

# 2025 Spring Flood Outlook

## March 4, 2025

USACE St. Louis District  
Flood Preparedness Meeting  
Troy, Missouri

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National Weather Service  
St. Louis, MO

NWS St. Louis



# Spring Flood Outlook 2025

Bottom Line Up Front:

- **Significant (moderate or major) flooding is not likely anywhere.**
- **Mississippi River:** Minor flooding unlikely anywhere along the Mississippi River except at Chester. This is a well below average risk.
- **Missouri River:** Minor flooding unlikely from Jefferson City to St. Charles. This is a well below average risk.
- **Illinois River:** Minor flooding likely by early May (below normal risk).
- **Local tributaries:** Near to below average flood risk, with flooding unlikely in most locations.

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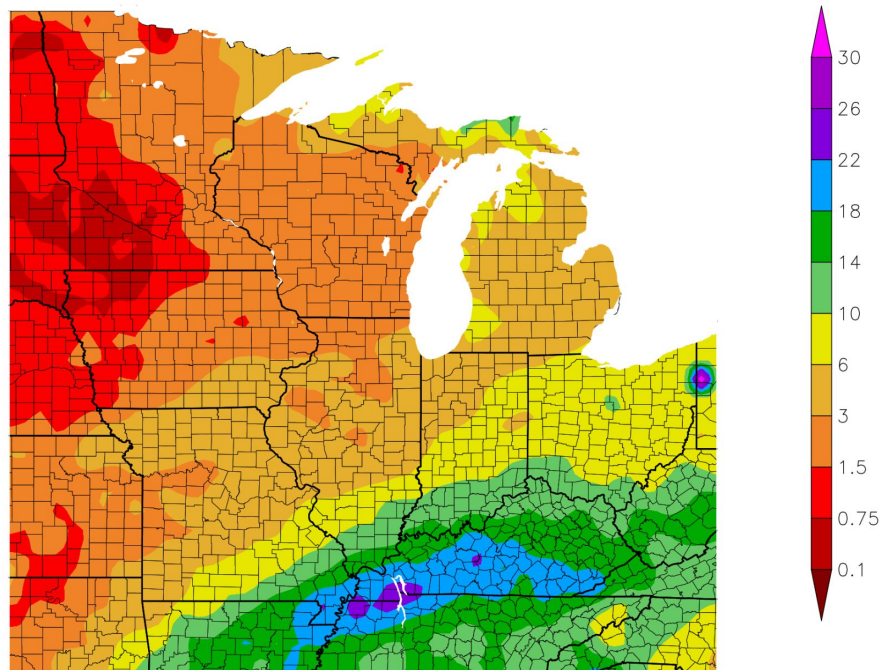


# Factors we look at for spring flooding:

- Precipitation in major river basins
- Snowpack in major river basins
- Soil moisture in area basins
- Current flow in area rivers

# Spring Flood Outlook 2025

Precipitation (in)  
12/4/2024 – 3/3/2025



Generated 3/4/2025 at HPRCC using provisional data.

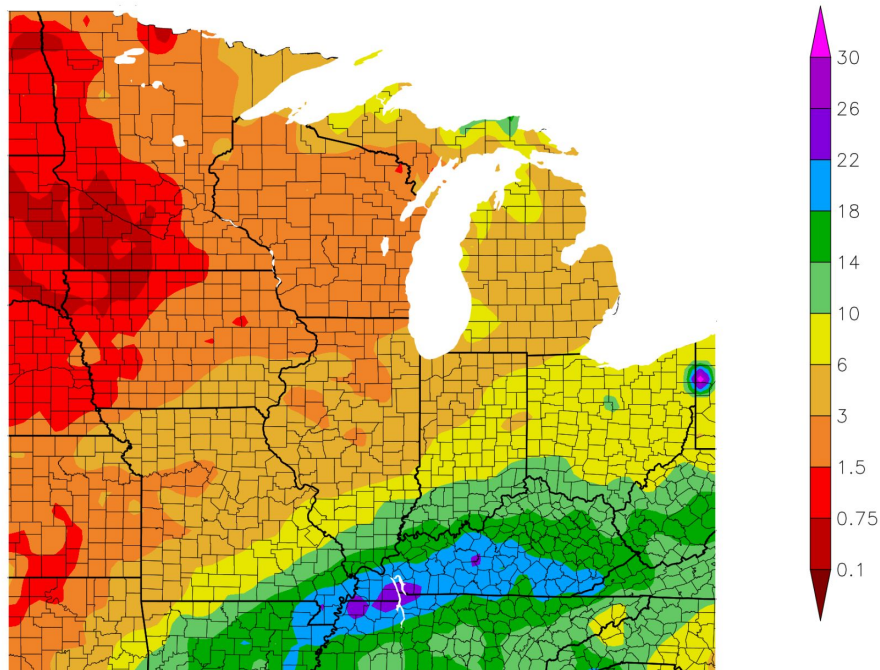
NOAA Regional Climate Centers

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# Spring Flood Outlook 2025

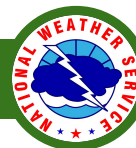
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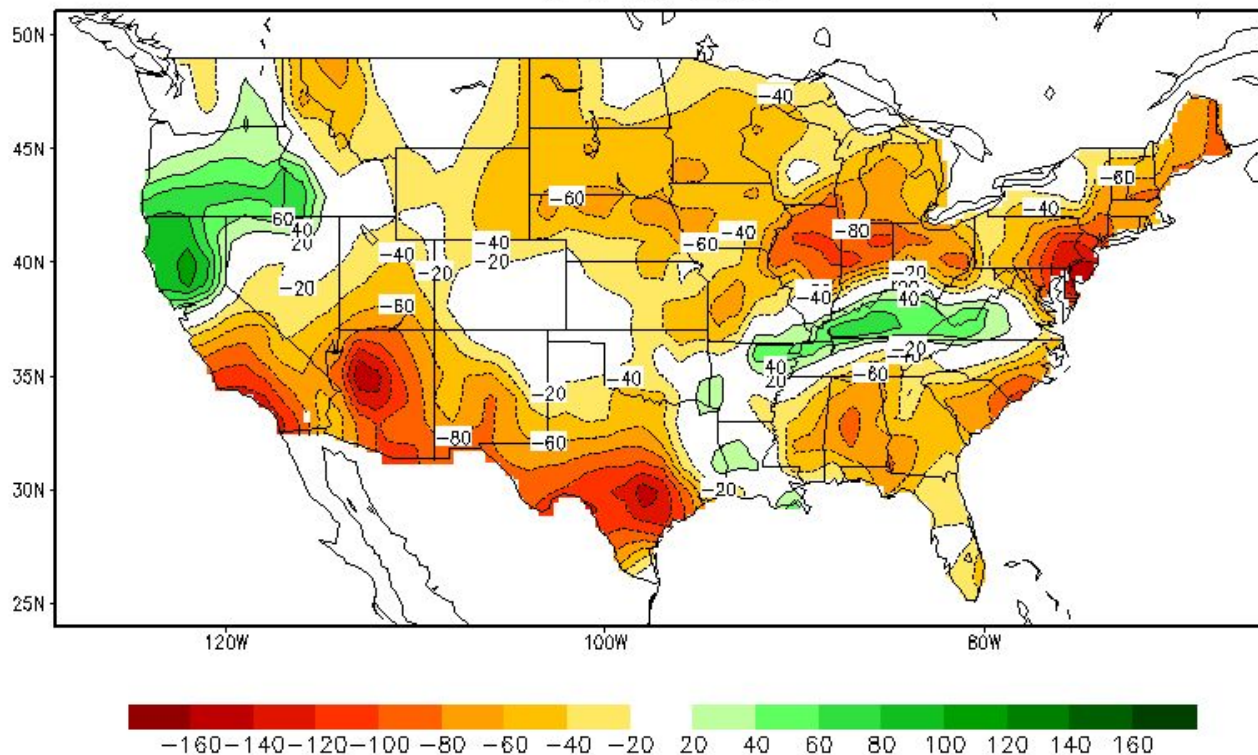
NOAA Regional Climate Centers

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# Spring Flood Outlook 2023 - Soil Moisture Percentiles

Calculated Soil Moisture Anomaly (mm)  
MAR 03, 2025

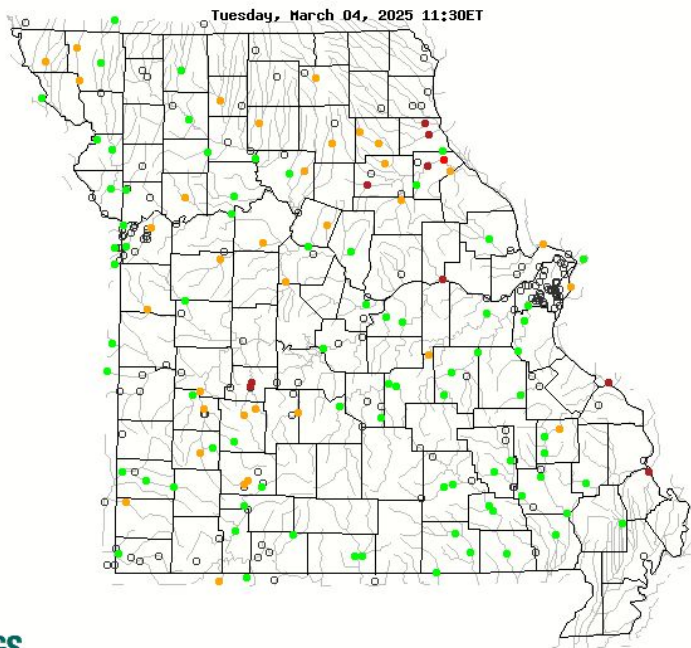


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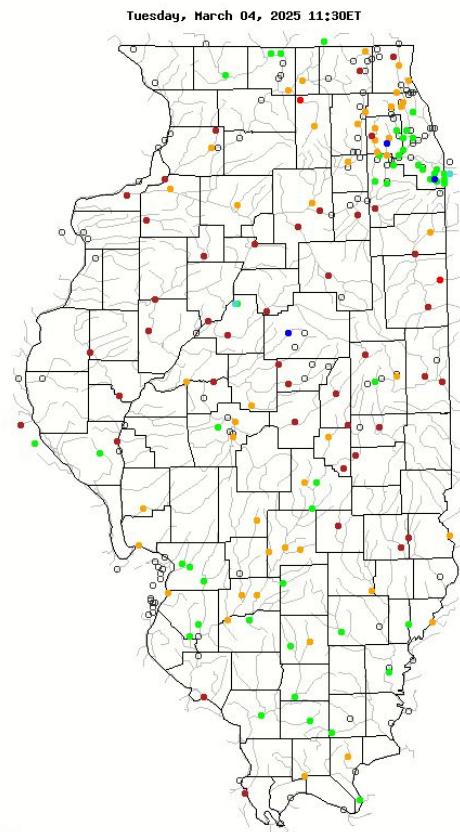
# Spring Flood Outlook 2023 - Streamflow



