

Delaware River Basin Commission

Hydrologic Conditions

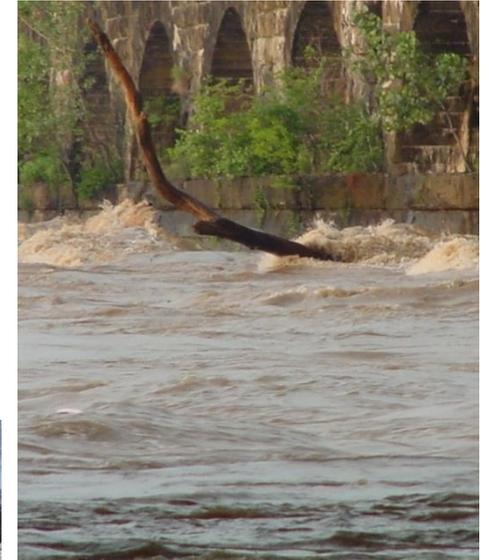
Anthony Preucil

Water Resource Scientist

Water Management Advisory Committee
Meeting

October 22, 2019

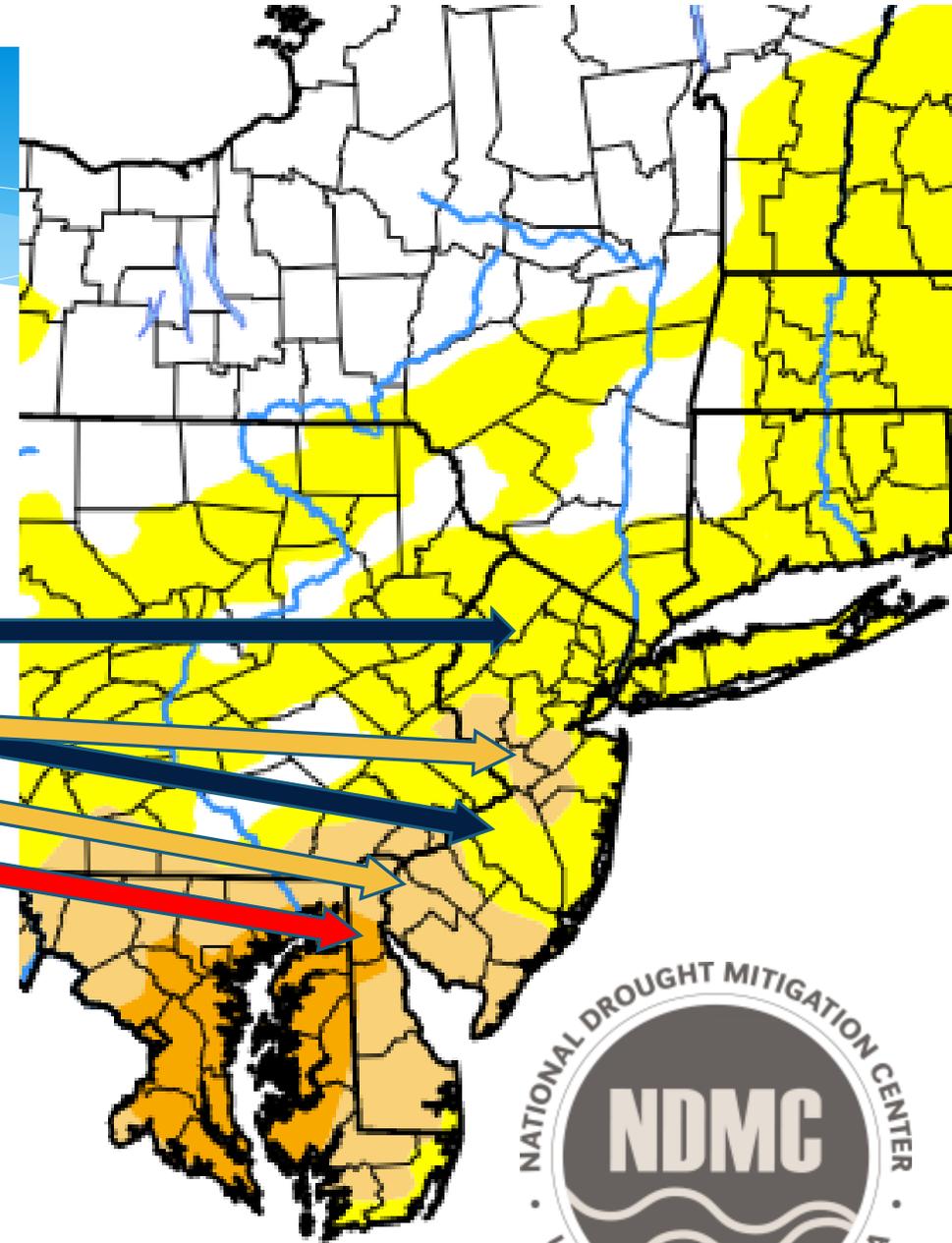
Presented to an advisory committee of the DRBC on October 22, 2019. Contents should not be published or re-posted in whole or in part without permission of DRBC.



Drought Monitor

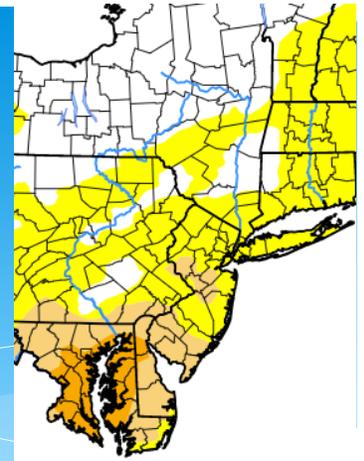
Published October 15th, 2019

-  None
-  D0 (Abnormally Dry)
-  D1 (Moderate Drought)
-  D2 (Severe Drought)
-  D3 (Extreme Drought)
-  D4 (Exceptional Drought)

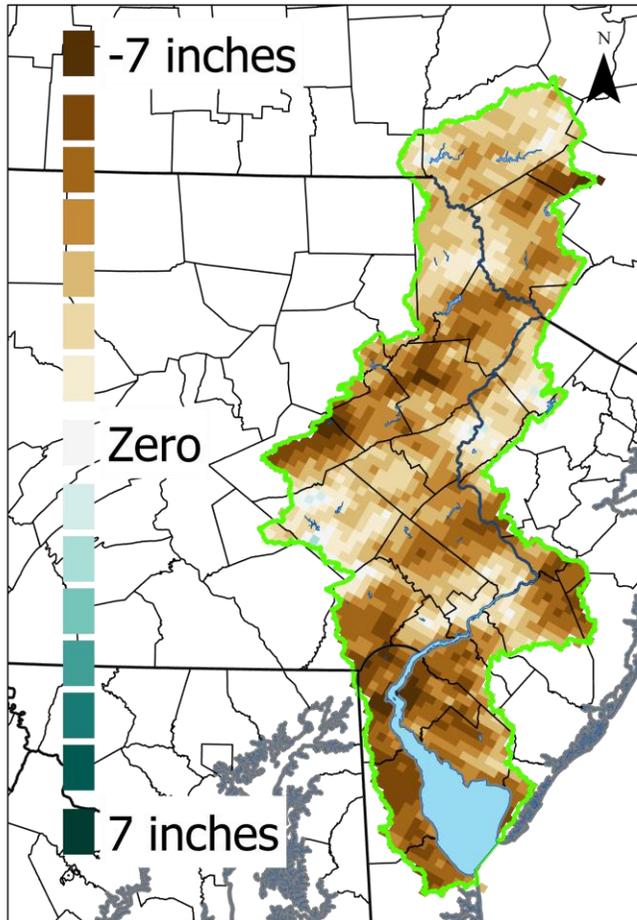




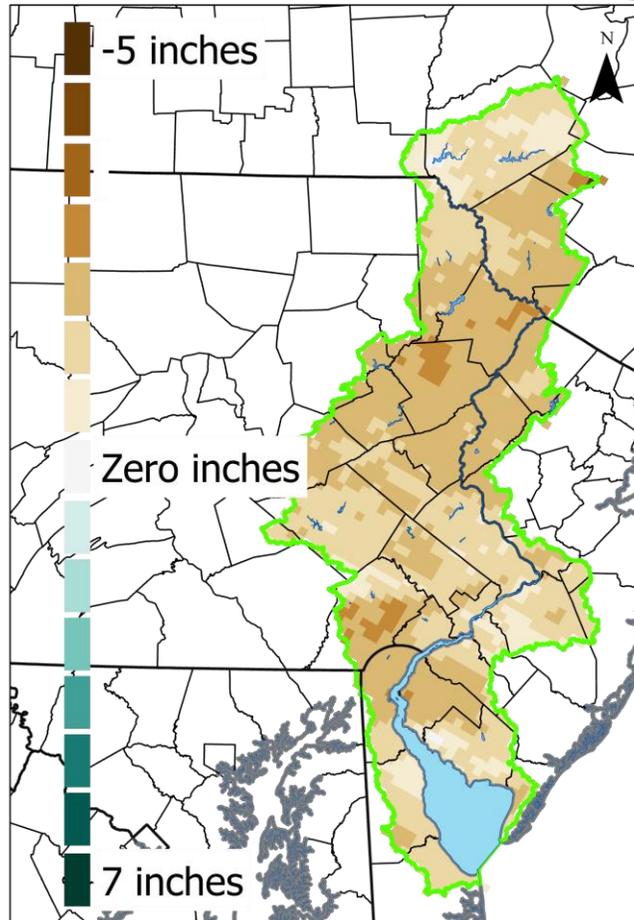
Precipitation Departures



90-day departure
(through October 16th)



September Departure

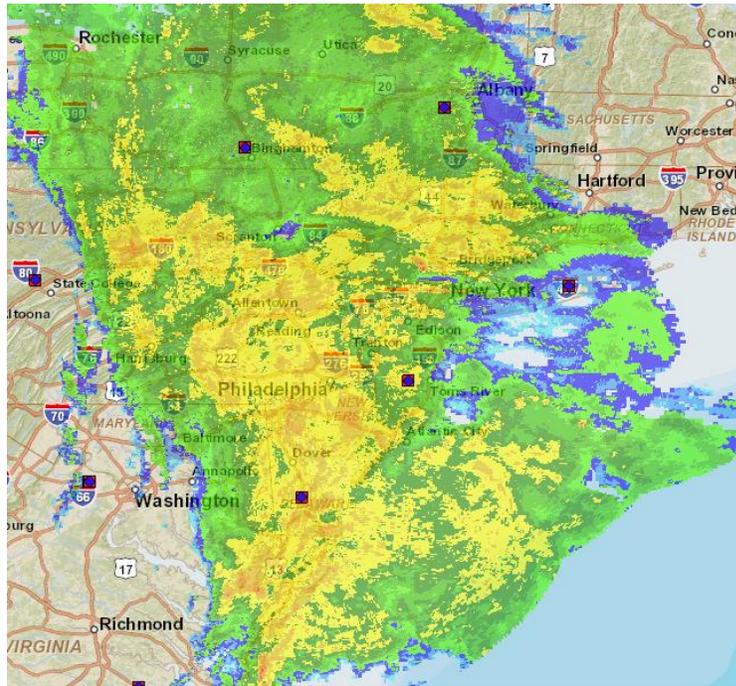


But Then...

