



2019 Spring Flood Outlook for the Mid-Atlantic Region

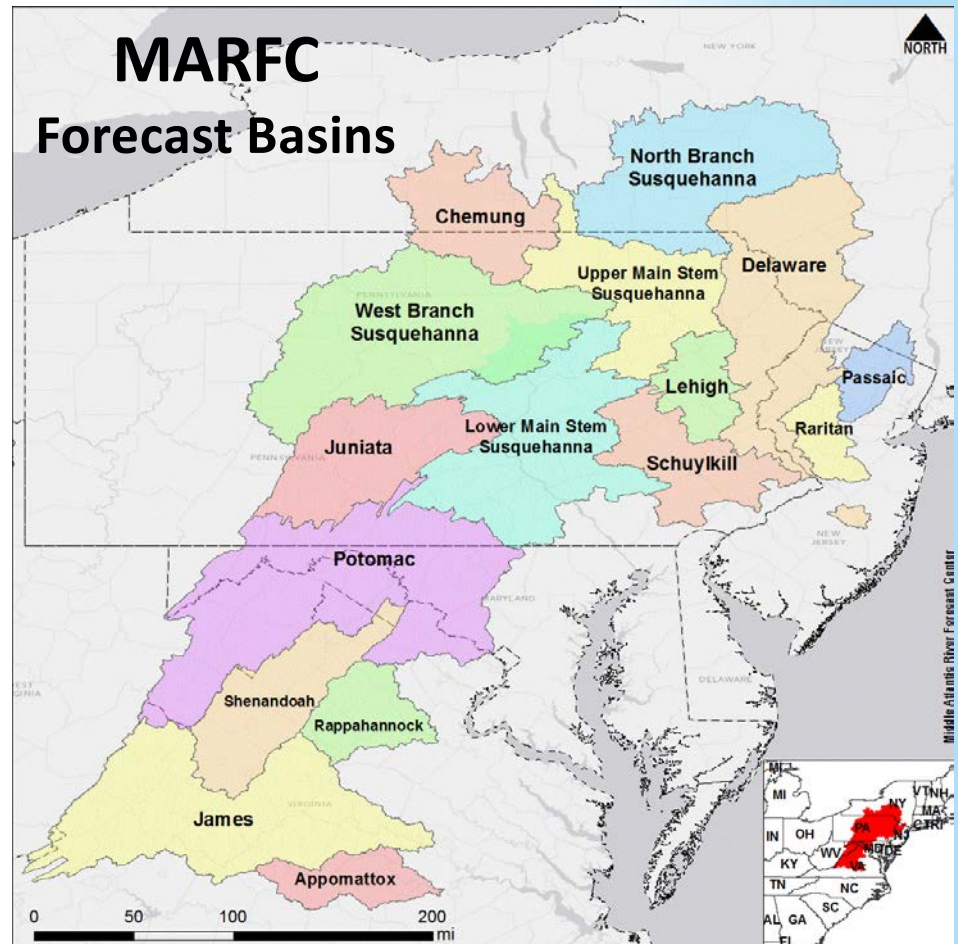
March 28, 2019

NOAA Eastern Region
Climate Services Monthly
Webinar Series

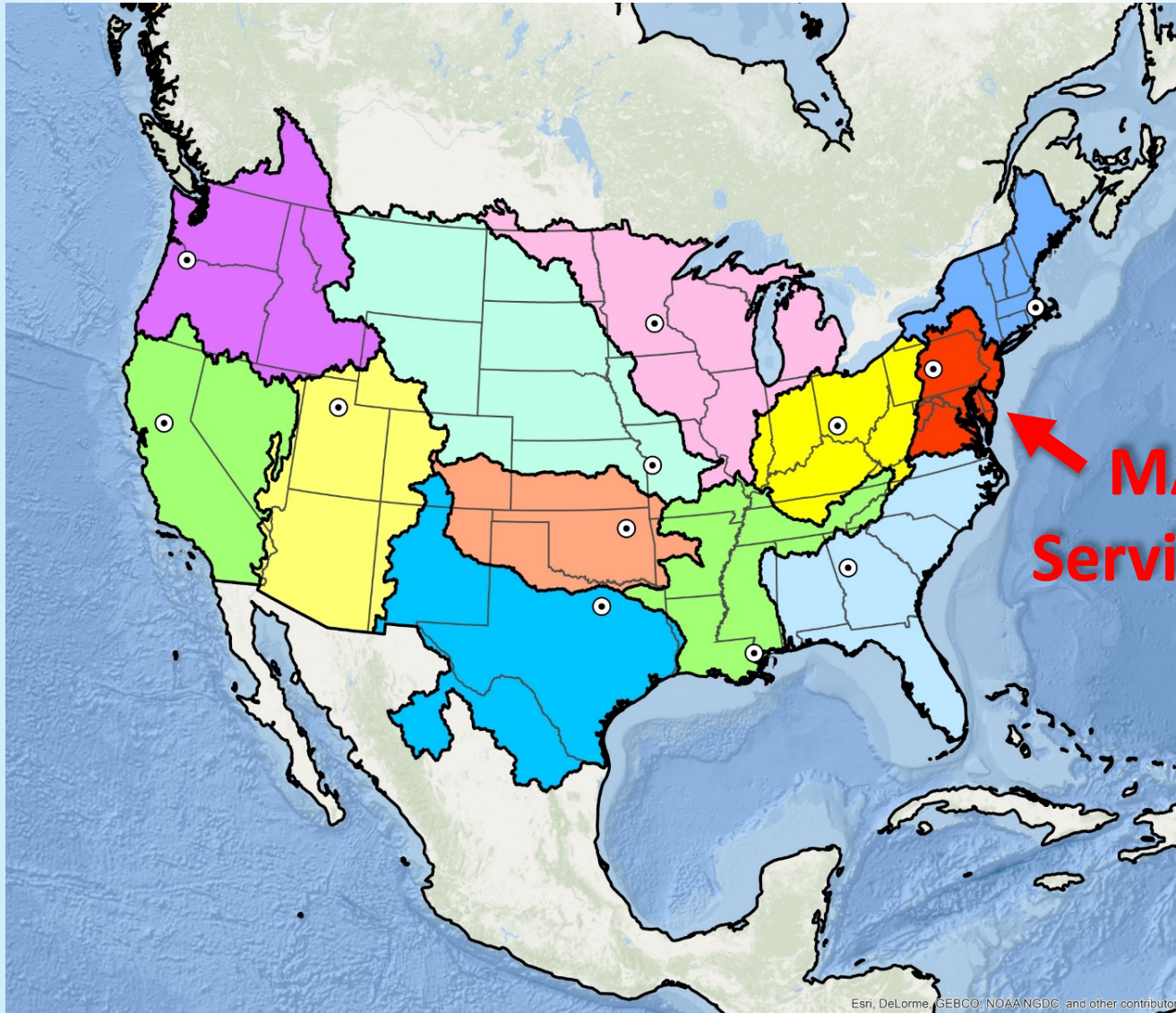
*NWS Middle Atlantic River
Forecast Center (MARFC)*

