

Dynamic Position Analysis for July 12, 2021

SFWMM Model Simulation of 41 years (1965-2005)

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July 12, 2021 Modeling Dynamic Position Analysis Modeling Assumptions

- July 12, 2021 DPA is based on regular Position Analysis applying V6.7.4 (Tamiami Trail) of the SFWMM, and assuming the current Lake Okeechobee Net Inflow Outlook (LONINO) for each year simulated. It is based on historical climatic conditions spanning the period 1965-2005
- The model is reinitialized July 1st of each year
- The Lake Okeechobee operations follow the Lake Okeechobee Regulation Schedule (LORS2008). Modeling assumptions consistent with modeling performed for LORS-2008 Supplemental, Environmental Impact Statement (SEIS).
- LOK Temporary Forward Pump operations will be in place, whenever necessary, to improve water supply deliveries from the Lake under low Lake 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
- Lake Okeechobee Water Shortage Management (LOWSM) is included in the simulation which reflects the currently approved 40E-21 and 40E-22 water shortage rules.
- Water supply restrictions simulated for the urban areas reflect current District water shortage management policies.
- Wet and Dry years selected by examining all years and choosing the wettest or driest years in both near and far-term.

Lake Okeechobee Water Shortage Triggering Line									
01/01	03/31	04/30	05/30	05/31	09/30	10/01	10/31	11/30	12/31
12.15	11.70	10.95	10.50	10.50	13.00	13.00	12.80	12.40	12.16

- ENSO-neutral is favored through the summer and into the fall (51% chance for the August-October season), with La Niña potentially emerging during the September-November season and lasting through the 2021-22 winter (66% chance during November-January).

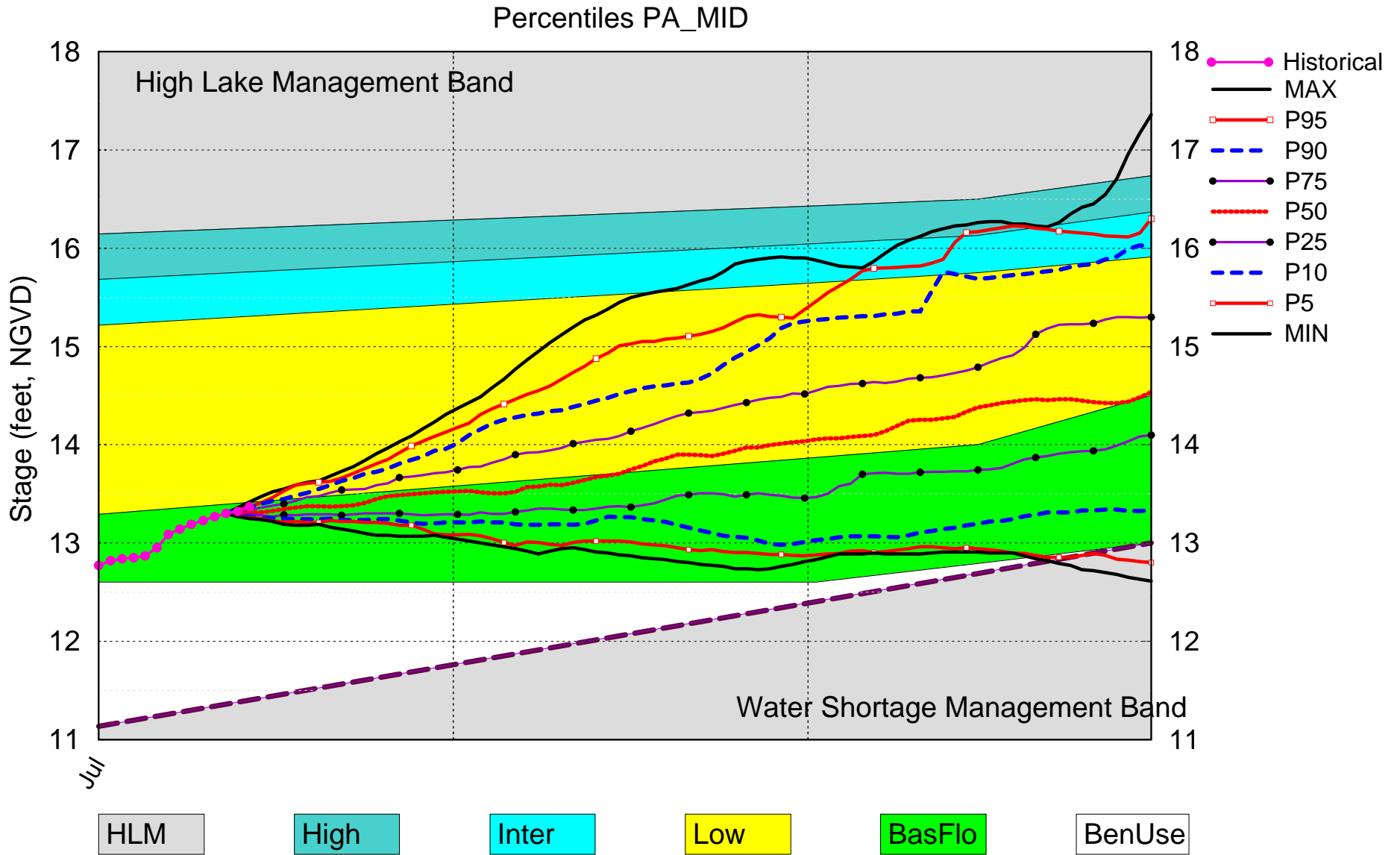
- ENSO (El Niño Southern Oscillation) years (El Niño, La Niña and ENSO Neutral) are selected by locating the current month as it falls in the middle of the 3-month average in the official ONI table from NOAA/CPC:
https://origin.cpc.ncep.noaa.gov/products/analysis_monitoring/ensostuff/ONI_v5.php

If the current month is within an official ENSO event (5 consecutive 3-month periods) then that year is considered an ENSO year for that month, these years are compiled ahead of the model simulations for all ENSO events within the period of record of the model simulation. Each month will have a different set of years. The strength of the ENSO event may vary among the selected years, and the DPA simulation of these years may show wide variability in modeled stages.

- S-65E inflows entering Lake Okeechobee in the SFWMM simulation were obtained by adding S-65 flows, obtained from the UK-OPS simulation in a PA mode, and local runoff contribution from the Lower Kissimmee, computed as the difference of S65E and S65 historical flows for the period 1965-2005. Runoff contribution on any given day of the current PA month is adjusted based on a correlation function of Palmer Drought Index, rainfall and historical flows.
- Back pumping of excess runoff from the EAA into Lake Okeechobee takes place only under flood control conditions (Interim Action Plan).
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- Starting January 2020 to reflect recent operation practices the 30-day moving average salinity check at I-75 bridge for Adaptive Protocols - Lake Okeechobee Release to the Caloosahatchee Estuary has been disabled in the Water Management Model
- Operations for structures in the SDCS are more consistent with COP
- WCA-3A simulated using COP
- Information for the initial conditions can be viewed [here](#). Initial stages for specified canals are shown [here](#) and gages are shown [here](#)

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Lake Okeechobee SFWMM July 2021 Mid-Mon Position Analysis



(See assumptions on the Position Analysis Results website)

