

Extended Hydrologic Outlook

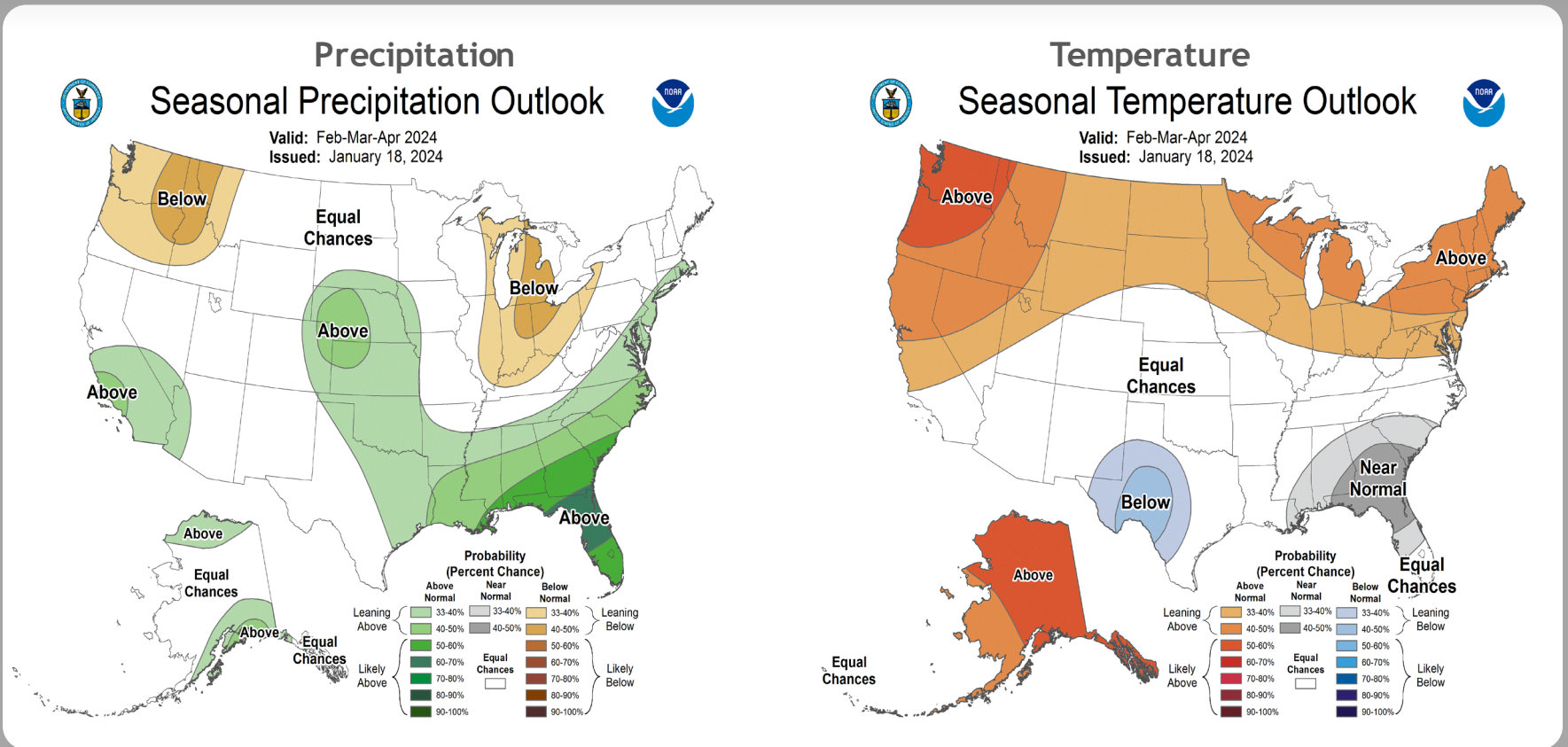
February 6, 2024

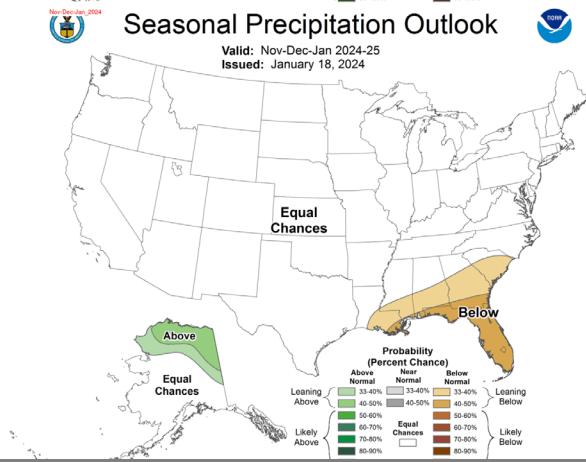
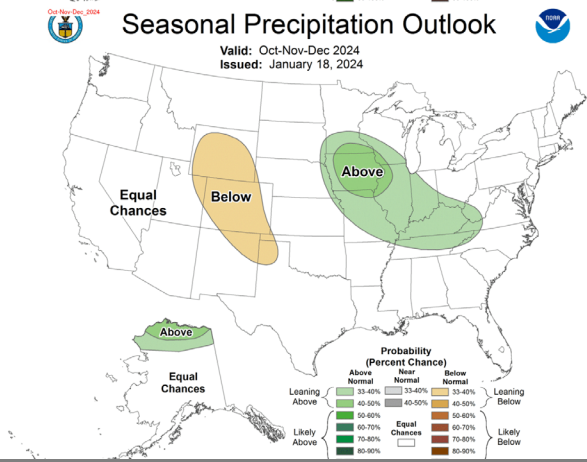
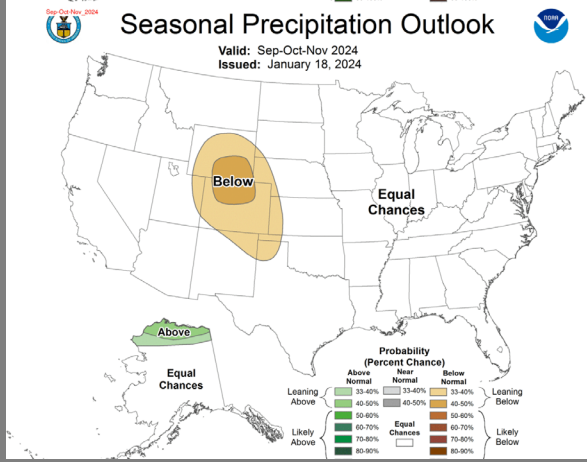
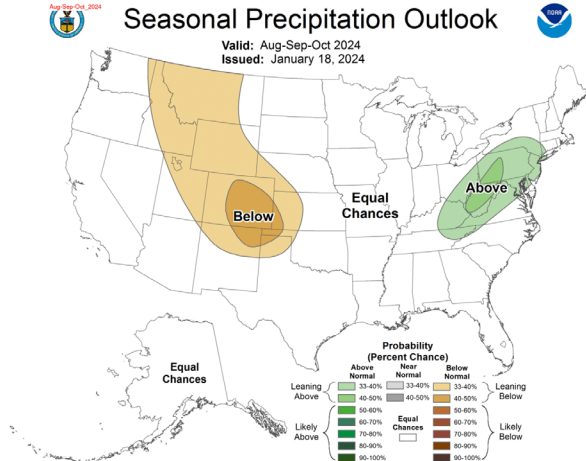
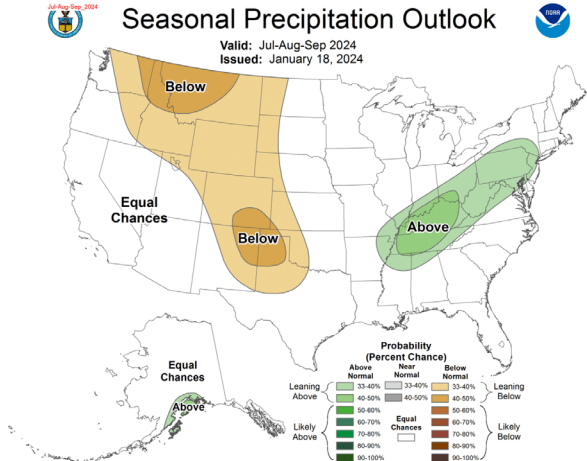
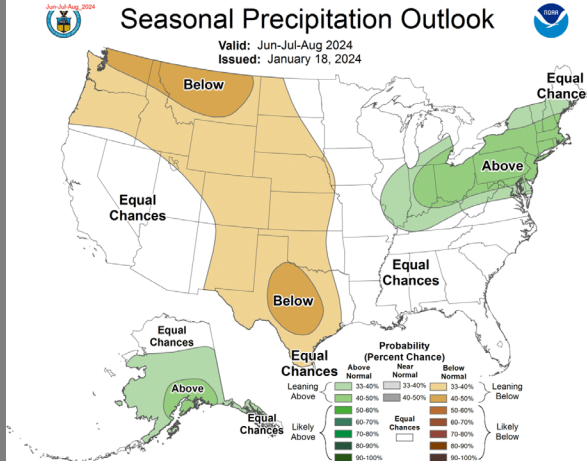
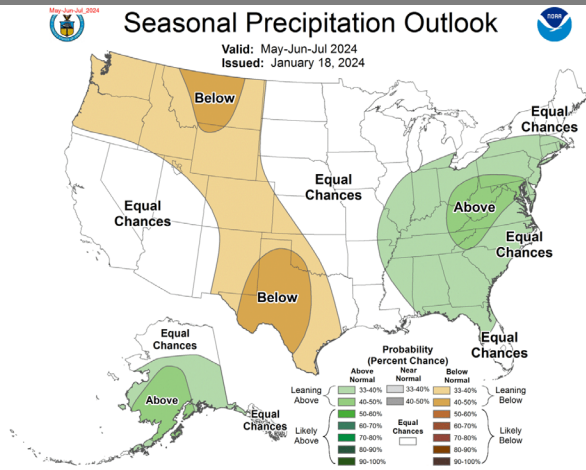
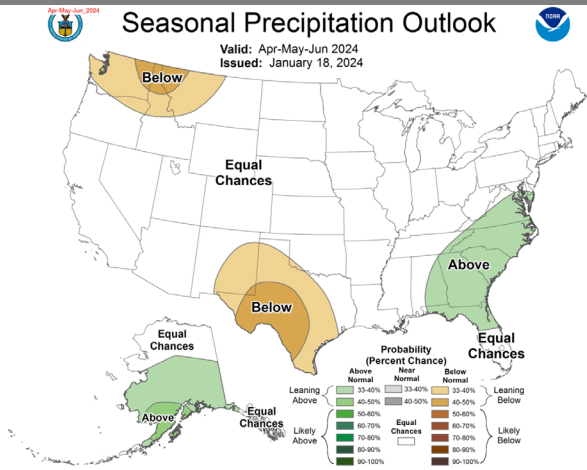
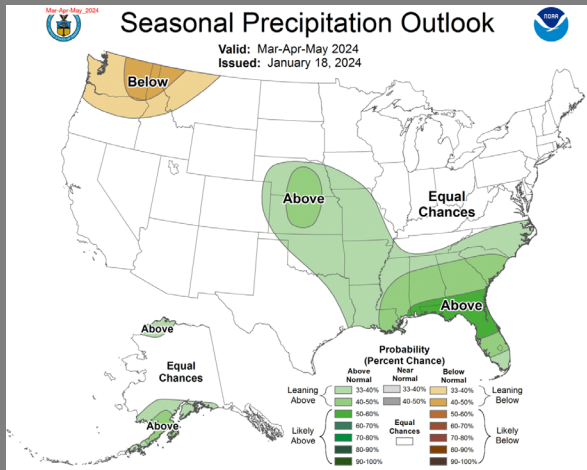
- The Climate Prediction Center (CPC) is forecasting above normal rainfall for February through April.
- El Niño conditions are observed. El Niño is expected to continue for the next several months, with ENSO-neutral favored during April-June 2024 (73% chance).