Scott Kroczyński

Scott.kroczyński@noaa.gov



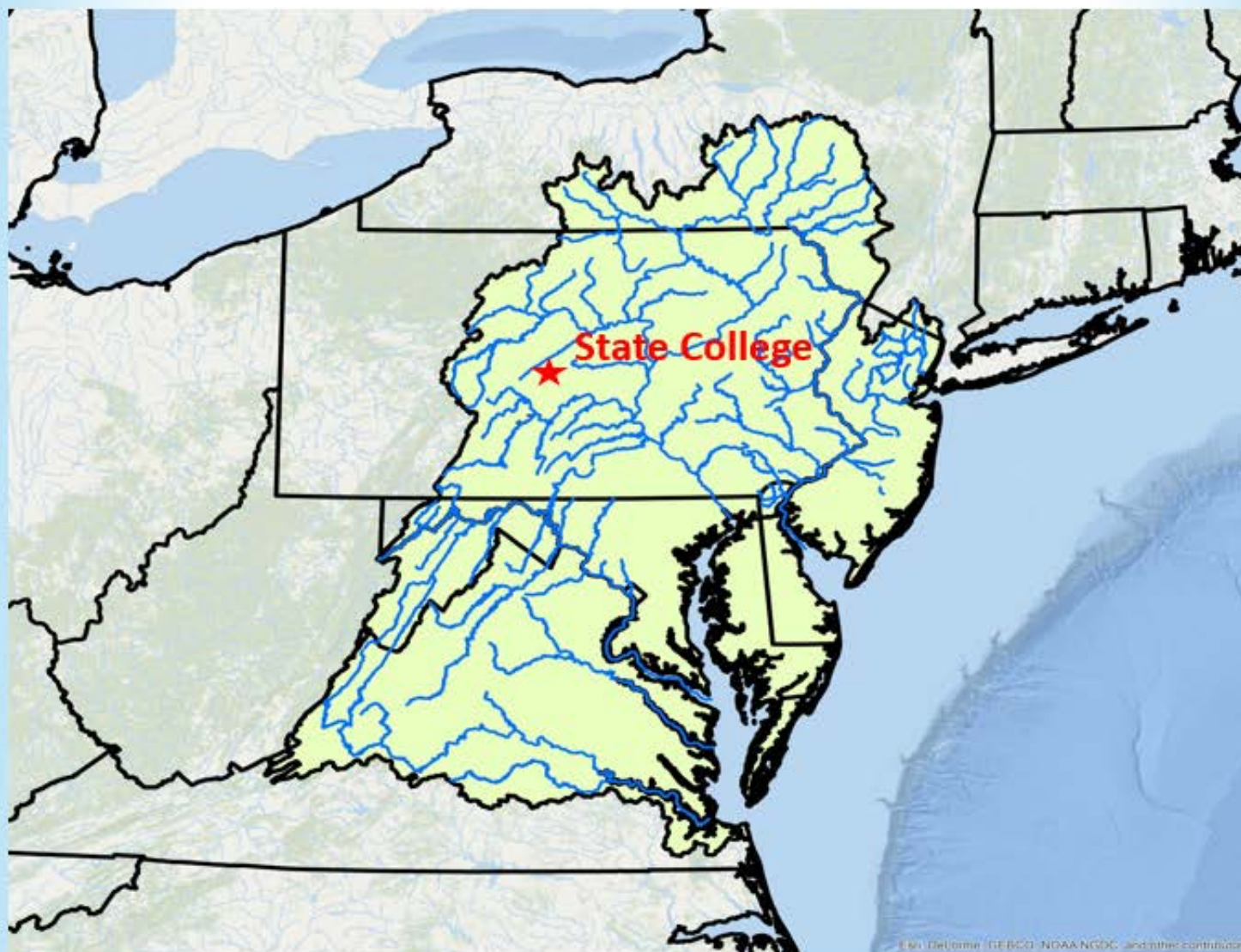
Service Areas of the 13 NWS River Forecast Centers



MARFC
Service Area



MARFC Service Area





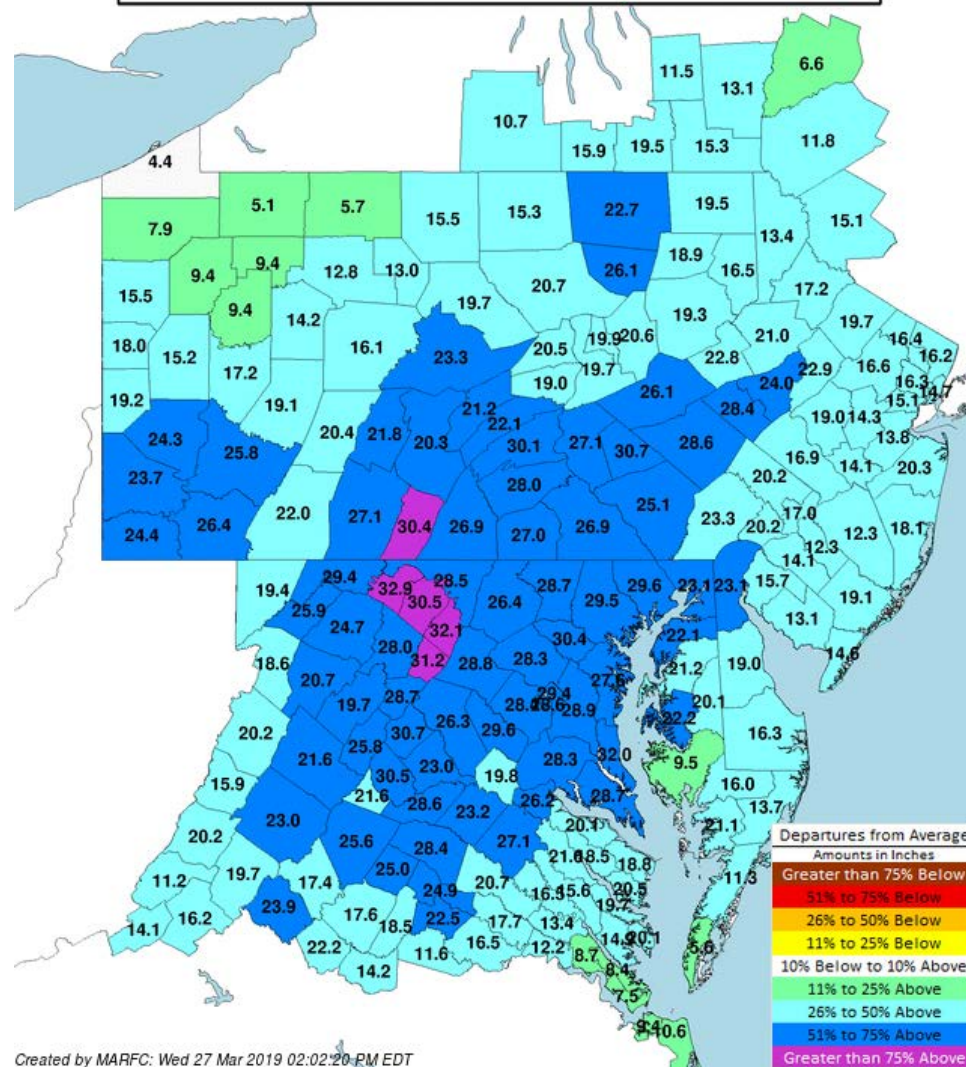
Spring River Flood Potential Factors

- Existing River Flooding
 - Recent Precipitation
 - Snow Conditions
 - River Ice
- Streamflow Conditions
- Soil Moisture Conditions
- Groundwater Conditions
 - Reservoir Conditions
- Future Weather Conditions



