

# Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 7/8/2024 (ENSO Condition: Neutral)

## Lake Okeechobee Net Inflow Outlook:

The Lake Okeechobee Net Inflow Outlook has been computed using methods described in the LORS2008 Water Control Plan: Croley's method, the SFWMD empirical method, a sub-sampling of Neutral years and a sub-sampling of warm years of the Atlantic Multi-decadal Oscillation (AMO) in combination with Neutral ENSO years. The results for Croley's method and the SFWMD empirical method are based on the CPC Outlook.

Table of the Lake Okeechobee Net Inflow Outlooks in feet of equivalent depth. All methods are updated on a weekly basis with observed net inflow for the current month.

Season	Croley's Method*		SFWMD Empirical Method		Sub-sampling of El Niño ENSO Years**		Sub-sampling of AMO Warm + El Niño ENSO Years***	
	Value (ft)	<u>Condition</u>	Value (ft)	<u>Condition</u>	Value (ft)	<u>Condition</u>	Value (ft)	<u>Condition</u>
Current (Jul-Dec)	N/A	N/A	2.08	Very Wet	2.05	Very Wet	3.64	Very Wet
Multi Seasonal (Jul-Apr)	N/A	N/A	2.21	Normal	2.05	Normal	3.83	Wet

\*Croley's Method Not Produced for This Report

See Seasonal and Multi-Seasonal tables for the classification of Lake Okeechobee Outlooks.

The recommended methods and values for estimating the Lake Okeechobee Net Inflow Outlook are shaded and should be used in the LORS2008 Release Guidance Flow Charts.

\*\*Sub-sampling is a weighted average of ENSO conditions based on the IRI ENSO forecast published.

\*\*\*Sub-sampling based on combination of ENSO and AMO conditions. For this predominant ENSO categorization is used instead of weights.

## **Tributary Hydrologic Conditions:**

**1776 cfs** 14-day running average for Lake Okeechobee Net Inflow through 7/8/2024. According to the classification in Tributary Hydrologic Conditions table, this condition is Near Normal.

**-2.20** for Palmer Drought Index on 7/6/2024. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

The wetter of the two conditions above is **Near Normal**.

## **LORS2008 Classification Tables:**

### **Lake Okeechobee Stage on 7/8/2024:**

Lake Okeechobee Stage: **13.50 feet (NGVD29), 12.25 (NAVD88) \***

Lake Okeechobee Management Zone/Band		Bottom Elevation feet, NGVD (feet NAVD)	Current Lake Stage
High Lake Management Band		16.17 (14.92)	
Operational Band	High sub-band	15.71 (14.46)	
	Intermediate sub-band	15.26 (14.01)	
	Low sub-band	13.35 (12.10)	<b>← 13.50 ft (12.25)</b>
Base Flow sub-band		12.60 (11.35)	
Beneficial Use sub-band		11.24 (9.99)	
Water Shortage Management Band			

\*Lake Okeechobee Stage NAVD88 offset of -1.25 is based on Final Regulation Schedule Conversion (5/19/2020).

**Part C of LORS2008: Discharge to WCAs**

Up to Maximum Practicable to the WCAs if desirable or with minimum Everglades impact; otherwise, no Releases to WCAs.

**Part D of LORS2008: Discharge to Tide**

Up to 450 cfs at S-79 and up to 200 cfs at S-80.

**LORS2008 Implementation on 7/8/2024 (ENSO Condition- Neutral):**

**Status for week ending 7/8/2024\*:**

**Water Supply Risk Evaluation**

Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Low Sub-band	L
	Palmer Drought Index for LOK Tributary Conditions	-2.20 (Extremely Dry)	H
	CPC Precipitation Outlook	1 month: Above Normal	L
		3 months: Above Normal	L
	LOK Seasonal Net Inflow Outlook	2.05 ft	L
	ENSO Forecast	Normal to Extremely Wet	
	LOK Multi-Seasonal Net Inflow Outlook	2.05 ft	M
ENSO Forecast	Normal		
WCAs	WCA 1: 3 Station Average (Sites 1-7, 1-9, and 1-8T)	Above Line 1 (16.43 ft) (14.93 ft NAVD88)	L
	WCA 2A: Site 2-17	Above Line 1 (12.58 ft) (11.08 ft NAVD88)	L
	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Above Line 1 (10.78 ft) (9.28 ft NAVD88)	L
LEC	Service Area 1	Year-Round Irrigation Rule in effect	L
	Service Area 2	Year-Round Irrigation Rule in effect	L
	Service Area 3	Year-Round Irrigation Rule in effect	L

