

Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 3/25/2024 (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 (Mar-Aug)	N/A	N/A	1.28	Normal	1.30	Normal	2.03	Very Wet
Multi Seasonal (Mar-Oct)	N/A	N/A	2.43	Normal	2.51	Wet	4.09	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:

-1748 cfs 14-day running average for Lake Okeechobee Net Inflow through 3/25/2024. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

-0.58 for Palmer Drought Index on 3/23/2024. 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 3/25/2024:

Lake Okeechobee Stage: **15.47 feet**

Lake Okeechobee Management Zone/Band		Bottom Elevation (feet, NGVD)	Current Lake Stage
High Lake Management Band		17.25	
Operational Band	High sub-band	16.53	
	Intermediate sub-band	15.56	
	Low sub-band	13.50	← 15.47 ft
Base Flow sub-band		12.60	
Beneficial Use sub-band		11.73	
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 3000 cfs at S-79 and up to 1170 cfs at S-80.

LORS2008 Implementation on 3/25/2024 (ENSO Condition- El Niño):

Status for week ending 3/25/2024*:

Water Supply Risk Evaluation

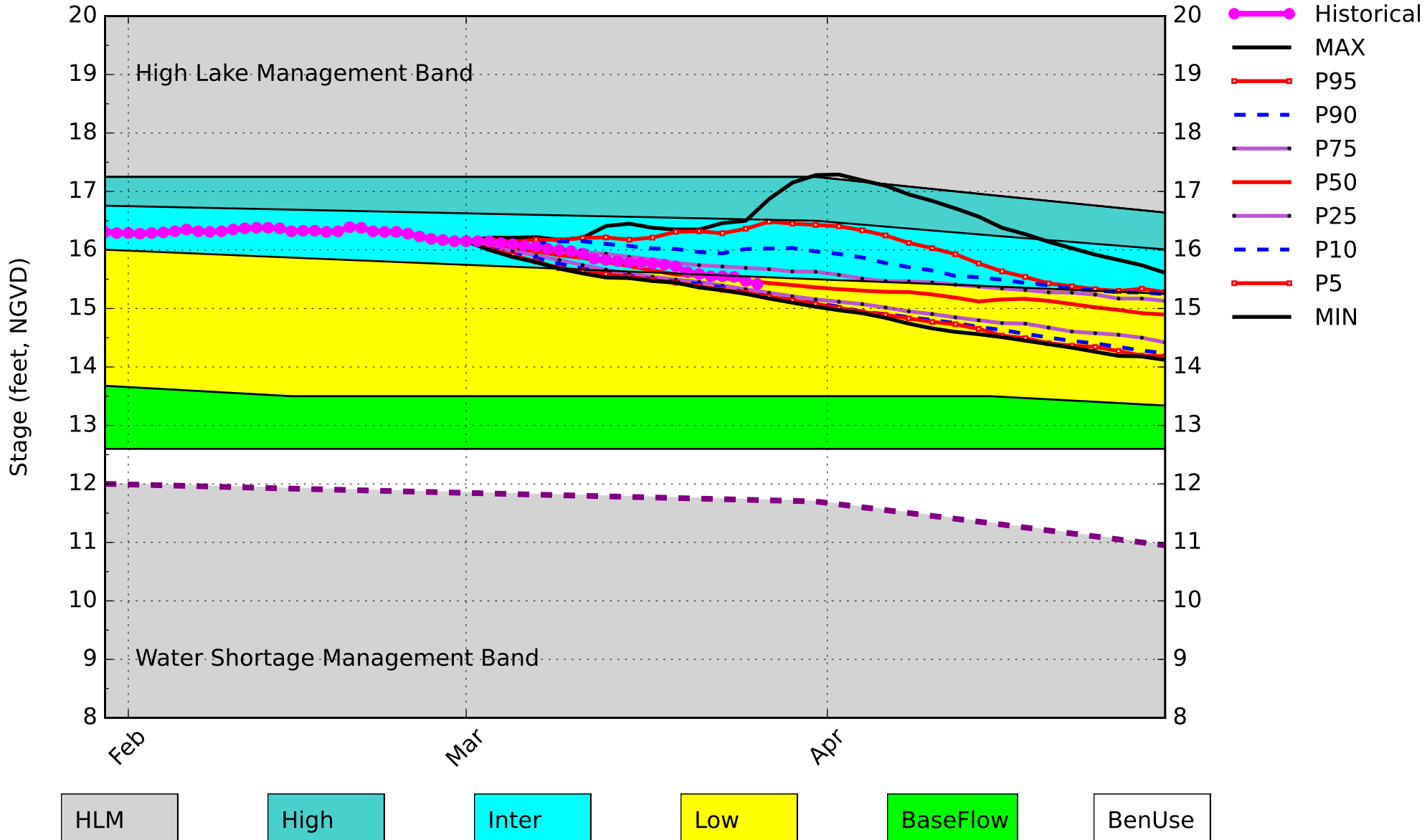
Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Low Sub-band	M
	Palmer Drought Index for LOK Tributary Conditions	-0.58 (Normal to Extremely Wet)	L
	CPC Precipitation Outlook	1 month: Above Normal	L
		3 months: Above Normal	L
	LOK Seasonal Net Inflow Outlook	1.30 ft	L
	ENSO Forecast	Normal to Extremely Wet	
	LOK Multi-Seasonal Net Inflow Outlook	2.51 ft	M
ENSO Forecast	Normal		
WCAs	WCA 1: Site 1-8C	Above Line 1 (16.73 ft)	L
	WCA 2A: Site S11B	Above Line 1 (11.98 ft)	L
	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Above Line 1 (10.33 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.

