

Delaware River Basin Commission

Hydrologic Conditions

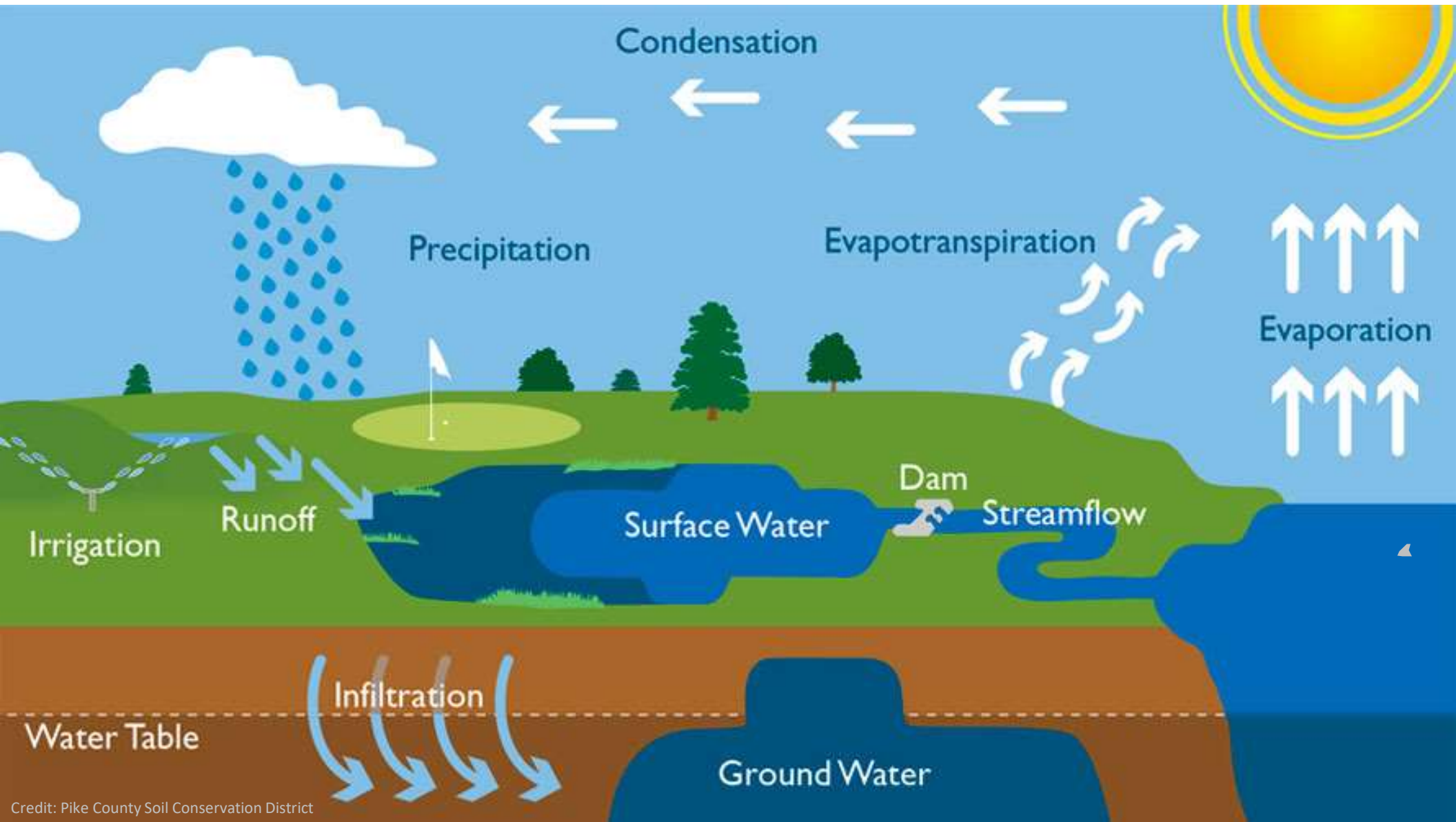
Amy L. Shallcross, PE
Manager, Water Resource
Operations

Water Management Advisory
Committee
October 12, 2023



This presentation was given at the October 12, 2023, WMAC Meeting.

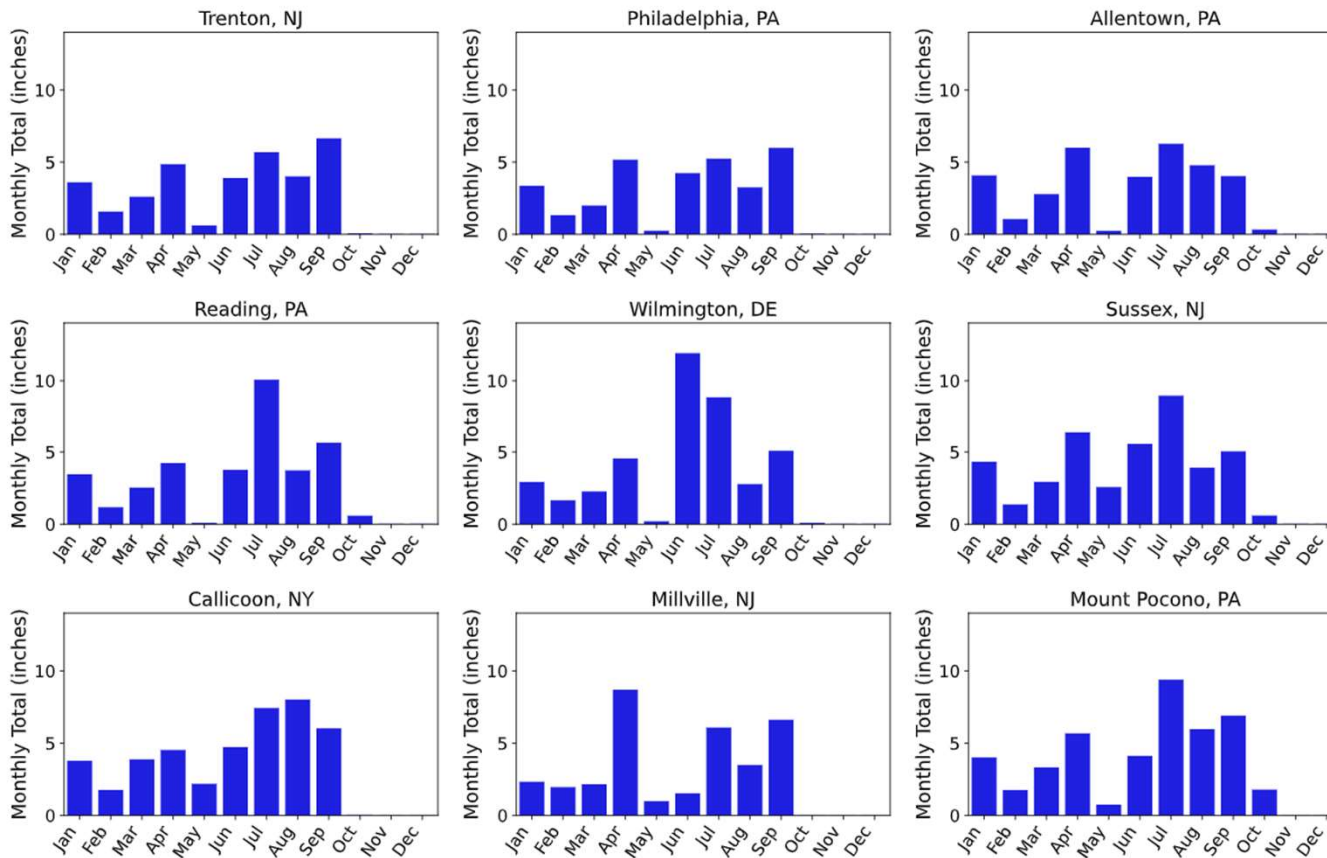
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Credit: Pike County Soil Conservation District

