

Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 5/6/2024 (ENSO Condition: El Niño)

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 El Niño years and a sub-sampling of warm years of the Atlantic Multi-decadal Oscillation (AMO) in combination with El Niño 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 (May-Oct)	N/A	N/A	2.26	Very Wet	2.33	Very Wet	3.89	Very Wet
Multi Seasonal (May-Apr)	N/A	N/A	2.43	Normal	2.82	Wet	5.75	Very 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:

-4325 cfs 14-day running average for Lake Okeechobee Net Inflow through 5/6/2024. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

-1.45 for Palmer Drought Index on 5/4/2024. According to the classification in Tributary Hydrologic Conditions table, this condition is Near Normal.

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

LORS2008 Classification Tables:

Lake Okeechobee Stage on 5/6/2024:

Lake Okeechobee Stage: **14.06 feet (NGVD29), 12.81 (NAVD88) ***

Lake Okeechobee Management Zone/Band		Bottom Elevation feet, NGVD (feet NAVD)	Current Lake Stage
High Lake Management Band		16.55 (15.30)	
Operational Band	High sub-band	15.94 (14.69)	
	Intermediate sub-band	15.21 (13.96)	
	Low sub-band	13.28 (12.03)	← 14.06 ft (12.81)
Base Flow sub-band		12.60 (11.35)	
Beneficial Use sub-band		10.88 (9.63)	
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 3000 cfs at S-79 and up to 1170 cfs at S-80.

LORS2008 Implementation on 5/6/2024 (ENSO Condition- El Niño):

Status for week ending 5/6/2024*:

Water Supply Risk Evaluation

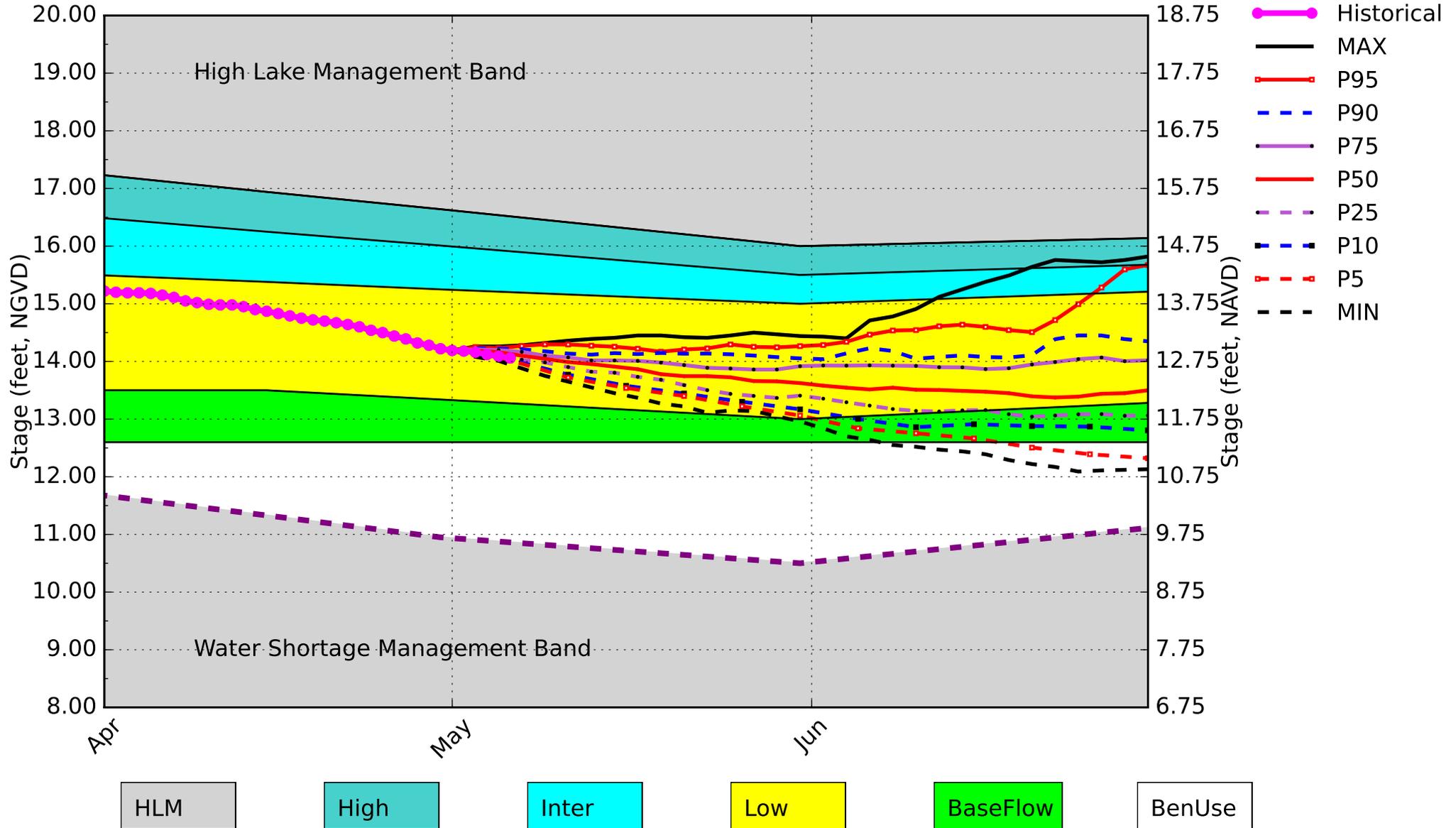
Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Low Sub-band	M
	Palmer Drought Index for LOK Tributary Conditions	-1.45 (Dry)	M
	CPC Precipitation Outlook	1 month: Below Normal	M
		3 months: Equal chances	L
	LOK Seasonal Net Inflow Outlook	2.33 ft	L
	ENSO Forecast	Normal to Extremely Wet	L
	LOK Multi-Seasonal Net Inflow Outlook	2.82 ft	M
ENSO Forecast		Normal	M
WCAs	WCA 1: Site 1-8C	Above Line 1 (15.69 ft) (14.19 ft NAVD88)	L
	WCA 2A: Site S11B	Below Line 2 (11.41 ft) (9.91 ft NAVD88)	L
	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Above Line 1 (9.43 ft) (7.93 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.

