

Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 4/15/2024 (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	1.89	Wet	1.74	Wet	2.78	Very Wet
Multi Seasonal (Apr-Oct)	N/A	N/A	2.22	Normal	2.26	Normal	3.84	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:

-2830 cfs 14-day running average for Lake Okeechobee Net Inflow through 4/15/2024. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

-0.57 for Palmer Drought Index on 4/13/2024. 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 4/15/2024:

Lake Okeechobee Stage: **14.87 feet**

Lake Okeechobee Management Zone/Band		Bottom Elevation (feet, NGVD)	Current Lake Stage
High Lake Management Band		16.98	
Operational Band	High sub-band	16.29	
	Intermediate sub-band	15.39	
	Low sub-band	13.50	← 14.87 ft
Base Flow sub-band		12.60	
Beneficial Use sub-band		11.35	
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 4/15/2024 (ENSO Condition- El Niño):

Status for week ending 4/15/2024*:

Water Supply Risk Evaluation

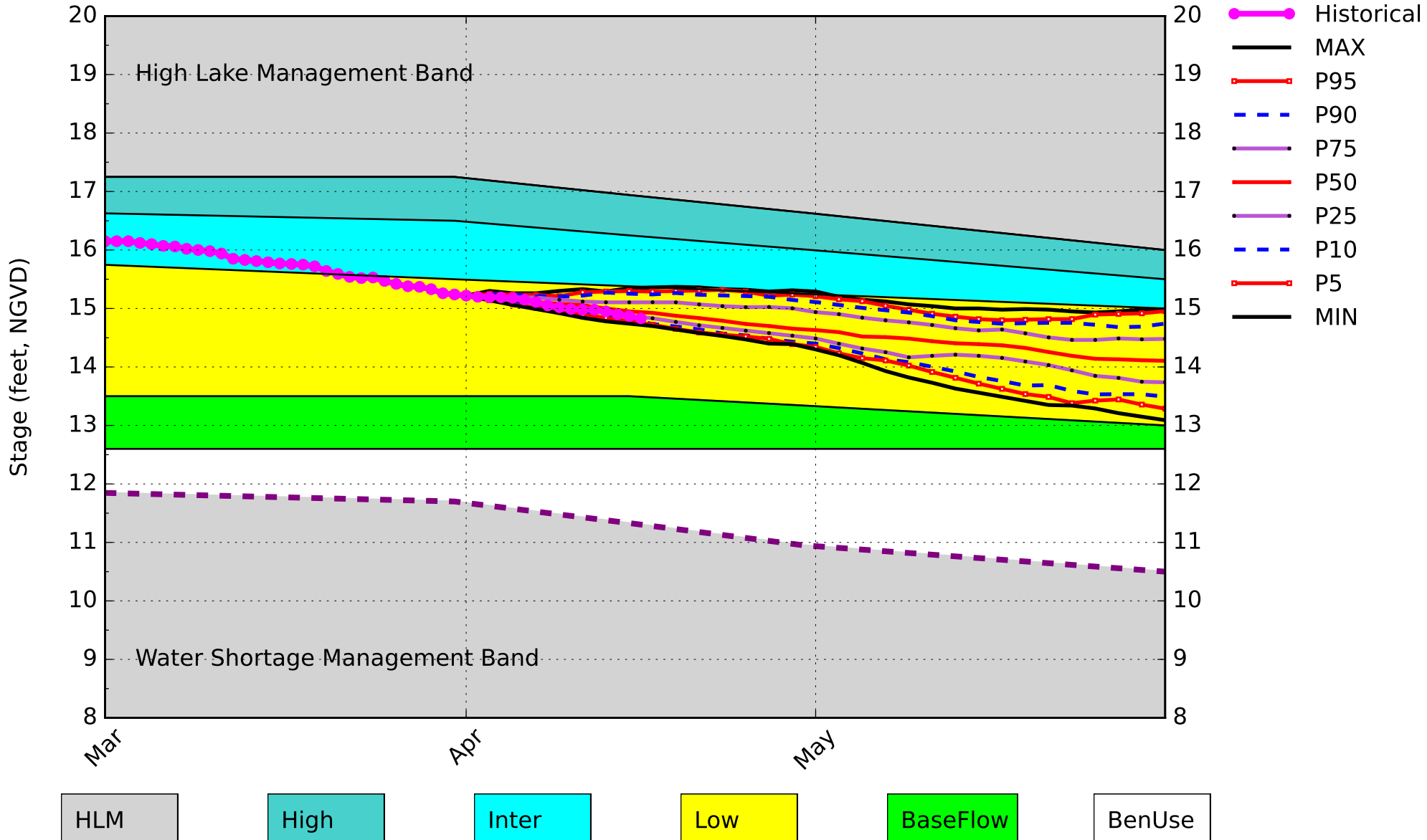
Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Low Sub-band	M
	Palmer Drought Index for LOK Tributary Conditions	-0.57 (Normal to Extremely Wet)	L
	CPC Precipitation Outlook	1 month: Equal chances	L
		3 months: Above Normal	L
	LOK Seasonal Net Inflow Outlook	1.74 ft	L
	ENSO Forecast	Normal to Extremely Wet	
	LOK Multi-Seasonal Net Inflow Outlook	2.26 ft	M
ENSO Forecast	Normal		
WCAs	WCA 1: Site 1-8C	Above Line 1 (16.12 ft)	L
	WCA 2A: Site S11B	Above Line 1 (11.23 ft)	L
	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Above Line 1 (9.85 ft)	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 4/7/2024 and 4/12/2024, is not available from USACE Daily Reports and was assumed to be 0.

