

Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 4/22/2024 (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 (Apr-Sep)	N/A	N/A	1.48	Normal	1.64	Wet	2.68	Very Wet
Multi Seasonal (Apr-Oct)	N/A	N/A	2.04	Normal	2.15	Normal	3.74	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:

-2518 cfs 14-day running average for Lake Okeechobee Net Inflow through 4/22/2024. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

-0.84 for Palmer Drought Index on 4/20/2024. 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 4/22/2024:

Lake Okeechobee Stage: **14.64 feet (NGVD29), 13.34 (NAVD88)**

Lake Okeechobee Management Zone/Band		Bottom Elevation feet, NGVD (feet NAVD)	Current Lake Stage
High Lake Management Band		16.84 (15.59)	
Operational Band	High sub-band	16.17 (14.92)	
	Intermediate sub-band	15.33 (14.08)	
	Low sub-band	13.43 (12.18)	← 14.64 ft (13.34)
Base Flow sub-band		12.60 (11.35)	
Beneficial Use sub-band		11.18 (9.93)	
Water Shortage Management Band			

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.

Lake Okeechobee Releases to the Caloosahatchee Estuary for LORS 2008 Baseflow & for Environmental Water Supply

Guidance for Lake Okeechobee Releases to the Caloosahatchee Estuary indicates no S77 release to the Caloosahatchee Estuary unless the Governing Board recommends otherwise.

LORS2008 Implementation on 4/22/2024 (ENSO Condition- El Niño):

Status for week ending 4/22/2024*:

Water Supply Risk Evaluation

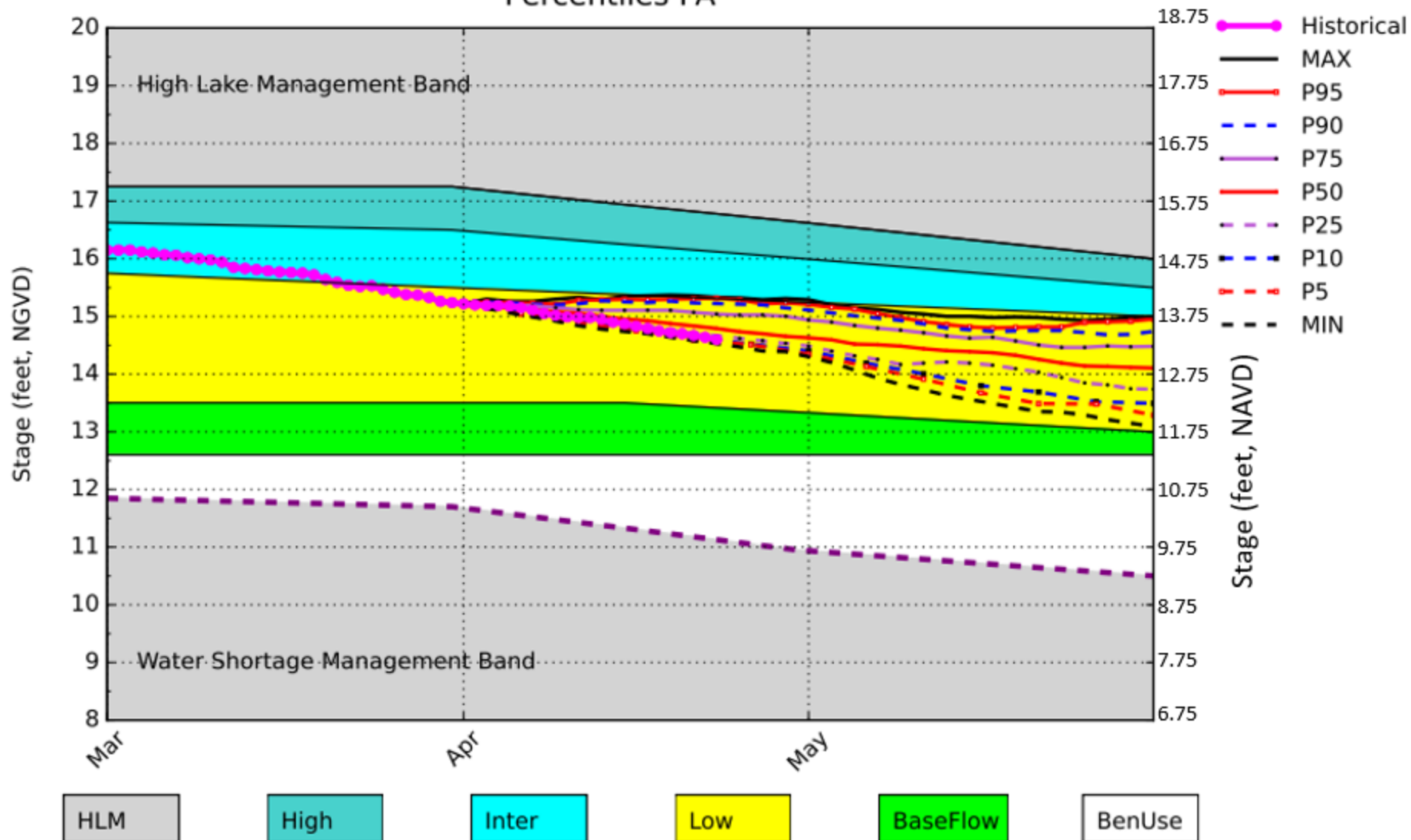
Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Low Sub-band	M
	Palmer Drought Index for LOK Tributary Conditions	-0.84 (Normal to Extremely Wet)	L
	CPC Precipitation Outlook	1 month: Equal chances	L
		3 months: Equal chances	L
	LOK Seasonal Net Inflow Outlook	1.64 ft	L
	ENSO Forecast	Normal to Extremely Wet	
	LOK Multi-Seasonal Net Inflow Outlook	2.15 ft	M
ENSO Forecast	Normal		
WCAs	WCA 1: Site 1-8C	Above Line 1 (16.04 ft) (14.46 ft NAVD88)	L
	WCA 2A: Site S11B	Below Line 2 (10.95 ft) (9.43 ft NAVD88)	H
	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Above Line 1 (9.68 ft) (8.15 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 4/12, 4/16,4/17, 4/20, and 4/21 is not available from USACE Daily Reports and was assumed to be 0.