USGS

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

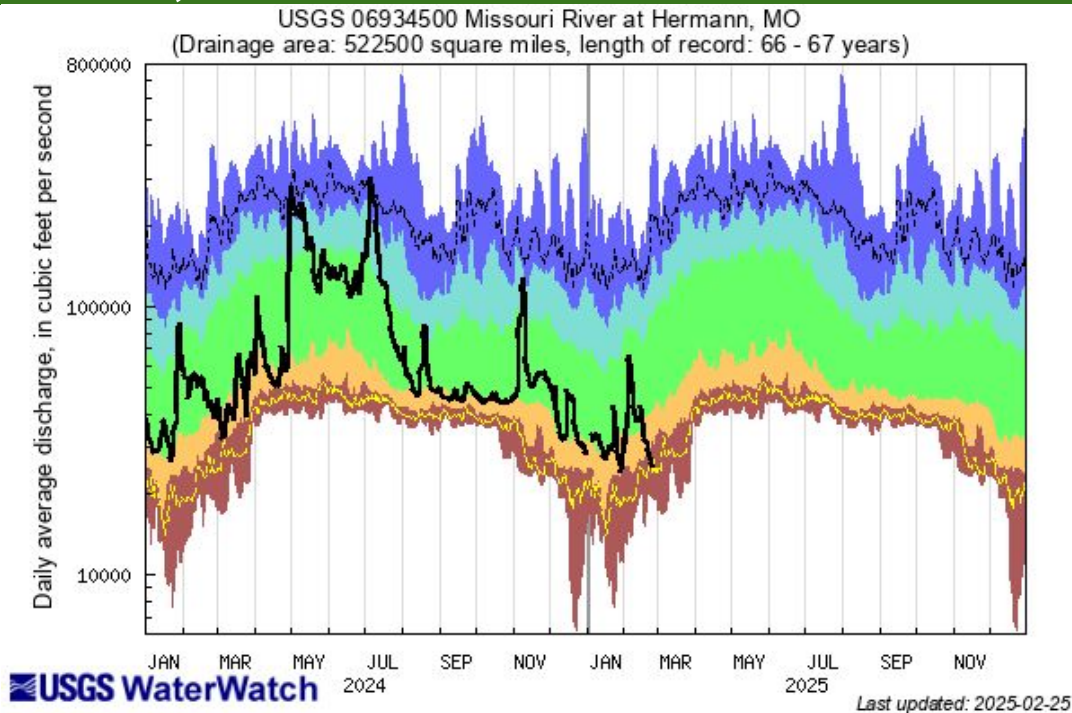
USGS









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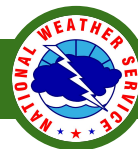


# Missouri River at Hermann, MO



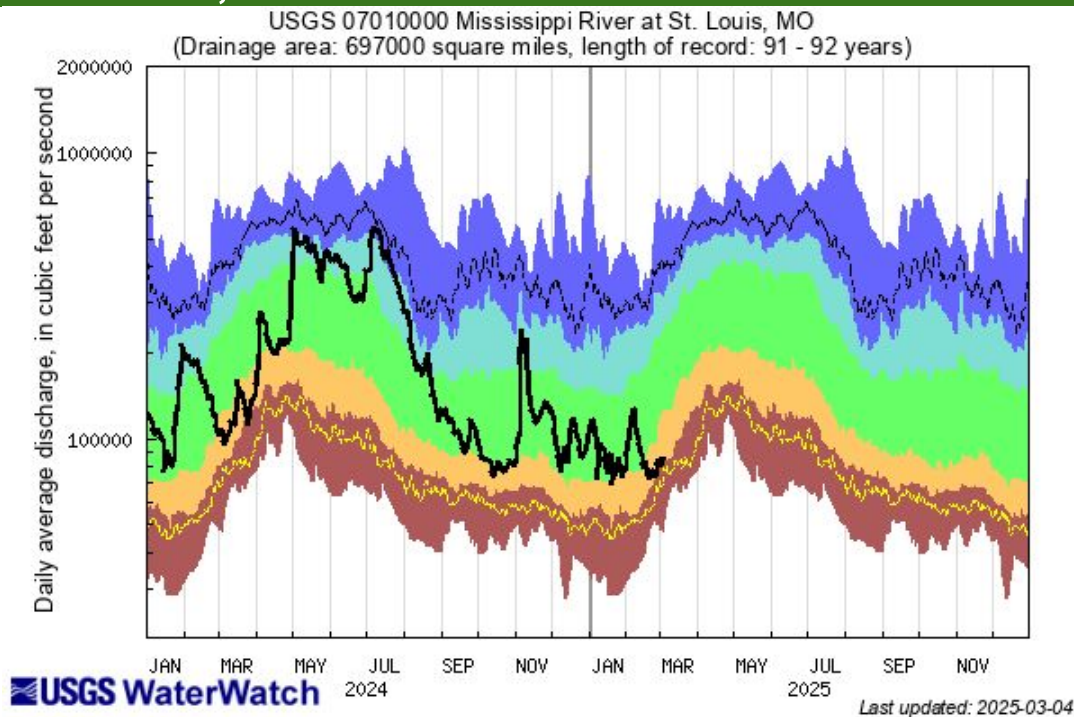
Explanation - Percentile classes						Flow
						
lowest-10th percentile	5	10-24	25-75	76-90	95 90th percentile - highest	
Much below Normal	Below normal	Normal	Above normal	Much above normal		

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# Mississippi River at St. Louis, MO

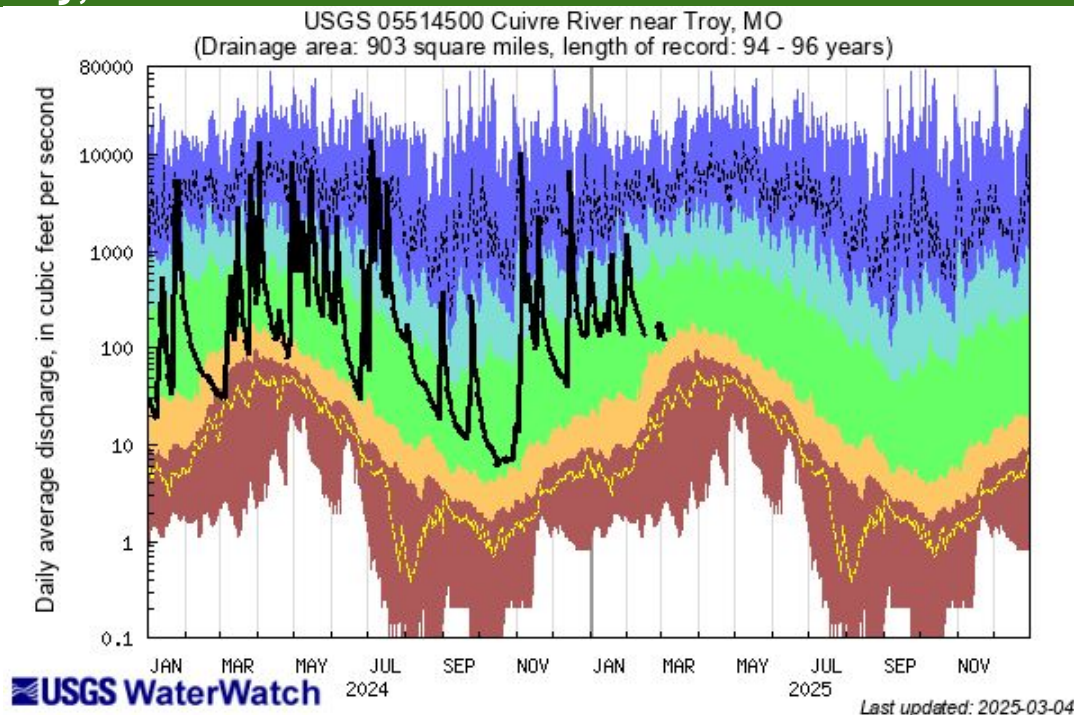


Explanation - Percentile classes							Flow
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile - highest	
Much below Normal	Below normal	Normal	Above normal	Much above normal			

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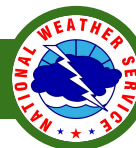


