

# What the Data is Telling Us

CO-OP System Report – Potomac River Conditions

Sarah Ahmed, ICPRB CO-OP

April 11, 2025

A large orange circle is positioned on the left side of the slide, partially cut off by the edge. The word "Summary" is written in white text inside this circle.

# Summary

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It's dry. Please use water wisely.

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Streamflows and groundwater below normal

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Probability of needing reservoir releases is above normal

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Coordinated drought messaging remains important

# Probability of Water Supply Releases (Through Dec 31)

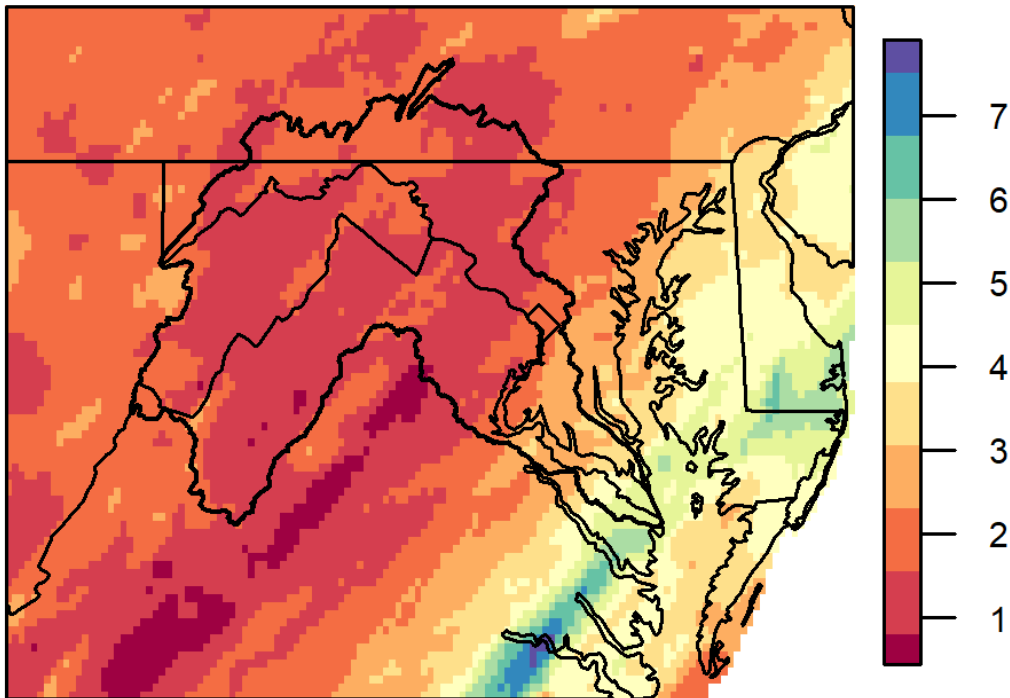
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Flow Threshold (MGD)	Historical Probability	Conditional Probability
700	15%	35%
600	8%	22%