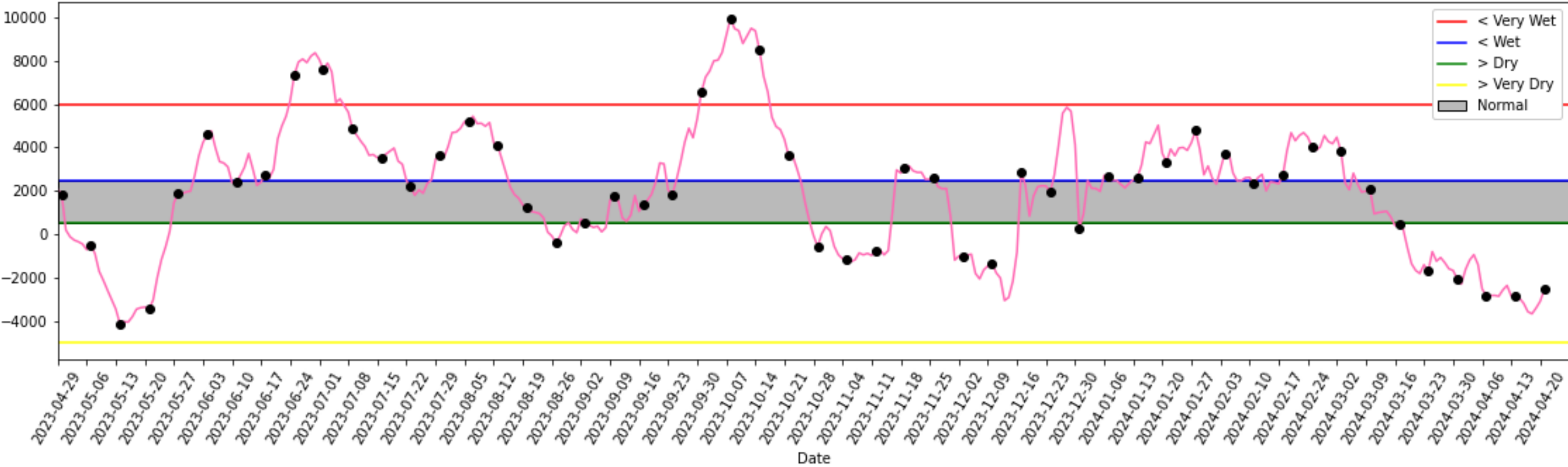
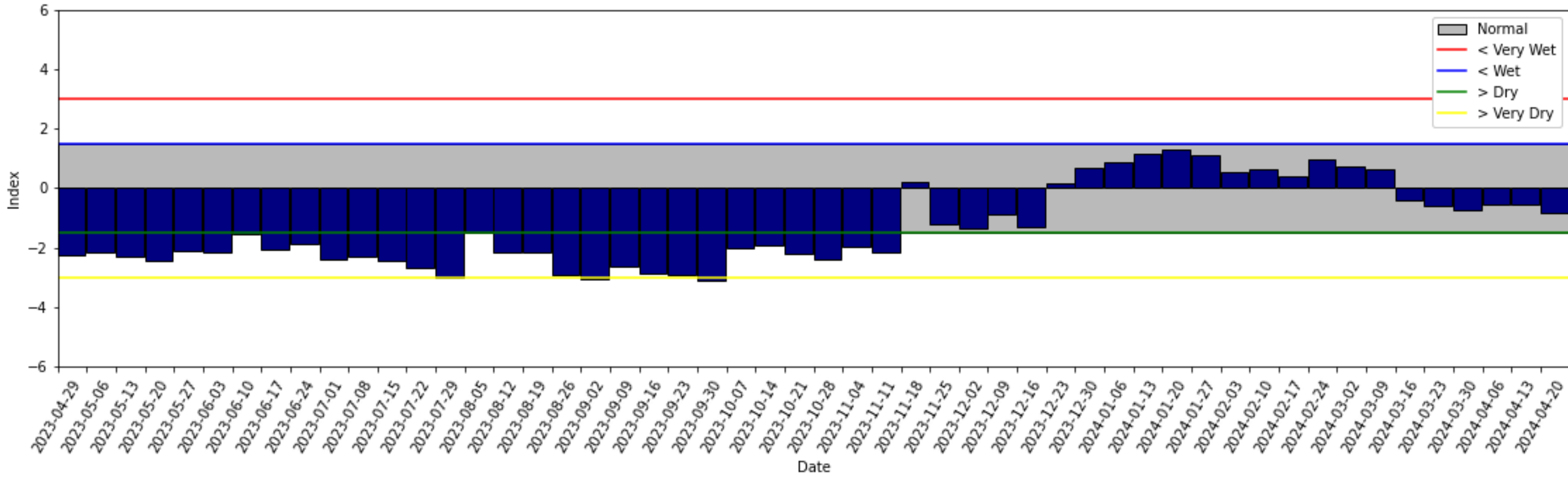
Lake Okeechobee SFWMM April 2024 Position Analysis

