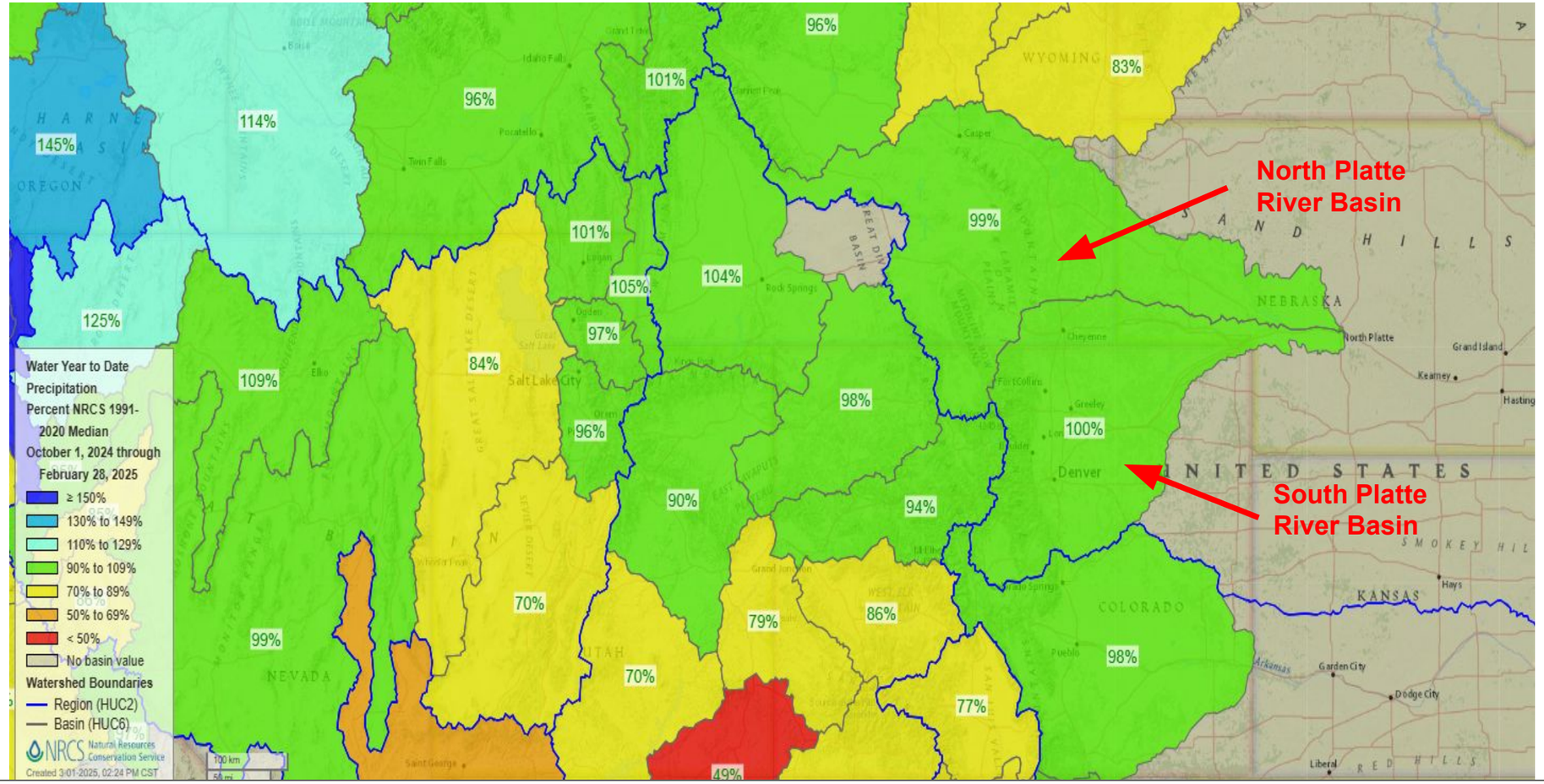
Near-Normal Water Year-To-Date Precipitation in Basins That "Feed" Platte River



Location	Today (Feet above Sea Level)	1 Week Ago	1 Month Ago	1 Year Ago
Lake McConaughy	3,237.1 = 1,023,600ac-ft (58.7% capacity)	3,236.6	3,236.3	3,240.6

7-Day Average Streamflow

As of Feb. 28

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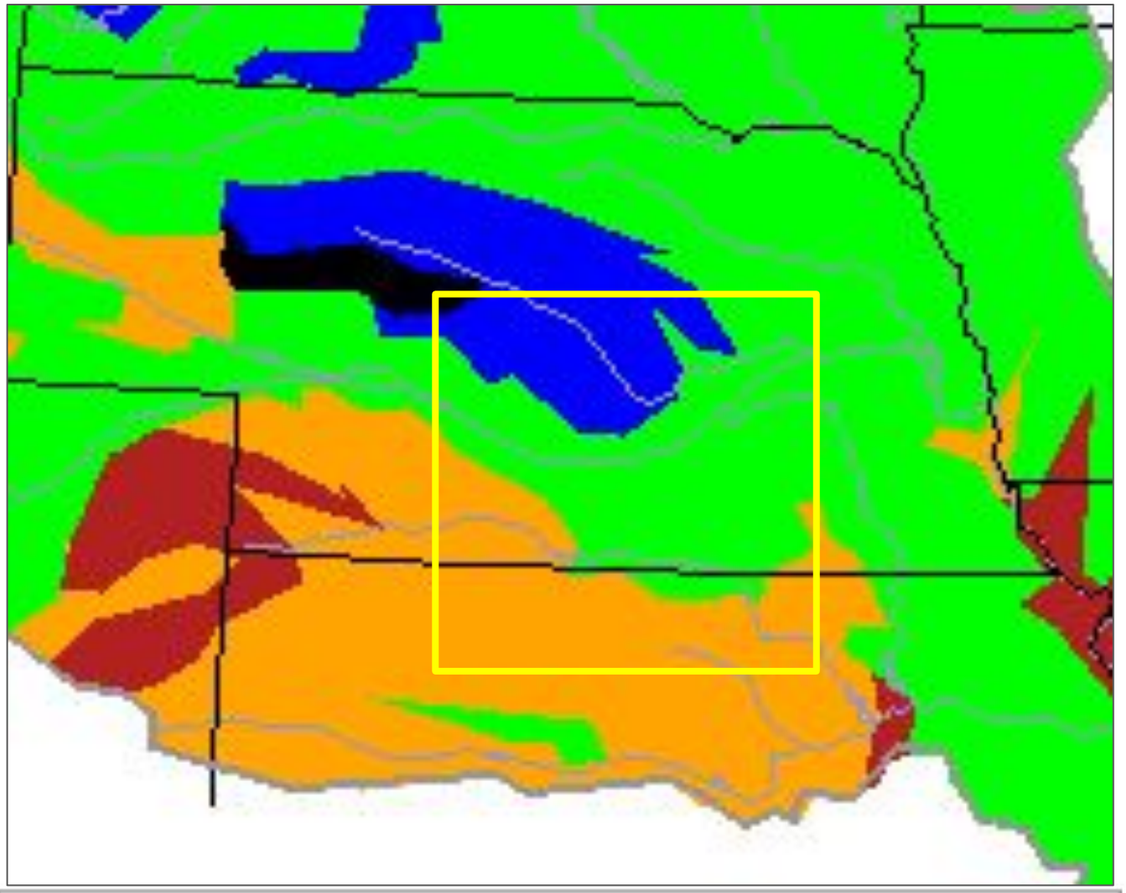
Key Messages

