Delaware River Basin Commission

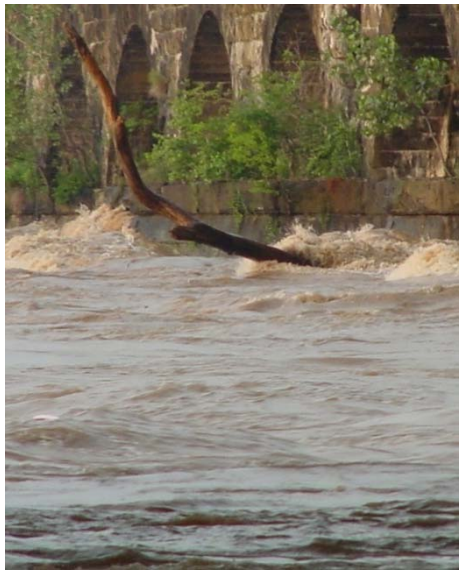
Hydrologic Conditions

Amy L. Shallcross, P.E.

Manager, Water Resource Operations

Commission Business Meeting

June 12, 2019



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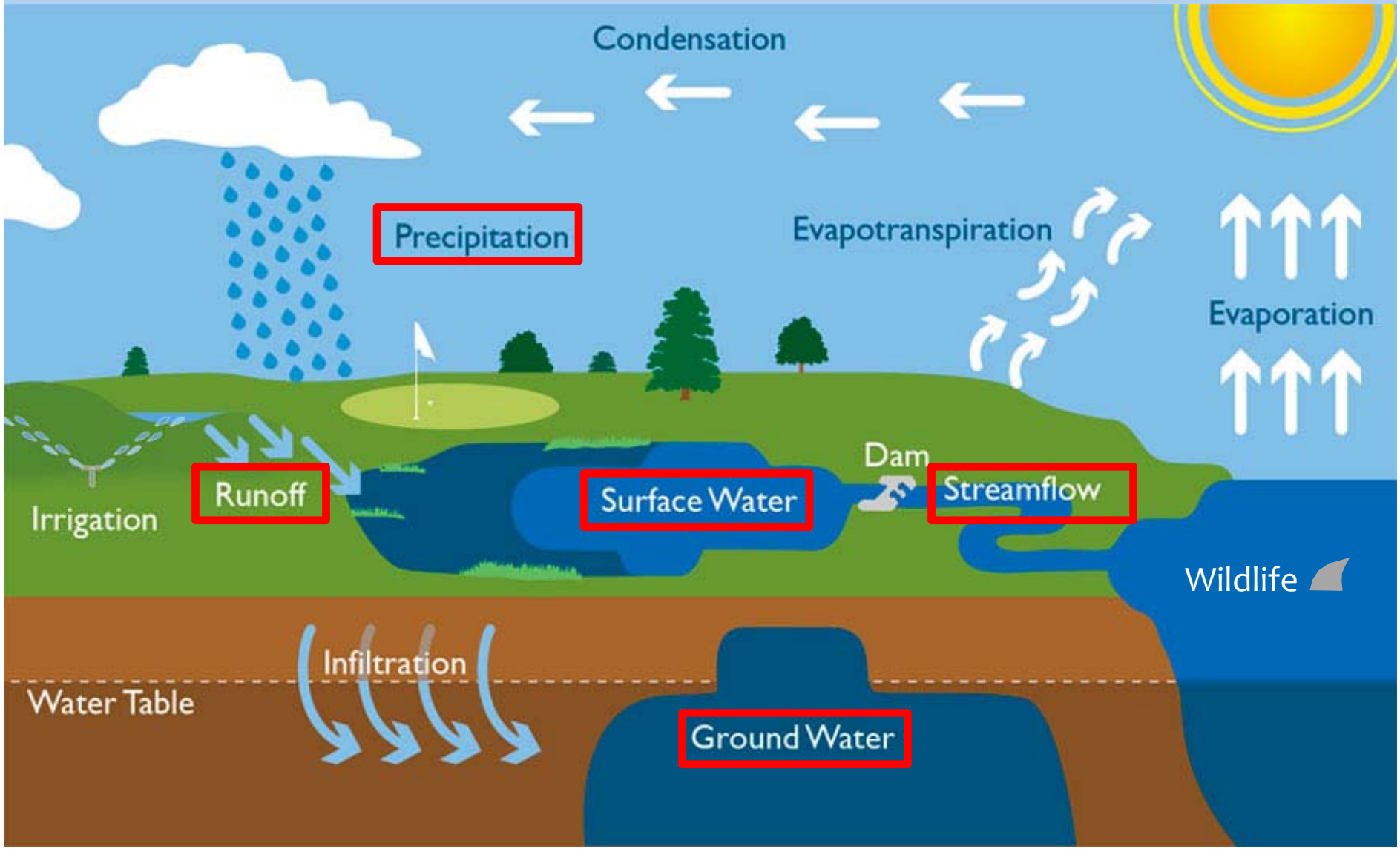
Hydrologic Cycle