* S-80 flow data for 4/16, 4/17, 4/20, 4/21, 4/27, and 5/3 is not available from USACE Daily Reports and was assumed to be 0. WCA1, WCA2A, and WCA3A NAVD88 offset of -1.5 is based on Final Regulation Schedule Conversion (5/19/2020).

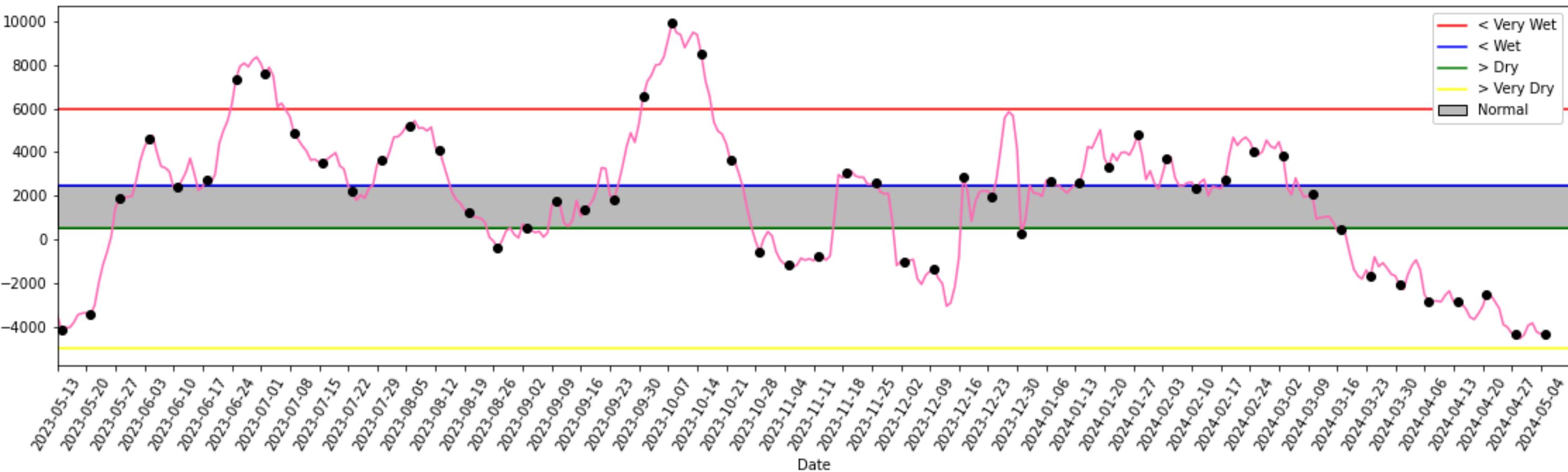
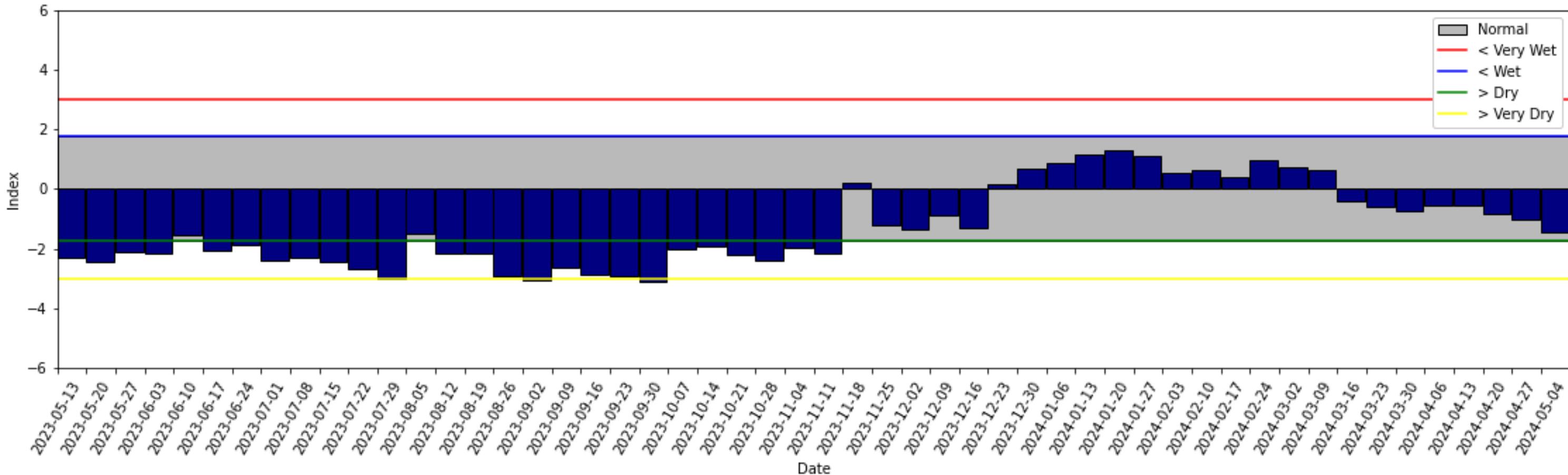
Lake Okeechobee SFWMM May 2024 Position Analysis