➔ Most rivers within our forecast area are currently running near-to-below normal streamflow

➔ An exception of above normal streamflow is noted along the Loup River(s) mainly upstream of St. Paul



Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Freezing Degree Days (FDD) at Grand Island

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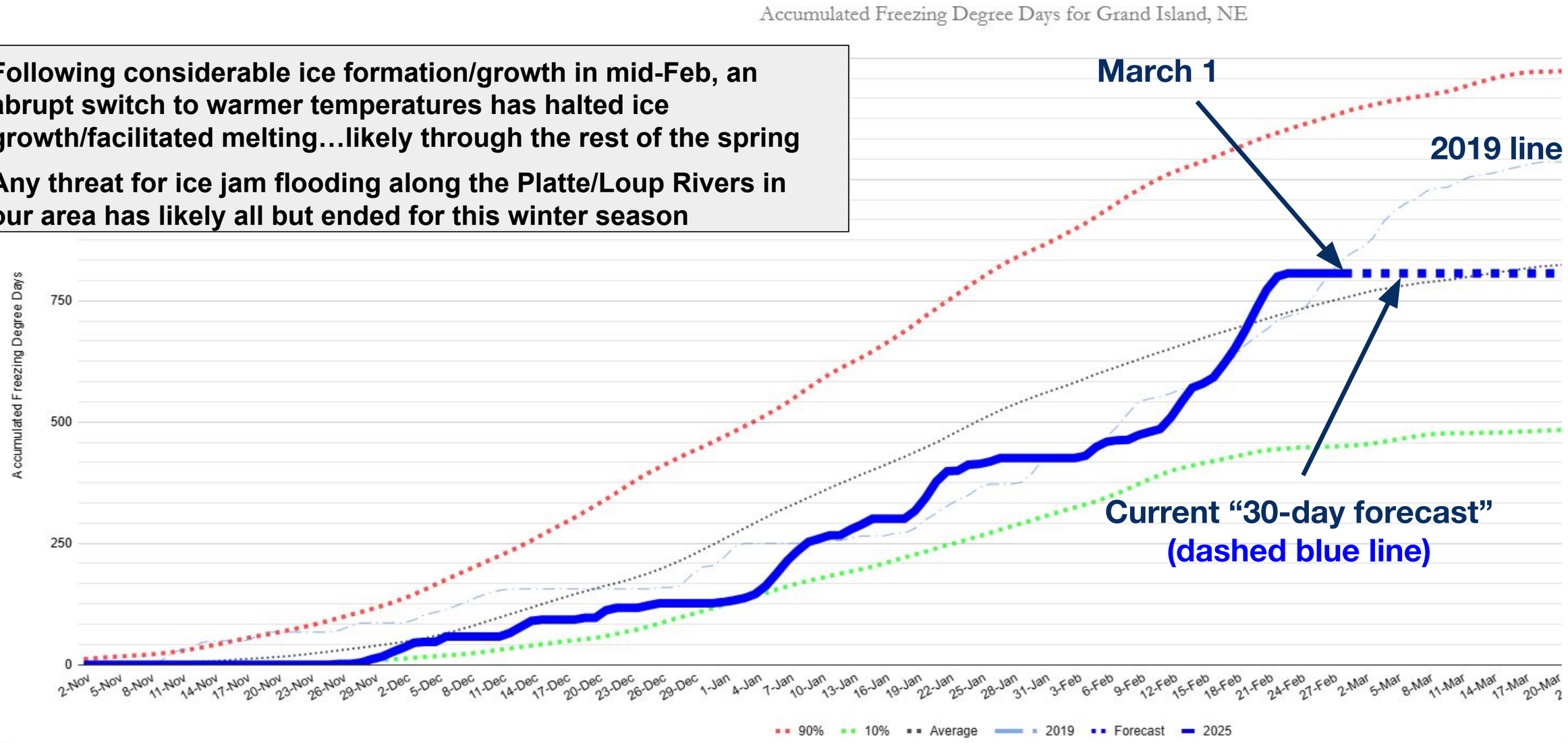
FDD indicates observed trends and future potential for ice growth on area rivers

- ➔ **Following considerable ice formation/growth in mid-Feb, an abrupt switch to warmer temperatures has halted ice growth/facilitated melting…likely through the rest of the spring**
- ➔ **Any threat for ice jam flooding along the Platte/Loup Rivers in our area has likely all but ended for this winter season**