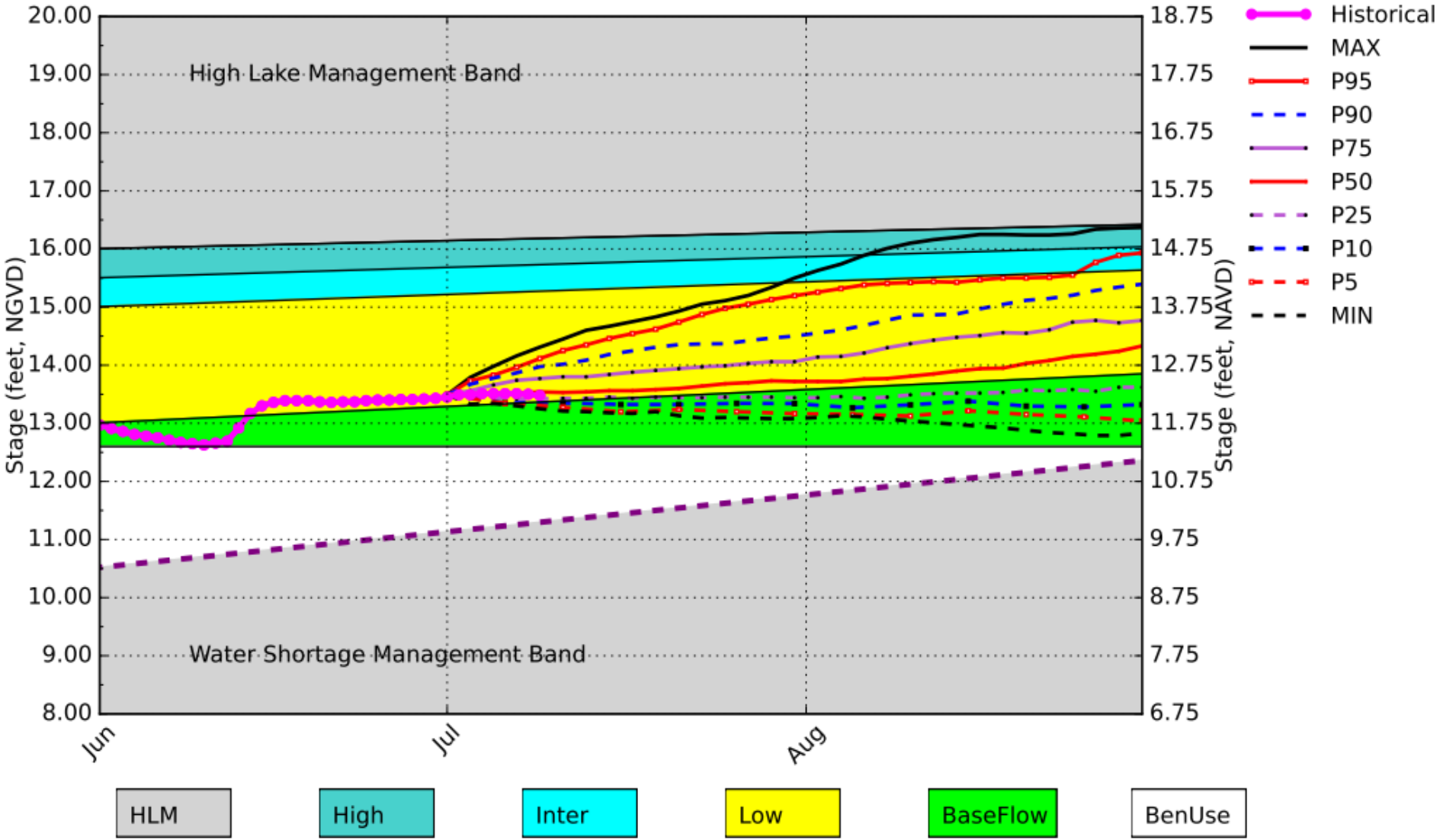
Note: The water supply risk classification based on the Palmer index, as well as the LOK seasonal and multi-seasonal net inflow outlooks use slightly different classification intervals than those used by the 2008-LORS.

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\* WCA1, WCA2A, and WCA3A NAVD88 offset of -1.5 is based on Final Regulation Schedule Conversion (5/19/2020).

# Lake Okeechobee SFWMM July 2024 Position Analysis

Percentiles PA

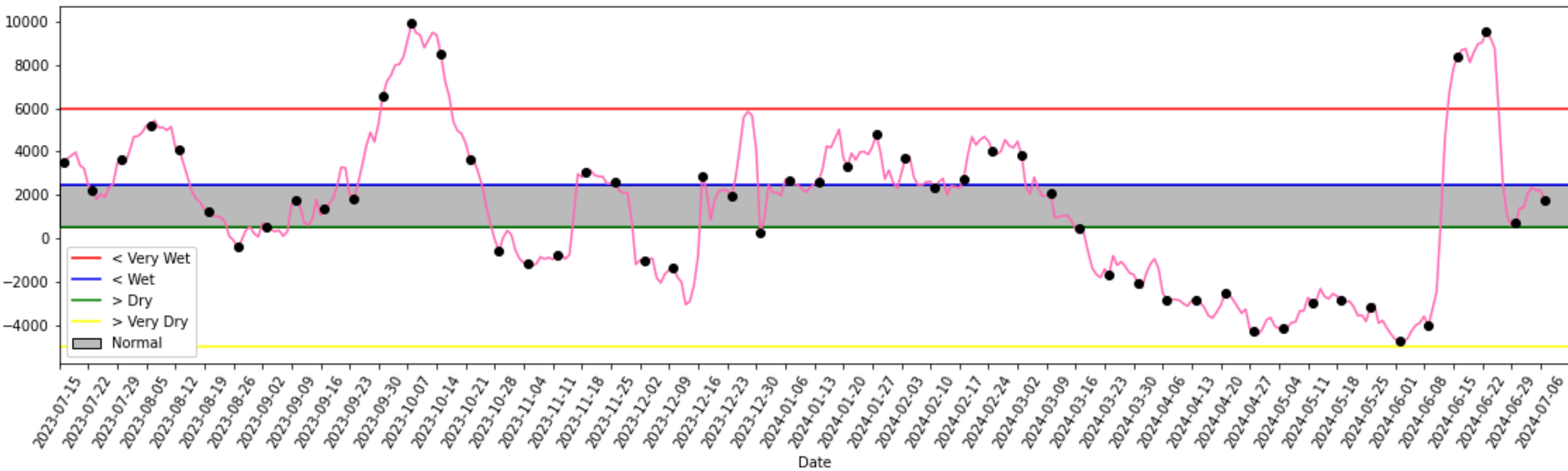
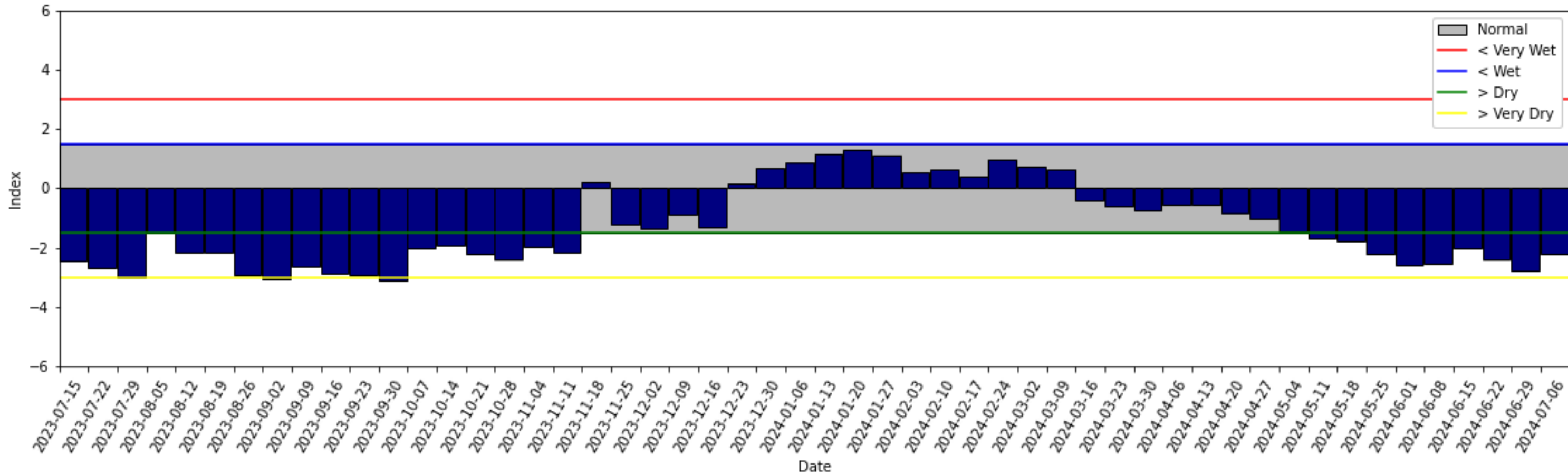