Percentiles PA



(See assumptions on the Position Analysis Results website)

Tributary Basin Condition Indicators as of May 05 2024



2008 LORS

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

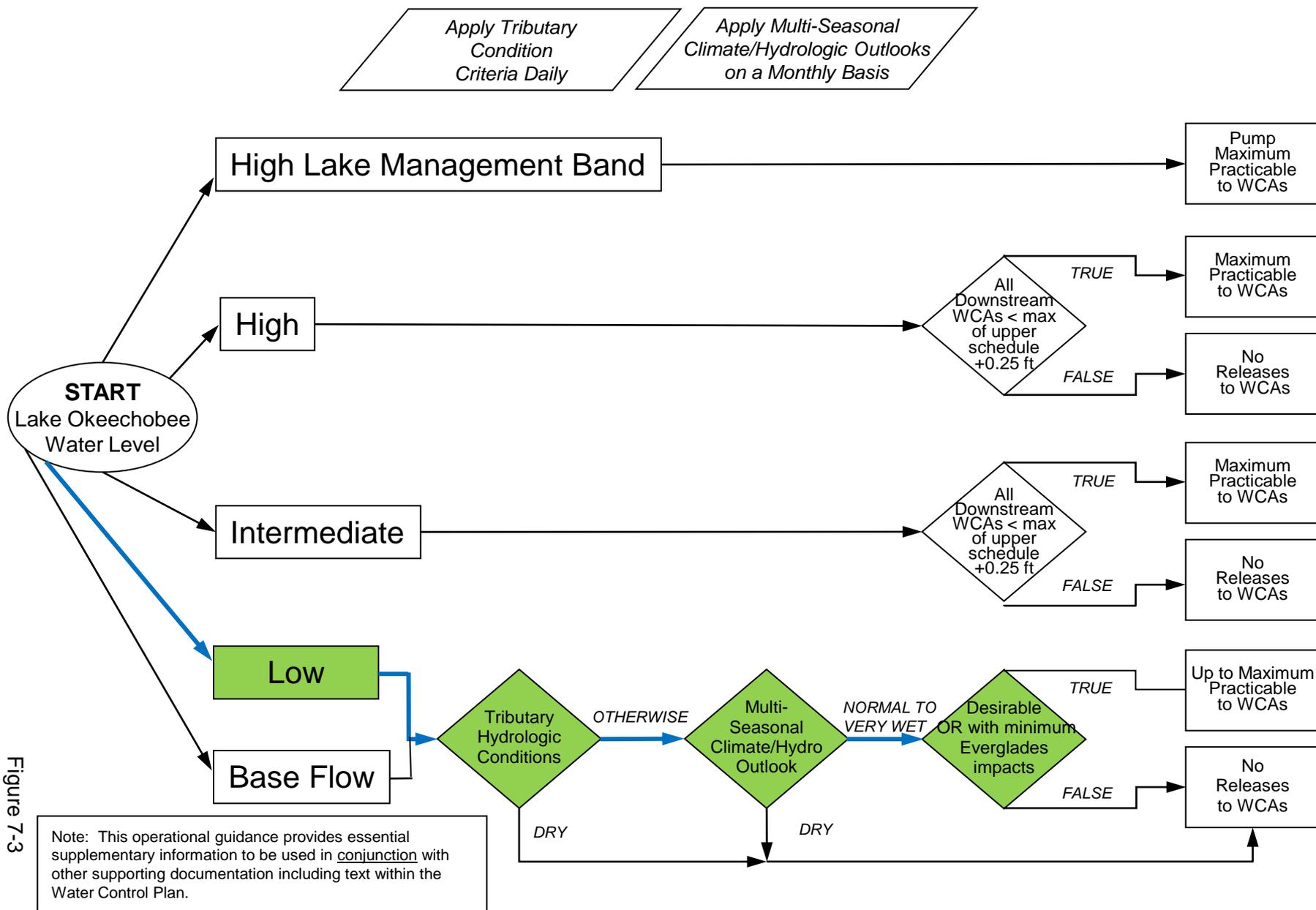


Figure 7-3

