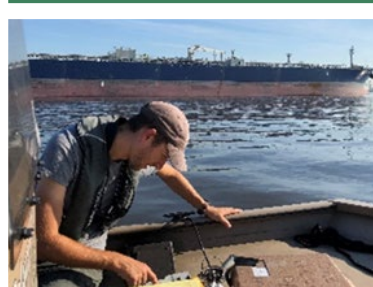


Hydrologic Conditions



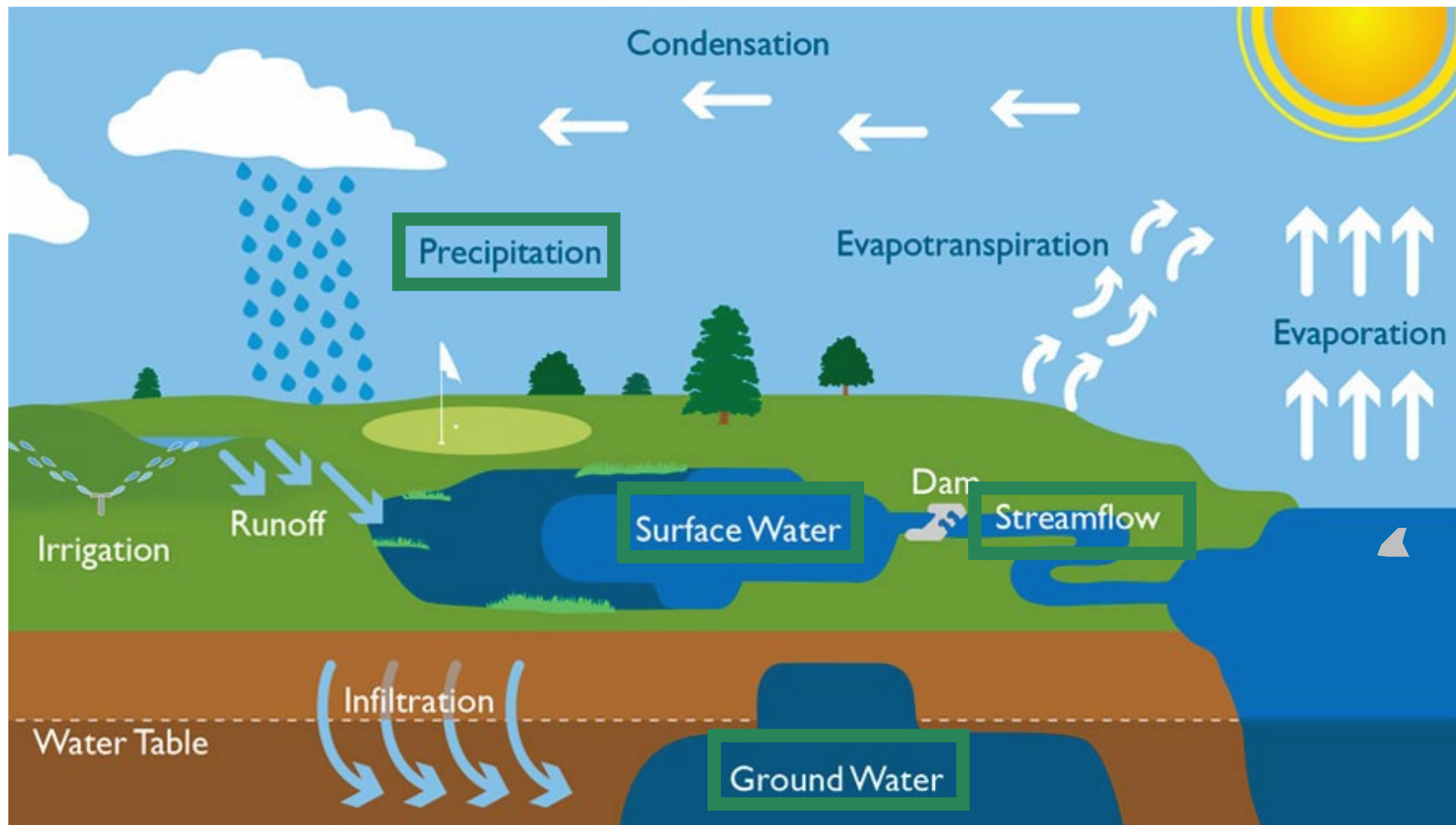
Fanghui Chen
Senior Water Resource Engineer
Water Resource Operations

March 12th, 2025
DRBC 1Q Caucus



The Hydrologic Cycle

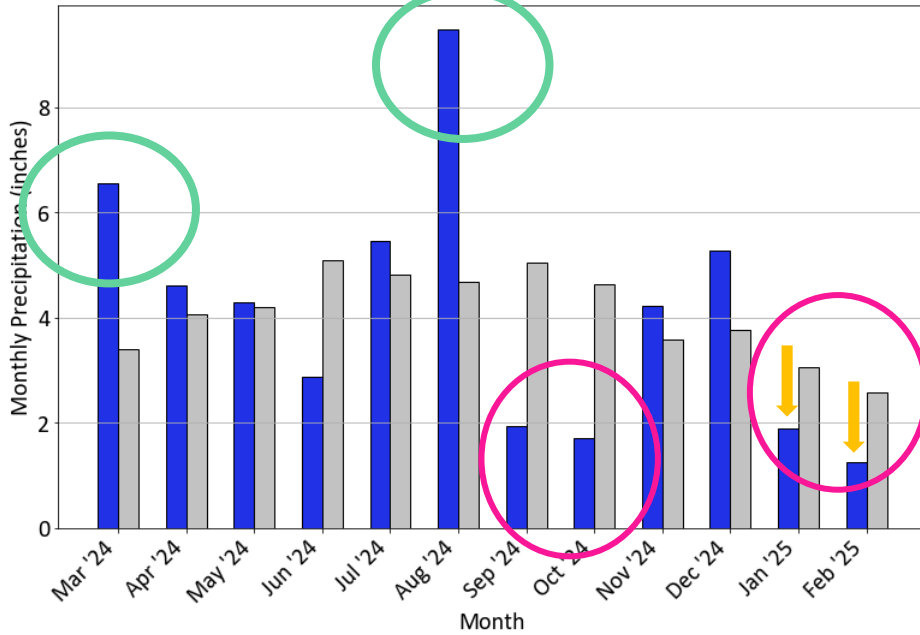
Water moves around the earth through air, soil, and over land.



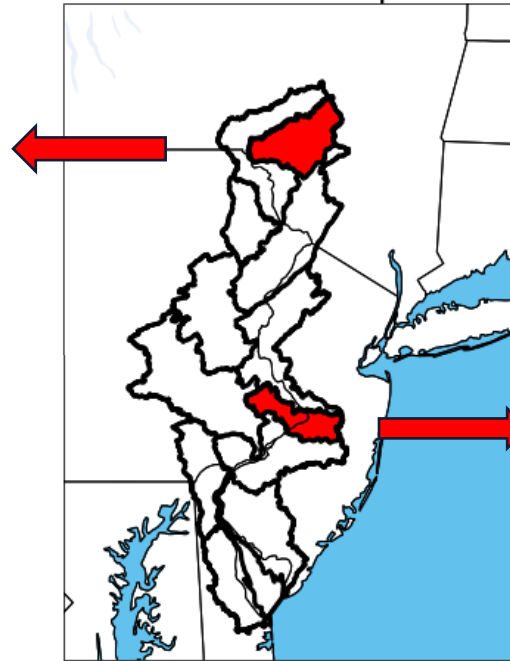
Graphic courtesy of Pike County Soil Conservation District

Precipitation from March 2024 to February 2025 (past 365 days)

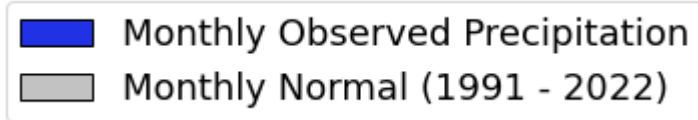
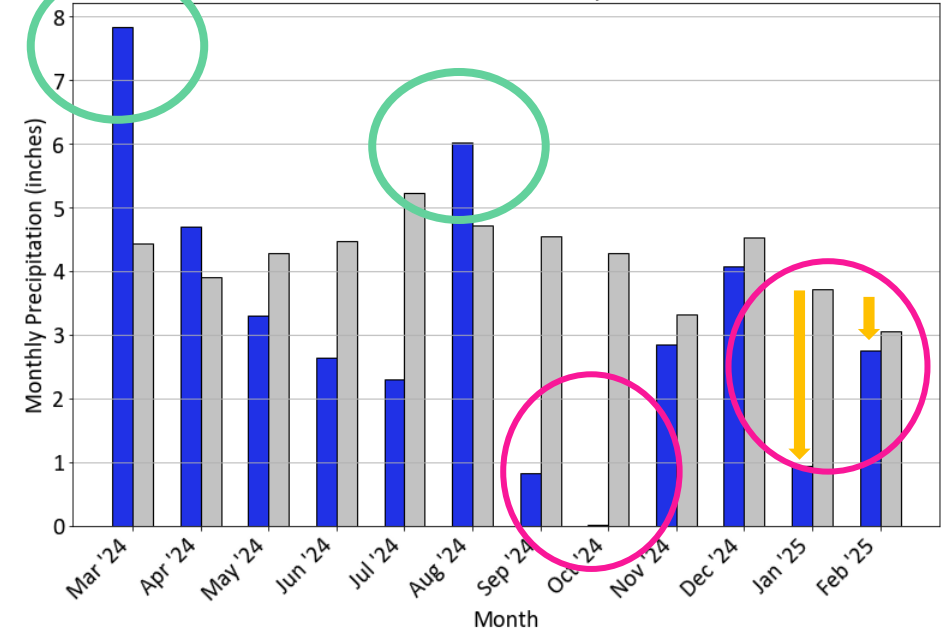
Monthly and Normal Precipitation
East Branch Delaware basin



