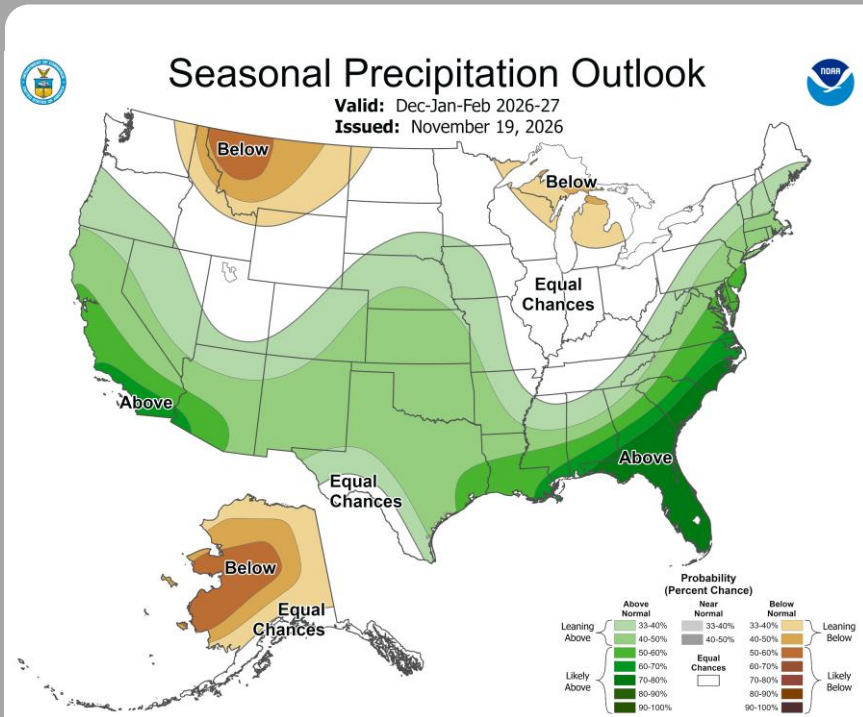
Extended Hydrologic Outlook
November 20, 2026

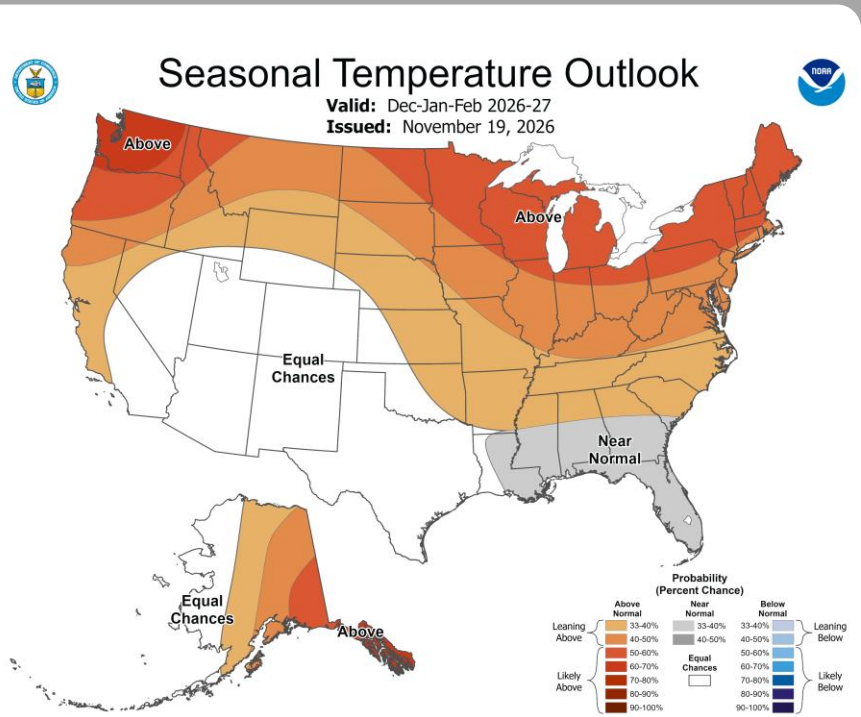
- The Climate Prediction Center (CPC) is forecasting above normal rainfall for October through December.
- El Niño conditions are present and strengthening, with a strong-to-very strong El Nino Likely through January-March 2027 (remaining greater than an 79% chance).
- Atlantic Multidecadal Oscillation (AMO) 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

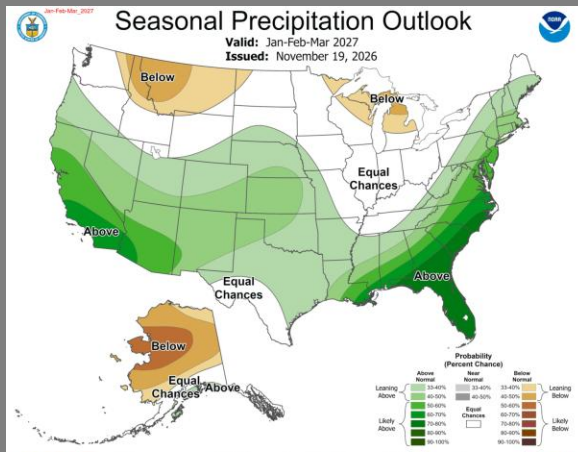
December - February 2026-27

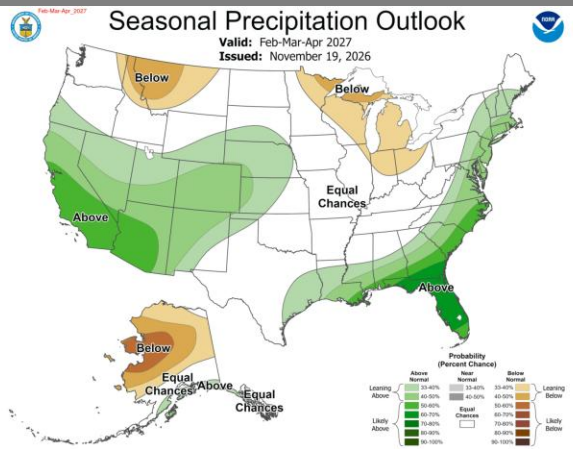
The seasonal outlooks combine the effects of long-term trends, soil moisture, and, when appropriate, ENSO.