90-Day Precipitation

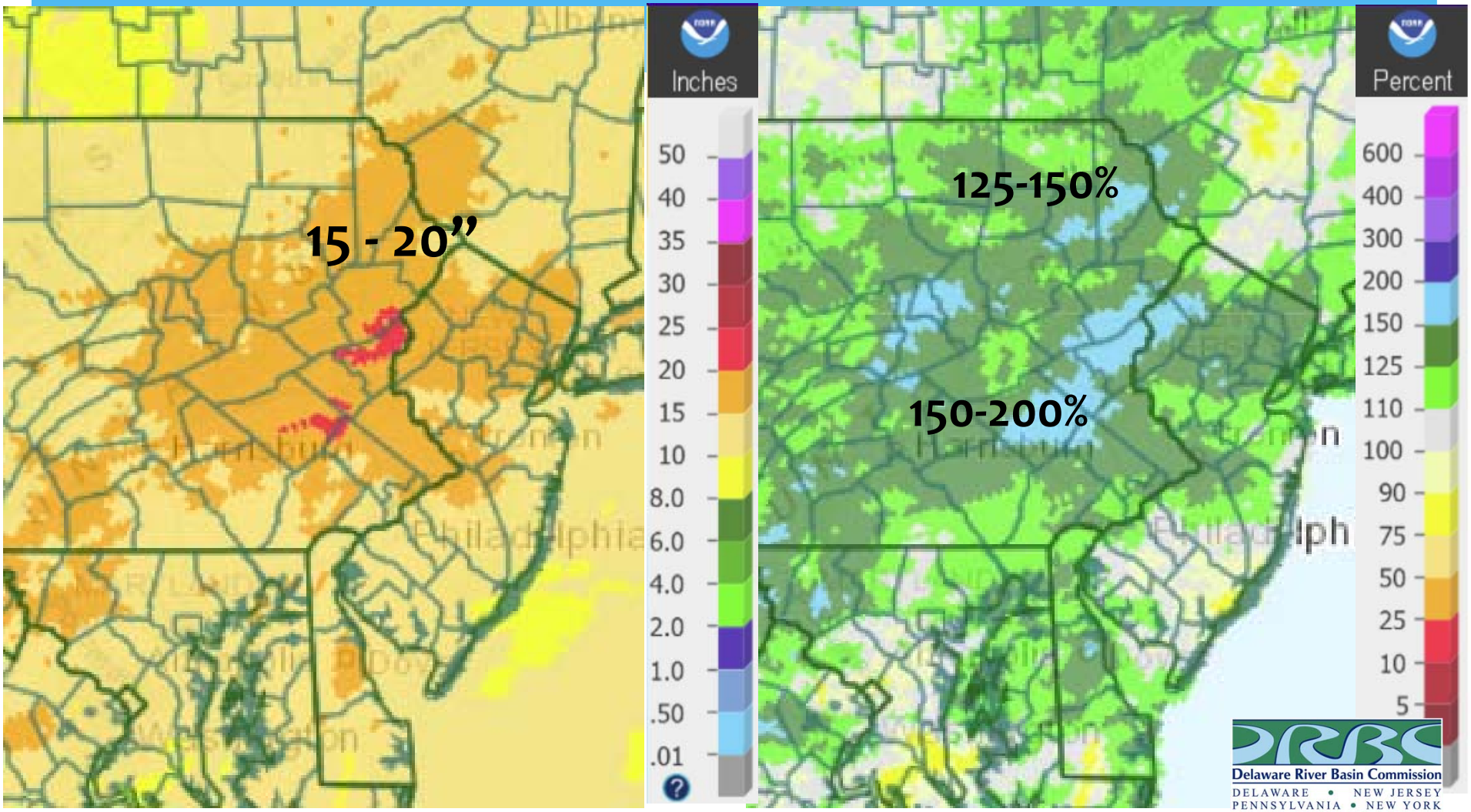


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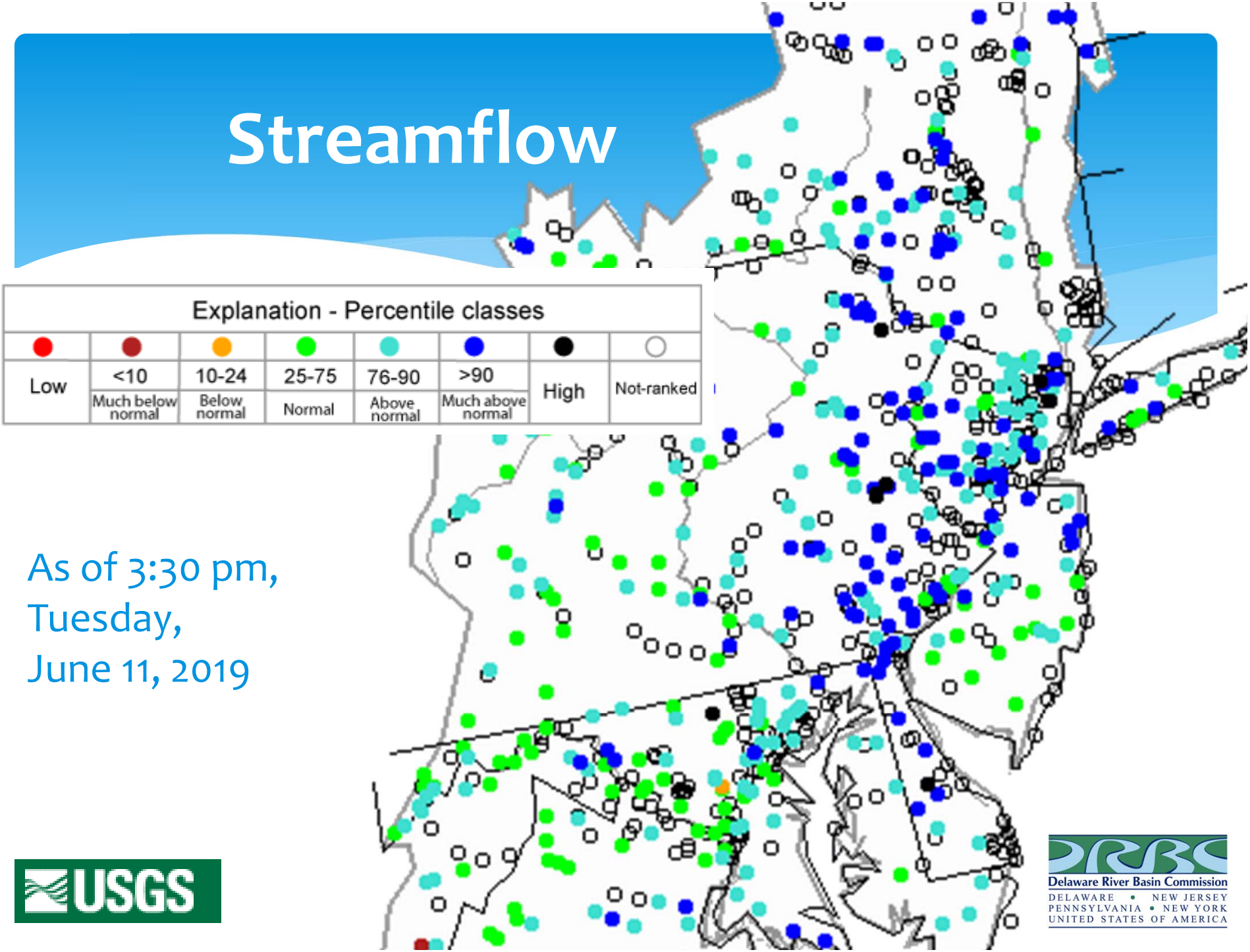
Photo by Frank King - Sky over the Delaware - New Hope/Lambertville

Streamflow



As of 3:30 pm,
Tuesday,
June 11, 2019

USGS

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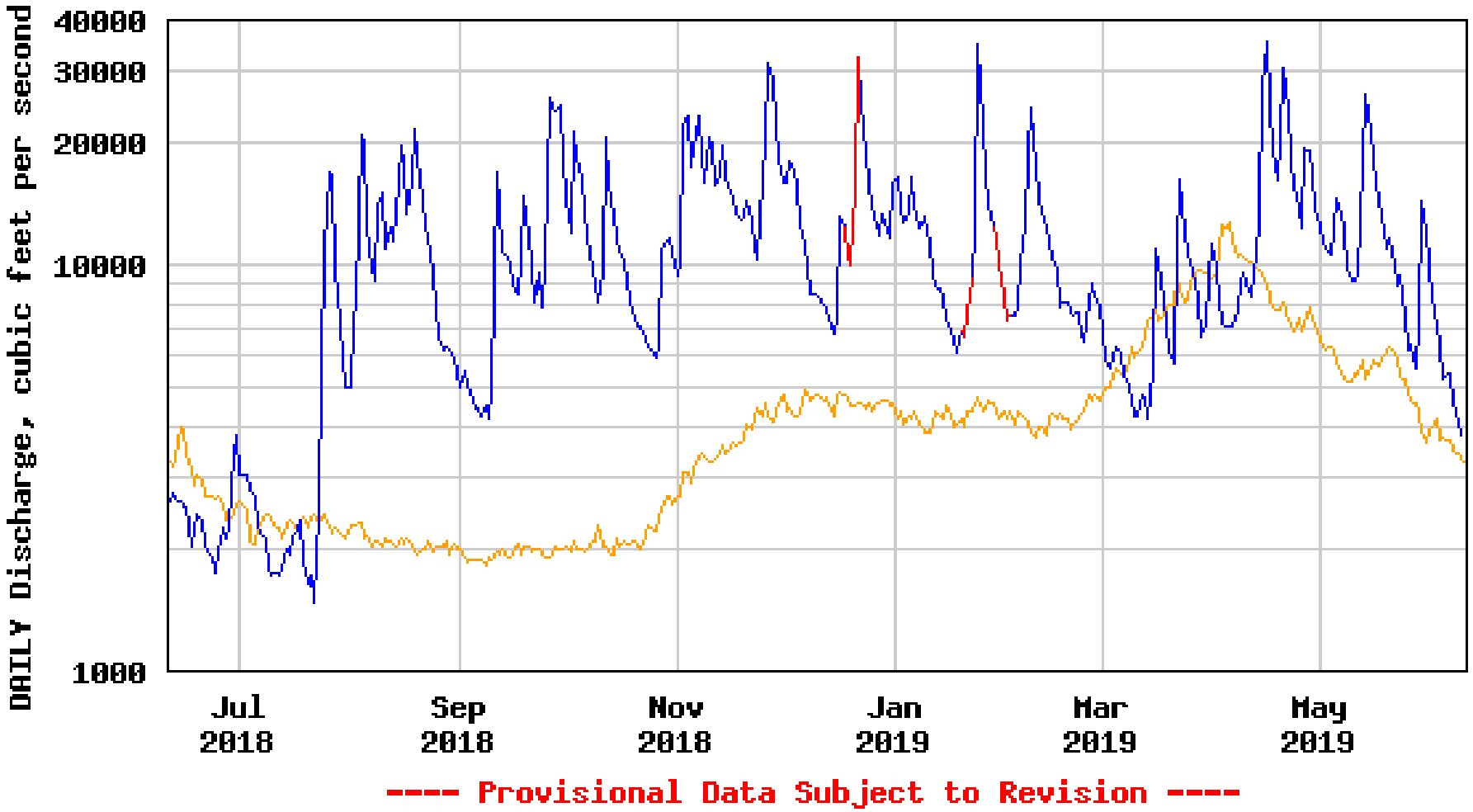
USGS 01438500 Delaware River at Montague NJ