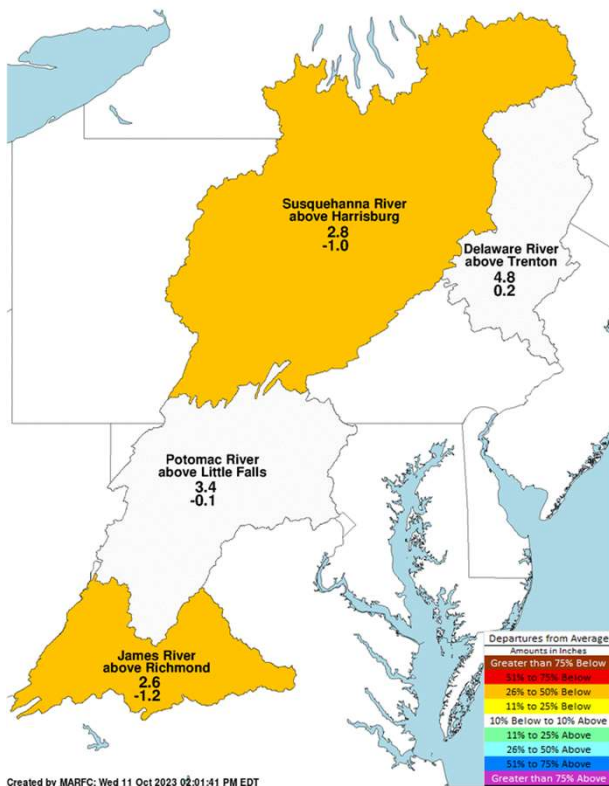
Year-to-Date Precipitation

Monthly Precipitation, 2023

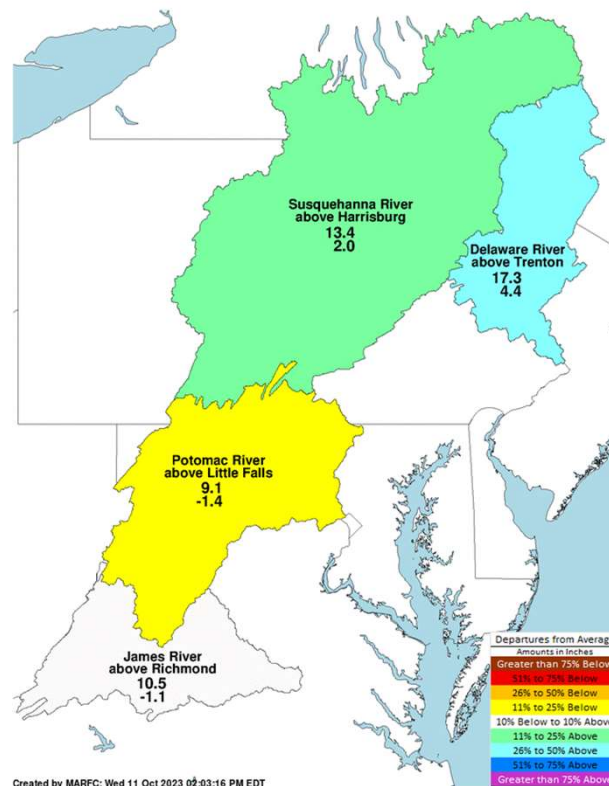


Precipitation

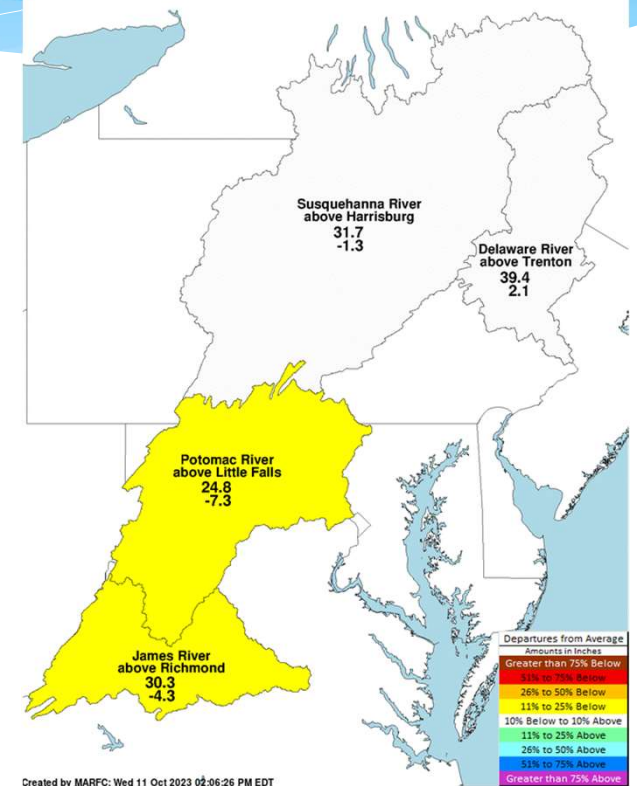
30-day Precipitation and Departure