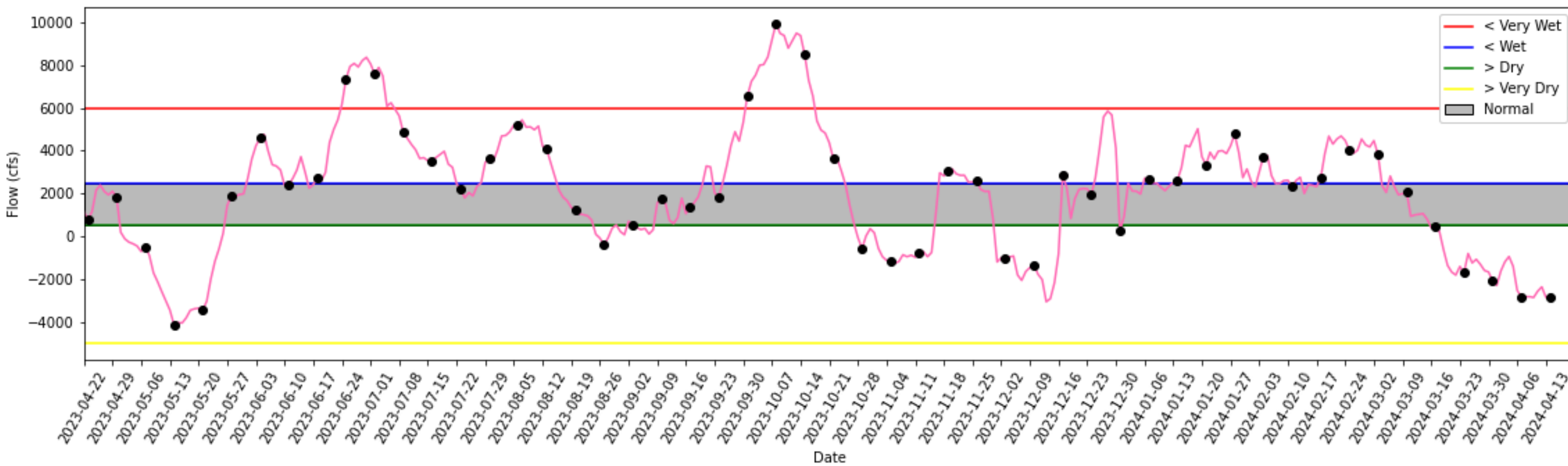
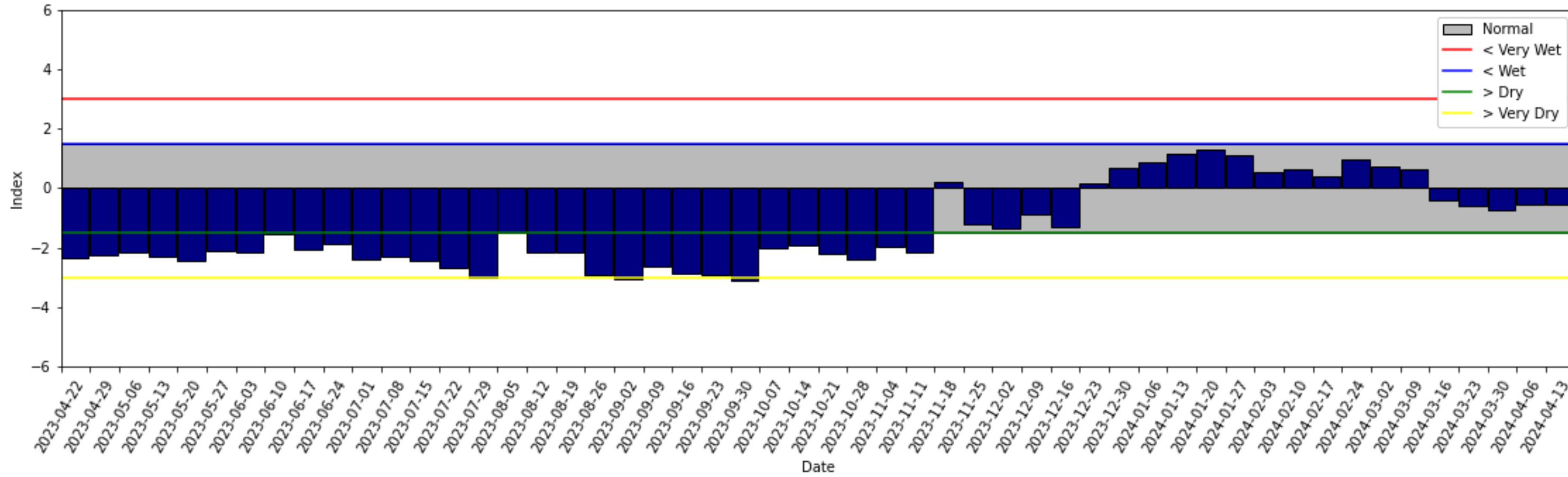
Lake Okeechobee SFWMM April 2024 Position Analysis