(See assumptions on the Position Analysis Results website)

07/09/24 07:32:04

\* Lake Okeechobee stage NAVD88 offset of -1.25 is based on Final Regulation Schedule Conversion (5/19/2020).

Tributary Basin Condition Indicators as of July 07 2024



# 2008 LORS

## Part C: Establish Allowable Lake Okeechobee Releases to the Water Conservation Areas

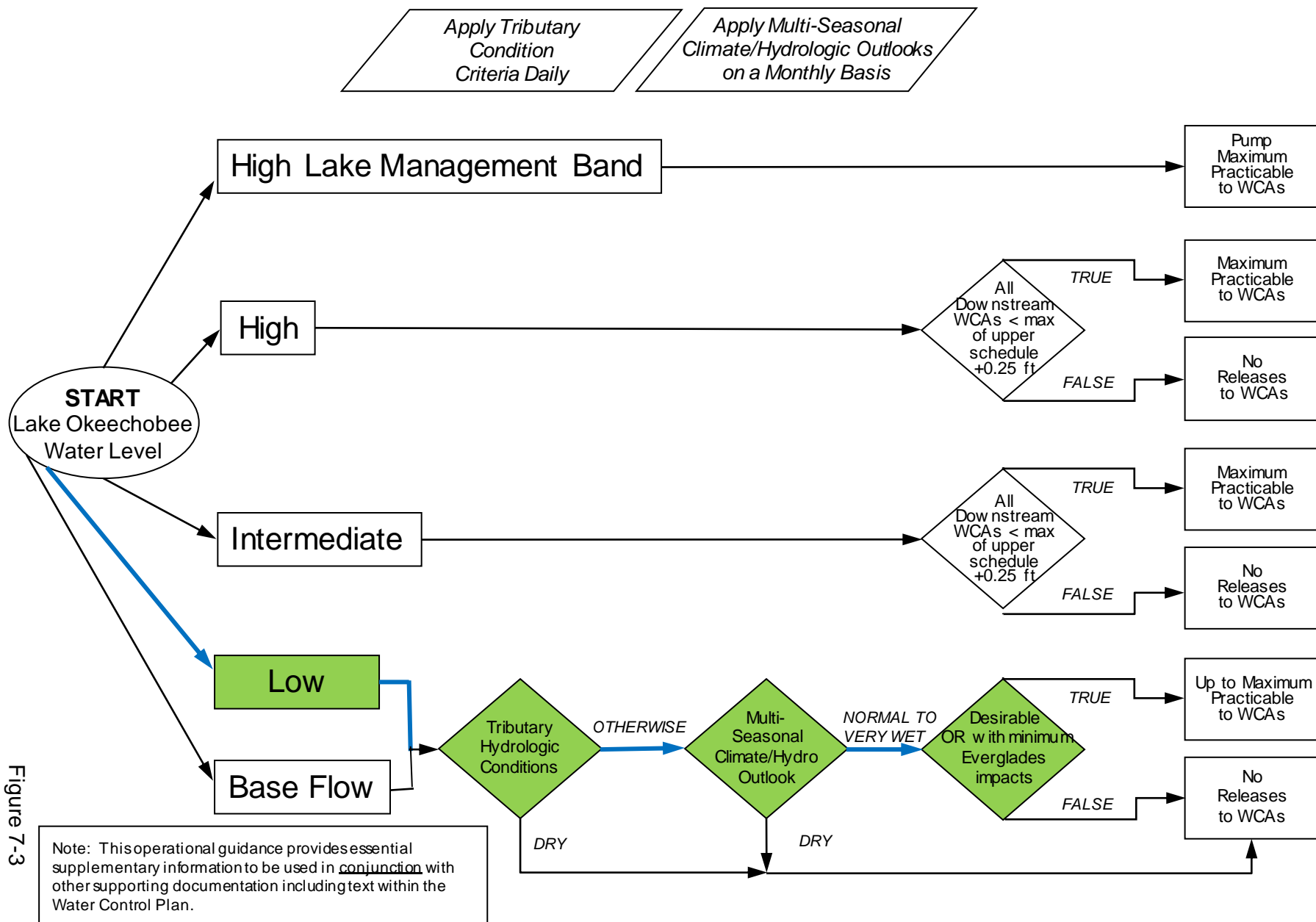


Figure 7-3

# 2008 LORS

## Part D: Establish Allowable Lake Okeechobee Releases to Tide (Estuaries)

Note: This operational guidance provides essential supplementary information to be used in conjunction with other supporting documentation including text within the Water Control Plan.