*- L8 Canal Point flow data for 3/18/2024, is not available from USACE Daily Reports and was assumed to be 0.

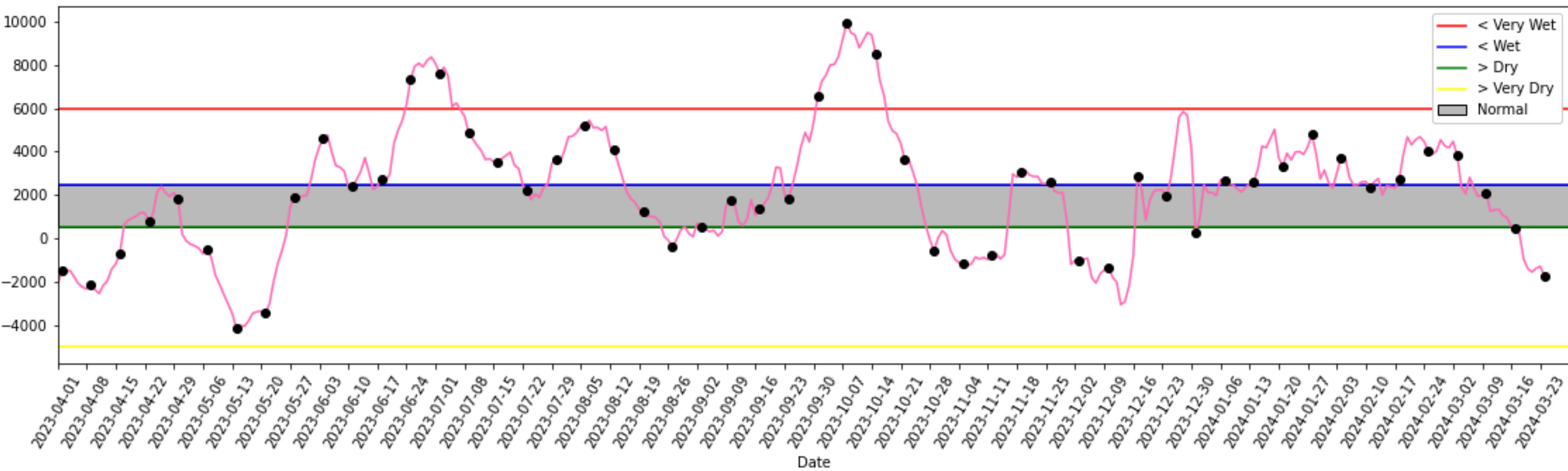
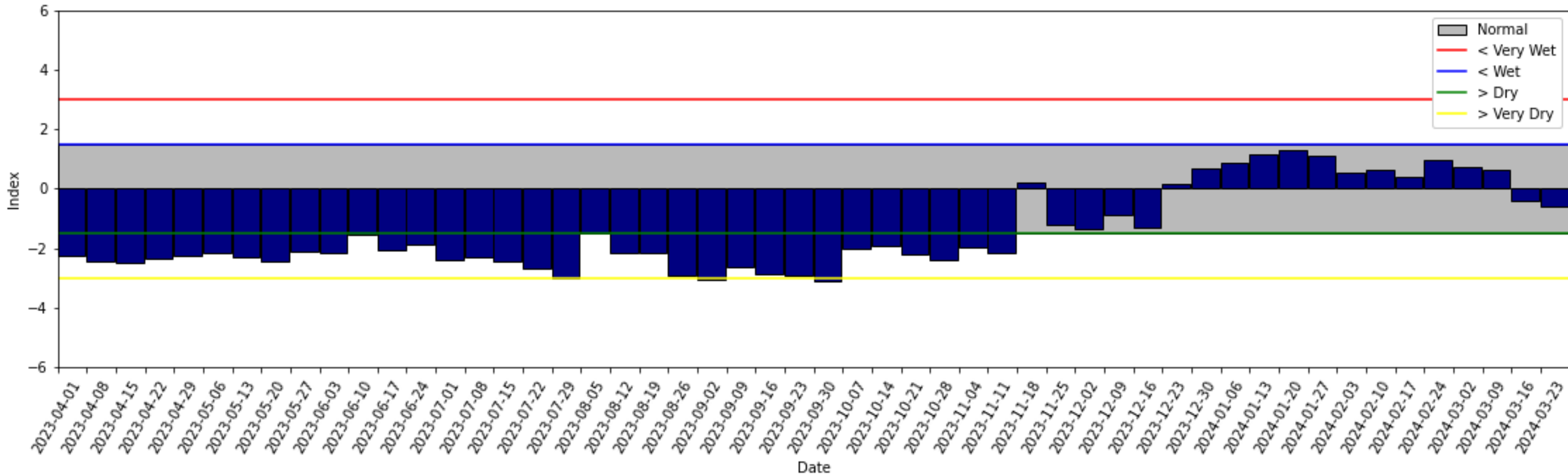
Lake Okeechobee SFWMM March 2024 Position Analysis