Percentiles PA



(See assumptions on the Position Analysis Results website)

Tributary Basin Condition Indicators as of April 14 2024



2008 LORS

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

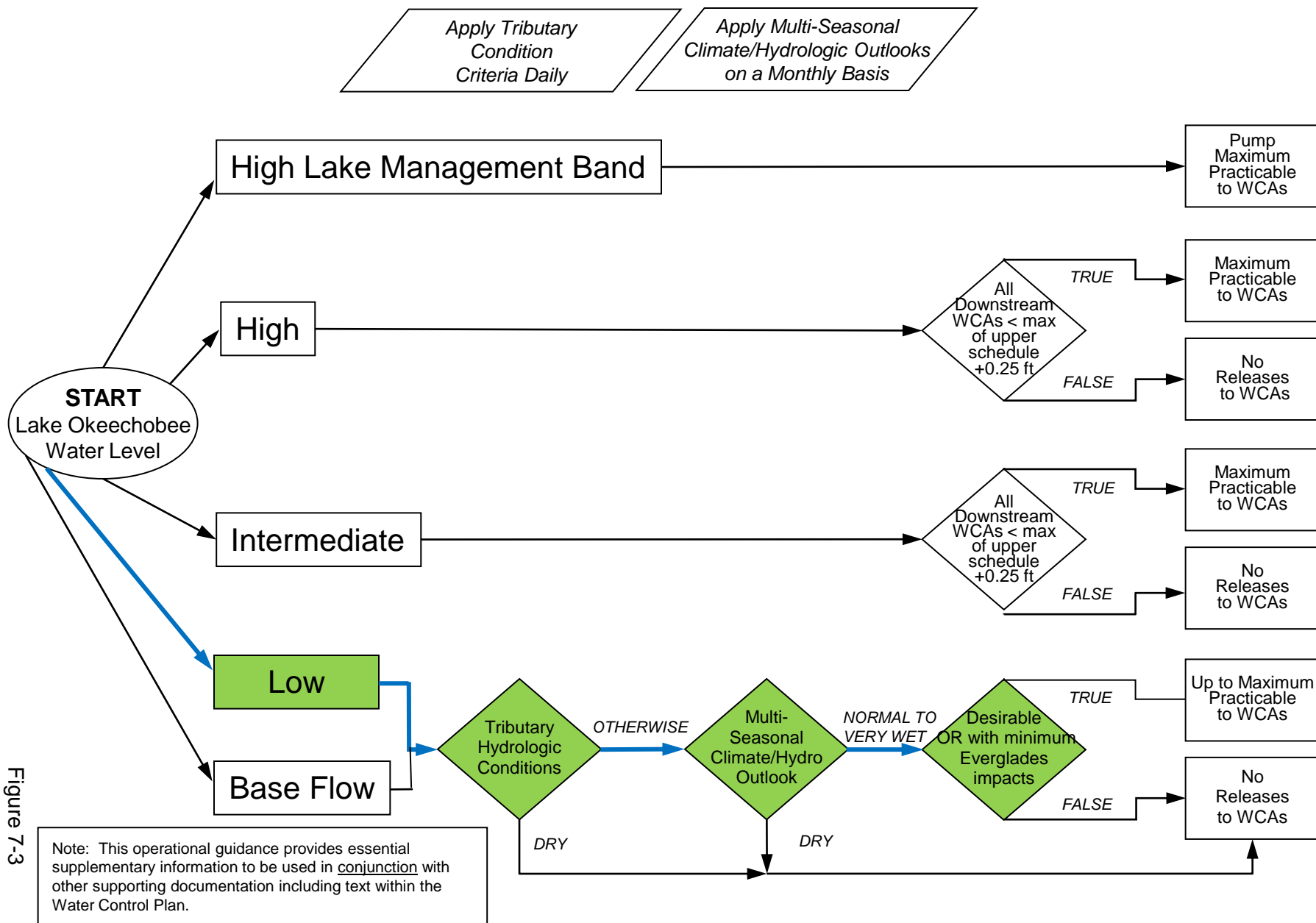


Figure 7-3

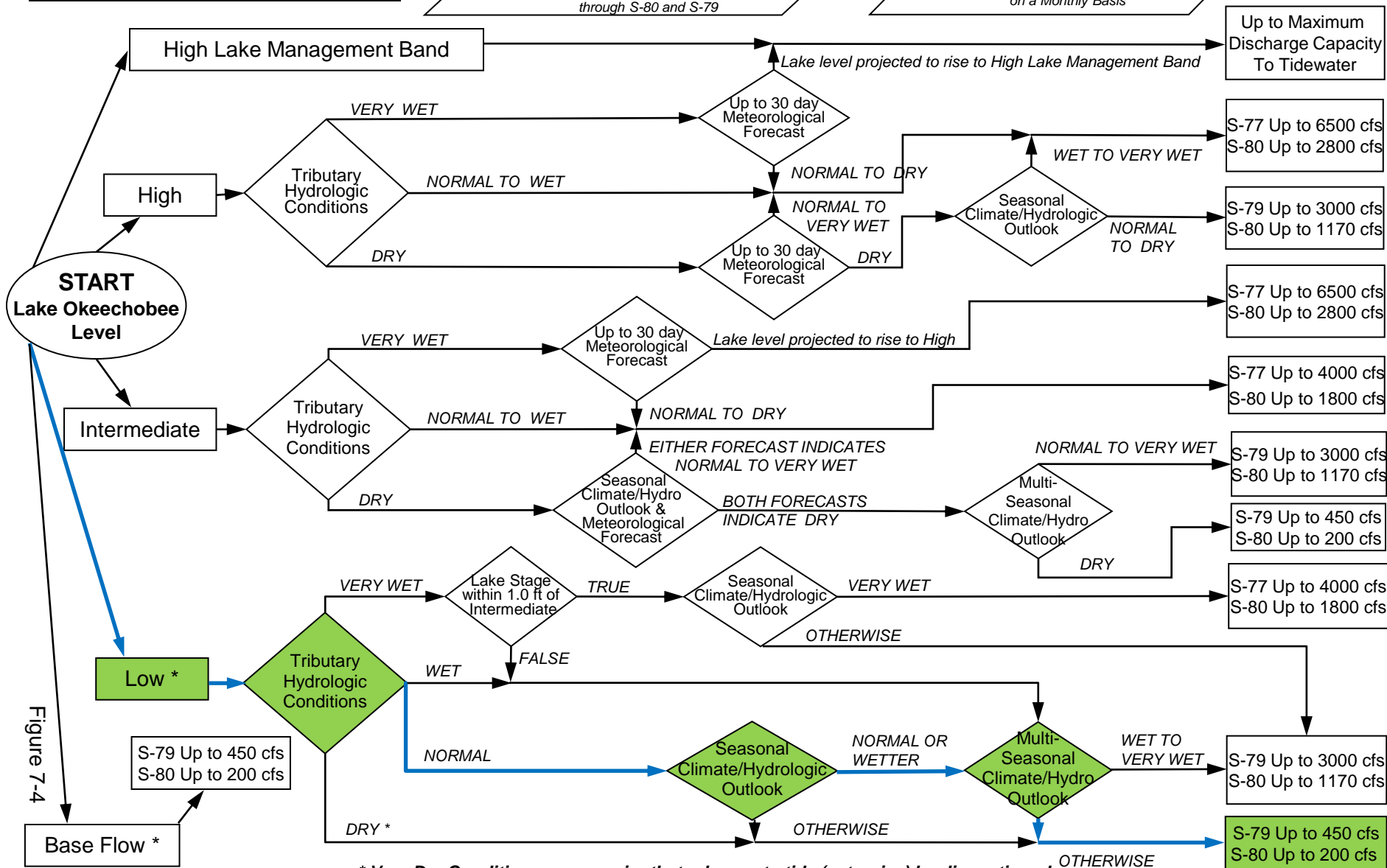
2008 LORS

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