# Cuivre River near Troy, MO

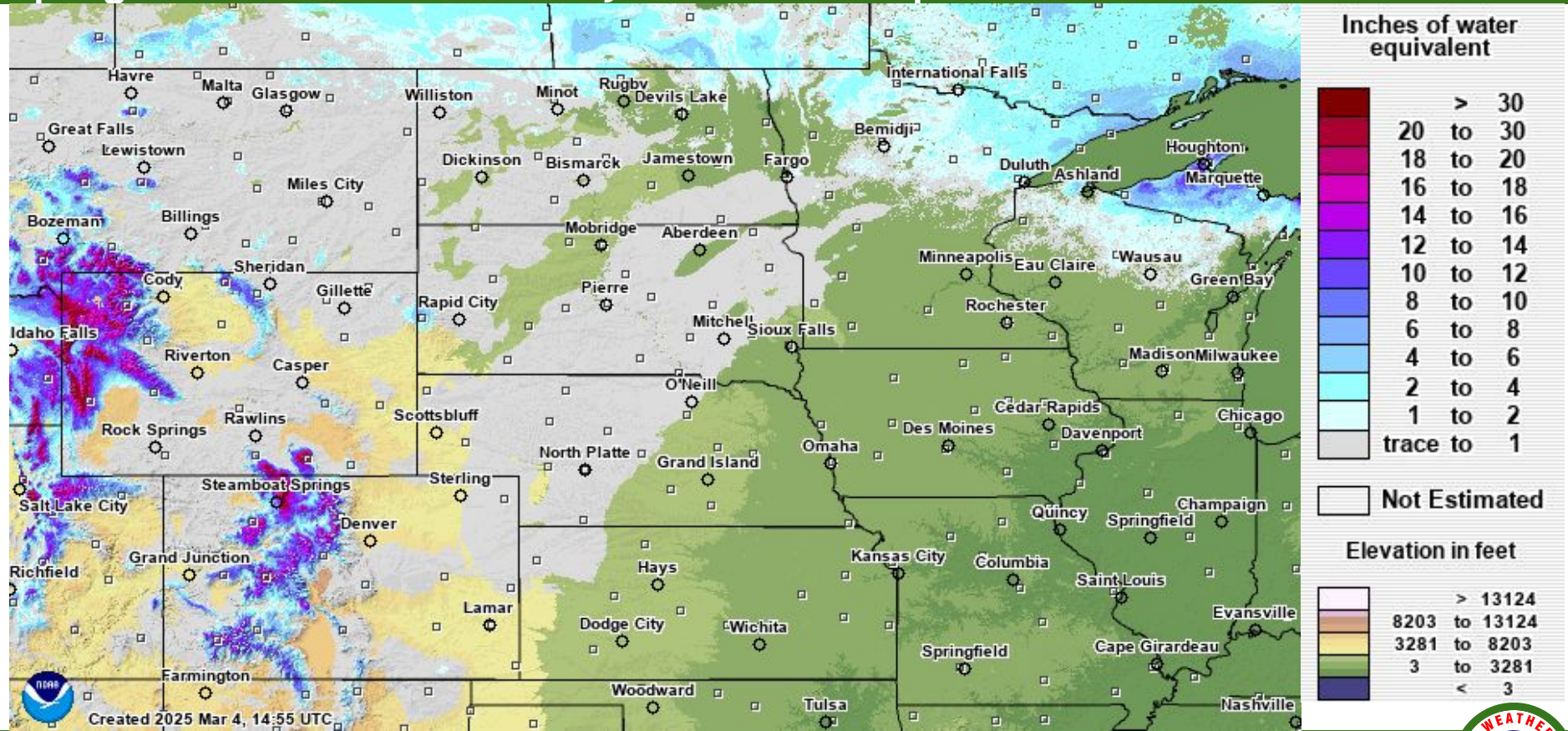


Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile - highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

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# Spring Flood Outlook 2025 - Today's Snow Water Equivalent



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# 6-10 Day Temperature Outlook

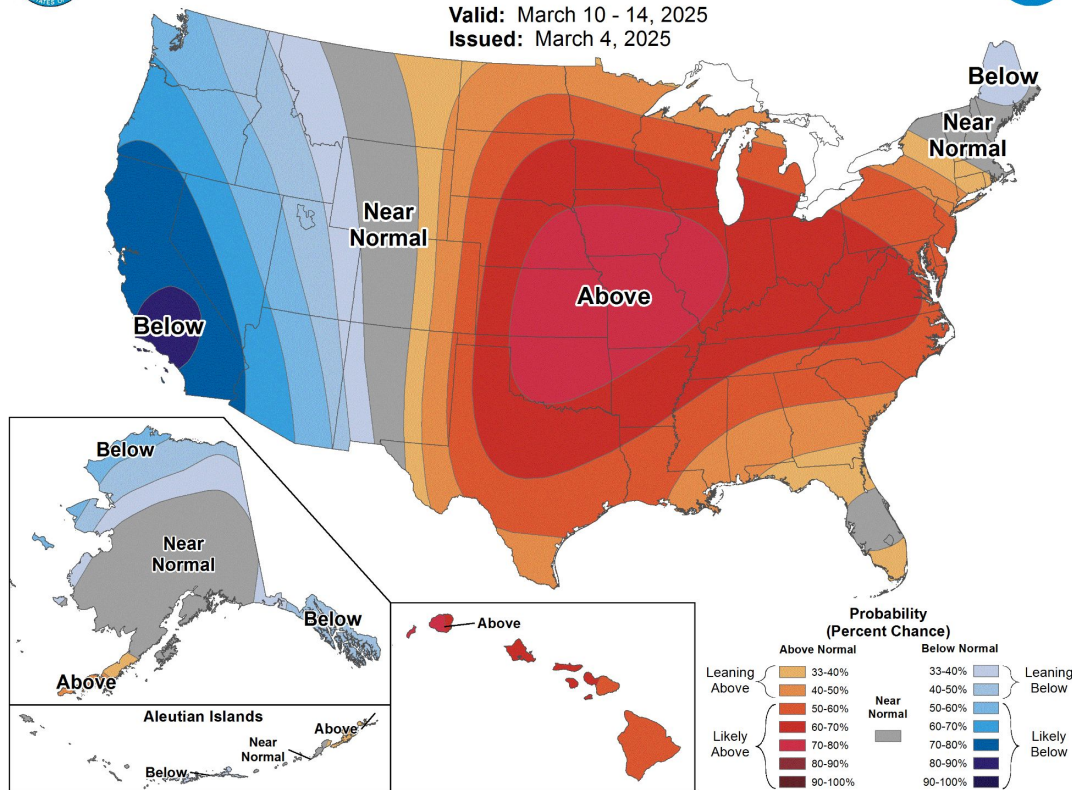


## 6-10 Day Temperature Outlook



Valid: March 10 - 14, 2025

Issued: March 4, 2025



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# 6-10 Day Precipitation Outlook

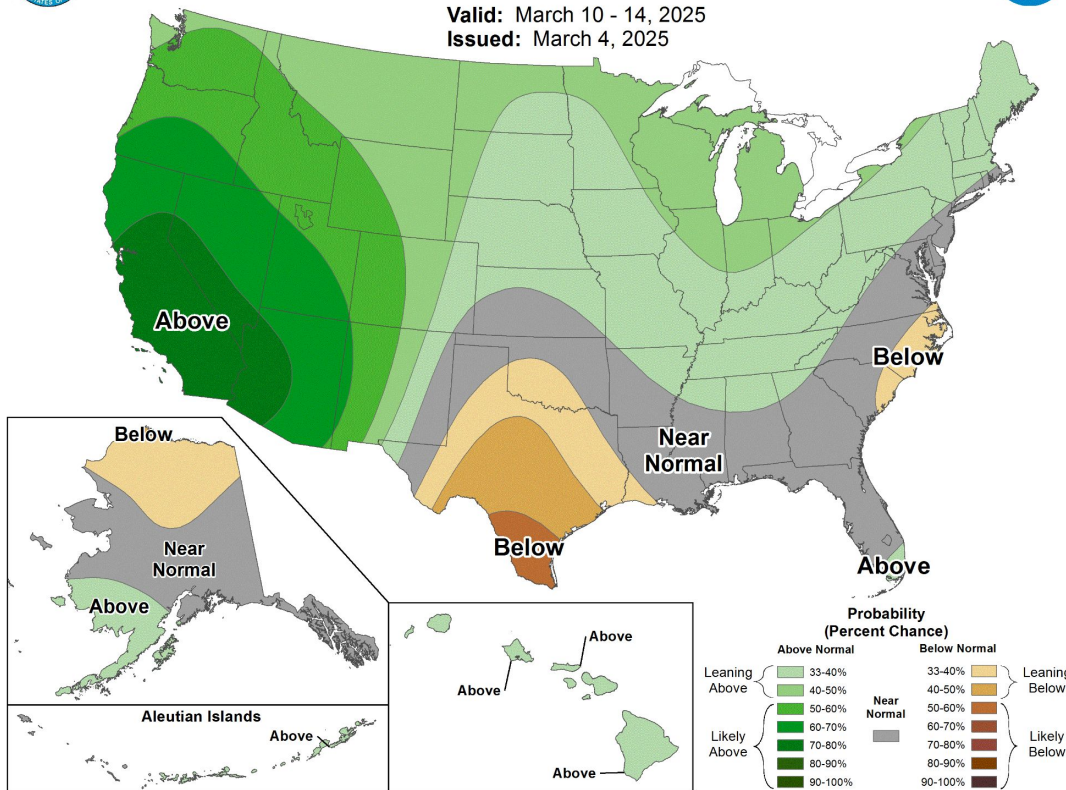


## 6-10 Day Precipitation Outlook



Valid: March 10 - 14, 2025

Issued: March 4, 2025



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# 8-14 Day Temperature Outlook

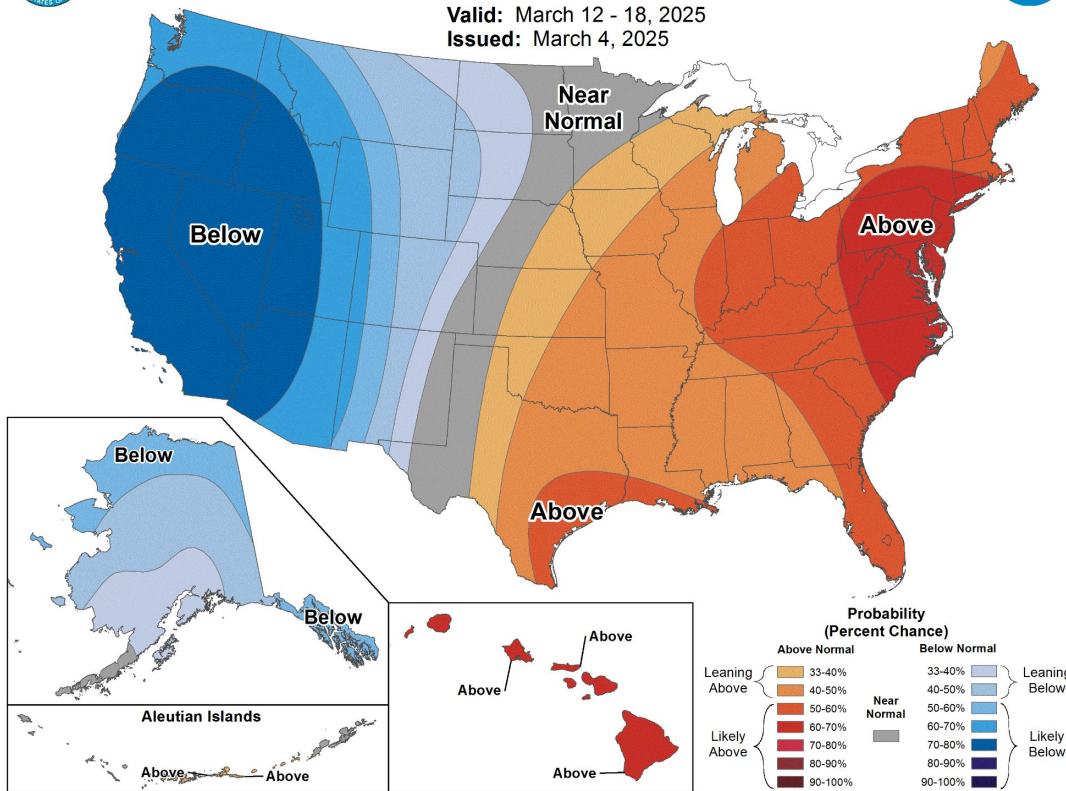


## 8-14 Day Temperature Outlook



Valid: March 12 - 18, 2025

Issued: March 4, 2025



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# 8-14 Day Precipitation Outlook