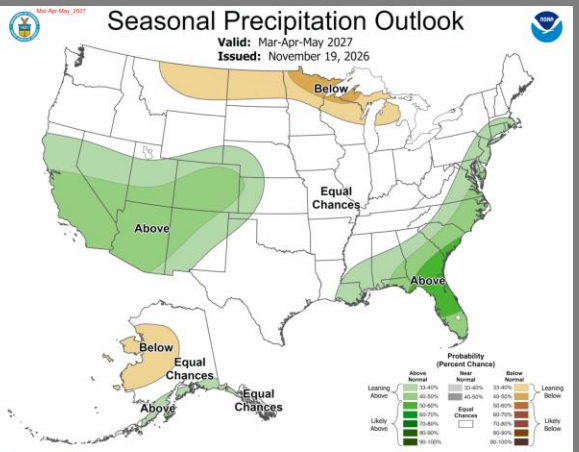


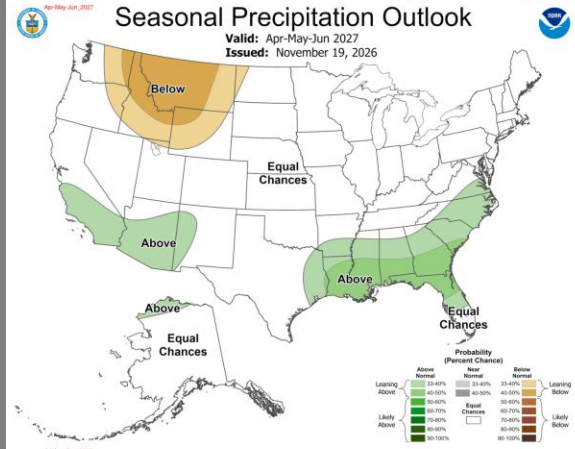


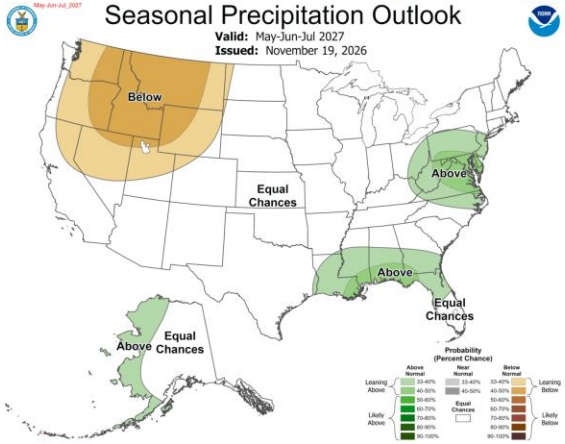
Prepared by: Climate Prediction Center/NCEP

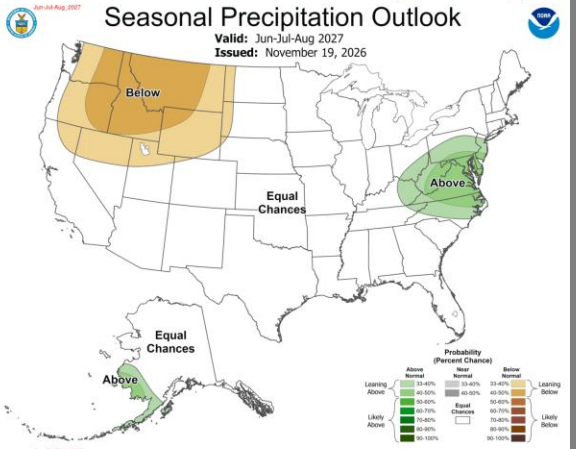


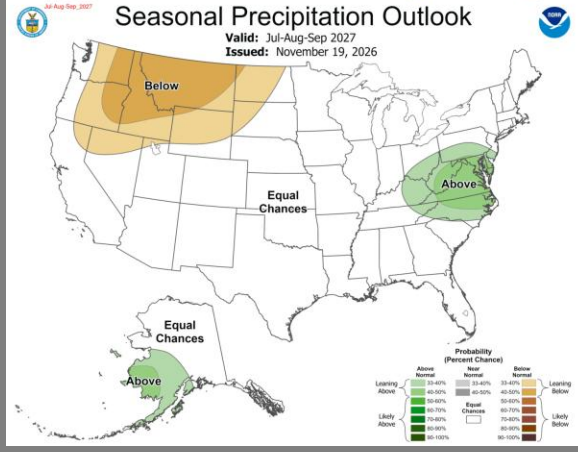


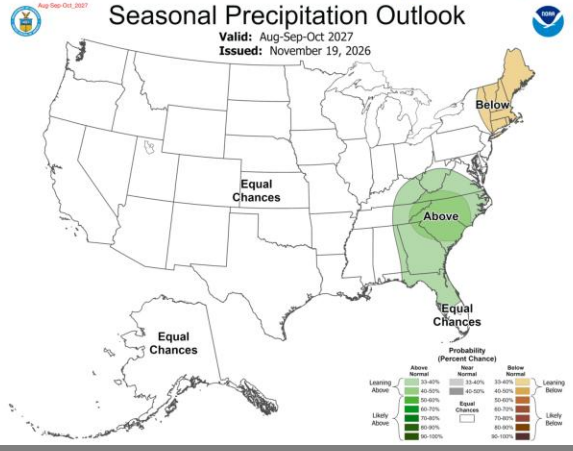


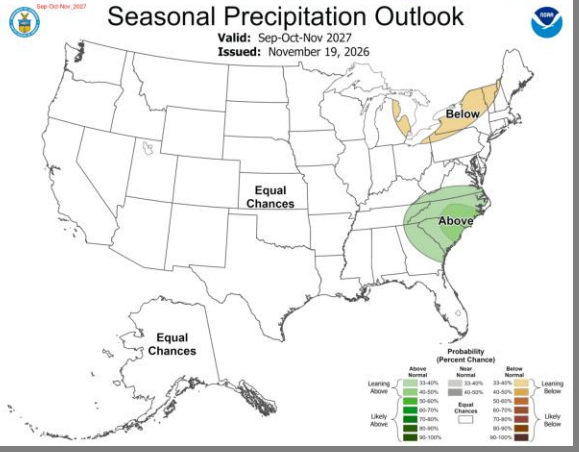












Prepared by: Climate Prediction Center/NCEP

Teleconnections to South Florida

Climate anomalies being related to each other at large distances:

<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 drier-than-normal dry season and increased tropical activity (both have most influence in south Florida from November through March)**

<u>Pacific Decadal Oscillation (PDO)</u>

- **Increases variations in south Florida dry season rainfall, positive leads to more El Niño events, negative leads to more La Niña events**
- **The current PDO is negative**

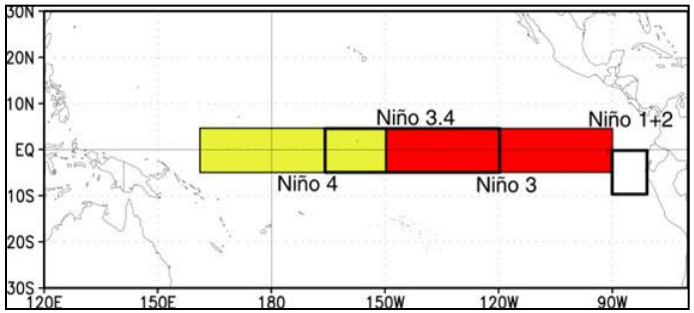
<u>Atlantic Multidecadal Oscillation (AMO)</u>

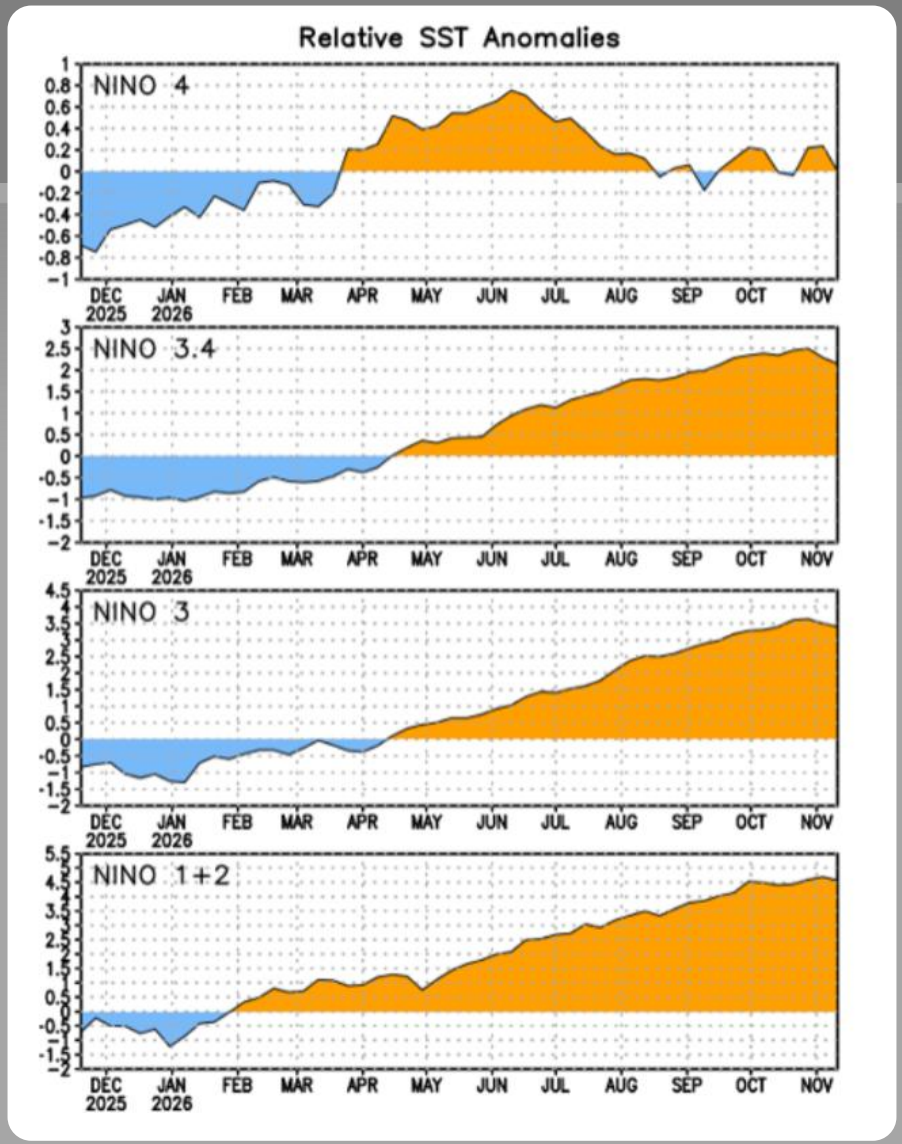
- **Average annual inflow to Lake Okeechobee is nearly 50% greater during the warm phase compared to the cold phase of the AMO, easterly flow toward south Florida affected by phase**
- **The AMO is currently in the warm phase**

