Extended Hydrologic Outlook
May 13, 2021

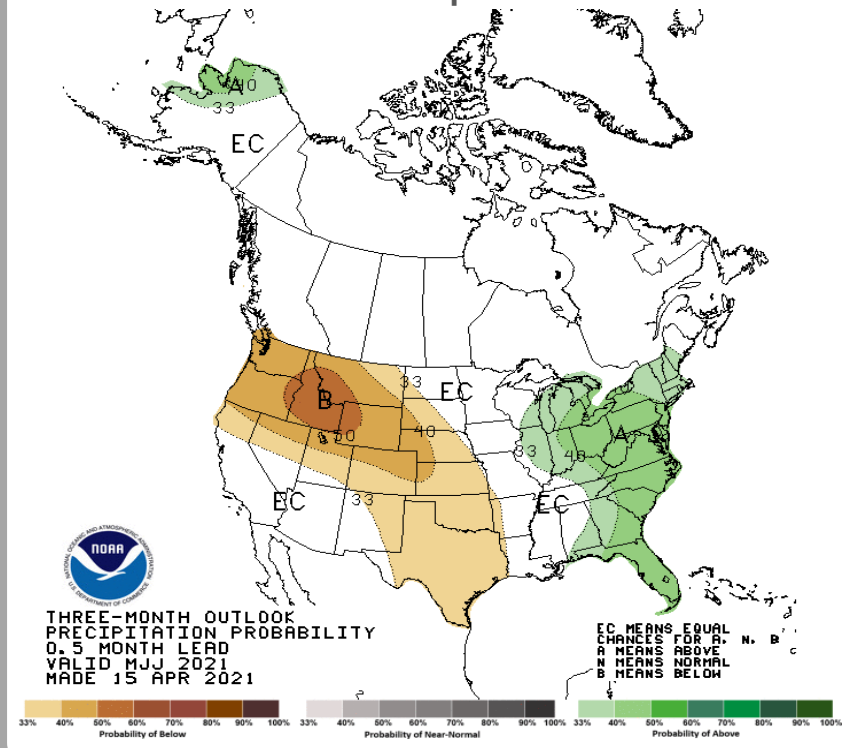
- The Climate Prediction Center (CPC) is forecasting above normal rainfall from May through July.
- La Niña has ended, with ENSO-neutral likely to continue through the summer (67% chance in June-August 2021).
- Monitoring Atlantic Multidecadal Oscillation (AMO) which is currently in the warm phase:
  - Average annual inflow to Lake Okeechobee is nearly 50% greater during the warm phase compared to the cold phase

U. S. Seasonal Outlooks

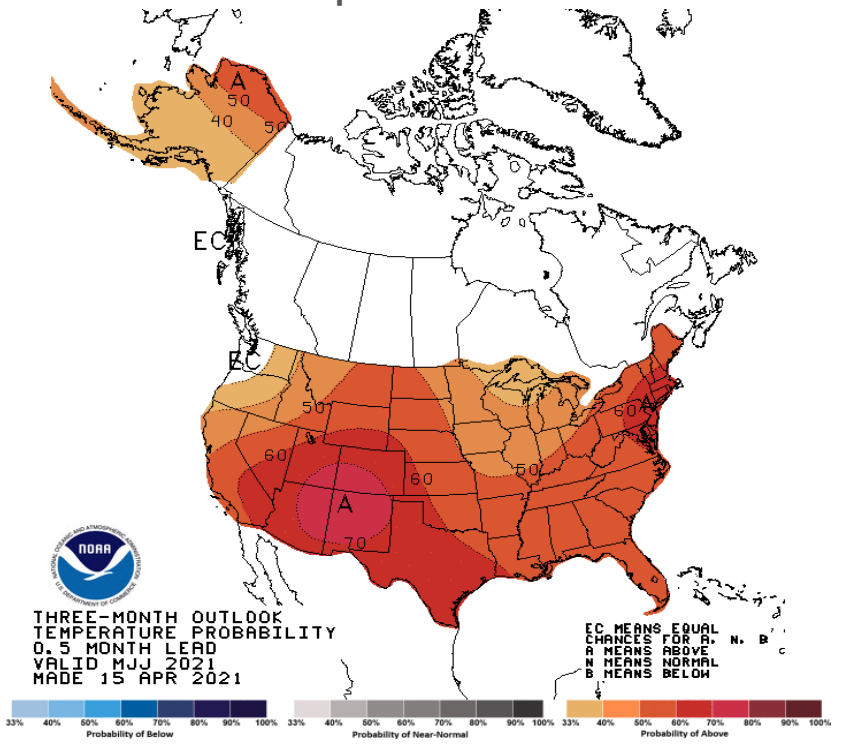
May - July 2021

The seasonal outlooks combine the effects of long-term trends, soil moisture, and, when appropriate, ENSO.