Percentiles PA



(See assumptions on the Position Analysis Results website)

Tributary Basin Condition Indicators as of March 24 2024



2008 LORS

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

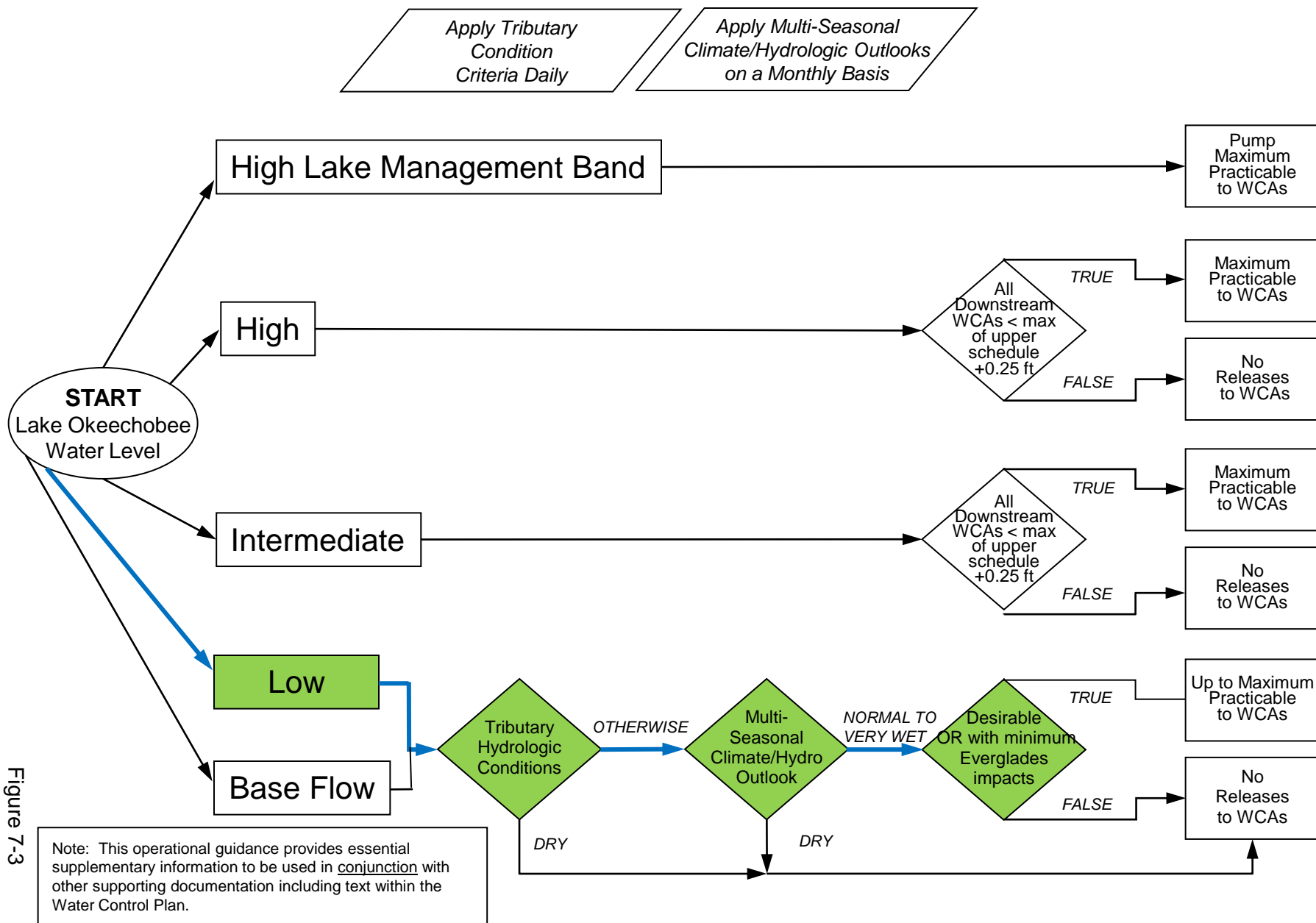


Figure 7-3

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

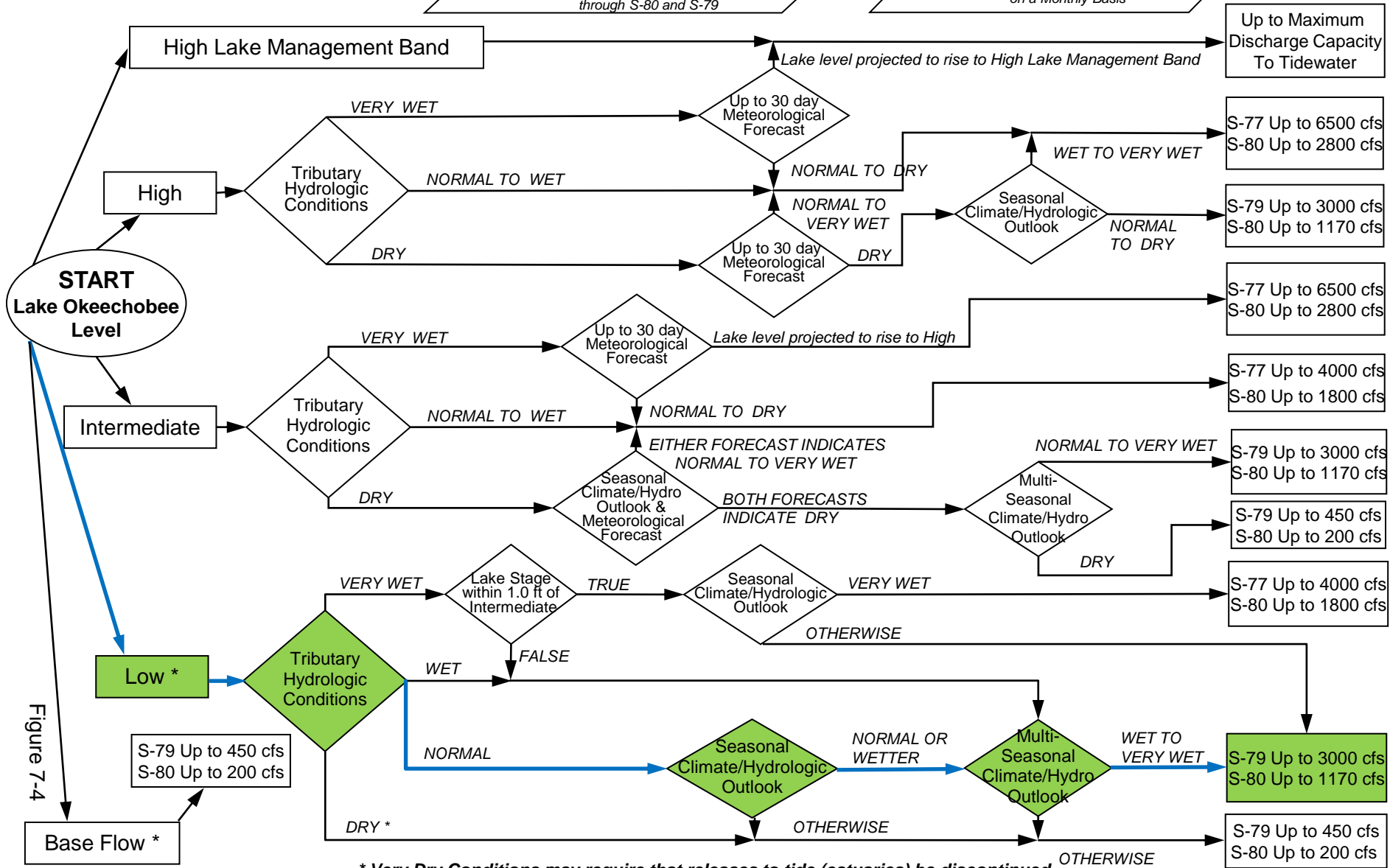
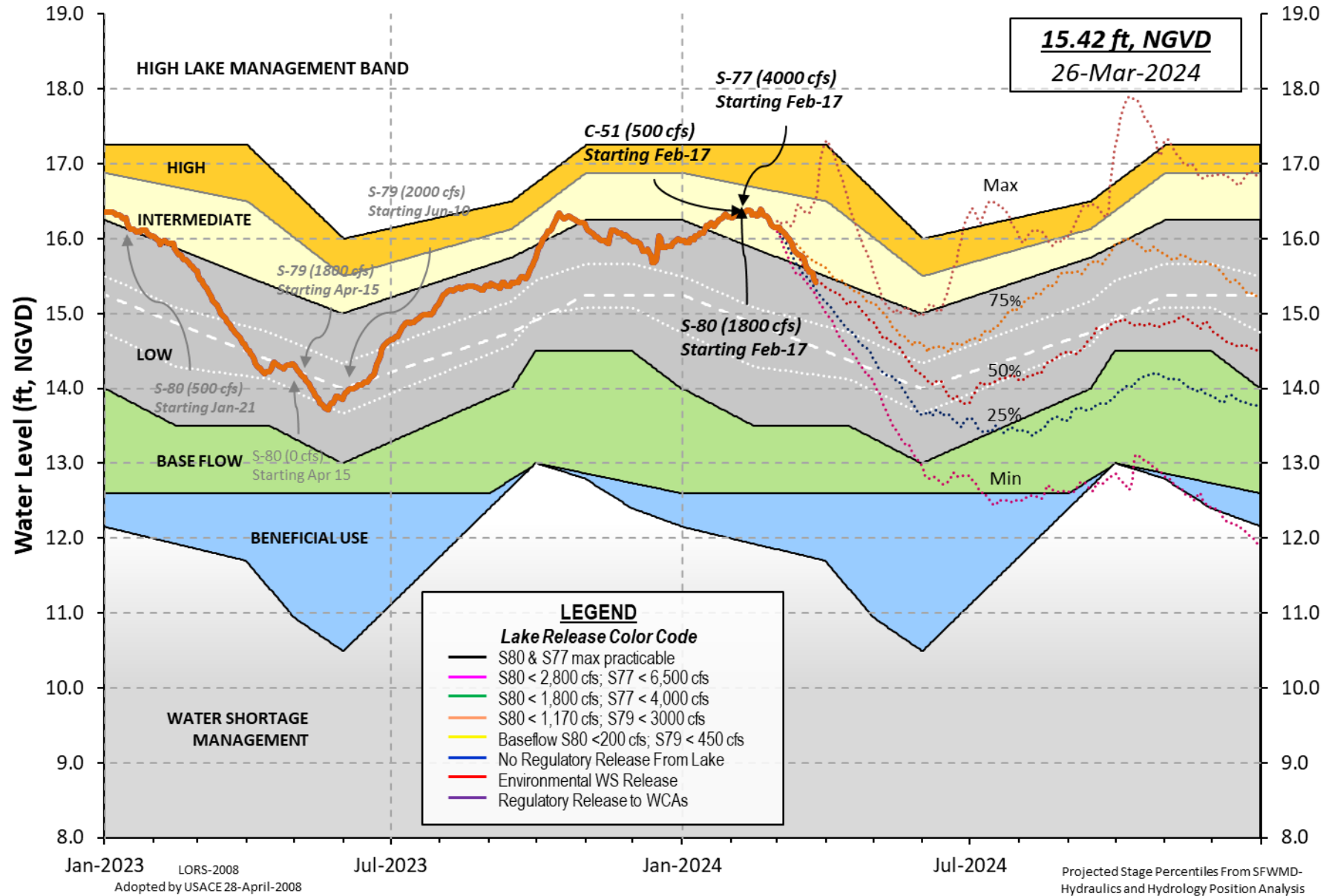