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Soil Moisture Versus Normal

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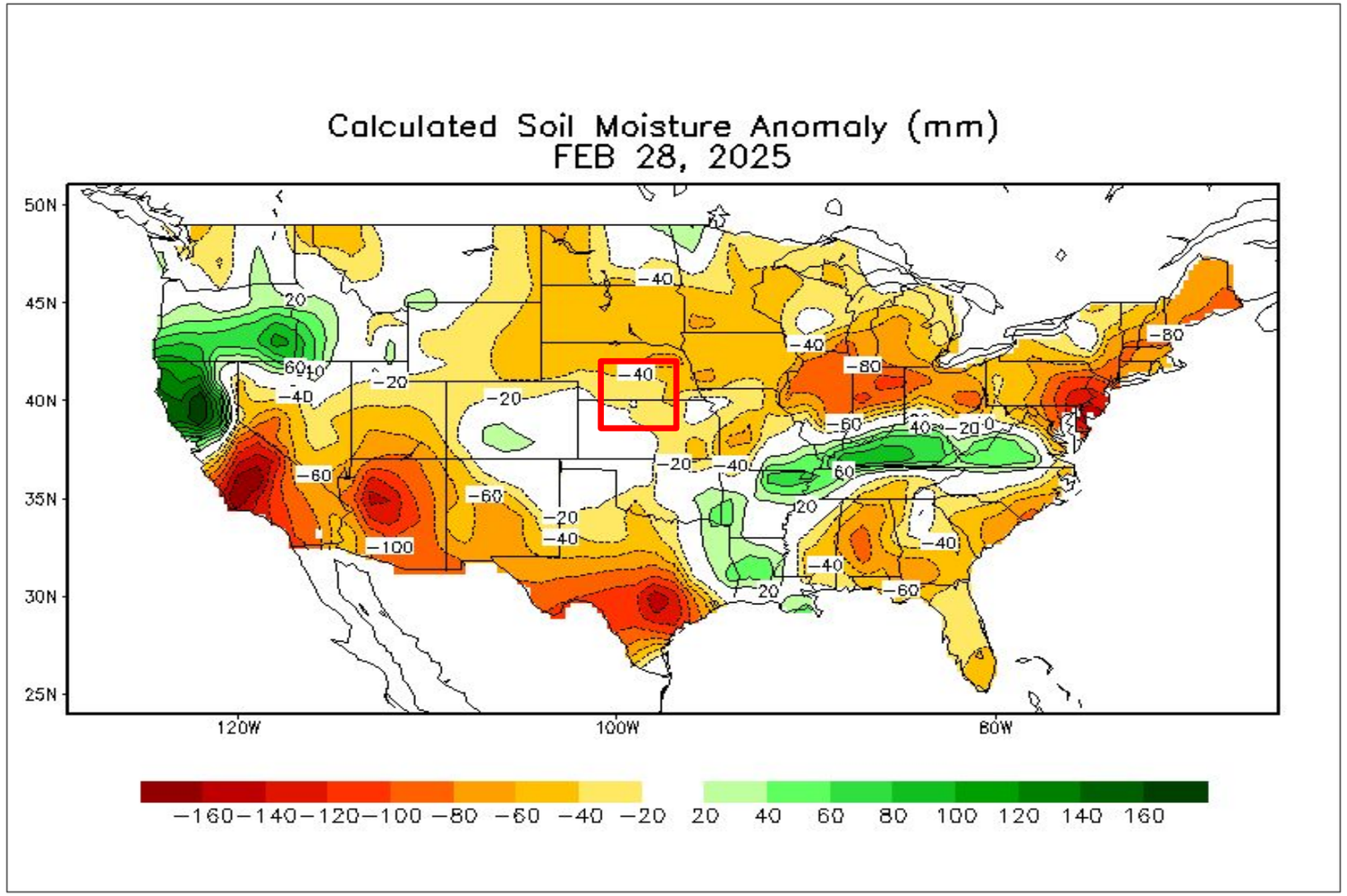
Slightly Below Normal Prevailing Locally

Key Messages

- At least slightly below normal prevailing over our area
- Soil should be able to absorb spring moisture rather efficiently



Dry Moist

Latest U.S. Drought Monitor (Feb. 25)