USGS

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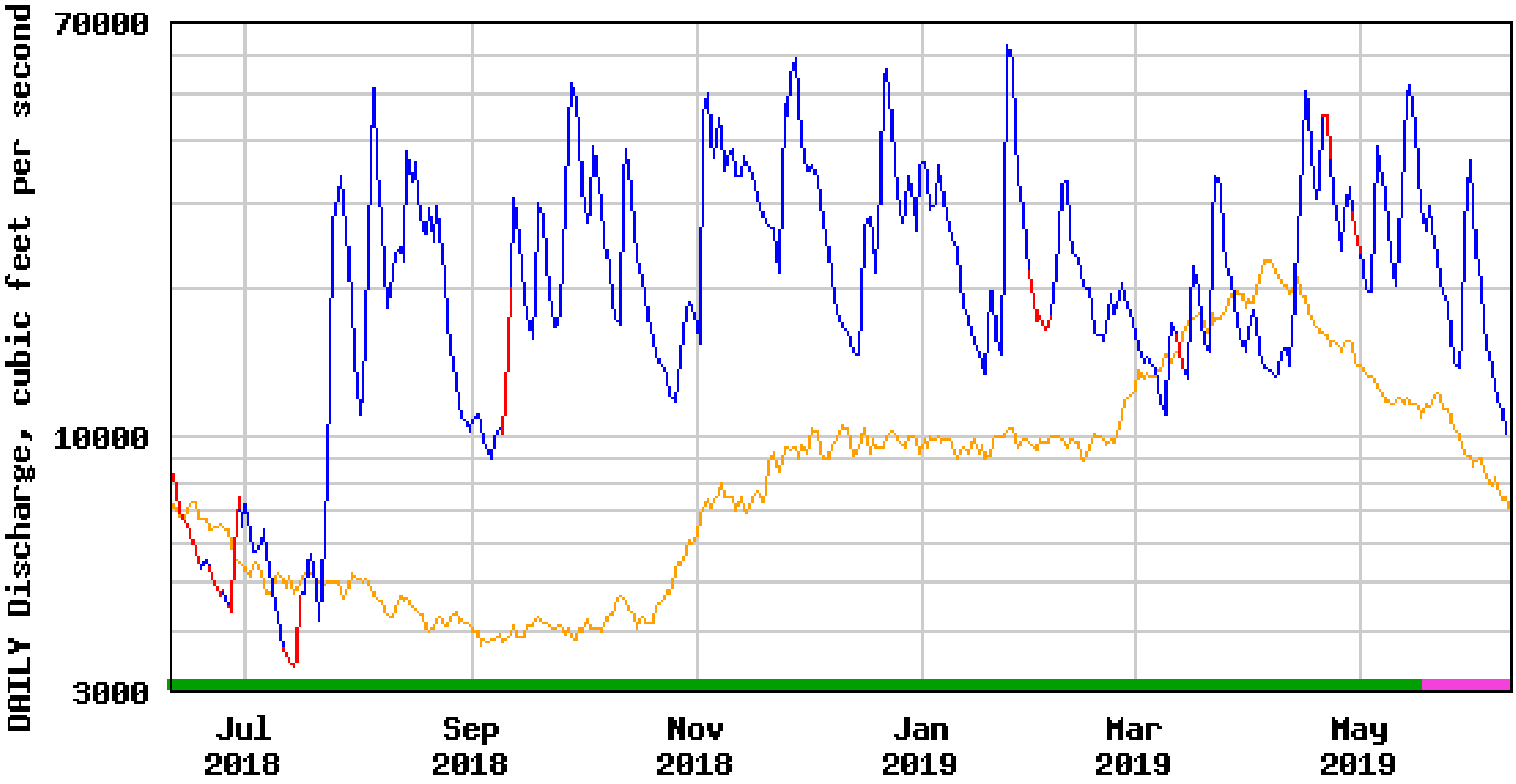
USGS 01463500 Delaware River at Trenton NJ



USGS

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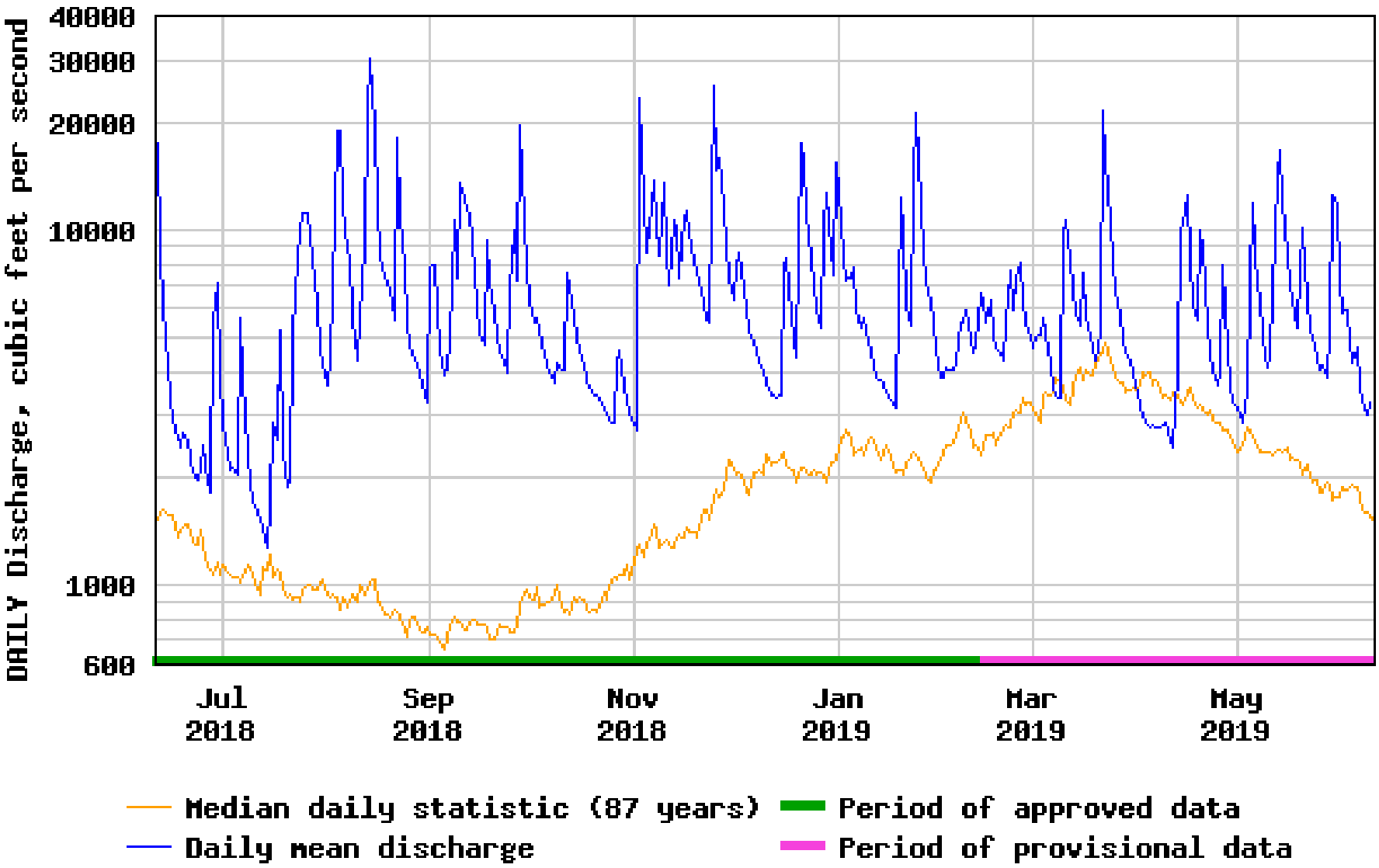
USGS 01474500 Schuylkill River at Philadelphia, PA