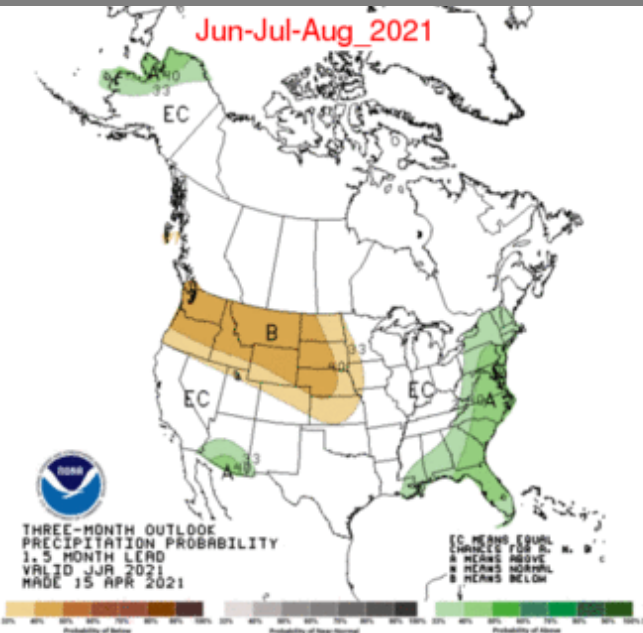
Precipitation

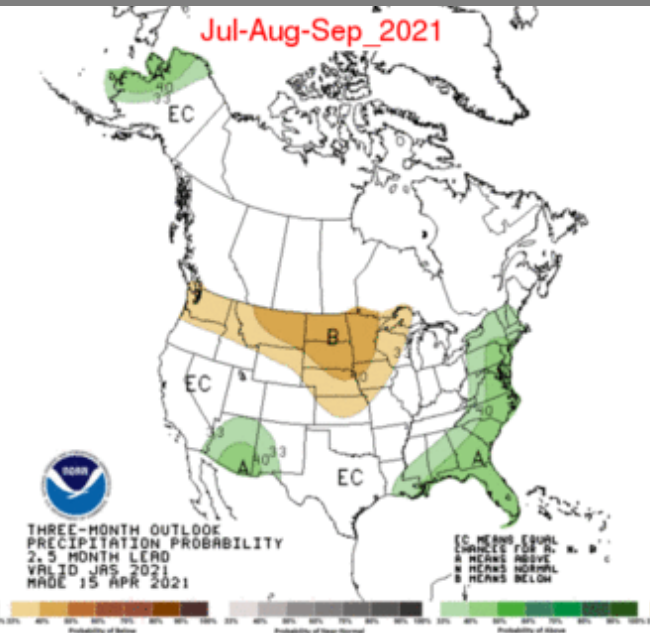


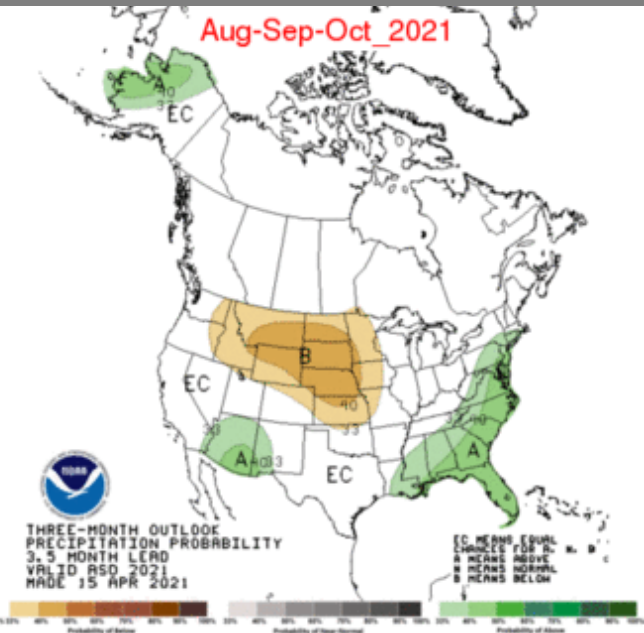
Temperature

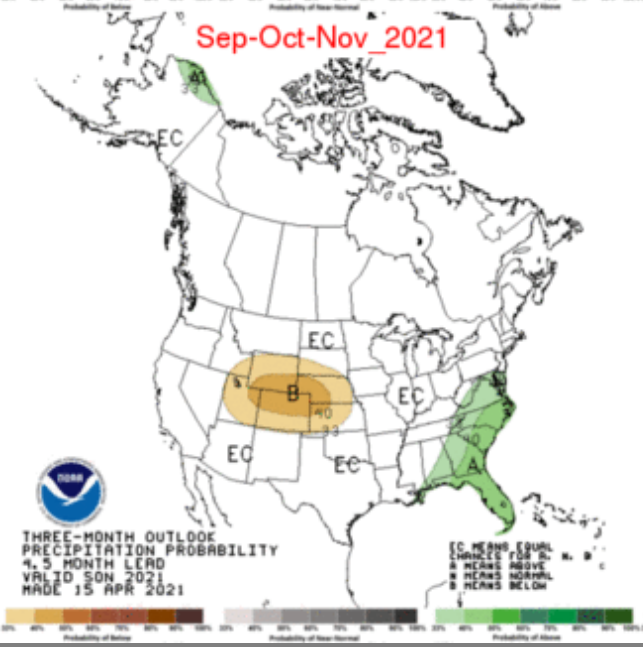


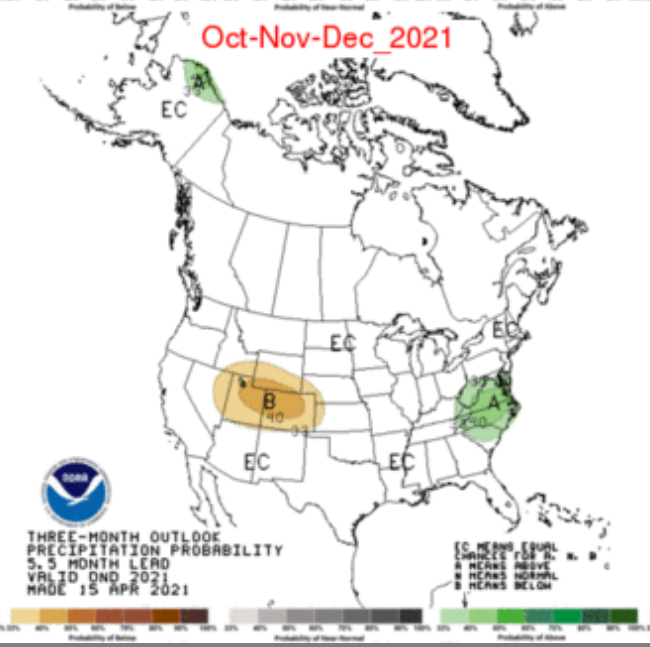
Prepared by: Climate Prediction Center/NCEP

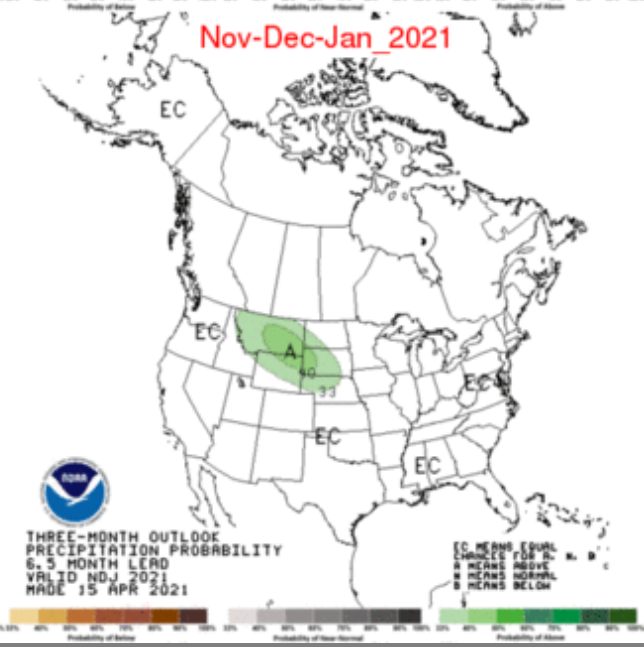












Prepared by: Climate Prediction Center/NCEP

Teleconnections to South Florida

Climate anomalies being related to each other at large distances:

El Niño Southern Oscillation (ENSO)

El Niño increases the chances of a wetter-than-normal dry season and decreased tropical activity, La Niña increases the chances of a drier-than-normal dry season and increased tropical activity (both have most influence in south Florida from November through March).