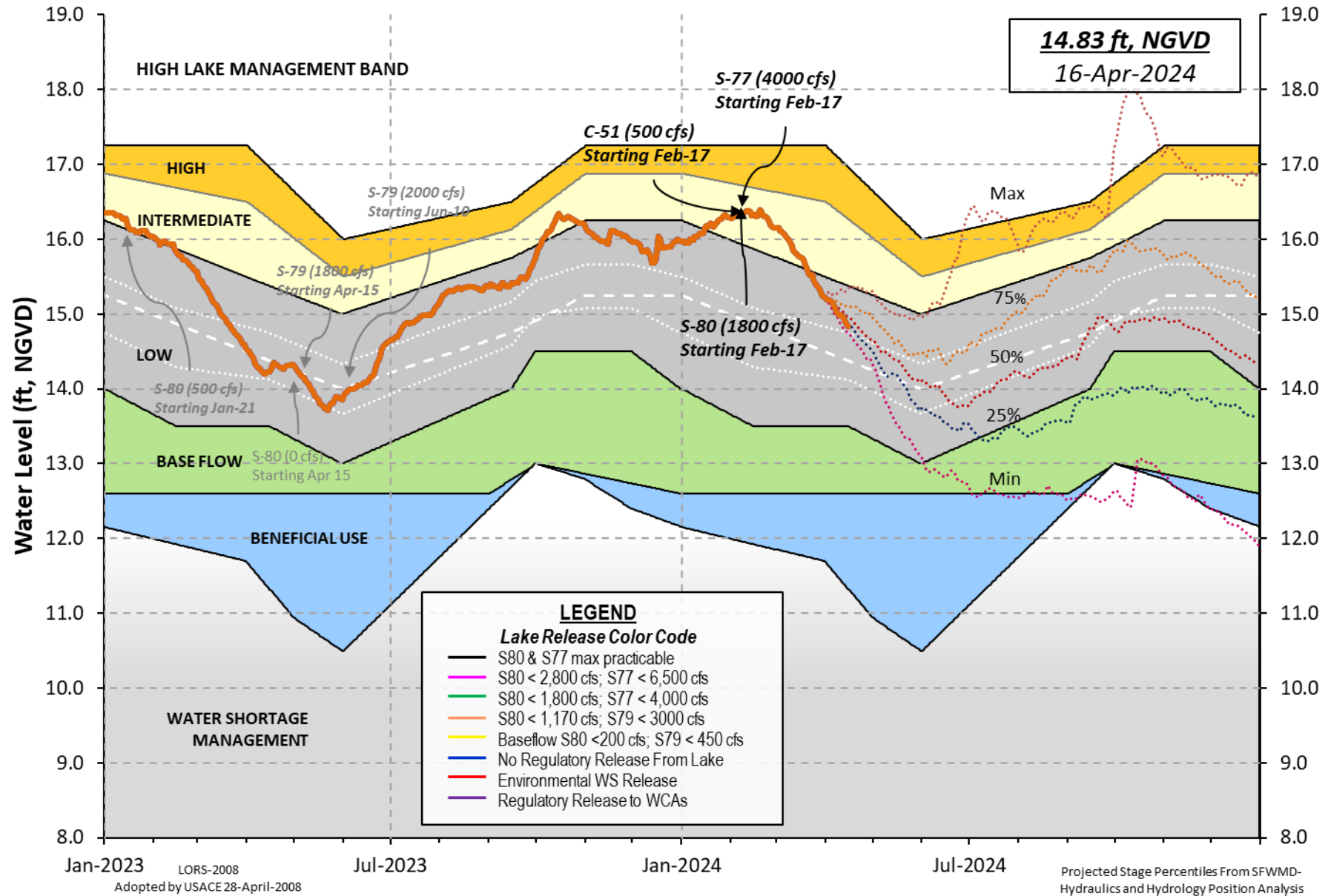
Apply Meteorological Forecasts on a Weekly Basis; apply Seasonal and Multi-Seasonal Climate/Hydrologic Outlooks on a Monthly Basis