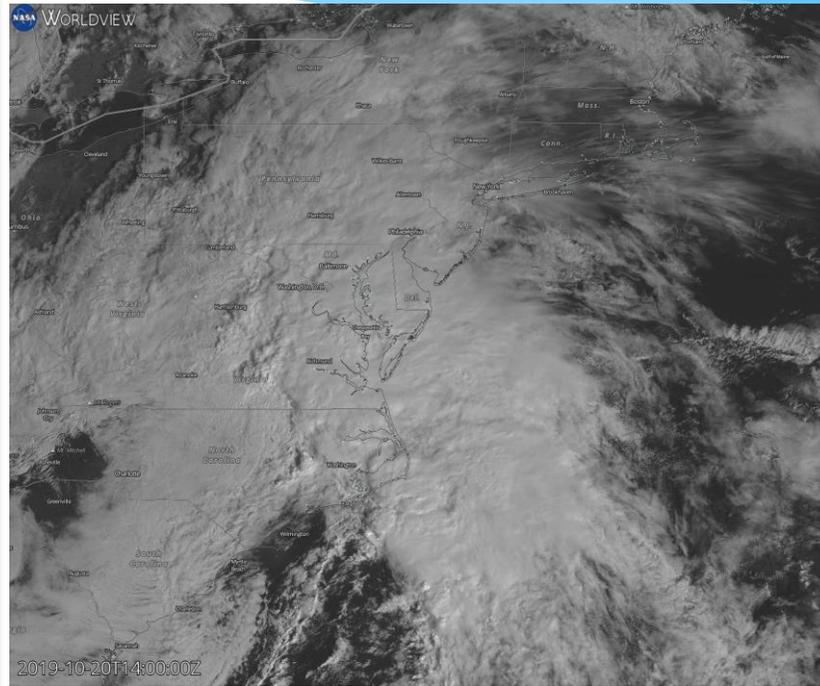




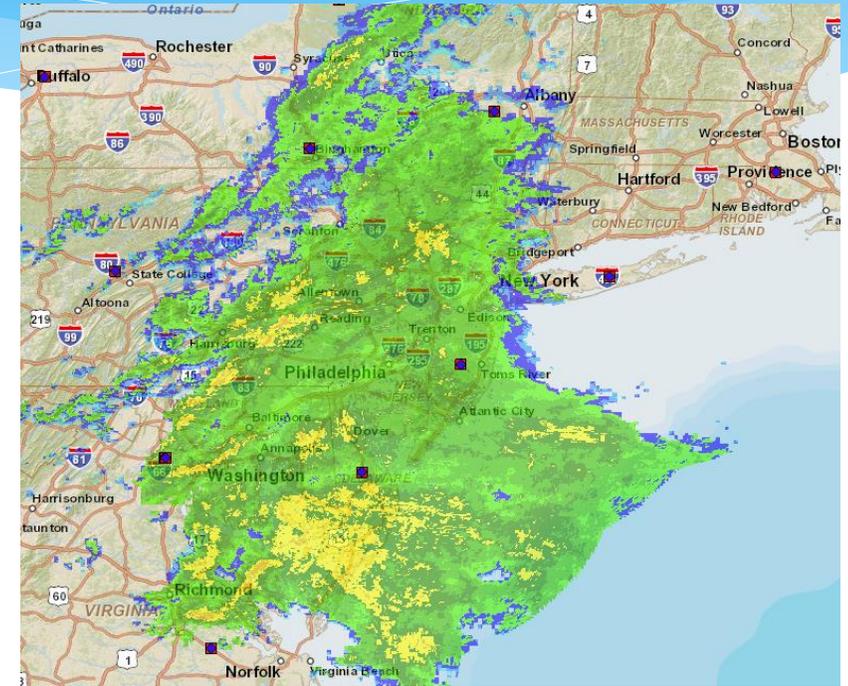
2 Rain Events



Cold Front, Wednesday Oct 16



Remnants of Tropical Storm Nestor, Sunday Oct 20

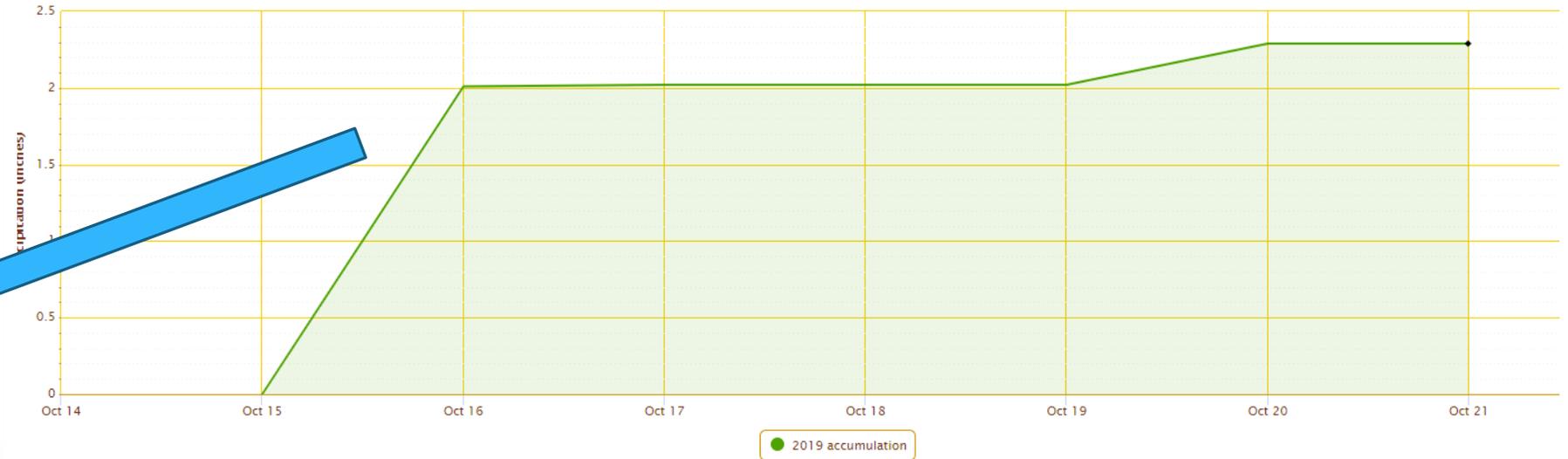


Counties within the Delaware River Basin



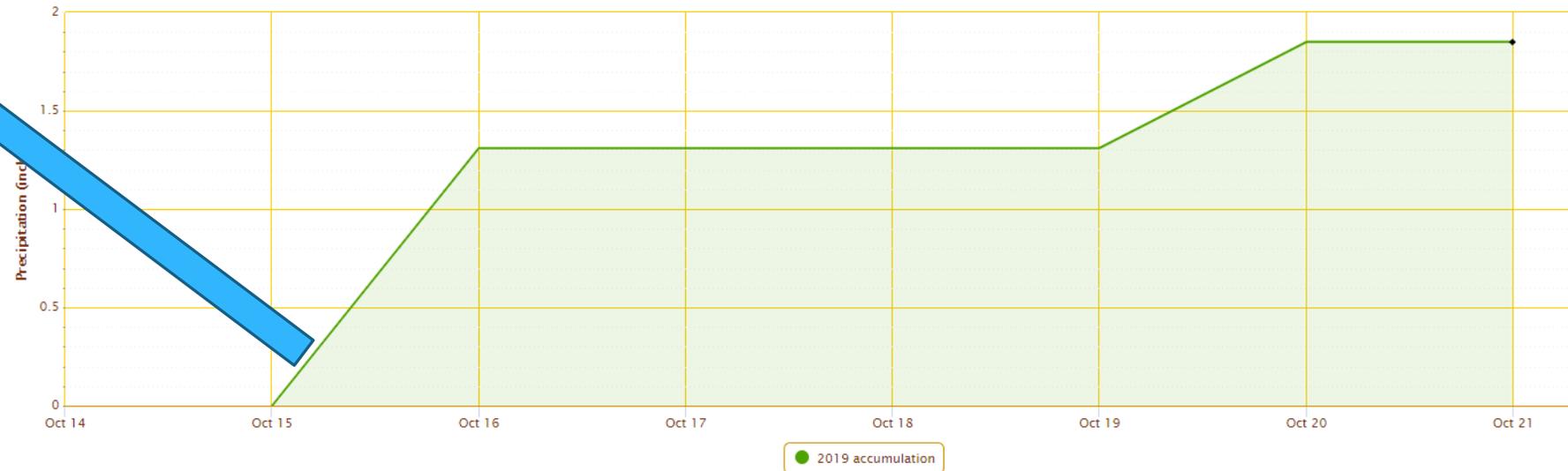
Accumulated Precipitation – SUSSEX AIRPORT, NJ

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



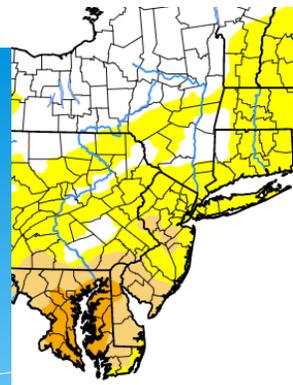
Accumulated Precipitation – TRENTON-MERCER AIRPORT, NJ