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

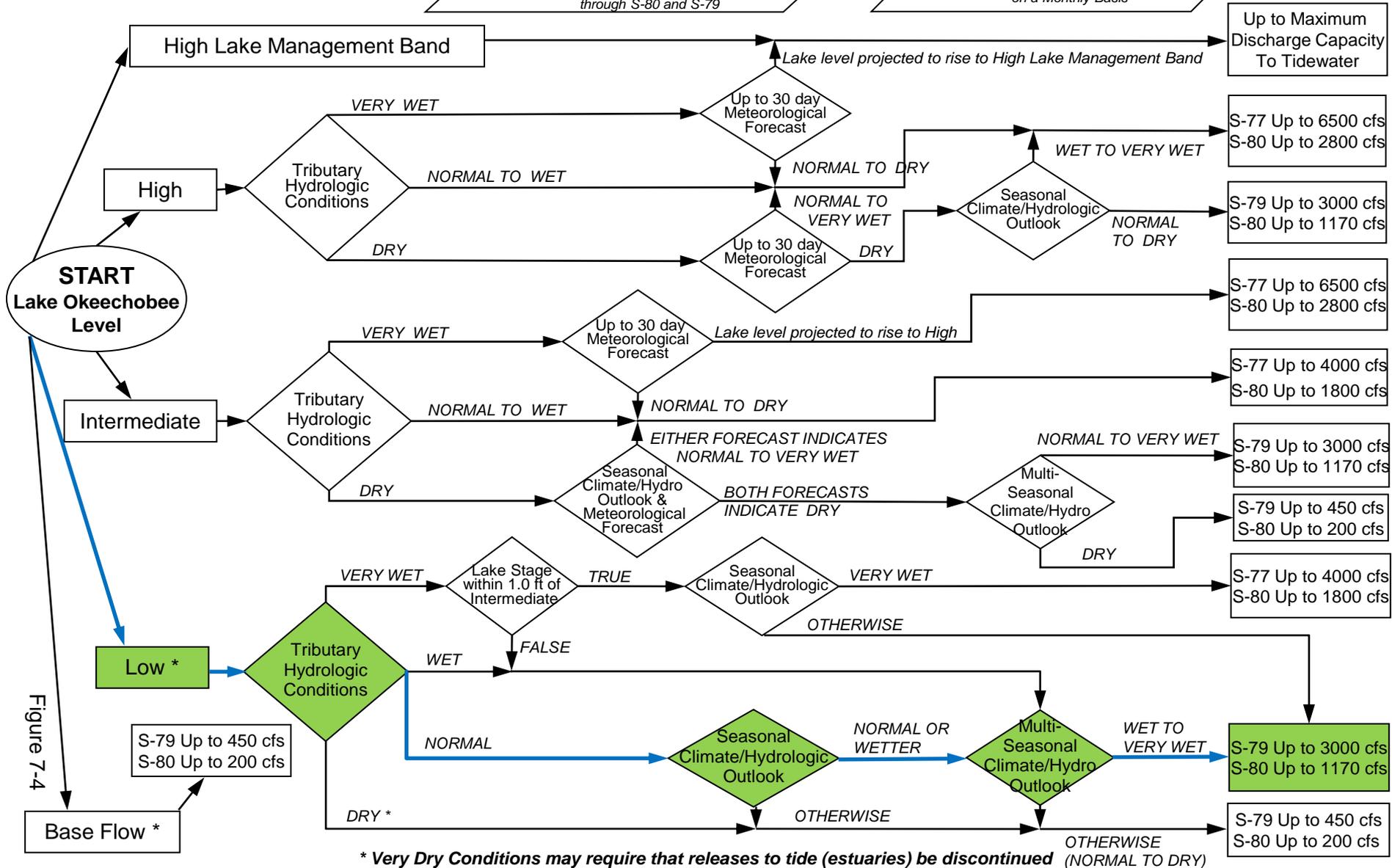
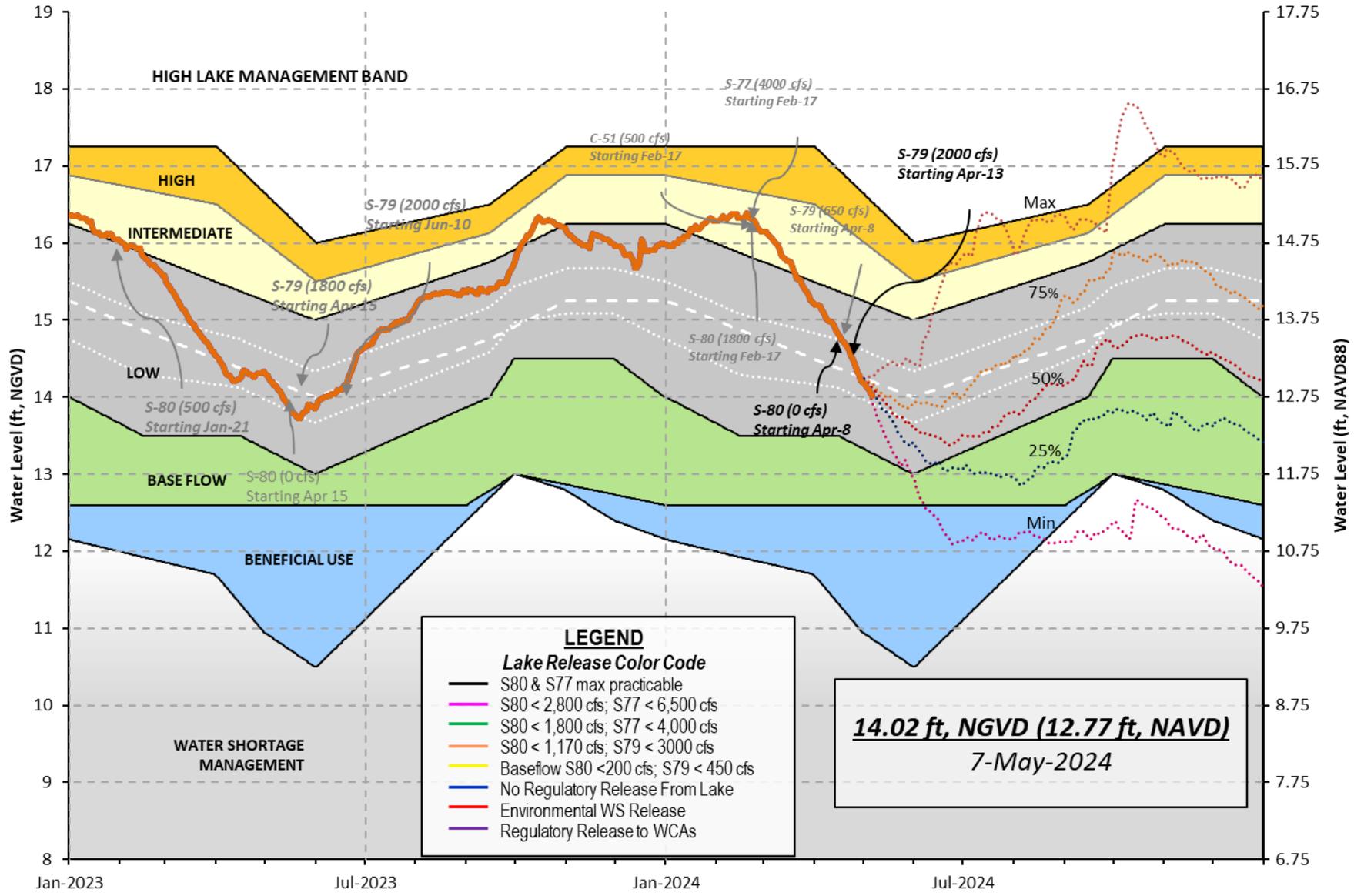