One-Year Precipitation Departures

365 Day Departures From Average
3/27/2018 through 3/26/2019
For General Information Only

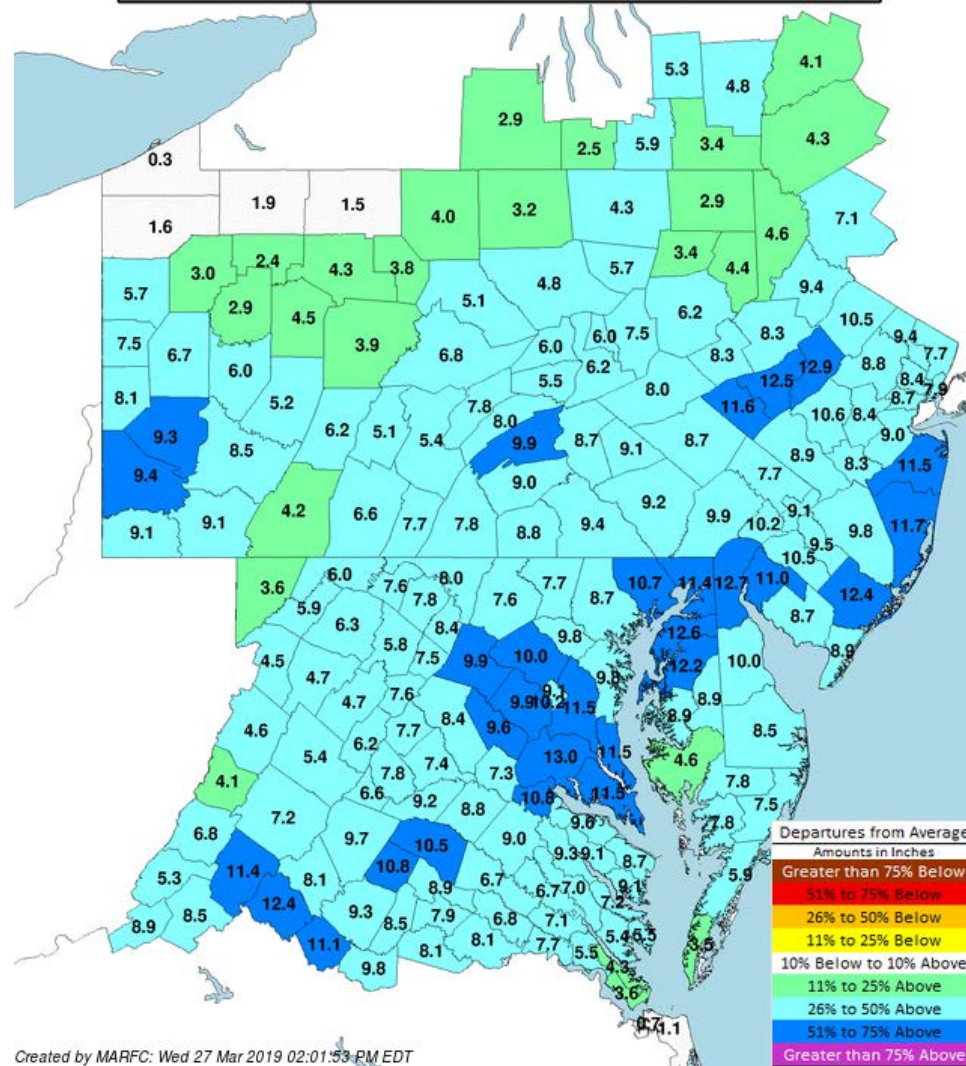


Created by MARFC: Wed 27 Mar 2019 02:02:20 PM EDT



180-Day Precipitation Departures

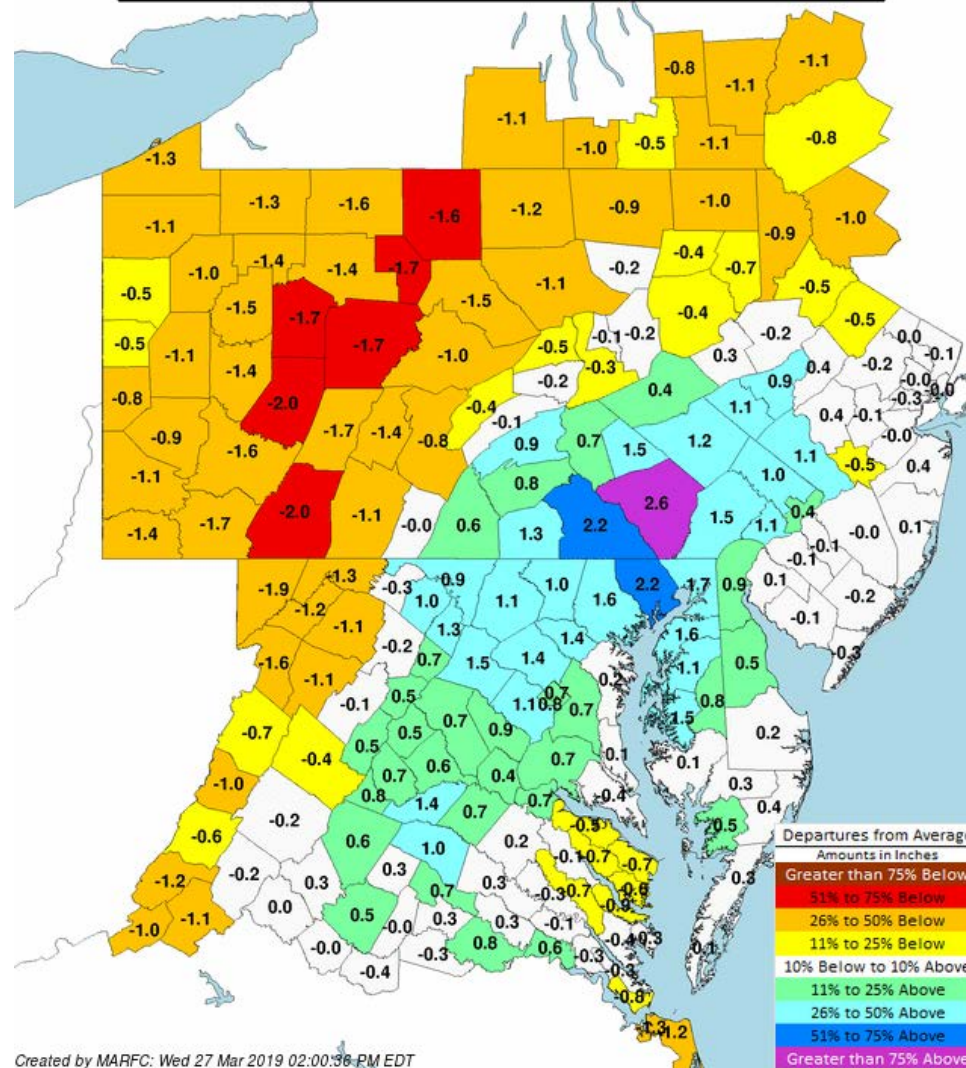
180 Day Departures From Average
9/28/2018 through 3/26/2019
For General Information Only



Created by MARFC: Wed 27 Mar 2019 02:01:53 PM EDT

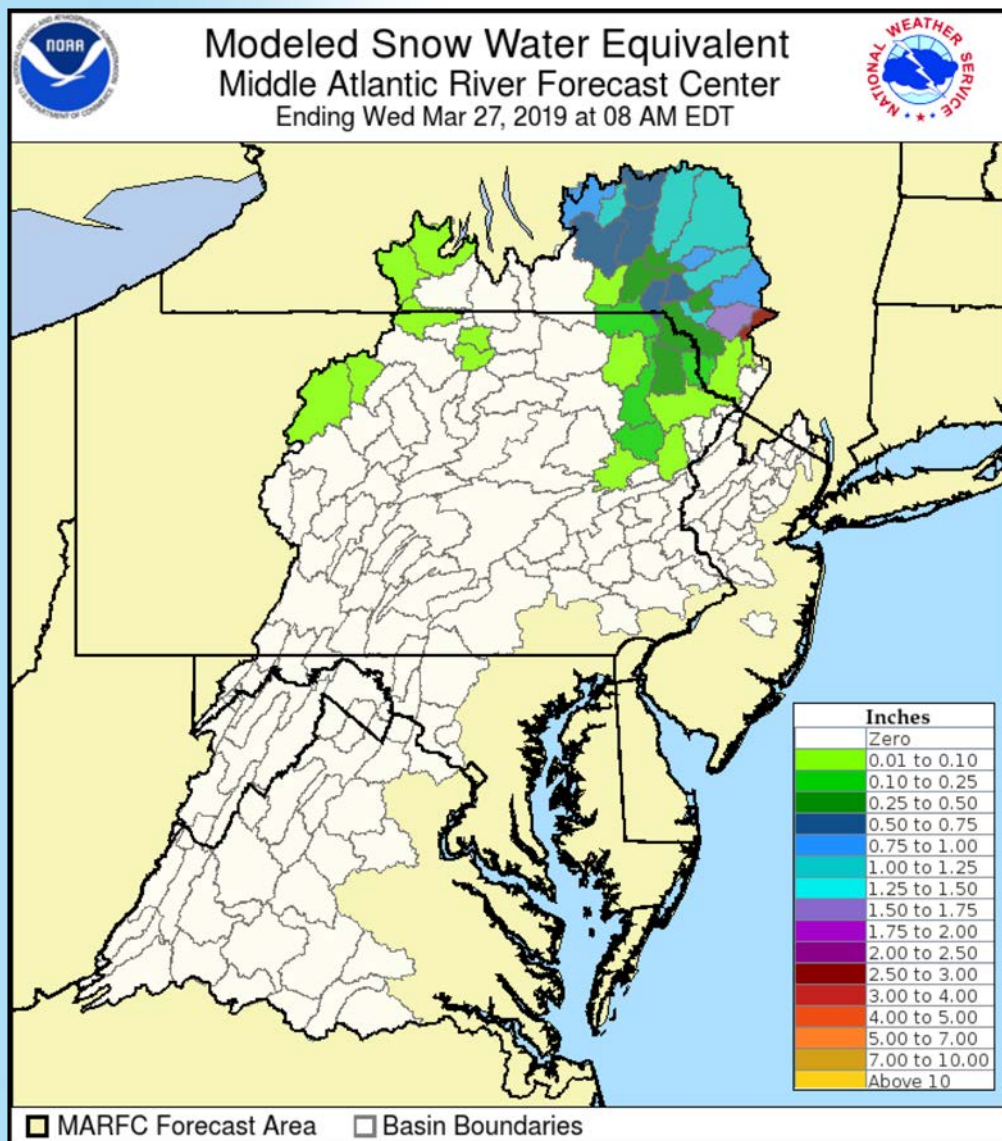
30-Day Precipitation Departures

30 Day Departures From Average
2/25/2019 through 3/26/2019
For General Information Only



Created by MARFC: Wed 27 Mar 2019 02:00:36 PM EDT

Current Snow Conditions



- ✓ Much of the remaining snow on the ground within the MARFC Service Area is hydrologically insignificant
- ✓ 1-2 inches (locally higher) of Snow Water Equivalent (SWE) remains in upper portions of the Delaware and Susquehanna River Basins in NY
- ✓ Higher elevations and forested areas are holding snow better than river valleys and open areas