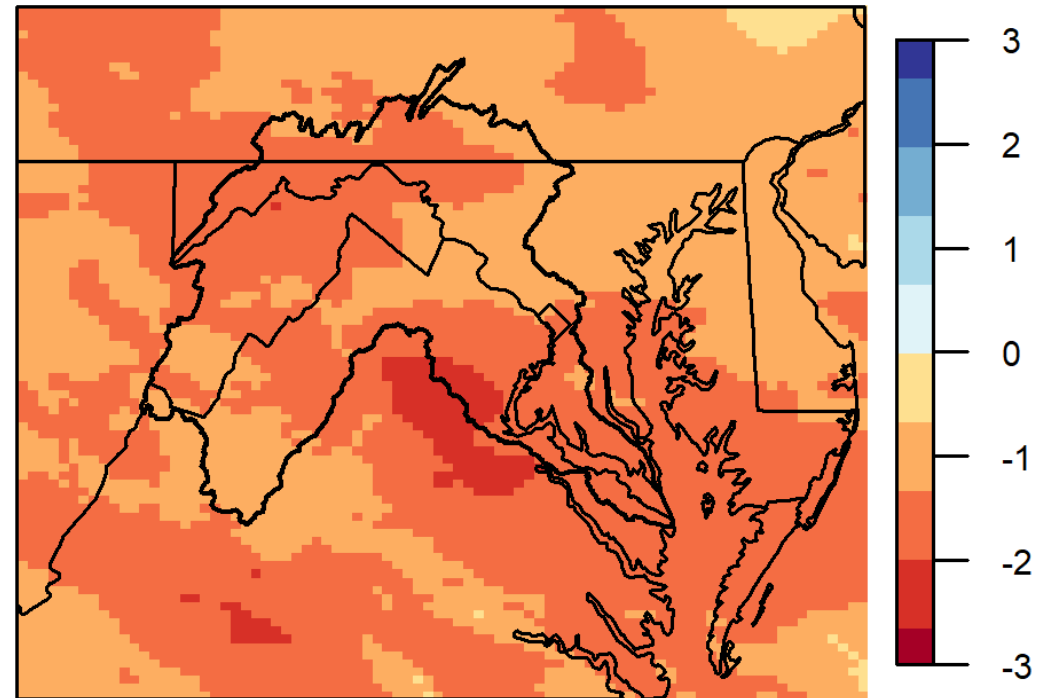
# Rainfall Deficit

- March: 1.7 inches received (1.8 inches below normal)
- 12-month deficit: **6.2 inches** below normal

March 2025 Rainfall Totals (in)