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

Figure 7-4

Lake Okeechobee Water Level History and Projected Stages



is equal to -NR-
 Lake Okeechobee (Change in Storage) Flow is -6504 cfs or -12900 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:	13.43	14.84	0	0	0	0	0	0	0	0	(cfs)
S193:											
S191:	18.63	14.82	0	0.0	0.0	0.0					
S135 Pumps:	13.35	14.72	0	0	0	0	0				(cfs)
S135 Culverts:			0	2.6	2.7						
North West Shore											
S65E:	20.91	14.64	721	0.2	0.5	0.5	0.2	0.2	0.5		
S65EX1:	20.91	14.64	91								
S127 Pumps:	13.30	14.81	0	0	0	0	0	0			(cfs)
S127 Culvert:			0	0.0							
S129 Pumps:	12.91	14.89	0	0	0	0					(cfs)
S129 Culvert:			0	0.0							
S131 Pumps:	13.04	-NR-	0	0	0						(cfs)
S131 Culvert:			0								
Fisheating Creek											
nr Palmdale		27.92	0								
nr Lakeport											
S282	14.94	12.94		0.0	0.0	0.0					
South Shore											
S4 Pumps:	11.71	-NR-	0	0	0	0					(cfs)
S169:		-NR-	-NR-	-NR-	-NR-	-NR-					
S310:			-NR-								
S3 Pumps:	11.16	14.78	0	0	0	0					(cfs)
S354:	14.78	11.16	1105	2.3	2.3						
S2 Pumps:	10.66	14.80	0	0	0	0	0				(cfs)
S351:	14.80	10.66	810	0.9	0.9	0.8					
S352:	14.89	10.63	171	0.1	0.4						
S271:	15.11	14.19		0.0	0.0	0.0	0.0				
L8 Canal PT		13.89	93								

S351 and S352 Temporary Pumps/S354 Spillway

S351:	10.66	14.80	810	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-		
S352:	10.63	14.89	171	-NR-	-NR-	-NR-	-NR-				
S354:	11.16	14.78	1105	-NR-	-NR-	-NR-	-NR-				

Caloosahatchee River (S77, S78, S79)

S47B:	13.04	11.37		0.0	0.5						
S47D:	11.34	11.34	15	5.0							
S77:											
Spillway and Sector Preferred Flow:											
	14.68	11.17	1920	0.5	3.5	3.5	0.5				
Flow Due to Lockages+:											
			7								

S78:

Spillway and Sector Flow:
 11.20 3.10 1542 2.0 0.0 3.0 0.0
 Flow Due to Lockages+: 11

S79:
 Spillway and Sector Flow:
 3.28 1.34 1898 0.0 0.0 1.5 2.0 2.0 1.5 0.0 0.0
 Flow Due to Lockages+: 12
 Percent of flow from S77 101%
 Chloride (ppm) 0

St. Lucie Canal (S308, S80)

S308:
 Spillway and Sector Preferred Flow:
 14.92 14.30 0 0.0 0.0 0.0 0.0
 Flow Due to Lockages+: 2

S153: 19.05 14.07 0 0.0 0.0

S80:
 Spillway and Sector Flow:
 14.33 -0.30 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Flow Due to Lockages+: 26
 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	0.08	18	4
S78:	0.00	0.00	0.00	233	1
S79:	0.00	0.00	0.09	249	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	102	5
S80:	0.00	0.01	0.09	-NR-	-NR-
Okeechobee Average (Sites S78, S79 and S80 not included)	0.00	0.00	0.01		

Oke Nexrad Basin Avg	-NR-	0.00	0.00		

Okeechobee Lake Elevations 14 APR 2024 14.87 Difference from 14APR24
 14APR24 -1 Day = 13 APR 2024 14.90 0.03