Percentiles PA



(See assumptions on the Position Analysis Results website)

Tributary Basin Condition Indicators as of April 21 2024



2008 LORS

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

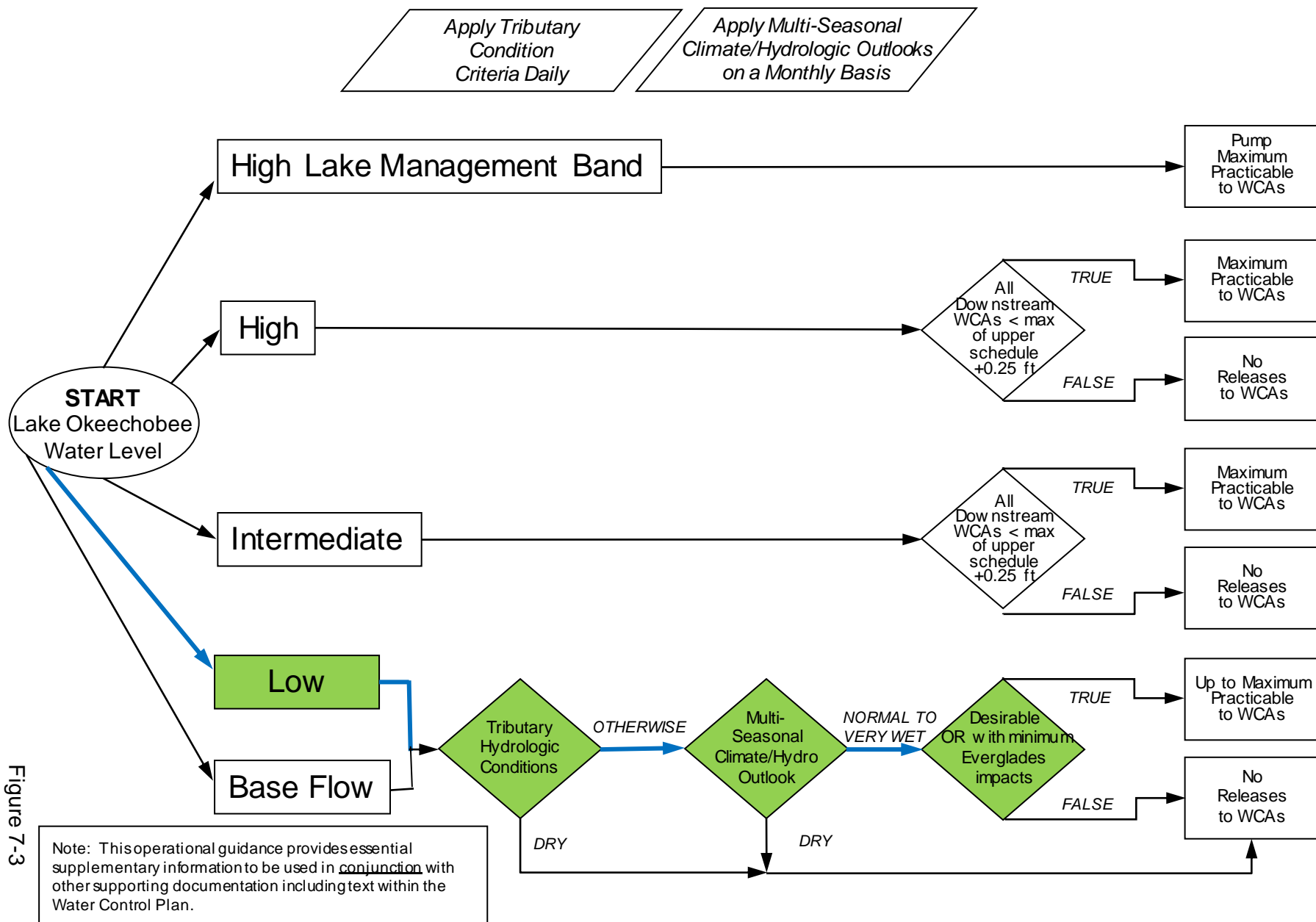
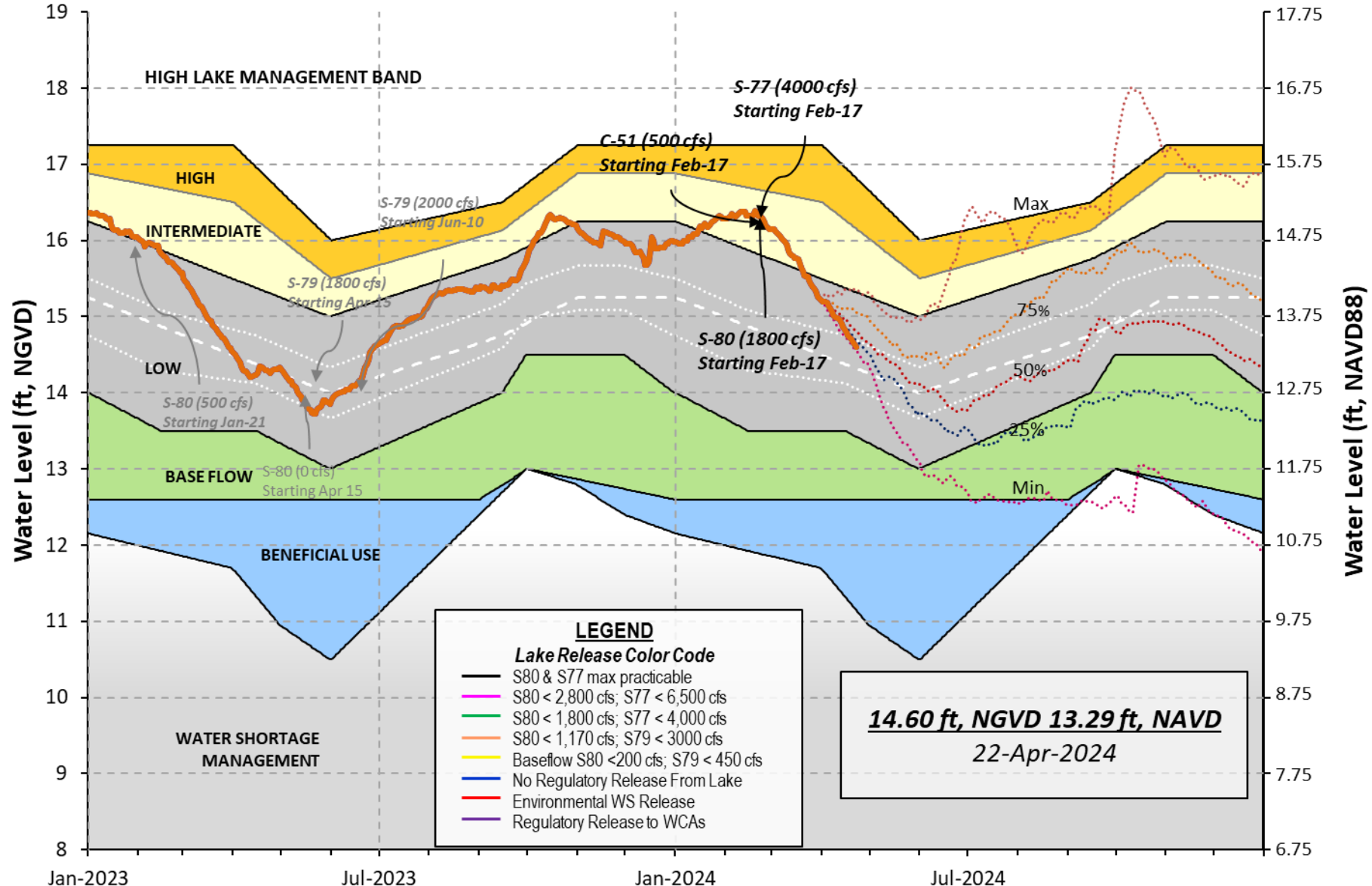