Pacific Decadal Oscillation (PDO)

Increases variations of south Florida dry season rainfall

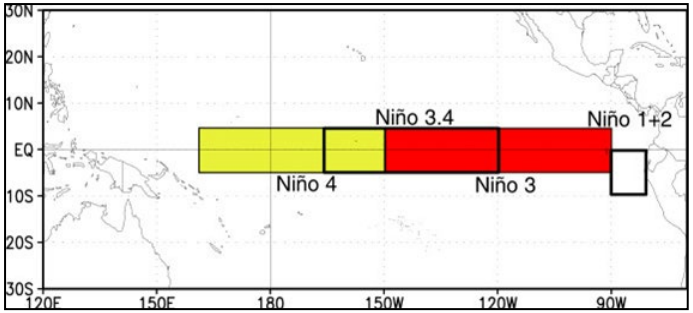
Atlantic Multidecadal Oscillation (AMO)

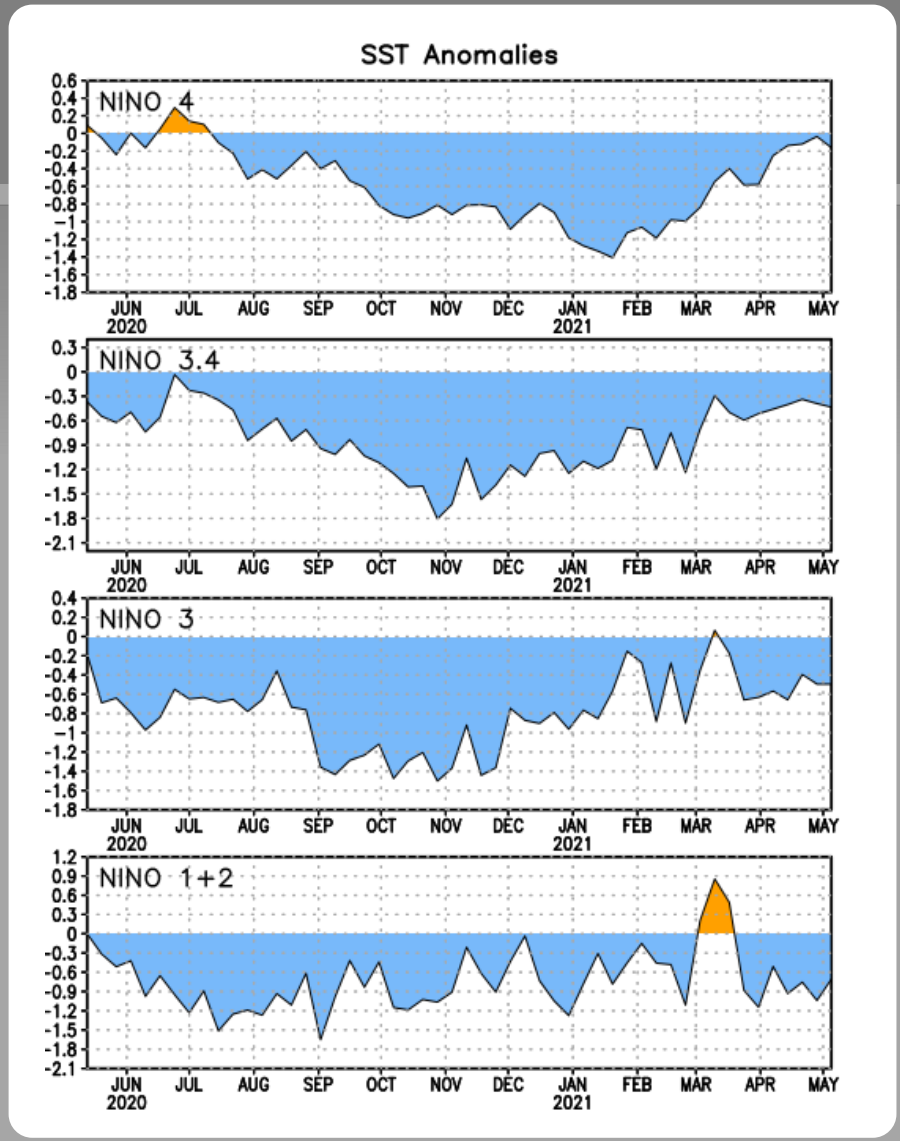
Average annual inflow to Lake Okeechobee is nearly 50% greater during the warm phase compared to the cold phase of the AMO, easterly flow toward south Florida affected by phase

Niño Region SST Departures (ºC) Recent Evolution

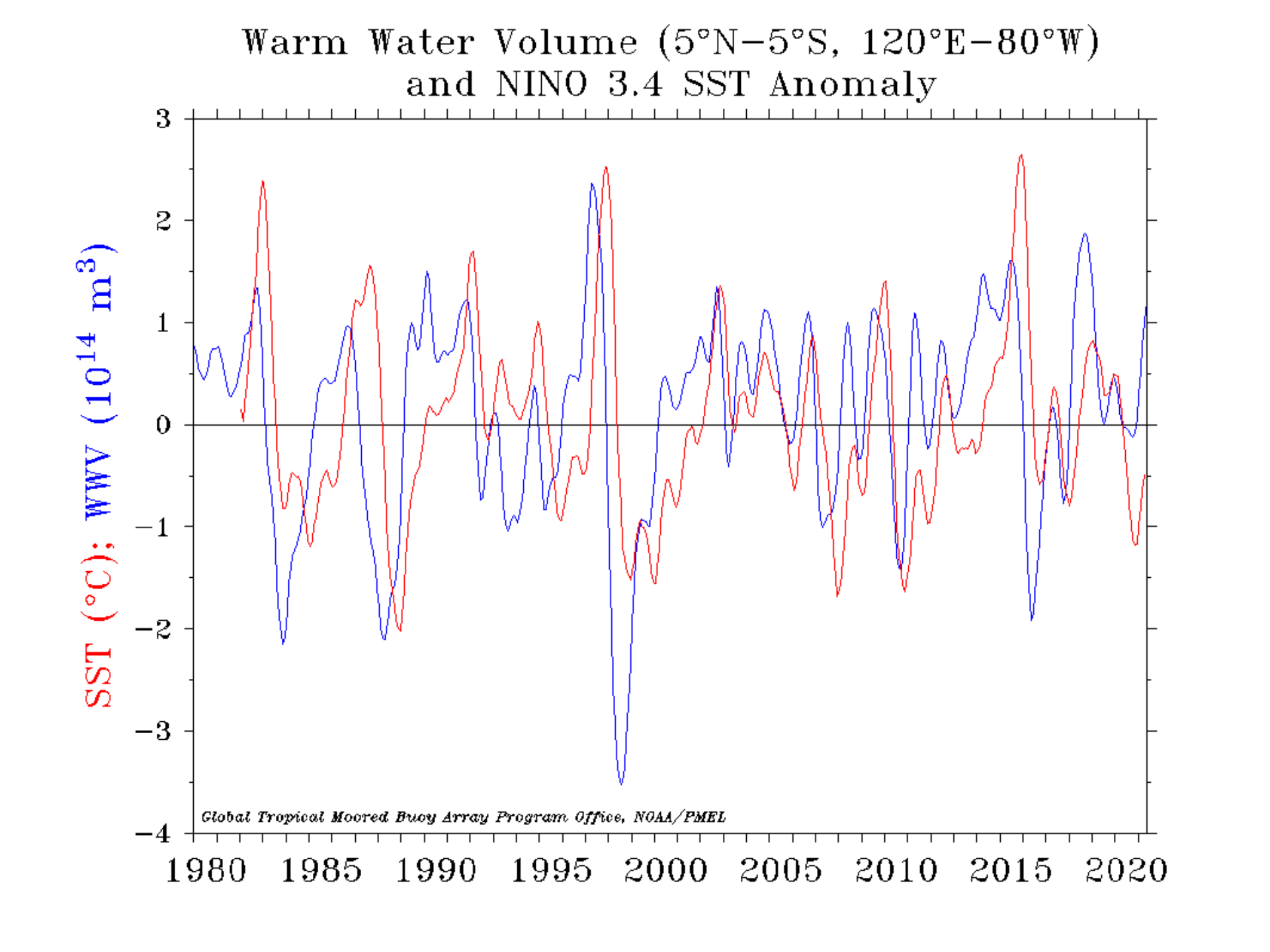
The latest weekly SST departures are:

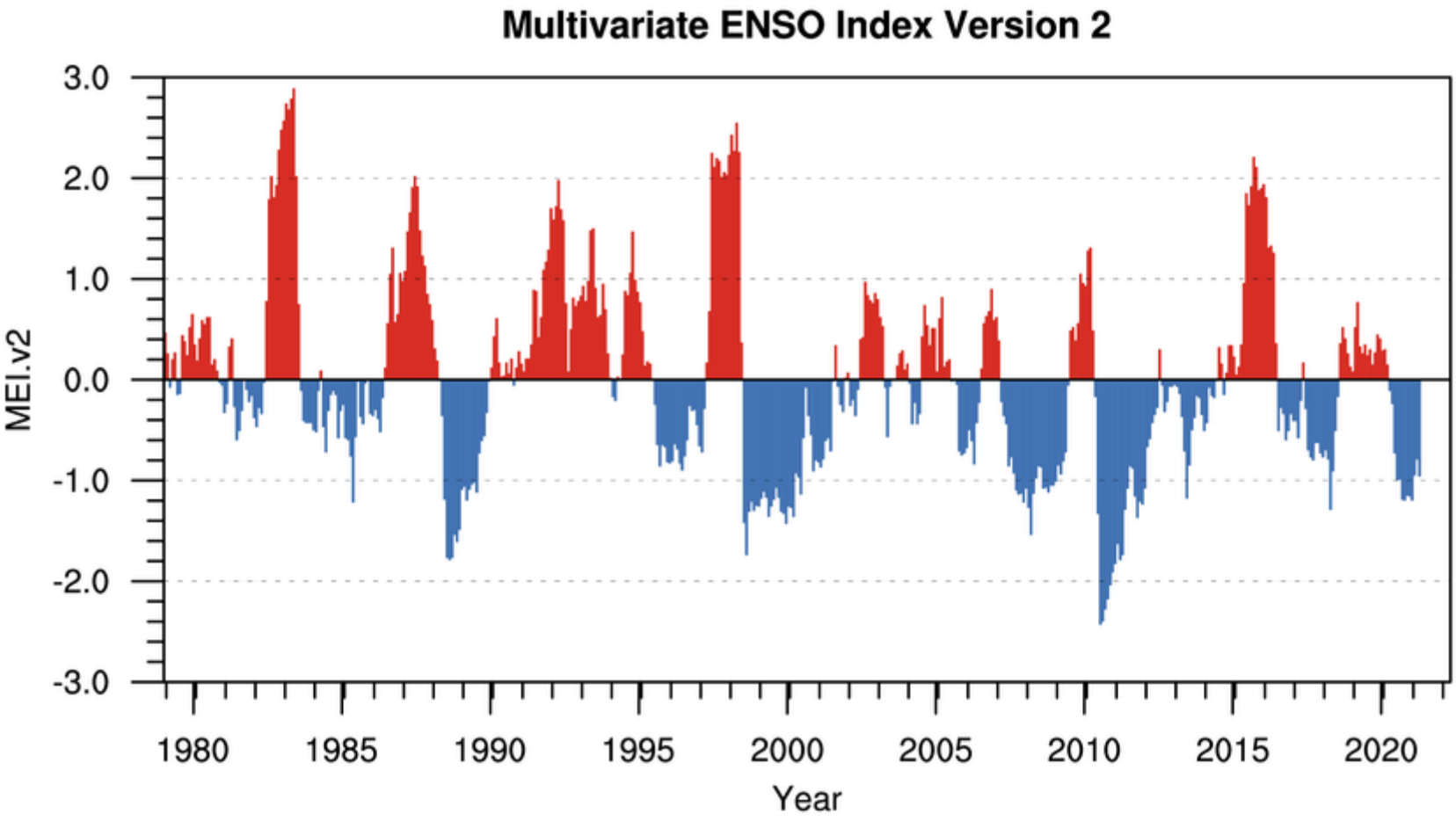
Niño 4	-0.2ºC
Niño 3.4	-0.4ºC
Niño 3	-0.5ºC
Niño 1+2	-0.7ºC