When conducting Base Flow releases, flows can be distributed East and West up to 650 cfs as needed to minimize impacts or provide benefits through S-80 and S-79

Apply Meteorological Forecasts on a Weekly Basis; apply Seasonal and Multi-Seasonal Climate/Hydrologic Outlooks on a Monthly Basis

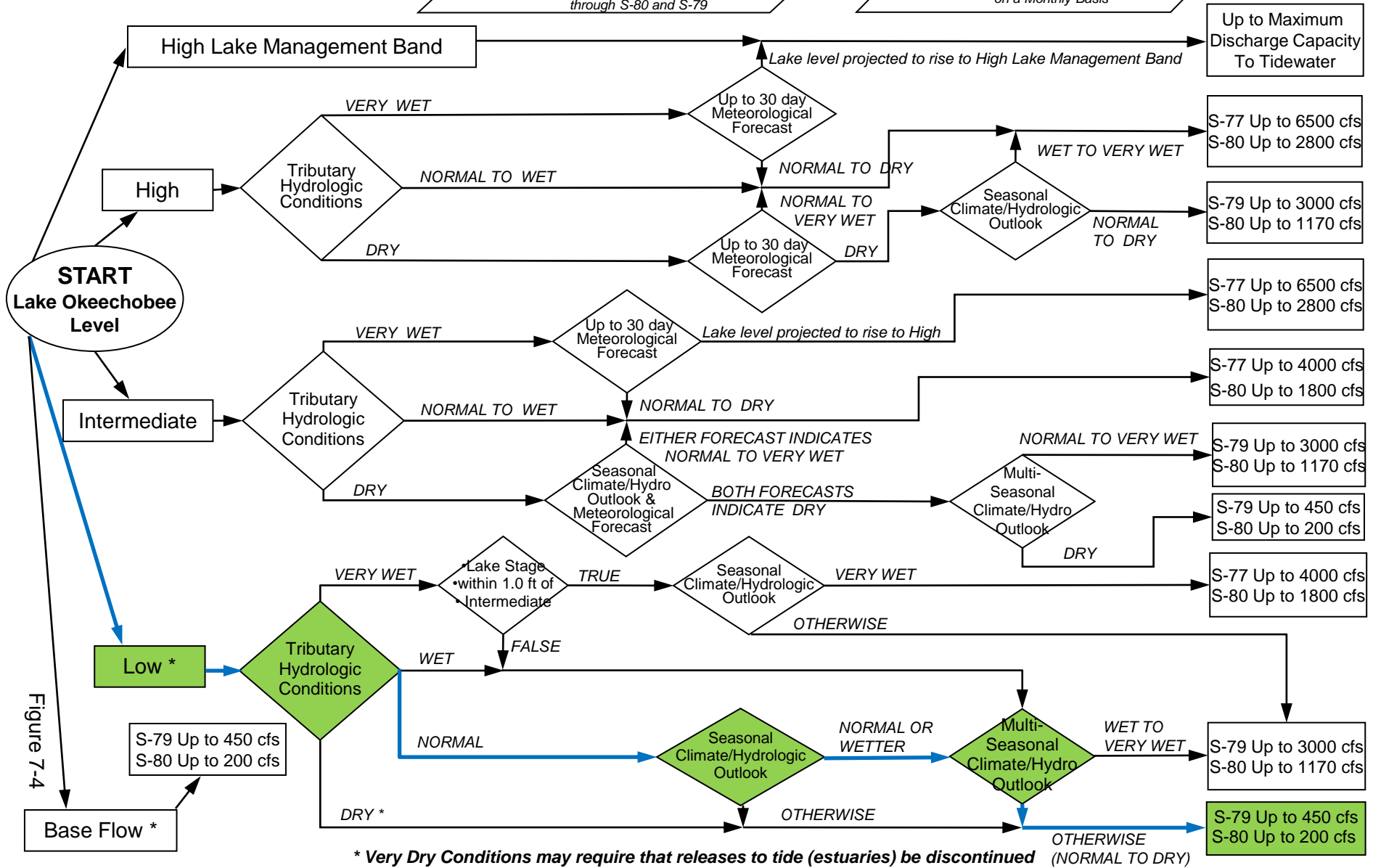


Figure 7-4

\* Very Dry Conditions may require that releases to tide (estuaries) be discontinued (NORMAL TO DRY)





is equal to -NR-  
 Lake Okeechobee (Change in Storage) Flow is -2118 cfs or -4200 AC-FT

	Headwater Elevation (ft-msl)	Tailwater Elevation (ft-msl)	Disch (cfs)	----- Gate Positions -----							
				#1 (ft)	#2 (ft)	#3 (ft)	#4 (ft)	#5 (ft)	#6 (ft)	#7 (ft)	#8 (ft)
(I) see note at bottom											
<b>North East Shore</b>											
S133 Pumps:	13.46	13.68	0	0	0	0	0	-NR-	(cfs)		
S193:											
S191:	18.63	13.64	0	0.0	0.0	0.0					
S135 Pumps:	13.67	13.47	0	0	0	0	0		(cfs)		
S135 Culverts:			0	0.0	0.0						
<b>North West Shore</b>											
S65E:	20.85	13.15	631	-0.0	0.5	0.3	0.2	0.2	0.5		
S65EX1:	20.85	13.15	0								
S127 Pumps:	13.31	13.49	0	0	0	0	0	0	(cfs)		
S127 Culvert:			0	0.0							
S129 Pumps:	12.98	13.56	0	0	0	0			(cfs)		
S129 Culvert:			0	0.0							
S131 Pumps:	12.98	-NR-	48	-NR-	0				(cfs)		
S131 Culvert:			0								
<b>Fisheating Creek</b>											
nr Palmdale		32.65	695								
nr Lakeport											
S282	13.53	13.53		0.1	0.0	0.1					
<b>South Shore</b>											
S4 Pumps:	11.30	-NR-	0	0	0	0			(cfs)		
S169:	13.32	5.85	0	0.0	0.0	0.0					
S310:			-NR-								
S3 Pumps:	10.17	13.26	0	0	0	0			(cfs)		
S354:	13.26	10.17	0	0.0	0.0						
S2 Pumps:	10.30	13.35	0	0	0	0	0		(cfs)		
S351:	13.35	10.30	0	0.0	0.0	0.0					
S352:	13.60	9.69	0	0.0	0.0						
S271:	13.76	13.74		9.5	9.7	9.7	-NR-				
L8 Canal PT		13.49	81								