Locator Map

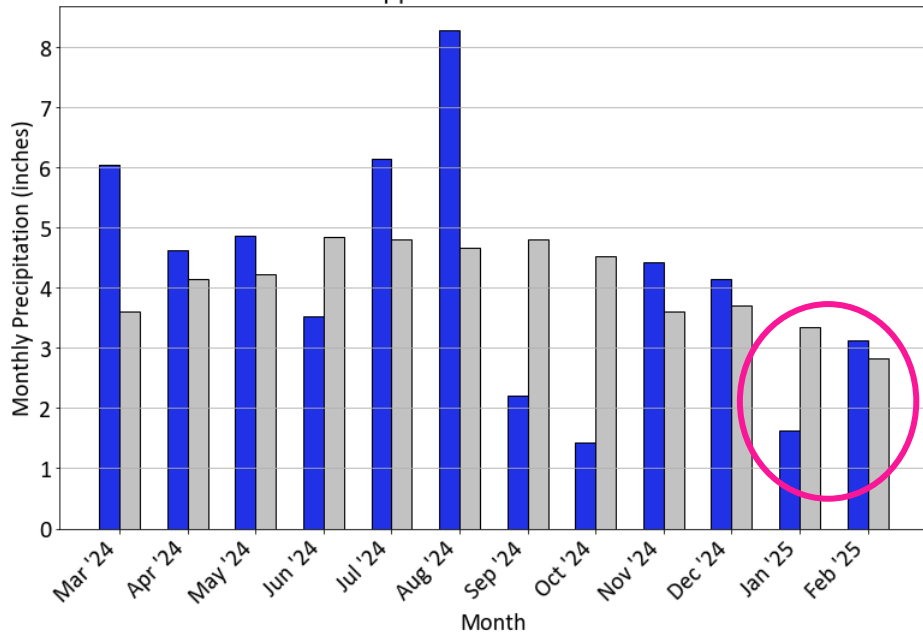


Monthly and Normal Precipitation
Crosswicks-Neshaminy basin

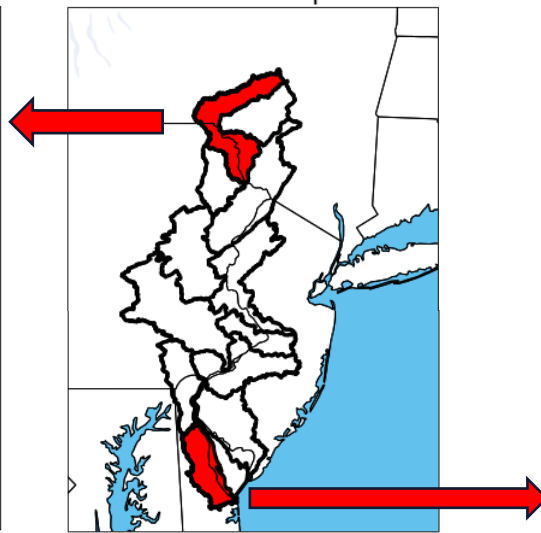


Precipitation from March 2024 to February 2025 (past 365 days)

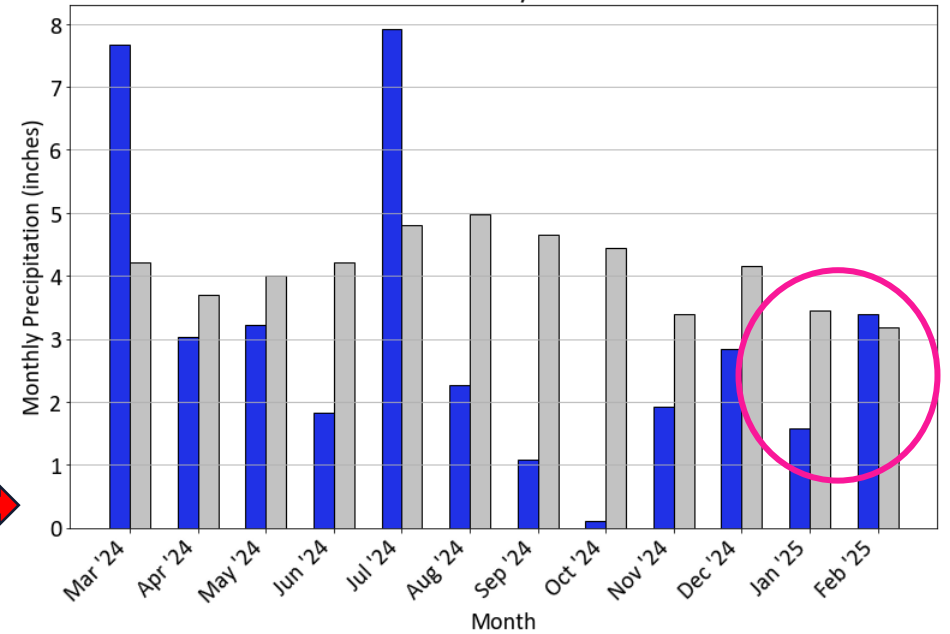
Monthly and Normal Precipitation
Upper Delaware basin



Locator Map



Monthly and Normal Precipitation
Broadkill-Smyrna basin

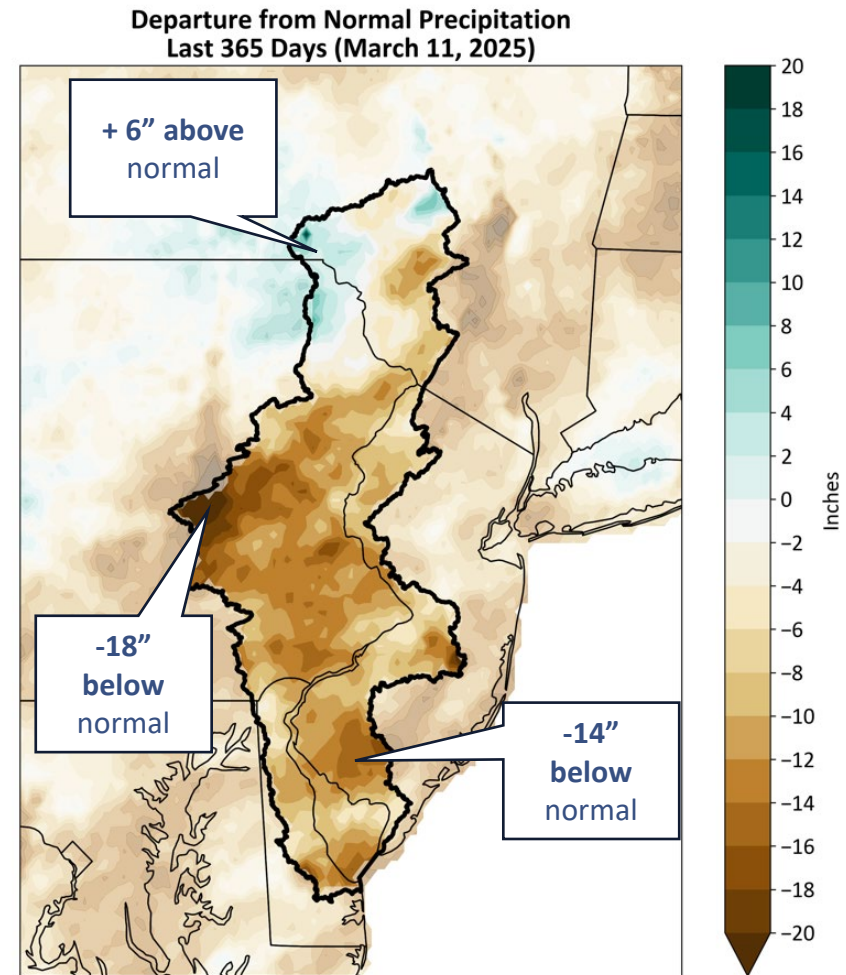
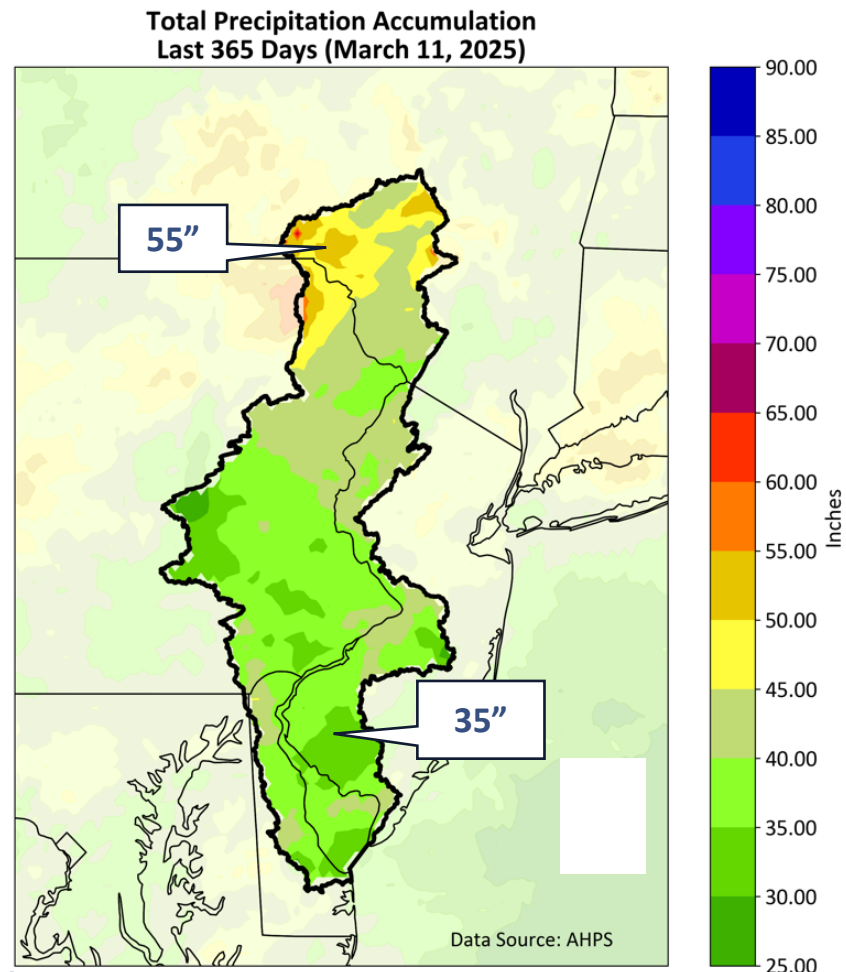


Monthly Observed Precipitation
 Monthly Normal (1991 - 2022)