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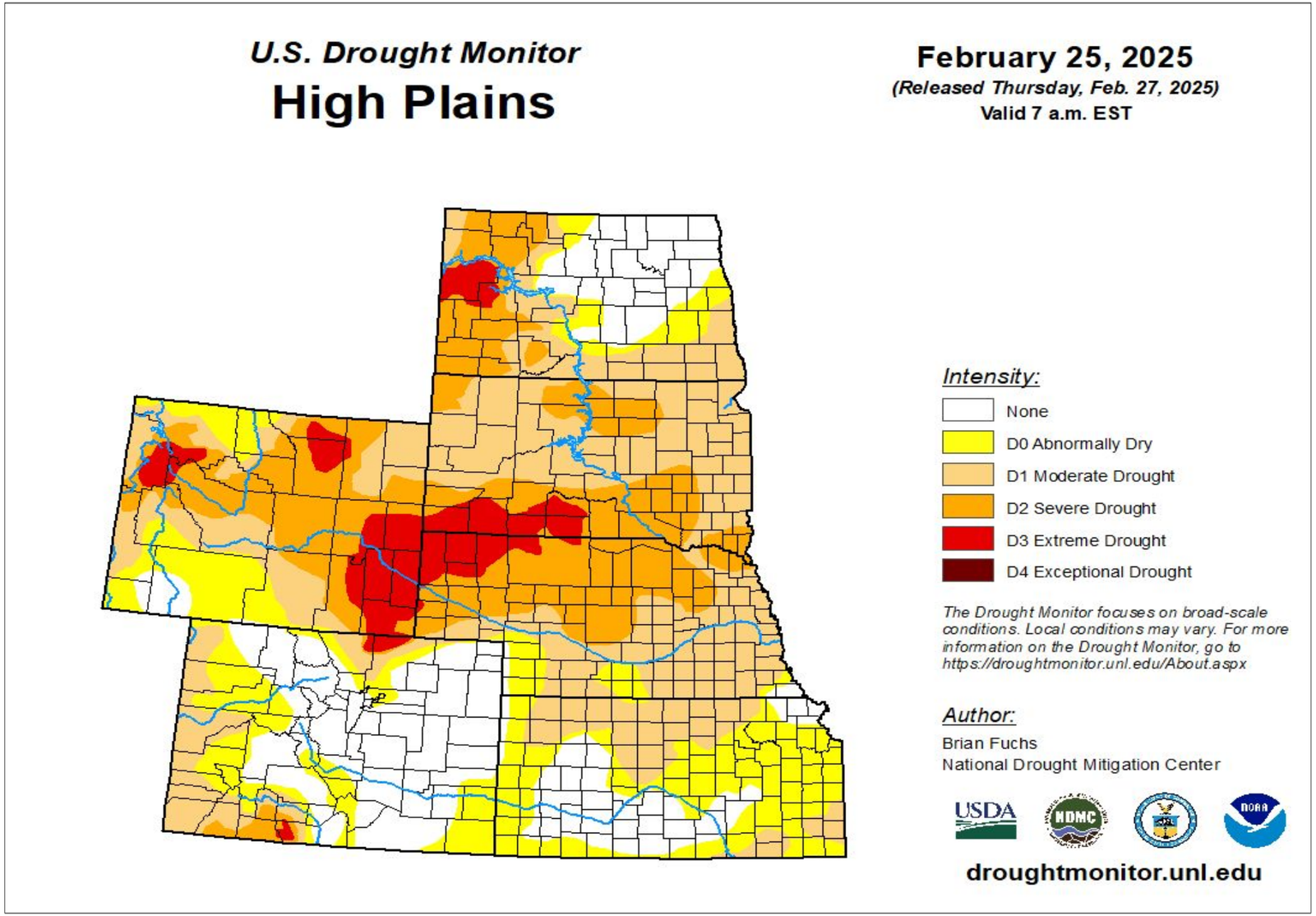
Mostly Moderate Drought (D1) Across Our Forecast Area

Key Messages

- ➔ Mostly Moderate Drought (D1) across our forecast area
- ➔ VERY LITTLE change over the last several months