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values

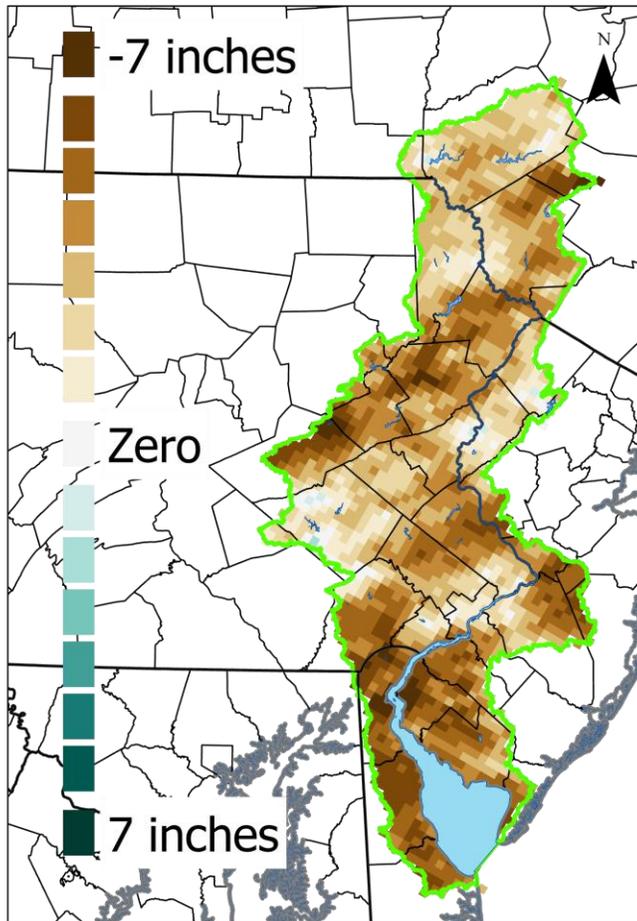




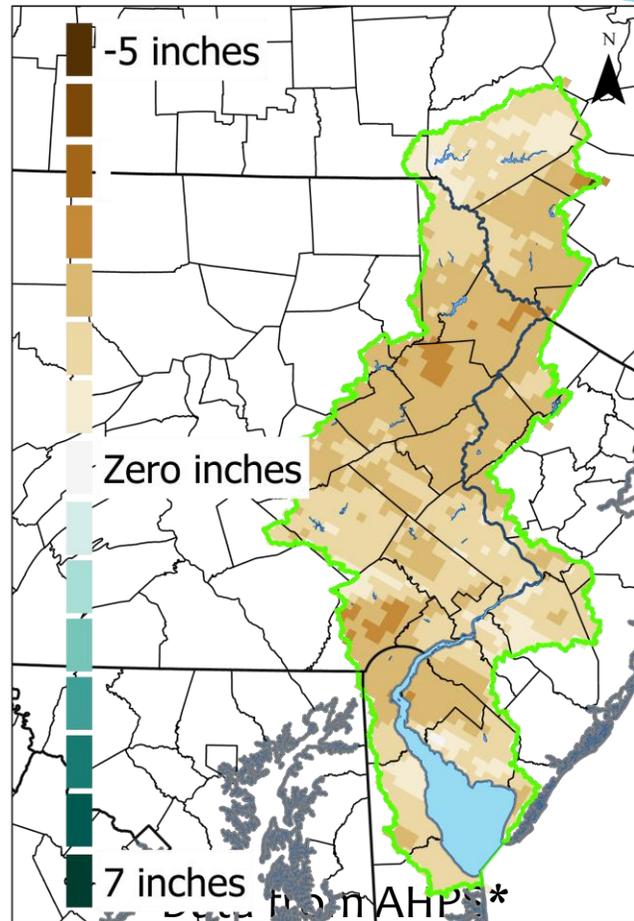
Precipitation Departures



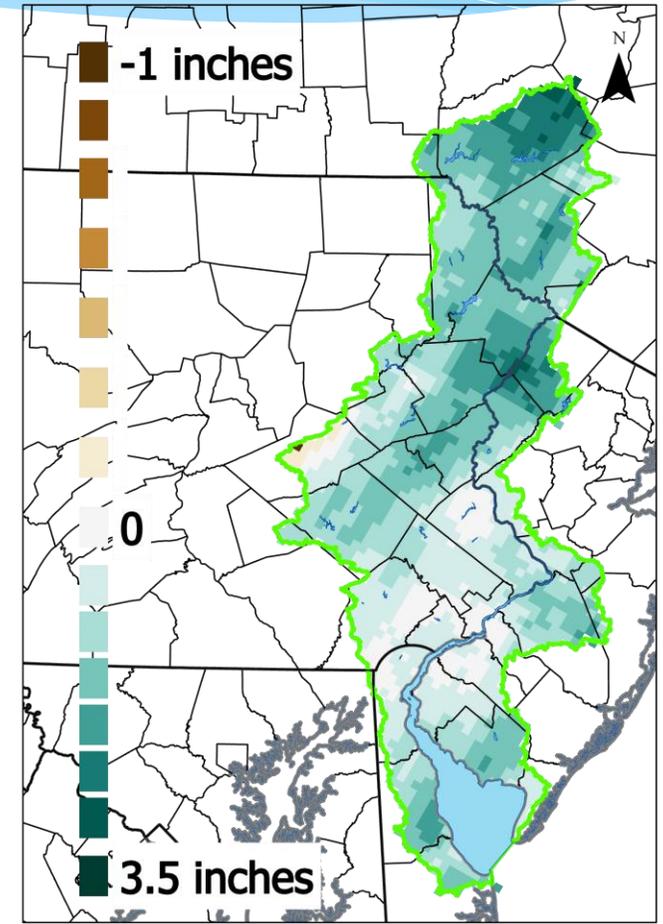
90-day departure (through October 16th)



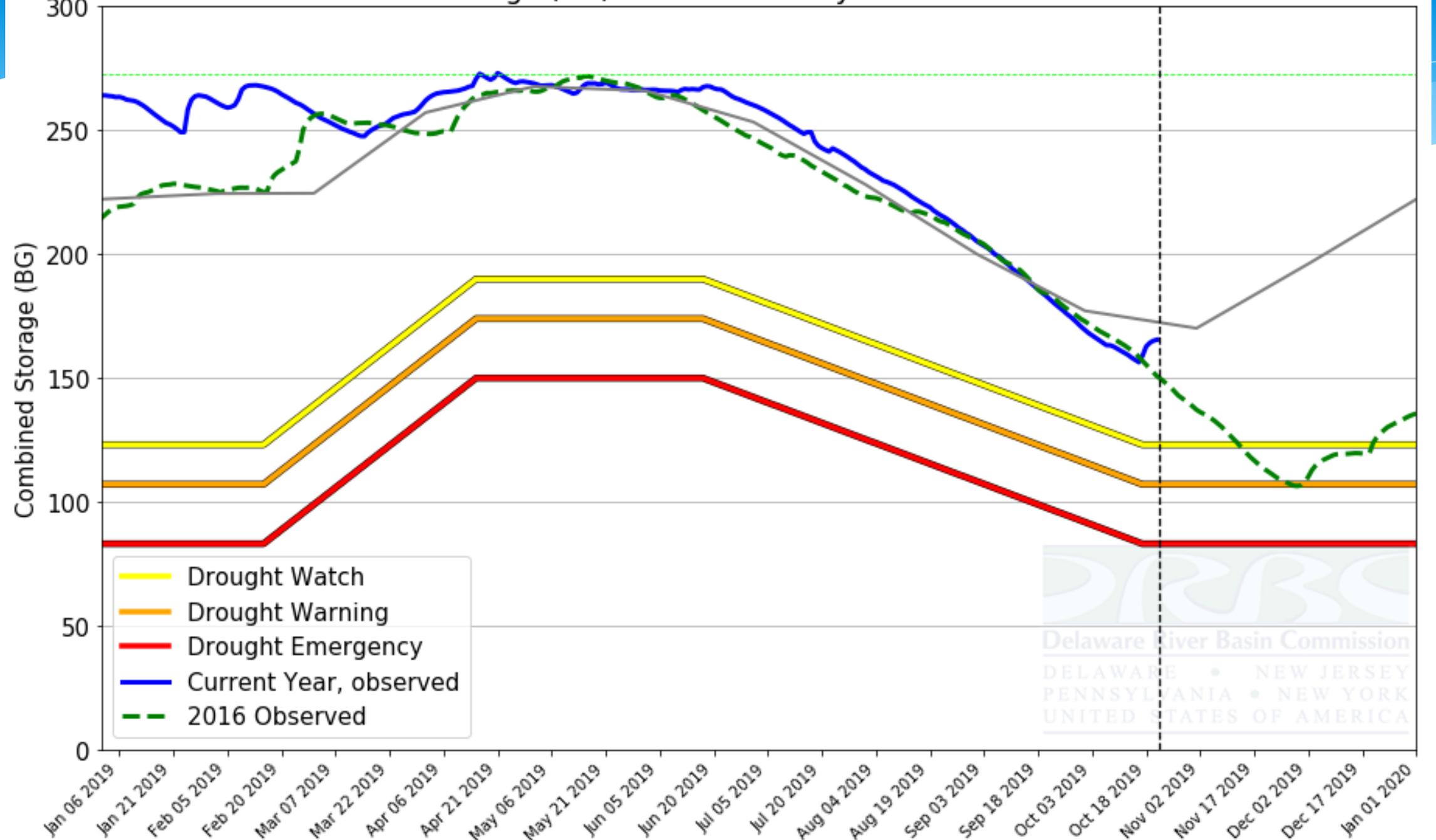
September Departure



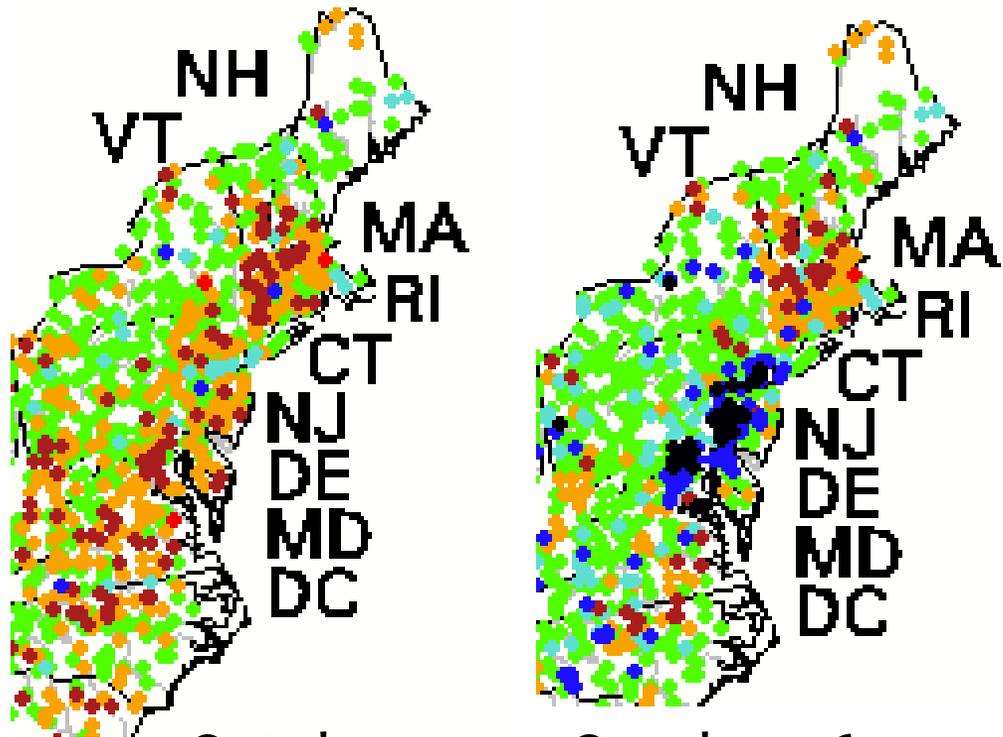
October to Date Departure



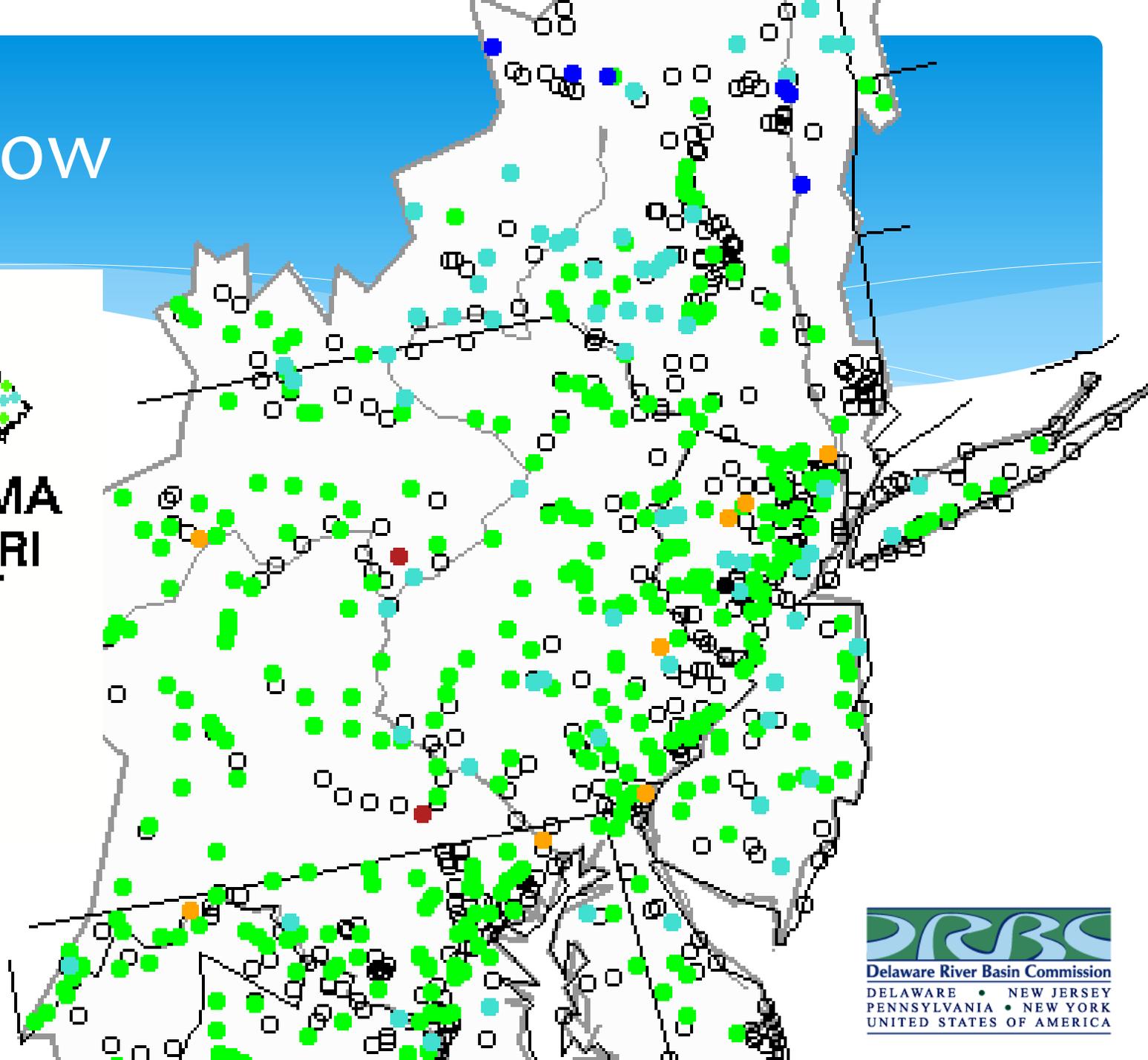
Total Combined Storage (BG) of New York City Delaware River Basin Reservoirs