90-day Precipitation and Departure











Y-T-D Precipitation and Departure

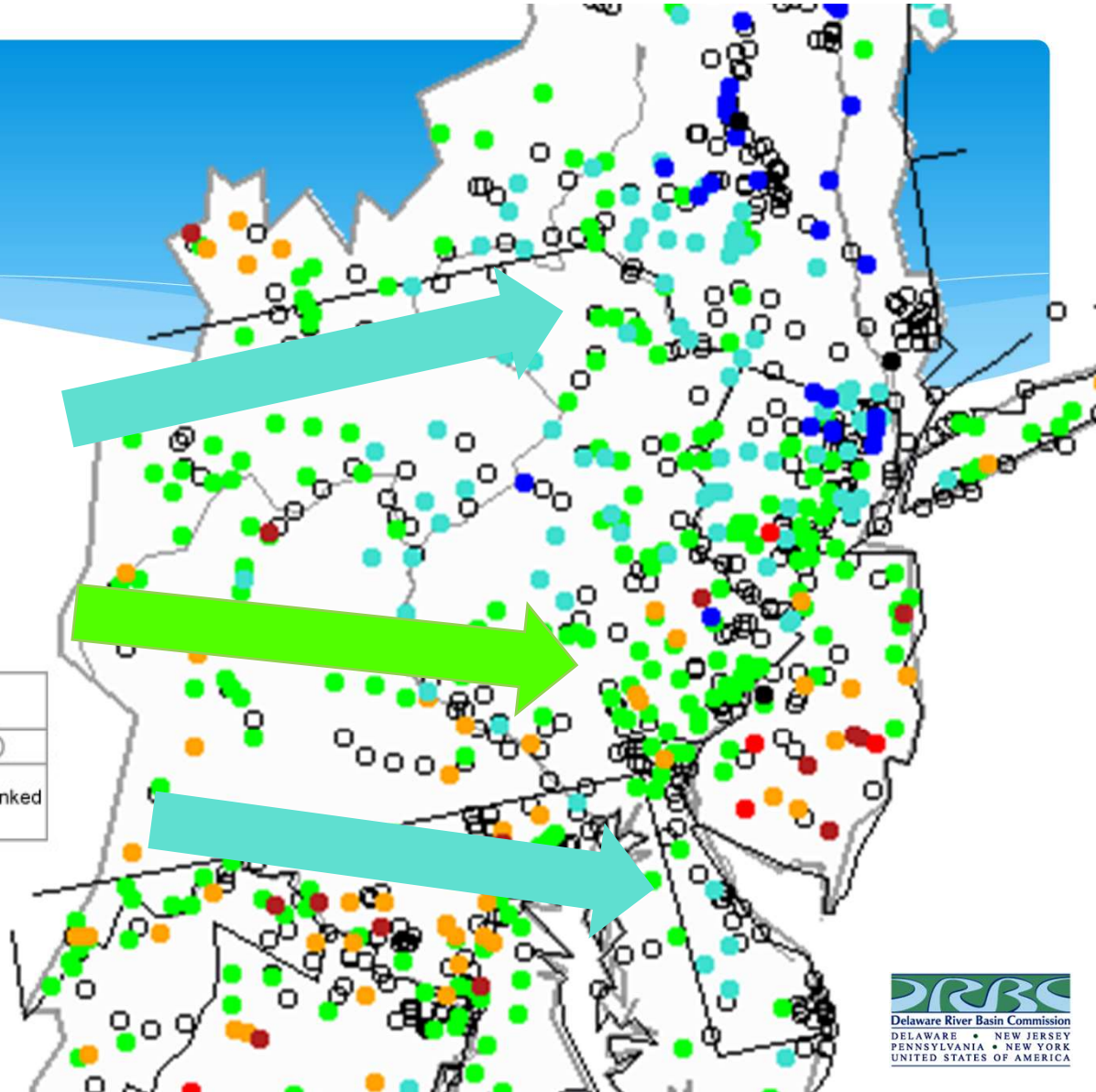


Streamflow

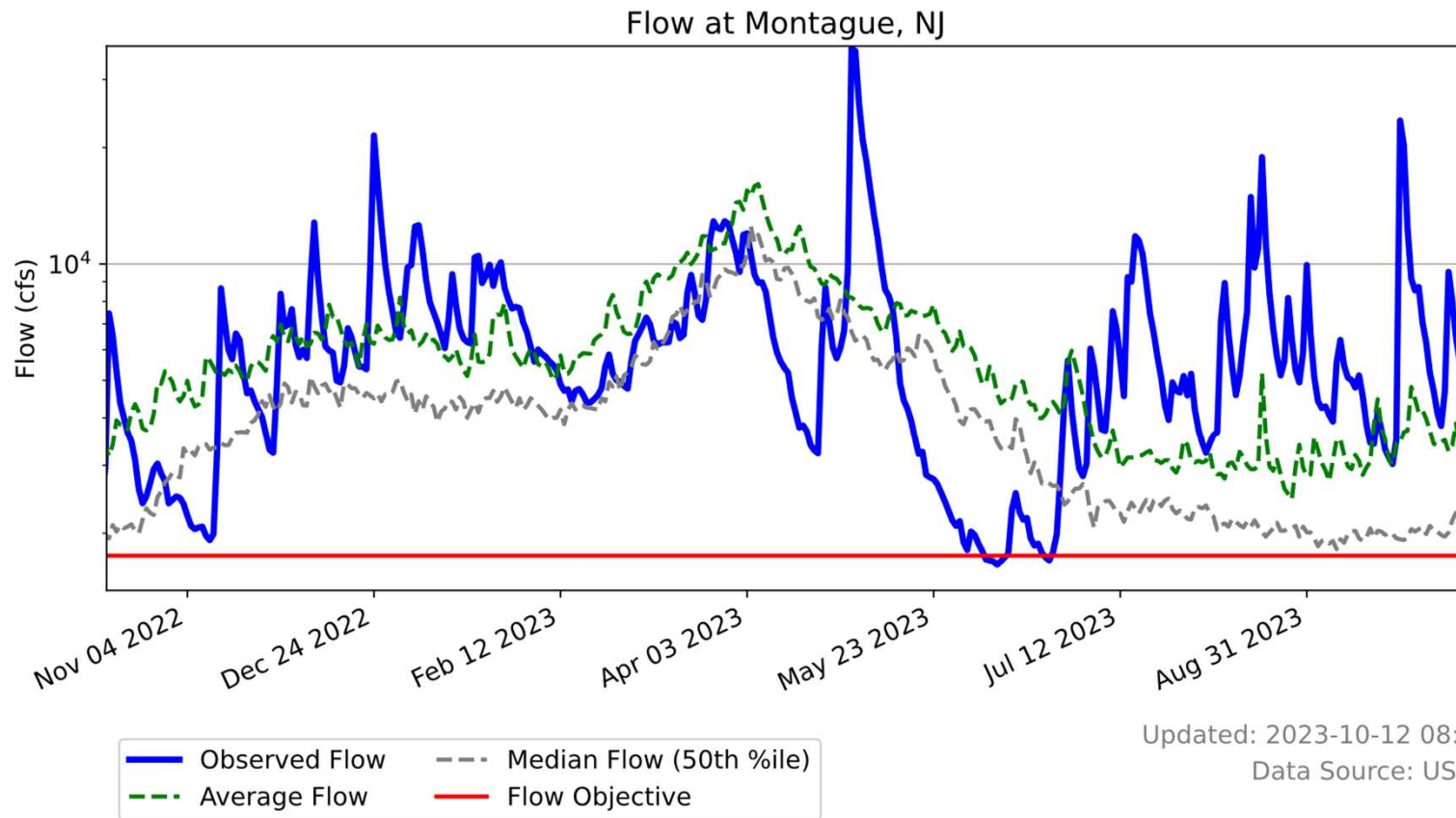
Normal – Above Normal;
some drier small streams