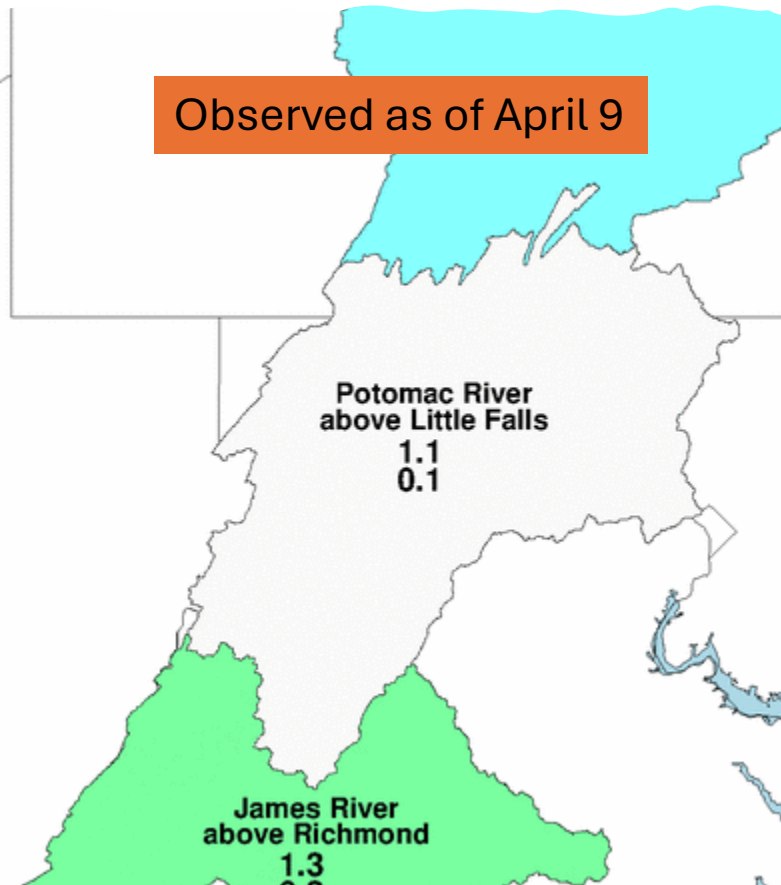
March 2025 Rainfall Normalized Anomaly



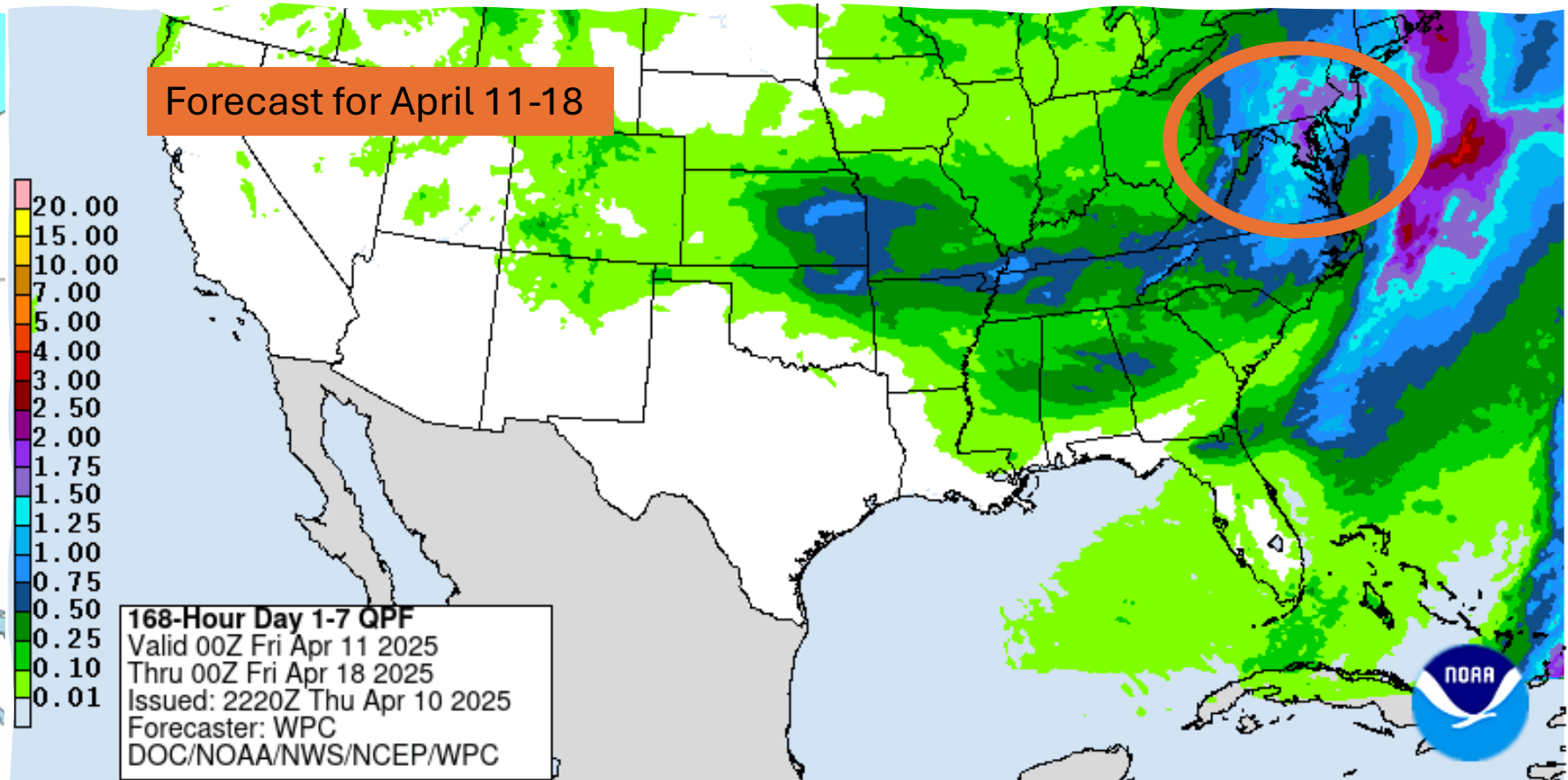
# April Rainfall

- April 1-9: 1.1 inches received (0.1 inches above normal)
- NOAA's 7-day forecast (Apr 11-18)
  - Lower basin totals are 0.75–1.5 inches (isolated areas over 2 inches)
  - Upper basin totals are lower (0.5–1 inch)