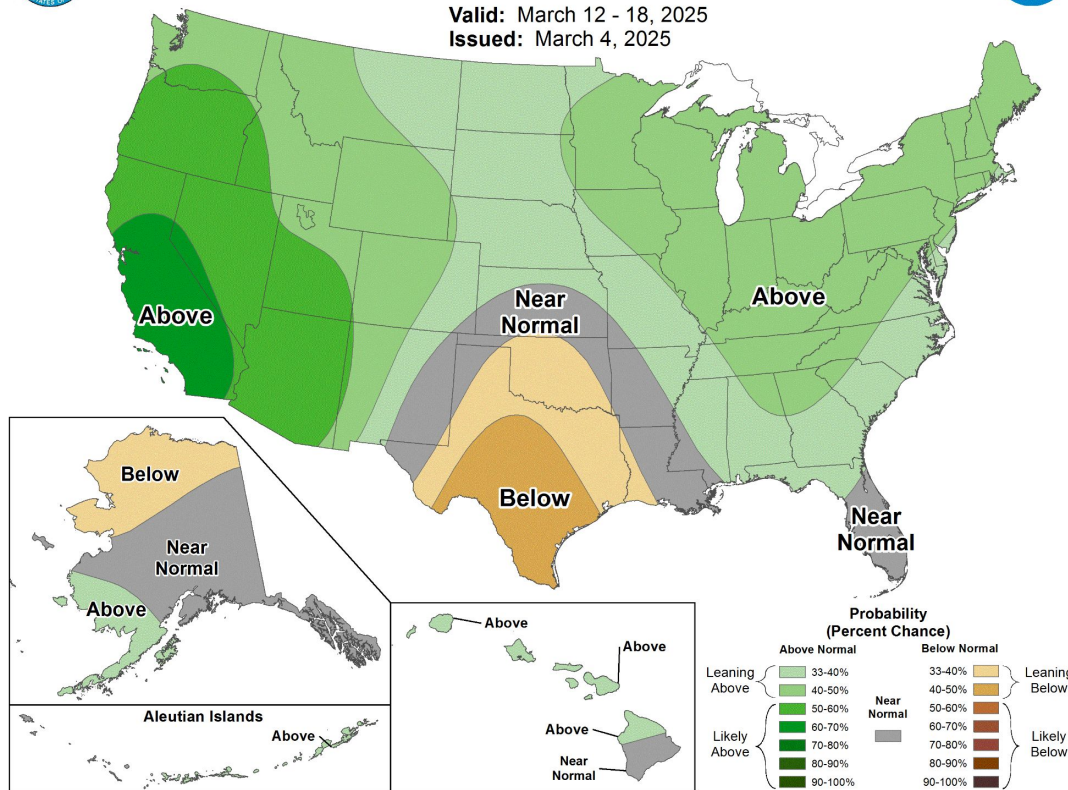


## 8-14 Day Precipitation Outlook



Valid: March 12 - 18, 2025

Issued: March 4, 2025



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# March Temperature Outlook

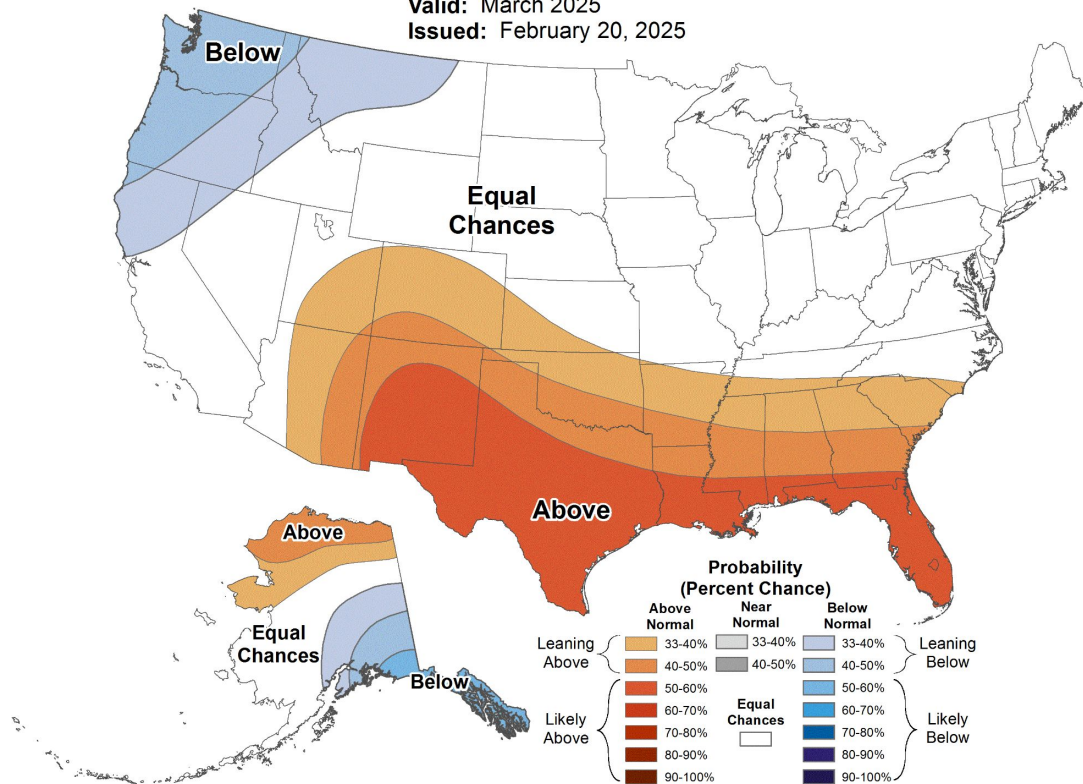


## Monthly Temperature Outlook

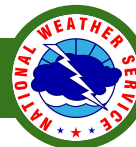


Valid: March 2025

Issued: February 20, 2025



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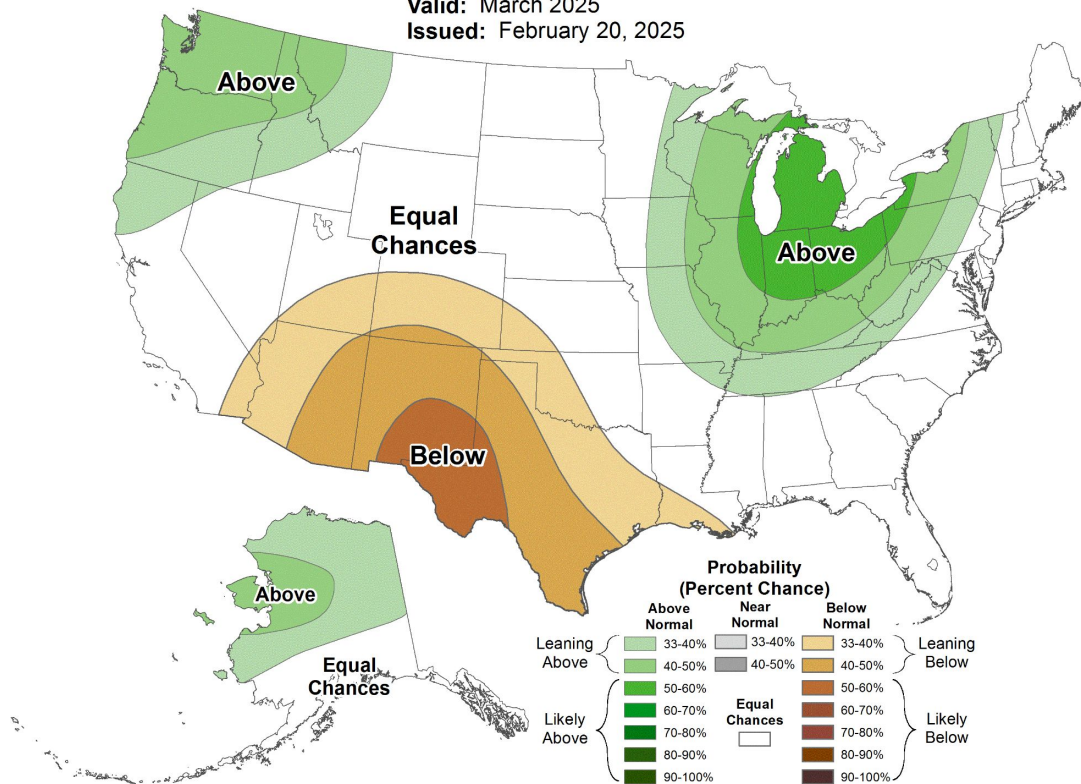
# March Precipitation Outlook



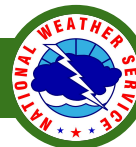
## Monthly Precipitation Outlook



Valid: March 2025  
Issued: February 20, 2025



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# 90-Day Temperature Outlook (March-May)