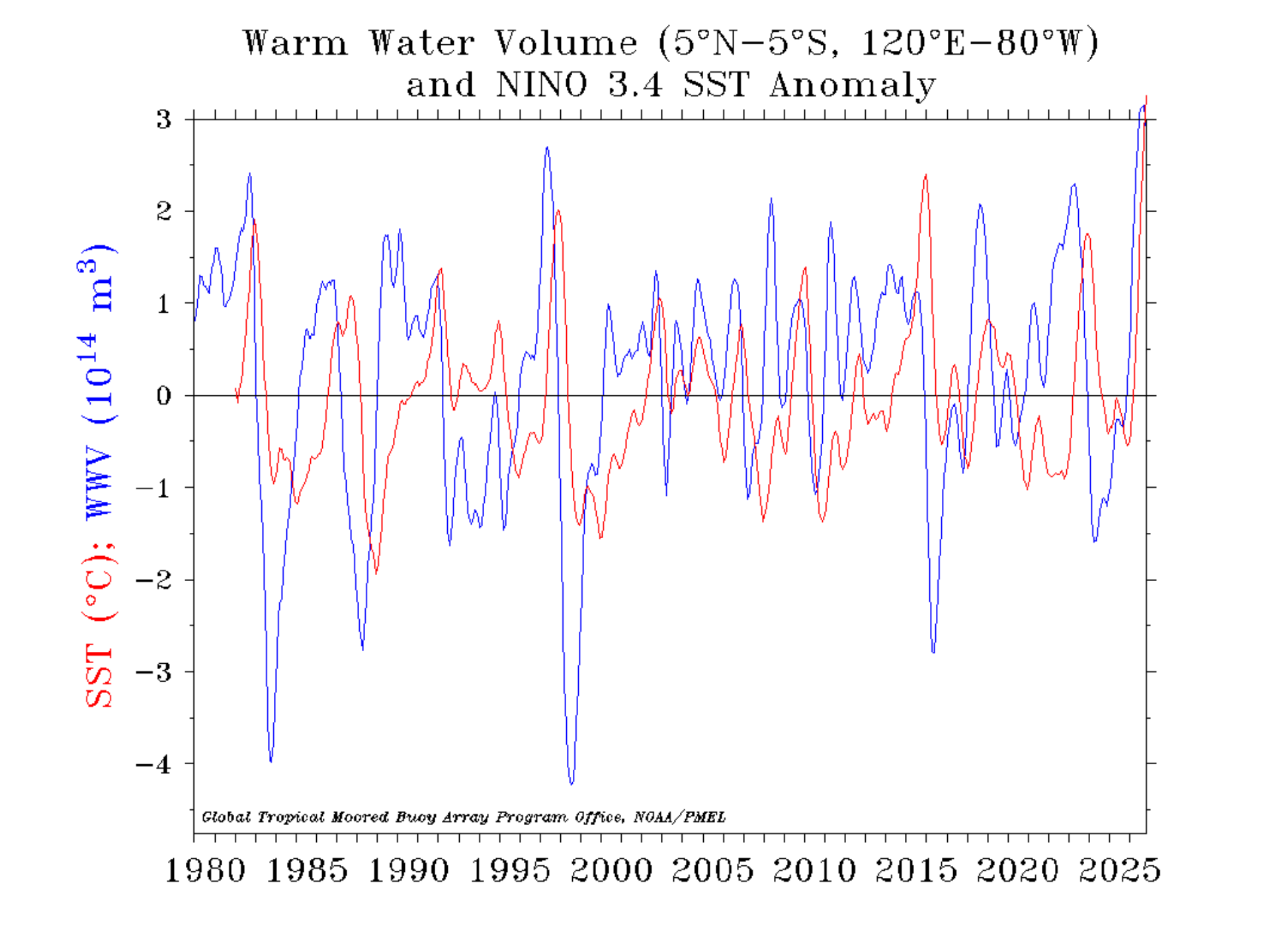
Niño Region SST Departures (ºC) Recent Evolution

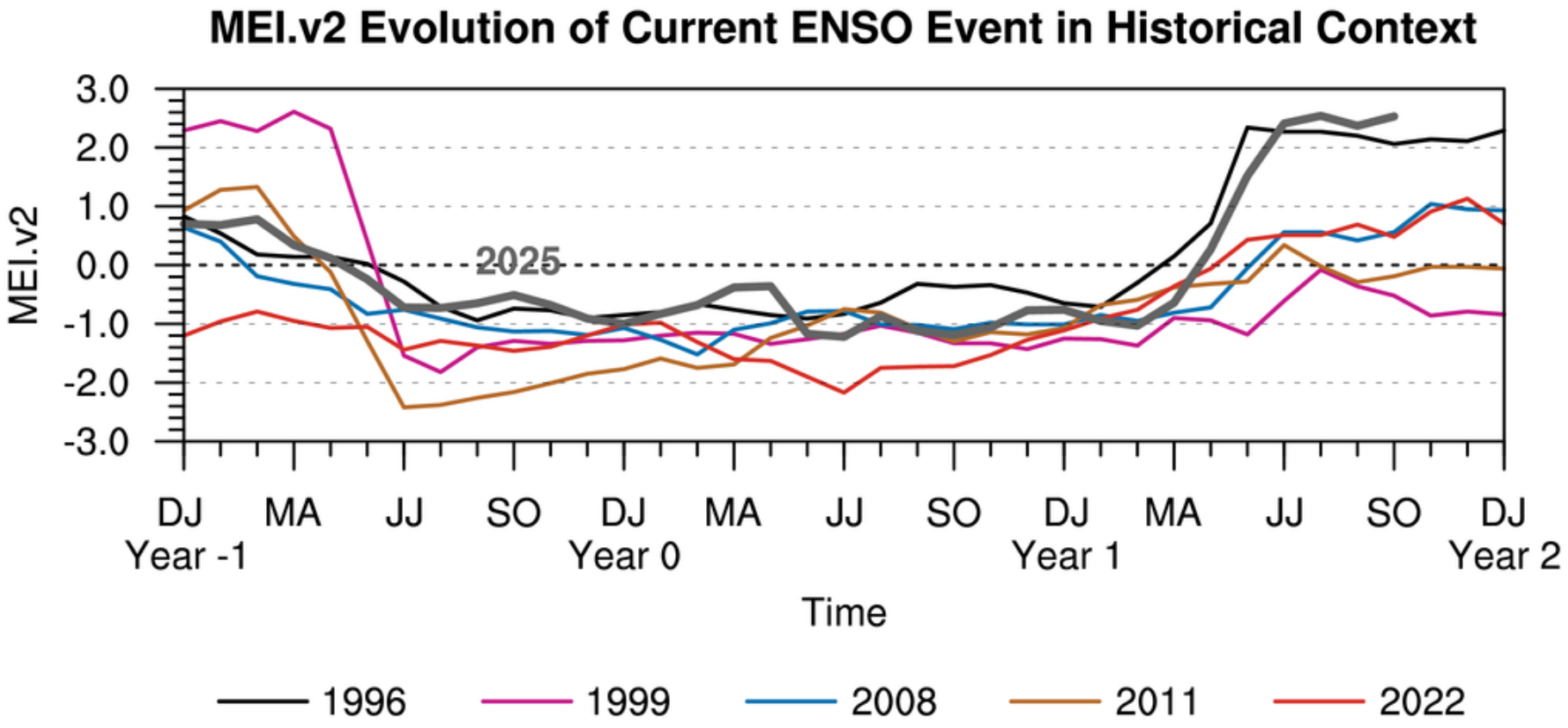
The latest weekly SST departures are:

Niño 4	0.0ºC
Niño 3.4	2.2ºC
Niño 3	3.4ºC
Niño 1+2	4.6ºC






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
Global Tropical Moored Buoy Array Program Office, NOAA/PMEL
1980 1985 1990 1995 2000 2005 2010 2015 2020 2025


MEI.v2 Evolution of Current ENSO Event in Historical Context
MEI.v2
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
2025
DJ
MA
JJ
SO
DJ
MA
JJ
SO
DJ
MA
JJ
SO
DJ
Year -1
Year 0
Year 1
Year 2
Time
1996
1999
2008
2011
2022

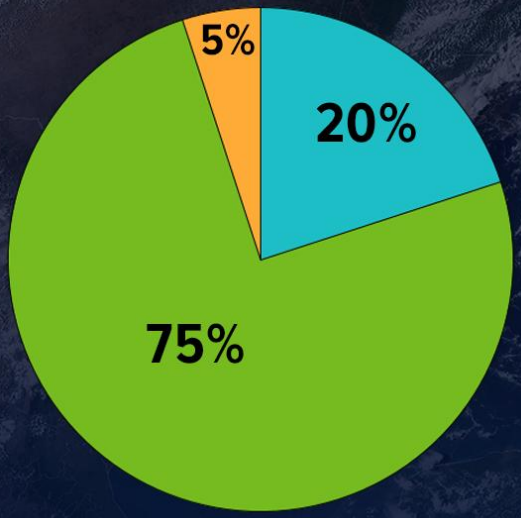
2026 Tropical Outlook



2026 Atlantic Hurricane Season Outlook

August 6 update

Season Probability



Above Normal

Near Normal

Below Normal

Named Storms
7 - 13

Hurricanes
2 - 6

Major Hurricanes
0 - 2

Be prepared: visit hurricanes.gov and follow NOAA's @NWS and @NHC_Atlantic on X.

August 2026

ATLANTIC BASIN SEASONAL HURRICANE FORECAST FOR 2026

Forecast Parameter and 1991-2020 Average (in parentheses)	Issue Date 9 April 2026	Issue Date 10 June 2026	Issue Date 8 July 2026	Issue Date 5 August 2026	Observed Thru 4 August 2026	Remainder of Season Forecast
Named Storms (NS) (14.4)	13	11	9	9	2	7
Named Storm Days (NSD) (69.4)	55	45	35	35	3.75	31.25
Hurricanes (H) (7.2)	6	5	4	4	0	4
Hurricane Days (HD) (27.0)	20	15	12	12	0	12
Major Hurricanes (MH) (3.2)	2	2	1	1	0	1
Major Hurricane Days (MHD) (7.4)	5	4	2	2	0	2
Accumulated Cyclone Energy (ACE) (123)	90	70	50	50	3	47
ACE West of 60°W (73)	50	35	25	25	3	22
Net Tropical Cyclone Activity (NTC) (135%)	100	80	60	60	5	55

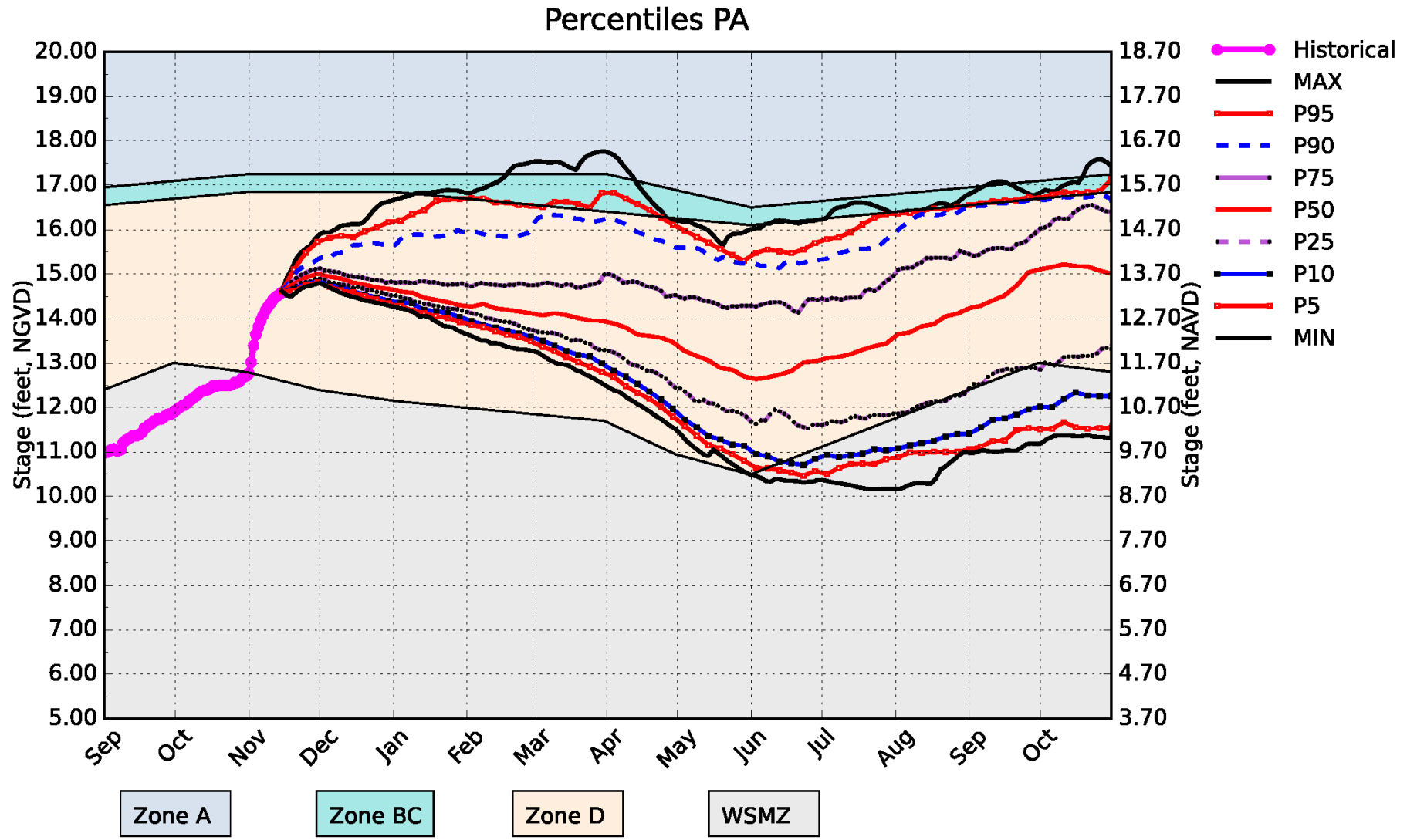
- Well below-normal activity
- High potential for a moderate/strong El Niño for the peak of hurricane season (increased levels of tropical Atlantic vertical wind shear)
- Sea surface temperatures across the Caribbean and tropical Atlantic are slightly above their long-term averages