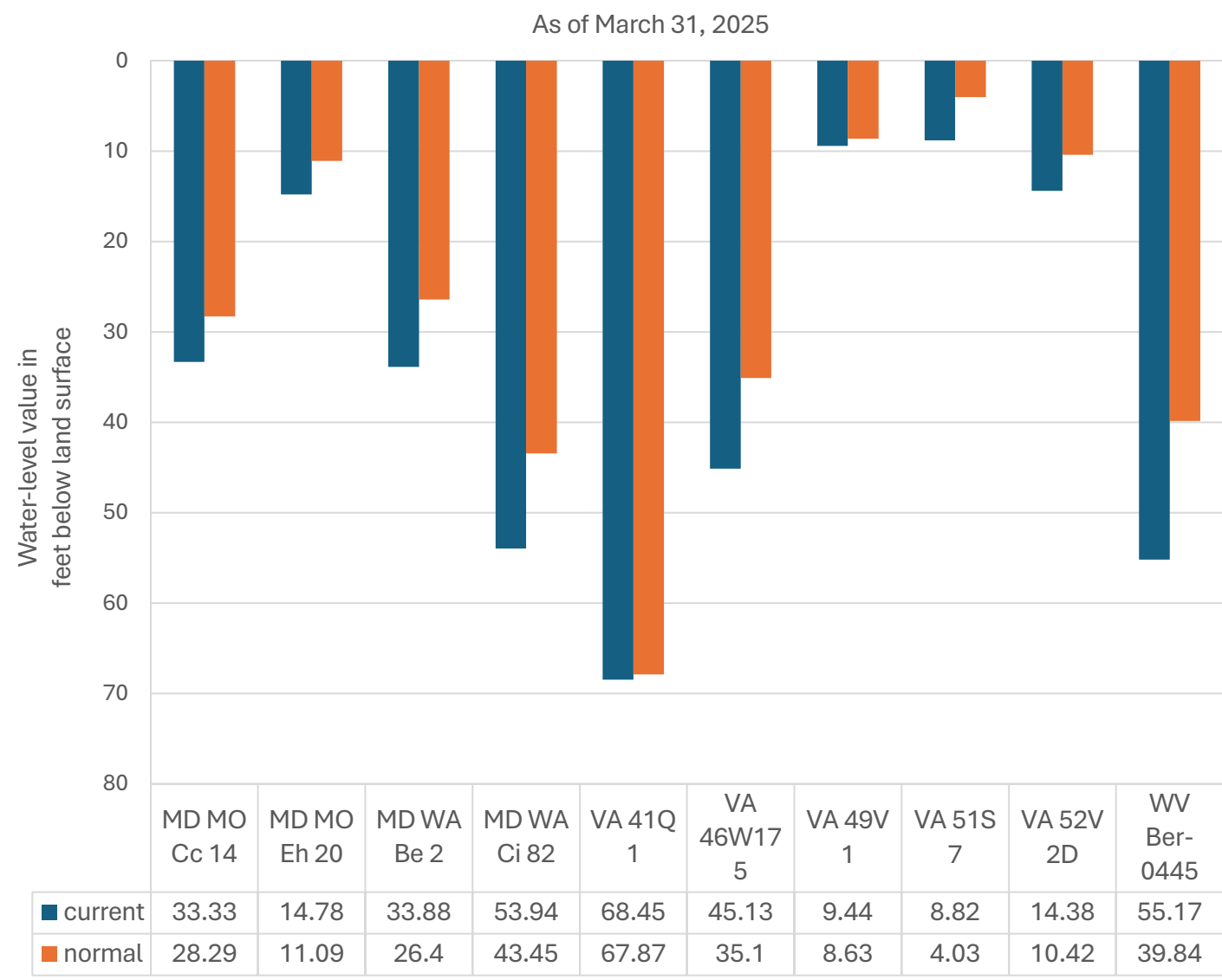
Observed as of April 9



Forecast for April 11-18



# Groundwater Levels – Mostly Below Normal

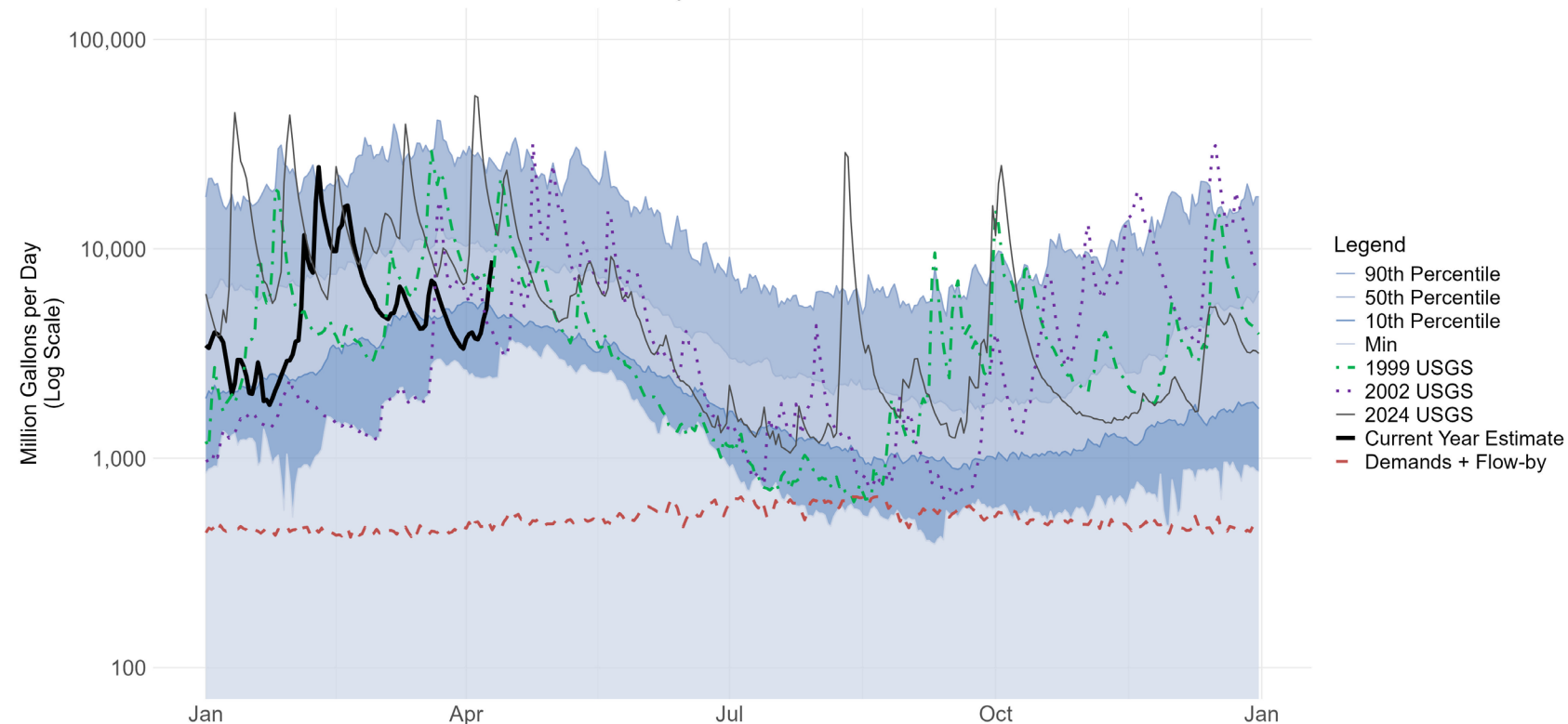


# River Flow at Little Falls

- Adjusted flow
  - March 31: 3.4 BGD
  - April 10: 8.8 BGD
- Context for April 10
  - Above 10th percentile (5.1 BGD)
  - Below 50th percentile (9.6 BGD)
  - March average: 5.0 BGD
- CO-OP drought operations:  
natural flow < demand +  
100 MGD flow-by

Adjusted Daily Flow at Little Falls for 2025, 2024, 1999, and 2002  