- Atlantic Multidecadal Oscillation (AMO) 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

February - April 2024

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:

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 in south Florida dry season rainfall, positive leads to more El Niño events, negative leads to more La Niña events

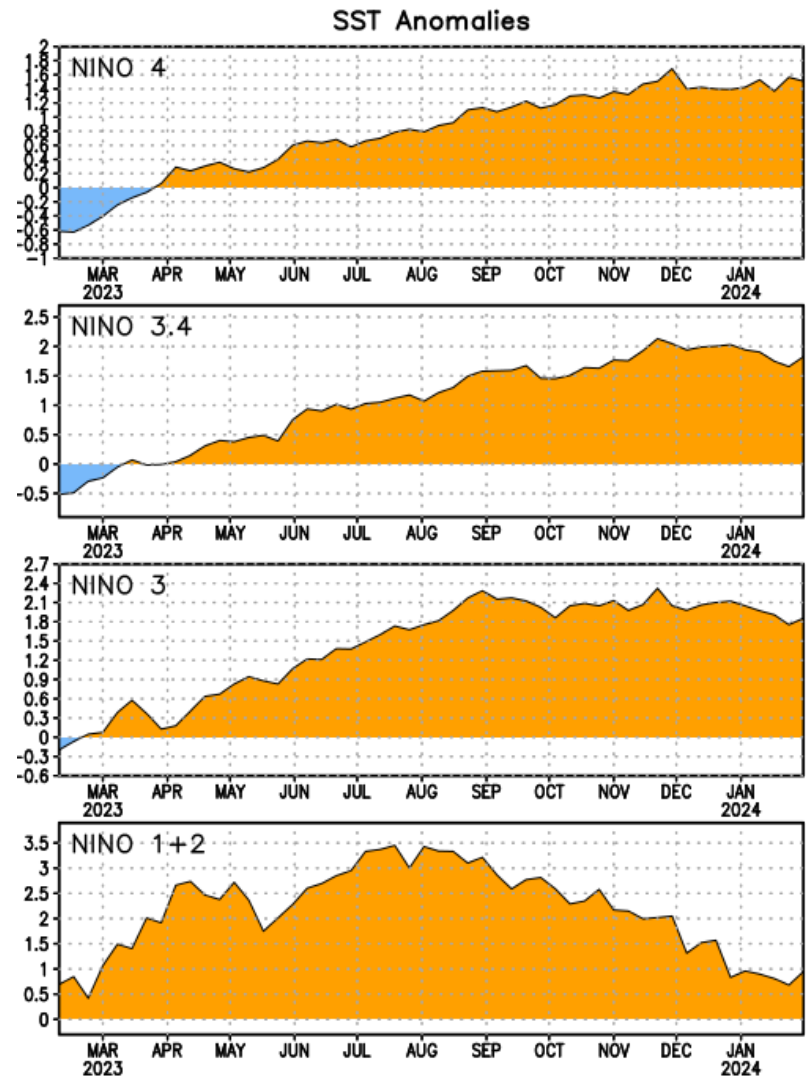
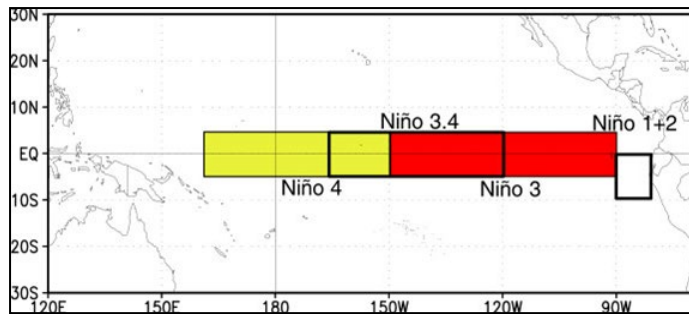
Atlantic Multidecadal Oscillation (AMO)

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 (°C) Recent Evolution

The latest weekly SST departures are:

Niño 4	1.5°C
Niño 3.4	1.8°C
Niño 3	1.9°C
Niño 1+2	1.0°C



This weekly sea surface temperature data is based on OISSTv2.1 (Huang et al., 2021).