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		

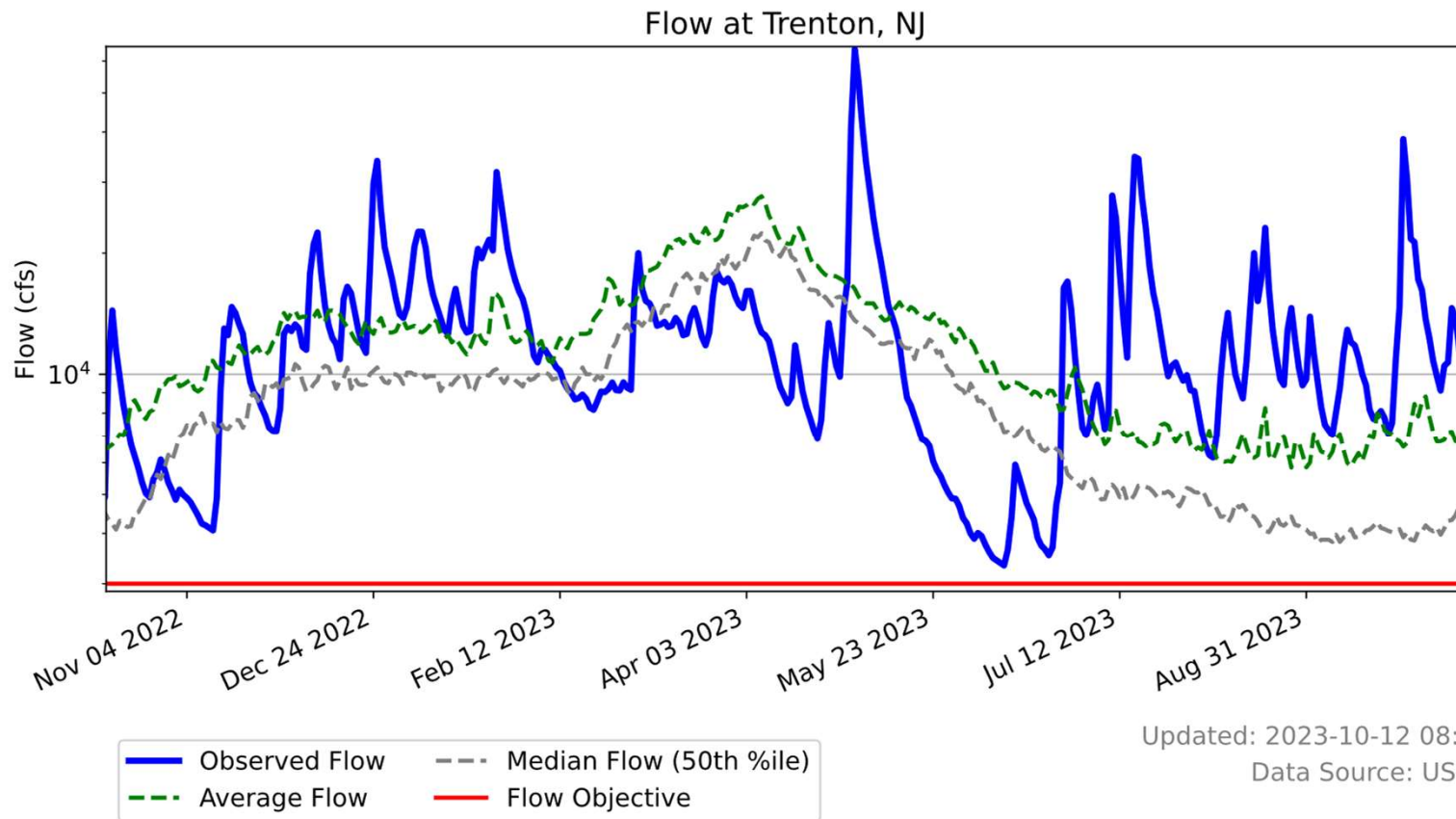
Map last updated: 7:30 AM October 12, 2023