USGS

PSA

Stay Afloat: Always Wear A Life Jacket

Photo by Tom Amidon
Rafting after FE Walter Release

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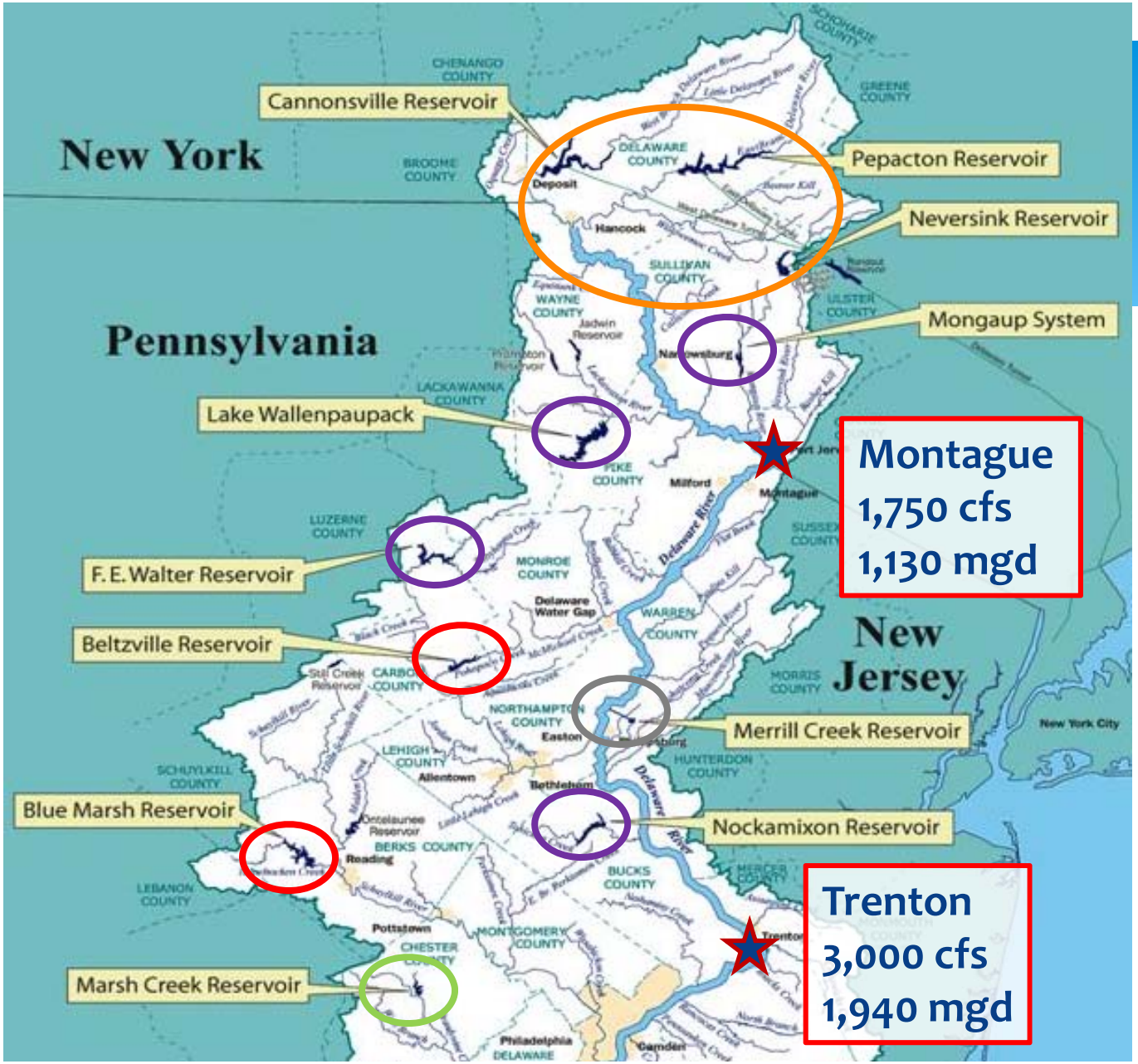

Storage

* FFMP – 6 BG
* DRBC Storage in USACE Reservoirs
* Emergency
* Consumptive Use Make –Up
* Dockets

★ Flow Objectives

In very dry periods, flow at Trenton can be 60 percent or more from reservoir releases

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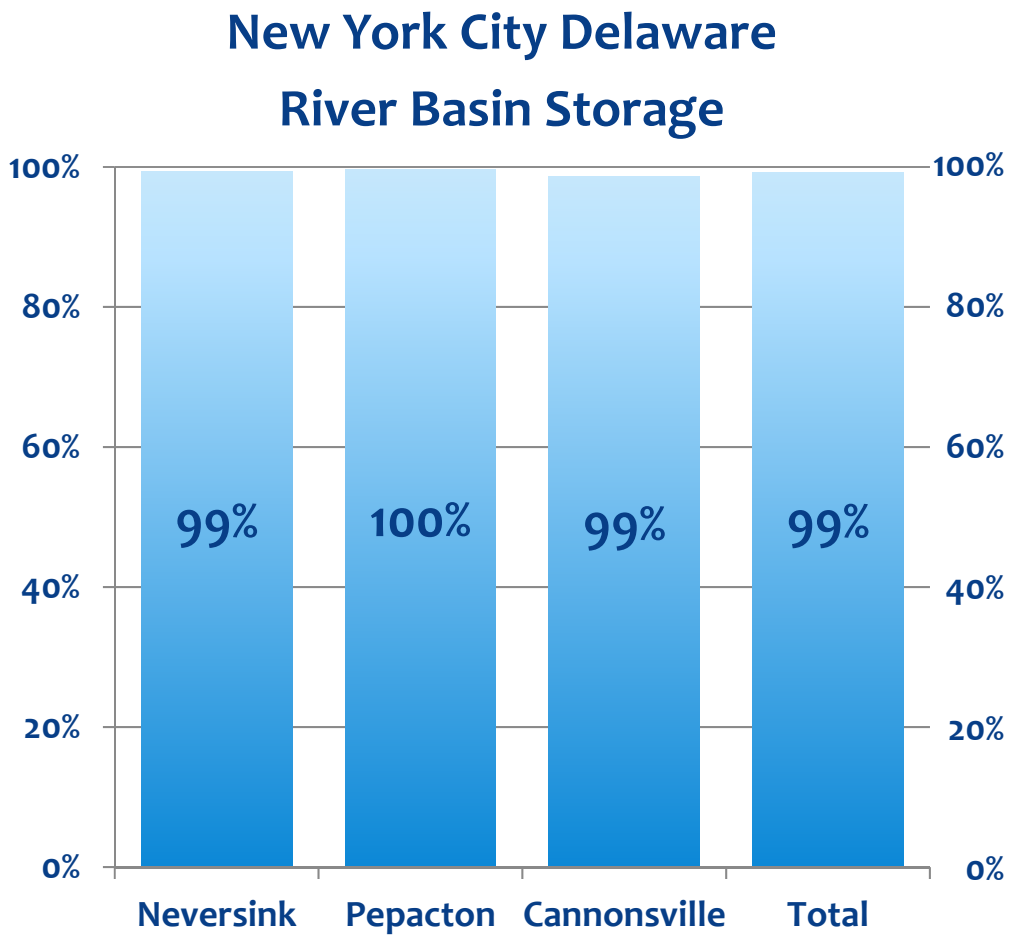
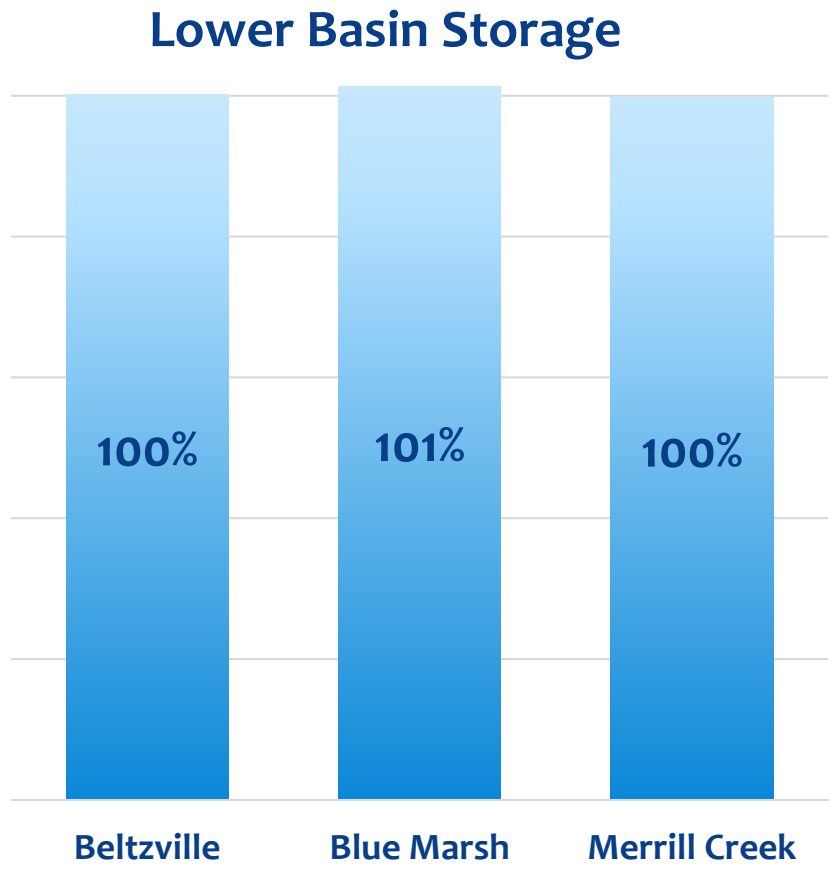
Basin Storage