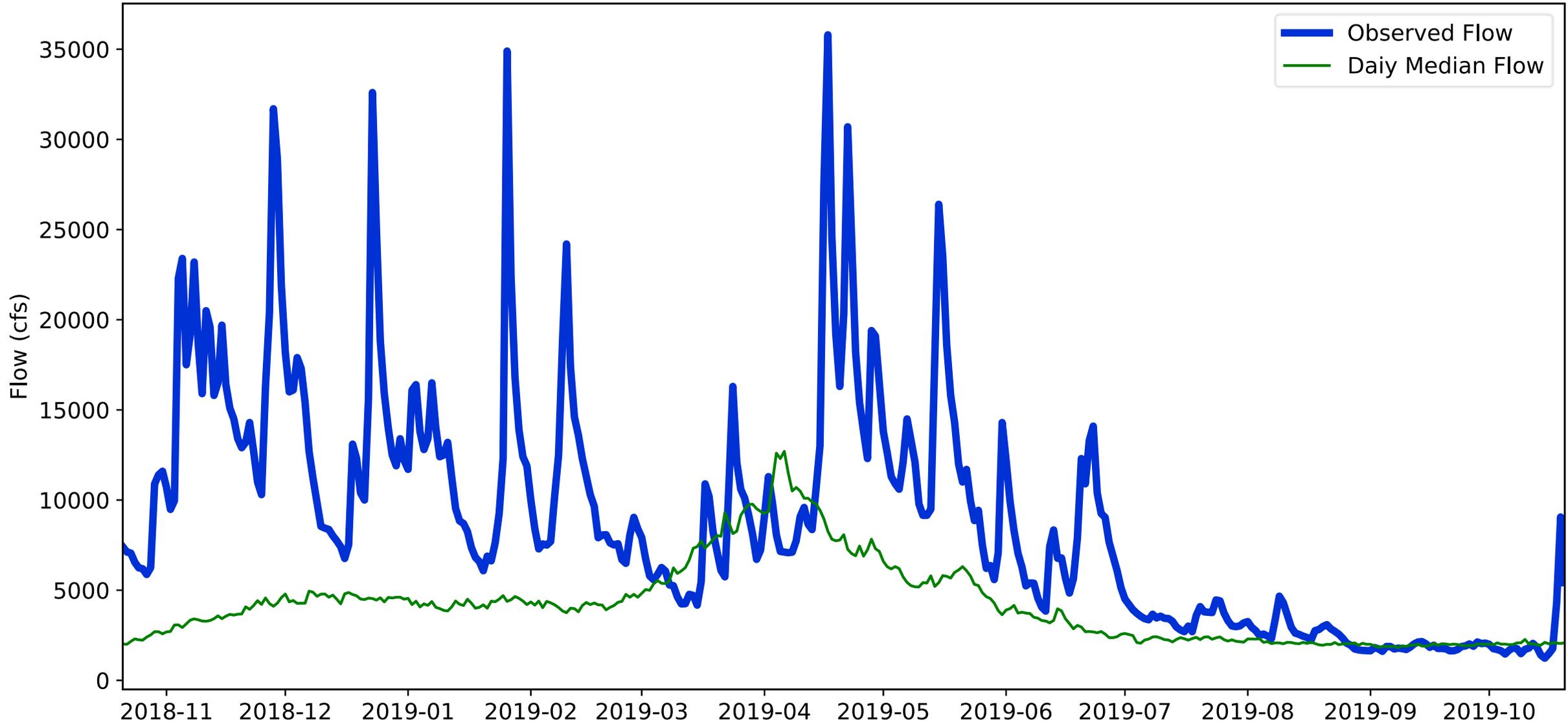
Streamflow



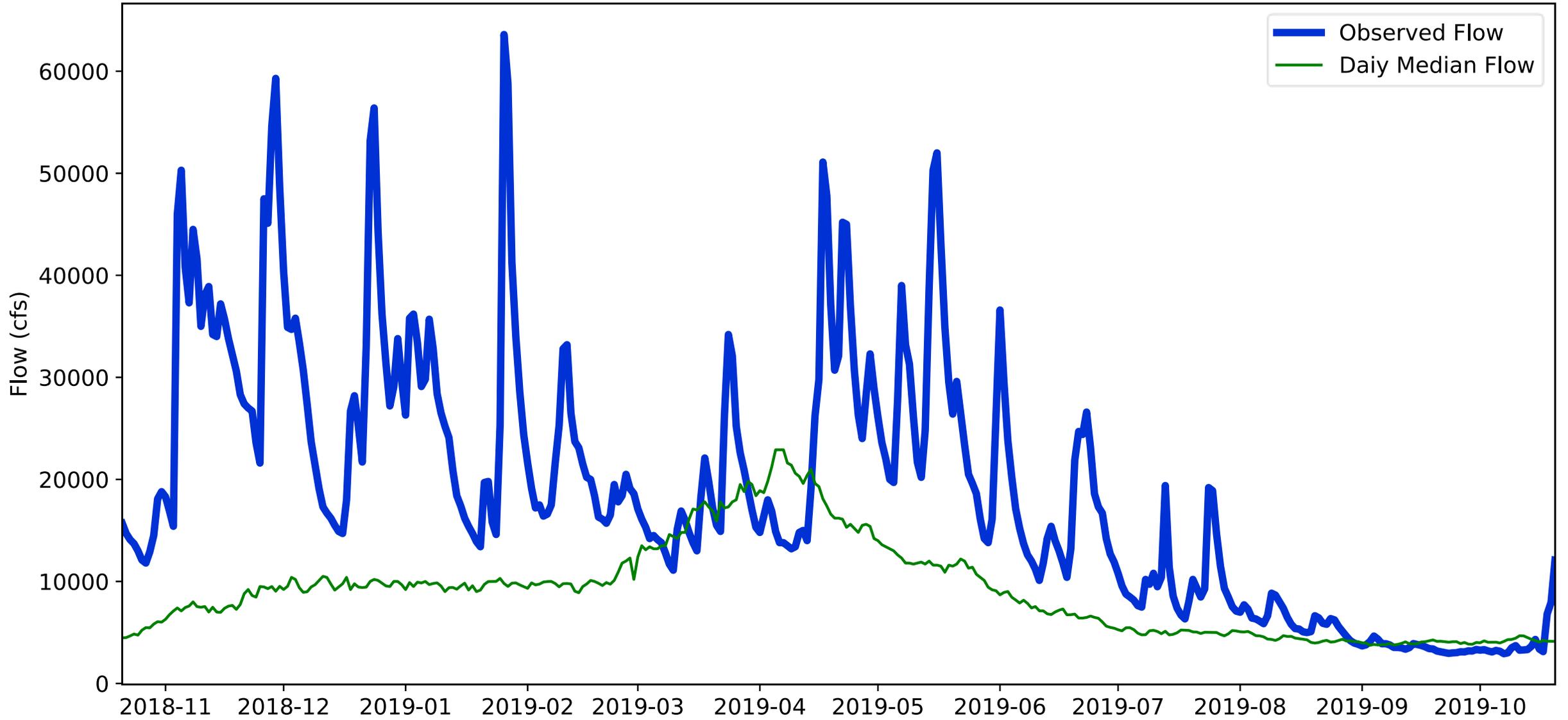
October 15 → October 16



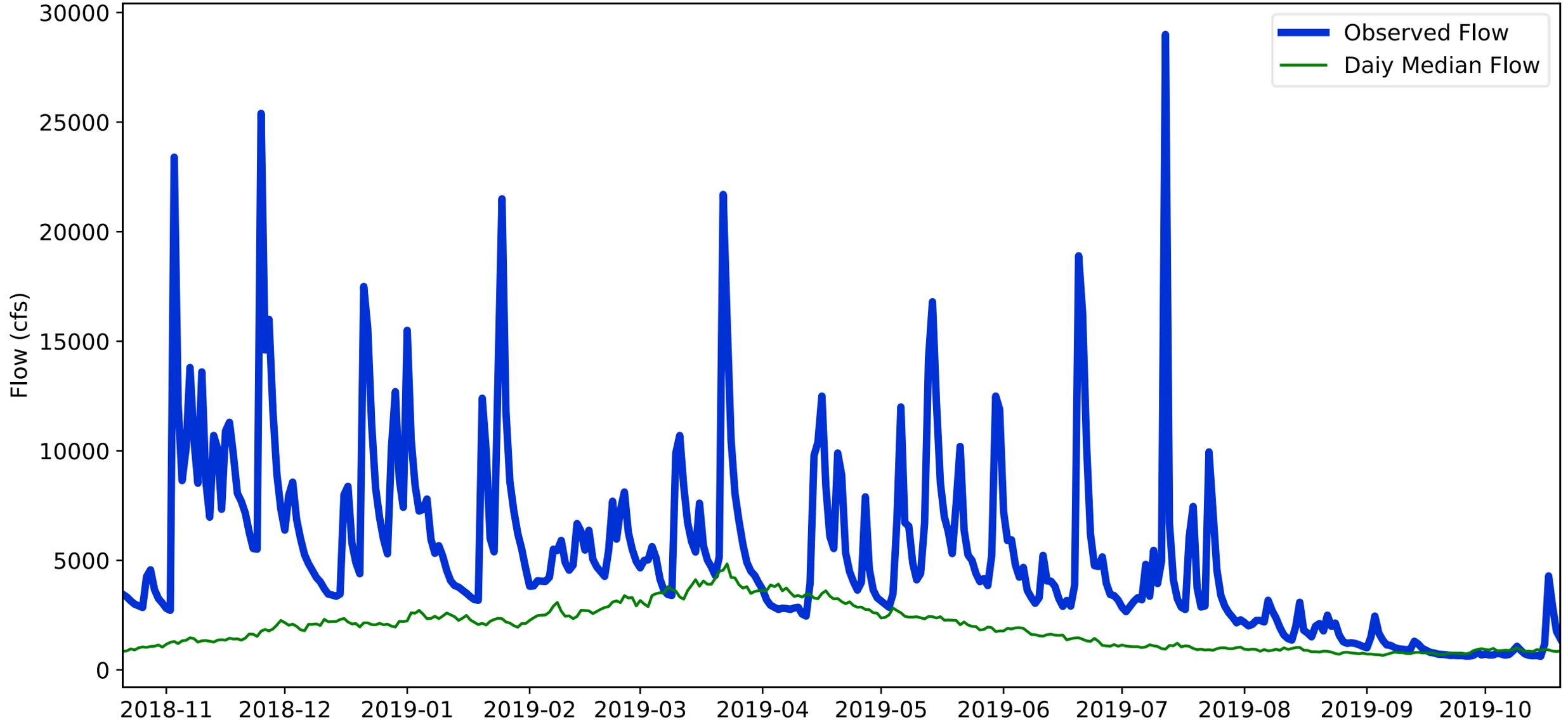
Delaware River at Montague



Delaware River at Trenton

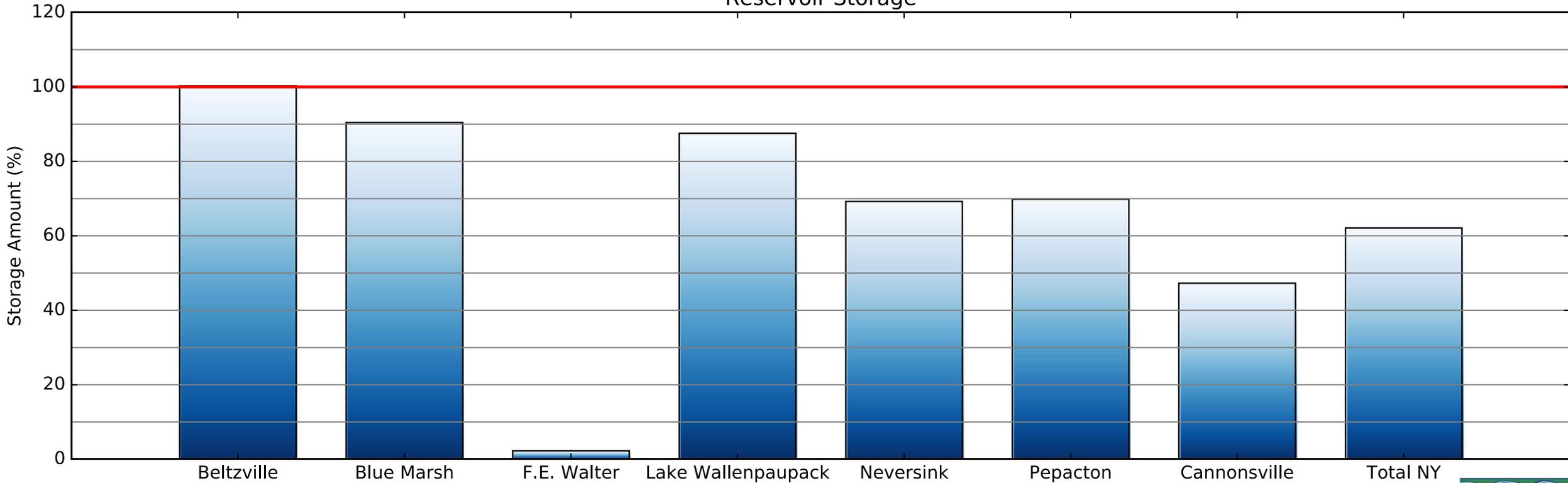


Schuylkill River at Philadelphia

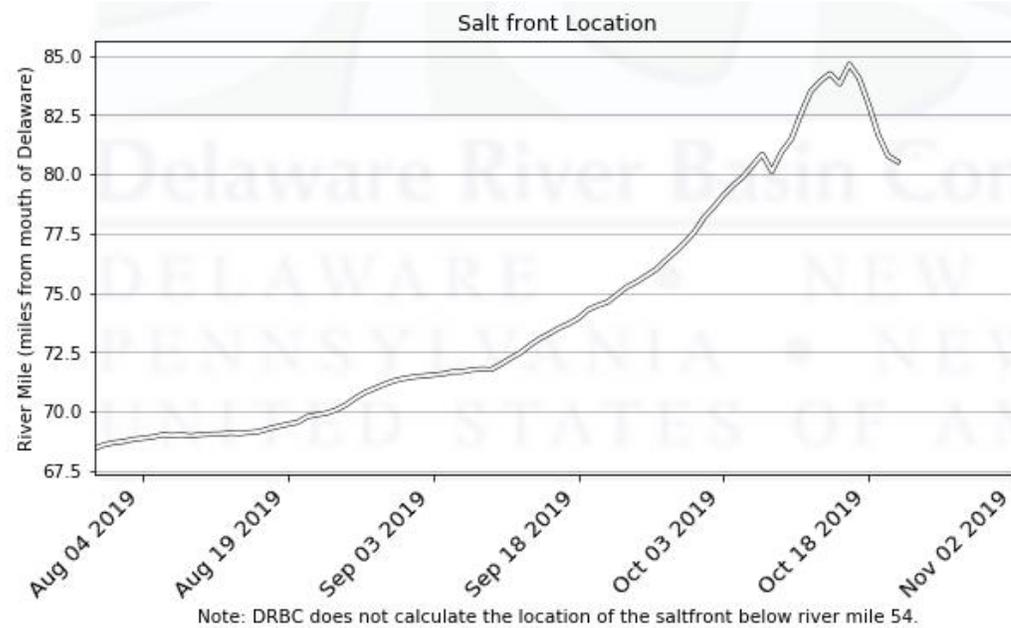