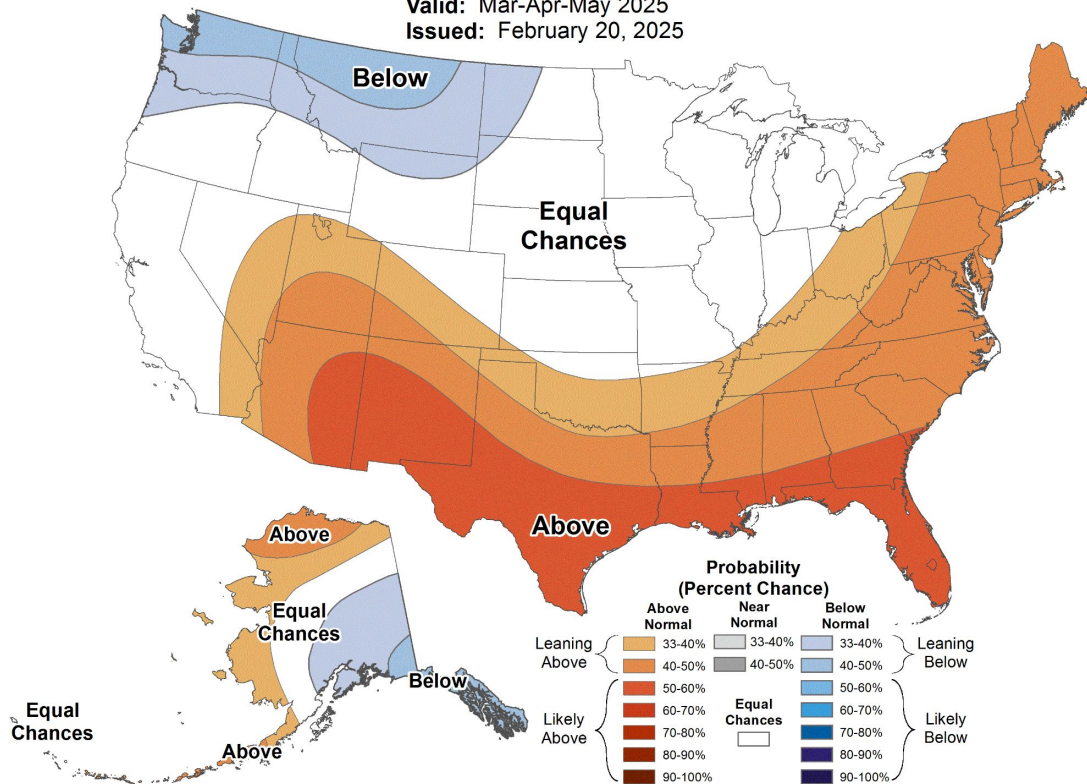


## Seasonal Temperature Outlook



Valid: Mar-Apr-May 2025

Issued: February 20, 2025



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# 90-Day Precipitation Outlook (March-May)

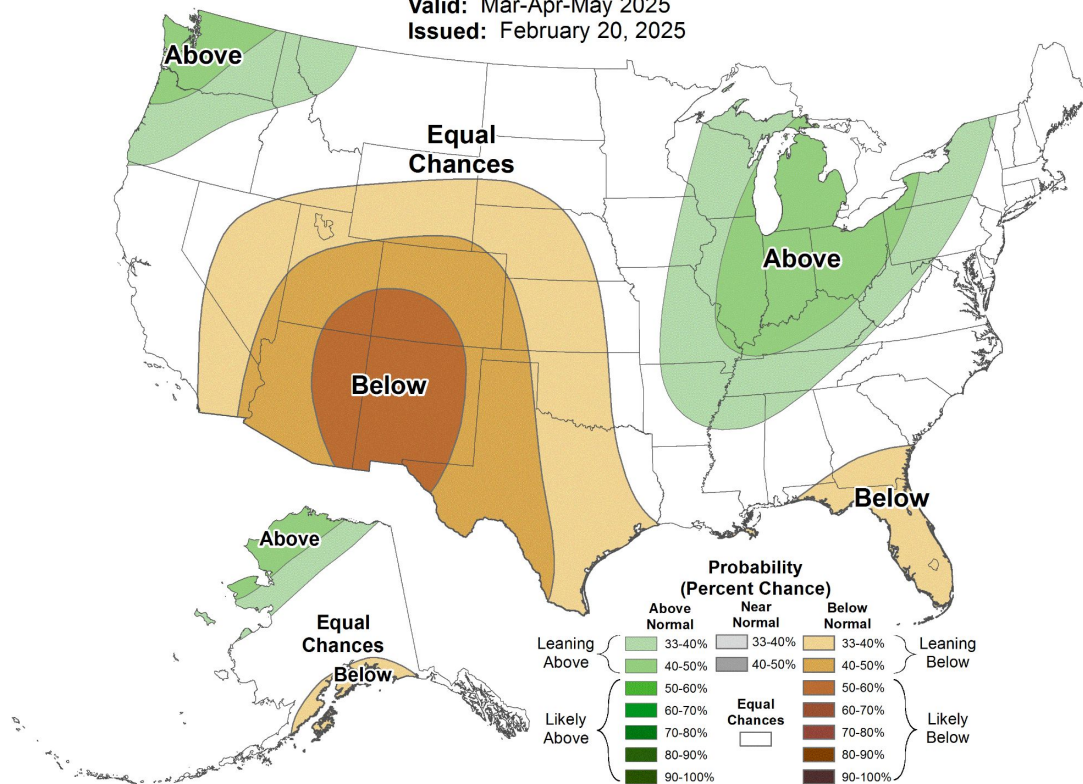


## Seasonal Precipitation Outlook



Valid: Mar-Apr-May 2025

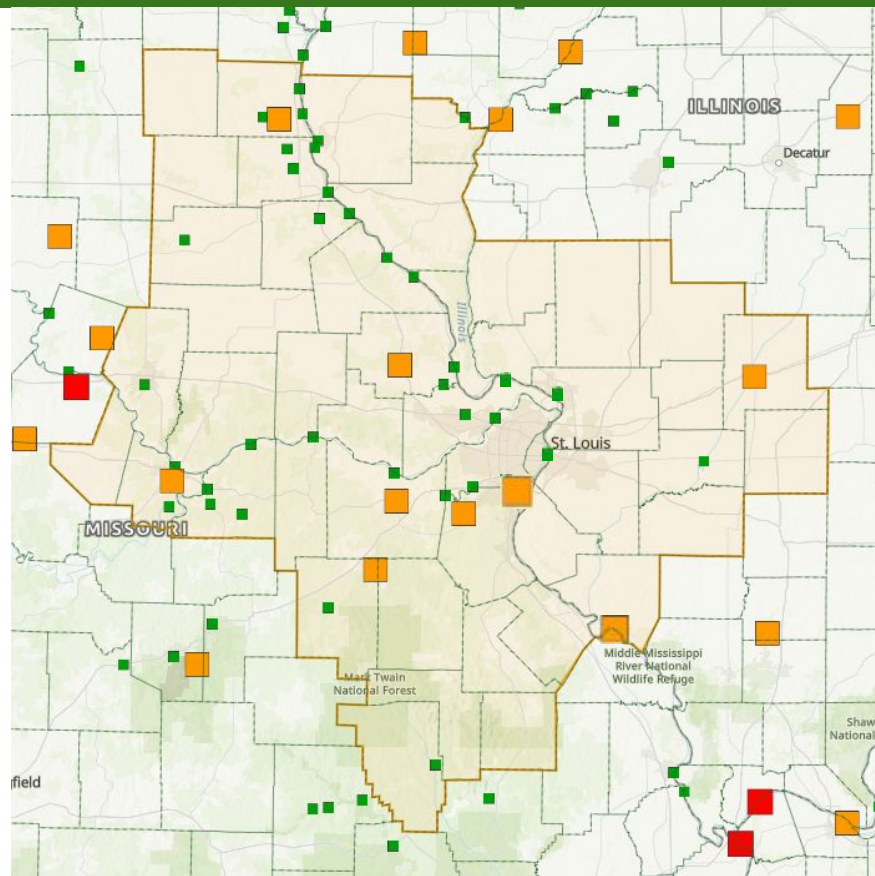
Issued: February 20, 2025



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# Spring Flood Outlook 2025



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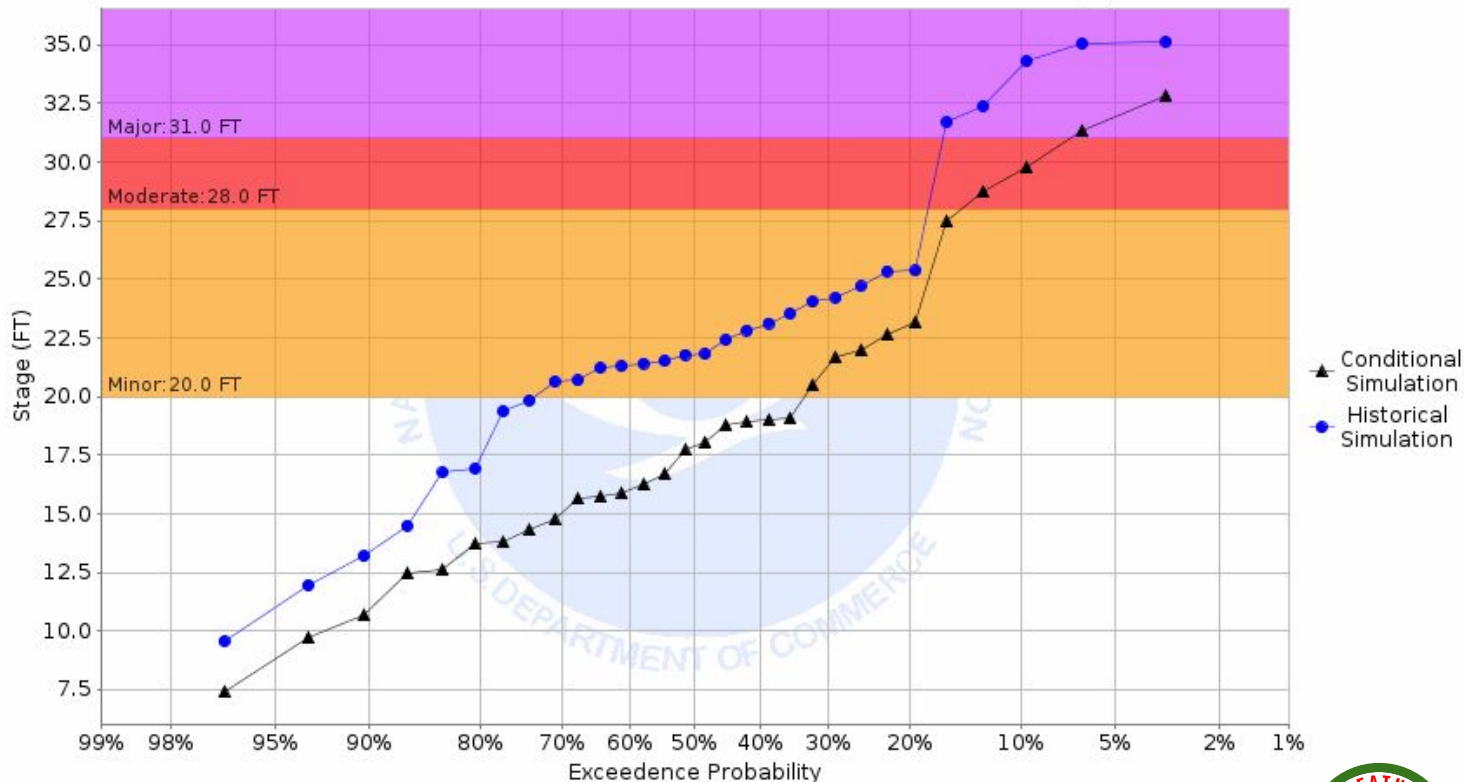
# Spring Flood Outlook 2025 - Missouri River at Washington, MO

Chance of Exceeding River Stage on the MISSOURI R at WASHINGTON MO

Forecast for the period 03/01/2025 - 05/30/2025

This is a conditional simulation based on the current conditions as of 02/24/2025

- The chance of exceeding minor flood stage is 33%, which is 41% below the historical average.
- The chance of exceeding moderate flood stage is 15%, 3% below the historical average.