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New York City Delaware River Basin Storage
6/10/2019

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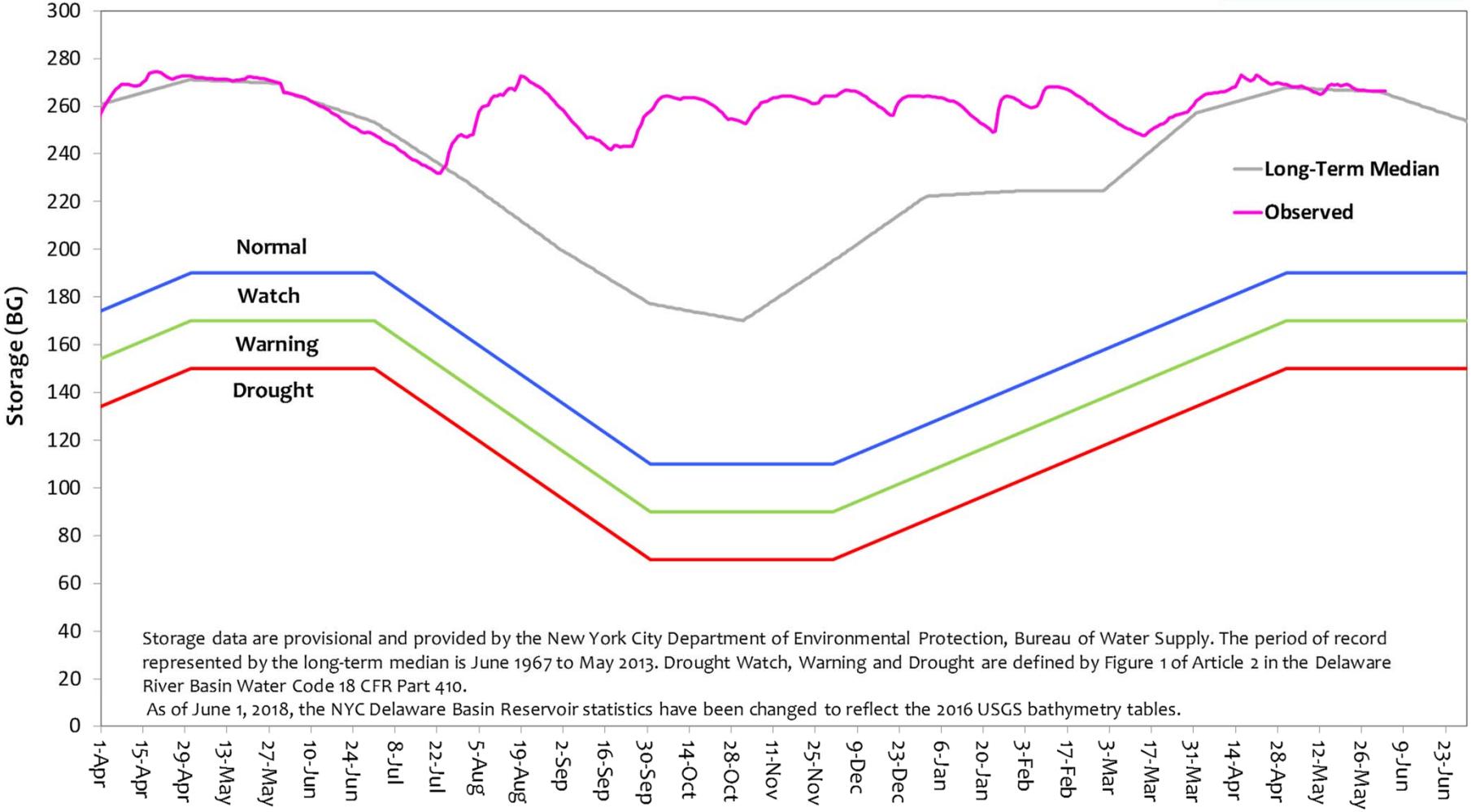


Storage data are provisional and provided by the New York City Department of Environmental Protection, Bureau of Water Supply. The period of record represented by the long-term median is June 1967 to May 2013. Drought Watch, Warning and Drought are defined by Figure 1 of Article 2 in the Delaware River Basin Water Code 18 CFR Part 410.