Precipitation over the last 12 Months

Reference date: March 11, 2025

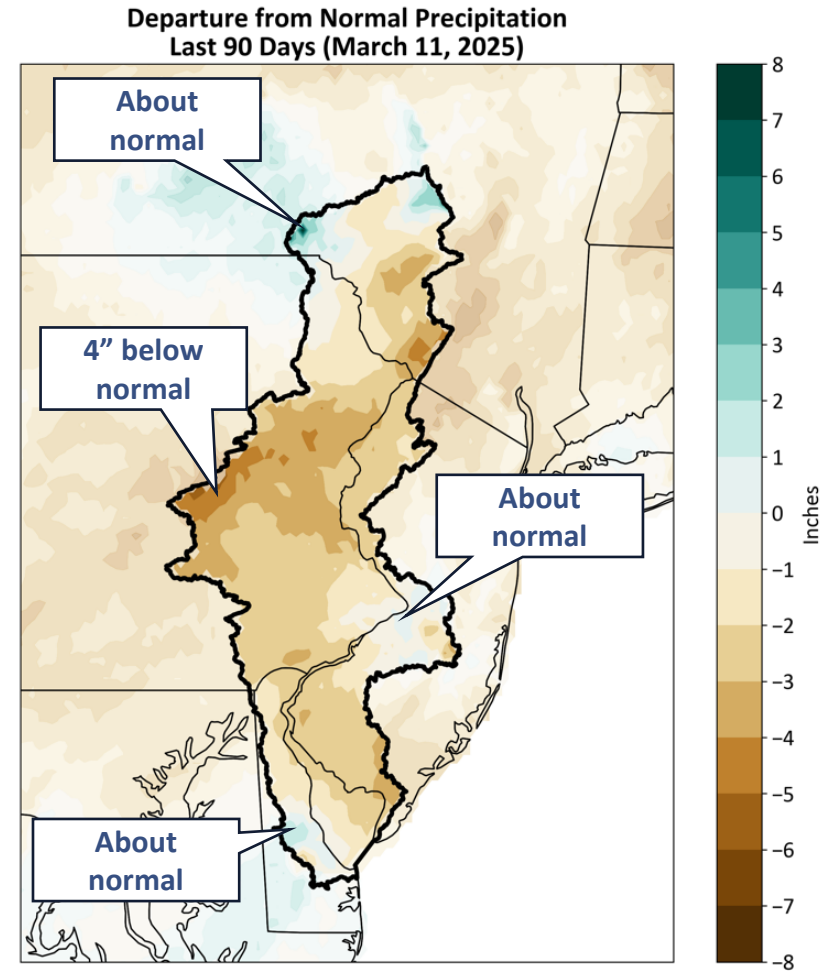
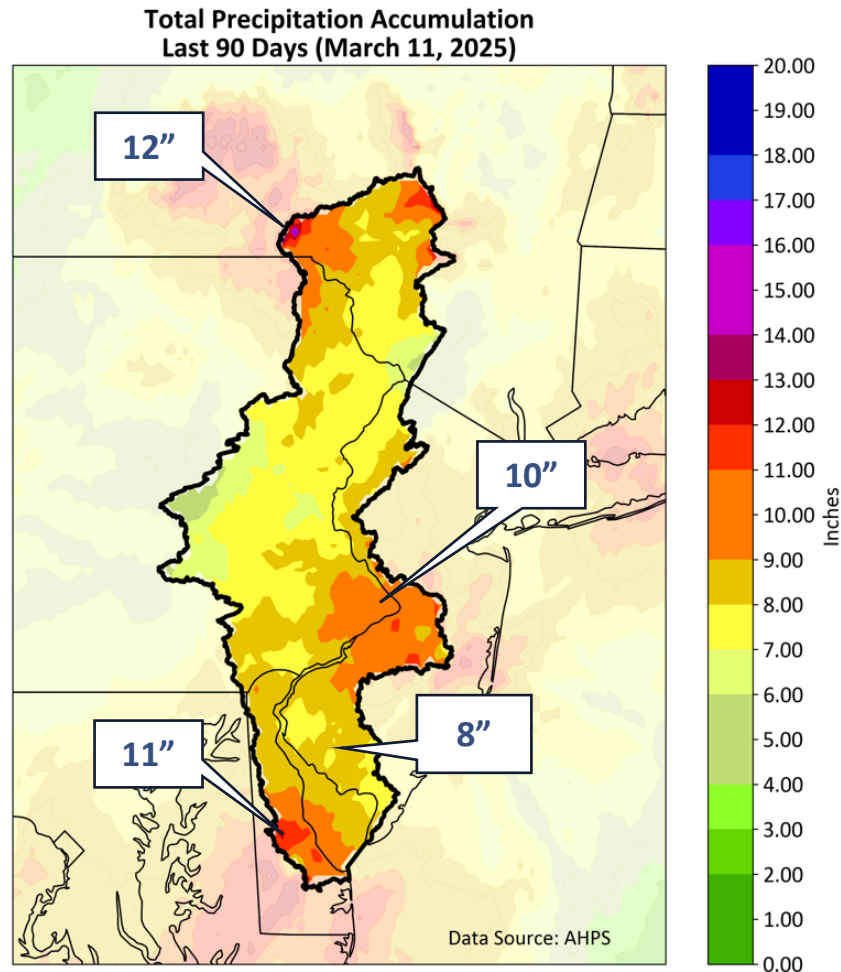
Most of the basin has received below normal precipitation except for the northwest.



Precipitation – 90 days

Reference date: March 11, 2025

The past three-month period was below normal condition for most of the basin.

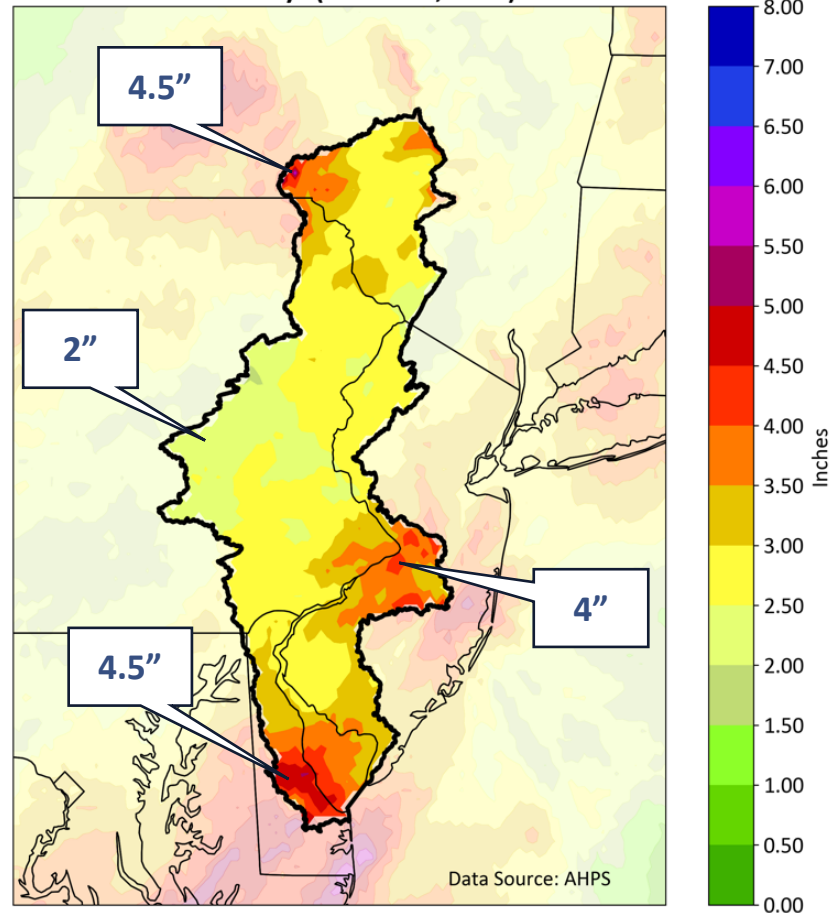


Precipitation – past 30 days

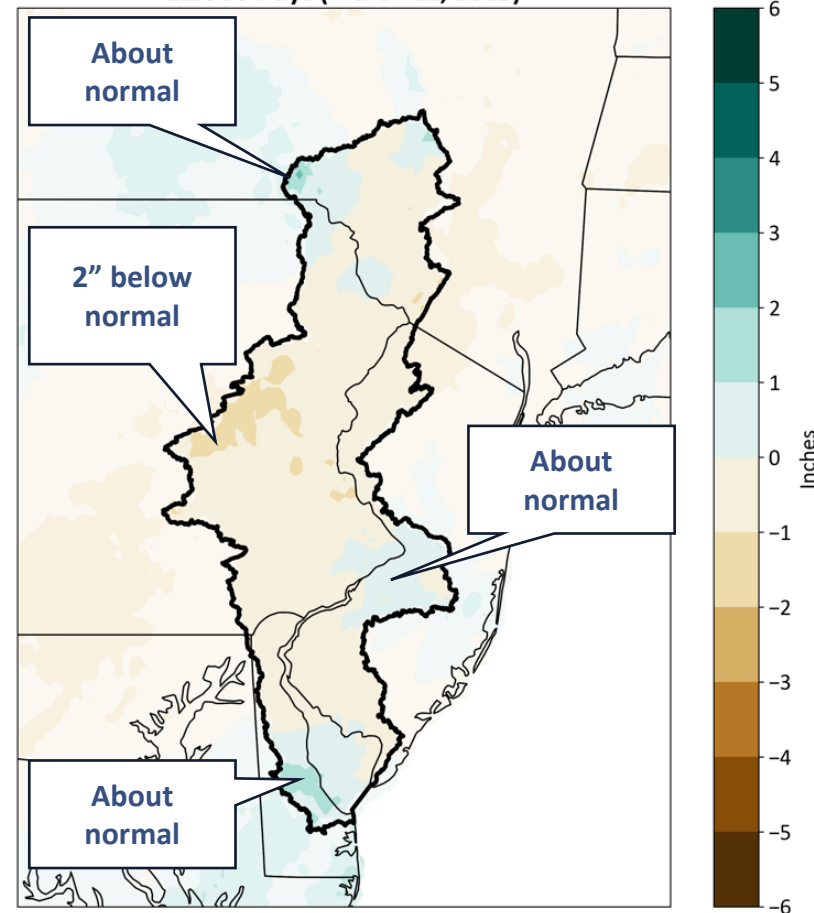
Reference date: March 11, 2025

It was slightly drier than normal in many parts of the basin during the past 30 days.

Total Precipitation Accumulation
Last 30 Days (March 11, 2025)



Departure from Normal Precipitation
Last 30 Days (March 11, 2025)