Figure 7-3

Lake Okeechobee Water Level History and Projected Stages



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:	13.40	14.56	0	-NR-	-NR-	-NR-	-NR-	-NR-			(cfs)
S193:											
S191:	18.48	14.60	0	-NR-	0.0	0.0					
S135 Pumps:	13.36	14.57	0	-NR-	-NR-	-NR-	-NR-				(cfs)
S135 Culverts:				-NR-	0.0	0.0					
North West Shore											
S65E:		14.09	711	0.4	0.5	0.5	-NR-	0.0	-NR-		
S65EX1:		14.09	92								
S127 Pumps:		14.54	0	-NR-	-NR-	-NR-	-NR-	-NR-			(cfs)
S127 Culvert:			0	0.0							
S129 Pumps:	12.87	14.57	0	-NR-	-NR-	-NR-					(cfs)
S129 Culvert:			0	0.0							
S131 Pumps:	13.16	-NR-	0	0	0						(cfs)
S131 Culvert:			0								
Fisheating Creek											
nr Palmdale		27.75	0								
nr Lakeport											
S282	14.12	14.12		1.9	2.0	2.0					
South Shore											
S4 Pumps:	11.64	-NR-	0	-NR-	-NR-	-NR-					(cfs)
S169:	14.54	5.85	-NR-	-NR-	0.0	0.0					
S310:			-NR-								
S3 Pumps:	11.27	14.56	0	-NR-	-NR-	-NR-					(cfs)
S354:	14.56	11.27	540	-NR-	1.1						
S2 Pumps:	10.69	14.63	0	-NR-	-NR-	-NR-	-NR-				(cfs)
S351:	14.63	10.69	1365	1.6	1.5	1.6					
S352:	14.86	10.62	261	0.1	0.5						
S271:	15.12	14.21		0.7	0.6	1.1	0.0				
L8 Canal PT		13.92	86								

S351 and S352 Temporary Pumps/S354 Spillway

S351:	10.69	14.63	1365	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-		
S352:	10.62	14.86	261	-NR-	-NR-	-NR-	-NR-				
S354:	11.27	14.56	540	-NR-	-NR-	-NR-	-NR-				