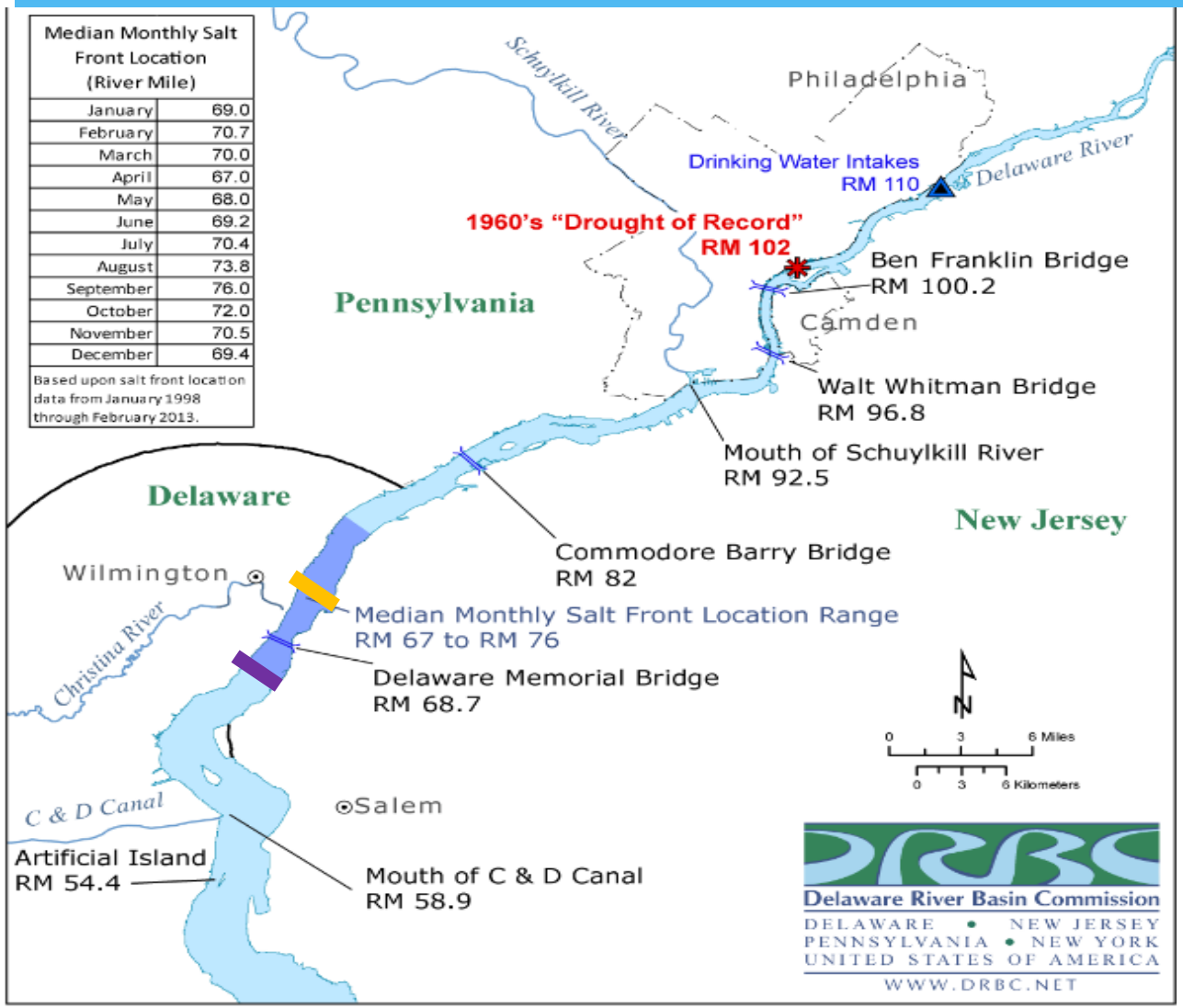
As of June 1, 2018, the NYC Delaware Basin Reservoir statistics have been changed to reflect the 2016 USGS bathymetry tables.

2018-19

Useable Storage	Cannonsville	Pepacton	Neversink	Total
BG	92.1	138.9	34.5	265.5
%	98.6%	99.7%	99.3%	99.3%

BG Above Drought Watch =	76	**BG Above Daily Storage Median =**	3
BG Above Drought Warning =	96	**BG Above One Year Ago =**	3
BG Above Drought =	116		

Salt Front



Chlorides
7-Day Avg. RM Location of 250 mg/l

Current R.M. 62

Normal R.M. 69

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

6/12/2019 - Estimated


Photo by Justin Curtis

Groundwater

County	State	Agency	Well ID	Initial Year	Indicator 3/2019	Indicator 6/2019
Sullivan	NY	USGS	SV 535	2001	Normal	Above Normal
Wayne	PA	USGS	WN 64	1967	Above Normal	Above Normal
Monroe	PA	USGS	MO 190	1967	Normal	Normal
Carbon	PA	USGS	CB 104	1969	Normal	Above Normal
Schuylkill	PA	USGS	SC 296	1975	Normal	Above Normal
Lehigh	PA	USGS	LE 644	1971	Above Normal	Above Normal
Lebanon	PA	USGS	LB 372	1973	Above Normal	Above Normal
Bucks	PA	USGS	BK 1020	1975	Above Normal	Above Normal
Chester	PA	USGS	CH 10	1966	Above Normal	Above Normal
Delaware	PA	USGS	DE 723	1983	Above Normal	Above Normal
Burlington	NJ	USGS	050689	1955	Above Normal	Normal
Cumberland	NJ	USGS	110042	1972	Above Normal	Above Normal
New Castle	DE	Delaware GS	Db24-18	1993	Above Normal	NA