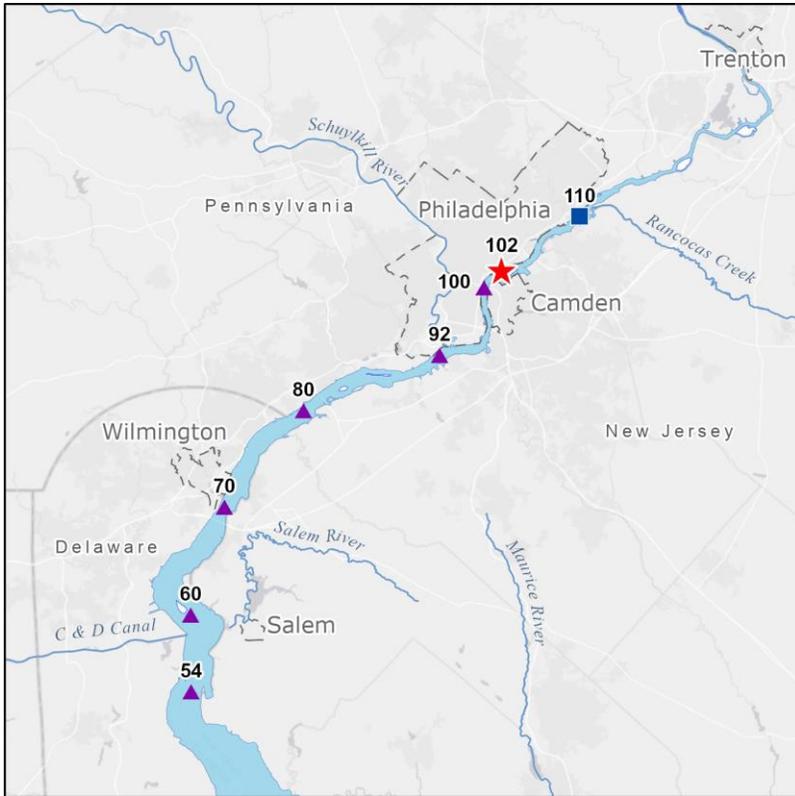


Basin Storage

Reservoir Storage



Salt Front



Chlorides
7-Day Average RM
Location of 250 mg/L

Current (10/22): 81
October Normal: 72

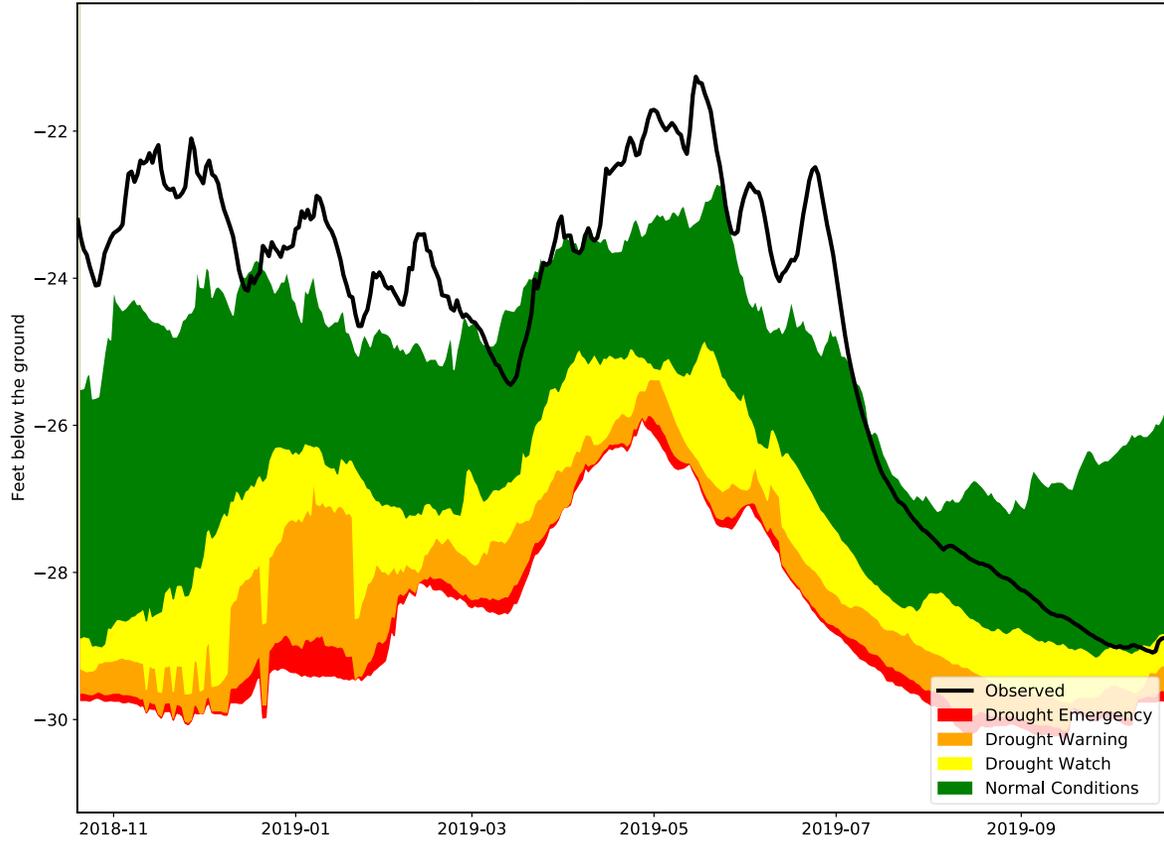
The Flow Objective at Trenton was designed to repel salinity for the protection of drinking water treatment facilities and industrial intakes.