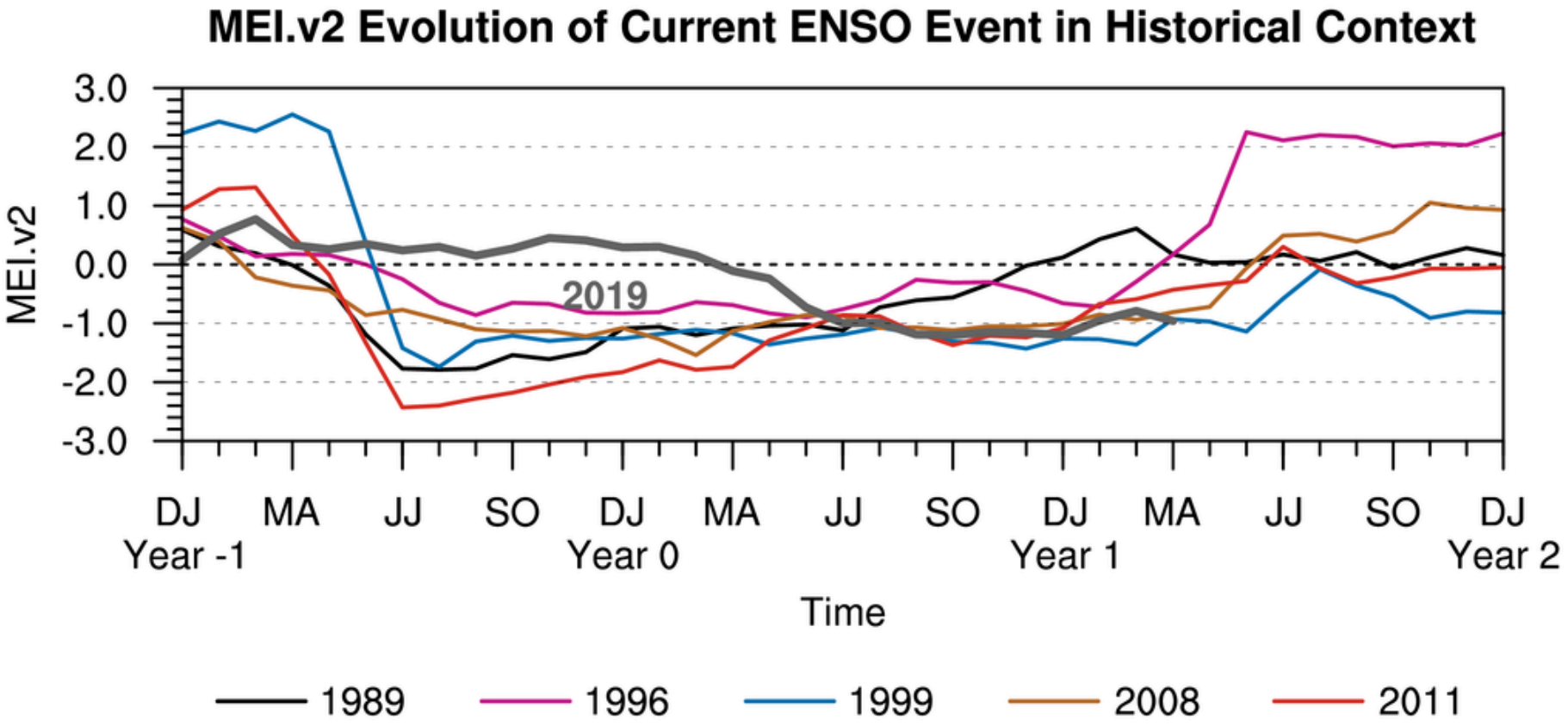


Prepared by: Climate Prediction Center/NCEP


Warm Water Volume (5°N–5°S, 120°E–80°W)
and NINO 3.4 SST Anomaly
SST (°C); WWV (10^{14} m^3)
3
2
1
0
−1
−2
−3
−4
1980
1985
1990
1995
2000
2005
2010
2015
2020
Global Tropical Moored Buoy Array Program Office, NOAA/PMEL