Figure 7-4

Lake Okeechobee Water Level History and Projected Stages



U. S. Army Corps of Engineers, Jacksonville District
 Lake Okeechobee and Vicinity Report
 ** Preliminary Data - Subject to Revision **

Data Ending 2400 hours 24 MAR 2024

Okeechobee Lake Regulation Elevation Last Year 2YRS Ago
 (ft-NGVD) (ft-NGVD) (ft-NGVD)
 *Okeechobee Lake Elevation 15.47 14.75 14.04 (Official Elv)
 Bottom of High Lake Mngmt= 17.25 Top of Water Short Mngmt= 11.73
 Currently in Operational Management Band

Simulated Average LORS2008 [1965-2000] 13.09
 Difference from Average LORS2008 2.38

24MAR (1965-2007) Period of Record Average 14.35
 Difference from POR Average 1.12

Today Lake Okeechobee elevation is determined from the 4 Int & 4 Edge stations

++Navigation Depth (Based on 2007 Channel Condition Survey) Route 1 9.41'
 ++Navigation Depth (Based on 2008 Channel Condition Survey) Route 2 7.61'
 Bridge Clearance = 48.47'

4 Interior and 4 Edge Okeechobee Lake Average (Avg-Daily values):

L001	L005	L006	LZ40	S4	S352	S308	S133
15.39	15.55	15.50	15.44	15.49	15.63	15.50	15.27

*Combination Okeechobee Avg-Daily Lake Average = 15.47
 (*See Note)

Okeechobee Inflows (cfs):

S65E	876	S65EX1	0	Fisheating Cr	23
S154	0	S191	0	S135 Pumps	0
S84	0	S133 Pumps	0	S2 Pumps	0
S84X	0	S127 Pumps	0	S3 Pumps	0
S71	101	S129 Pumps	0	S4 Pumps	0
S72	19	S131 Pumps	0	C5	0
Total Inflows:	1019				

Okeechobee Outflows (cfs):

S135 Culverts	0	S354	0	S77	4757
S127 Culverts	0	S351	0	S308	2657
S129 Culverts	0	S352	0		
S131 Culverts	0	L8 Canal Pt	98		
Total Outflows:	7512				

****S77 structure flow is being used to compute Total Outflow.
 ****S308 structure flow is being used to compute Total Outflow.