- ➔ Soil should be able to absorb spring moisture rather efficiently



Next 7 Days Total Precip (MARCH 2-8)

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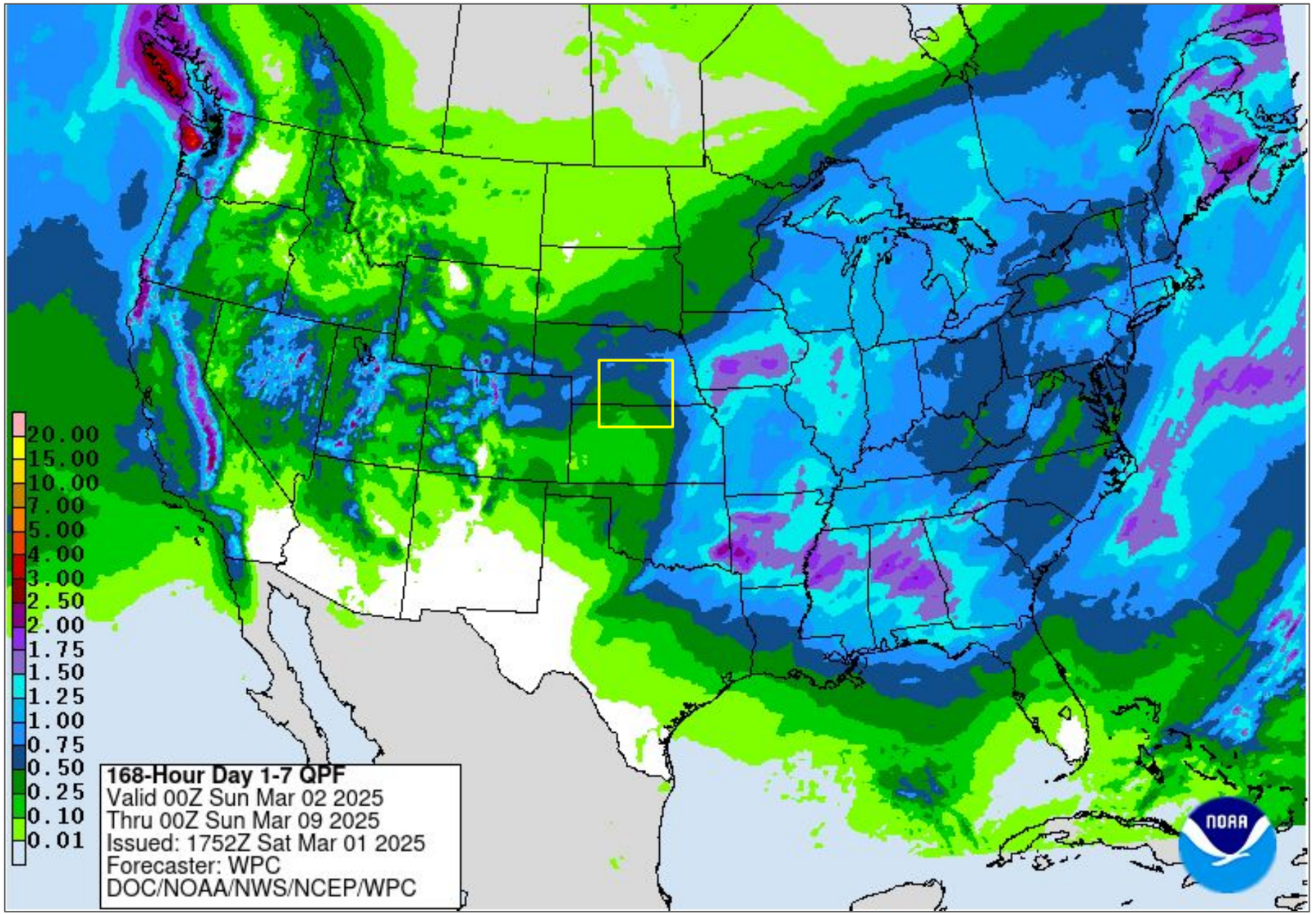
A fairly active weather pattern with two primary low pressure systems