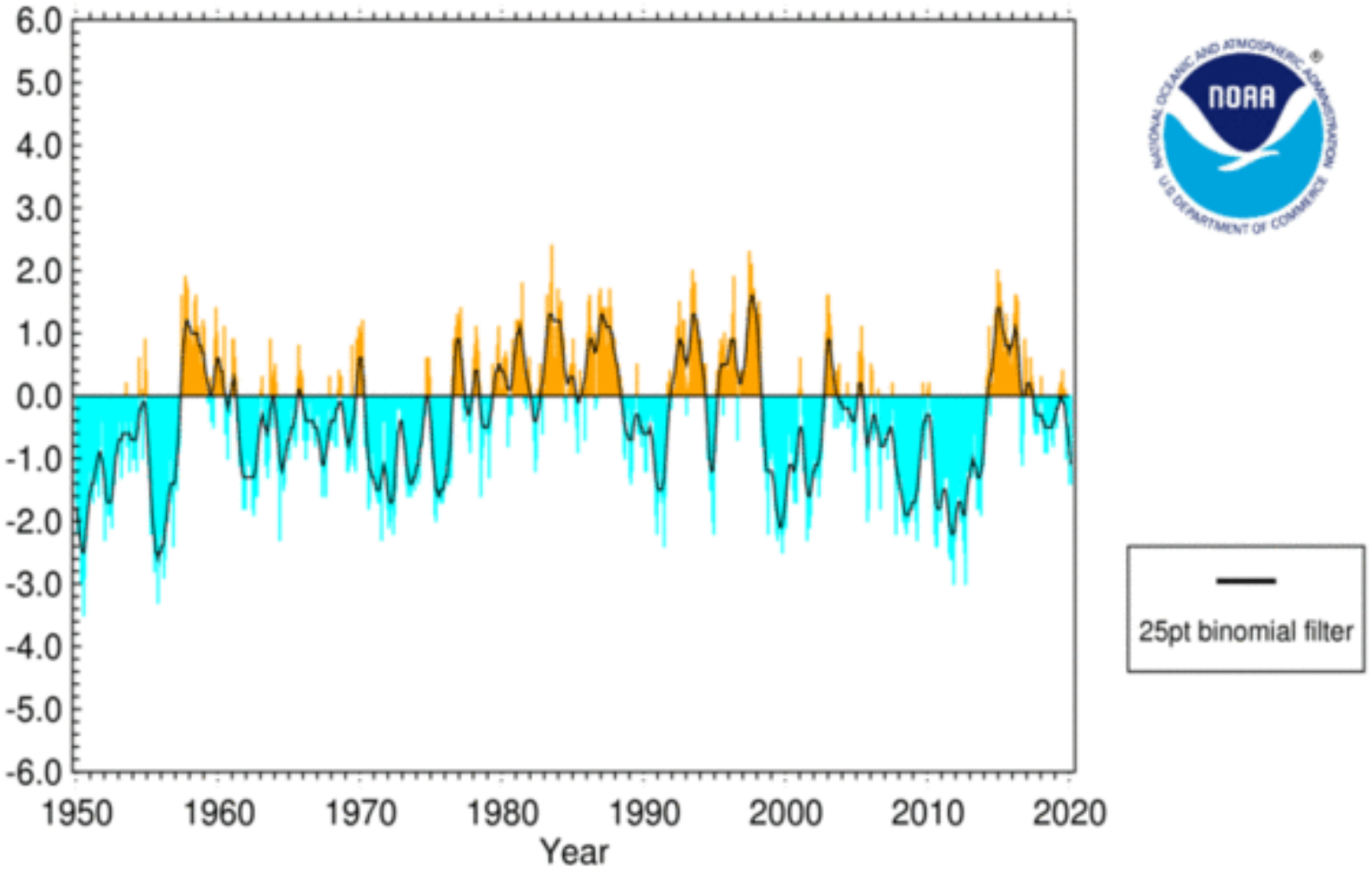


Prepared by: NOAA Physical Sciences Laboratory

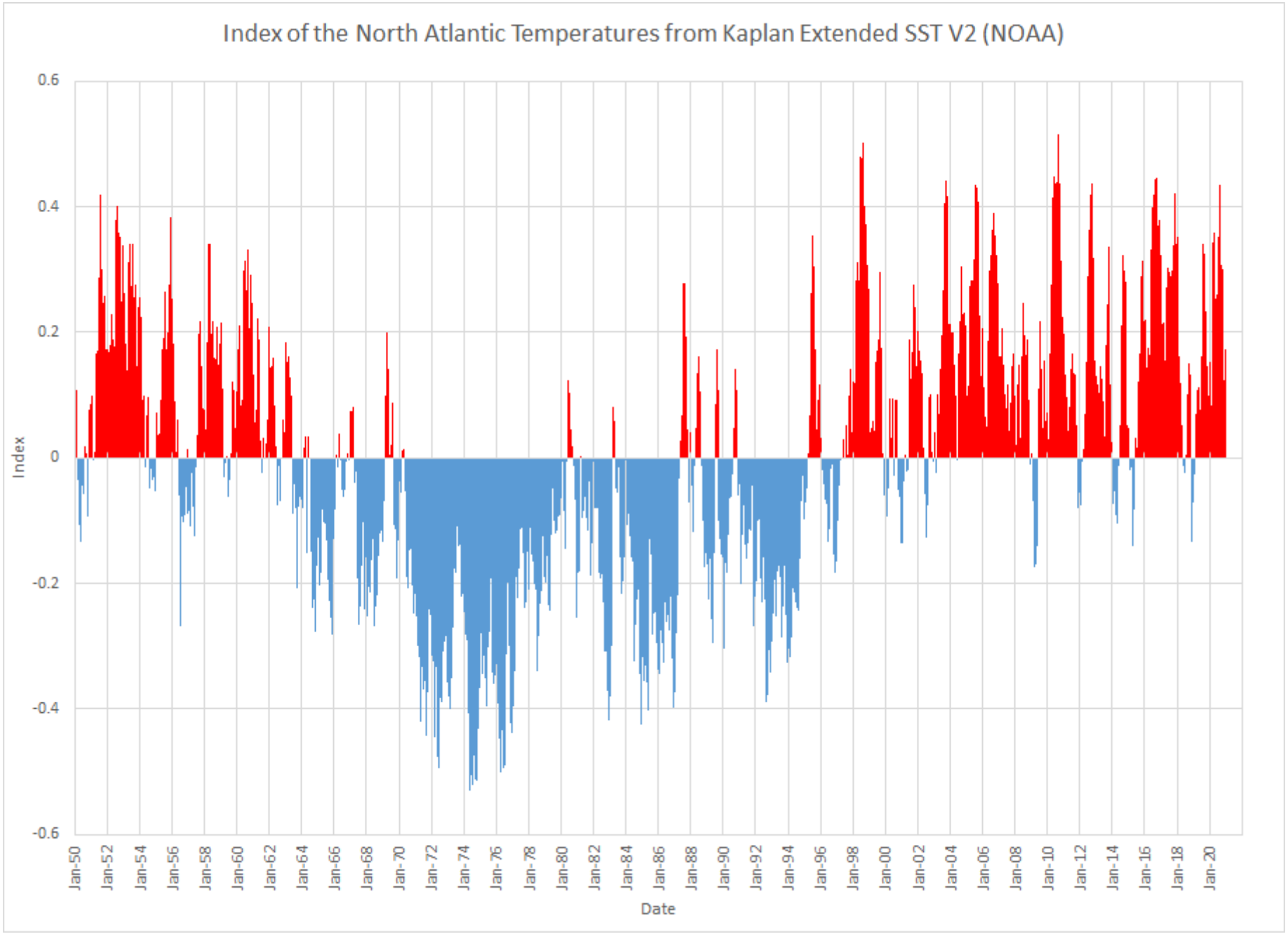


Prepared by: NOAA Physical Sciences Laboratory

Pacific Decadal Oscillation (PDO)



National Centers for Environmental Information / NESDIS / NOAA


Index of the North Atlantic Temperatures from Kaplan Extended SST V2 (NOAA)
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Index
Jan-50
Jan-52
Jan-54
Jan-56
Jan-58
Jan-60
Jan-62
Jan-64
Jan-66
Jan-68
Jan-70
Jan-72
Jan-74
Jan-76
Jan-78
Jan-80
Jan-82
Jan-84
Jan-86
Jan-88
Jan-90
Jan-92
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
Jan-16
Jan-18
Jan-20
Date

May DPA Assumptions

The May 1, 2021 Dynamic Position Analysis (DPA) simulation is based on historical climatic conditions spanning the period 1965-2005. This DPA posting is made with the South Florida Water Management Model (SFWMM) v6.7.4 (Tamiami Trail) which includes the following improvement(s):

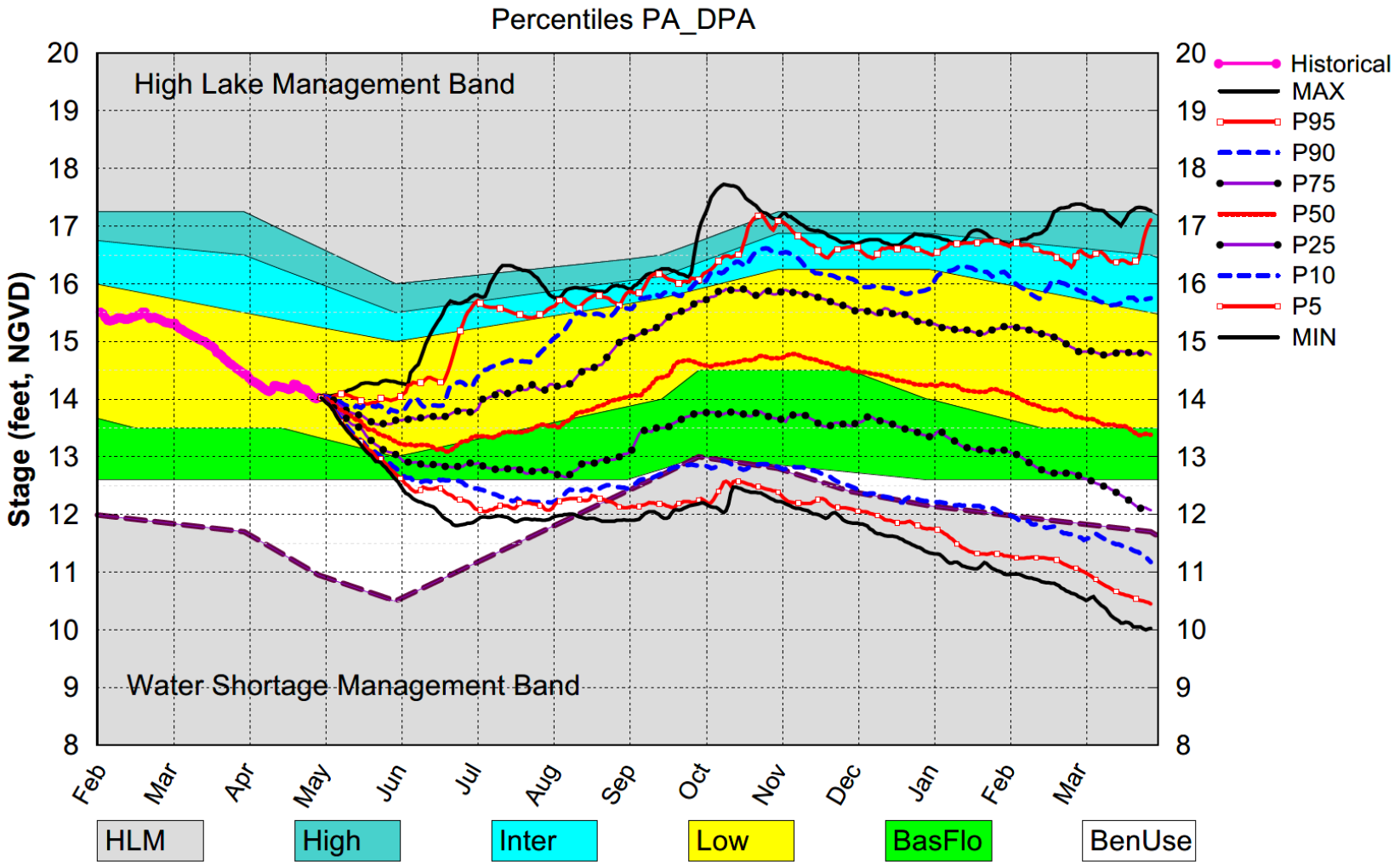
- Improvements to include the Combined Operational Plan (COP)