Current River Ice Conditions

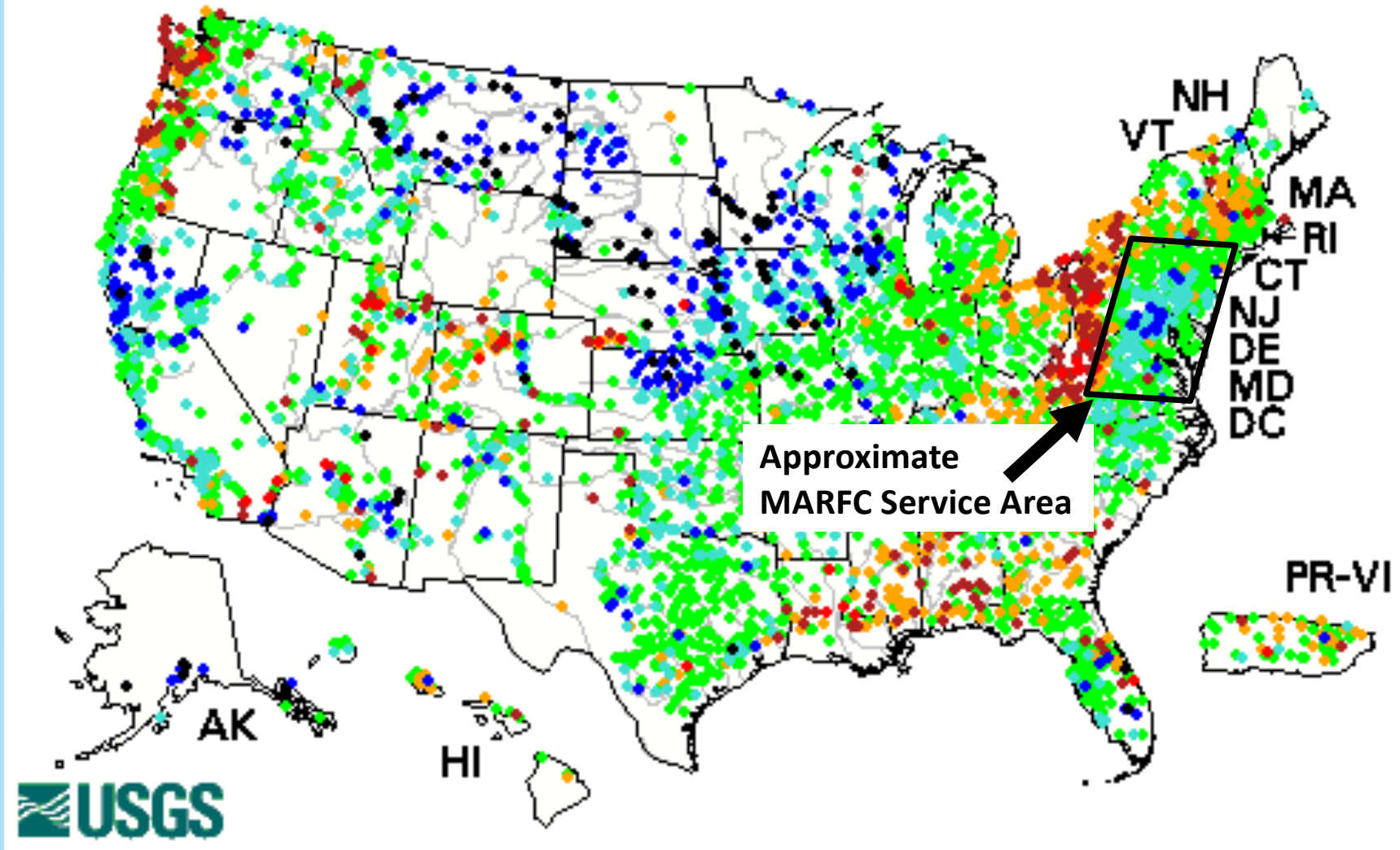
CURRENT RIVER ICE CONDITIONS

- *Zero*
- *Zilch*
- *Nada*
- *Nothing*
- *You get the idea...it's all gone*



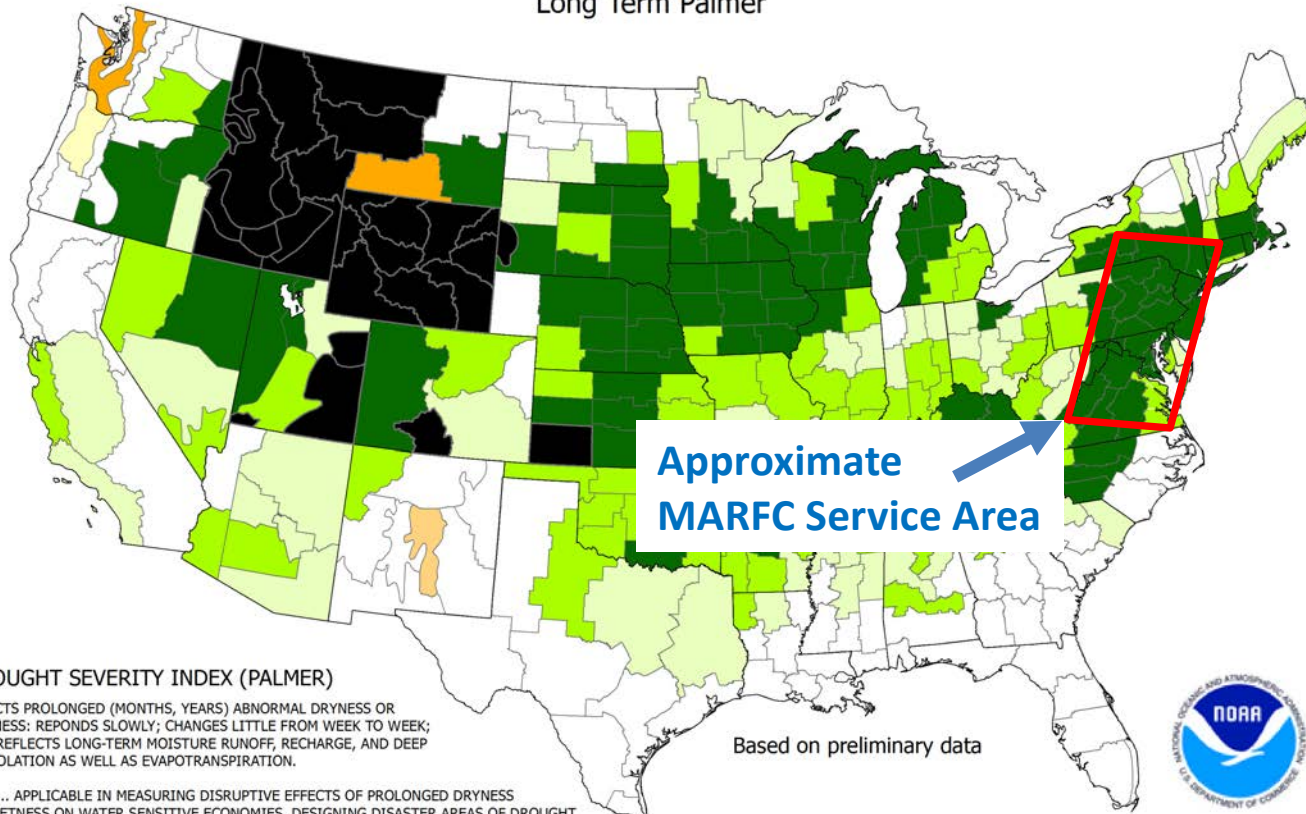
Current USGS Streamflow Conditions

Wednesday, March 27, 2019 14:30ET



Current Drought Conditions

Drought Severity Index by Division
Weekly Value for Period Ending Mar 23, 2019
Long Term Palmer



Approximate
MARFC Service Area

DROUGHT SEVERITY INDEX (PALMER)

DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS; REponds SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION AS WELL AS EVAPOTRANSPIRATION.

USES... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSITIVE ECONOMIES, DESIGNING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL LONG-TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS AND STREAMS.