Daily Adjusted Flow Percentiles for 1930-2024 Data  
and Drought Year (2002) Demands plus Flow-by

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Adjusted flow represents the natural flow that would occur in the absence of major withdrawals. The USGS publishes adjusted flow data for Little Falls based on actual withdrawals reported by the CO-OP utilities and Loudoun Water. However, the USGS data may not always be available in time for the outlook. In such cases, ICPRB estimates the adjusted flow using a 20-day rolling average of past withdrawal data or observed data collected from the utilities.

# CO-OP Reservoir Storage – April 10

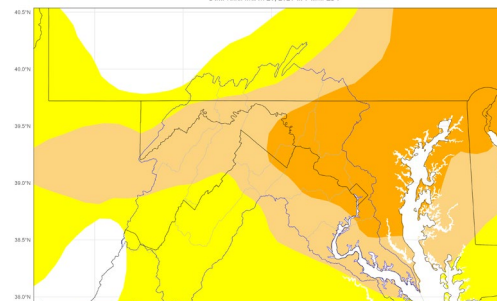
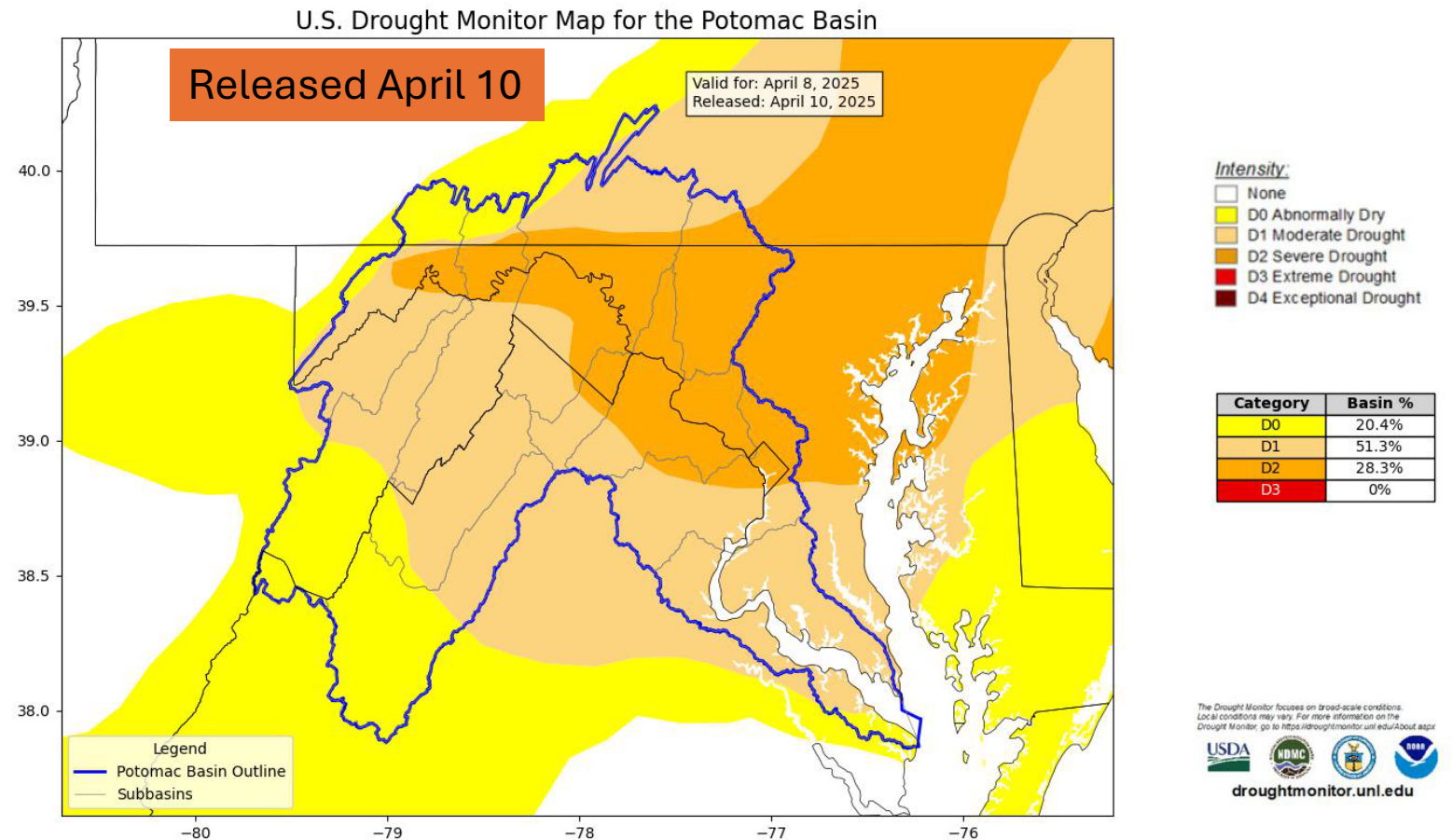
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Facility	Percent Full	Current usable storage, BG	Total usable capacity, BG
Patuxent	71%	7.5	10.5
Occoquan	100%	8.2	8.2
Little Seneca	99%	3.8	3.9
Jennings Randolph (Supply)	100%	13.1	13.1
Jennings Randolph (Quality)	95%	15.47	16.3
Savage	78%	4.9	6.3