Key Messages

- ➔ MOST of our forecast area is expected to receive 0.25-0.75” *(mix of rain and snow)*
- ➔ The majority of this precipitation is anticipated to fall Mon night-Tues night *(March 3-5)*
- ➔ Especially with soil continuing to thaw, currently not expecting enough precipitation to cause flooding concerns



8-14 Day Outlook (MARCH 9-15)

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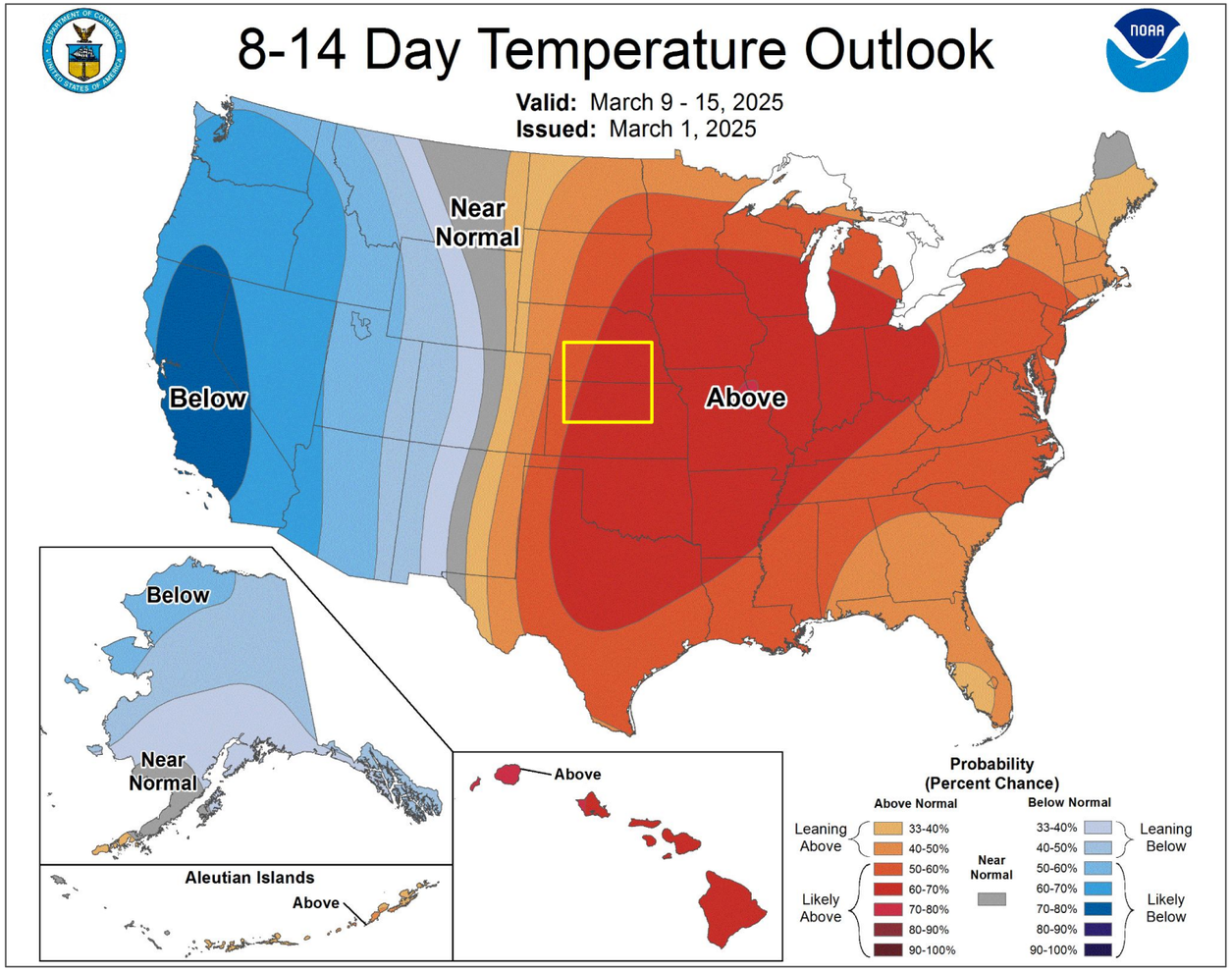
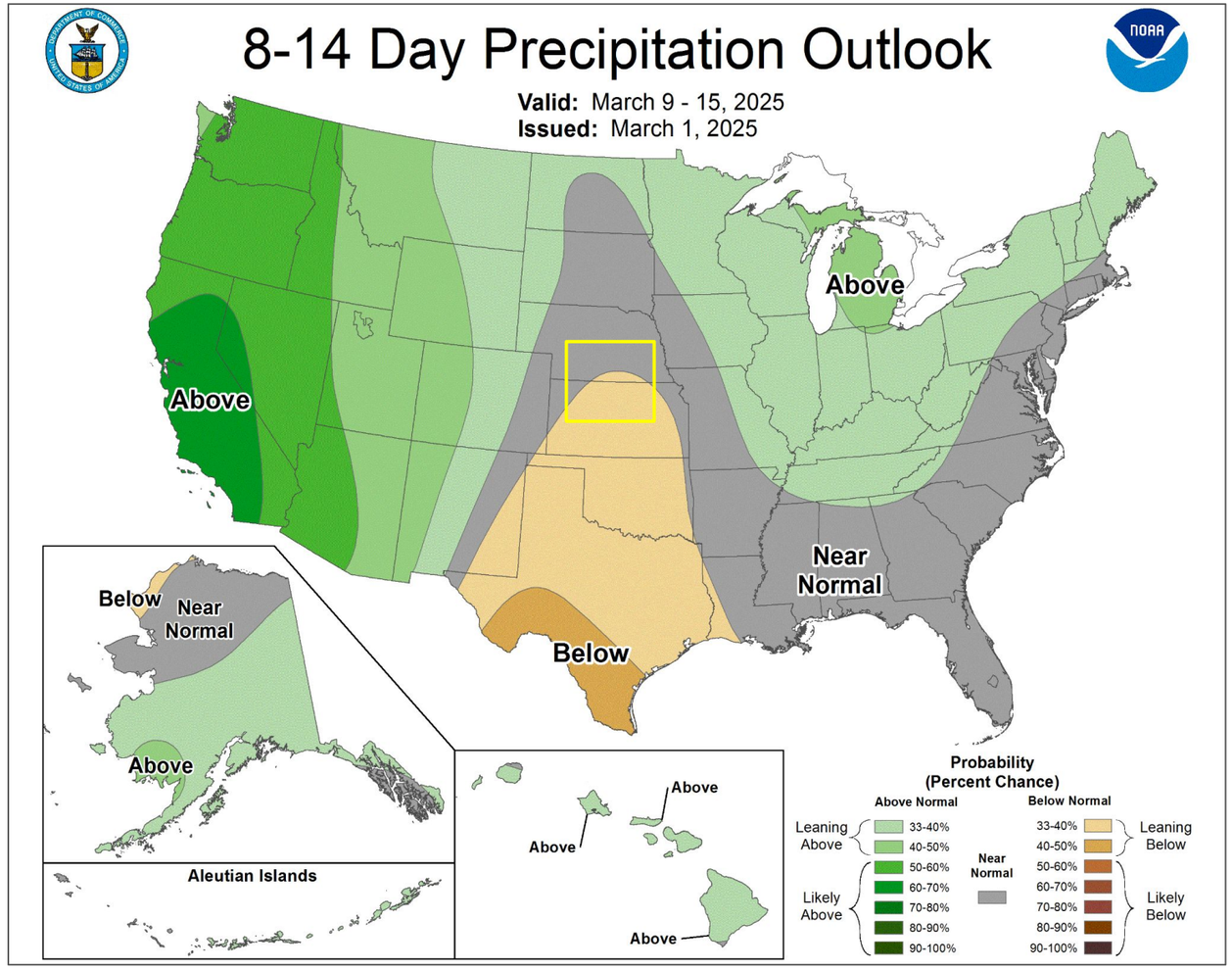
Above normal temperatures likely…slight lean toward below normal precip