Okeechobee Pan Evaporation (inches):

S77 0.24 S308 0.24
 Average Pan Evap x 0.75 Pan Coefficient = 0.18" = 0.01'

Lake Average Precipitation using NEXRAD: = -NR-" = -NR-'

Evaporation - Precipitation: = -NR-" = -NR-'
 Evaporation - Precipitation using Lake Area of 730 square miles

is equal to -NR-
 Lake Okeechobee (Change in Storage) Flow is -15175 cfs or -30100 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:	13.38	15.19	0	0	0	0	0	0	0	0	(cfs)
S193:											
S191:	18.38	15.21	0	0.0	0.0	0.0					
S135 Pumps:	13.30	15.19	0	0	0	0	0				(cfs)
S135 Culverts:			0	0.0	0.0						
North West Shore											
S65E:		-NR-	876	0.5	0.4	0.2	0.6	0.5	0.4		
S65EX1:		-NR-	0								
S127 Pumps:	13.32	15.34	0	0	0	0	0	0			(cfs)
S127 Culvert:			0	0.0							
S129 Pumps:	12.92	15.51	0	0	0	0					(cfs)
S129 Culvert:			0	0.0							
S131 Pumps:	12.86	13.26	0	0	0						(cfs)
S131 Culvert:			0								
Fisheating Creek											
nr Palmdale		28.96	23								
nr Lakeport											
S282	15.36	14.75		0.0	0.0	0.0					
South Shore											
S4 Pumps:	11.26	-NR-	0	0	0	0					(cfs)
S169:		-NR-	-NR-	-NR-	-NR-	-NR-					
S310:			-NR-								
S3 Pumps:	10.16	15.60	0	0	0	0					(cfs)
S354:	15.60	10.16	0	0.0	0.0						
S2 Pumps:	10.53	15.54	0	-NR-	-NR-	-NR-	-NR-				(cfs)
S351:	15.54	10.53	0	0.0	0.0	0.0					
S352:	15.47	9.59	0	0.0	0.0						
S271:	15.72	14.42		0.0	0.0	0.0	0.0				
L8 Canal PT		14.13	98								

S351 and S352 Temporary Pumps/S354 Spillway

S351:	10.53	15.54	0	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-		
S352:	9.59	15.47	0	-NR-	-NR-	-NR-	-NR-				
S354:	10.16	15.60	0	-NR-	-NR-	-NR-	-NR-				

Caloosahatchee River (S77, S78, S79)

S47B:	13.39	12.17		0.0	0.5						
S47D:	12.18	11.07	0	0.0							
S77:											
Spillway and Sector Preferred Flow:											
	15.01	11.05	4752	4.5	4.5	4.5	4.5				
Flow Due to Lockages+:											
			5								

S78:

Spillway and Sector Flow:
 10.77 3.18 5353 5.5 5.5 6.0 0.0
 Flow Due to Lockages+: 19

S79:
 Spillway and Sector Flow:
 3.07 0.67 6623 0.0 2.0 3.0 4.0 4.0 4.0 3.0 0.0
 Flow Due to Lockages+: 7
 Percent of flow from S77 72%
 Chloride (ppm) 0

St. Lucie Canal (S308, S80)

S308:
 Spillway and Sector Preferred Flow:
 15.42 15.03 2656 5.5 5.5 5.5 5.5
 Flow Due to Lockages+: 1

S153: 19.03 14.74 0 0.0 0.0

S80:
 Spillway and Sector Flow:
 13.00 2.30 3157 0.0 1.5 1.5 1.5 2.0 1.5 0.0
 Flow Due to Lockages+: 10
 Percent of flow from S308 84%

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	1.12	1.14	56	8
S78:	0.00	0.02	0.02	56	1
S79:	0.00	1.32	1.42	41	6
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	6	8
S80:	0.02	0.69	0.69	-NR-	-NR-
Okeechobee Average (Sites S78, S79 and S80 not included)	0.00	0.09	0.09		

Oke Nexrad Basin Avg	-NR-	0.00	0.00		

Okeechobee Lake Elevations 24 MAR 2024 15.47 Difference from 24MAR24
 24MAR24 -1 Day = 23 MAR 2024 15.54 0.07

24MAR24	-2 Days =	22 MAR 2024	15.55	0.08
24MAR24	-3 Days =	21 MAR 2024	15.55	0.08
24MAR24	-4 Days =	20 MAR 2024	15.59	0.12
24MAR24	-5 Days =	19 MAR 2024	15.62	0.15
24MAR24	-6 Days =	18 MAR 2024	15.72	0.25
24MAR24	-7 Days =	17 MAR 2024	15.75	0.28
24MAR24	-30 Days =	23 FEB 2024	16.31	0.84
24MAR24	-1 Year =	24 MAR 2023	14.75	-0.72
24MAR24	-2 Year =	24 MAR 2022	14.04	-1.43