The May 1, 2021 DPA resets the initial stages for Lake Okeechobee (LOK) and the Water Conservation Areas (WCAs) on April 1st of each year of the DPA simulation and conditions the simulation to real time data during April to achieve real time stages on May 1st for LOK and WCAs.

Lake Okeechobee operations follow the Lake Okeechobee Regulation Schedule (LORS2008). Modeling assumptions are consistent with modeling performed for LORS2008 Supplemental Environmental Impact Statement (SEIS).

LOK Temporary Forward Pump operations will be in place, whenever necessary, to improve water supply deliveries from LOK under low LOK stages.

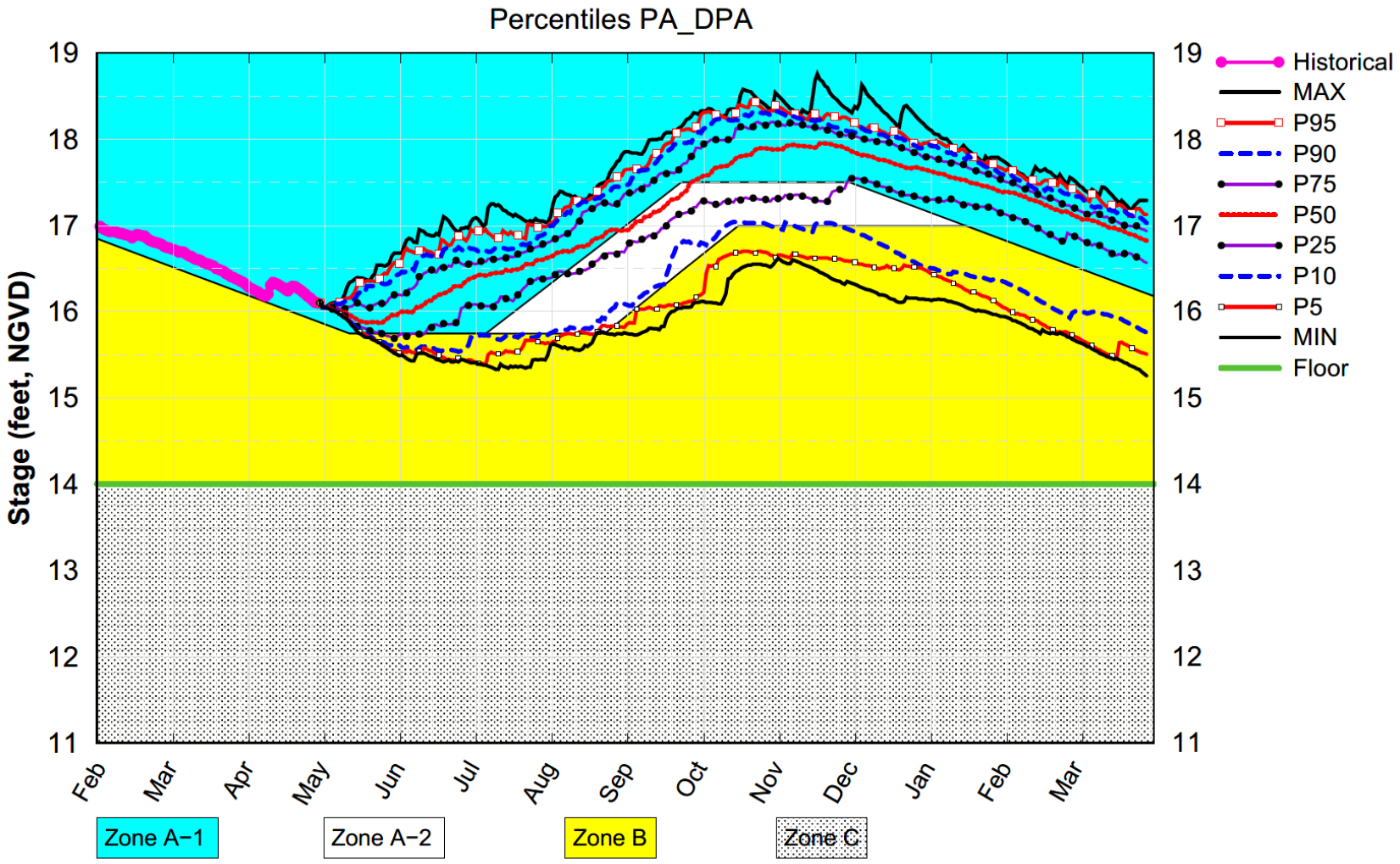
Lake Okeechobee SFWMM May 2021 Position Analysis



(See assumptions on the Position Analysis Results website)