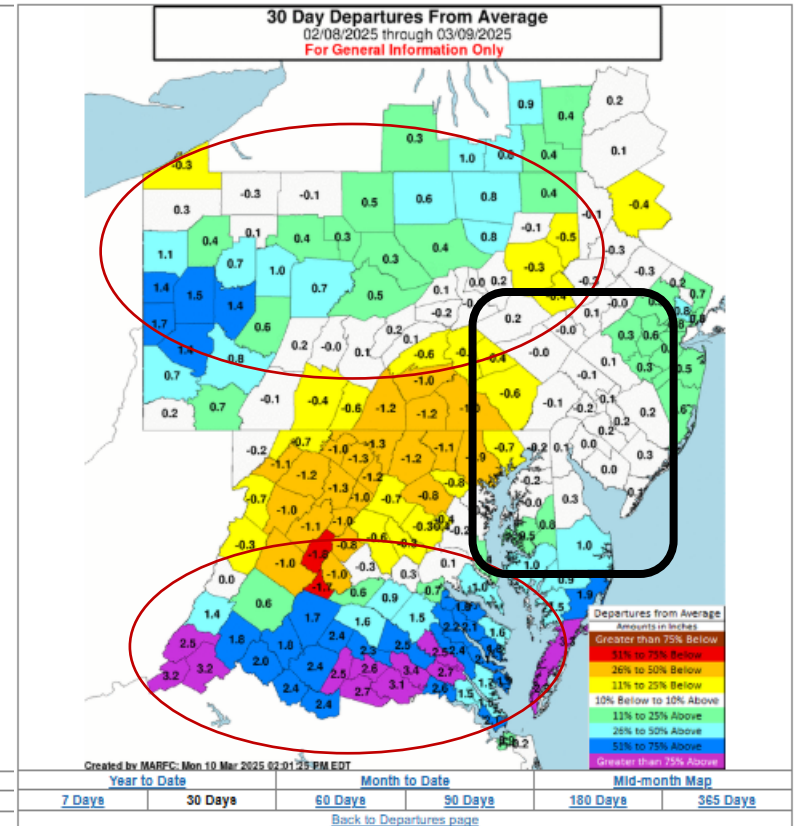
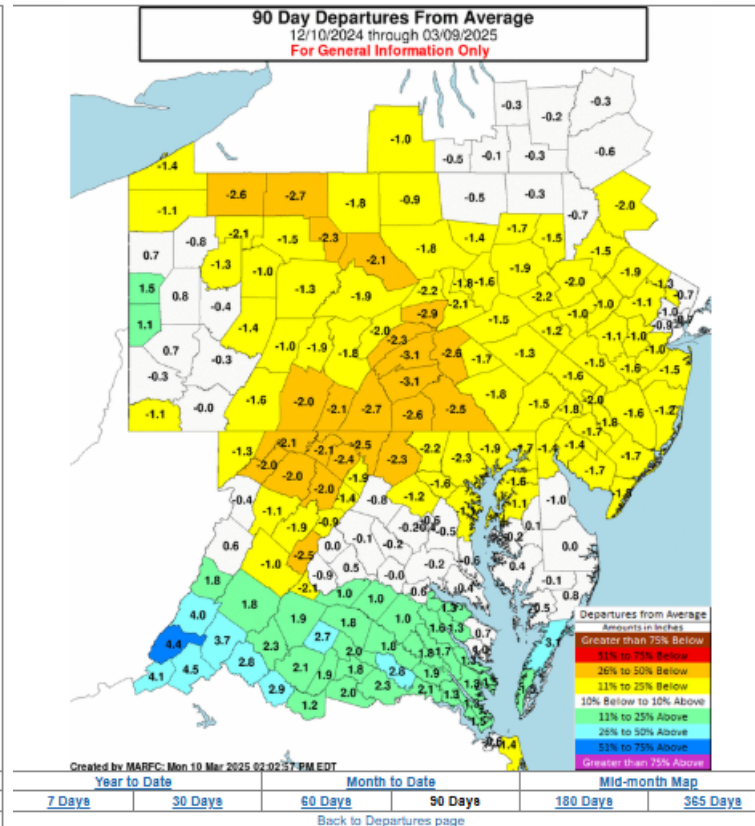
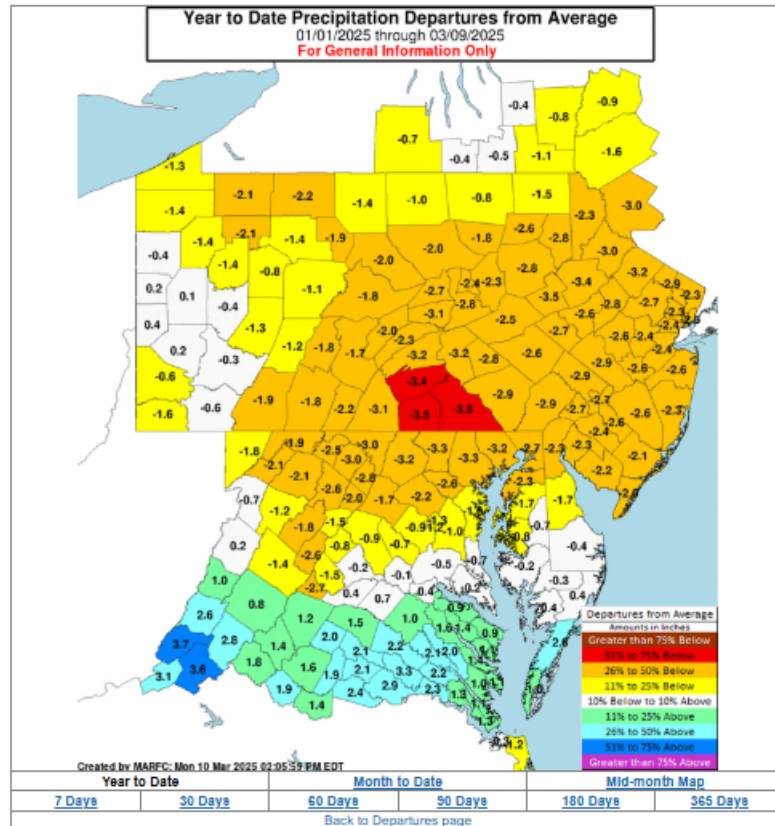
Precipitation Departures

Conditions have slightly recovered in the last 30 days with rainfall.

Year-to-date

90-day

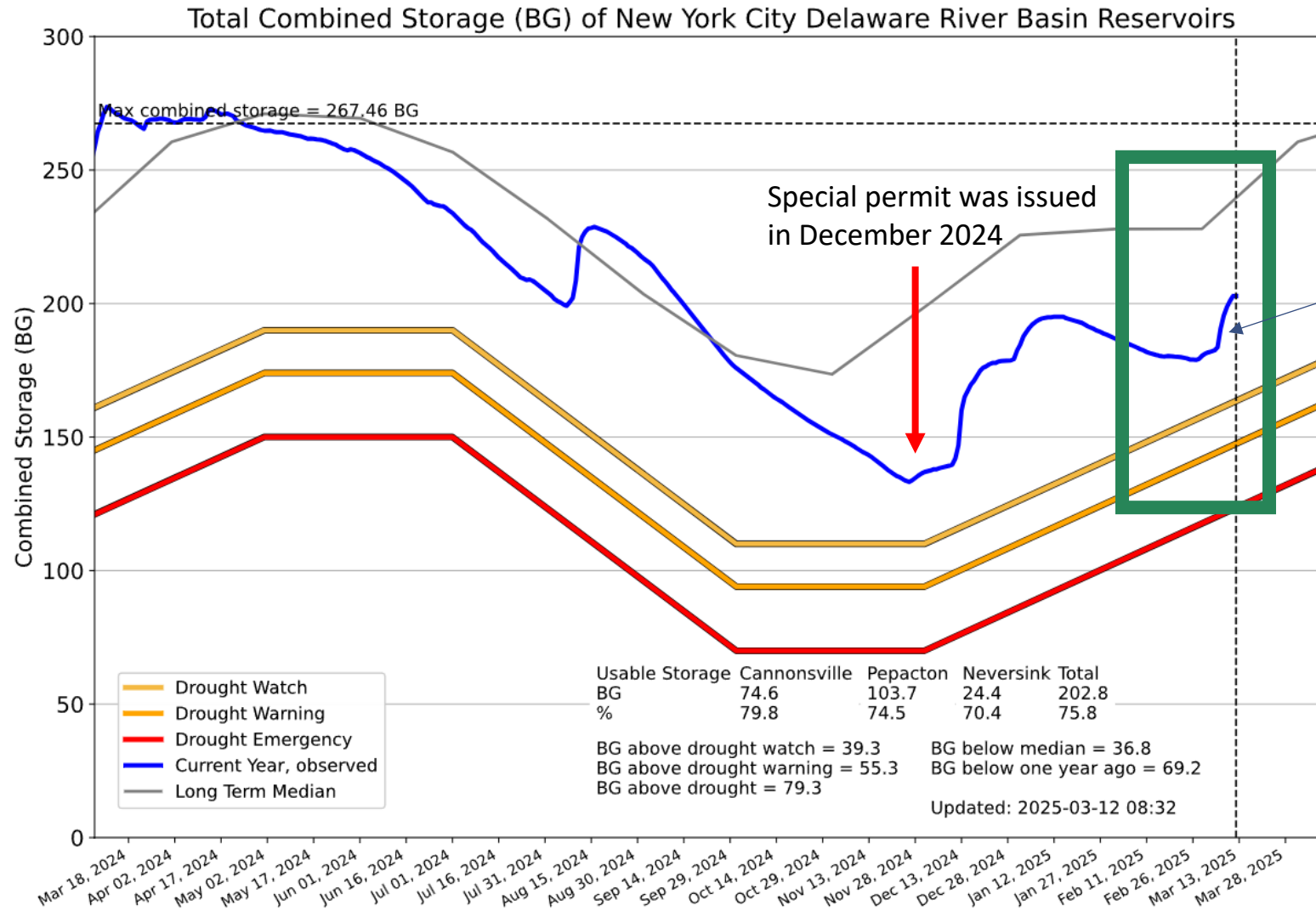
30-day



Reference date: March 9, 2025

New York City Reservoir Storage

Recent precipitation is reflected in the combined storage.

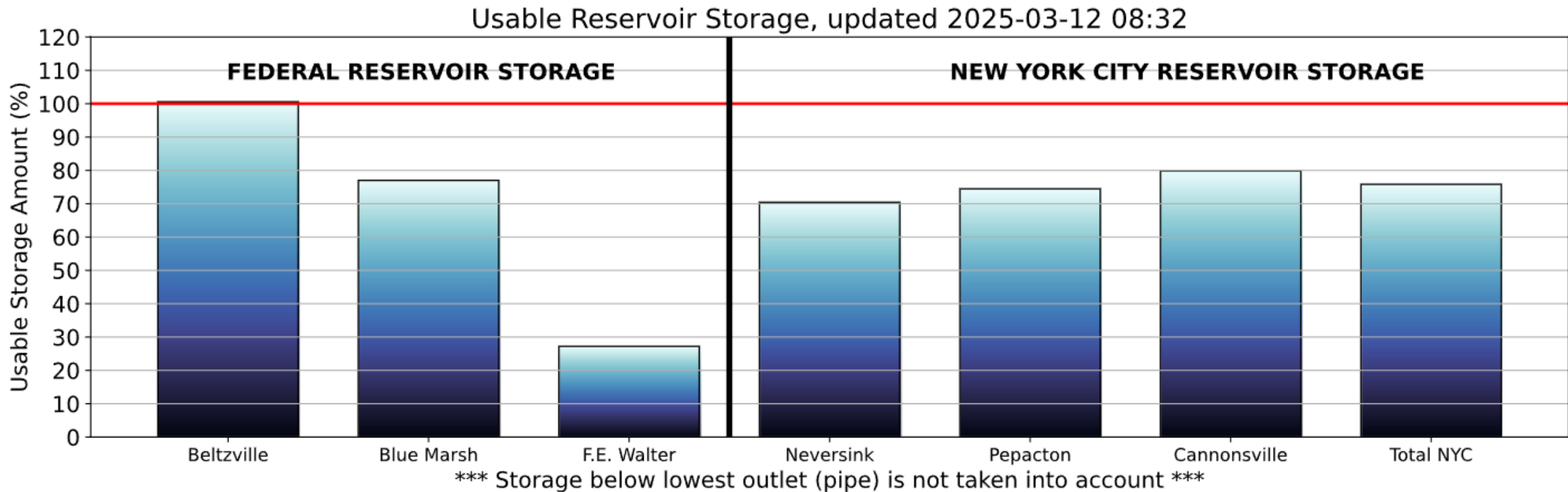


Nearly 20 BG storage increase during past week

March 12, 2025

Reservoir Storage for Flow Management

The reservoirs have begun to recover from the dry fall due to increased precipitation.