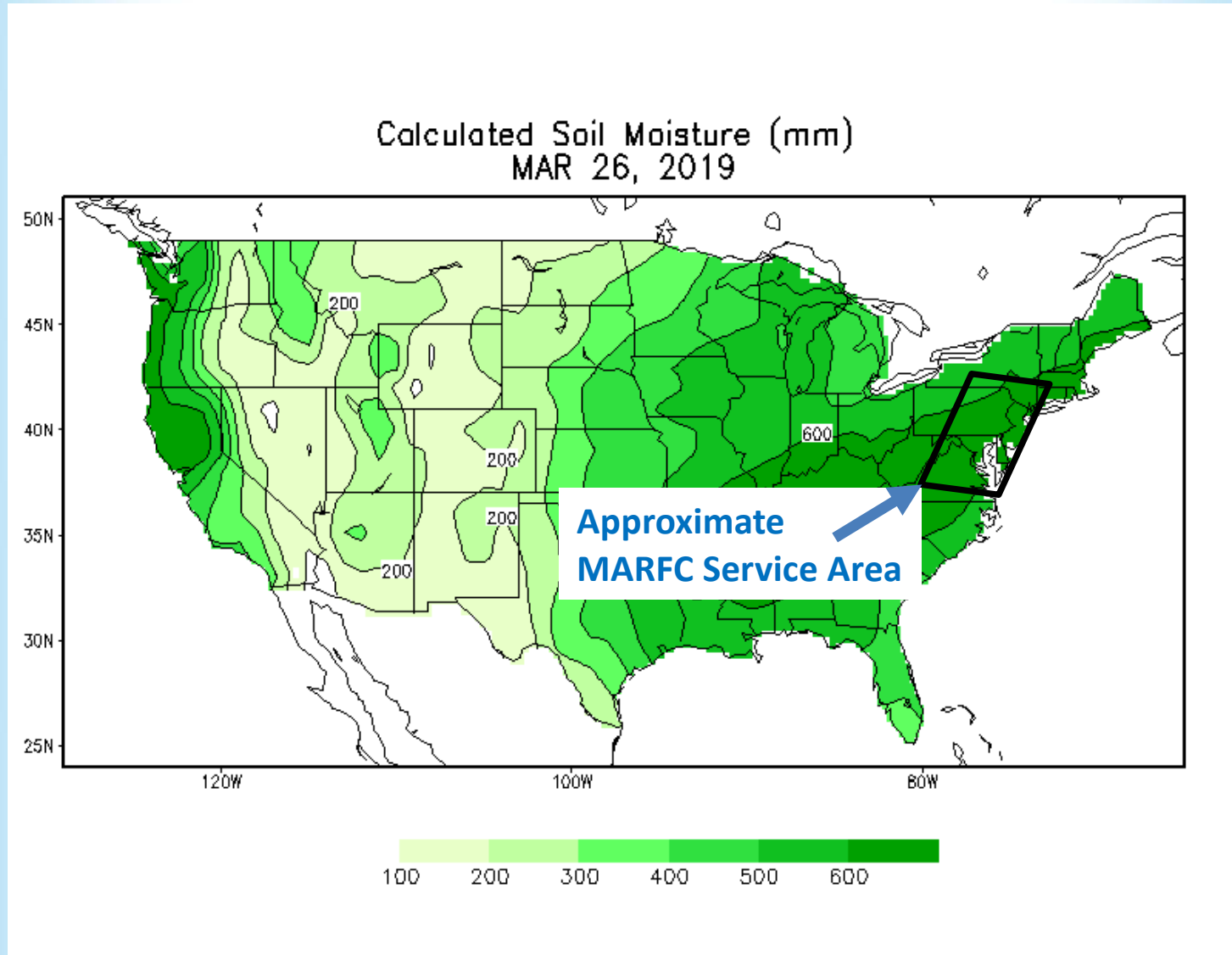
LIMITATIONS... IS NOT GENERALLY INDICATIVE OFFSHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).

Based on preliminary data



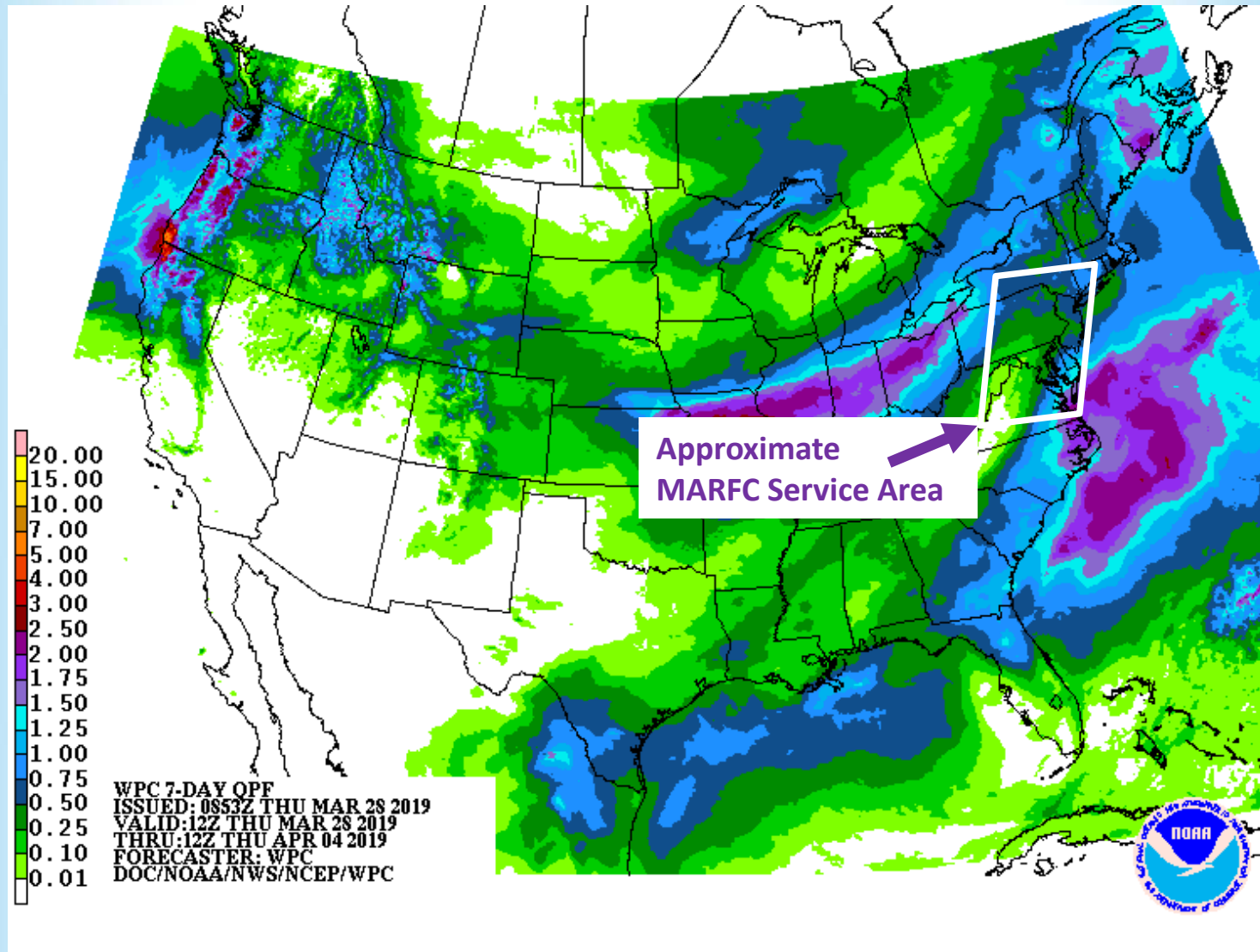
- 4.0 or less (Extreme Drought)
- +2.0 to +2.9 (Unusual Moist Spell)
- 3.0 to -3.9 (Severe Drought)
- +3.0 to +3.9 (Very Moist Spell)
- 2.0 to -2.9 (Moderate Drought)
- +4.0 and above (Extremely Moist)
- 1.9 to +1.9 (Near Normal)
- Missing/Incomplete