S351 and S352 Temporary Pumps/S354 Spillway

S351:	10.30	13.35	0	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-		
S352:	9.69	13.60	0	-NR-	-NR-	-NR-	-NR-				
S354:	10.17	13.26	0	-NR-	-NR-	-NR-	-NR-				

Caloosahatchee River (S77, S78, S79)

S47B:	13.25	12.80		1.5	1.5						
S47D:	12.78	11.24	67	0.5							
S77:											
Spillway and Sector Preferred Flow:	13.27	11.08	0	0.0	0.0	0.0	0.0				
Flow Due to Lockages+:				3							

S78:

Spillway and Sector Flow:  
 11.10 3.13 576 0.0 0.0 0.0 0.0  
 Flow Due to Lockages+: 11

S79:

Spillway and Sector Flow:  
 3.29 1.25 2544 0.0 0.0 2.0 2.0 2.0 0.0 0.0 0.0  
 Flow Due to Lockages+: 7  
 Percent of flow from S77 0%  
 Chloride (ppm) 0

St. Lucie Canal (S308, S80)

S308:

Spillway and Sector Preferred Flow:  
 13.42 14.04 0 0.0 0.0 0.0 0.0  
 Flow Due to Lockages+: -1

S153: 18.61 13.81 79 0.0 0.0

S80:

Spillway and Sector Flow:  
 14.06 1.51 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
 Flow Due to Lockages+: 13  
 Percent of flow from S308 NA %

Steele Point Top Salinity (mg/ml) \*\*\*\*  
 Steele Point Bottom Salinity (mg/ml) \*\*\*\*

Speedy Point Top Salinity (mg/ml) \*\*\*\*  
 Speedy Point Bottom Salinity (mg/ml) \*\*\*\*

+ Flow Due to lockages is computed utilizing average daily headwater and tailwater along with total number of lockages for the day to calculate a volume which is then converted to an average discharge in cfs.

++ Preferred flow is determined from either the spillway discharge or the below flow meter daily

Daily Precipitation Totals	1-Day (inches)	3-Day (inches)	7-Day (inches)	----- Wind -----	
				Direction (Deg)	Speed (mph)
S133 Pump Station:	-NR-	0.00	0.00		
S193:	-NR-	0.00	0.00	-NR-	-NR-
Okeechobee Field Station:	-NR-	0.00	0.00		
S135 Pump Station:	-NR-	0.00	0.00		
S127 Pump Station:	-NR-	0.00	0.00		
S129 Pump Station:	-NR-	0.00	0.00		
S131 Pump Station:	-NR-	0.00	0.00		
S77:	13.85	13.85	14.48	159	-NR-
S78:	1.00	1.00	1.01	163	3
S79:	15.43	15.46	15.49	109	2
S4 Pump Station:	-NR-	0.00	0.00		
Clewiston Field Station:	-NR-	0.00	0.00		
S3 Pump Station:	-NR-	0.00	0.00		
S2 Pump Station:	-NR-	0.00	0.00		
S308:	0.00	0.00	0.00	132	6
S80:	14.67	14.67	14.96	-NR-	-NR-
Okeechobee Average (Sites S78, S79 and S80 not included)	6.93	1.07	1.11		
-----					
Oke Nexrad Basin Avg	-NR-	0.00	0.00		
-----					

Okeechobee Lake Elevations 07 JUL 2024 13.50 Difference from 07JUL24  
 07JUL24 -1 Day = 06 JUL 2024 13.51 0.01

07JUL24	-2 Days =	05 JUL 2024	13.51	0.01
07JUL24	-3 Days =	04 JUL 2024	13.51	0.01
07JUL24	-4 Days =	03 JUL 2024	13.51	0.01
07JUL24	-5 Days =	02 JUL 2024	13.49	-0.01
07JUL24	-6 Days =	01 JUL 2024	13.49	-0.01
07JUL24	-7 Days =	30 JUN 2024	13.45	-0.05
07JUL24	-30 Days =	07 JUN 2024	12.67	-0.83
07JUL24	-1 Year =	07 JUL 2023	14.77	1.27
07JUL24	-2 Year =	07 JUL 2022	12.88	-0.62

Long Term Mean 30day Avearge ET for Lake Alfred (Inches) = -NR-

Lake Okeechobee Net Inflow (LONIN)

		Average Flow over the previous 14 days		Avg-Daily Flow
07JUL24	Today =	07 JUL 2024	1908 MON	-2096
07JUL24	-1 Day =	06 JUL 2024	2360 SUN	0
07JUL24	-2 Days =	05 JUL 2024	2360 SAT	246
07JUL24	-3 Days =	04 JUL 2024	2494 FRI	1353
07JUL24	-4 Days =	03 JUL 2024	2246 THU	5107
07JUL24	-5 Days =	02 JUL 2024	1578 WED	374
07JUL24	-6 Days =	01 JUL 2024	1552 TUE	8340
07JUL24	-7 Days =	30 JUN 2024	958 MON	4264
07JUL24	-8 Days =	29 JUN 2024	1108 SUN	2515
07JUL24	-9 Days =	28 JUN 2024	1835 SAT	2067
07JUL24	-10 Days =	27 JUN 2024	3654 FRI	0
07JUL24	-11 Days =	26 JUN 2024	7349 THU	2158
07JUL24	-12 Days =	25 JUN 2024	10402 WED	150
07JUL24	-13 Days =	24 JUN 2024	10852 TUE	2230