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
24MAR24	Today =	24 MAR 2024	-1864 MON	-7767
24MAR24	-1 Day =	23 MAR 2024	-1370 SUN	5032
24MAR24	-2 Days =	22 MAR 2024	-1472 SAT	6739
24MAR24	-3 Days =	21 MAR 2024	-1653 FRI	-2199
24MAR24	-4 Days =	20 MAR 2024	-1490 THU	-56
24MAR24	-5 Days =	19 MAR 2024	-1024 WED	-14324
24MAR24	-6 Days =	18 MAR 2024	224 TUE	-NR-
24MAR24	-7 Days =	17 MAR 2024	493 MON	801
24MAR24	-8 Days =	16 MAR 2024	563 SUN	627
24MAR24	-9 Days =	15 MAR 2024	956 SAT	-289
24MAR24	-10 Days =	14 MAR 2024	1061 FRI	-2693
24MAR24	-11 Days =	13 MAR 2024	1341 THU	-1089
24MAR24	-12 Days =	12 MAR 2024	1312 WED	2675
24MAR24	-13 Days =	11 MAR 2024	1251 TUE	-11691

S65E

		Average Flow over previous 14 days		Avg-Daily Flow
24MAR24	Today=	24 MAR 2024	1152 MON	-NR-
24MAR24	-1 Day =	23 MAR 2024	1169 SUN	-NR-
24MAR24	-2 Days =	22 MAR 2024	1182 SAT	-NR-
24MAR24	-3 Days =	21 MAR 2024	1200 FRI	-NR-
24MAR24	-4 Days =	20 MAR 2024	1211 THU	-NR-
24MAR24	-5 Days =	19 MAR 2024	1232 WED	-NR-
24MAR24	-6 Days =	18 MAR 2024	1259 TUE	1088
24MAR24	-7 Days =	17 MAR 2024	1302 MON	1103
24MAR24	-8 Days =	16 MAR 2024	1348 SUN	1112
24MAR24	-9 Days =	15 MAR 2024	1409 SAT	1121
24MAR24	-10 Days =	14 MAR 2024	1482 FRI	1162
24MAR24	-11 Days =	13 MAR 2024	1576 THU	1168
24MAR24	-12 Days =	12 MAR 2024	1679 WED	1196
24MAR24	-13 Days =	11 MAR 2024	1802 TUE	1270

S65EX1

		Average Flow over previous 14 days		Avg-Daily Flow
24MAR24	Today=	24 MAR 2024	0 MON	0
24MAR24	-1 Day =	23 MAR 2024	0 SUN	0
24MAR24	-2 Days =	22 MAR 2024	0 SAT	0
24MAR24	-3 Days =	21 MAR 2024	0 FRI	0
24MAR24	-4 Days =	20 MAR 2024	0 THU	0
24MAR24	-5 Days =	19 MAR 2024	0 WED	0
24MAR24	-6 Days =	18 MAR 2024	0 TUE	0
24MAR24	-7 Days =	17 MAR 2024	0 MON	0
24MAR24	-8 Days =	16 MAR 2024	0 SUN	0
24MAR24	-9 Days =	15 MAR 2024	0 SAT	0
24MAR24	-10 Days =	14 MAR 2024	0 FRI	0
24MAR24	-11 Days =	13 MAR 2024	0 THU	0
24MAR24	-12 Days =	12 MAR 2024	0 WED	0
24MAR24	-13 Days =	11 MAR 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)
24 MAR 2024	9441	-NR-	10646	13042
23 MAR 2024	9201	-NR-	11540	13975
22 MAR 2024	9172	-NR-	11627	14919
21 MAR 2024	9109	-NR-	11096	12113
20 MAR 2024	9466	-NR-	10675	10909
19 MAR 2024	9661	-NR-	10653	12480
18 MAR 2024	8943	-NR-	9342	11486
17 MAR 2024	5532	-NR-	6028	6890
16 MAR 2024	191	-NR-	34	22
15 MAR 2024	237	-NR-	29	26
14 MAR 2024	16	-NR-	30	15
13 MAR 2024	3449	-NR-	2615	3961
12 MAR 2024	8783	-NR-	10009	10720
11 MAR 2024	9967	-NR-	11505	12592

	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)
24 MAR 2024	-NR-	0	0	0	194
23 MAR 2024	-NR-	0	0	0	197
22 MAR 2024	-NR-	0	0	0	174
21 MAR 2024	-NR-	0	0	211	165
20 MAR 2024	-NR-	22	44	291	188
19 MAR 2024	-NR-	570	272	1516	216
18 MAR 2024	-NR-	1828	458	1463	288
17 MAR 2024	-NR-	1865	493	1527	215
16 MAR 2024	-NR-	2337	492	1657	215
15 MAR 2024	-NR-	482	540	1711	217
14 MAR 2024	-NR-	349	540	1501	213
13 MAR 2024	-NR-	0	696	588	209
12 MAR 2024	-NR-	117	837	605	193
11 MAR 2024	-NR-	1001	460	895	172