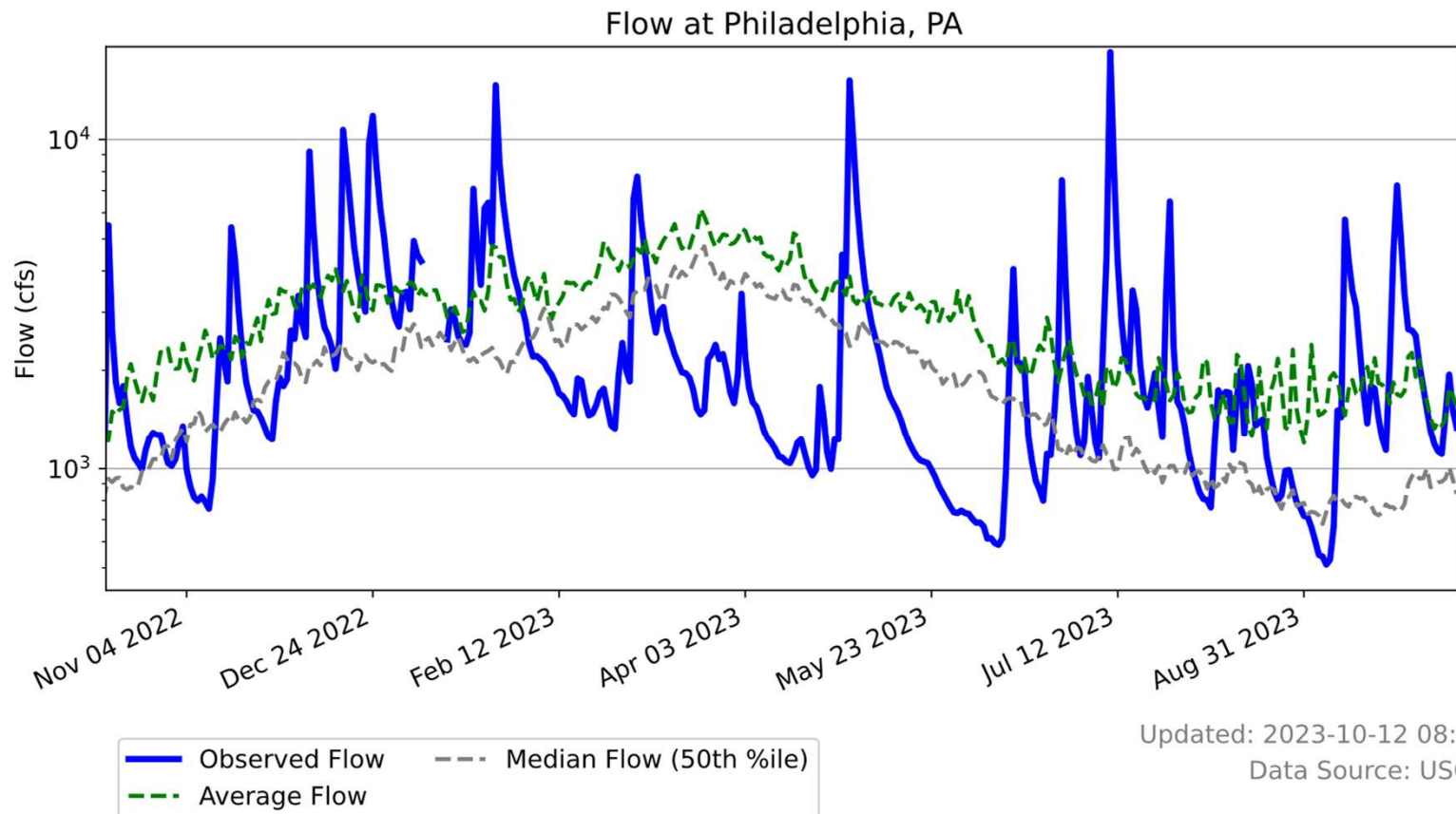
Delaware River at Montague



Delaware River at Trenton



Schuylkill River at Philadelphia



Updated: 2023-10-12 08:41
Data Source: USGS

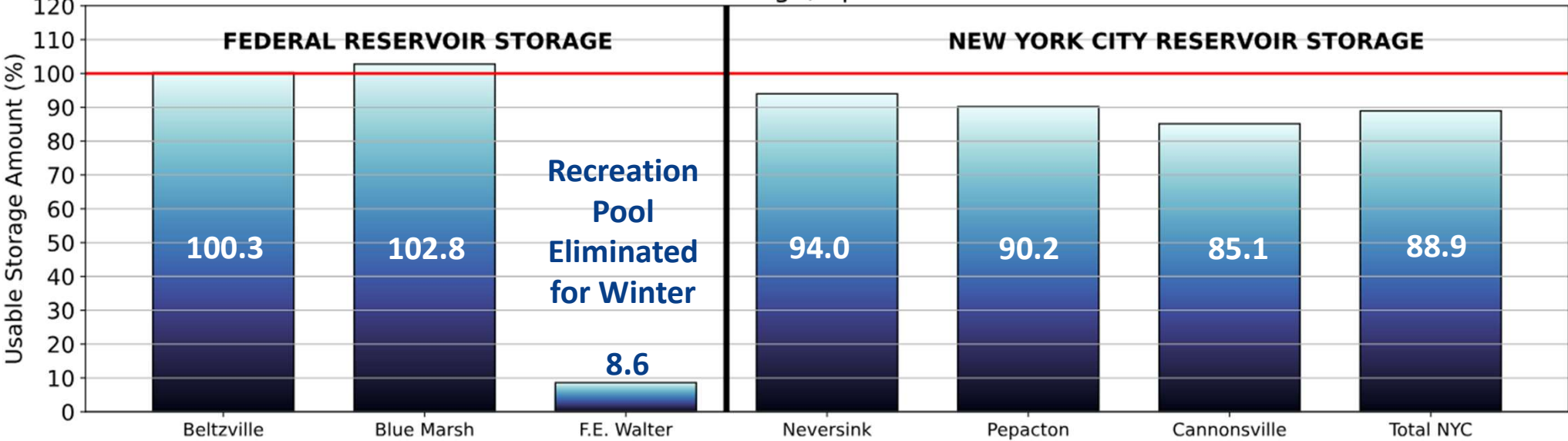
Reservoir Storage



- * Thirteen major reservoirs in the basin's **drought management plan**
- * DRB Water Code Sections 2.5.3-2.5.6, 18 CFR Part 410, and Flexible Flow Management Program
- * Two Flow Objectives
 - * Montague, NJ – Releases from NYC Reservoirs
 - * Trenton, NJ – Releases from DRBC Storage in USACE Reservoirs (Beltzville, Blue Marsh, help from FEW)
- * Flow objectives change based on drought status and salt front

Basin Storage

Usable Reservoir Storage, updated 2023-10-11 08:18

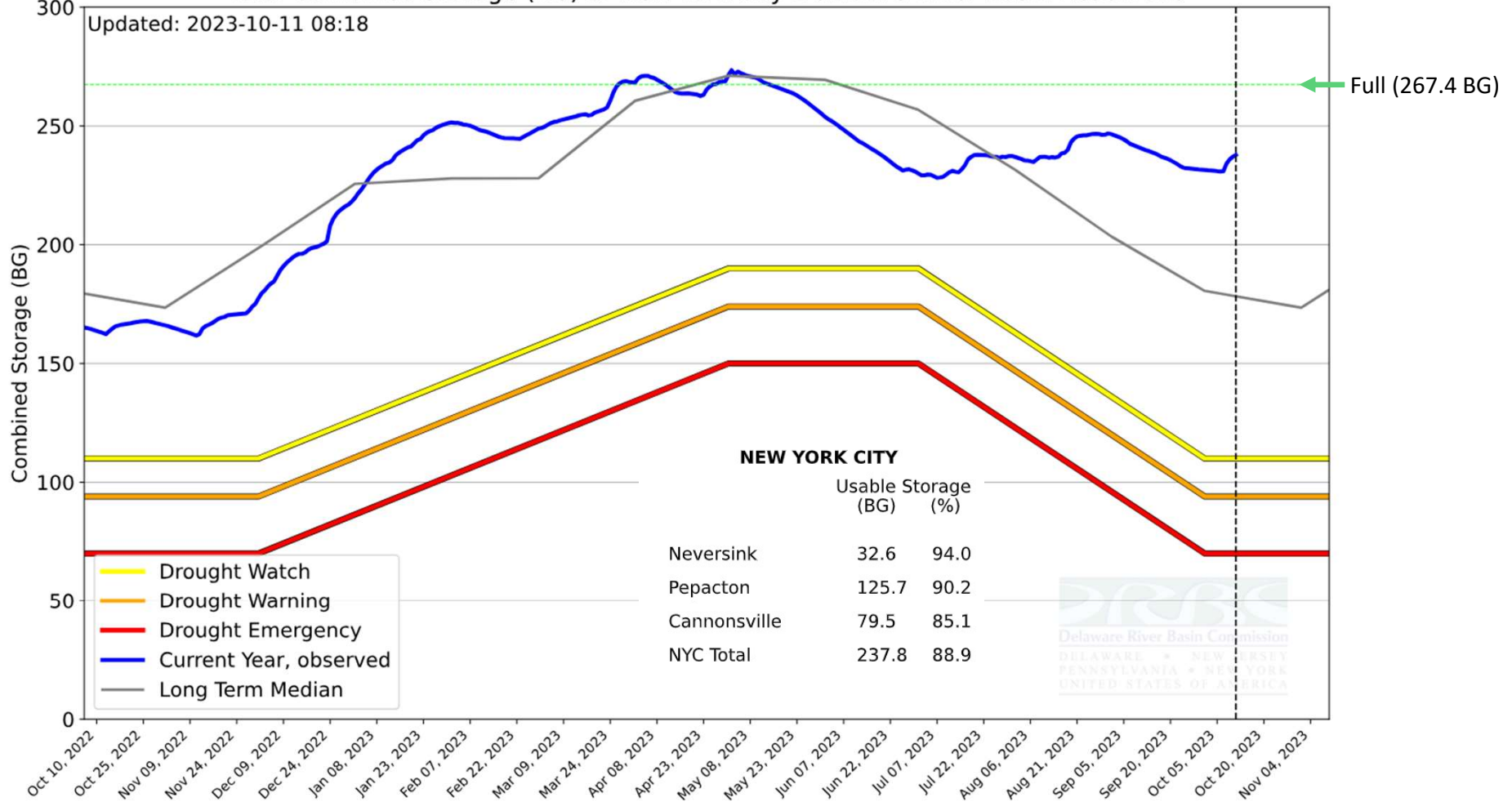


Recreation Pool Eliminated for Winter

*** Storage below lowest outlet (pipe) is not taken into account ***

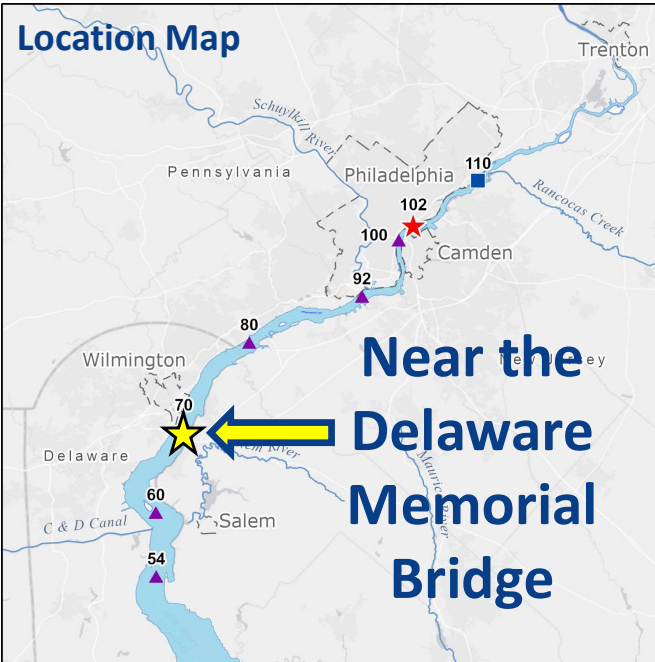


Total Combined Storage (BG) of New York City Delaware River Basin Reservoirs



Usable Storage	Cannonsville	Pepacton	Neversink	Total	BG above drought watch = 127.8	BG above median = 59.5
BG	79.5	125.7	32.6	237.8	BG above drought warning = 143.8	BG above one year ago = 75.0
%	85.1	90.2	94.0	88.9	BG above drought = 167.8	