Caloosahatchee River (S77, S78, S79)

S47B:	13.11	8.31		1.0	1.5						
S47D:	12.42	10.99	-NR-	0.0							
S77:											
Spillway and Sector Preferred Flow:											
	13.94	10.87	1895	2.5	3.0	3.0	0.5				
Flow Due to Lockages+:											
			7								

S78:

Spillway and Sector Flow:
 10.87 2.99 1689 1.5 2.5 2.5 0.0
 Flow Due to Lockages+: -NR-

S79:
 Spillway and Sector Flow:
 3.11 1.01 2132 0.0 0.0 2.0 2.0 2.0 2.0 1.5 0.0
 Flow Due to Lockages+: 8
 Percent of flow from S77 89%
 Chloride (ppm) 0

St. Lucie Canal (S308, S80)

S308:
 Spillway and Sector Preferred Flow:
 14.81 13.06 0 0.0 0.0 0.0 0.0
 Flow Due to Lockages+: 4

S153: _____ 12.86 -NR- 0.0 -NR-

S80:
 Spillway and Sector Flow:
 13.18 1.15 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Flow Due to Lockages+: -NR-
 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:	0.00	0.00	0.00	253	3
S78:	0.00	0.00	0.00	293	3
S79:	0.04	0.04	0.04	218	1
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	29	16
S80:	0.00	0.00	0.00	-NR-	-NR-
Okeechobee Average (Sites S78, S79 and S80 not included)	0.00	0.00	0.00		

Oke Nexrad Basin Avg	-NR-	0.00	0.00		

Okeechobee Lake Elevations 21 APR 2024 14.64 Difference from 21APR24
 21APR24 -1 Day = 20 APR 2024 14.67 0.03

21APR24	-2 Days =	19 APR 2024	14.70	0.06
21APR24	-3 Days =	18 APR 2024	14.72	0.08
21APR24	-4 Days =	17 APR 2024	14.75	0.11
21APR24	-5 Days =	16 APR 2024	14.79	0.15
21APR24	-6 Days =	15 APR 2024	14.83	0.19
21APR24	-7 Days =	14 APR 2024	14.87	0.23
21APR24	-30 Days =	22 MAR 2024	15.52	0.88
21APR24	-1 Year =	21 APR 2023	14.30	-0.34
21APR24	-2 Year =	21 APR 2022	13.22	-1.42

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
21APR24	Today =	21 APR 2024	-2518 MON	-2161
21APR24	-1 Day =	20 APR 2024	-3079 SUN	-1993
21APR24	-2 Days =	19 APR 2024	-3394 SAT	-160
21APR24	-3 Days =	18 APR 2024	-3665 FRI	-2293
21APR24	-4 Days =	17 APR 2024	-3564 THU	-3721
21APR24	-5 Days =	16 APR 2024	-3181 WED	-3813
21APR24	-6 Days =	15 APR 2024	-2947 TUE	-4441
21APR24	-7 Days =	14 APR 2024	-2828 MON	-2449
21APR24	-8 Days =	13 APR 2024	-2845 SUN	-7250
21APR24	-9 Days =	12 APR 2024	-2358 SAT	-3606
21APR24	-10 Days =	11 APR 2024	-2559 FRI	2475
21APR24	-11 Days =	10 APR 2024	-2853 THU	671
21APR24	-12 Days =	09 APR 2024	-2813 WED	-3272
21APR24	-13 Days =	08 APR 2024	-2822 TUE	-3236

S65E

		Average Flow over previous 14 days		Avg-Daily Flow
21APR24	Today=	21 APR 2024	914 MON	-NR-
21APR24	-1 Day =	20 APR 2024	914 SUN	-NR-
21APR24	-2 Days =	19 APR 2024	922 SAT	-NR-
21APR24	-3 Days =	18 APR 2024	927 FRI	-NR-
21APR24	-4 Days =	17 APR 2024	932 THU	-NR-
21APR24	-5 Days =	16 APR 2024	939 WED	817
21APR24	-6 Days =	15 APR 2024	950 TUE	829
21APR24	-7 Days =	14 APR 2024	961 MON	838
21APR24	-8 Days =	13 APR 2024	970 SUN	867
21APR24	-9 Days =	12 APR 2024	979 SAT	982
21APR24	-10 Days =	11 APR 2024	976 FRI	968
21APR24	-11 Days =	10 APR 2024	975 THU	952
21APR24	-12 Days =	09 APR 2024	976 WED	971
21APR24	-13 Days =	08 APR 2024	975 TUE	1004