Sat May 8 00:22:29 2021

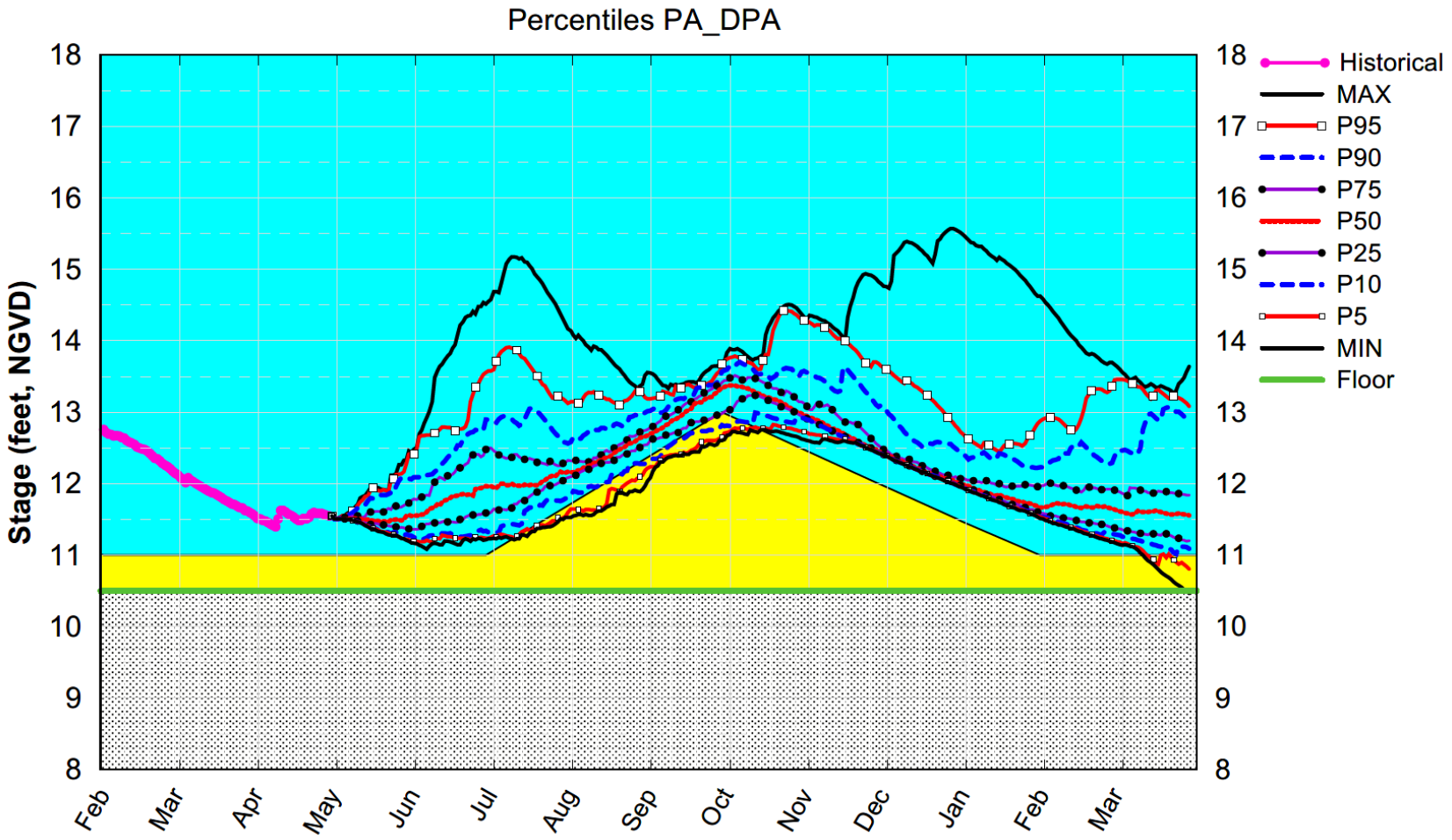
WCA1 SFWMM May 2021 Position Analysis



(See assumptions on the Position Analysis Results website)

Sat May 8 00:22:33 2021

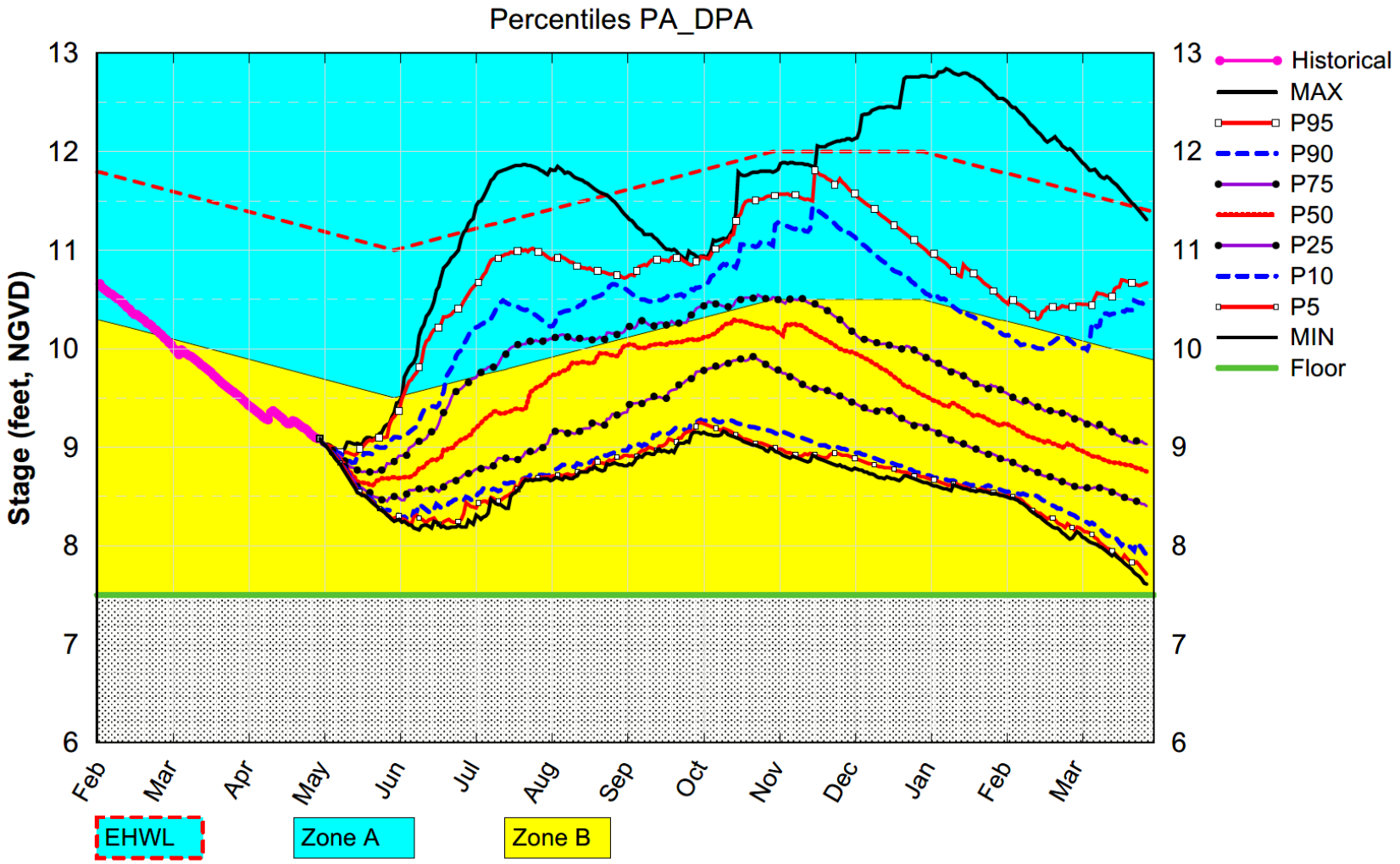
WCA2A SFWMM May 2021 Position Analysis



(See assumptions on the Position Analysis Results website)

Sat May 8 00:22:37 2021

WCA3A SFWMM May 2021 Position Analysis



(See assumptions on the Position Analysis Results website)

Sat May 8 00:22:42 2021