S65E

		Average Flow over previous 14 days		Avg-Daily Flow
07JUL24	Today=	07 JUL 2024	560 MON	734
07JUL24	-1 Day =	06 JUL 2024	540 SUN	803
07JUL24	-2 Days =	05 JUL 2024	512 SAT	802
07JUL24	-3 Days =	04 JUL 2024	487 FRI	859
07JUL24	-4 Days =	03 JUL 2024	458 THU	705
07JUL24	-5 Days =	02 JUL 2024	445 WED	580
07JUL24	-6 Days =	01 JUL 2024	443 TUE	482
07JUL24	-7 Days =	30 JUN 2024	453 MON	480
07JUL24	-8 Days =	29 JUN 2024	465 SUN	459
07JUL24	-9 Days =	28 JUN 2024	473 SAT	375
07JUL24	-10 Days =	27 JUN 2024	490 FRI	449
07JUL24	-11 Days =	26 JUN 2024	507 THU	370
07JUL24	-12 Days =	25 JUN 2024	523 WED	358
07JUL24	-13 Days =	24 JUN 2024	517 TUE	377

S65EX1

		Average Flow over previous 14 days		Avg-Daily Flow
07JUL24	Today=	07 JUL 2024	0 MON	0
07JUL24	-1 Day =	06 JUL 2024	0 SUN	0
07JUL24	-2 Days =	05 JUL 2024	0 SAT	0
07JUL24	-3 Days =	04 JUL 2024	0 FRI	0
07JUL24	-4 Days =	03 JUL 2024	0 THU	0
07JUL24	-5 Days =	02 JUL 2024	0 WED	0
07JUL24	-6 Days =	01 JUL 2024	0 TUE	0
07JUL24	-7 Days =	30 JUN 2024	0 MON	0
07JUL24	-8 Days =	29 JUN 2024	0 SUN	0
07JUL24	-9 Days =	28 JUN 2024	0 SAT	0
07JUL24	-10 Days =	27 JUN 2024	0 FRI	0
07JUL24	-11 Days =	26 JUN 2024	0 THU	0
07JUL24	-12 Days =	25 JUN 2024	0 WED	0
07JUL24	-13 Days =	24 JUN 2024	0 TUE	0

## Lake Okeechobee Outlets Last 14 Days

DATE	S-77 Discharge (ALL DAY) (AC-FT)	Below S-77 Discharge (ALL-DAY) (AC-FT)	S-78 Discharge (ALL DAY) (AC-FT)	S-79 Discharge (ALL DAY) (AC-FT)
07 JUL 2024	6	-NR-	1156	5022
06 JUL 2024	8	-NR-	2163	6661
05 JUL 2024	485	-NR-	2456	7154
04 JUL 2024	2645	-NR-	2321	4623
03 JUL 2024	1876	-NR-	5006	9639
02 JUL 2024	783	-NR-	3527	7165
01 JUL 2024	151	-NR-	3477	7806
30 JUN 2024	257	-NR-	3222	5425
29 JUN 2024	927	-NR-	2600	6242
28 JUN 2024	6	-NR-	3915	7400
27 JUN 2024	3	-NR-	4759	9343
26 JUN 2024	207	-NR-	4300	10280
25 JUN 2024	302	-NR-	3635	8266
24 JUN 2024	214	-NR-	2841	7096

DATE	S-310 Discharge (ALL DAY) (AC-FT)	S-351 Discharge (ALL DAY) (AC-FT)	S-352 Discharge (ALL DAY) (AC-FT)	S-354 Discharge (ALL DAY) (AC-FT)	L8 Canal Pt Discharge (ALL DAY) (AC-FT)
07 JUL 2024	-NR-	0	0	0	160
06 JUL 2024	-NR-	0	0	0	161
05 JUL 2024	-NR-	0	0	0	161
04 JUL 2024	-NR-	0	0	0	162
03 JUL 2024	-NR-	0	0	0	162
02 JUL 2024	-NR-	0	0	0	163
01 JUL 2024	-NR-	0	0	0	164
30 JUN 2024	-NR-	0	0	0	162
29 JUN 2024	-NR-	0	0	0	161
28 JUN 2024	-NR-	0	0	0	159
27 JUN 2024	-NR-	0	0	0	159
26 JUN 2024	-NR-	0	0	0	160
25 JUN 2024	-NR-	0	0	0	160
24 JUN 2024	-NR-	0	0	0	158

DATE	S-308 Discharge (ALL DAY) (AC-FT)	Below S-308 Discharge (ALL-DAY) (AC-FT)	S-80 Discharge (ALL-DAY) (AC-FT)
07 JUL 2024	-2	-NR-	27
06 JUL 2024	-4	-NR-	34
05 JUL 2024	-3	-NR-	41
04 JUL 2024	-4	-NR-	49
03 JUL 2024	-5	-NR-	50
02 JUL 2024	-3	-NR-	44
01 JUL 2024	-6	-NR-	31
30 JUN 2024	-2	-NR-	30
29 JUN 2024	-3	-NR-	38
28 JUN 2024	-4	-NR-	31
27 JUN 2024	-6	-NR-	39
26 JUN 2024	-2	-NR-	39
25 JUN 2024	-4	-NR-	43
24 JUN 2024	-3	-NR-	42

\*\*\* NOTE: Discharge (ALL DAY) is computed using Spillway, Sector Gate and Lockages Discharges from 0015 hrs to 2400 hrs.