Prepared by: Colorado State University

November 15, 2026 DPA Assumptions

- The November 15, 2026 Dynamic Position Analysis (DPA) simulation is based on historical climatic conditions spanning the period 1965-2016. This DPA posting is made with the South Florida Water Management Model (SFWMM) v7.3.6.
- The November 15, 2026 DPA resets the initial stages for Lake Okeechobee (LOK) and the Water Conservation Areas (WCAs) on November 1st of each year of the DPA simulation and conditions the simulation using real-time data from November 1st to the PA Start Date to achieve real-time stages for LOK and the WCAs on November 15th.
- The Lake Okeechobee operations follow the Lake Okeechobee System Operating Manual (LOSOM). Modeling assumptions are consistent with modeling performed for LOSOM 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.
- STA surface area values are modified to reflect current flow ways under operation. STA depths are maintained to a minimum of 6 inches using Lake Okeechobee releases.
- Lake Okeechobee Water Shortage Management (LOWSM) is included in the simulation which reflects the currently approved 40E-21 and 40E-22 water shortage rules.
- The SFWMM attempts to make 350 cfs deliveries to the Caloosahatchee estuary while under water shortage management, this results in most low flow days realizing the full 350 cfs while some days are limited due to Lake Okeechobee backflow occurring on the same day. While further investigation is taking place, this simulation provides consistent deliveries on most days when the estuary is under 350 cfs.

Lake Okeechobee SFWMM November 15 2026 Position Analysis



(See Assumptions on the Operational Planning Website)

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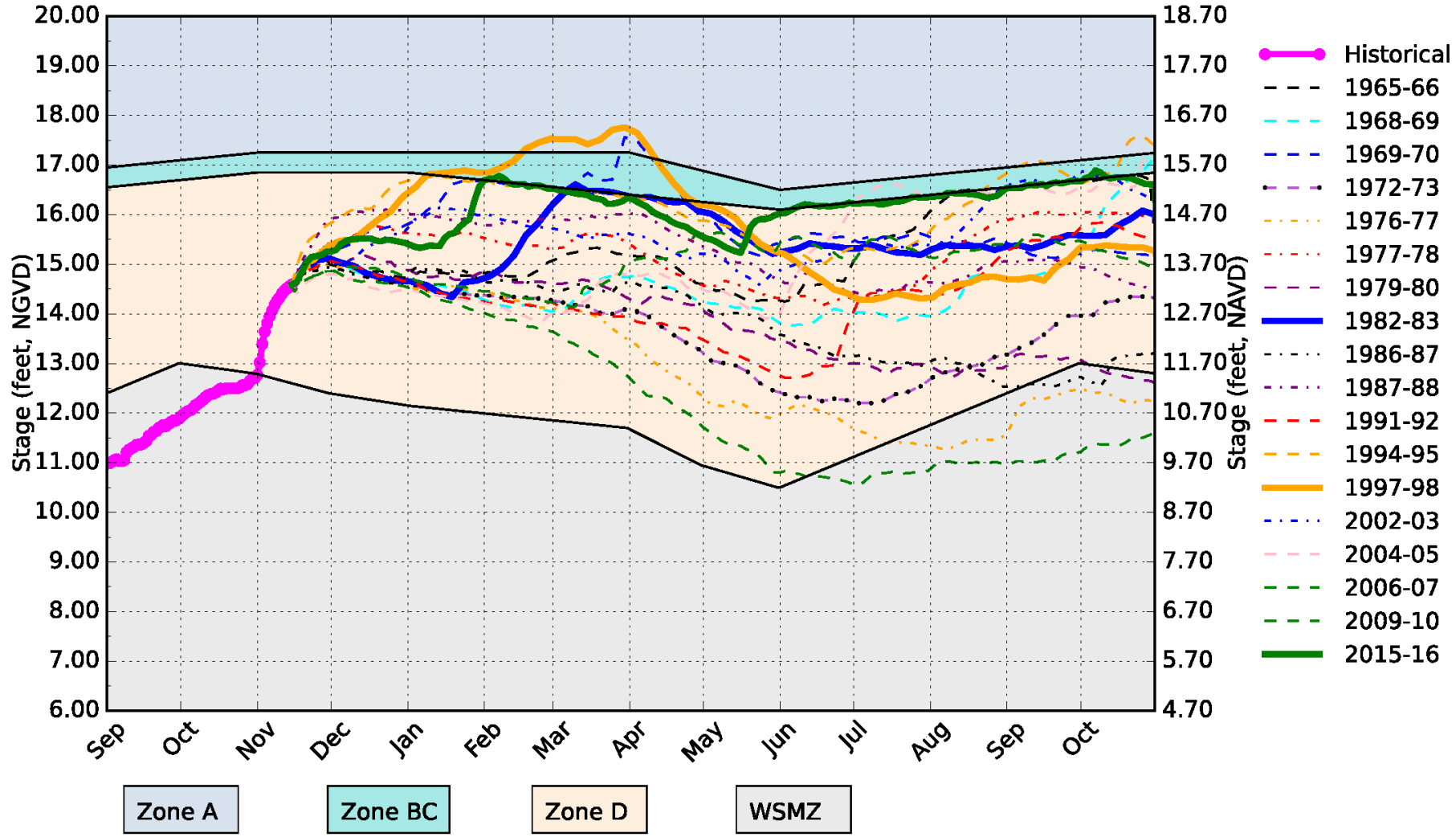
Lake Okeechobee SFWMM November 15 2026 Position Analysis