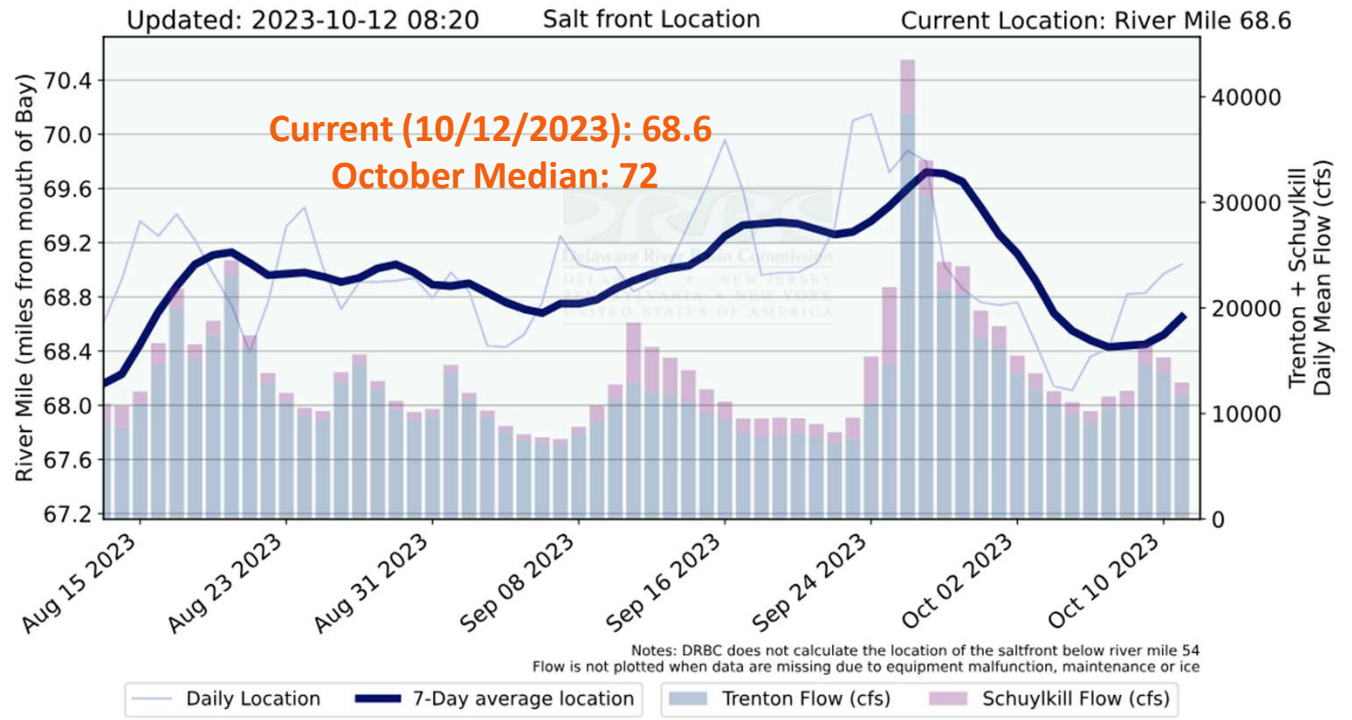
Near the Delaware Memorial Bridge

The salt front is the 7-Day Average Location of the 250 mg/L isochlor

The Flow Objective at Trenton was designed to repel salinity for the protection of drinking water treatment facilities and industrial intakes.

Salt Front

the Estuary Salinity Indicator



Updates to hydrologic conditions can be viewed daily on hydrosnap.drbc.net

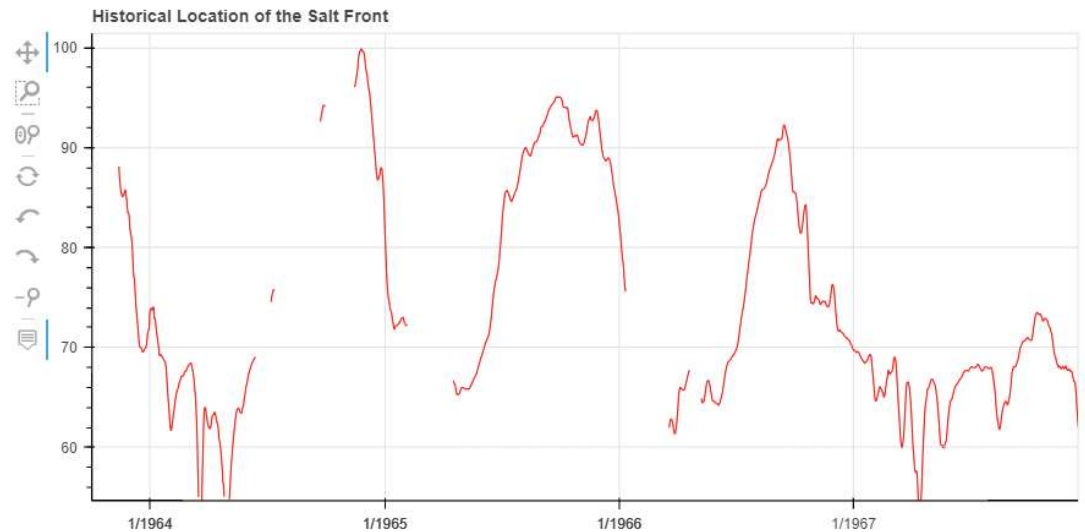
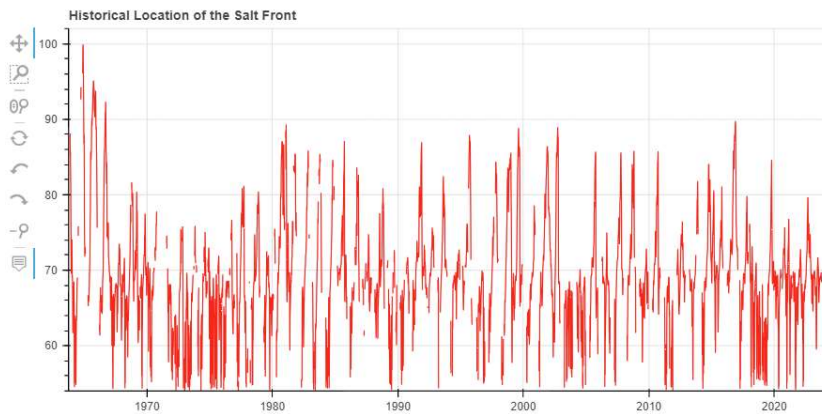






Source: DRBC





Salt Front Viewer

DRBC Salt Front Viewer

Use the navigation buttons on the left to explore the data. Descriptions of the navigation buttons are below the plot.