Figure 7-4

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

Lake Okeechobee Water Level History and Projected Stages



LEGEND

Lake Release Color Code

- S80 & S77 max practicable
- S80 < 2,800 cfs; S77 < 6,500 cfs
- S80 < 1,800 cfs; S77 < 4,000 cfs
- S80 < 1,170 cfs; S79 < 3000 cfs
- Baseflow S80 < 200 cfs; S79 < 450 cfs
- No Regulatory Release From Lake
- Environmental WS Release
- Regulatory Release to WCAs

14.02 ft, NGVD (12.77 ft, NAVD)
7-May-2024

LORS-2008
 Adopted by USACE 28-April-2008

Projected Stage Percentiles From SFWMD-
 Hydraulics and Hydrology Position Analysis

is equal to -NR-
 Lake Okeechobee (Change in Storage) Flow is -6353 cfs or -12600 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											
North East Shore											
S133 Pumps:	13.29	14.02	0	-NR-	-NR-	-NR-	-NR-	-NR-			(cfs)
S193:											
S191:	18.35	14.03	0	0.0	0.0	0.0					
S135 Pumps:	13.39	13.93	0	-NR-	-NR-	-NR-	-NR-				(cfs)
S135 Culverts:			-NR-	2.6	2.6						
North West Shore											
S65E:	20.97	13.93	504	0.3	0.2	0.4	0.0	0.4	0.0		
S65EX1:	20.97	13.93	0								
S127 Pumps:	13.31	14.04	0	-NR-	-NR-	-NR-	-NR-	-NR-			(cfs)
S127 Culvert:			0	-NR-							
S129 Pumps:	13.02	14.18	0	-NR-	-NR-	-NR-					(cfs)
S129 Culvert:			0	0.0							
S131 Pumps:	13.03	-NR-	0	0	0						(cfs)
S131 Culvert:			0								
Fisheating Creek											
nr Palmdale		27.65	0								
nr Lakeport											
S282	14.10	13.94		2.0	2.0	2.0					
South Shore											
S4 Pumps:	11.57	-NR-	0	-NR-	-NR-	-NR-					(cfs)
S169:	14.05	5.85	-NR-	-NR-	0.0	0.0					
S310:			-NR-								
S3 Pumps:	10.97	14.00	0	-NR-	-NR-	-NR-					(cfs)
S354:	14.00	10.97	1024	2.5	2.5						
S2 Pumps:	10.86	14.10	0	-NR-	-NR-	-NR-	-NR-				(cfs)
S351:	14.10	10.86	772	1.0	0.8	1.0					
S352:	14.13	11.02	204	0.2	0.4						
S271:	14.32	14.20		0.0	4.2	0.6	-NR-				
L8 Canal PT		13.91	89								

S351 and S352 Temporary Pumps/S354 Spillway

S351:	10.86	14.10	772	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-		
S352:	11.02	14.13	204	-NR-	-NR-	-NR-	-NR-				
S354:	10.97	14.00	1024	-NR-	-NR-	-NR-	-NR-				

Caloosahatchee River (S77, S78, S79)

S47B:		-NR-		1.5	2.0						
S47D:		11.28	-NR-	-NR-							
S77:											
Spillway and Sector Preferred Flow:											
	13.79	11.18	2196	3.0	3.0	3.0	3.0				
Flow Due to Lockages+:											
			4								

S78:

Spillway and Sector Flow:
 11.14 3.02 1735 1.0 2.5 2.5 0.0
 Flow Due to Lockages+: 13

S79:
 Spillway and Sector Flow:
 3.17 1.28 2352 0.0 1.0 2.0 2.5 2.0 2.0 0.0 0.0
 Flow Due to Lockages+: 12
 Percent of flow from S77 93%
 Chloride (ppm) 0

St. Lucie Canal (S308, S80)

S308:
 Spillway and Sector Preferred Flow:
 13.98 13.98 0 0.0 0.0 0.0 0.0
 Flow Due to Lockages+: -0

S153: 18.47 13.77 -NR- 0.0 0.0

S80:
 Spillway and Sector Flow:
 14.01 1.08 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Flow Due to Lockages+: 27
 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:	8.15	8.15	8.35	126	-NR-
S78:	0.04	0.04	0.04	-NR-	-NR-
S79:	1.93	2.14	2.26	104	4
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	96	2
S80:	3.44	3.44	5.34	-NR-	-NR-
Okeechobee Average (Sites S78, S79 and S80 not included)	4.07	0.63	0.64		

Oke Nexrad Basin Avg	-NR-	0.00	0.00		

Okeechobee Lake Elevations 05 MAY 2024 14.06 Difference from 05MAY24
 05MAY24 -1 Day = 04 MAY 2024 14.09 0.03

05MAY24	-2 Days =	03 MAY 2024	14.12	0.06
05MAY24	-3 Days =	02 MAY 2024	14.16	0.10
05MAY24	-4 Days =	01 MAY 2024	14.18	0.12
05MAY24	-5 Days =	30 APR 2024	14.19	0.13
05MAY24	-6 Days =	29 APR 2024	14.22	0.16
05MAY24	-7 Days =	28 APR 2024	14.28	0.22
05MAY24	-30 Days =	05 APR 2024	15.15	1.09
05MAY24	-1 Year =	05 MAY 2023	14.19	0.13
05MAY24	-2 Year =	05 MAY 2022	12.98	-1.08

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
05MAY24	Today =	05 MAY 2024	-4004 MON	-2080
05MAY24	-1 Day =	04 MAY 2024	-4011 SUN	-3359
05MAY24	-2 Days =	03 MAY 2024	-3897 SAT	-5788
05MAY24	-3 Days =	02 MAY 2024	-3428 FRI	-889
05MAY24	-4 Days =	01 MAY 2024	-3545 THU	2324
05MAY24	-5 Days =	30 APR 2024	-4048 WED	-NR-
05MAY24	-6 Days =	29 APR 2024	-4030 TUE	-6925
05MAY24	-7 Days =	28 APR 2024	-3839 MON	-3278
05MAY24	-8 Days =	27 APR 2024	-3776 SUN	-NR-
05MAY24	-9 Days =	26 APR 2024	-4024 SAT	-5327
05MAY24	-10 Days =	25 APR 2024	-3901 FRI	-8013
05MAY24	-11 Days =	24 APR 2024	-3152 THU	-3455
05MAY24	-12 Days =	23 APR 2024	-2857 WED	-7473
05MAY24	-13 Days =	22 APR 2024	-2557 TUE	-3783