(I) - Flows preceded by "I" signify an instantaneous flow computed from the single value reported for the day

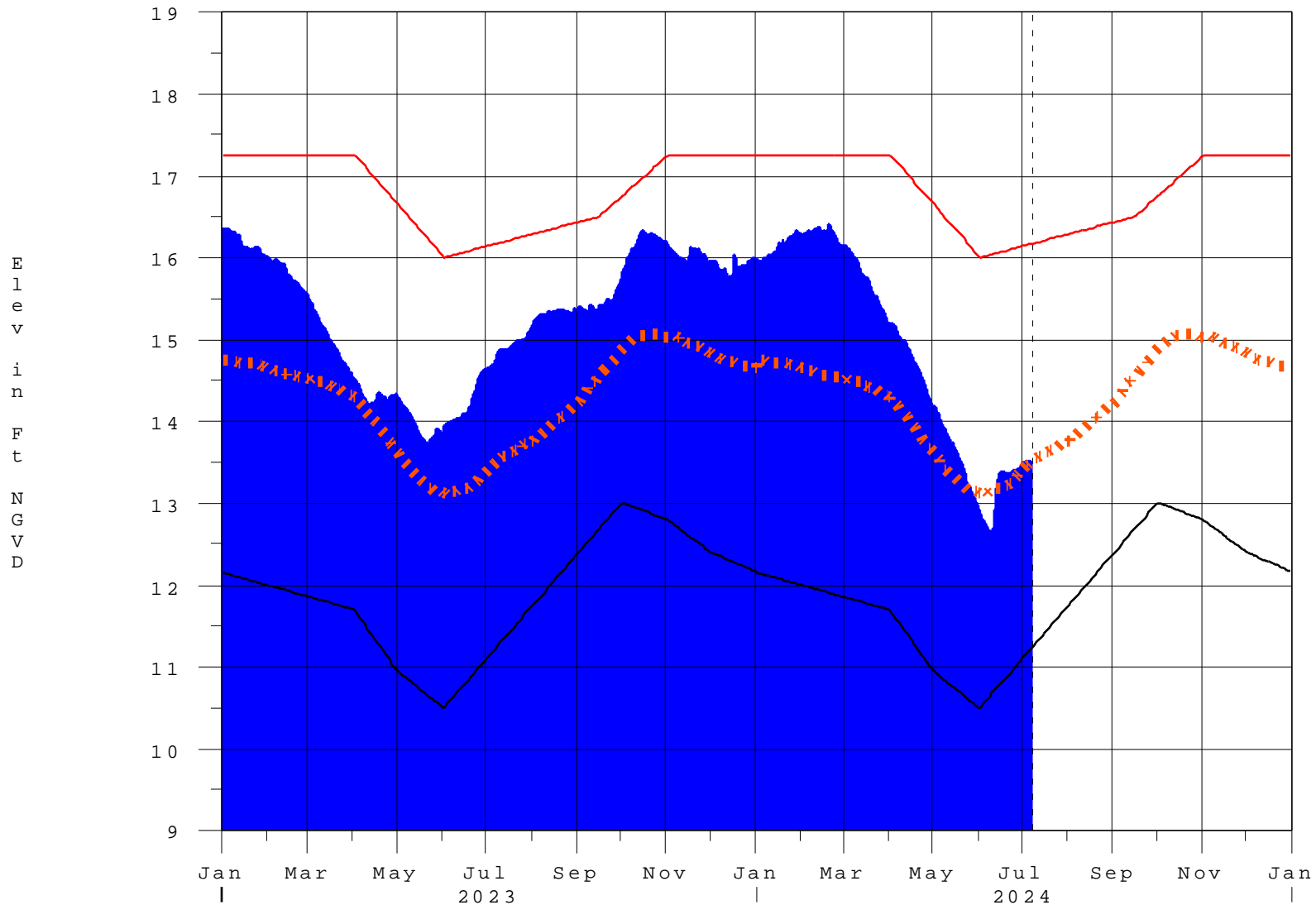
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- \* On 11 May 1999, Lake Okeechobee Elevation was switched from Instantaneous 2400 value to an average-daily lake average.
  - On 14 Mar 2001, due to the isolation of various gages within the standard 10 stations, the average of the interior 4 station gages was used as the Lake Okeechobee Elevation.
  - On 05 November 2010, Lake Okeechobee Elevation was switched to a 9 gage mix of interior and edge gages to obtain a more reliable representation of the lake level.
  - On 09 May 2011, Lake Okeechobee Elevation was switched to a 8 gage mix of interior and edge gages to obtain a more reliable representation of the lake level due to isolation of S135 from low lake levels.
  - Today Lake Okeechobee elevation is determined from the 4 Int & 4 Edge stations
- ++ For more information see the Jacksonville District Navigation website at <http://www.saj.usace.army.mil/>
- \$ For information regarding Lake Okeechobee Service Area water restrictions please refer to [www.sfwmd.gov](http://www.sfwmd.gov)

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Report Generated 08JUL2024 @ 13:38 \*\* Preliminary Data - Subject to Revision \*\*