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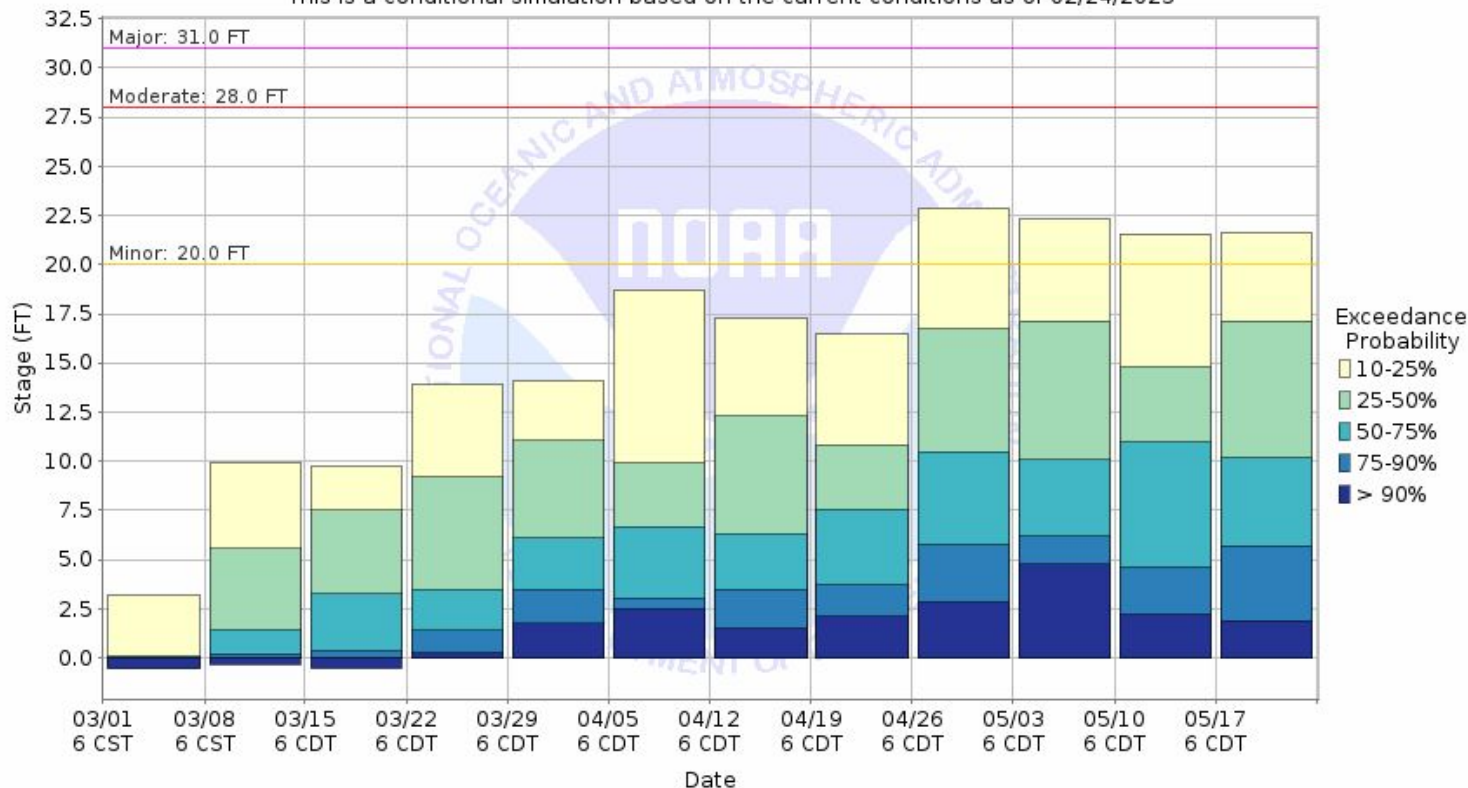


# Spring Flood Outlook 2025 - Missouri River at Washington, MO

Weekly Chance of Exceeding River Stage on the MISSOURI R at WASHINGTON MO

Forecast for the period 03/01/2025 - 05/24/2025

This is a conditional simulation based on the current conditions as of 02/24/2025



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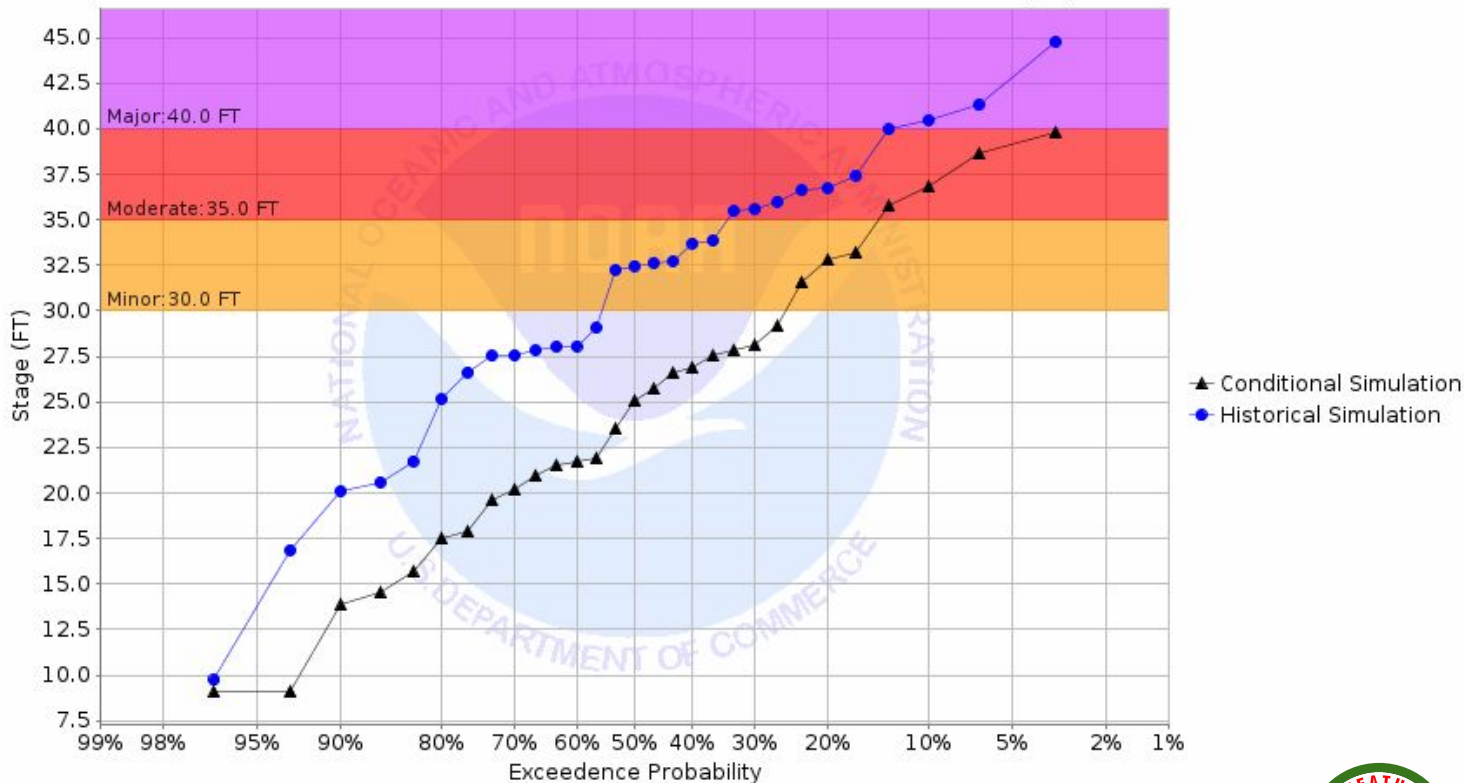
# Spring Flood Outlook 2025 - Mississippi River at St. Louis, MO

Chance of Exceeding River Stage at Mississippi River at St Louis (Eads Bridge) (EADM7)

Forecast for the period 03/03/2025 - 06/01/2025

This is a conditional simulation based on the conditions as of 02/24/2025

- Similar to much of the upper Mississippi, the probability of minor flooding is 26%, 30% below the historical average.
- For significant (moderate or major) flooding, the chance is 14%, 20% below normal.