Current Soil Moisture Conditions

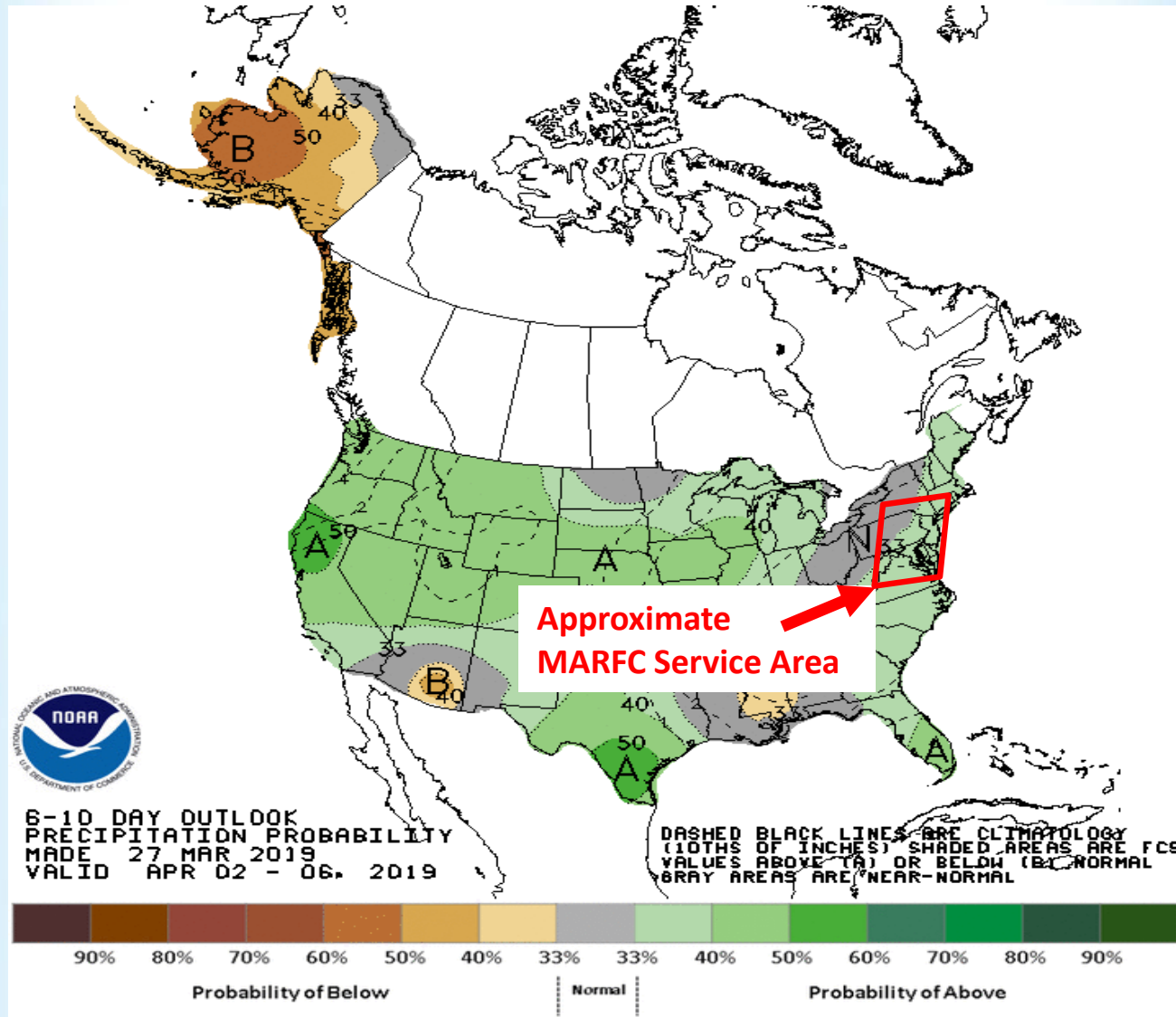




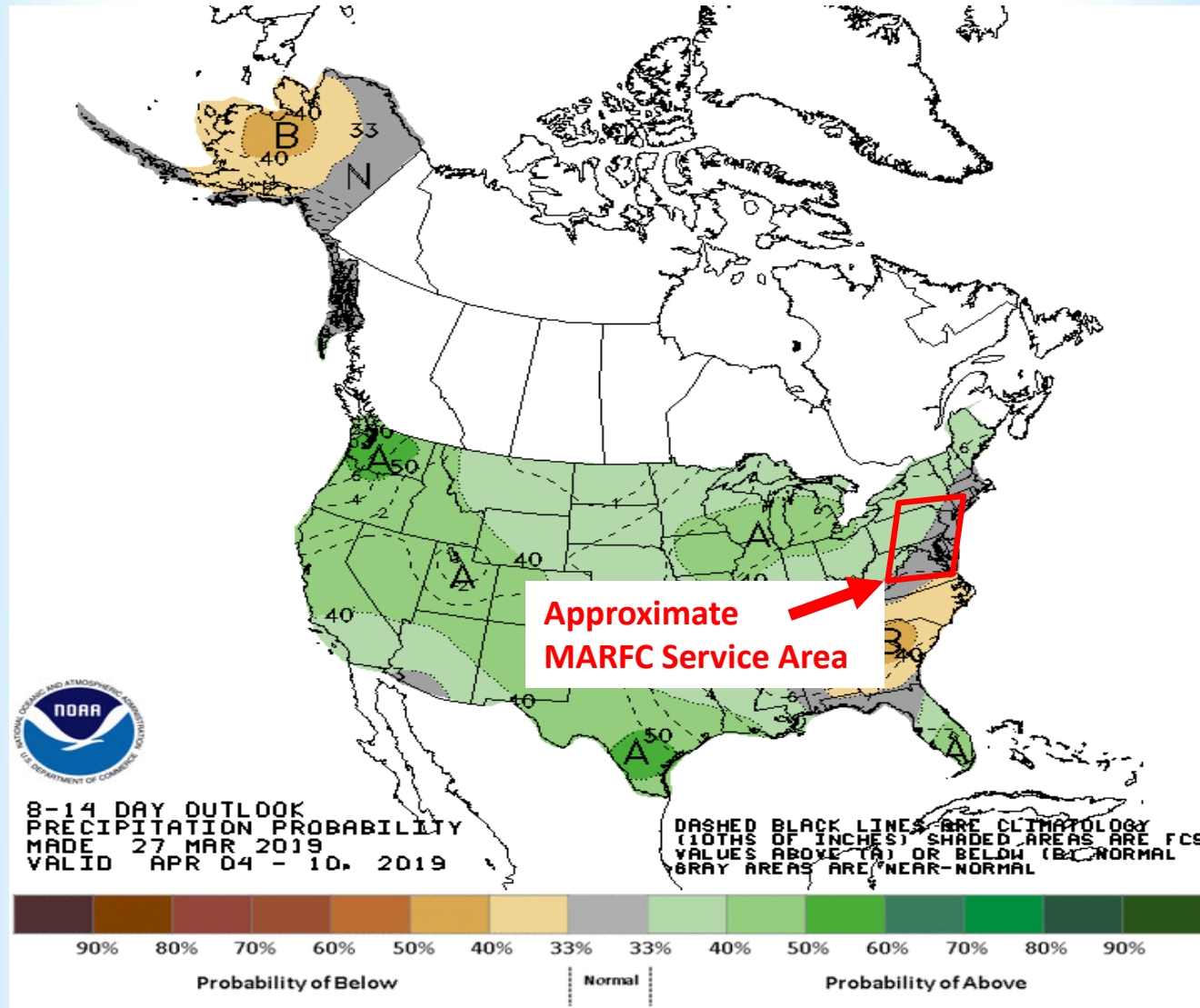
7-Day WPC Predicted Precipitation



6-10 Day CPC Precipitation Outlook

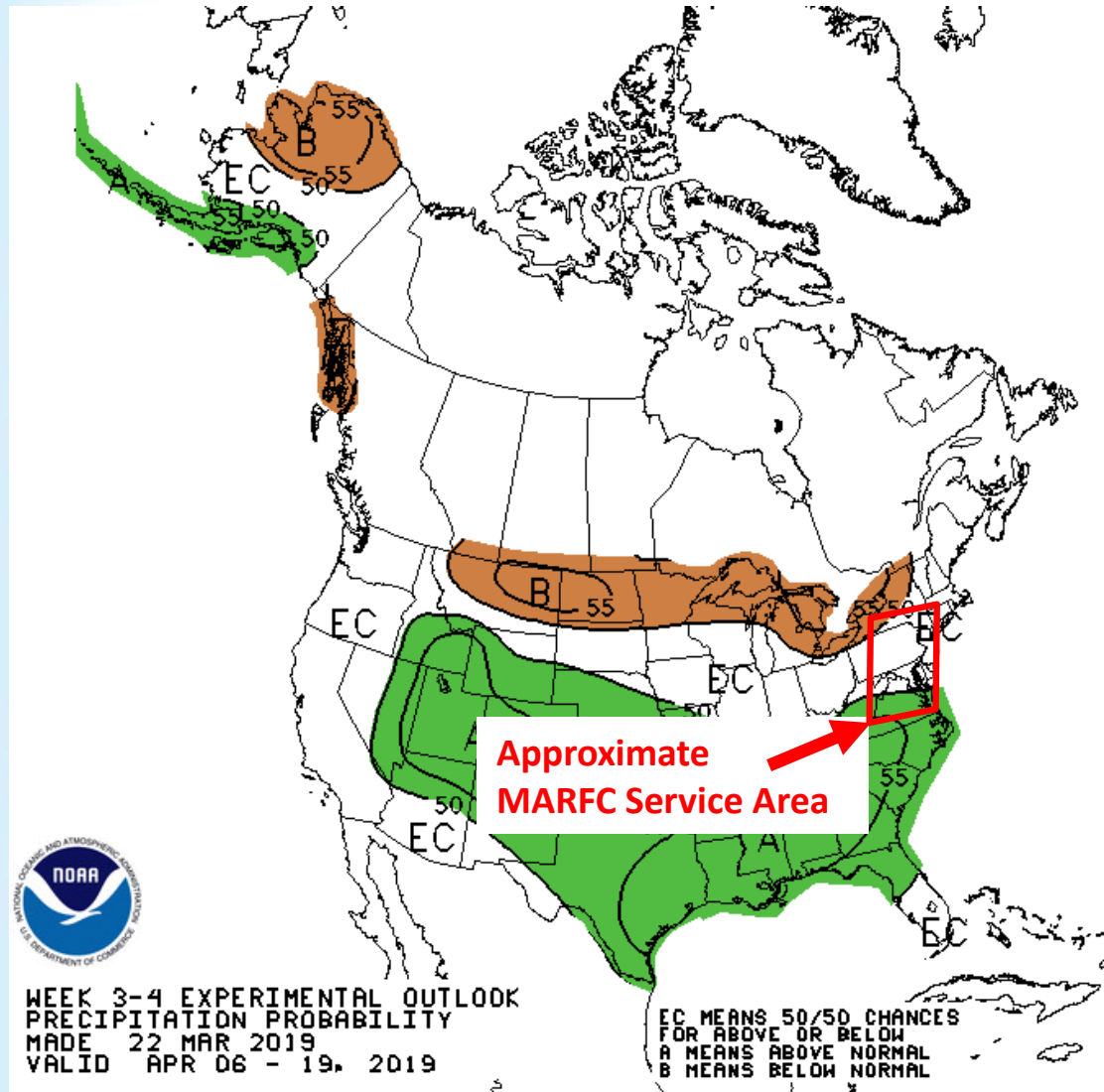


10-14 Day CPC Precipitation Outlook



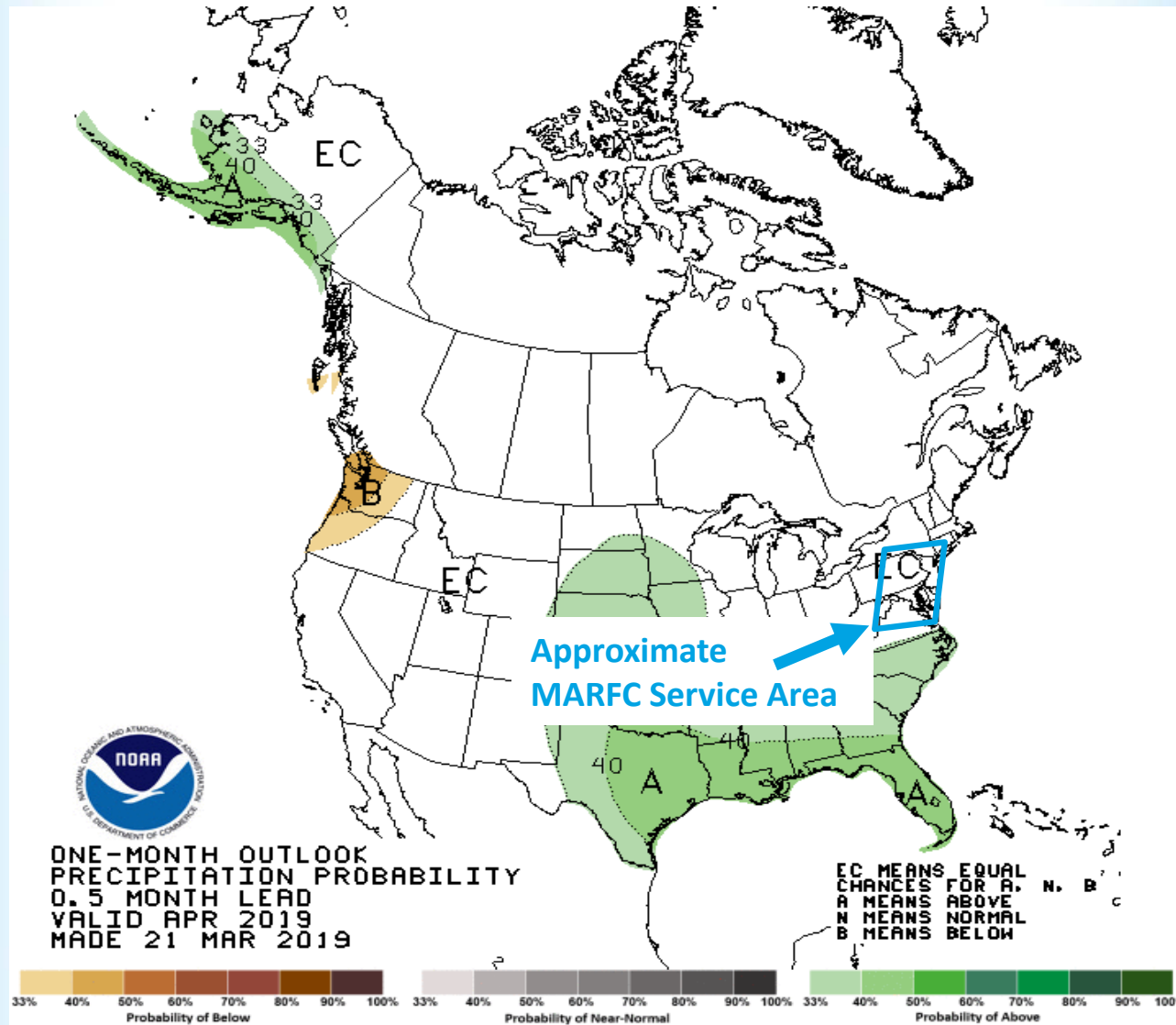


3-4 Week (Experimental) CPC Precipitation Outlook



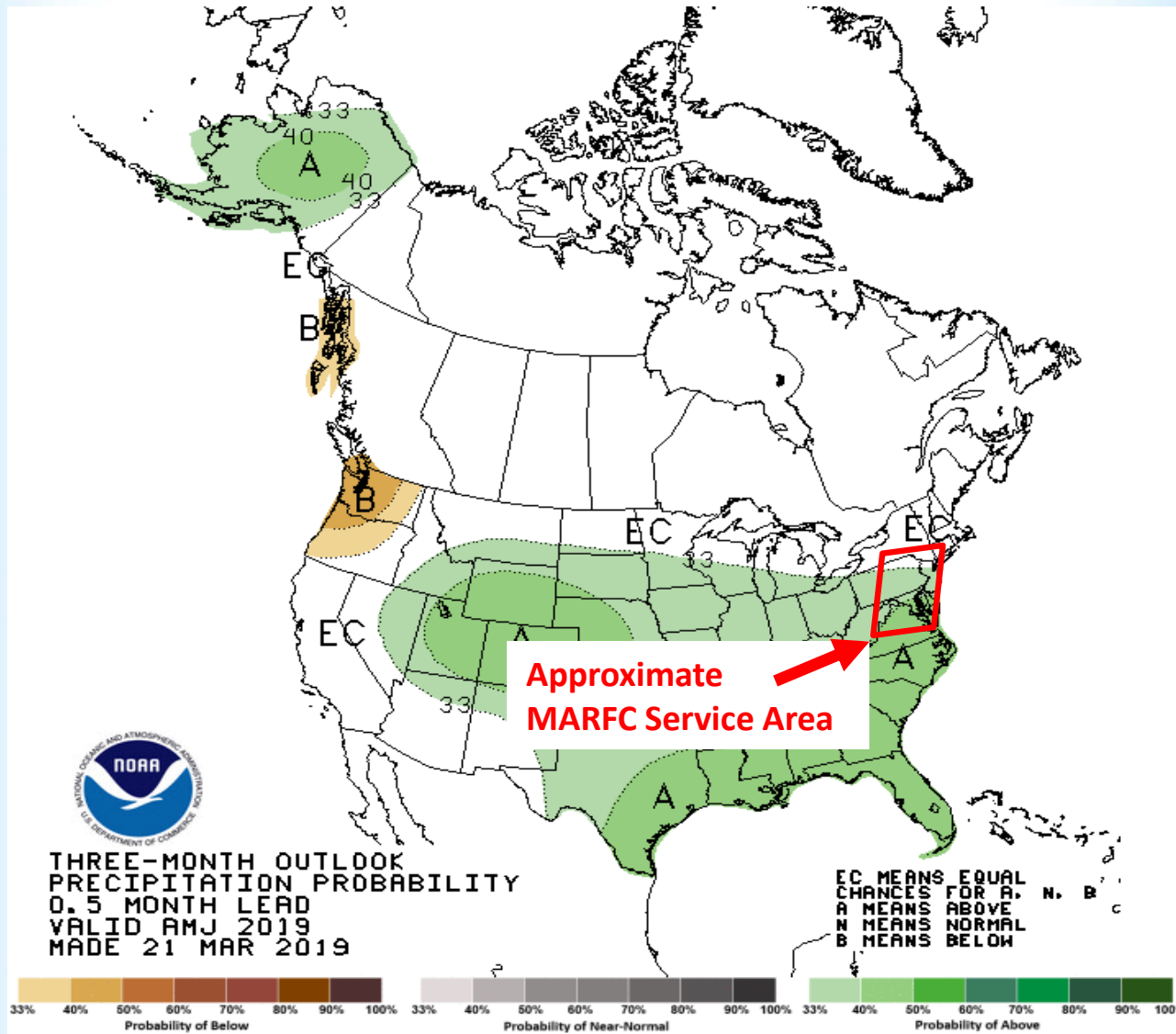


April CPC Precipitation Outlook





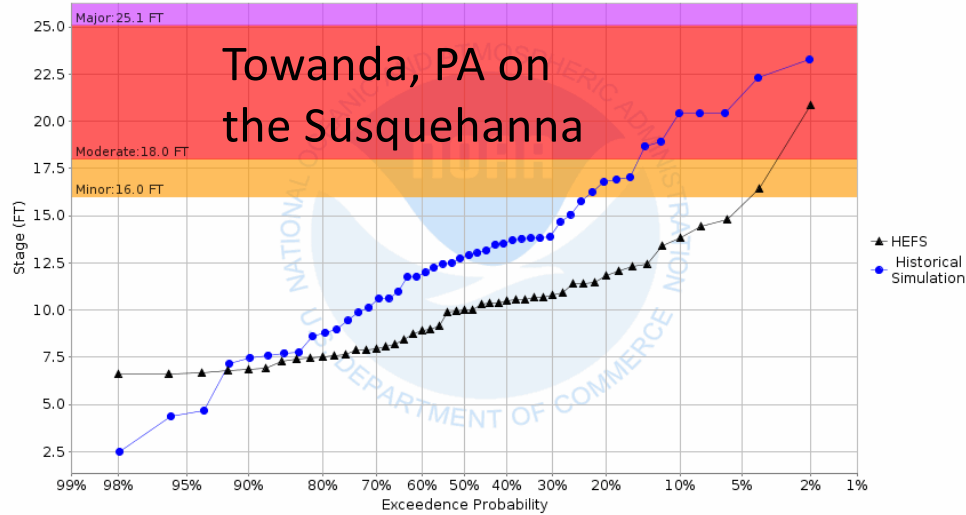
April-June CPC Precipitation Outlook



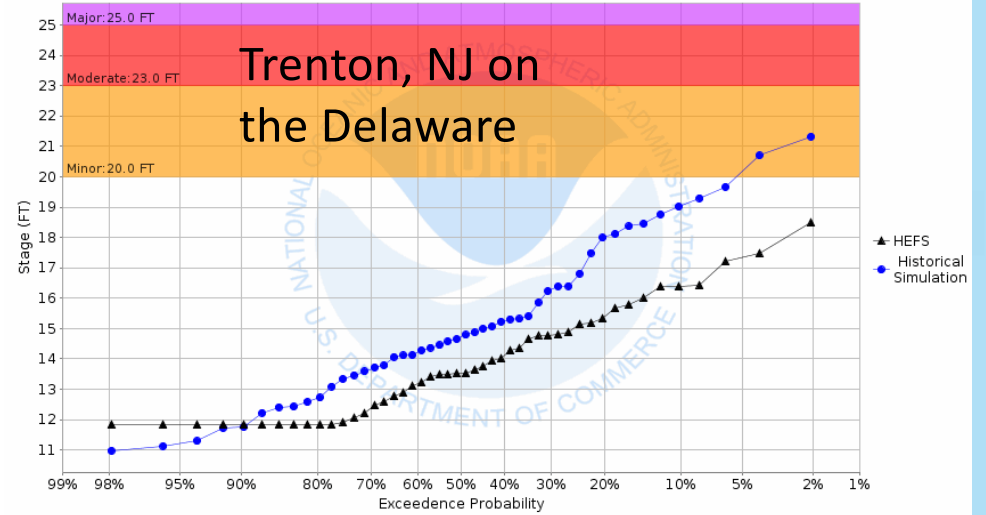


30-Day HEFS Simulations