S65E				
Average Flow over previous 14 days				Avg-Daily Flow
05MAY24	Today=	05 MAY 2024	-NR- MON	-NR-
05MAY24	-1 Day =	04 MAY 2024	-NR- SUN	-NR-
05MAY24	-2 Days =	03 MAY 2024	-NR- SAT	-NR-
05MAY24	-3 Days =	02 MAY 2024	-NR- FRI	-NR-
05MAY24	-4 Days =	01 MAY 2024	-NR- THU	-NR-
05MAY24	-5 Days =	30 APR 2024	-NR- WED	-NR-
05MAY24	-6 Days =	29 APR 2024	-NR- TUE	-NR-
05MAY24	-7 Days =	28 APR 2024	823 MON	-NR-
05MAY24	-8 Days =	27 APR 2024	828 SUN	-NR-
05MAY24	-9 Days =	26 APR 2024	838 SAT	-NR-
05MAY24	-10 Days =	25 APR 2024	867 FRI	-NR-
05MAY24	-11 Days =	24 APR 2024	884 THU	-NR-
05MAY24	-12 Days =	23 APR 2024	893 WED	-NR-
05MAY24	-13 Days =	22 APR 2024	903 TUE	-NR-

S65EX1				
Average Flow over previous 14 days				Avg-Daily Flow
05MAY24	Today=	05 MAY 2024	71 MON	0
05MAY24	-1 Day =	04 MAY 2024	78 SUN	0
05MAY24	-2 Days =	03 MAY 2024	84 SAT	0
05MAY24	-3 Days =	02 MAY 2024	91 FRI	52
05MAY24	-4 Days =	01 MAY 2024	94 THU	95
05MAY24	-5 Days =	30 APR 2024	93 WED	94
05MAY24	-6 Days =	29 APR 2024	93 TUE	94
05MAY24	-7 Days =	28 APR 2024	93 MON	94
05MAY24	-8 Days =	27 APR 2024	93 SUN	94
05MAY24	-9 Days =	26 APR 2024	92 SAT	94
05MAY24	-10 Days =	25 APR 2024	88 FRI	94
05MAY24	-11 Days =	24 APR 2024	82 THU	94
05MAY24	-12 Days =	23 APR 2024	75 WED	94
05MAY24	-13 Days =	22 APR 2024	68 TUE	94

Lake Okeechobee Outlets Last 14 Days

DATE	S-77	Below S-77	S-78	S-79
	Discharge	Discharge	Discharge	Discharge
	(ALL DAY)	(ALL-DAY)	(ALL DAY)	(ALL DAY)
	(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)
05 MAY 2024	4438	-NR-	3482	4718
04 MAY 2024	2591	-NR-	2172	3279
03 MAY 2024	2575	-NR-	1615	2349
02 MAY 2024	3475	-NR-	-NR-	3385
01 MAY 2024	4094	-NR-	2963	4269
30 APR 2024	5665	-NR-	-NR-	5432
29 APR 2024	5363	-NR-	4732	5339
28 APR 2024	4413	-NR-	3561	4317
27 APR 2024	3932	-NR-	2876	3459
26 APR 2024	3740	-NR-	2042	2722
25 APR 2024	3690	-NR-	2221	3027
24 APR 2024	4137	-NR-	3250	3954
23 APR 2024	5209	-NR-	4550	5487
22 APR 2024	4672	-NR-	4015	5160

DATE	S-310	S-351	S-352	S-354	L8 Canal Pt
	Discharge	Discharge	Discharge	Discharge	Discharge
	(ALL DAY)				
	(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)
05 MAY 2024	-NR-	1531	405	2030	177
04 MAY 2024	-NR-	1445	216	1794	180
03 MAY 2024	-NR-	1393	204	1478	182
02 MAY 2024	-NR-	1517	499	1144	180
01 MAY 2024	-NR-	2138	1114	1311	180
30 APR 2024	-NR-	-NR-	1385	2505	177
29 APR 2024	-NR-	2553	1202	2148	179
28 APR 2024	-NR-	2817	651	2196	181
27 APR 2024	-NR-	-NR-	965	2328	181
26 APR 2024	-NR-	2688	1576	2435	179
25 APR 2024	-NR-	2645	901	2438	174
24 APR 2024	-NR-	2839	552	2148	184
23 APR 2024	-NR-	2382	344	2230	186
22 APR 2024	-NR-	1862	572	1941	183

DATE	S-308	Below S-308	S-80
	Discharge	Discharge	Discharge
	(ALL DAY)	(ALL-DAY)	(ALL-DAY)
	(AC-FT)	(AC-FT)	(AC-FT)
05 MAY 2024	-0	-NR-	53
04 MAY 2024	-0	-NR-	41
03 MAY 2024	-0	-NR-	-NR-
02 MAY 2024	-0	-NR-	53
01 MAY 2024	-0	-NR-	58
30 APR 2024	0	-NR-	42
29 APR 2024	-0	-NR-	42
28 APR 2024	-1	-NR-	57
27 APR 2024	-2	-NR-	54
26 APR 2024	-0	-NR-	23
25 APR 2024	-NR-	-NR-	46
24 APR 2024	5	-NR-	48
23 APR 2024	4	-NR-	42
22 APR 2024	7	-NR-	39