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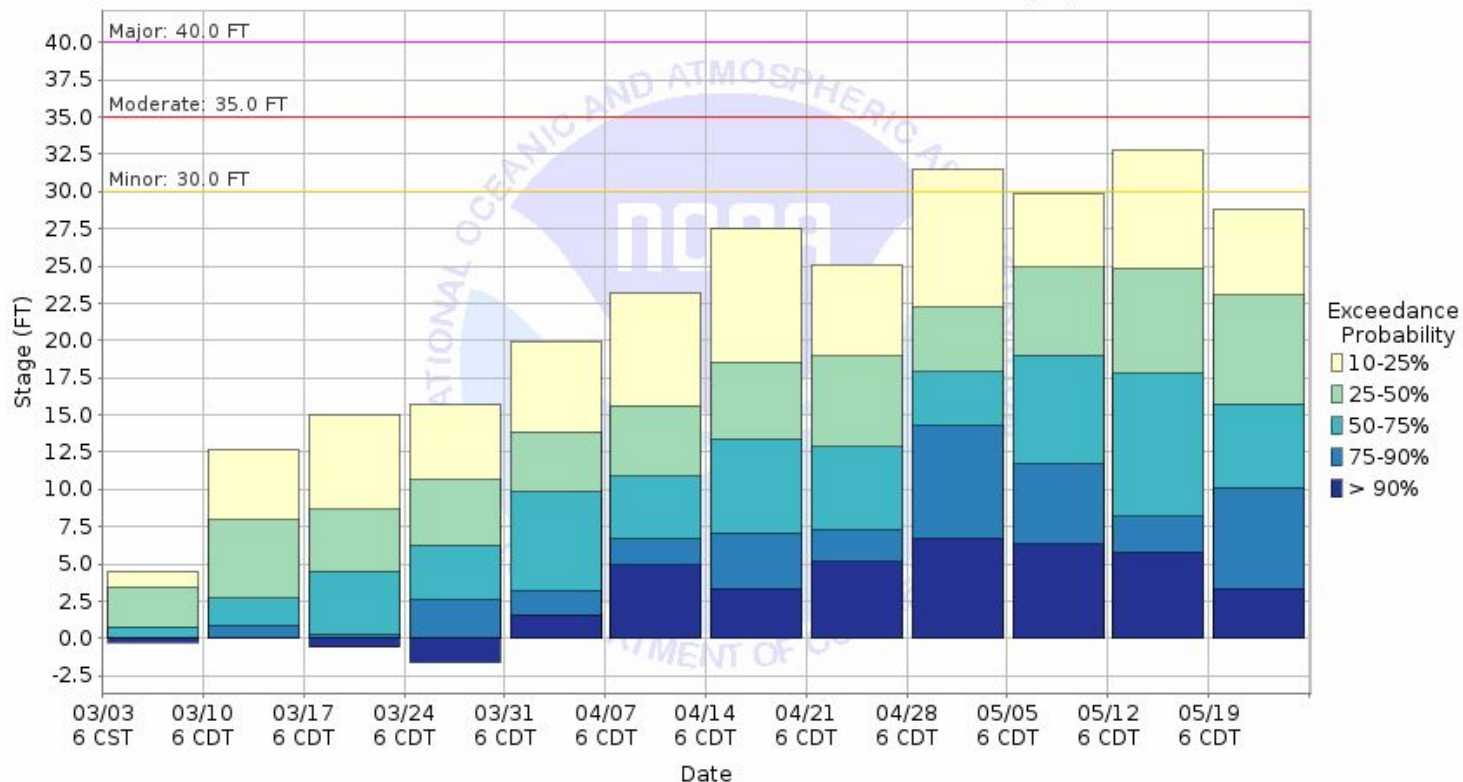


# Spring Flood Outlook 2025 - Mississippi River at St. Louis, MO

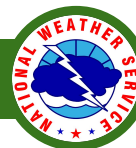
Weekly Chance of Exceeding River Stage at Mississippi River at St Louis (Eads Bridge) (EADM7)

Forecast for the period 03/03/2025 - 06/01/2025

This is a conditional simulation based on the conditions as of 02/24/2025



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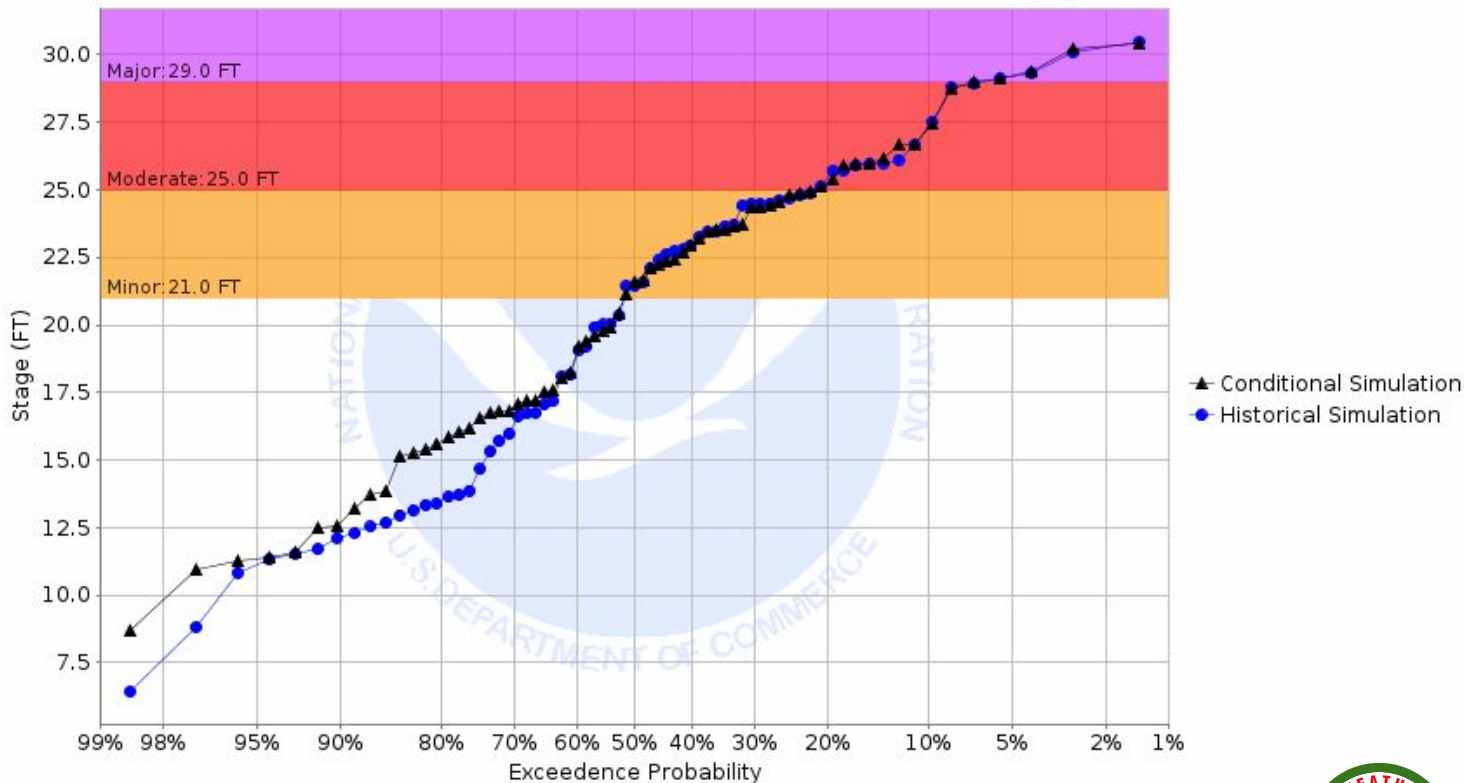
# Spring Flood Outlook 2025 - Cuivre River at Troy, MO

Chance of Exceeding River Stage at Cuivre River at Troy (TRYM7)

Forecast for the period 03/03/2025 - 06/01/2025

This is a conditional simulation based on the conditions as of 02/24/2025

- Minor Flooding is likely at 52%, and that represents the historical average.
- Chances of moderate and major flooding are also close to the historical averages.



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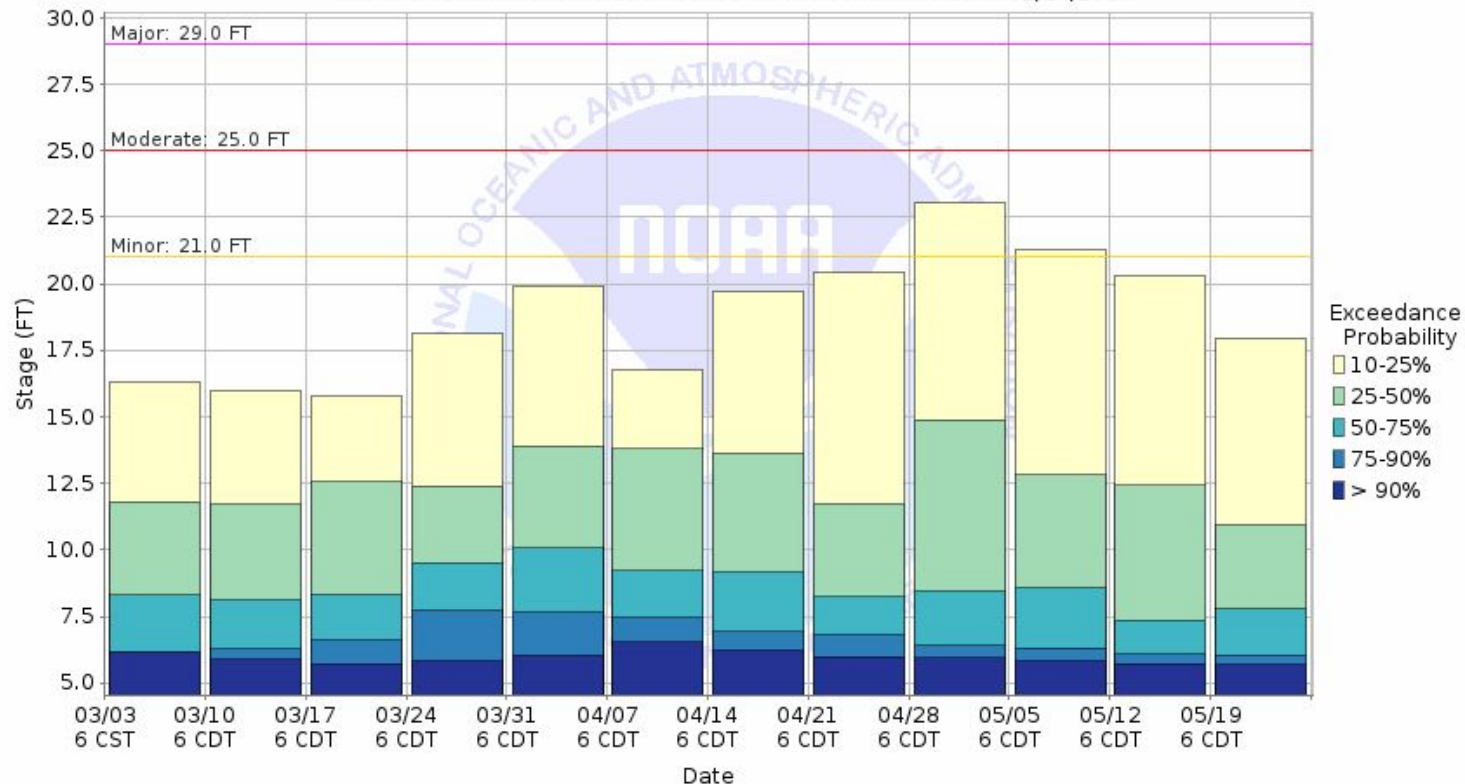