March 9-15



March 9-15



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One-Month Outlook (MARCH)

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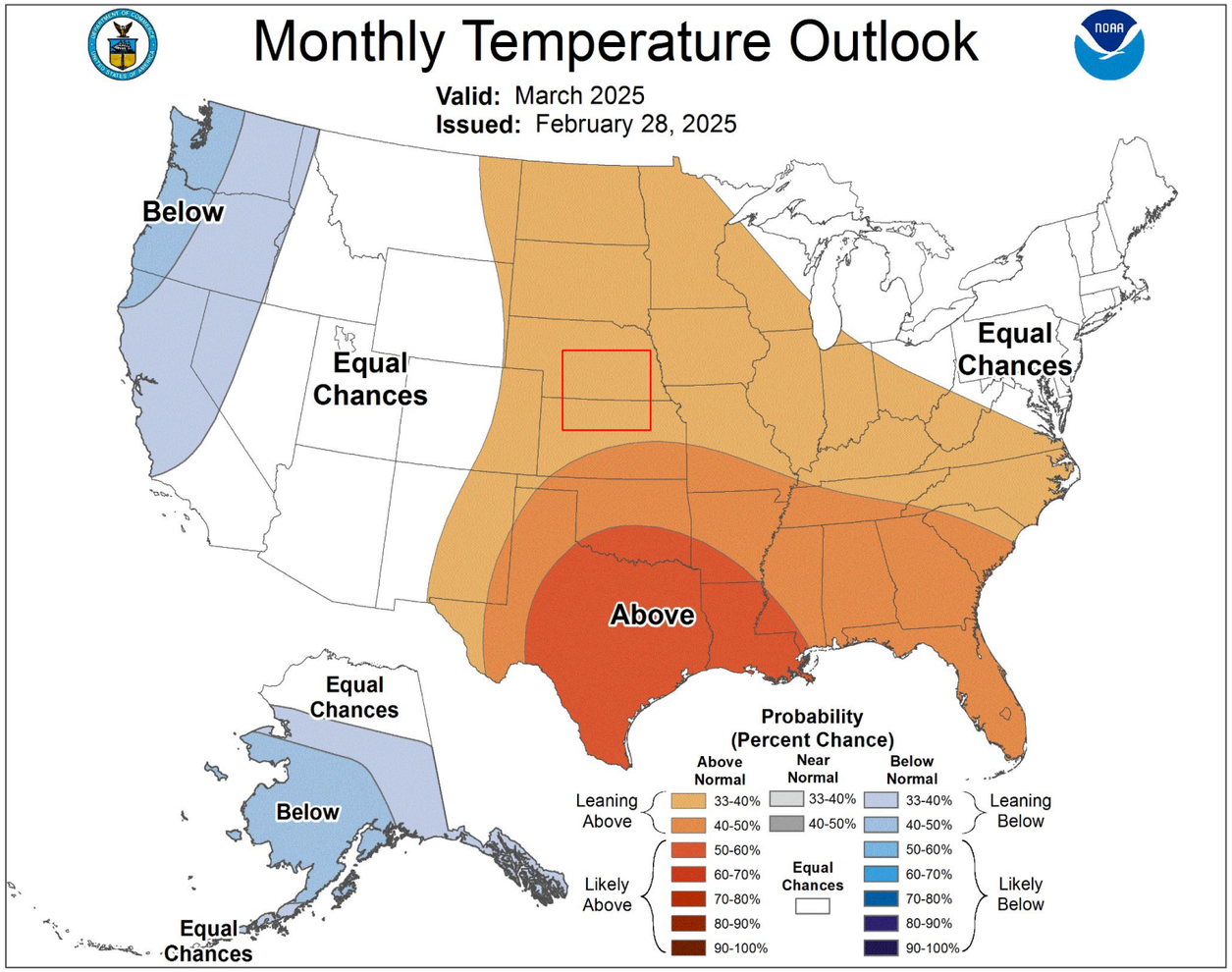
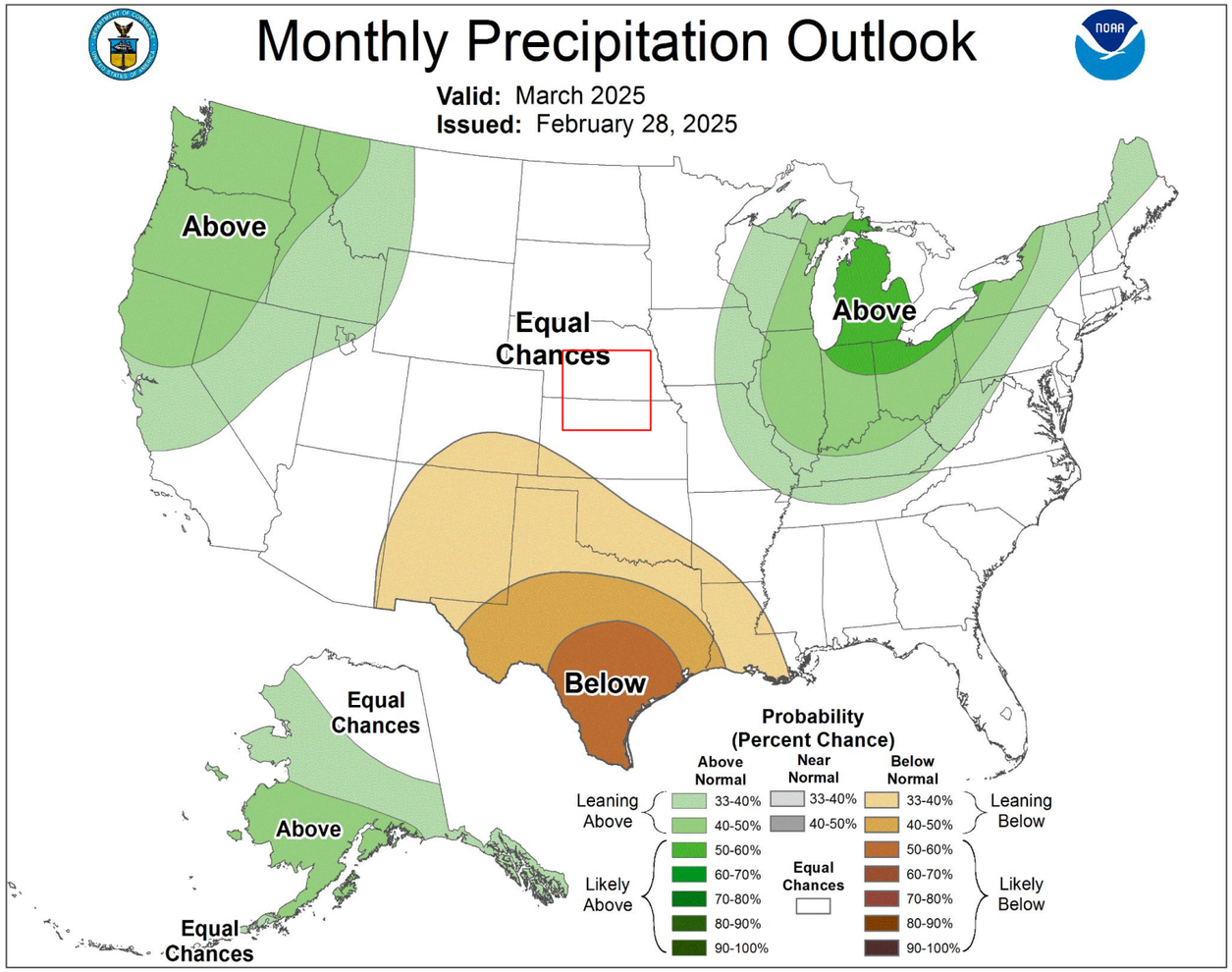
Slight lean toward above normal temps…no clear signal regarding precipitation

March



March



Three Month Outlook (MARCH-MAY)