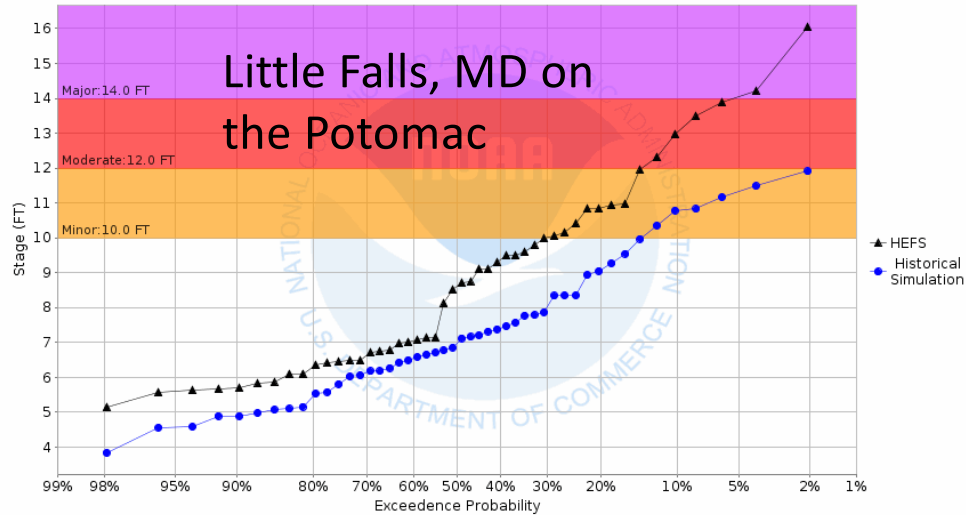
Chance of Exceeding River Stage on the Susquehanna River at Towanda, PA
Forecast for the period 03/22/2019 - 04/21/2019
This is an HEFS simulation based on the current conditions as of 03/22/2019



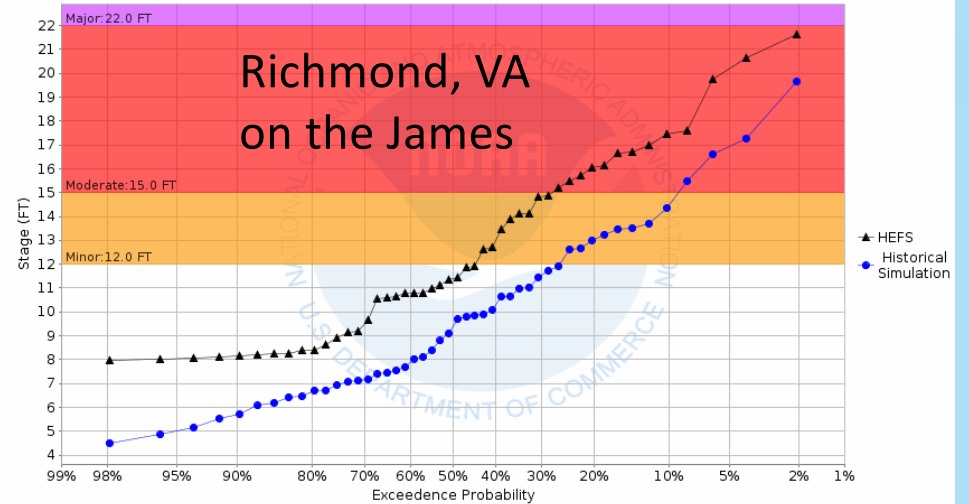
Chance of Exceeding River Stage on the Delaware River at Trenton, NJ
Forecast for the period 03/25/2019 - 04/24/2019
This is an HEFS simulation based on the current conditions as of 03/25/2019



Chance of Exceeding River Stage on the Potomac River at Little Falls near Washington, DC
Forecast for the period 03/21/2019 - 04/20/2019