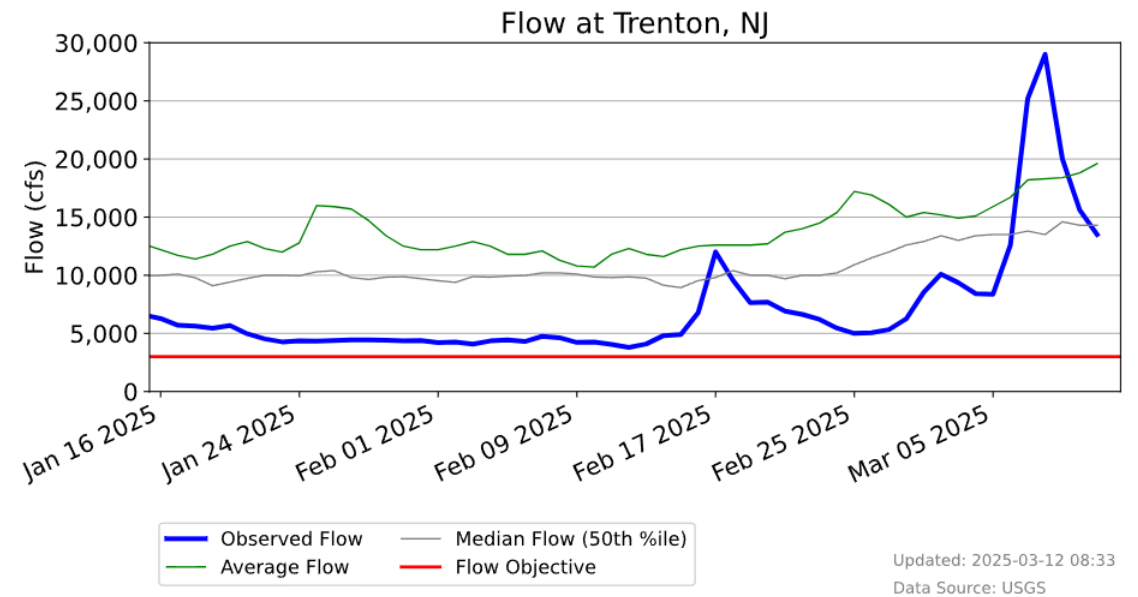
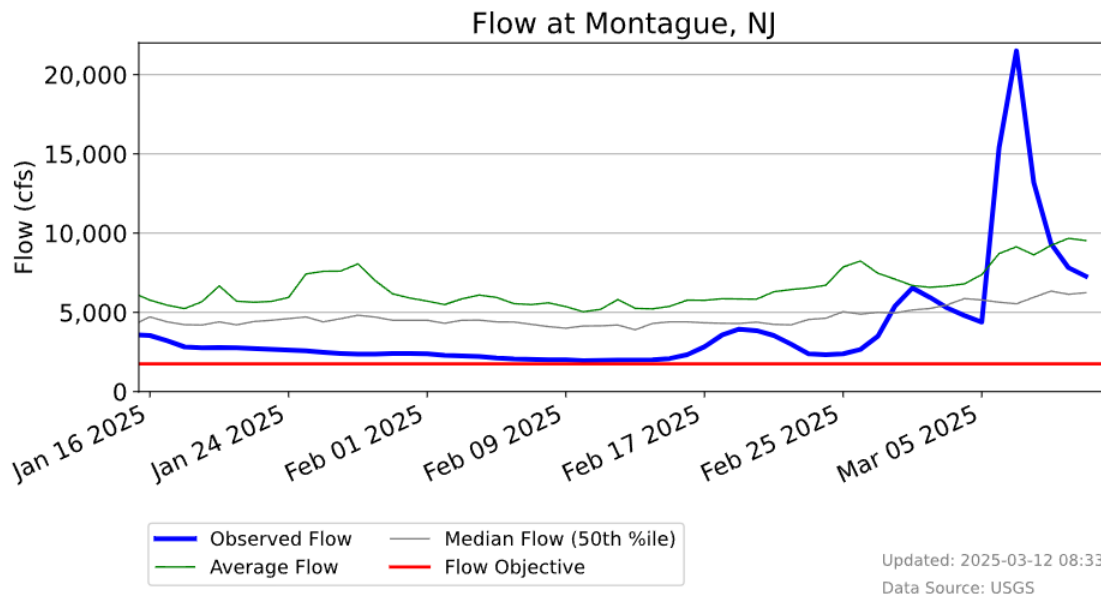


March 12, 2025

Releases from Lower and Upper Basin Reservoirs are used to meet flow objectives.

Streamflow

Flows along the mainstem remain above normal to normal after recent rains.



Streamflow

Most tributaries have recovered to normal conditions with recent precipitation but still dry in south.

Flow Conditions:

Upper Basin: Normal

Central Basin: Below Normal

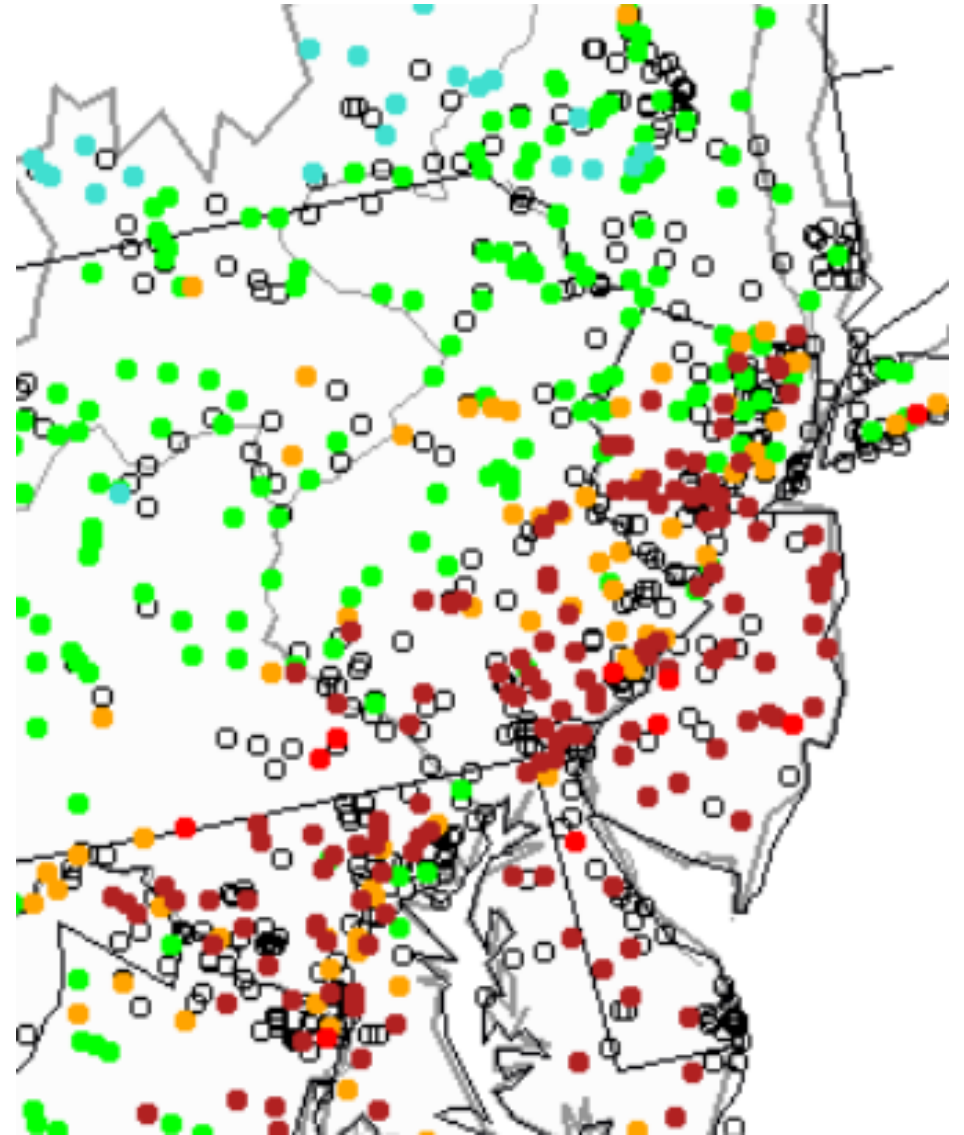
Lower Basin: Below Normal

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		

Map last updated:

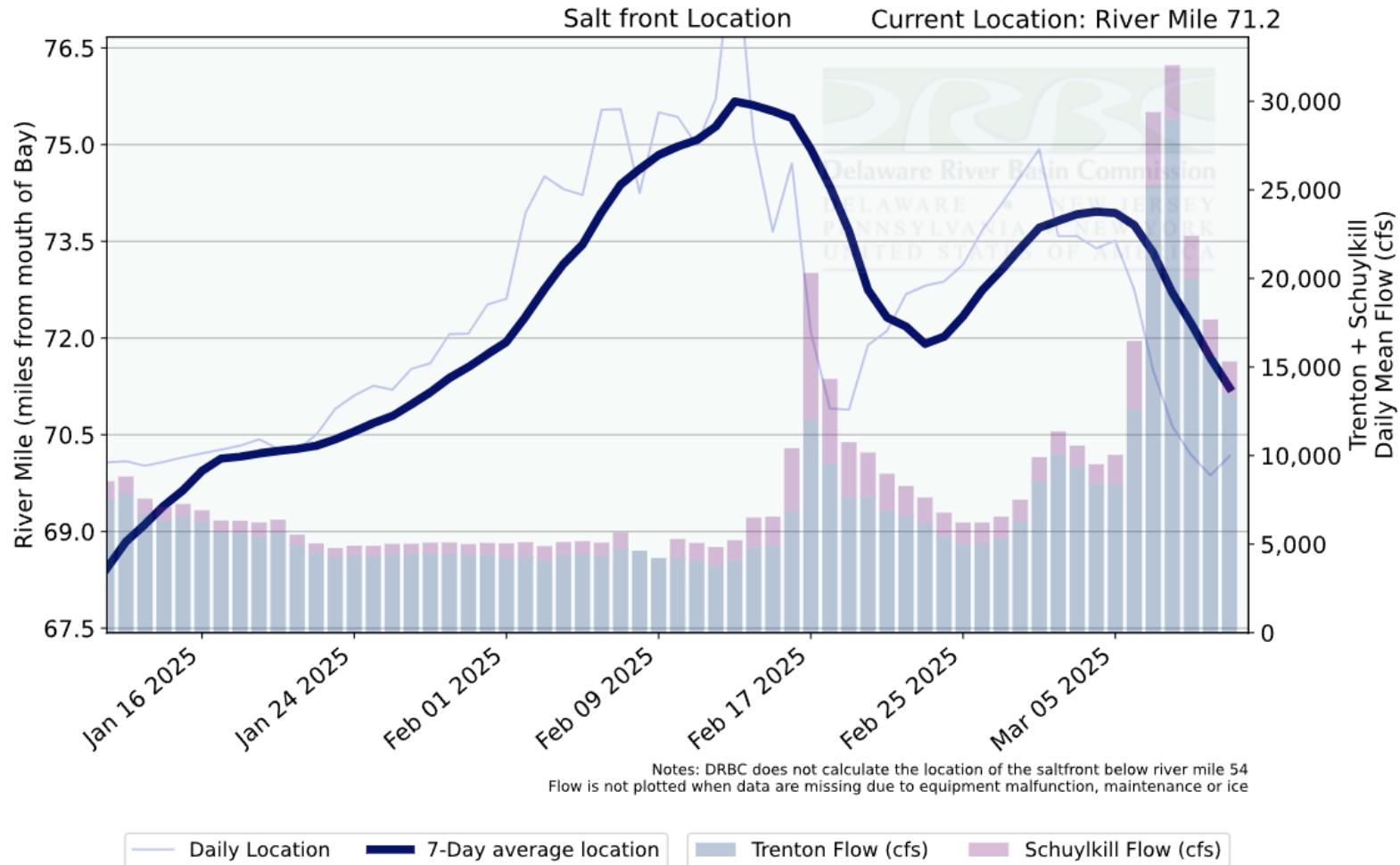
7:30 pm EDT, **March 12, 2025**

Data Source: USGS, Water Watch, https://waterwatch.usgs.gov/index.php?r=02&id=ww_current



Salt Front Location

Salt front has moved upstream with the lack of rainfall.



Updated: 2025-03-12 08:36

March 12, 2025

SALT FRONT (river mile)

This Week: 71.2

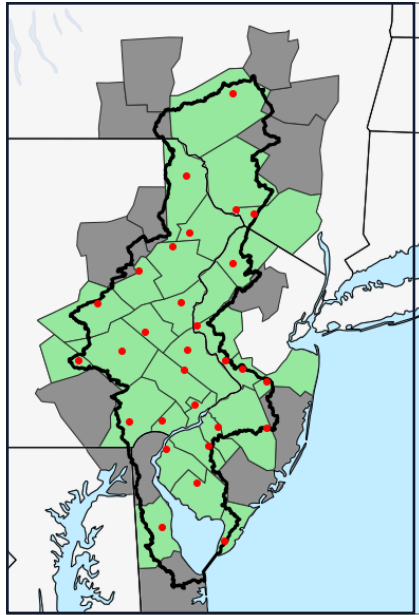
Last Week: 73.9

March Median: 70

Groundwater Levels

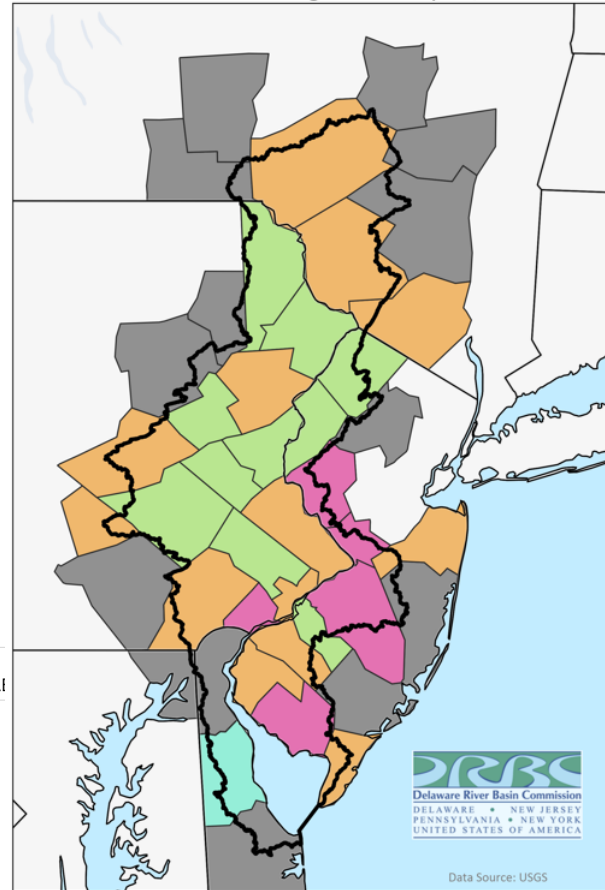
Groundwater levels have dropped significantly with the lack of rainfall in last winter.

Reference Wells

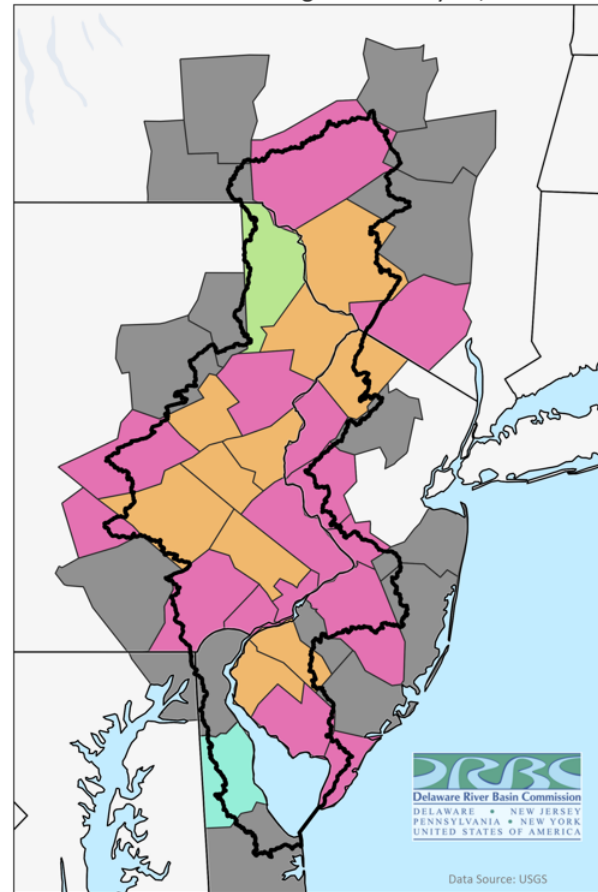


- Basin Boundary
- Well Location
- County contains well
- No well available within DRI