IRI Pacific Niño 3.4 SST Model Outlook

The majority of models indicate El Niño will persist through March-May 2024 and then transition to ENSO-neutral during April-June 2024.

After a brief period of ENSO-neutral conditions, **most models indicate a transition to La Niña around July-September 2024.**

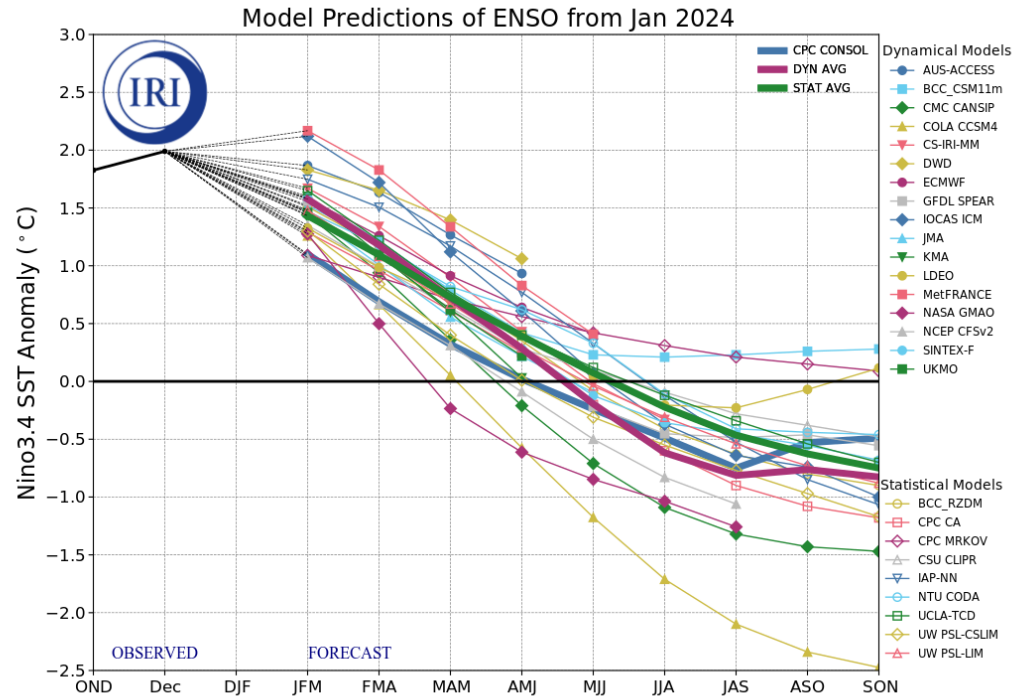
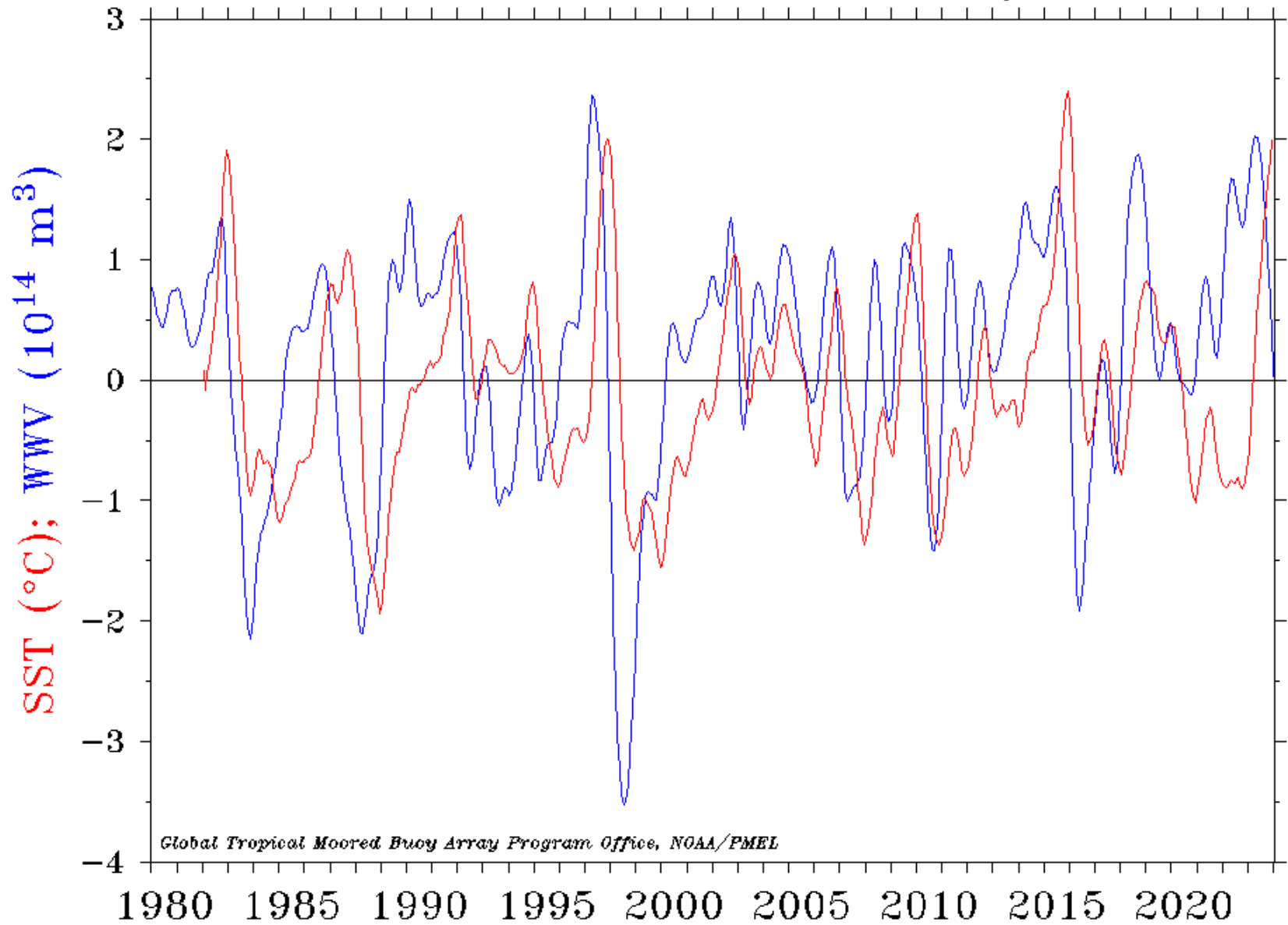
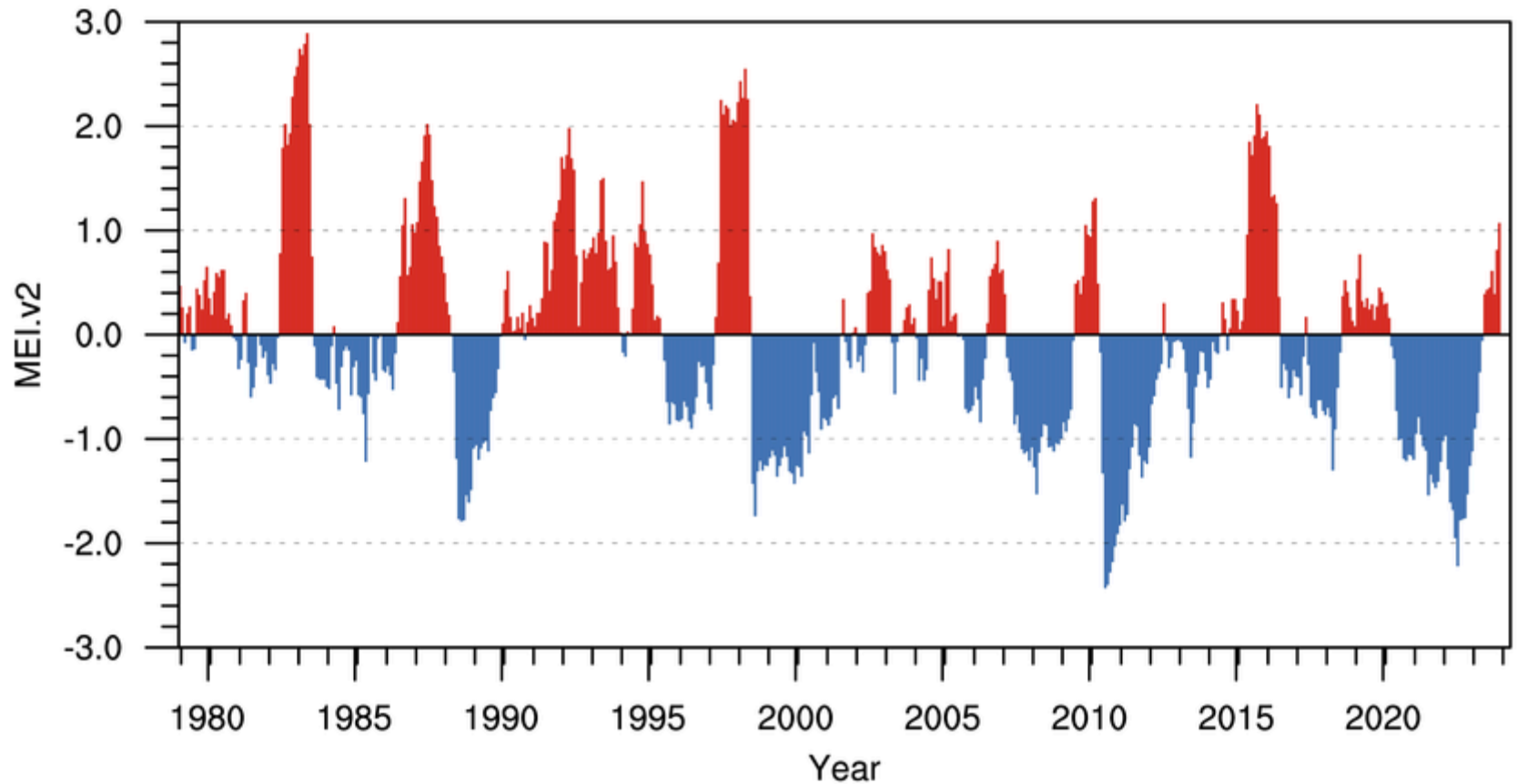