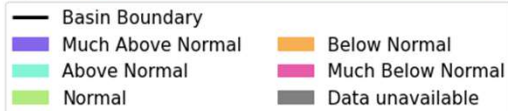
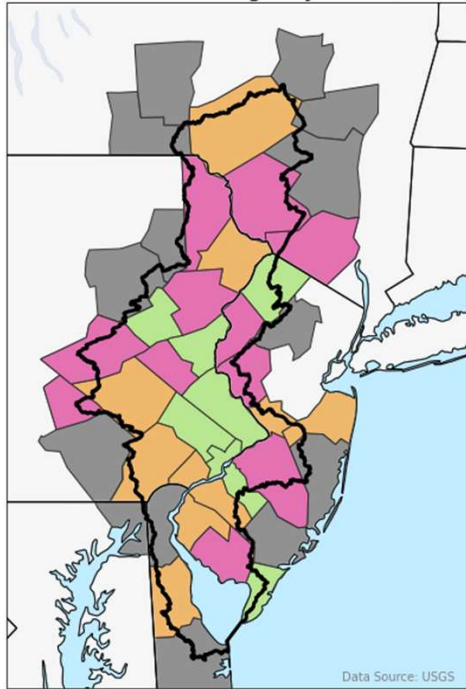
-  **Pan:** Click and drag the graph around when zoomed in
-  **Box Zoom:** Click and drag the on the graph to zoom into a portion of the graph
-  **Wheel Zoom:** Use the mouse wheel to zoom in or out on the graph
-  **Reset:** Revert the graph axes to their original values

-  **Undo:** Undo the most recent action(s)
-  **Redo:** Redo the most recent action(s)
-  **Zoom Out:** Click to gradually zoom out of the graph
-  **Hover:** Click to toggle on/off the box that displays values when you hover over the plot

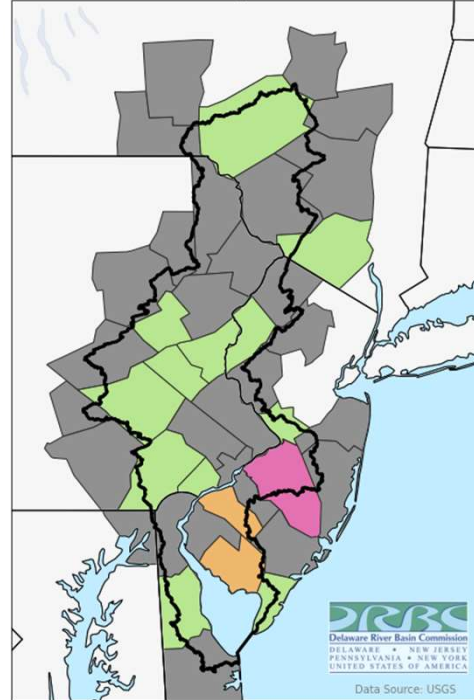
General - <https://www.nj.gov/drbc/programs/flow/salt-front.html>
 Viewer - <https://drbc.net/Sky/hydro/saltfront.html>

Groundwater

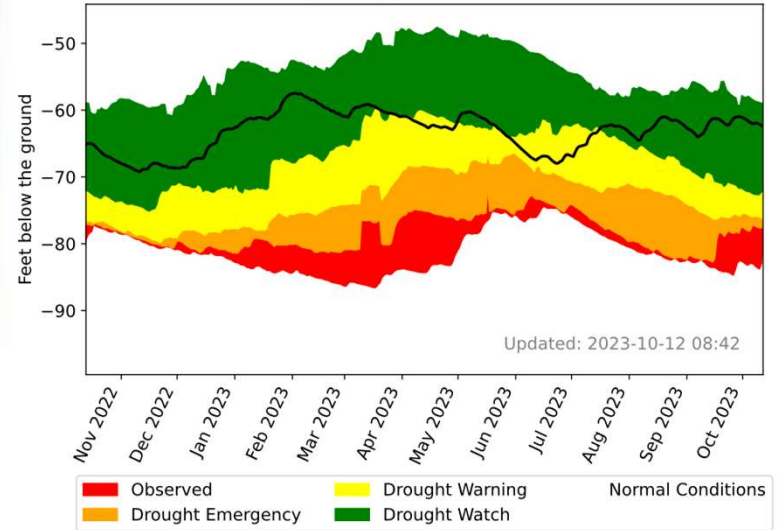
Groundwater Ranking on June 05, 2023



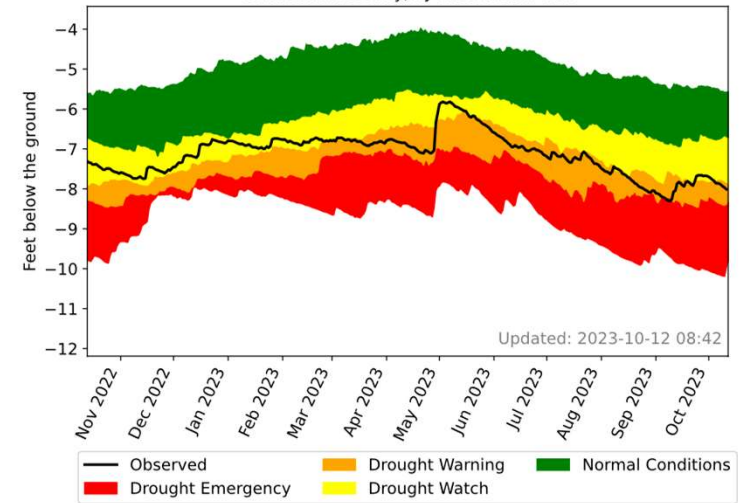
Groundwater Ranking on October 01, 2023



Lehigh County, PA Observation Well



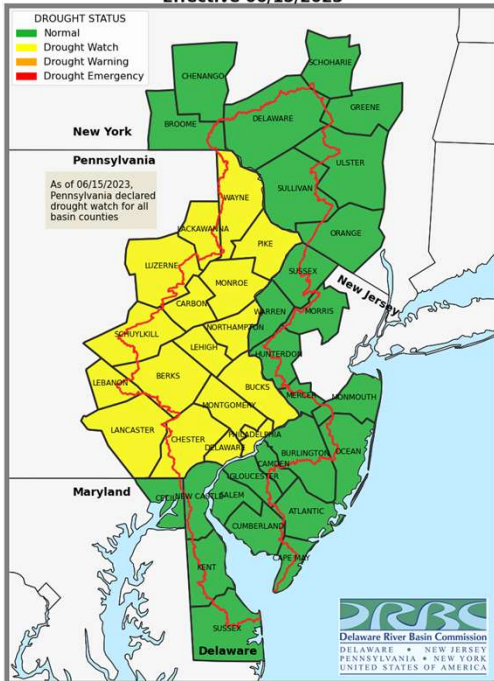
Cumberland County, NJ Observation Well



Drought Monitor

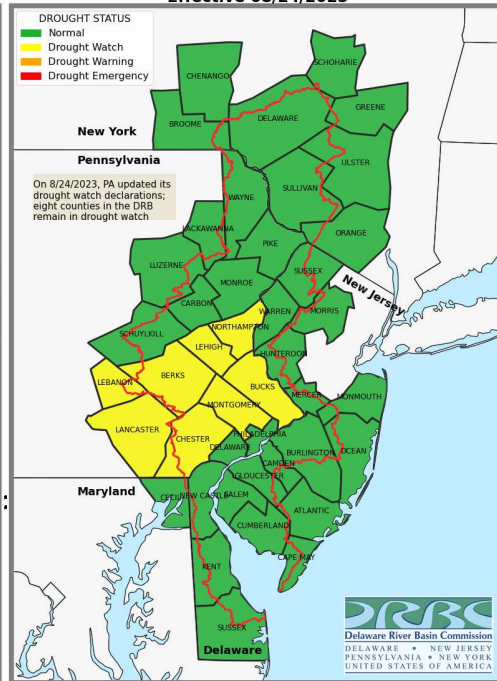
June

Drought Status in the Delaware River Basin As Declared by the Individual Basin States Effective 06/15/2023