Groundwater

COUNTY	STATE	DATA SOURCE	WELL ID	INDICATOR AS OF 2019-10-20
Wayne	PA	USGS	WN 64	Drought Watch
Monroe	PA	USGS	MO 190	Drought Watch
Carbon	PA	USGS	CB 104	Normal
Schuylkill	PA	USGS	SC 296	Drought Watch
Lehigh	PA	USGS	LE 372	Above Normal
Bucks	PA	USGS	BK 1020	Normal
Chester	PA	USGS	CH 10	Normal
Delaware	PA	USGS	DE 723	Normal
Lebanon	PA	USGS	LB 372	Normal
Burlington	NJ	USGS	050689	Normal
Cumberland	NJ	USGS	110042	Normal

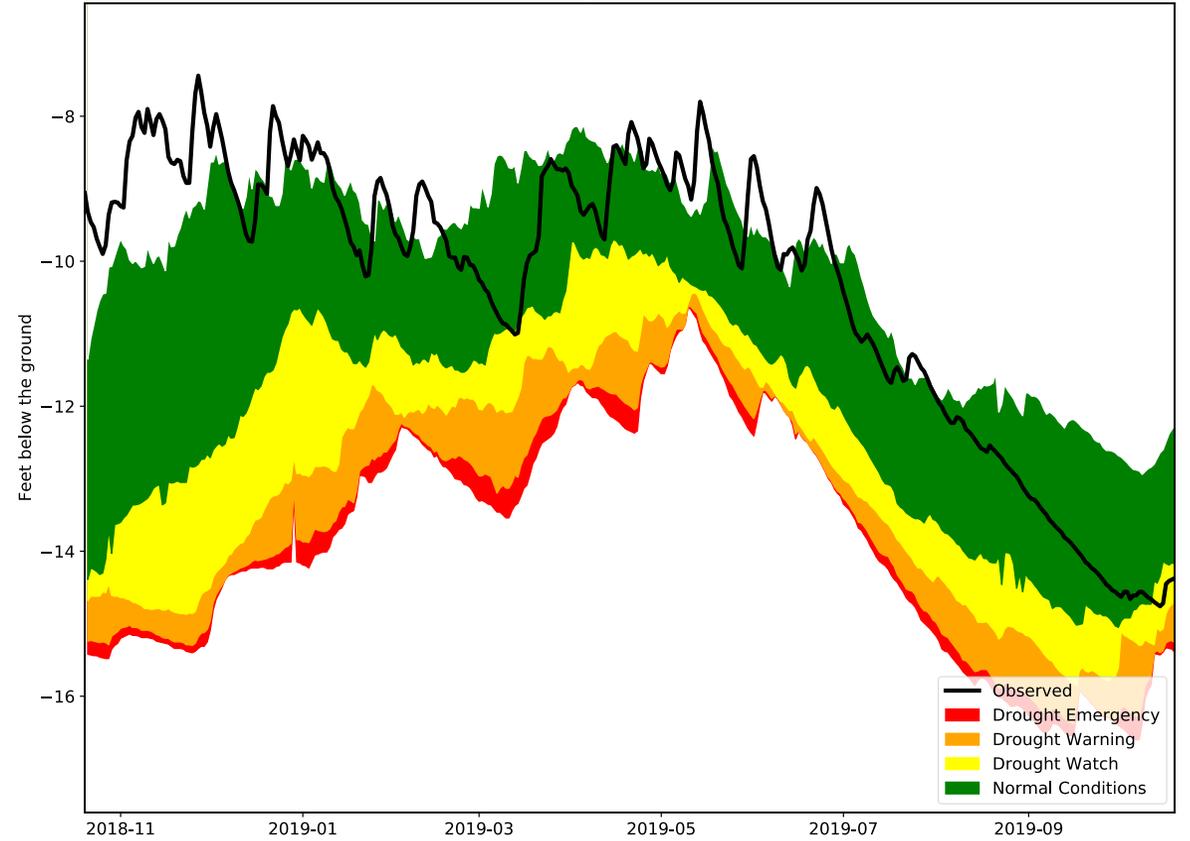
Upper Basin

Wayne County, PA Observation Well



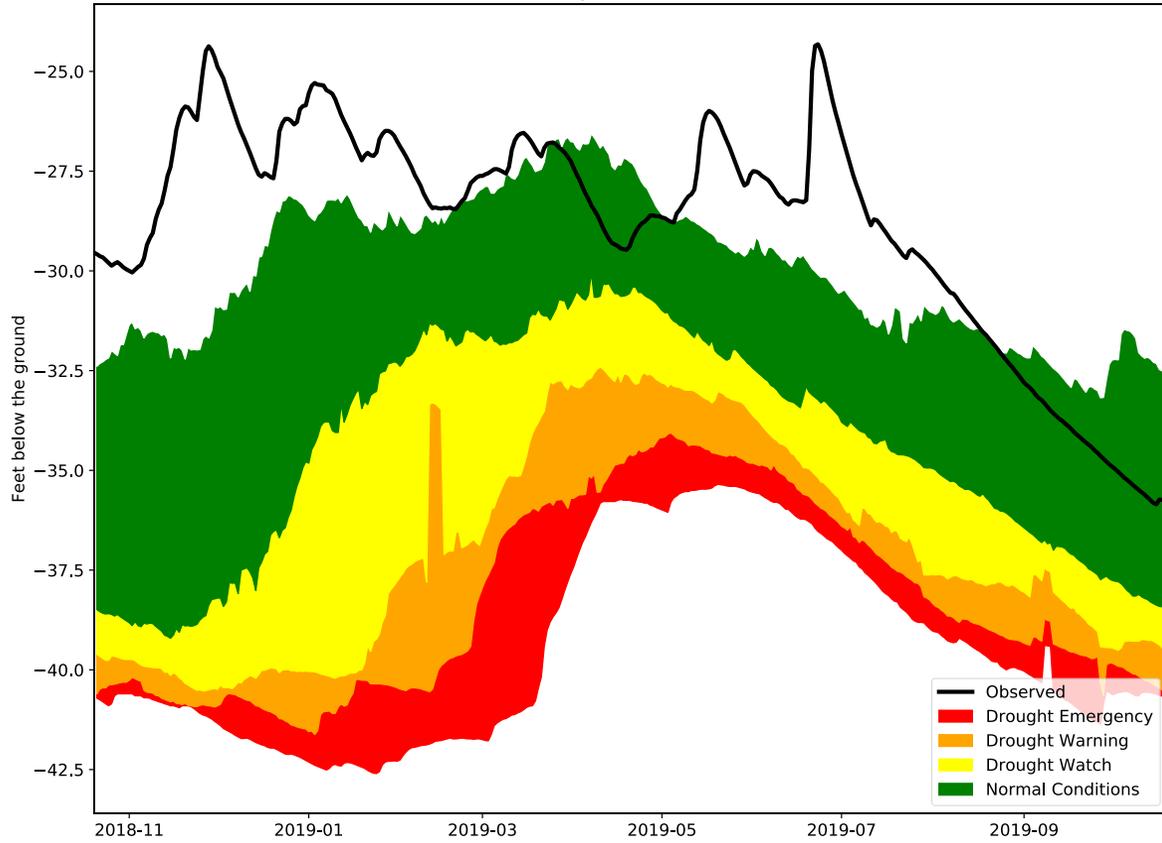
Middle-Upper Basin

Monroe County, PA Observation Well



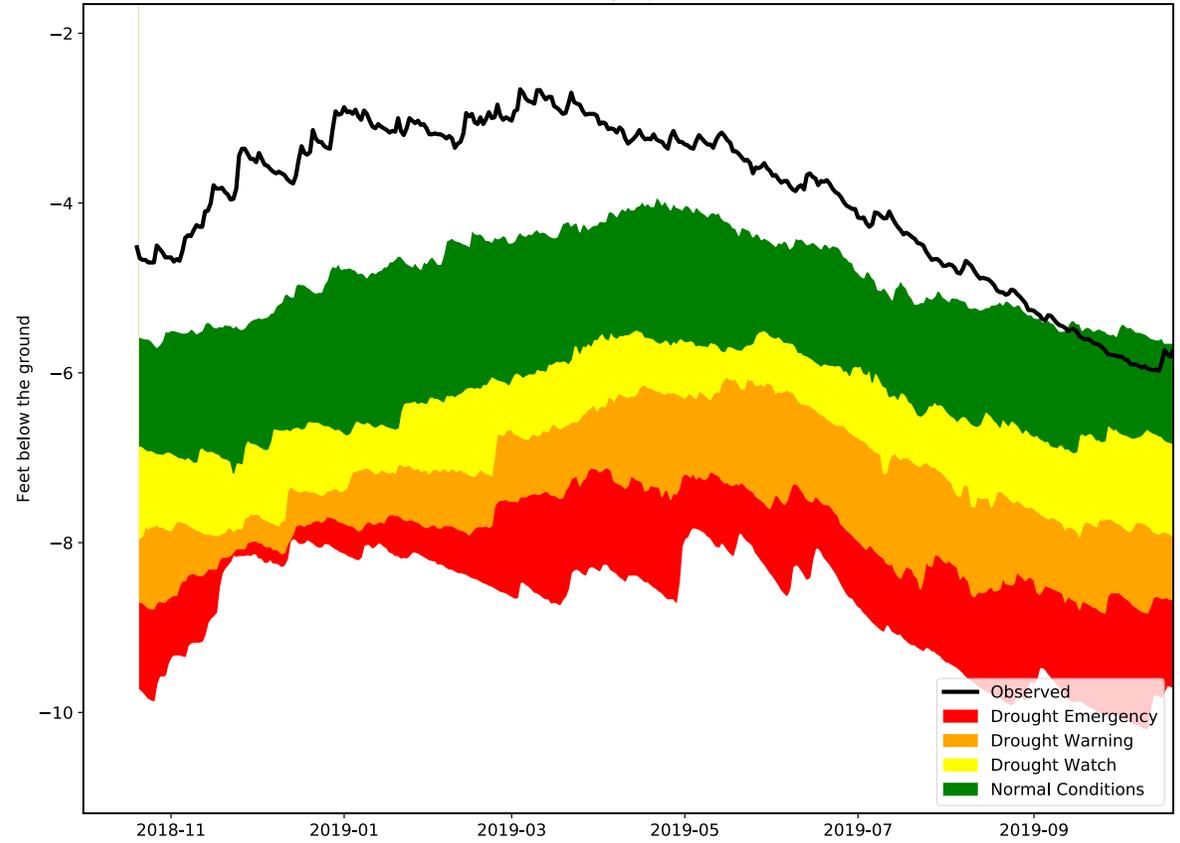
Middle-Lower Basin

Bucks County, PA Observation Well



Lower Basin

Cumberland County, NJ Observation Well

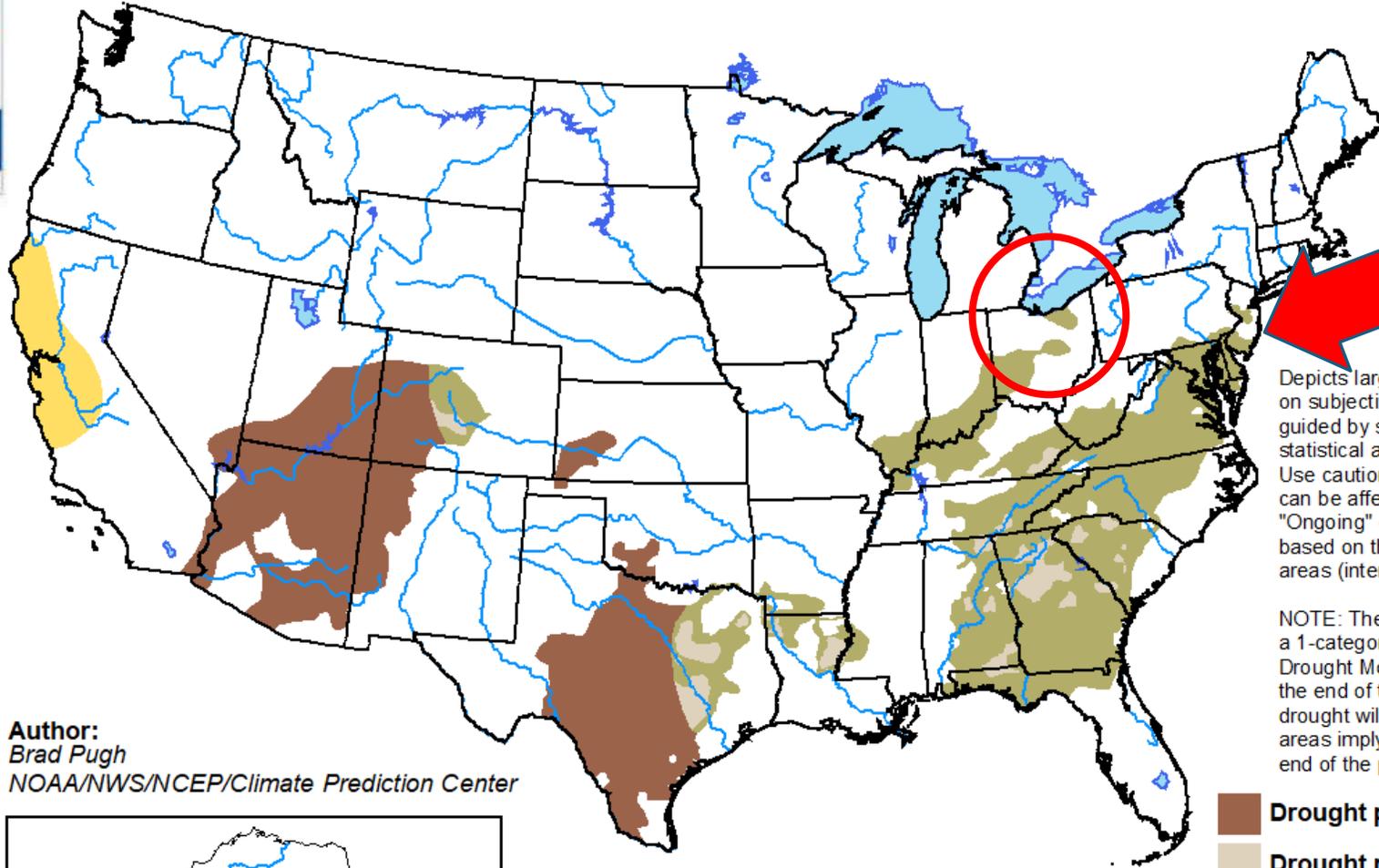




U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for October 17, 2019 - January 31, 2020
Released October 17, 2019