Figure provided by the International Research Institute (IRI) for Climate and Society (updated 19 January 2024).

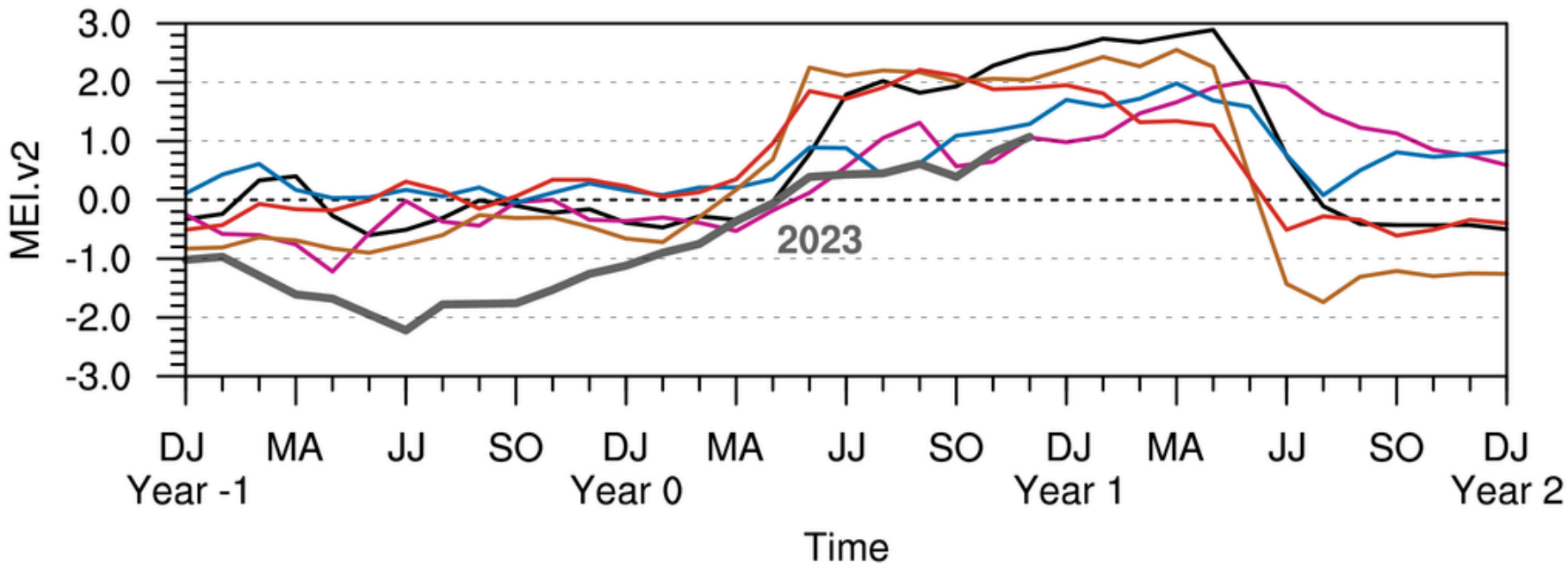
Warm Water Volume (5°N–5°S, 120°E–80°W) and NINO 3.4 SST Anomaly