(See Assumptions on the Operational Planning Website)

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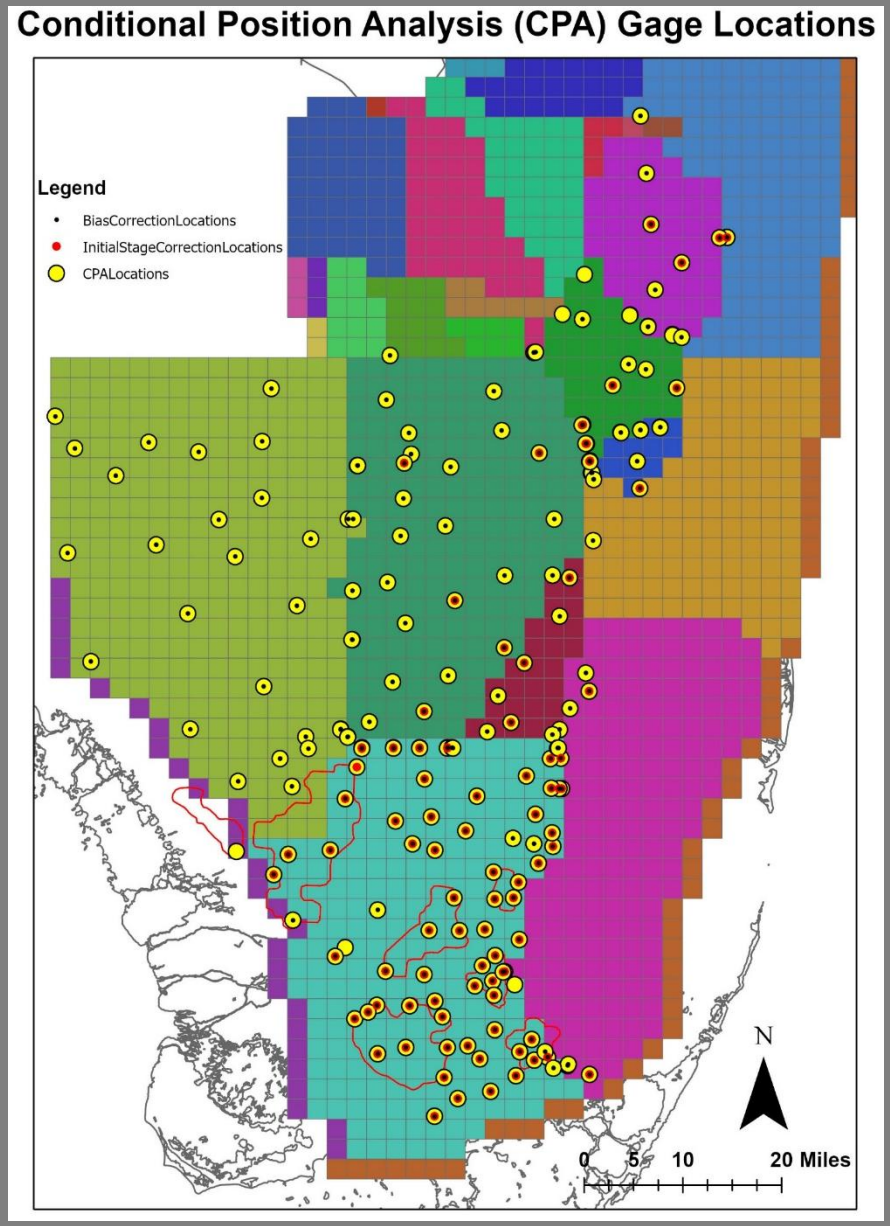
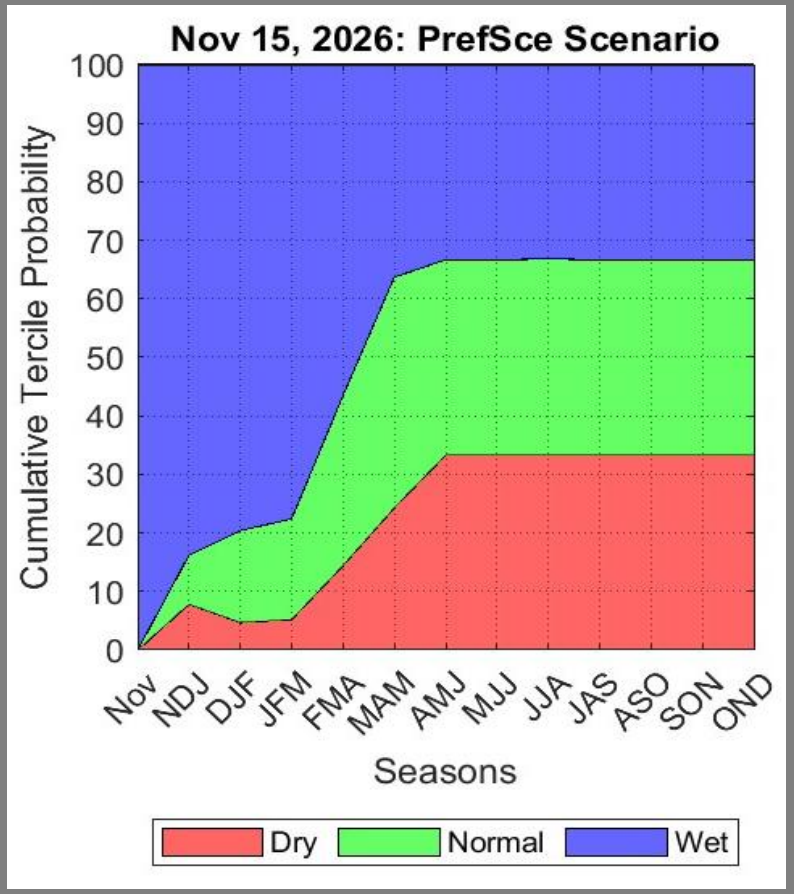
Conditional Position Analysis Overview

- CPA is a stochastic framework that transforms stages obtained from Dynamic Position Analysis (DPA) based on forecasted rainfall conditions over the next twelve months (Ali, 2016).
- CPA depends on DPA - DPA stage outputs are used as inputs to CPA. DPA uses a physically based model (SFWMM) to forecast stages progression over 1 year from the currently observed stages using 52-years of historical rainfall.
- 3 rainfall outlook scenarios (climatological, CPC, and Preferred Scenario) are used to compare potential stage outlooks.
- CPA is implemented for 200+ locations in the greater Everglades including Lake Okeechobee and Lake Istokpoga*. Additionally, CPA is implemented for WCA1Avg (avg of Site 7, Site 8T, and Site 9) and WCA3AAvg (avg of Site 63, Site 64, and Site 65) stages (Khare et al., 2024) in the Everglades.