14APR24	-2 Days =	12 APR 2024	14.95	0.08
14APR24	-3 Days =	11 APR 2024	14.98	0.11
14APR24	-4 Days =	10 APR 2024	14.98	0.11
14APR24	-5 Days =	09 APR 2024	14.99	0.12
14APR24	-6 Days =	08 APR 2024	15.02	0.15
14APR24	-7 Days =	07 APR 2024	15.05	0.18
14APR24	-30 Days =	15 MAR 2024	15.77	0.90
14APR24	-1 Year =	14 APR 2023	14.23	-0.64
14APR24	-2 Year =	14 APR 2022	13.40	-1.47

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
14APR24	Today =	14 APR 2024	-2828 MON	-2449
14APR24	-1 Day =	13 APR 2024	-2845 SUN	-7250
14APR24	-2 Days =	12 APR 2024	-2358 SAT	-3606
14APR24	-3 Days =	11 APR 2024	-2559 FRI	2475
14APR24	-4 Days =	10 APR 2024	-2853 THU	671
14APR24	-5 Days =	09 APR 2024	-2813 WED	-3272
14APR24	-6 Days =	08 APR 2024	-2822 TUE	-3236
14APR24	-7 Days =	07 APR 2024	-2830 MON	-10021
14APR24	-8 Days =	06 APR 2024	-2515 SUN	-6396
14APR24	-9 Days =	05 APR 2024	-1389 SAT	-3954
14APR24	-10 Days =	04 APR 2024	-934 FRI	-890
14APR24	-11 Days =	03 APR 2024	-1183 THU	1646
14APR24	-12 Days =	02 APR 2024	-1614 WED	-536
14APR24	-13 Days =	01 APR 2024	-2289 TUE	-2769

S65E

		Average Flow over previous 14 days		Avg-Daily Flow
14APR24	Today=	14 APR 2024	961 MON	839
14APR24	-1 Day =	13 APR 2024	970 SUN	870
14APR24	-2 Days =	12 APR 2024	979 SAT	982
14APR24	-3 Days =	11 APR 2024	976 FRI	968
14APR24	-4 Days =	10 APR 2024	976 THU	954
14APR24	-5 Days =	09 APR 2024	976 WED	972
14APR24	-6 Days =	08 APR 2024	975 TUE	1004
14APR24	-7 Days =	07 APR 2024	974 MON	913
14APR24	-8 Days =	06 APR 2024	981 SUN	1005
14APR24	-9 Days =	05 APR 2024	987 SAT	978
14APR24	-10 Days =	04 APR 2024	994 FRI	997
14APR24	-11 Days =	03 APR 2024	996 THU	1024
14APR24	-12 Days =	02 APR 2024	994 WED	978
14APR24	-13 Days =	01 APR 2024	994 TUE	974

S65EX1

		Average Flow over previous 14 days		Avg-Daily Flow
14APR24	Today=	14 APR 2024	16 MON	91
14APR24	-1 Day =	13 APR 2024	9 SUN	92
14APR24	-2 Days =	12 APR 2024	3 SAT	38
14APR24	-3 Days =	11 APR 2024	0 FRI	0
14APR24	-4 Days =	10 APR 2024	0 THU	0
14APR24	-5 Days =	09 APR 2024	0 WED	0
14APR24	-6 Days =	08 APR 2024	0 TUE	0
14APR24	-7 Days =	07 APR 2024	0 MON	0
14APR24	-8 Days =	06 APR 2024	0 SUN	0
14APR24	-9 Days =	05 APR 2024	0 SAT	0
14APR24	-10 Days =	04 APR 2024	0 FRI	0
14APR24	-11 Days =	03 APR 2024	0 THU	0
14APR24	-12 Days =	02 APR 2024	0 WED	0
14APR24	-13 Days =	01 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)
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
07 APR 2024	2789	-NR-	2332	2601
06 APR 2024	1441	-NR-	1489	2215
05 APR 2024	800	-NR-	29	99
04 APR 2024	142	-NR-	32	15
03 APR 2024	443	-NR-	27	5
02 APR 2024	168	-NR-	48	19
01 APR 2024	14	-NR-	33	504

	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)
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
07 APR 2024	-NR-	343	462	2313	170
06 APR 2024	-NR-	503	539	2059	179
05 APR 2024	-NR-	1168	421	2040	168
04 APR 2024	-NR-	0	329	2078	134
03 APR 2024	-NR-	311	176	2348	152
02 APR 2024	-NR-	0	730	2359	164
01 APR 2024	-NR-	0	442	2664	186