Multivariate ENSO Index Version 2



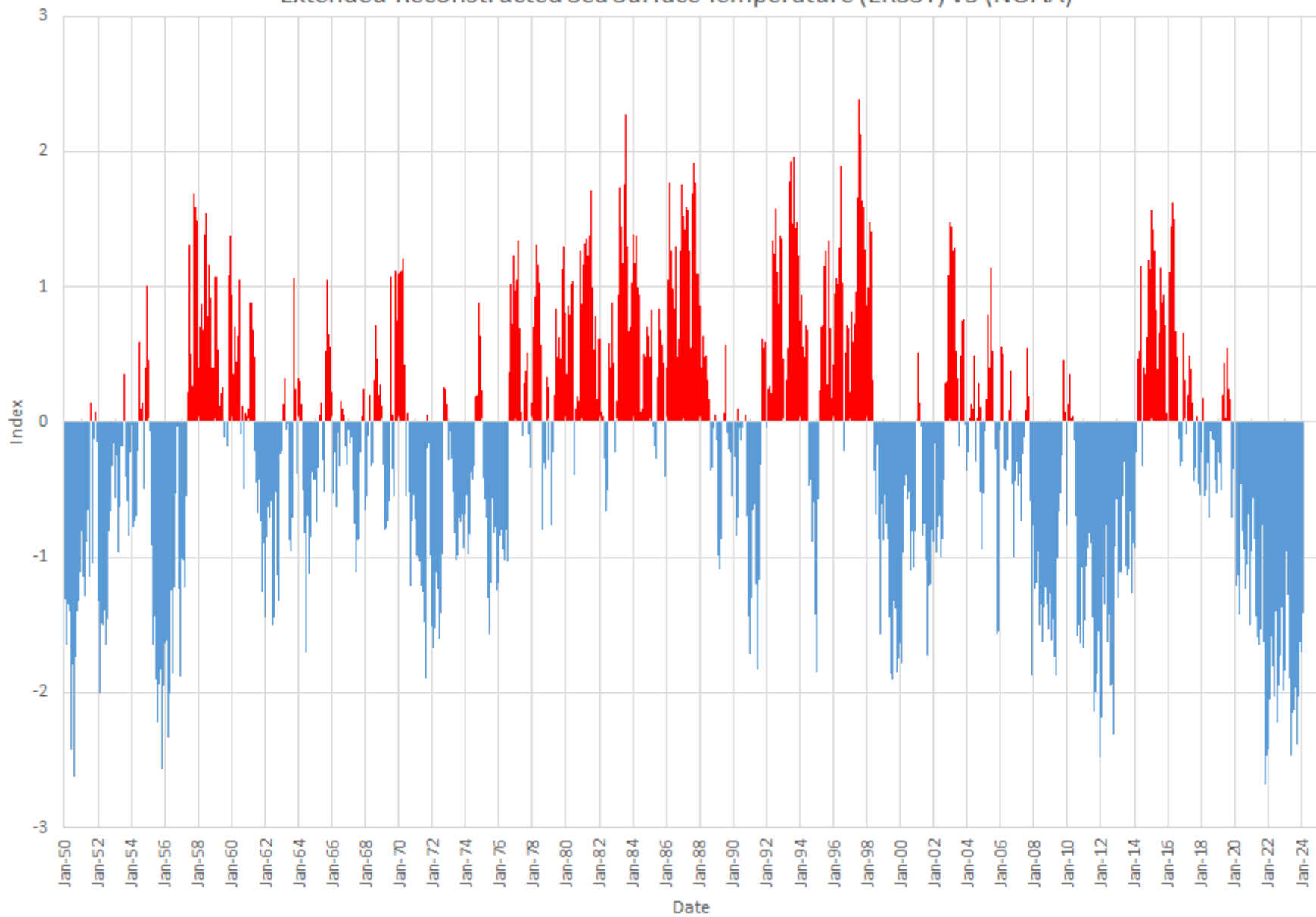
MEI.v2 Evolution of Current ENSO Event in Historical Context



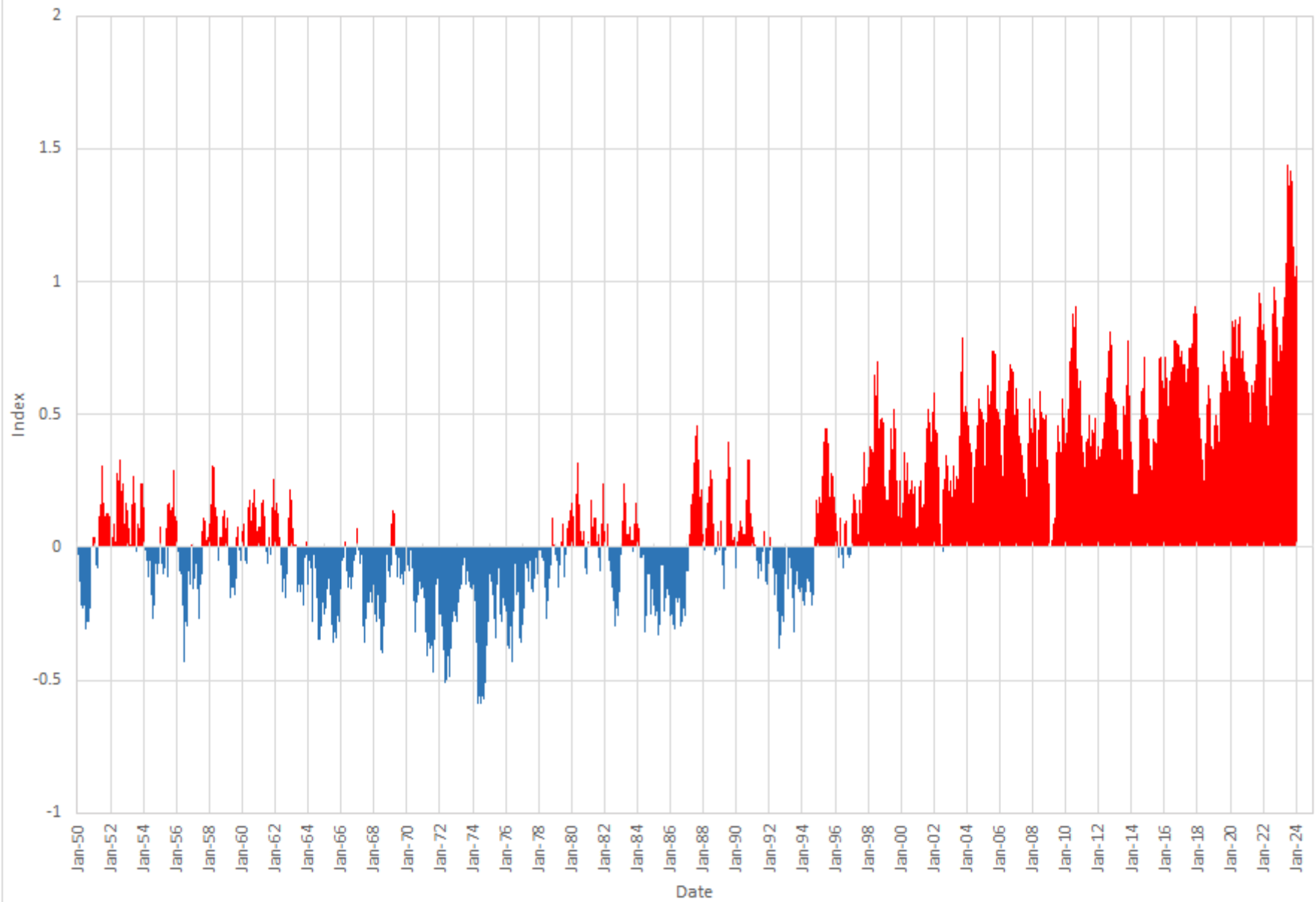
— 1983 — 1987 — 1992 — 1998 — 2016

Pacific Decadal Oscillation

Extended Reconstructed Sea Surface Temperature (ERSST) v5 (NOAA)