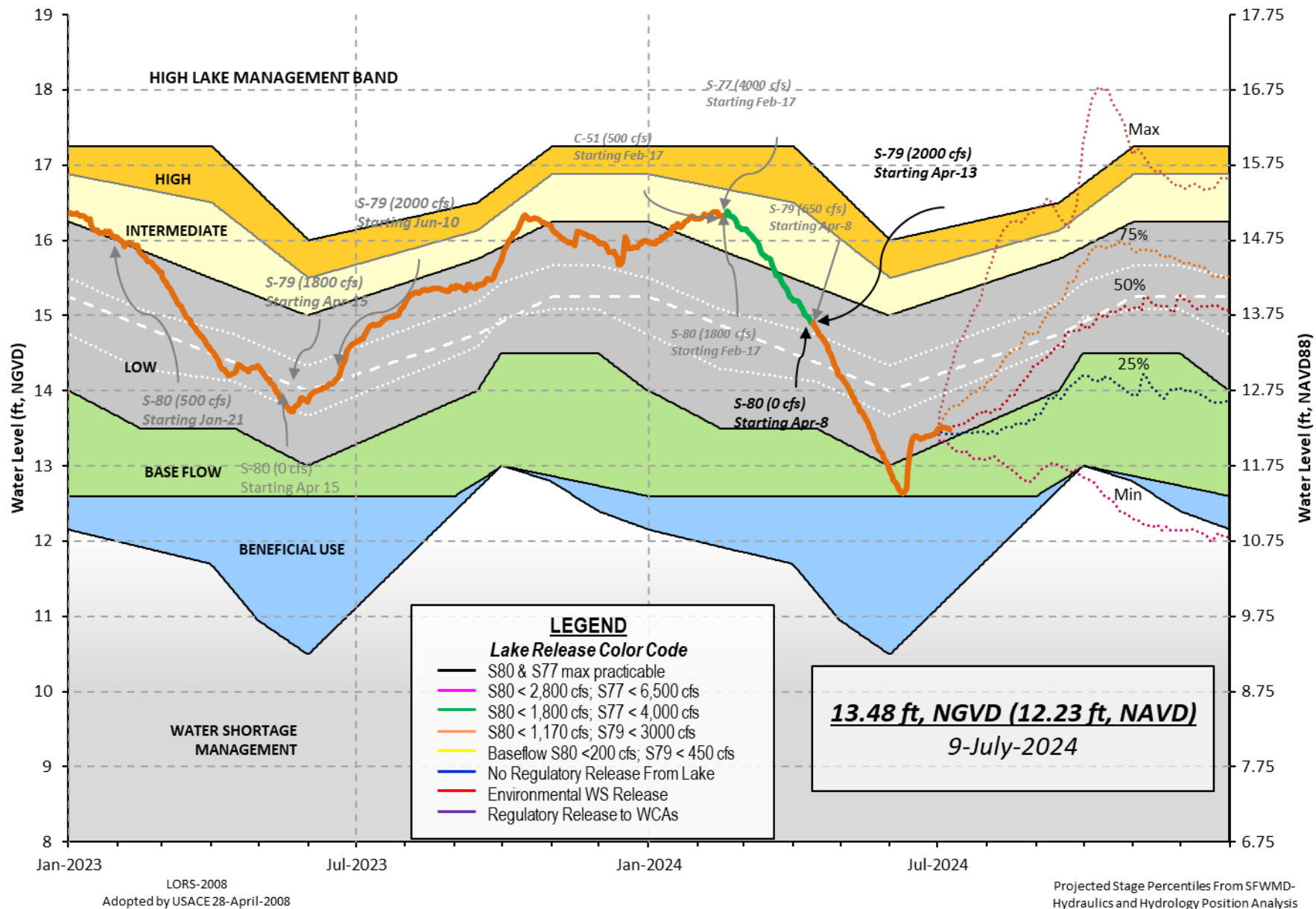
# Lake Okeechobee

08JUL24 13:30:17



- High Lake Management
- Okeechobee Avg Elev
- Average Elev [1965-2007]
- Water Shortage Management

# Lake Okeechobee Water Level History and Projected Stages



Stage is plotted in NGVD. Please use the left axis for water level history and projected stages. Lake Okeechobee stage NAVD88 offset of -1.25 is based on Final Regulation Schedule Conversion (5/19/2020).



# Classification Tables

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Supplemental Tables used in conjunction with the LORS2008 Release

Guidance Flow Charts

- [Class Limits for Tributary Hydrologic Conditions](#)

Table K-2 in the Lake Okeechobee Water Control Plan

- [6-15 Day Precipitation Outlook Categories](#)

Table ?? in the Lake Okeechobee Water Control Plan

- [Classification of Lake Okeechobee Net Inflow for Seasonal Outlook](#)

Table K-3 in the Lake Okeechobee Water Control Plan

- [Classification of Lake Okeechobee Net Inflow for Multi-Seasonal Outlook](#)

Table K-4 in the Lake Okeechobee Water Control Plan

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[Back to U.S. Army Corps of Engineers Lake Okeechobee Operations Homepage](#)

Tributary Hydrologic Classification*	Palmer Index Class Limits	2-wk Mean L.O. Net Inflow Class Limits
Very Wet	3.0 or greater	Greater $\geq$ 6000 cfs
Wet	1.5 to 2.99	2500 - 5999 cfs
Near Normal	-1.49 to 1.49	500 - 2499 cfs
Dry	-2.99 to -1.5	-5000 – 500 cfs
Very Dry	-3.0 or less	Less than -5000 cfs

\* use the wettest of the two indicators

**Classification of Lake Okeechobee Net Inflow Seasonal Outlook\***

<b>Lake Net Inflow Prediction [million acre-feet]</b>	<b>Equivalent Depth** [feet]</b>	<b>Lake Okeechobee Net Inflow Seasonal Outlook</b>
> 0.93	> 2.0	Very Wet
0.71 to 0.93	1.51 to 2.0	Wet
0.35 to 0.70	0.75 to 1.5	Normal
< 0.35	< 0.75	Dry

**\*\*Volume-depth conversion based on average lake surface area of 467,000 acres**

## Classification of Lake Okeechobee Net Inflow Multi-Seasonal Outlook\*

<b>Lake Net Inflow Prediction</b> <b>[million acre-feet]</b>	<b>Equivalent Depth**</b> <b>[feet]</b>	<b>Lake Okeechobee</b> <b>Net Inflow</b> <b>Multi-Seasonal Outlook</b>
> 2.0	> 4.3	Very Wet
1.18 to 2.0	2.51 to 4.3	Wet
0.5 to 1.17	1.1 to 2.5	Normal
< 0.5	< 1.1	Dry

\*\*Volume-depth conversion based on average lake surface area of 467,000 acres

## 6-15 Day Precipitation Outlook Categories\*

<b>6-15 Day Precipitation Outlook Categories</b>	<b>WSE Decision Tree Categories</b>
Above Normal	Wet to Very Wet
Normal	Normal
Below Normal	Dry

\* Corresponds to Table 7-6 in the Lake Okeechobee Water Control Plan