This is an HEFS simulation based on the current conditions as of 03/21/2019



Chance of Exceeding River Stage on the James River near Richmond-Westham, VA
Forecast for the period 03/21/2019 - 04/20/2019
This is an HEFS simulation based on the current conditions as of 03/21/2019





MARFC Contact Information

Briefing Webpage:

https://www.weather.gov/marfc/self_briefing



Web:
<https://www.weather.gov/marfc>



E-mail:
Robert.Shedd@noaa.gov

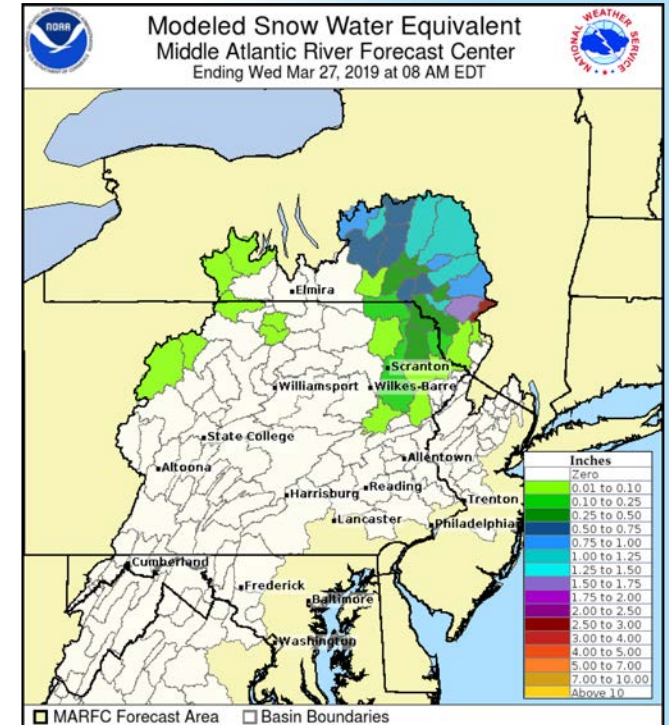


Facebook:
NWSMARFC



Twitter:
NWSMARFC

March 26, 2019 MODIS Satellite Photo



Thank you, and have a wonderful, hopefully flood-free

Spring!