	S-308	Below S-308	S-80
	Discharge	Discharge	Discharge
	(ALL DAY)	(ALL-DAY)	(ALL-DAY)
DATE	(AC-FT)	(AC-FT)	(AC-FT)
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
07 APR 2024	11	-NR-	-NR-
06 APR 2024	13	-NR-	32
05 APR 2024	13	-NR-	39
04 APR 2024	16	-NR-	63
03 APR 2024	9	-NR-	38
02 APR 2024	11	-NR-	46
01 APR 2024	12	-NR-	58

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

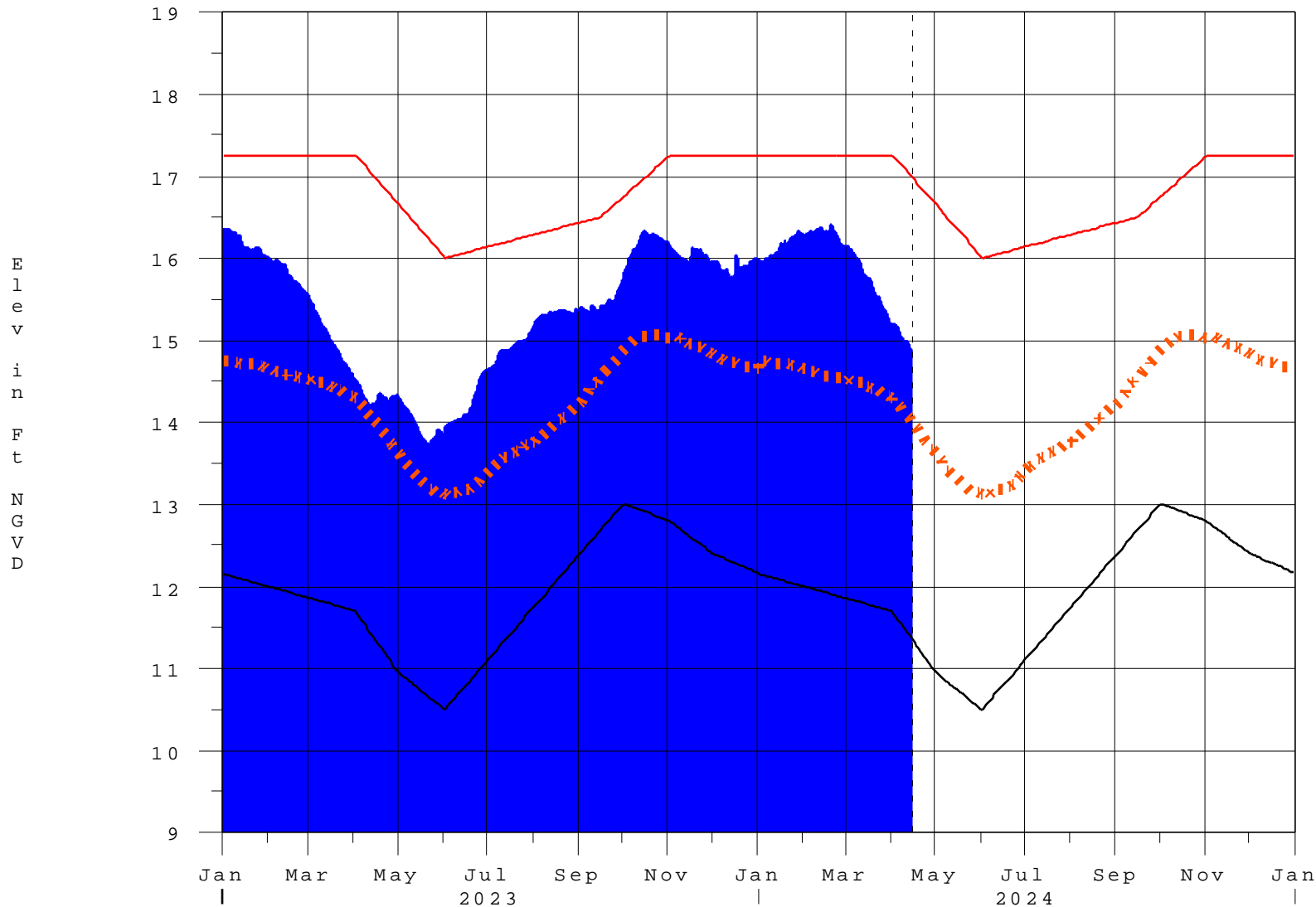
(I) - Flows preceded by "I" signify an instantaneous flow computed from the single value reported for the day

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

Lake Okeechobee

15APR24 13:00:14



- 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

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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*

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