ERSST AMO (North Atlantic 0-60N SSTA) Index

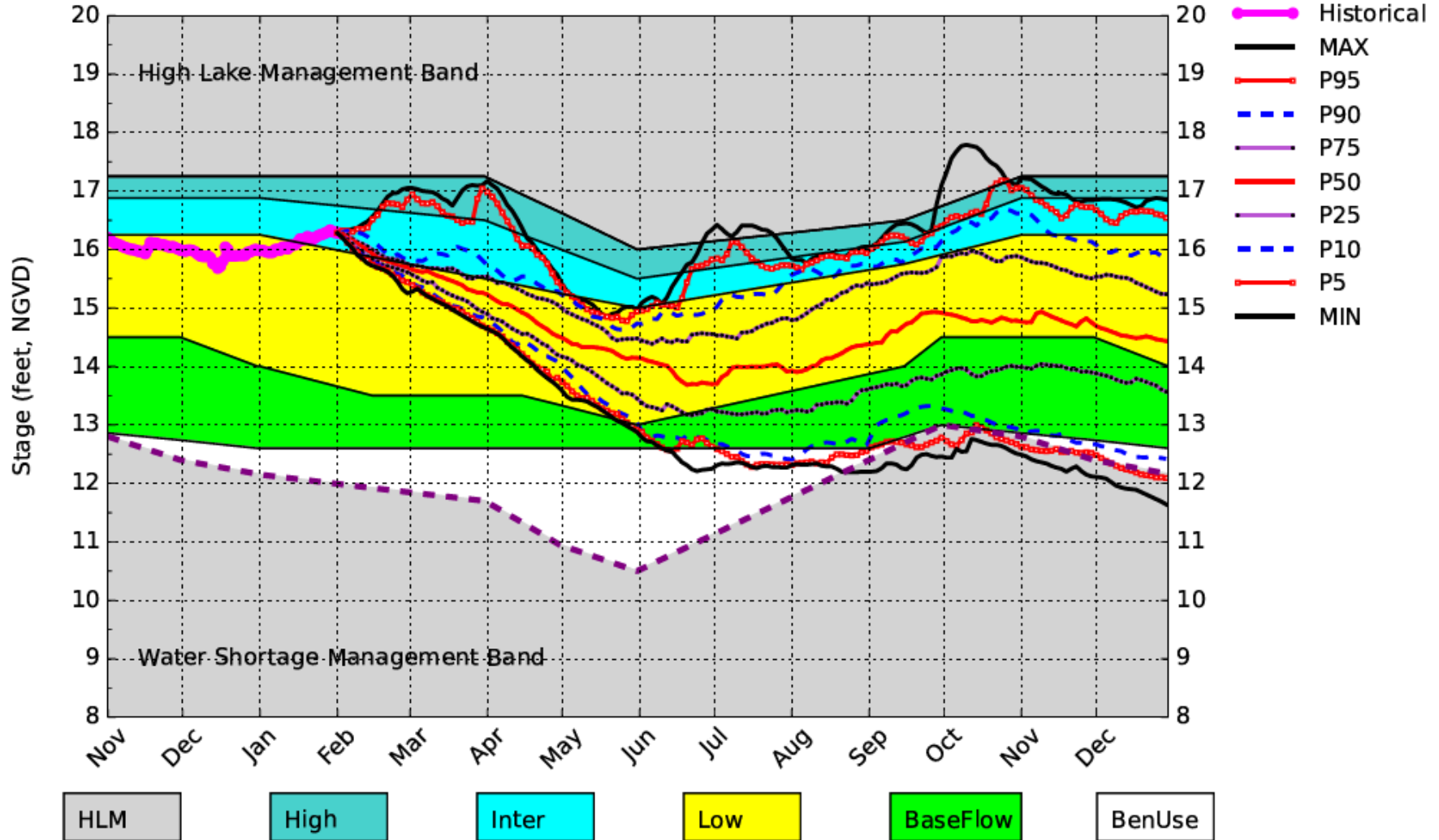


February DPA Assumptions

- The February 1, 2024 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 February 1, 2024 DPA resets the initial stages for Lake Okeechobee (LOK) and the Water Conservation Areas (WCAs) on January 1st of each year of the DPA simulation and conditions the simulation to real time data during January to achieve real time stages on February 1st for LOK and WCAs.
- The 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.
- STA surface area values are modified to reflect current flowways under operation. STA depths are maintained to a minimum of 6 inches using Lake Okeechobee releases.
- Full LORS 2008 releases are modeled as specified in the regulation schedule.

Lake Okeechobee SFWMM February 2024 Position Analysis

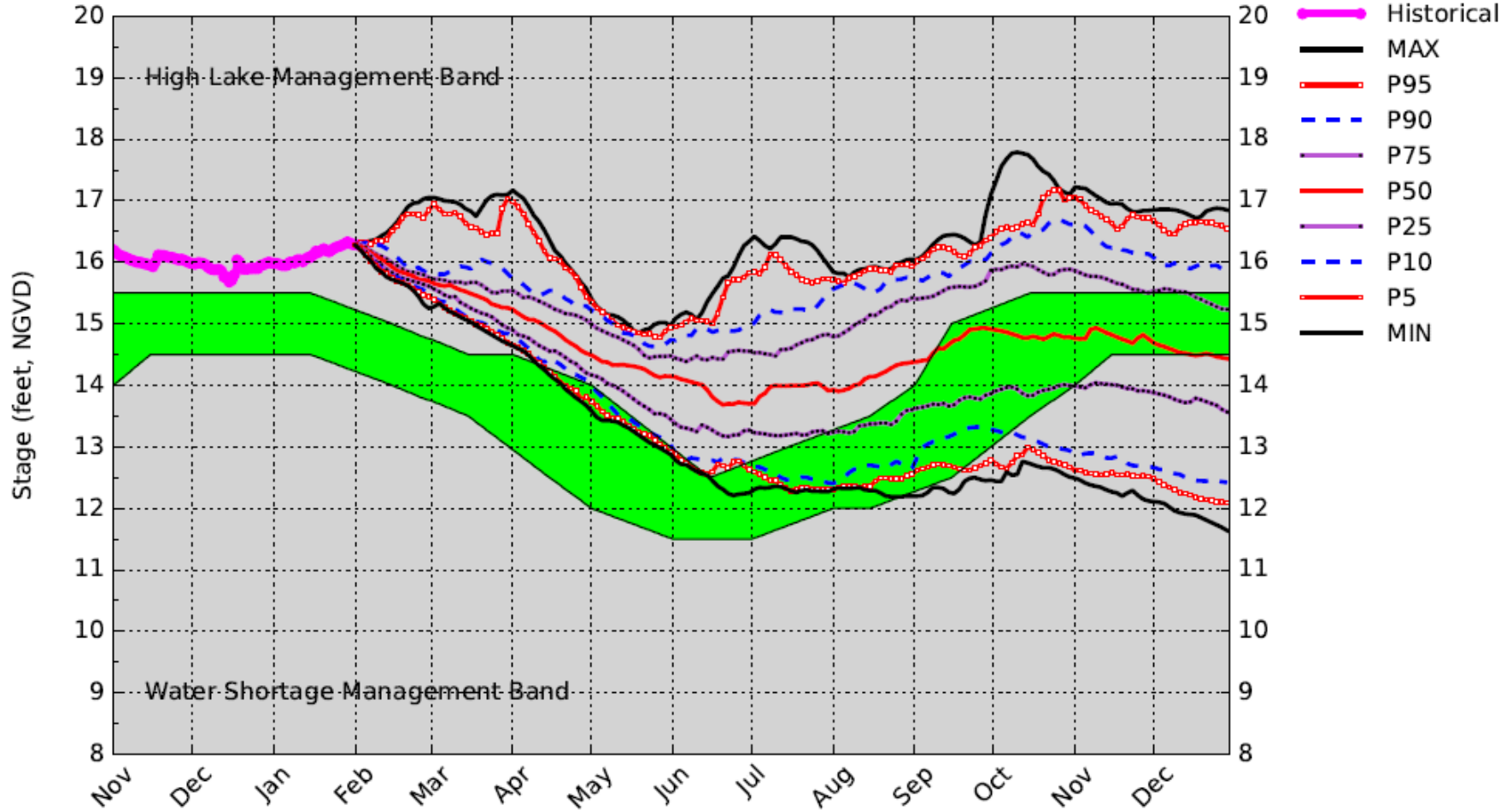
Percentiles PA



(See assumptions on the Position Analysis Results website)