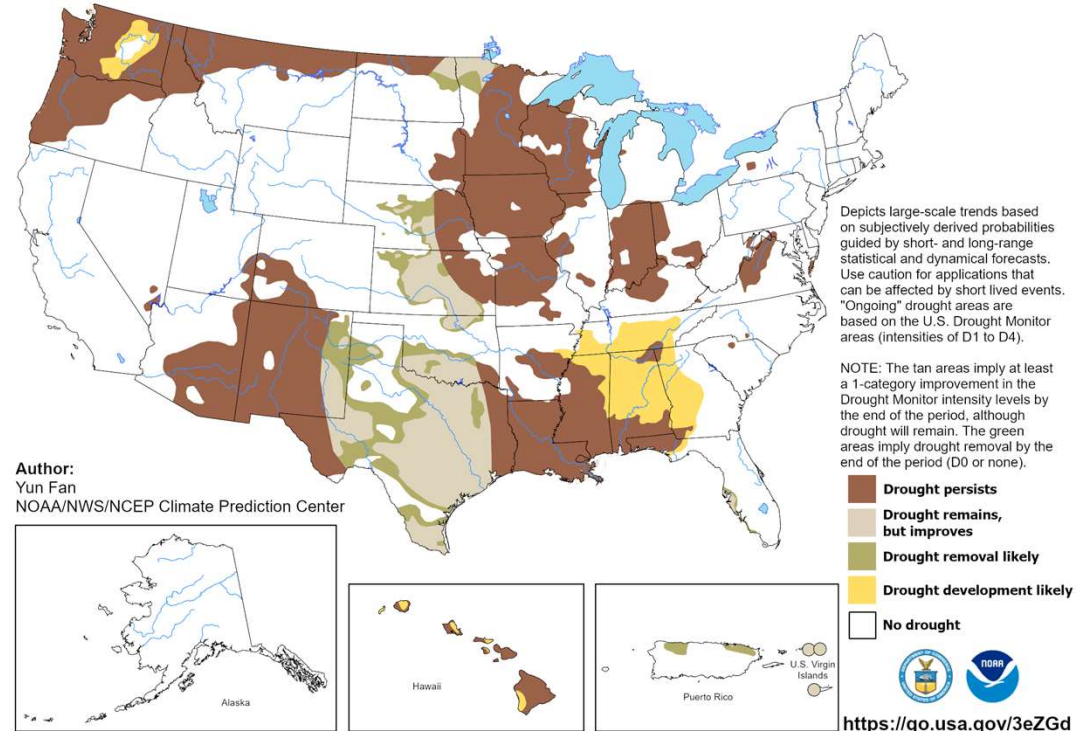
Current

Drought Status in the Delaware River Basin As Declared by the Individual Basin States Effective 08/24/2023



U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

Valid for October 2023
Released September 30, 2023



Data Source: NOAA CPC

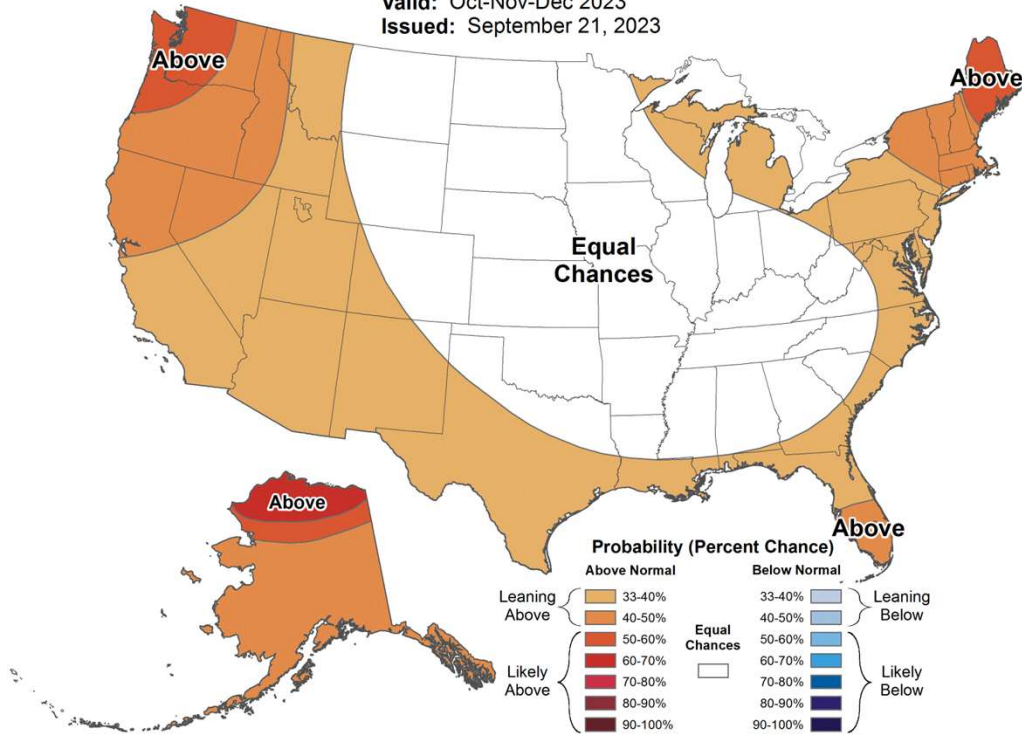
Fall Outlook 2023



Seasonal Temperature Outlook



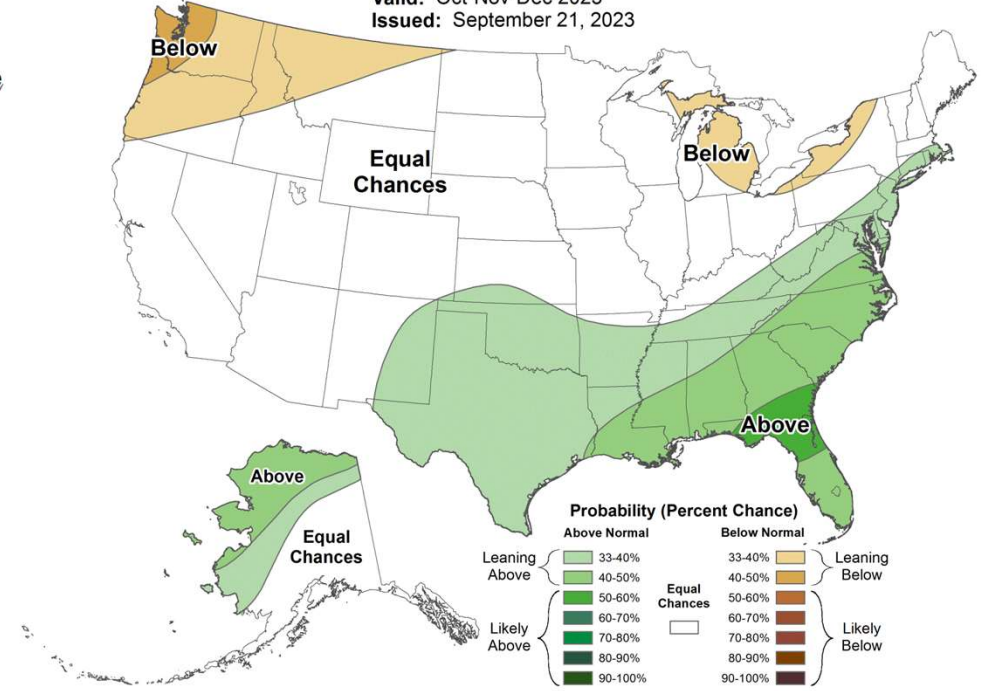
Valid: Oct-Nov-Dec 2023
 Issued: September 21, 2023



Seasonal Precipitation Outlook



Valid: Oct-Nov-Dec 2023
 Issued: September 21, 2023



Data Source: NOAA, CPC

Data Source: NOAA CPC



Delaware River Basin Commission

DELAWARE • NEW JERSEY
PENNSYLVANIA • NEW YORK
UNITED STATES OF AMERICA

Photo Credit: David B. Soete