	S-308	Below S-308	S-80
	Discharge	Discharge	Discharge
	(ALL DAY)	(ALL-DAY)	(ALL-DAY)
DATE	(AC-FT)	(AC-FT)	(AC-FT)
24 MAR 2024	5251	-NR-	6278
23 MAR 2024	5155	-NR-	5044
22 MAR 2024	4207	-NR-	4077
21 MAR 2024	3181	-NR-	2889
20 MAR 2024	2608	-NR-	2542
19 MAR 2024	1804	-NR-	1678
18 MAR 2024	7	-NR-	30
17 MAR 2024	14	-NR-	31
16 MAR 2024	7	-NR-	38
15 MAR 2024	13	-NR-	46
14 MAR 2024	9	-NR-	42
13 MAR 2024	782	-NR-	562
12 MAR 2024	2720	-NR-	2087
11 MAR 2024	2763	-NR-	2336

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

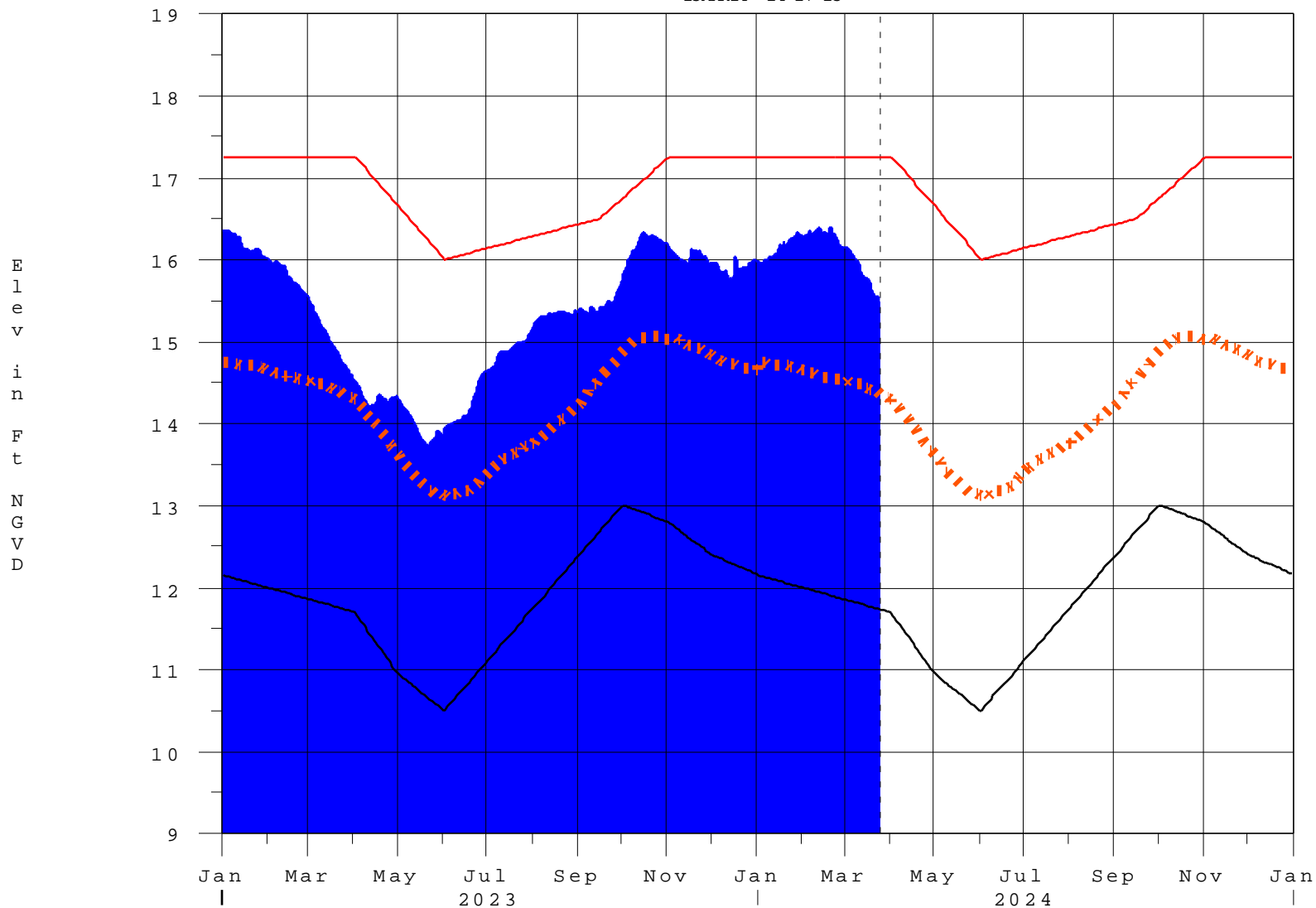
(I) - Flows preceded by "I" signify an instantaneous flow computed from the single value reported for the day

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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 25MAR2024 @ 14:15 ** Preliminary Data - Subject to Revision **

Lake Okeechobee

25MAR24 14:17:15



- 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