Lake Okeechobee SFWMM February 2024 Position Analysis

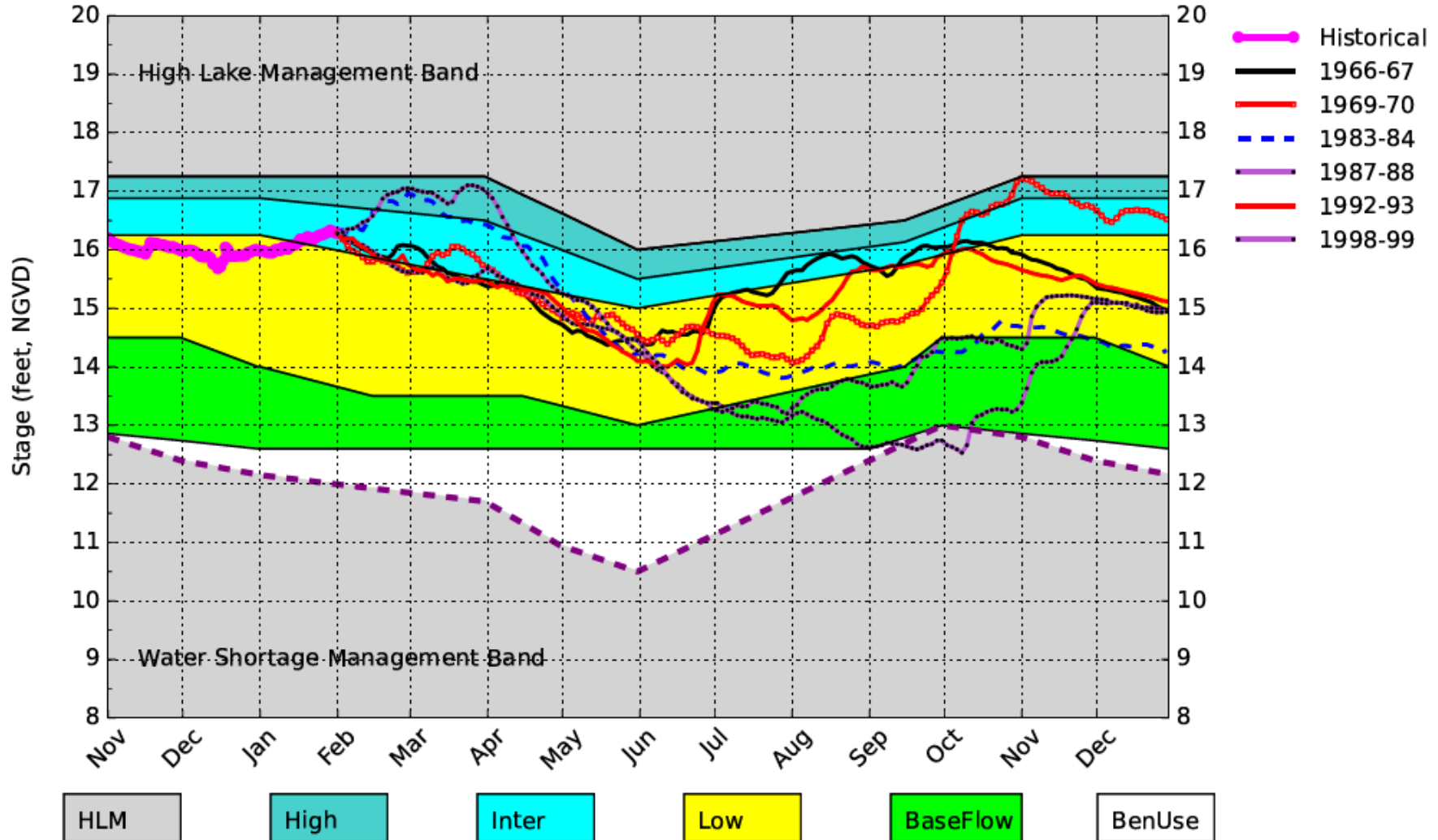
Percentiles PA



(See assumptions on the Position Analysis Results website)

Lake Okeechobee SFWMM February 2024 Position Analysis

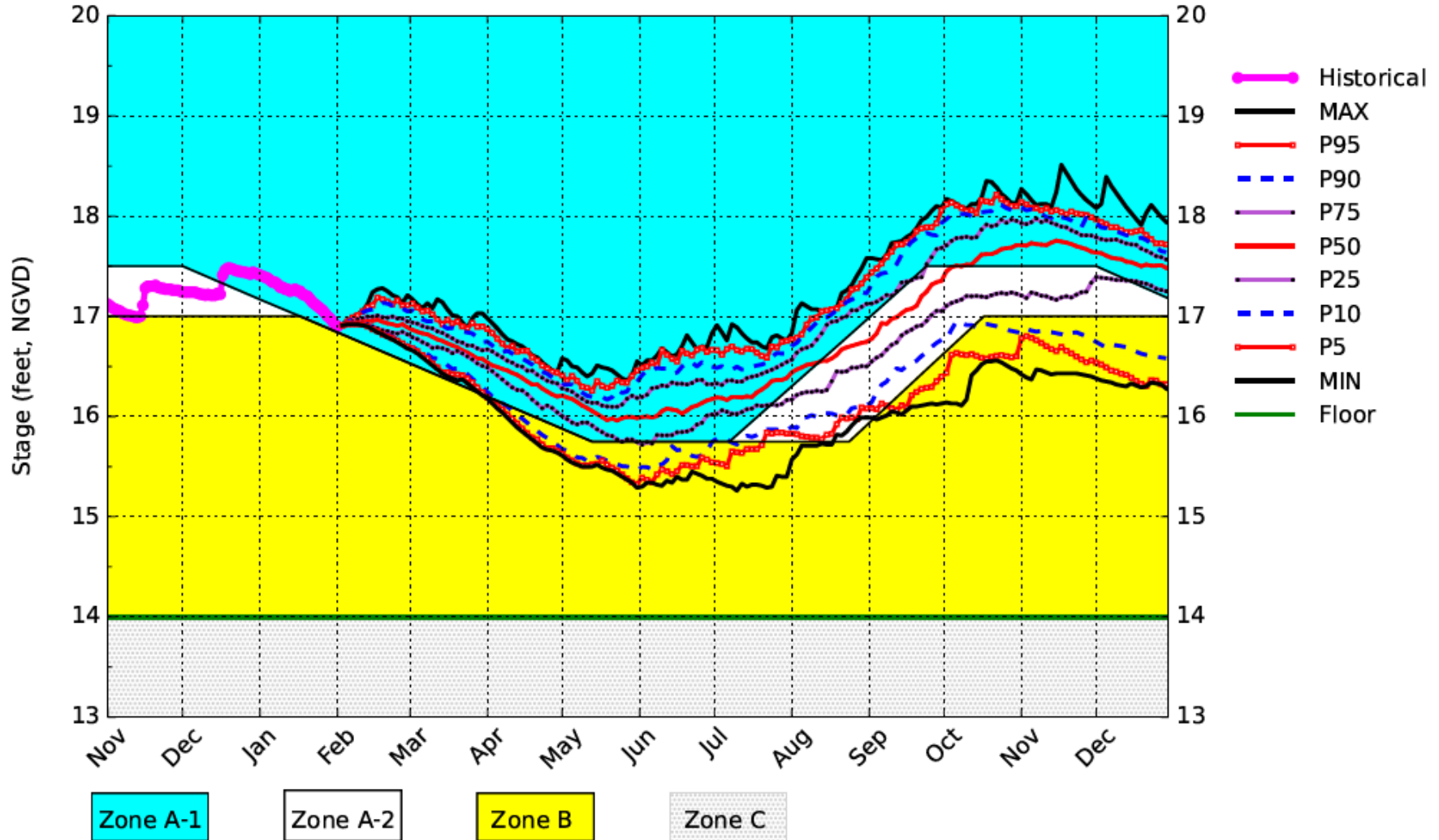
All El Nino Years Plot PA



(See assumptions on the Position Analysis Results website)