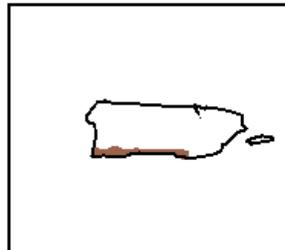
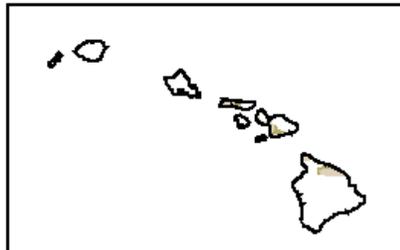
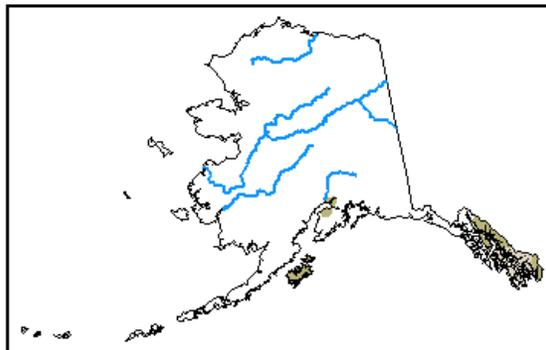


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

Author:
Brad Pugh
NOAA/NWS/NCEP/Climate Prediction Center

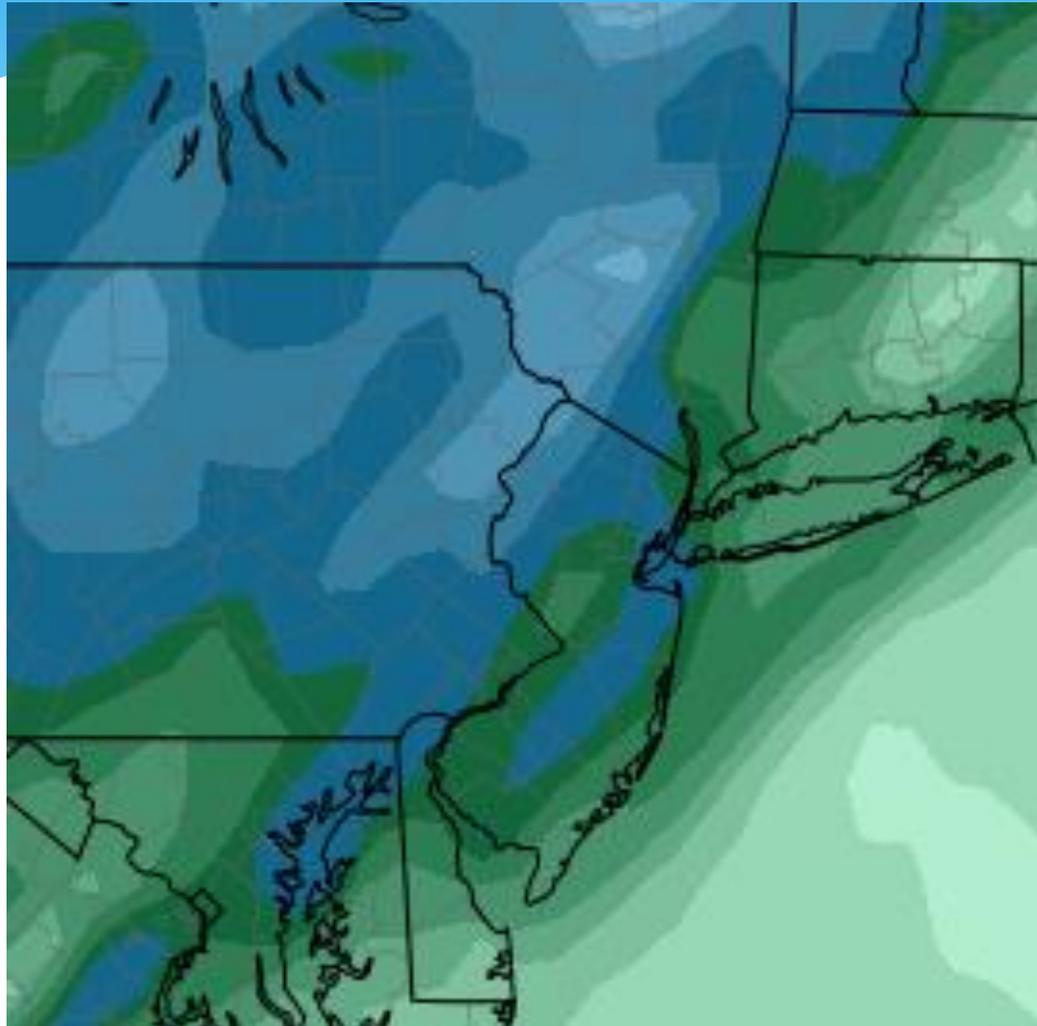


<http://go.usa.gov/3eZ73>





7 Day Precipitation Forecast

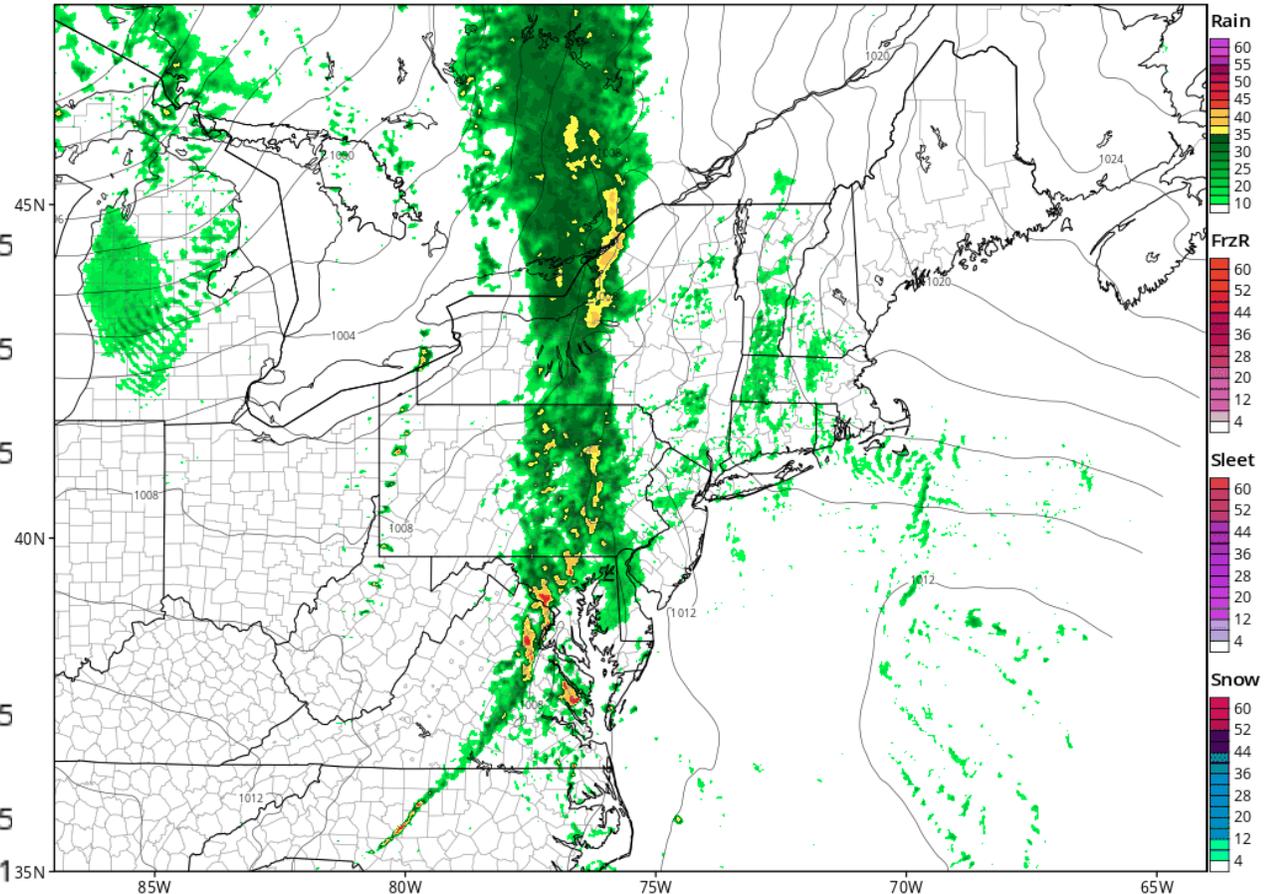


5:00 PM – 11:00 PM

NAM-3km Near-Surface Reflectivity (dBZ) and MSLP (mb; 0.5-degree smoothed)