Ten of 13 Indicator Wells are Above Normal
Two are below Normal

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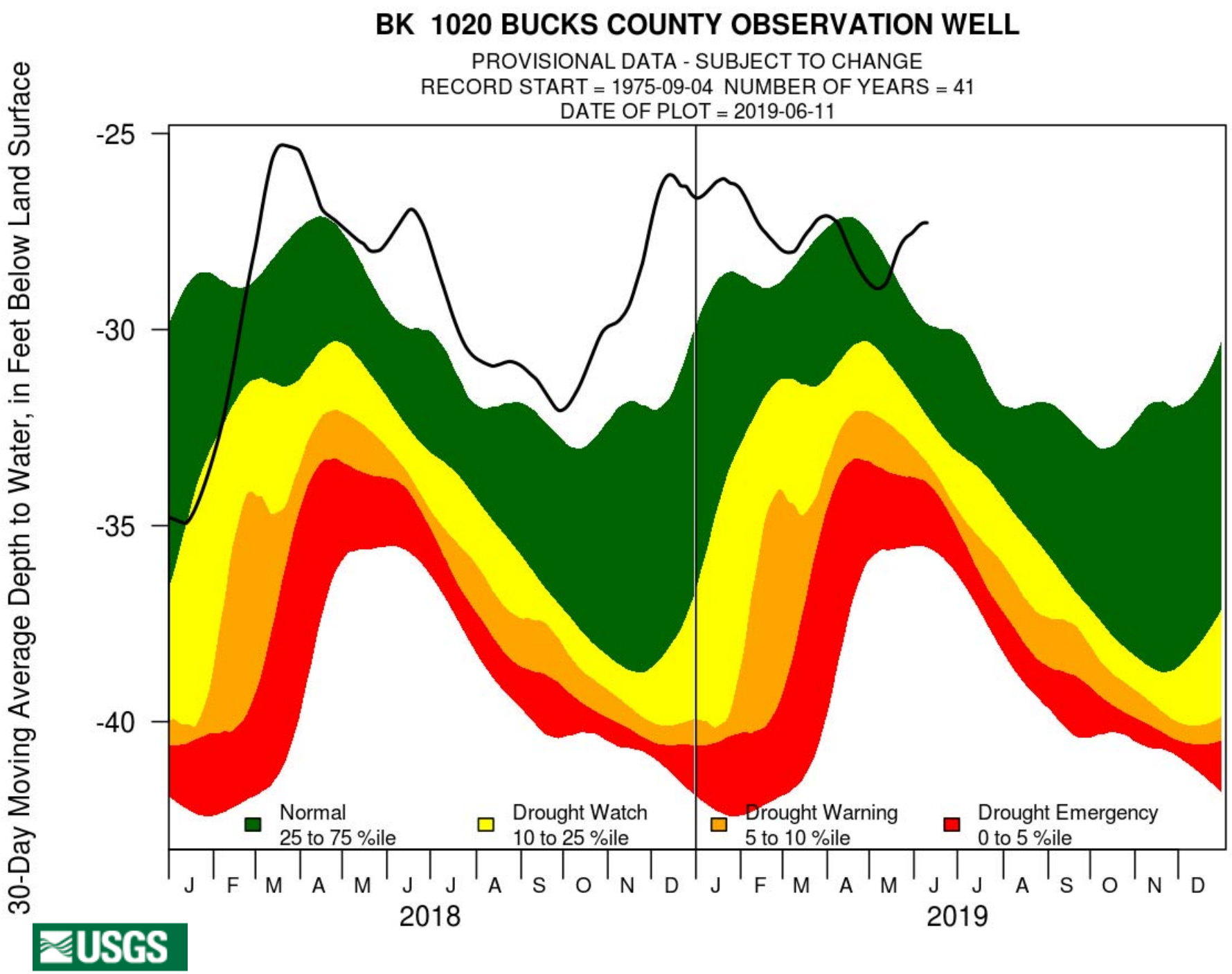
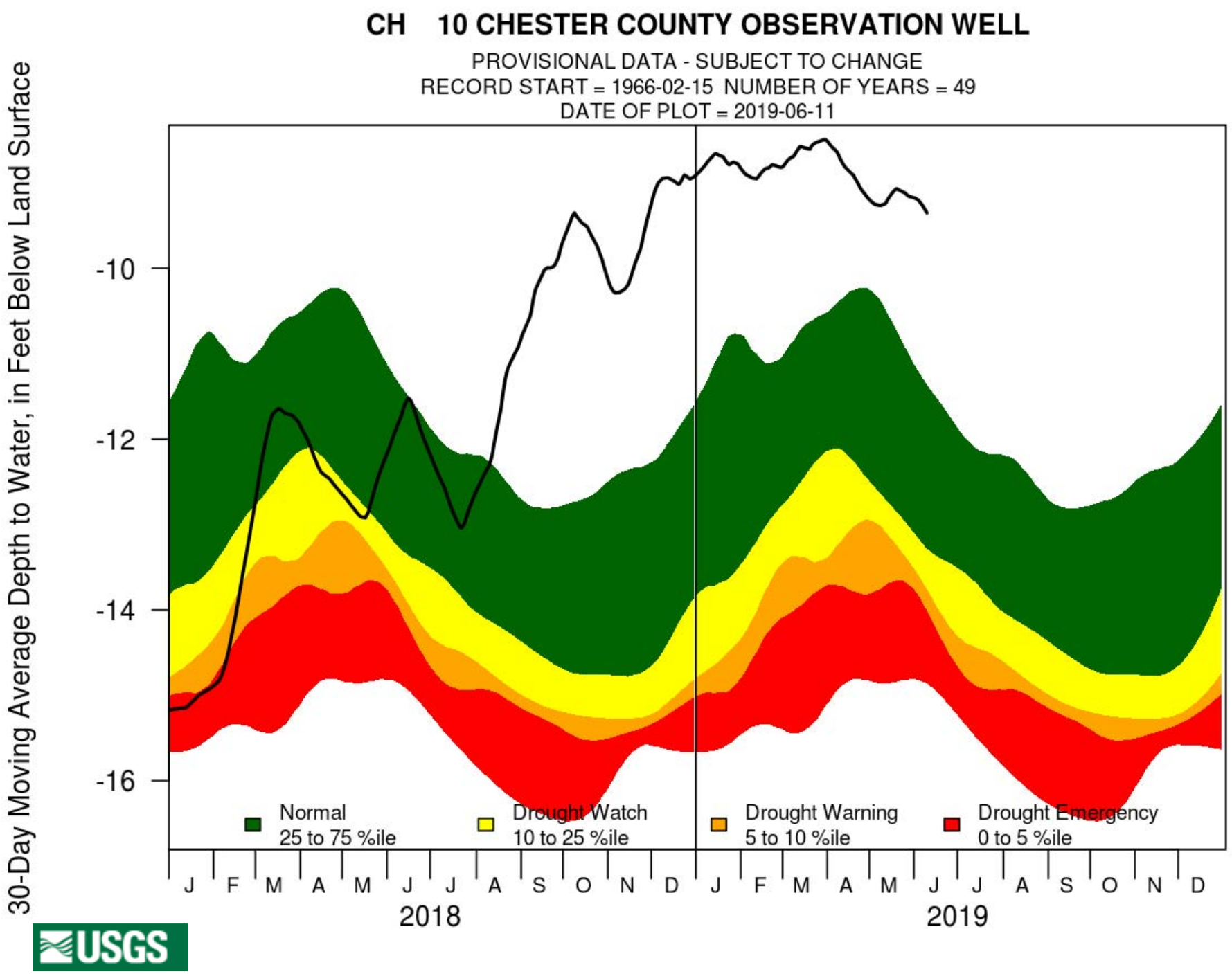
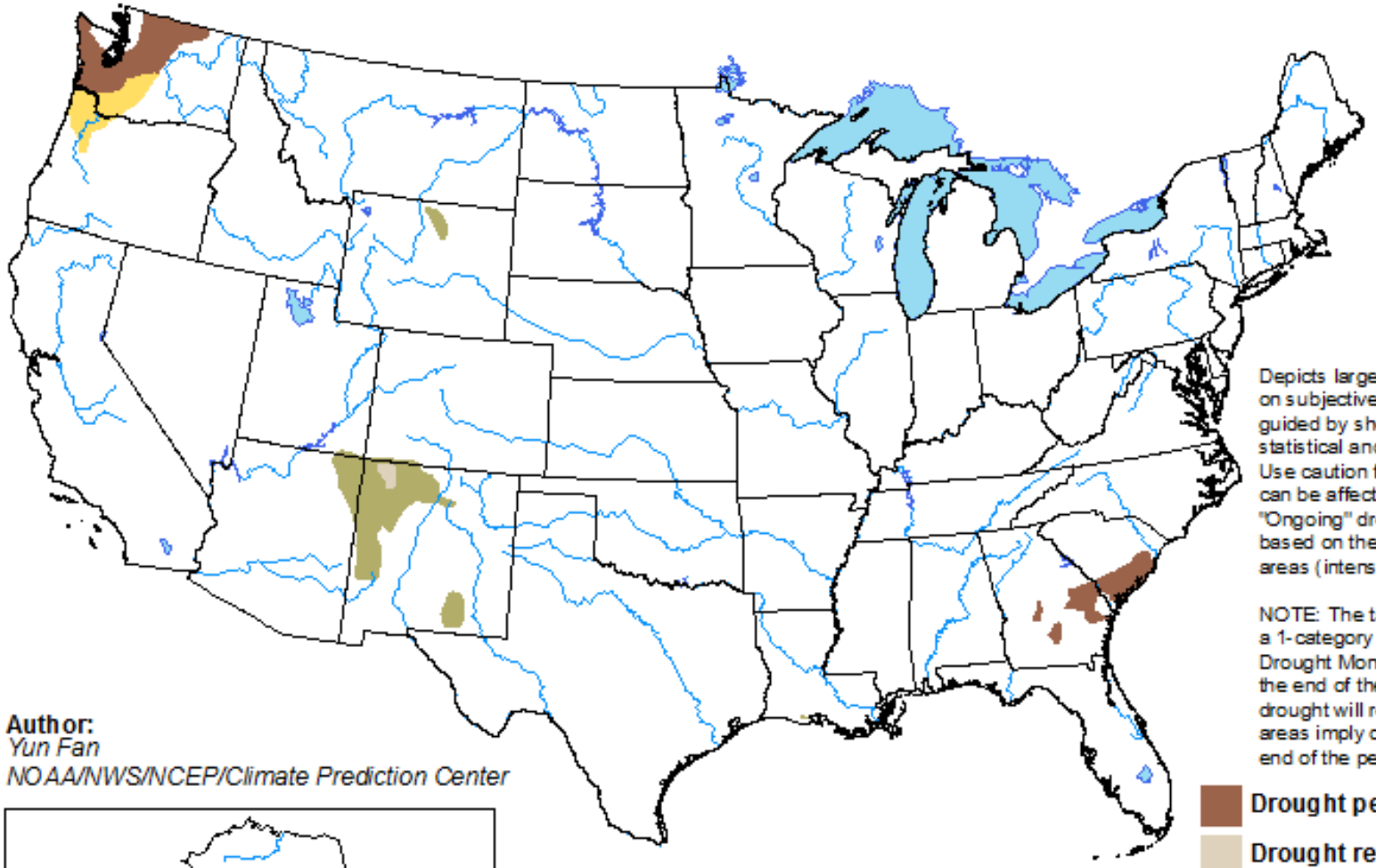

BK 1020 BUCKS COUNTY OBSERVATION WELL
PROVISIONAL DATA - SUBJECT TO CHANGE
RECORD START = 1975-09-04 NUMBER OF YEARS = 41
DATE OF PLOT = 2019-06-11
30-Day Moving Average Depth to Water, in Feet Below Land Surface
-25
-30
-35
-40
Normal
25 to 75 %ile
Drought Watch
10 to 25 %ile
Drought Warning
5 to 10 %ile
Drought Emergency
0 to 5 %ile
J F M A M J J A S O N D
2018
J F M A M J J A S O N D
2019
USGS