# Spring Flood Outlook 2025 - Cuivre River at Troy, MO

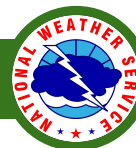
Weekly Chance of Exceeding River Stage at Cuivre River at Troy (TRYM7)

Forecast for the period 03/03/2025 - 06/01/2025

This is a conditional simulation based on the conditions as of 02/24/2025



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# Near Term River Probabilities - Hydrologic Ensemble Forecast Service (HEFS)

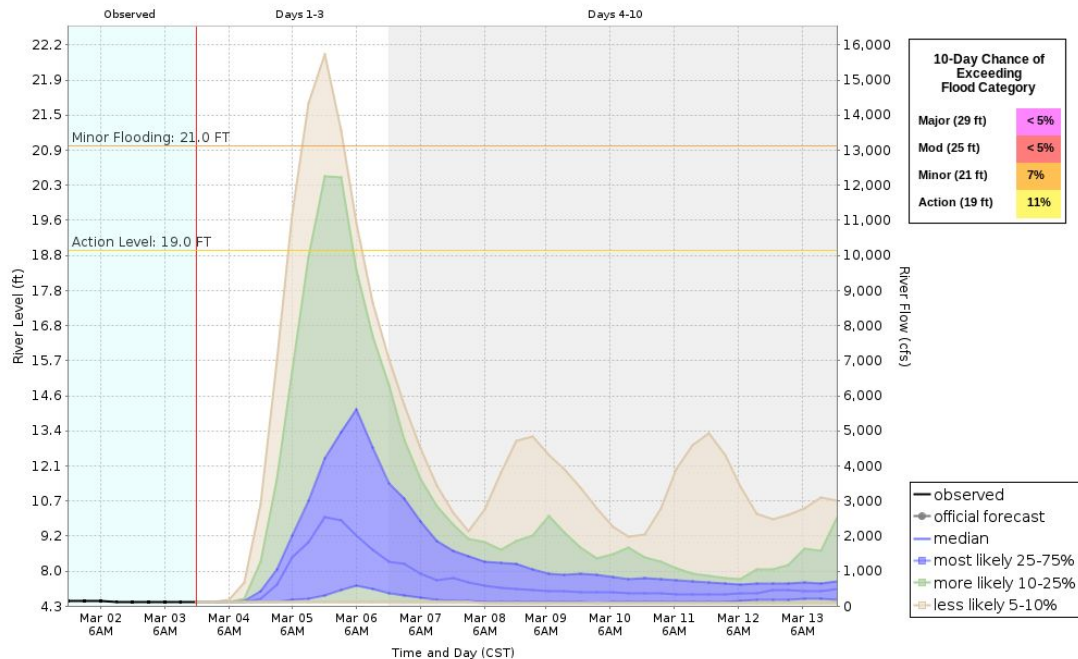
## HEFS - 10 Day River Level Probabilities

Based on Hydrologic Ensemble Forecast Service Model Simulations  
Used to Estimate the Range of Possible River Levels



Mar 04 - Mar 14, 2025

### Cuivre River at Troy (TRYM7)



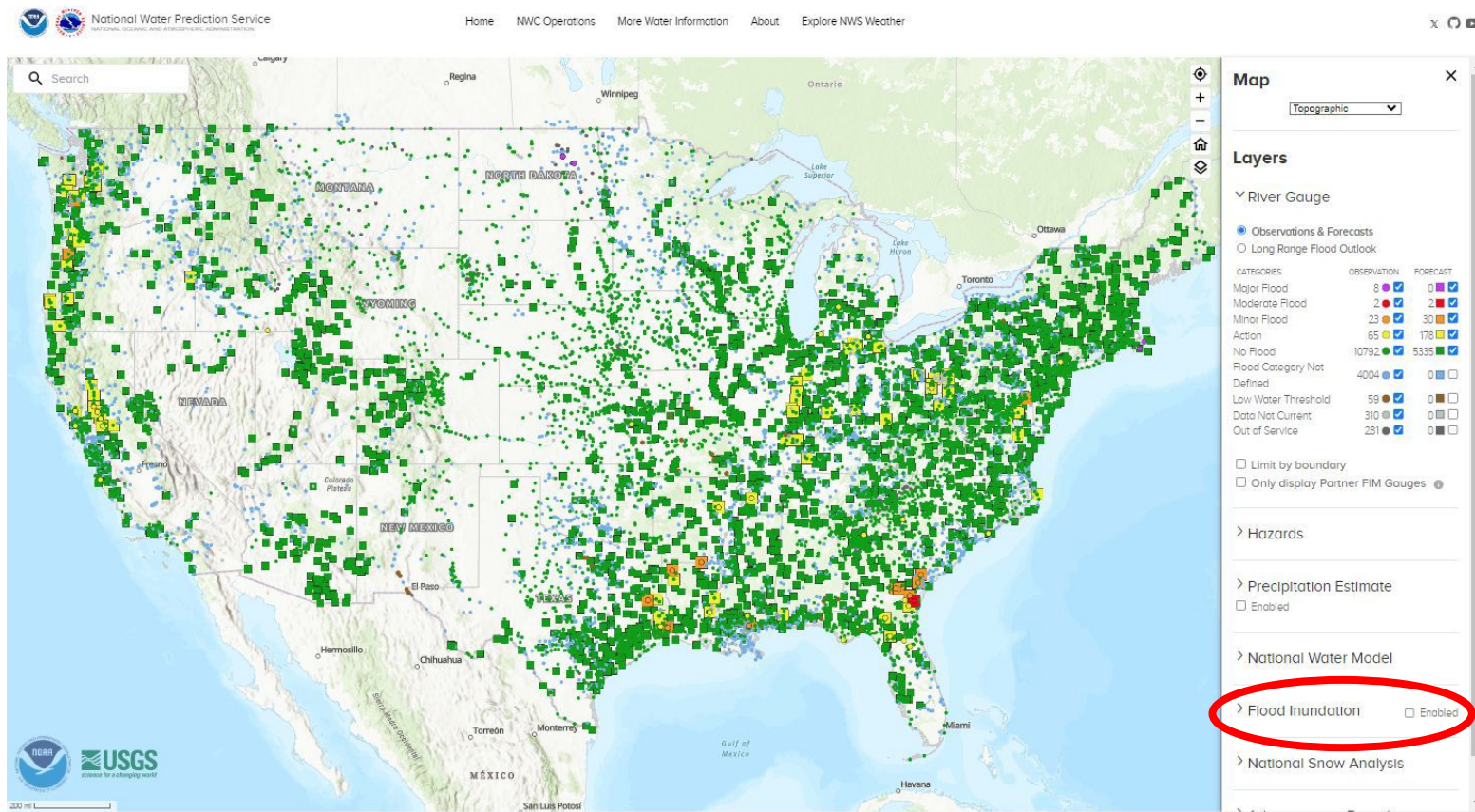
Model runtime: 06:00 PM CST Mar 03 2025  
North Central River Forecast Center

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# Flood Inundation Mapping Services - Went live in late September 2024

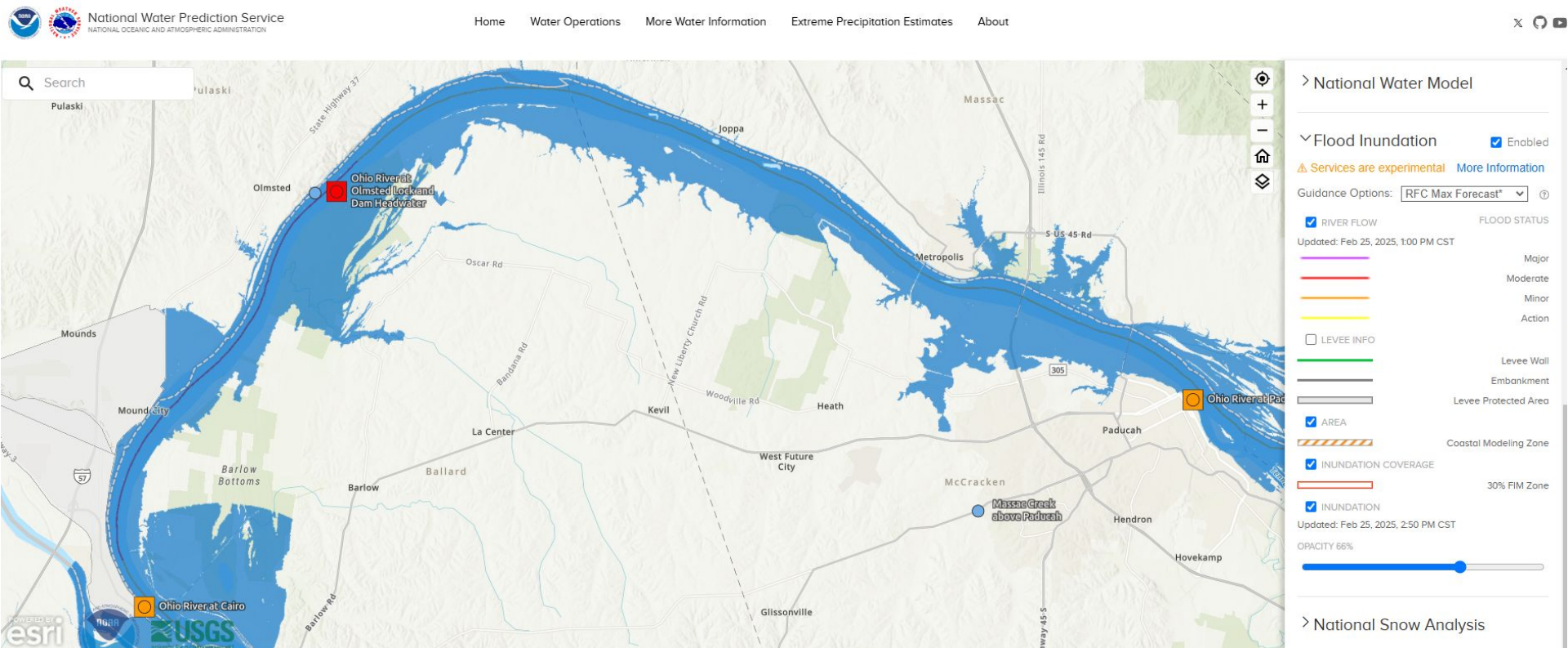


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# Flood Inundation Mapping Services - Went live in late September 2024



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# Questions???

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636-447-1876, ext. 493