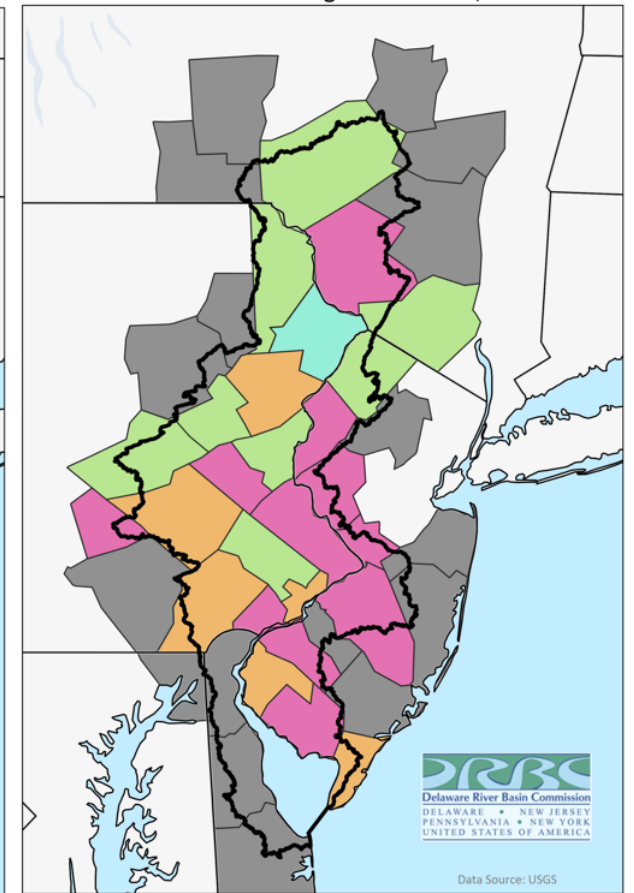
Groundwater Ranking on January 01, 2025



Groundwater Ranking on February 01, 2025



Groundwater Ranking on March 10, 2025



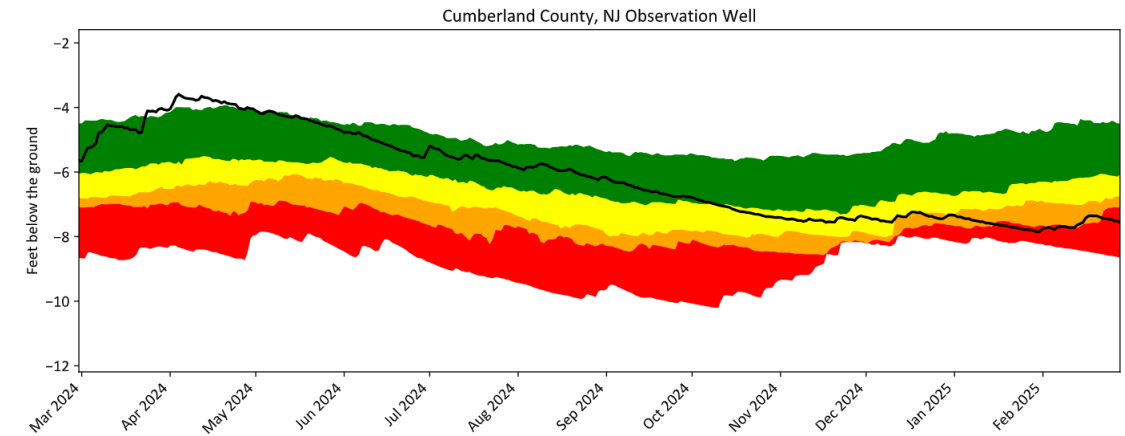
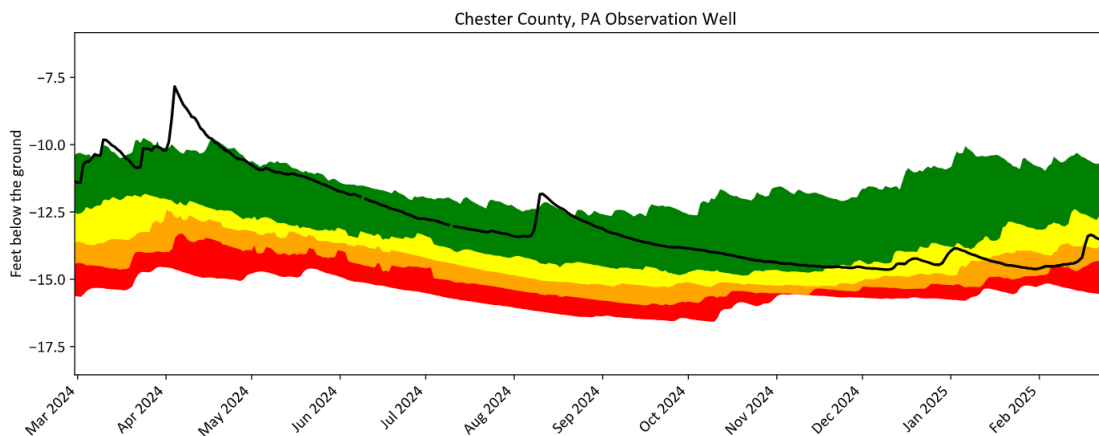
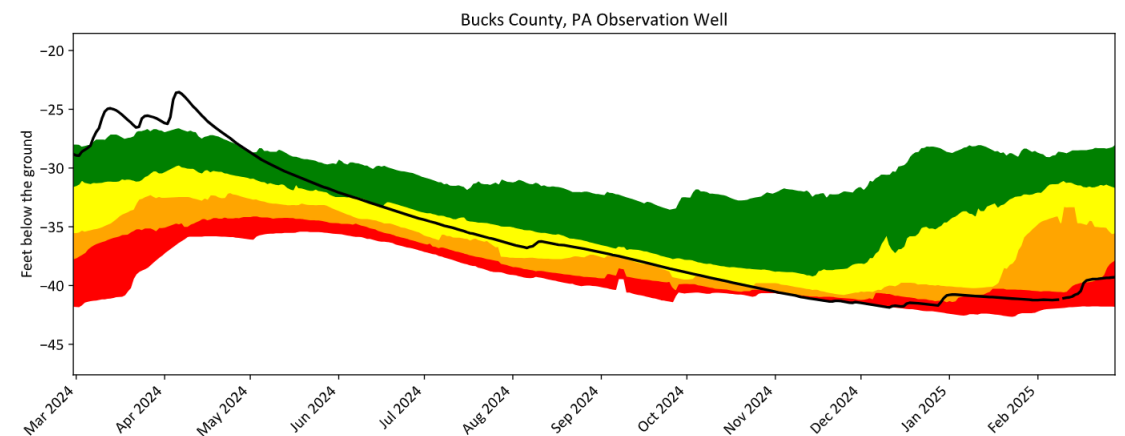
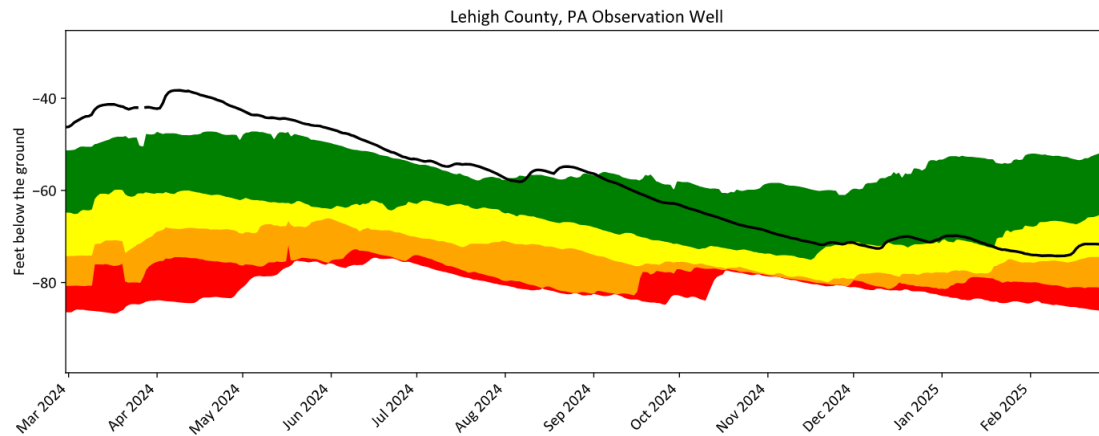
— Basin Boundary

- Much Above Normal
- Above Normal
- Normal
- Below Normal
- Much Below Normal
- Data unavailable

January 1st through March 10, 2025

Groundwater Levels

Groundwater levels starting to show a decline with lack of rainfall.



Last updated on March 11, 2025



Drought Monitor

Conditions have remained dry with a moderate drought in many parts of the Basin.

Northeast

[Home](#) / Northeast

Map released: Thurs. March 6, 2025

Data valid: March 4, 2025 at 7 a.m. EST

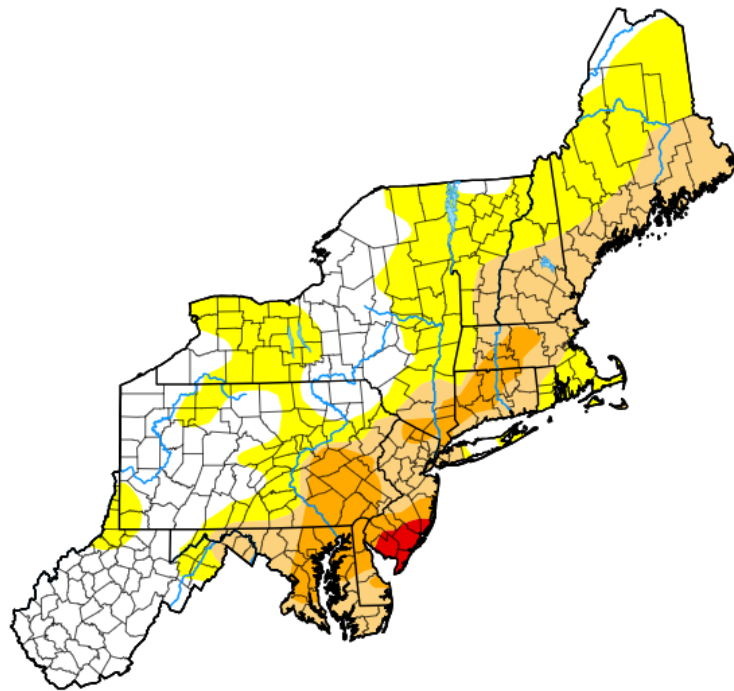
Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

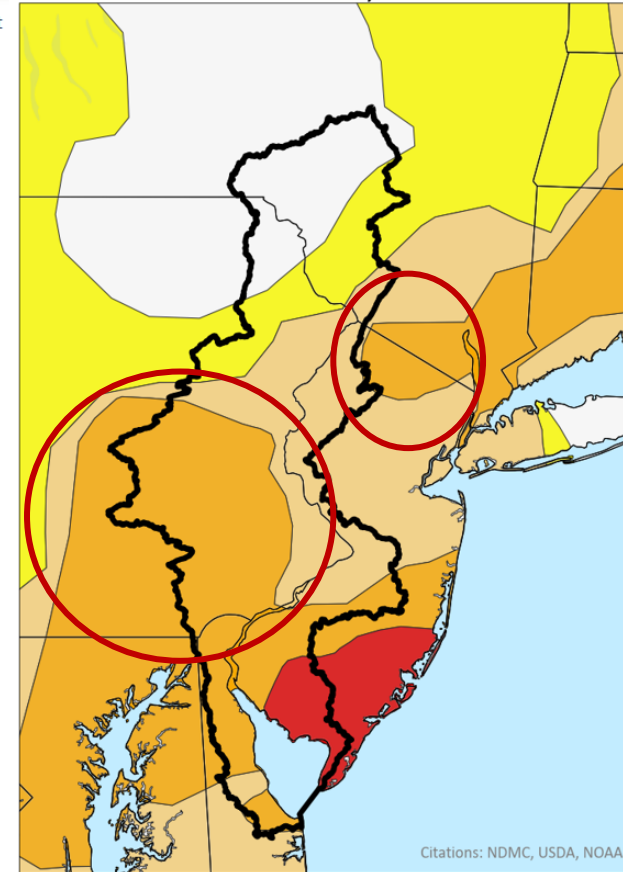
Authors

United States and Puerto Rico Author(s):
[Curtis Riganti](#), National Drought Mitigation Center

Pacific Islands and Virgin Islands Author(s):
[Brad Rippey](#), U.S. Department of Agriculture



Drought Monitor
Valid: Mar 04, 2025

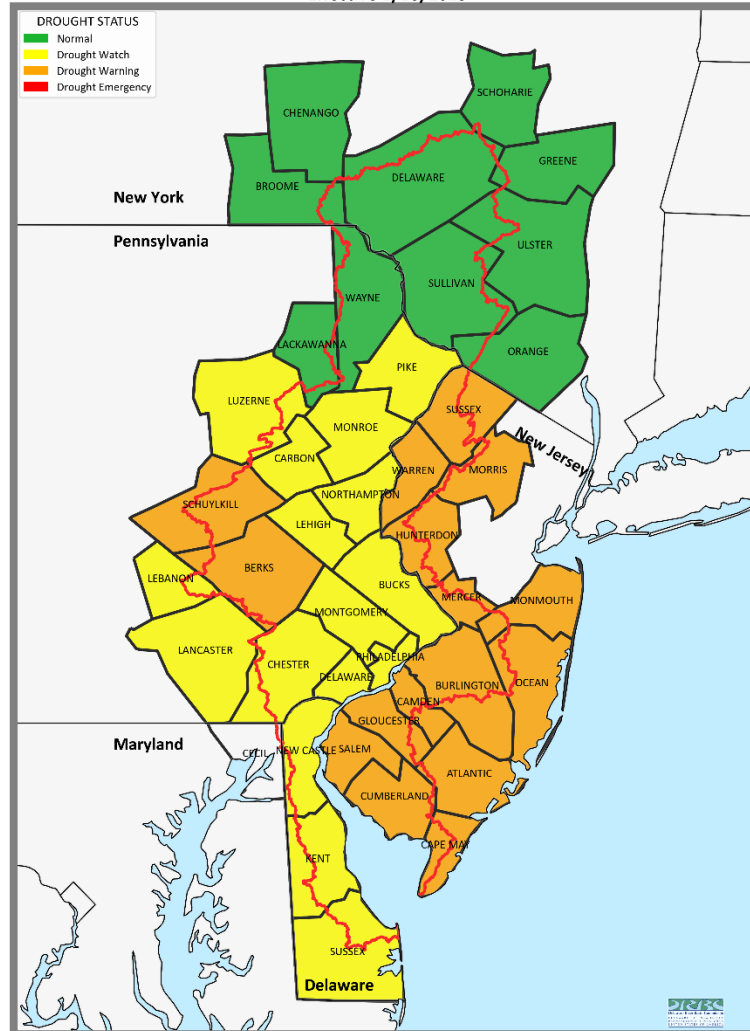


Waiting for Mar 11 update. Not available yet.

Drought Status

Dry conditions in the fall led to a drought watch in the Basin states.