Init: 06z Oct 22 2019 Forecast Hour: [15] valid at 21z Tue, Oct 22 2019

TROPICALTIDBITS.COM



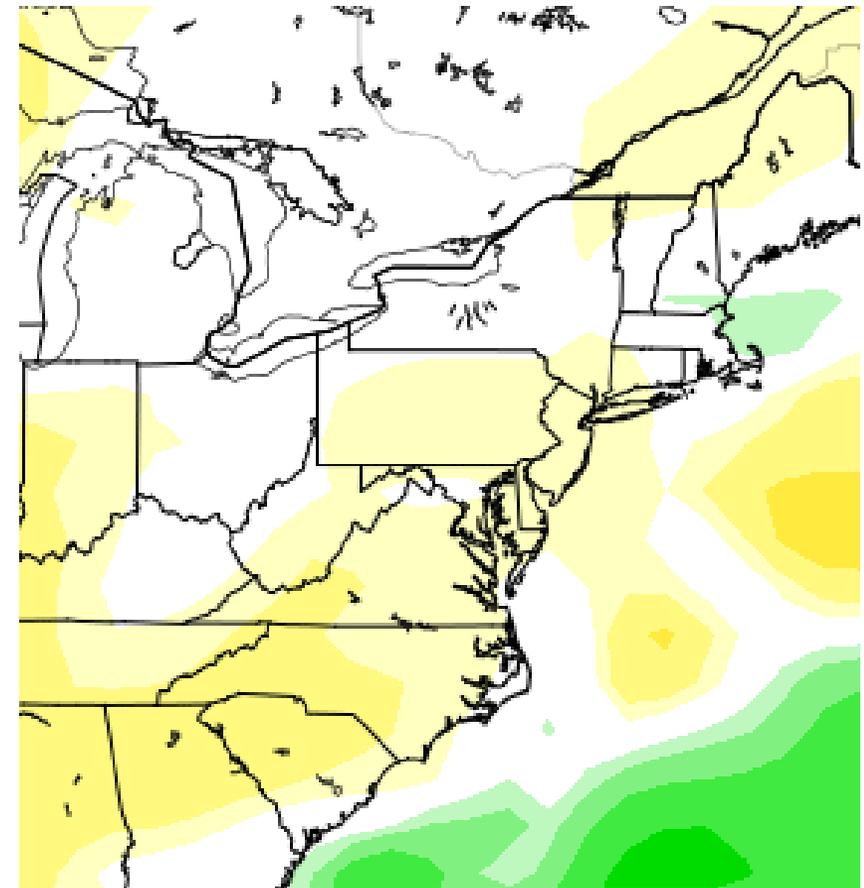
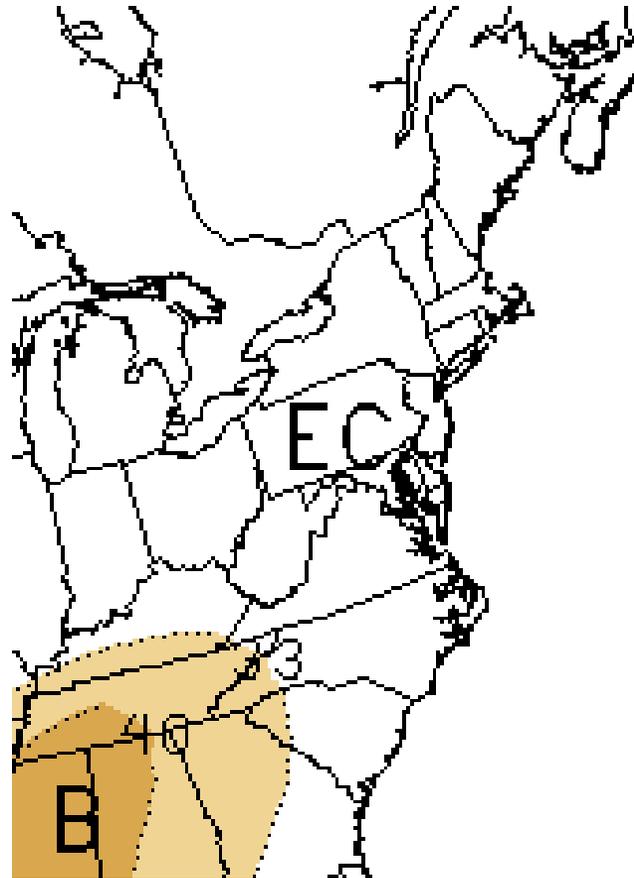
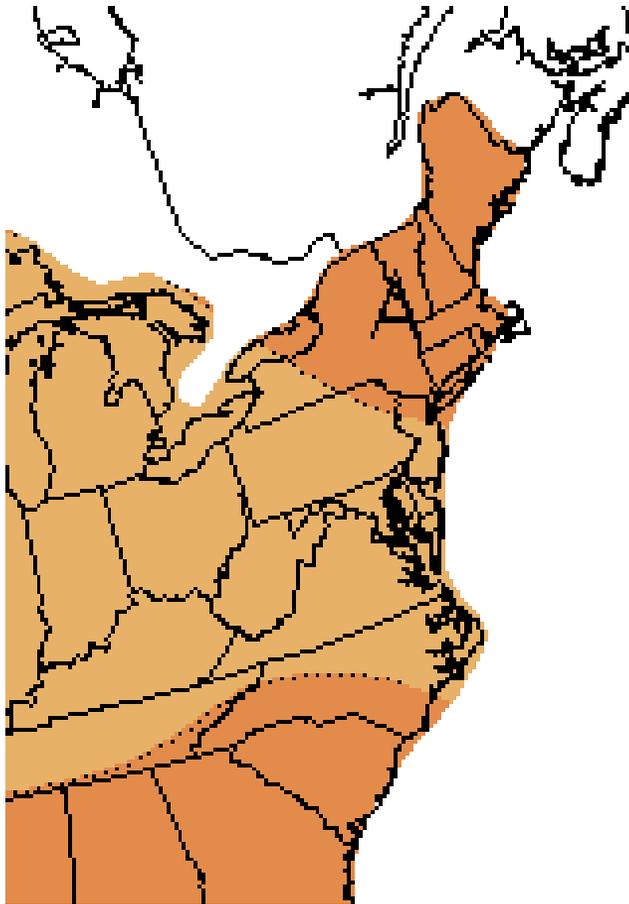


1 Month Outlook

Temperature

Precipitation

Model Prediction
(precipitation)

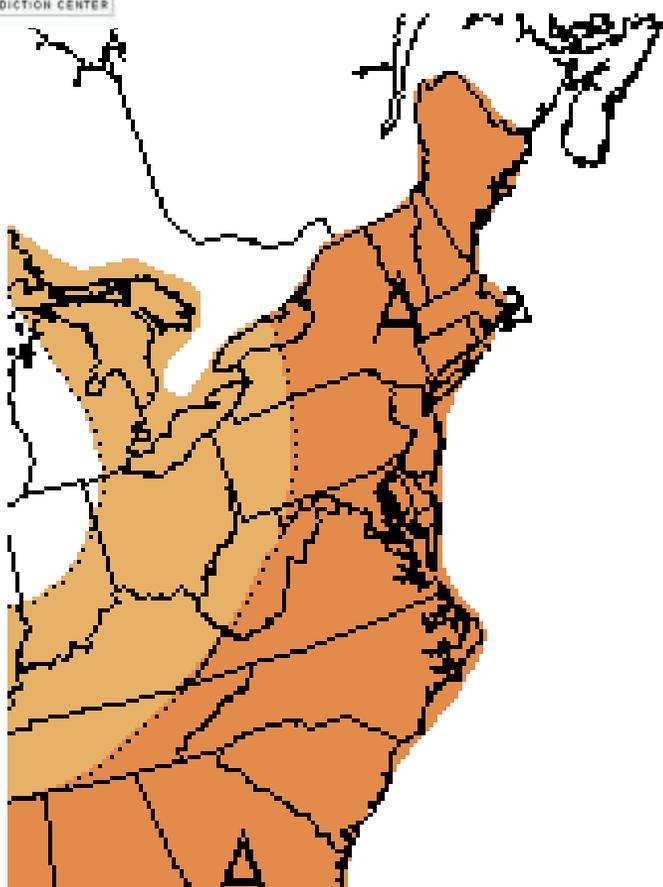


*Forecast from NOAA National Weather Service Climate Prediction Center, Updated October 17, 2019

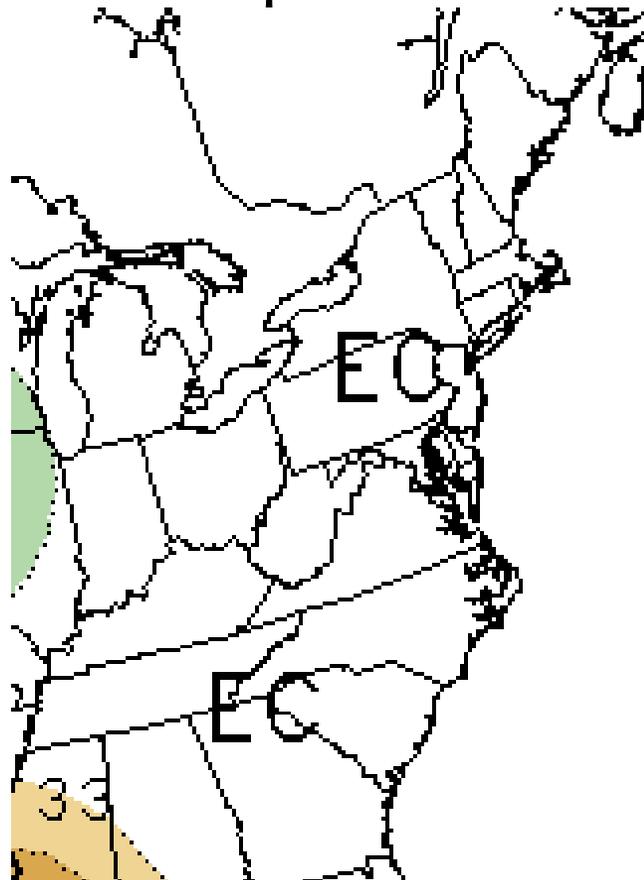


3 Month Outlook

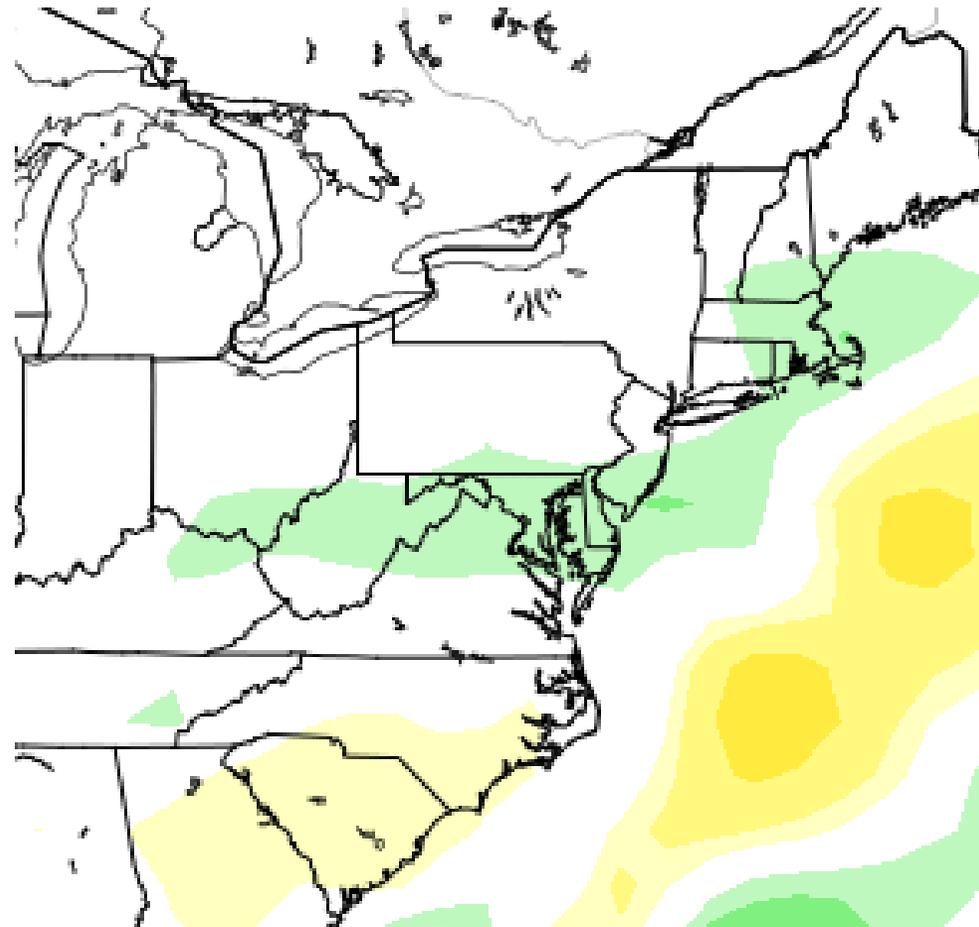
Temperature



Precipitation



Model Prediction



*Forecast from NOAA National Weather Service Climate Prediction Center, updated August 15, 2019