S65EX1

		Average Flow over previous 14 days		Avg-Daily Flow
21APR24	Today=	21 APR 2024	62 MON	92
21APR24	-1 Day =	20 APR 2024	55 SUN	92
21APR24	-2 Days =	19 APR 2024	48 SAT	92
21APR24	-3 Days =	18 APR 2024	42 FRI	92
21APR24	-4 Days =	17 APR 2024	35 THU	91
21APR24	-5 Days =	16 APR 2024	29 WED	91
21APR24	-6 Days =	15 APR 2024	22 TUE	91
21APR24	-7 Days =	14 APR 2024	16 MON	91
21APR24	-8 Days =	13 APR 2024	9 SUN	92
21APR24	-9 Days =	12 APR 2024	3 SAT	38
21APR24	-10 Days =	11 APR 2024	0 FRI	0
21APR24	-11 Days =	10 APR 2024	0 THU	0
21APR24	-12 Days =	09 APR 2024	0 WED	0
21APR24	-13 Days =	08 APR 2024	0 TUE	0

Lake Okeechobee Outlets Last 14 Days

	S-77	Below S-77	S-78	S-79
	Discharge	Discharge	Discharge	Discharge
	(ALL DAY)	(ALL-DAY)	(ALL DAY)	(ALL DAY)
DATE	(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)
21 APR 2024	3790	-NR-	-NR-	4291
20 APR 2024	3273	-NR-	-NR-	3519
19 APR 2024	2942	-NR-	2298	2844
18 APR 2024	3274	-NR-	2237	3074
17 APR 2024	4685	-NR-	3002	3802
16 APR 2024	4952	-NR-	3885	5124
15 APR 2024	4060	-NR-	3749	4955
14 APR 2024	3817	-NR-	3101	3792
13 APR 2024	2098	-NR-	1848	2377
12 APR 2024	475	-NR-	30	574
11 APR 2024	849	-NR-	102	152
10 APR 2024	1271	-NR-	575	656
09 APR 2024	1585	-NR-	1226	1344
08 APR 2024	2676	-NR-	1495	2226

	S-310	S-351	S-352	S-354	L8 Canal Pt
	Discharge	Discharge	Discharge	Discharge	Discharge
	(ALL DAY)	(ALL DAY)	(ALL DAY)	(ALL DAY)	(ALL DAY)
DATE	(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)
21 APR 2024	-NR-	2708	517	1070	171
20 APR 2024	-NR-	3011	746	1582	175
19 APR 2024	-NR-	2860	651	1460	184
18 APR 2024	-NR-	2136	870	1488	180
17 APR 2024	-NR-	1893	809	1714	179
16 APR 2024	-NR-	1924	491	1917	177
15 APR 2024	-NR-	1650	351	2235	171
14 APR 2024	-NR-	1606	340	2192	185
13 APR 2024	-NR-	1905	149	2338	185
12 APR 2024	-NR-	1828	431	2363	176
11 APR 2024	-NR-	786	654	2401	174
10 APR 2024	-NR-	740	639	2702	182
09 APR 2024	-NR-	653	804	2867	180
08 APR 2024	-NR-	335	841	2432	171

	S-308	Below S-308	S-80
	Discharge	Discharge	Discharge
	(ALL DAY)	(ALL-DAY)	(ALL-DAY)
DATE	(AC-FT)	(AC-FT)	(AC-FT)
21 APR 2024	9	-NR-	-NR-
20 APR 2024	7	-NR-	-NR-
19 APR 2024	5	-NR-	58
18 APR 2024	6	-NR-	33
17 APR 2024	4	-NR-	-NR-
16 APR 2024	5	-NR-	-NR-
15 APR 2024	3	-NR-	51
14 APR 2024	4	-NR-	52
13 APR 2024	6	-NR-	44
12 APR 2024	3	-NR-	-NR-
11 APR 2024	4	-NR-	20
10 APR 2024	4	-NR-	39
09 APR 2024	5	-NR-	42
08 APR 2024	11	-NR-	47