Drought Status In the Delaware River Basin
As Declared by the Individual Basin States
Effective 2/18/2025



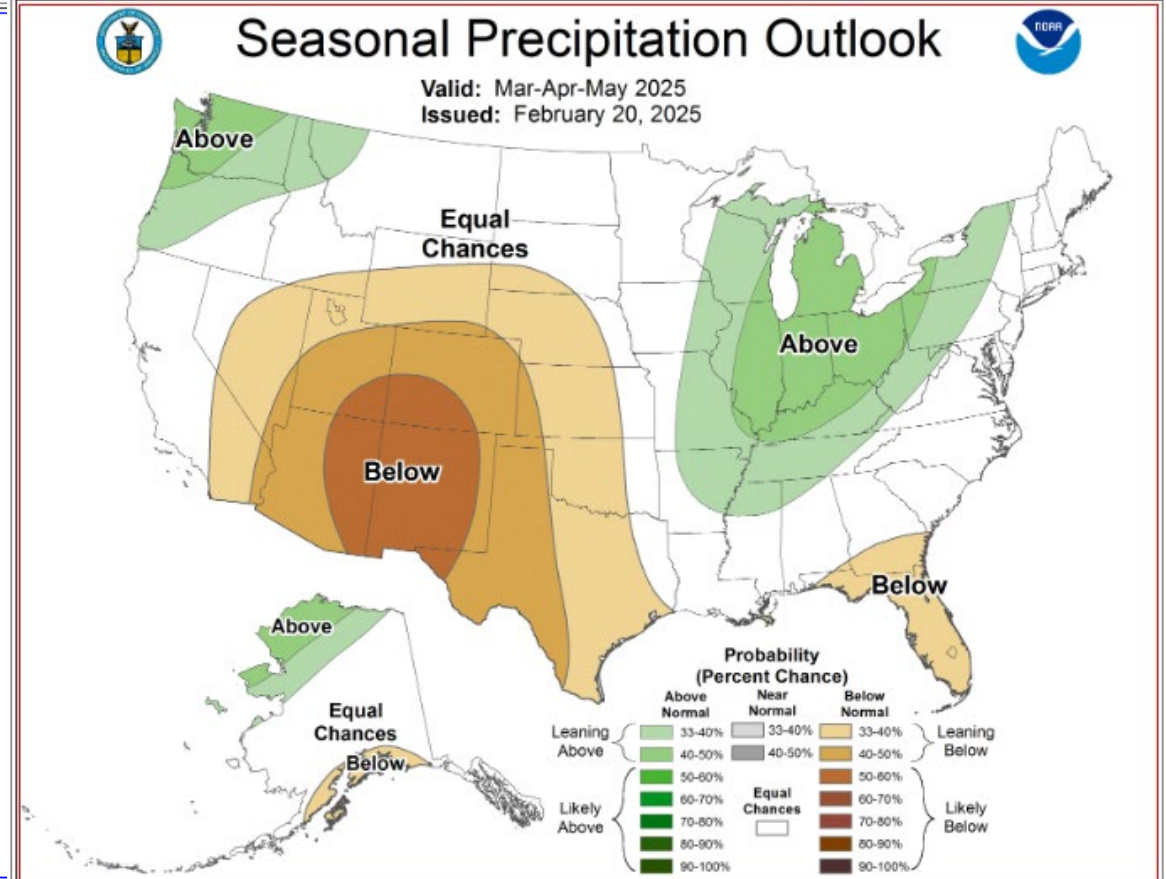
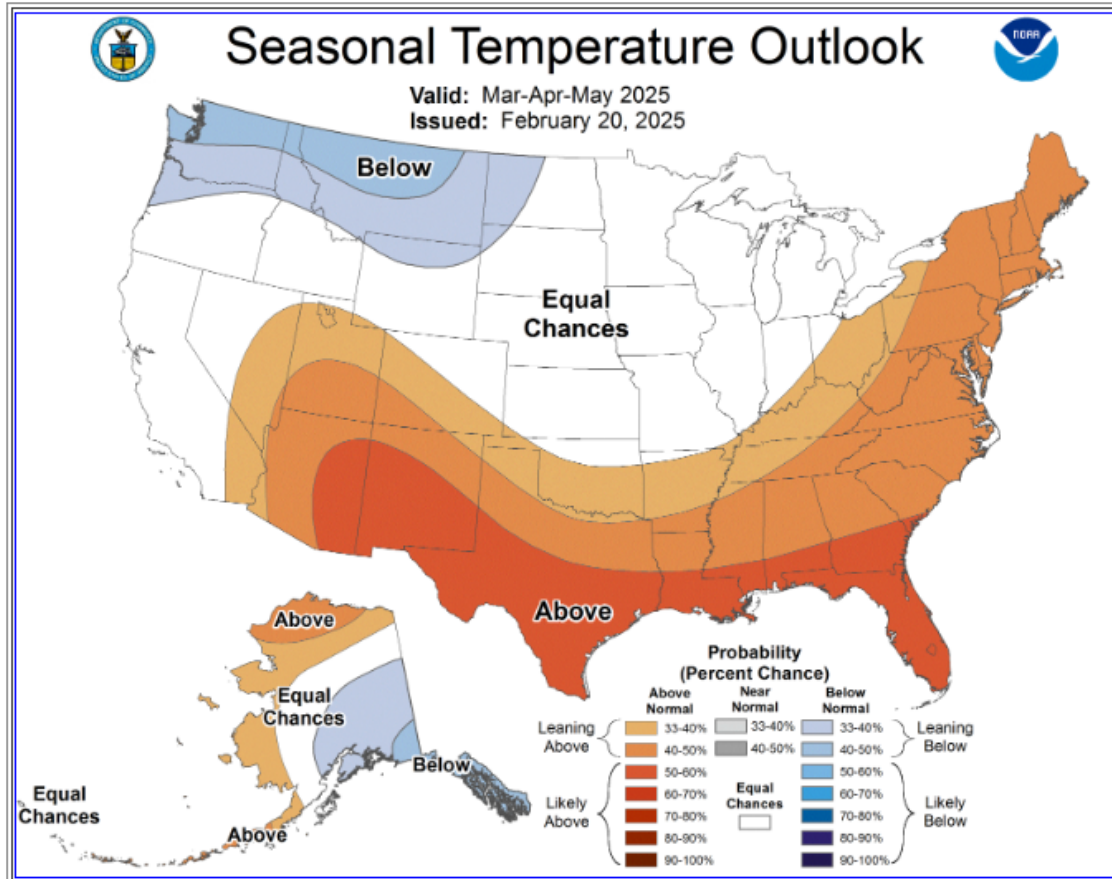
- DRB drought status is normal
- NJ: Drought Warning
- DE: Drought Watch
- NY: Normal as of Jan 2025
- PA: Drought Watch; 2 DRB counties in Drought Warning

Map last updated on 2/18/2025.
No change since then.

DRBC's flow management operations normal

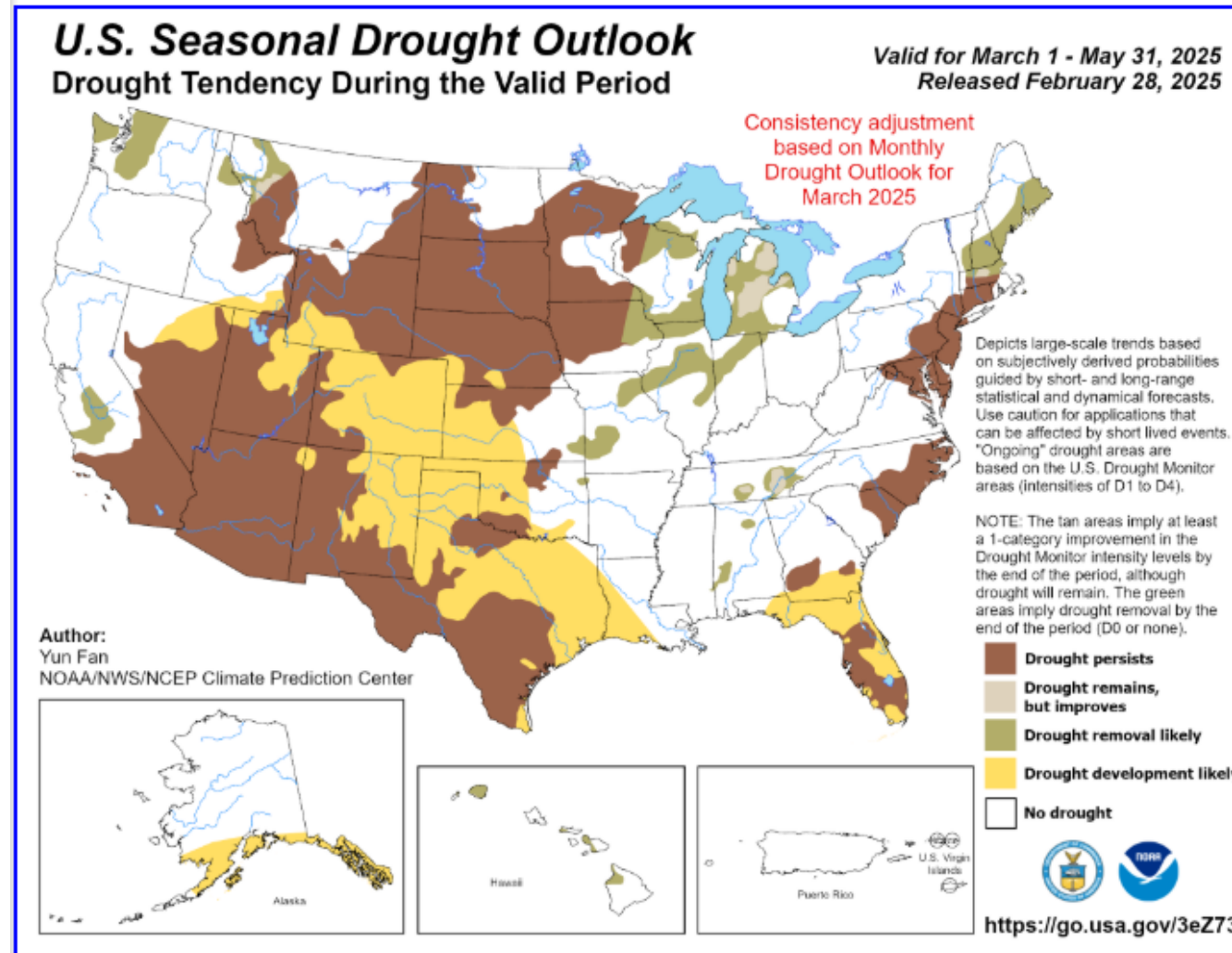
NOAA Seasonal Outlook

Warm early spring with equal chances for precipitation



NOAA Seasonal Drought Outlook

Drought may persist in the DRB through the end of May



Hydrologic conditions summary

- Conditions have recovered slightly, but many parts of the Basin remain in moderate drought.
- Three-month outlook – warmer weather to return, and precipitation is expected to be normal. Drought may persist through the end of May

Enjoy the rest of the spring!