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

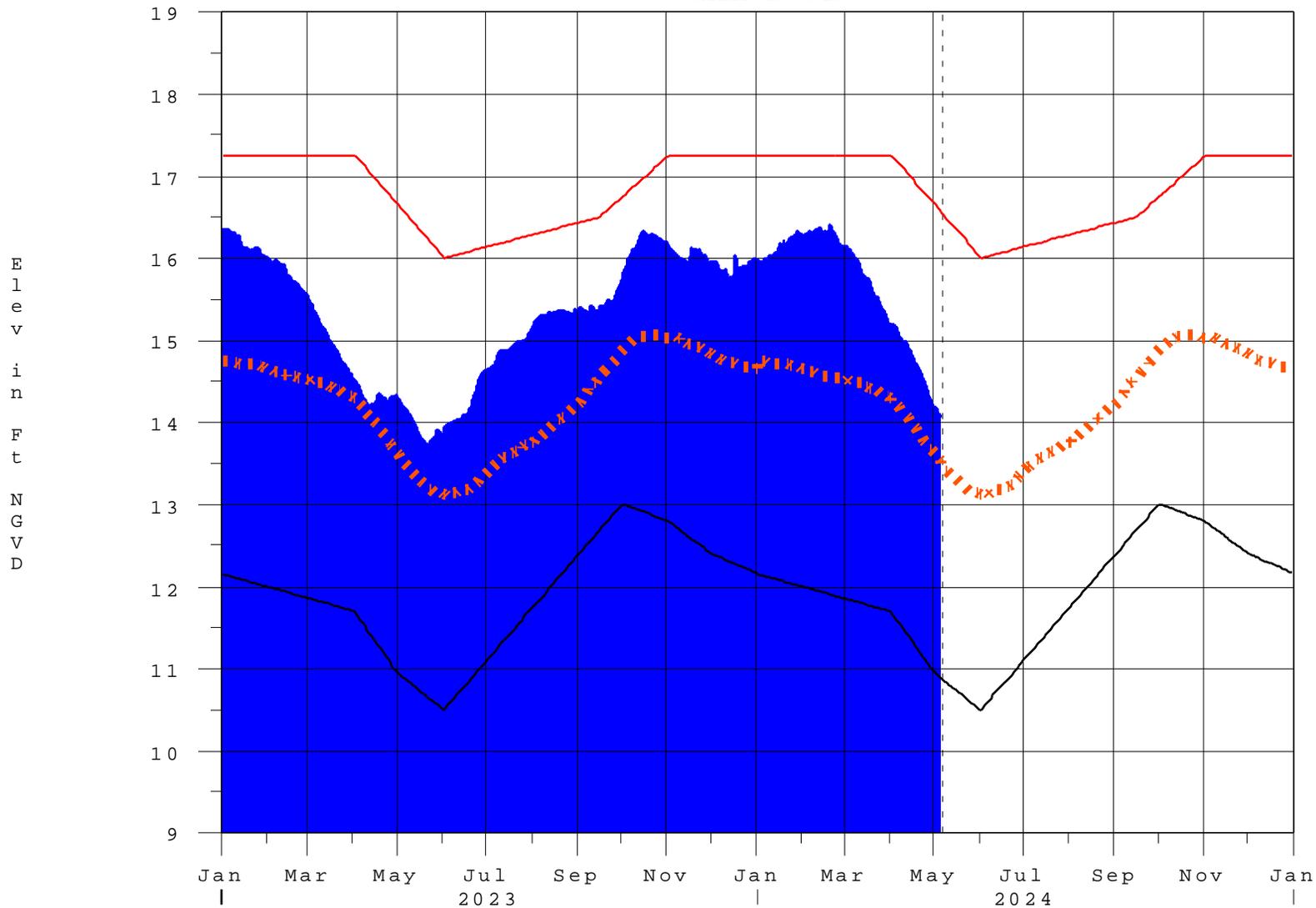
(I) - Flows preceded by "I" signify an instantaneous flow computed from the single value reported for the day

* 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

Report Generated 06MAY2024 @ 13:38 ** Preliminary Data - Subject to Revision **

Lake Okeechobee

06MAY24 13:30:15



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

Classification Tables

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

[Back to Lake Okeechobee Operations Main Page](#)

[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*

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

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

Classification of Lake Okeechobee Net Inflow Multi-Seasonal Outlook*

Lake Net Inflow Prediction [million acre-feet]	Equivalent Depth** [feet]	Lake Okeechobee Net Inflow Multi-Seasonal Outlook
> 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*

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

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