# Extended Hydrologic Outlook April 6, 2021

- The Climate Prediction Center (CPC) is forecasting <u>equal chances</u> of above normal, normal and below normal rainfall from <u>April</u> <u>through June</u>.
- La Niña is present. There is a ~60% chance of a transition from La Niña to ENSO-Neutral during spring 2021 (April-June).
- Monitoring Atlantic Multidecadal Oscillation (AMO) which is <u>currently in the warm phase</u>:
  - Average annual inflow to Lake Okeechobee is nearly 50% greater during the warm phase compared to the cold phase

## U. S. Seasonal Outlooks April - June 2021

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









# **Teleconnections to South Florida**

## Climate anomalies being related to each other at large distances: <u>El Niño Southern Oscillation (ENSO)</u>

El Niño increases the chances of a wetter-than-normal dry season and decreased tropical activity, La Niña increases the chances of a drierthan-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



The latest weekly SST departures are:

Niño 4	-0.6°C
Niño 3.4	-0.5°C
Niño 3	-0.6°C
Niño 1+2	-1.1°C









Multivariate ENSO Index Version 2

Prepared by: NOAA Physical Sciences Laboratory



#### MEI.v2 Evolution of Current ENSO Event in Historical Context

Prepared by: NOAA Physical Sciences Laboratory

### Pacific Decadal Oscillation (PDO)



National Centers for Environmental Information / NESDIS / NOAA



# **April DPA Assumptions**

The April 1, 2021 DPA is an approximation of the Lake Okeechobee HAB deviation and attempts to balance releases during the wet season.

- Adaptive Protocol releases to the estuaries have been increased to approximate the Lake Okeechobee HAB deviation:
  - Caloosahatchee Estuary releases increased from 650 cfs to 1200 cfs
  - St. Lucie Estuary releases increased from 0 cfs to 300 cfs

To help meet the intent of the deviation, releases to the Caloosahatchee Estuary were also modified when the LORS 2008 Part D falls in one of the Base Flow Boxes:

- Mar June 1200 cfs
- July Aug 0 cfs
- Sep Feb 450 cfs



#### Lake Okeechobee SFWMM Apr 2021 Position Analysis



(See assumptions on the Position Analysis Results website)

#### WCA1 SFWMM Apr 2021 Position Analysis



(See assumptions on the Position Analysis Results website)

#### WCA2A SFWMM Apr 2021 Position Analysis



(See assumptions on the Position Analysis Results website)

#### WCA3A SFWMM Apr 2021 Position Analysis