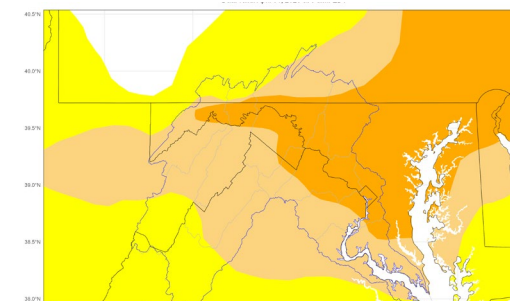


# U.S. Drought Monitor

- Area in Moderate Drought (D1) or greater is 80%
- Area in Severe Drought (D2)
  - Grew from 23% → 30% (between Mar 27-Apr 3)
  - Reduced to 28.3% (by Apr 10)
- Dry conditions expanding westward across the Potomac basin



Released March 27

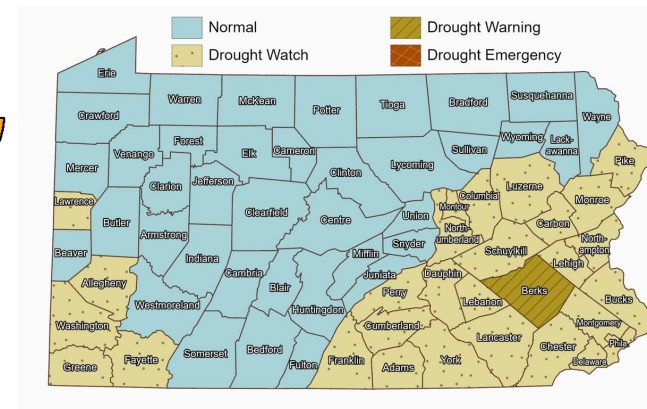
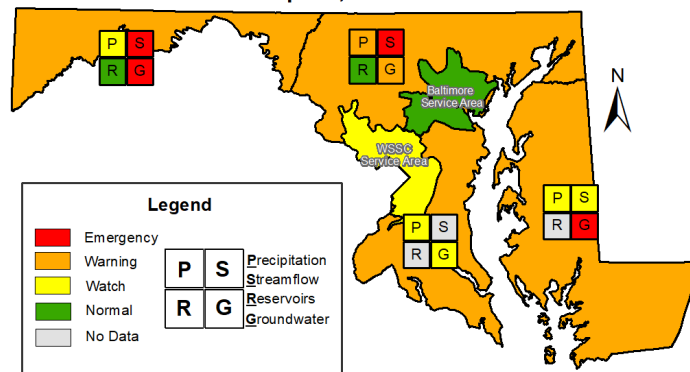


Released April 3

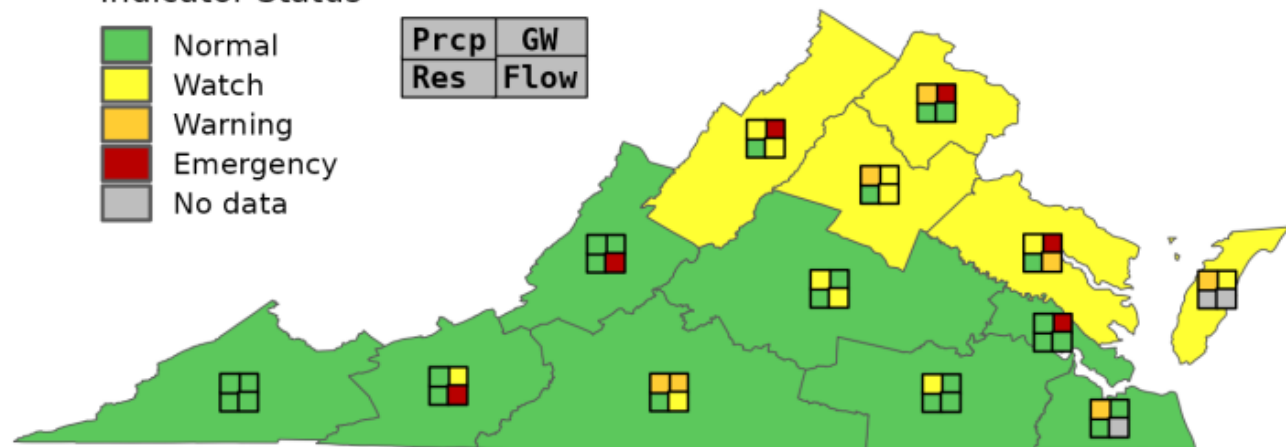
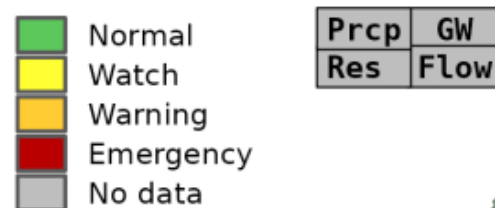
# Regional Drought Status

- Maryland: Statewide Warning (except WSSC area)
- Virginia: Watch in multiple regions
- Pennsylvania: Watch in many Potomac counties
- MWCOG: Drought Watch in effect since July 2024

Drought Status in Maryland  
April 7, 2025



Indicator Status



Prec: 2025-04-06

# Final Takeaways

- Streamflows and groundwater are low, precipitation is in deficit
- Drought risk is elevated into summer
- System storage is good, but refill is still needed
- First Water Supply Outlook reinforces need for monitoring & messaging

## U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for April 1 - June 30, 2025  
Released March 31, 2025