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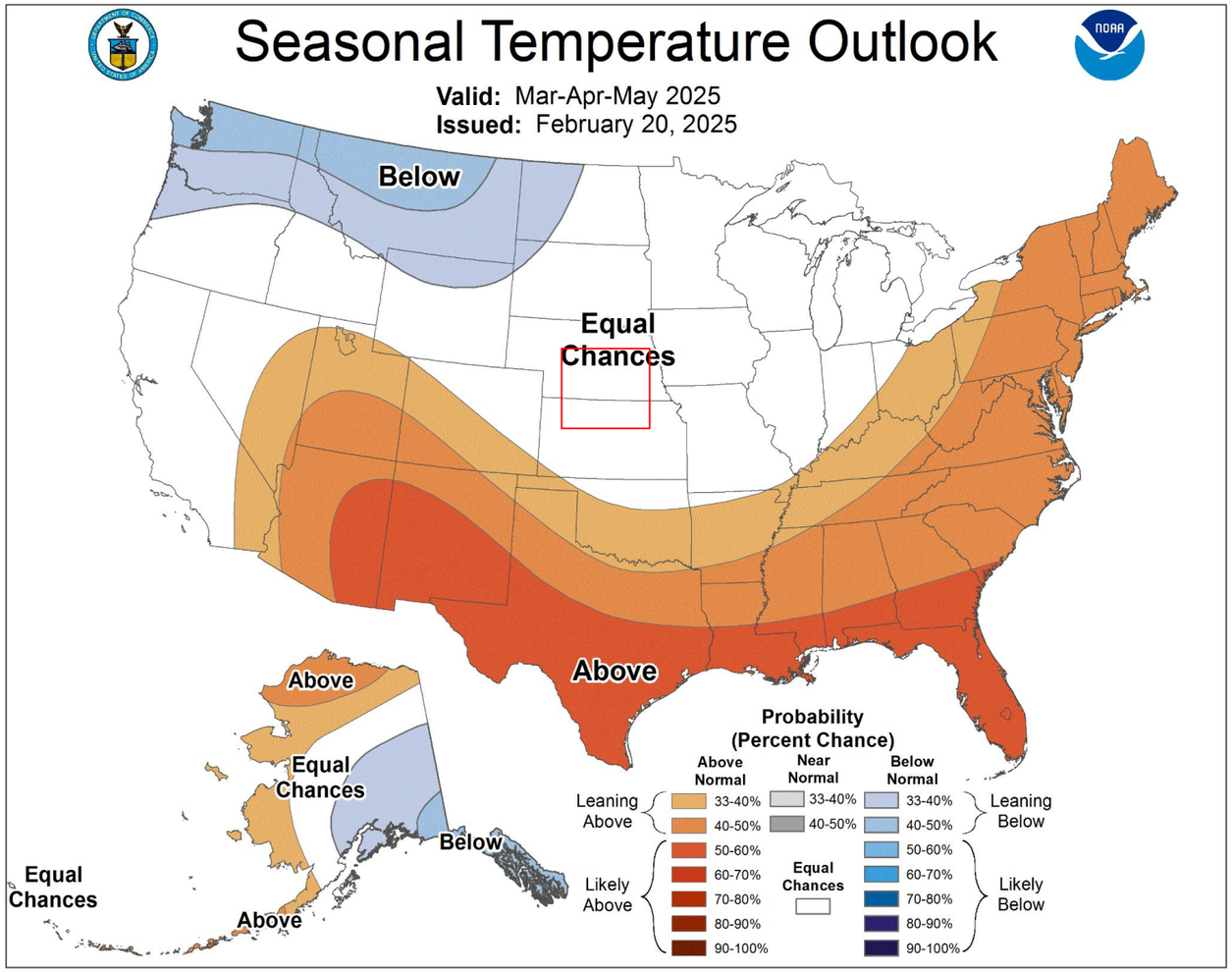
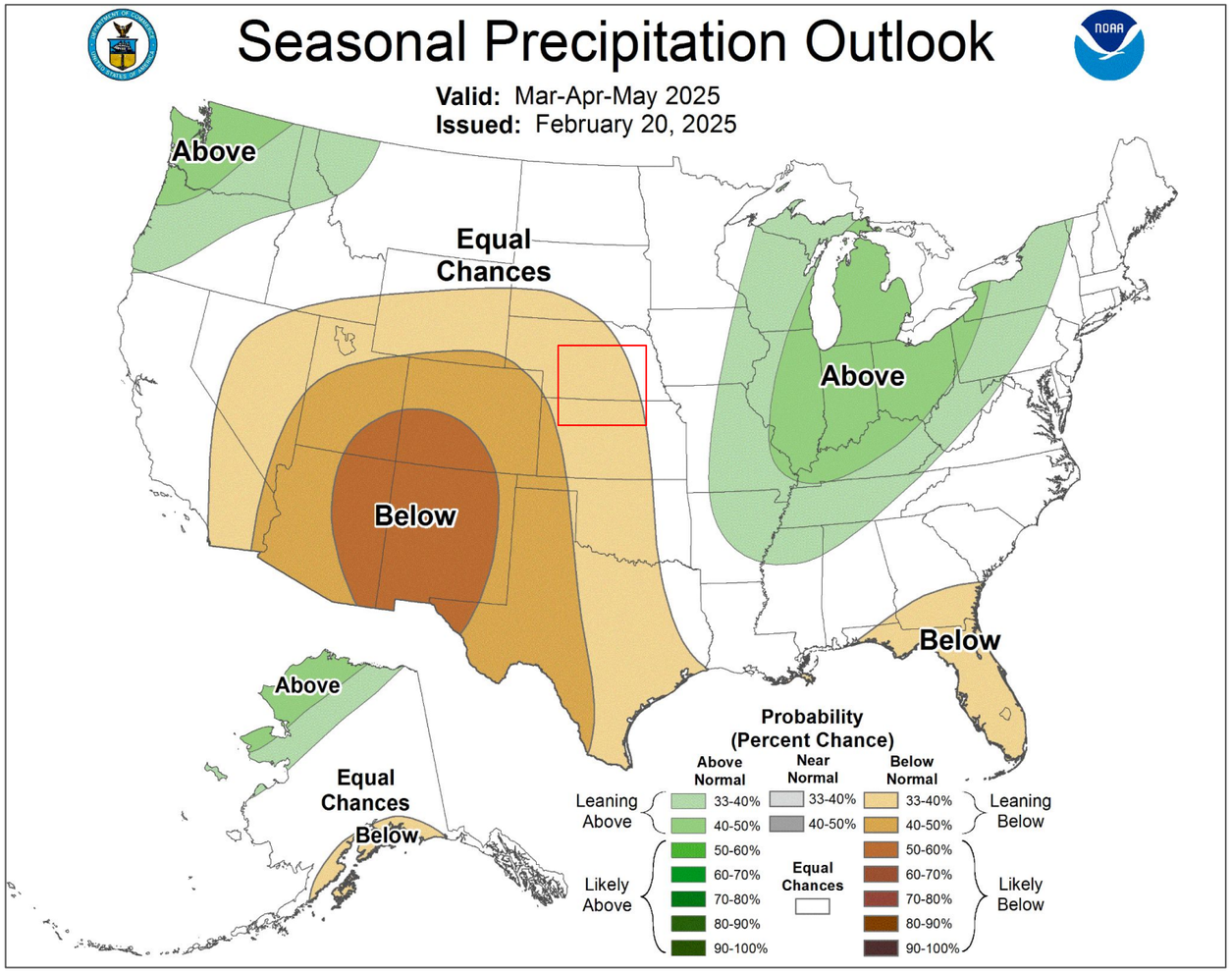
Slight lean toward below normal precip…no clear signal regarding temperatures

March - May



March - May



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This Concludes 2025 Spring Flood Outlook #2

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NEXT ISSUANCE: Thursday, March 13, 2025

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