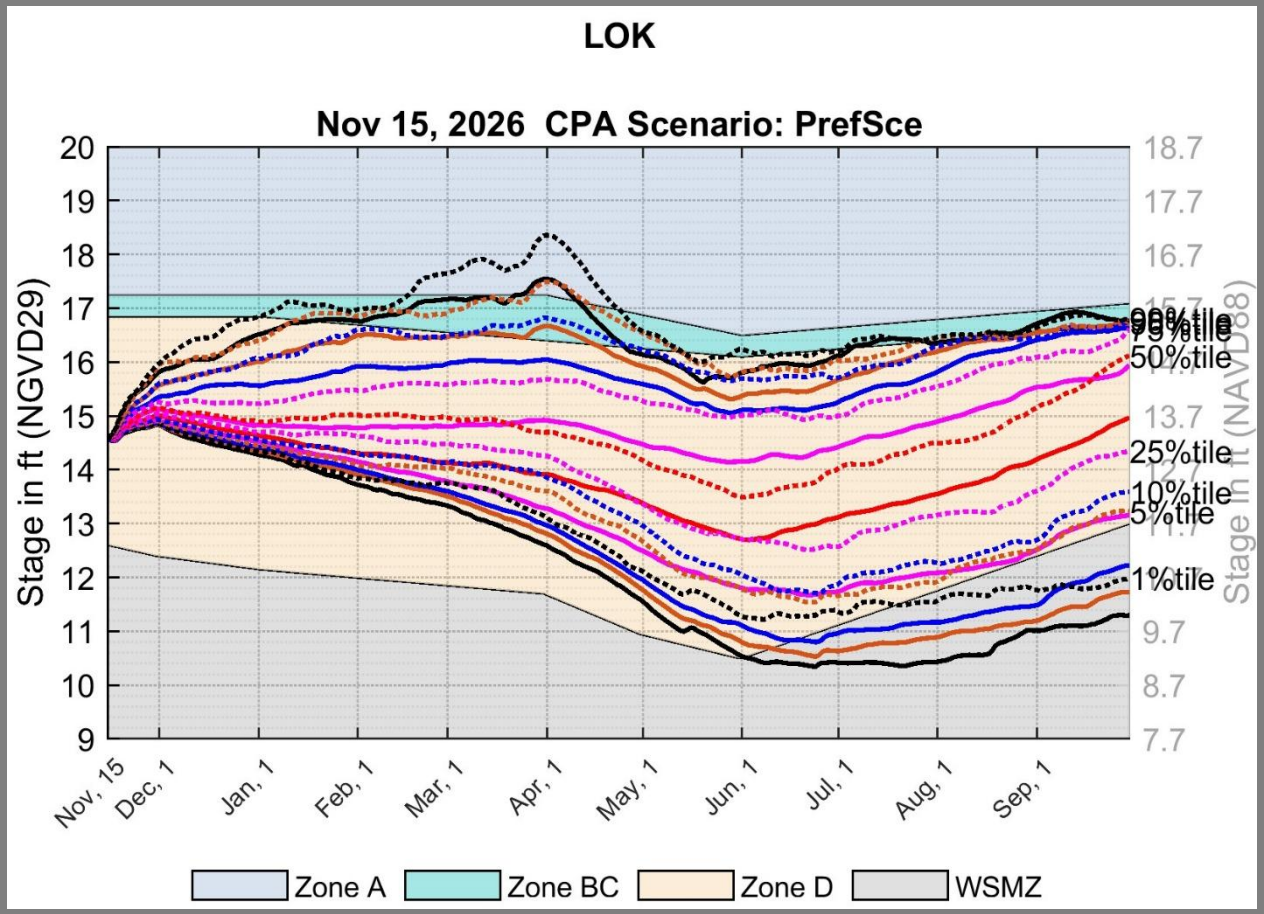


November 15, 2026 CPA: Preferred Rainfall Scenario

- November 15, 2026, PrefSce rainfall scenario includes latest release of seasonal rainfall outlook from NOAA.
- The monthly probability of the remaining days of the current month is derived from the QPF estimates generated from WMD, WPC, ECMWF HRES, and 100 ECMWF ensembles, in combination with recently observed rainfall (NEXRAD) and historical rainfall data during 1991–2020.
- Seasonal rainfall tercile probabilities (except NDJ) are calculated based on historical data and projected Relative Oceanic Nino-3.4 Index (RONI) published by the CPC and adjusted for the seasonal weights of the ENSO signal to the historical rainfall.
- Seasonal rainfall tercile probabilities for the first season (NDJ) are calculated as a weighted blend of probabilities estimated from QPF for the remaining NDJ period, using the same approach applied to monthly probability estimation, and seasonal NDJ probabilities derived from historical data based on projected RONI and adjusted for seasonal weighting.



Lake Okeechobee – The CPA implementation shows all percentile lines shift upward by about 0.43 to 1.00 feet relative to the corresponding DPA percentile lines at the beginning of the wet season on May 1, 2027. Under the Preferred Scenario (PrefSce), the median (50th percentile), 75th, and 25th percentile traces project stages of 14.17 feet NGVD29 (12.87 feet NAVD88), 15.27 feet NGVD29 (13.97 feet NAVD88), and 13.36 feet NGVD29 (12.06 feet NAVD88), respectively, at the start of the wet season in May 2027.



Solid lines → Climatological Scenario/DPA Dotted lines → CPA Scenario: PrefSce