CH 10 CHESTER COUNTY OBSERVATION WELL
PROVISIONAL DATA - SUBJECT TO CHANGE
RECORD START = 1966-02-15 NUMBER OF YEARS = 49
DATE OF PLOT = 2019-06-11
30-Day Moving Average Depth to Water, in Feet Below Land Surface
-10
-12
-14
-16
Normal
25 to 75 %ile
Drought Watch
10 to 25 %ile
Drought Warning
5 to 10 %ile
Drought Emergency
0 to 5 %ile
J F M A M J J A S O N D
2018
J F M A M J J A S O N D
2019
USGS

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

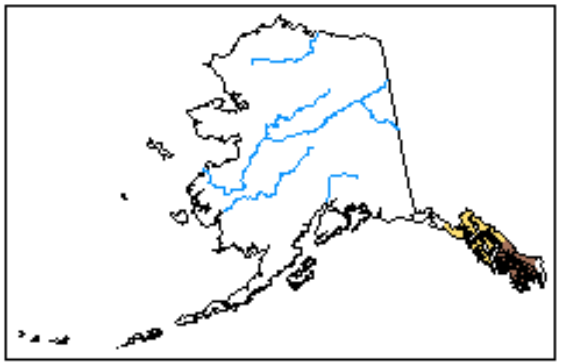
Valid for May 16 - August 31, 2019
Released May 16

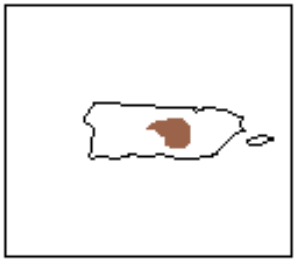


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to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

Author:
Yun Fan
NOAA/NWS/NCEP/Climate Prediction Center



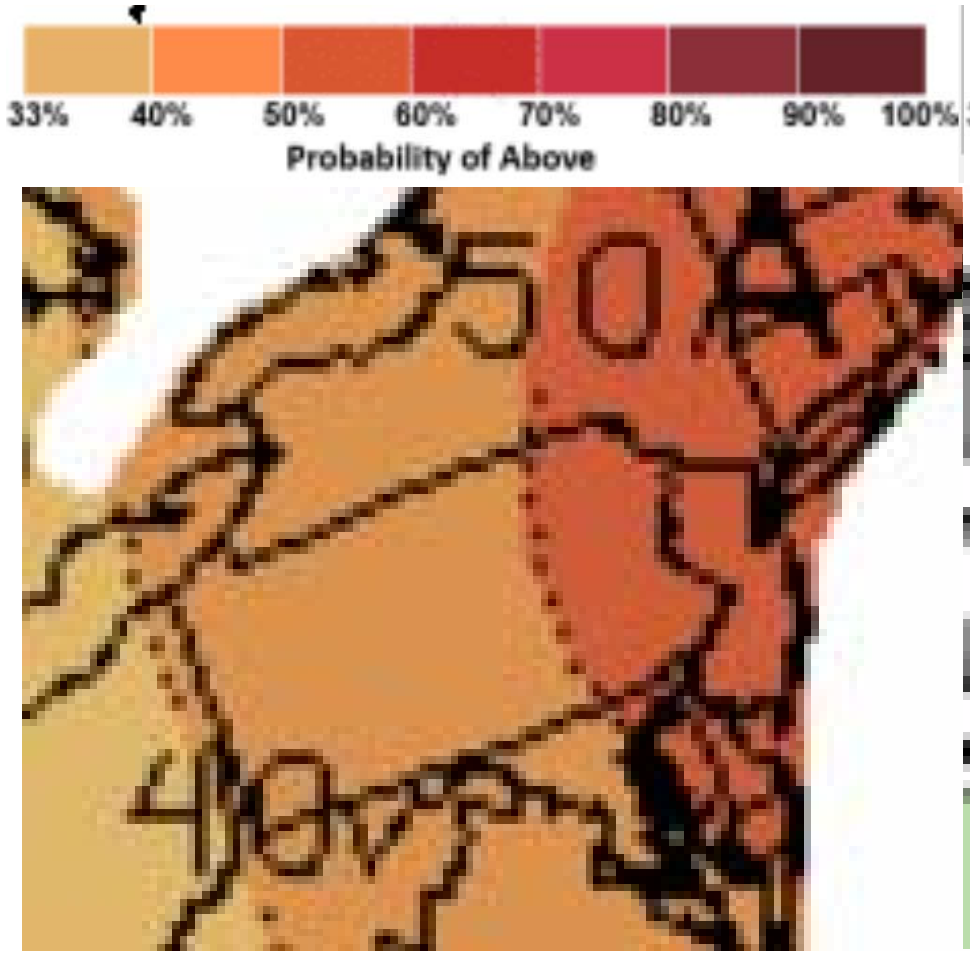


- **Drought persists**
- **Drought remains but improves**
- **Drought removal likely**
- **Drought development likely**

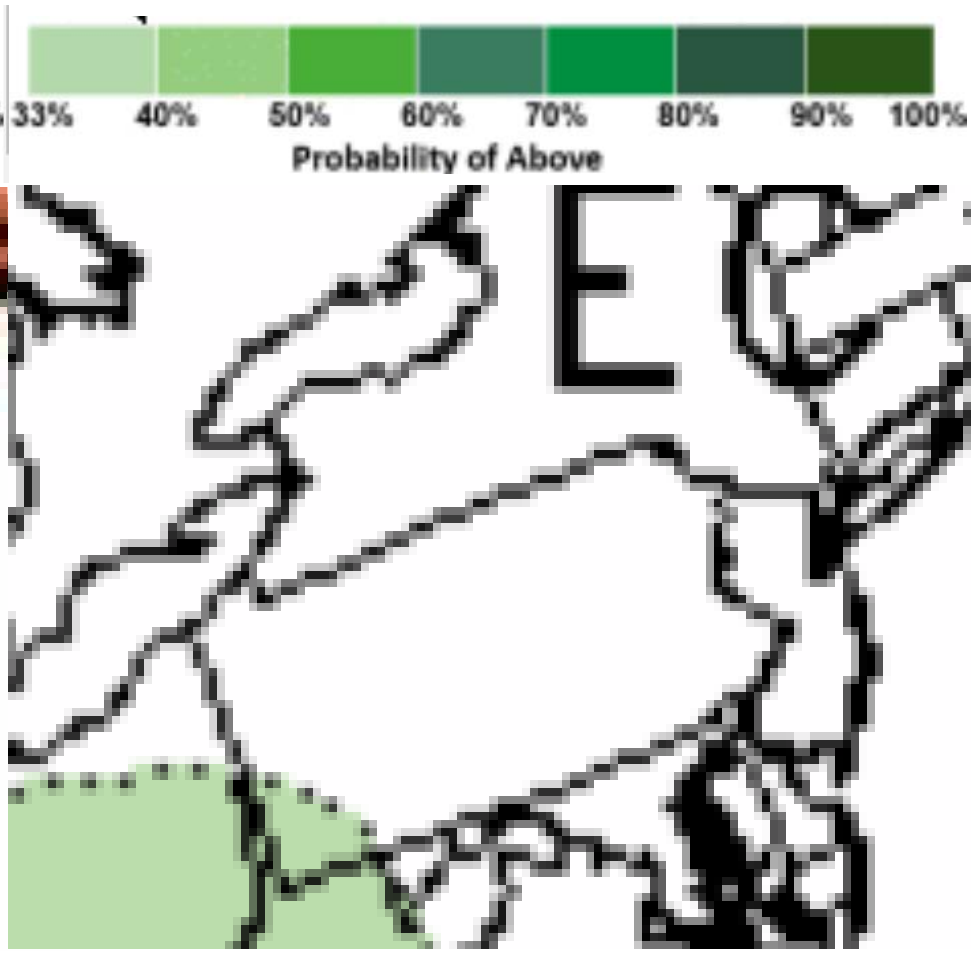
http://go.usa.gov/3eZ73

NOAA 3-Month Outlook

Temperature



Precipitation




Have a safe and happy summer!
Photo by Carl LaVo
D&R Canal Spillway,
Lambertville, NJ