WCA1 SFWMM February 2024 Position Analysis

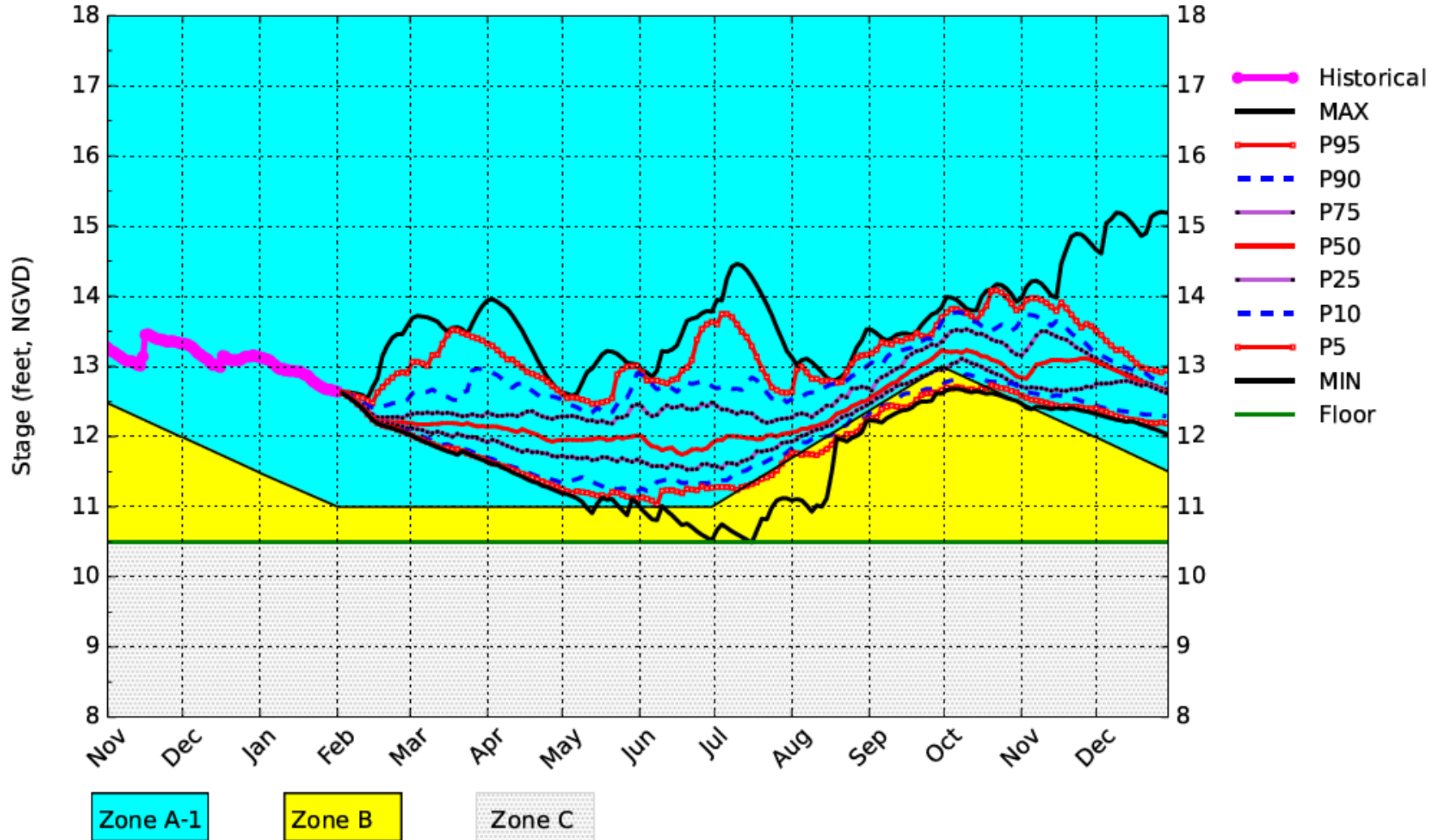
Percentiles PA



(See assumptions on the Position Analysis Results website)

WCA2A SFWMM February 2024 Position Analysis

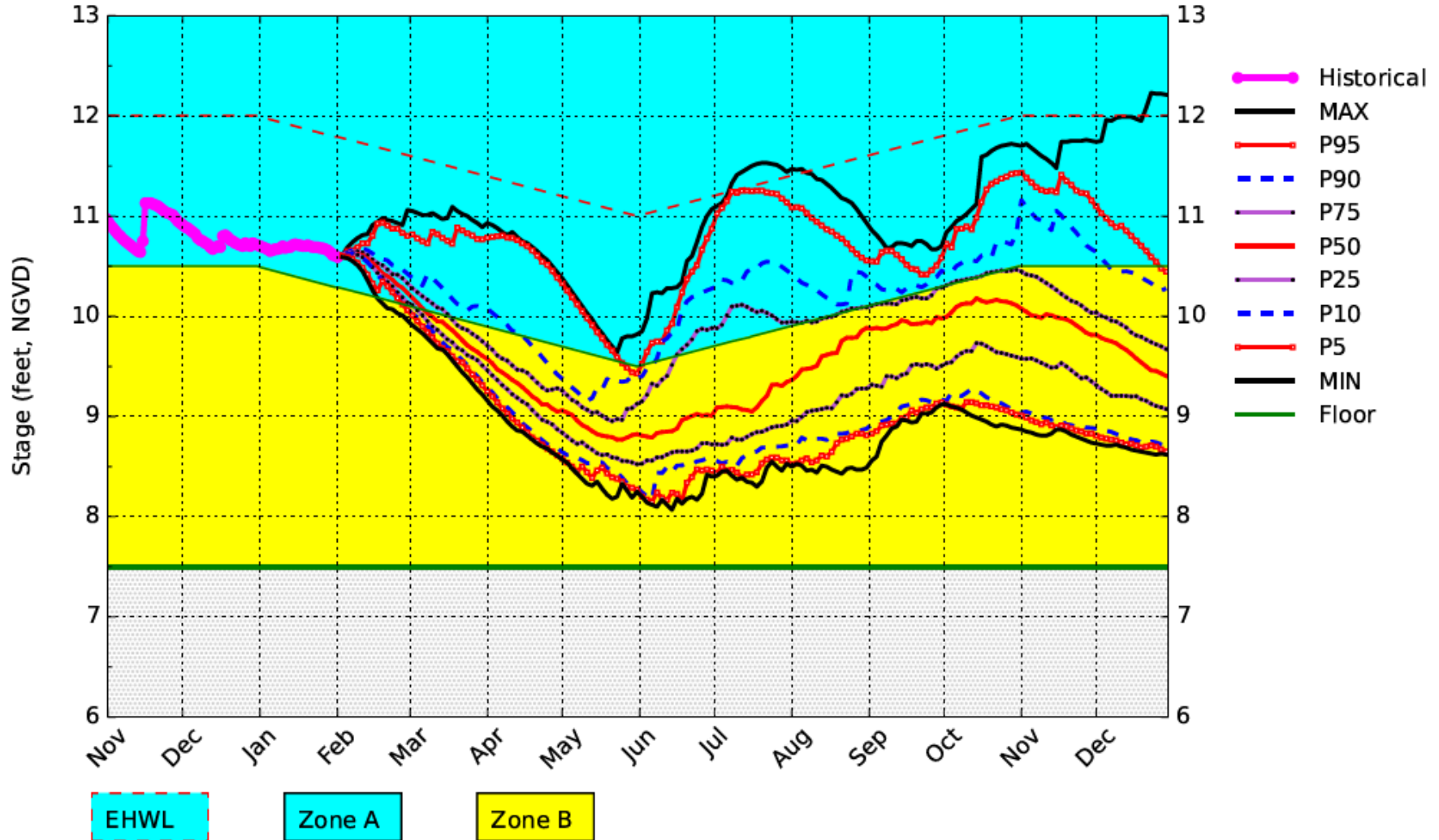
Percentiles PA



(See assumptions on the Position Analysis Results website)

WCA3A SFWMM February 2024 Position Analysis

Percentiles PA



(See assumptions on the Position Analysis Results website)