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

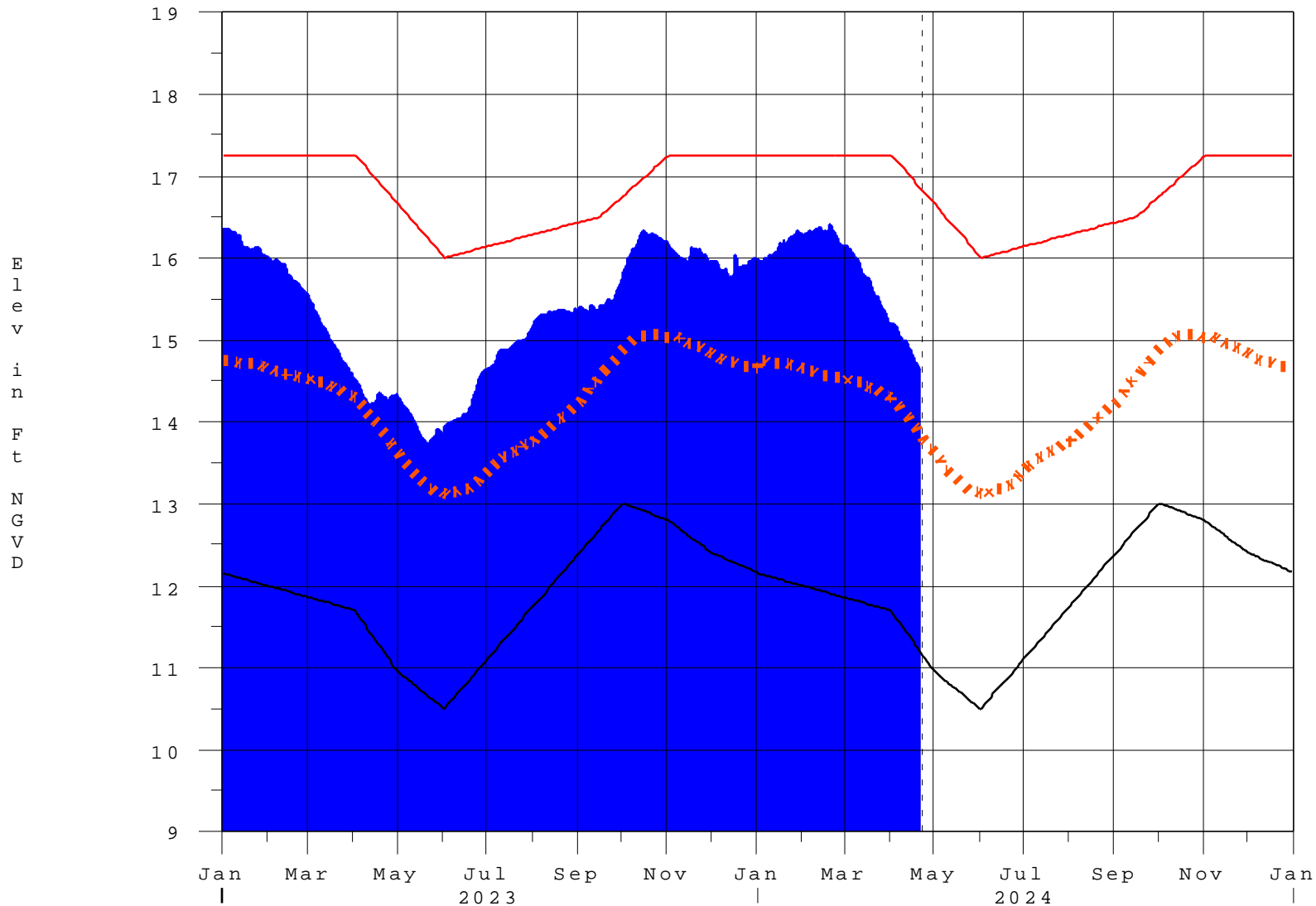
(I) - Flows preceded by "I" signify an instantaneous flow computed from the single value reported for the day

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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

Report Generated 22APR2024 @ 13:15 ** Preliminary Data - Subject to Revision **

Lake Okeechobee

22APR24 13:00:15



- 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
> 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*

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

Under Construction