

Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 05/15/2023 (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 Neutral ENSO Years**		Sub-sampling of AMO Warm + Neutral 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	2.15	Very Wet	2.48	Very Wet	3.49	Very Wet
Multi Seasonal (May-Apr)	N/A	N/A	2.68	Wet	3.35	Wet	4.12	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:

-4121 cfs 14-day running average for Lake Okeechobee Net Inflow through 05/14/2023. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

-2.29 for Palmer Drought Index on 05/13/2023. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

The wetter of the two conditions above is **Dry**.

LORS2008 Classification Tables:

Lake Okeechobee Stage on 05/15/2023:

Lake Okeechobee Stage: **13.91 feet**

Lake Okeechobee Management Zone/Band		Bottom Elevation (feet, NGVD)	Current Lake Stage
High Lake Management Band		16.37	
Operational Band	High sub-band	15.80	
	Intermediate sub-band	15.14	
	Low sub-band	13.18	← 13.91 ft
Base Flow sub-band		12.60	
Beneficial Use sub-band		10.75	
Water Shortage Management Band			

Part C of LORS2008: Discharge to WCAs

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 05/15/2023 (ENSO Condition- Neutral Watch):

Status for week ending 05/15/2023*:

Water Supply Risk Evaluation

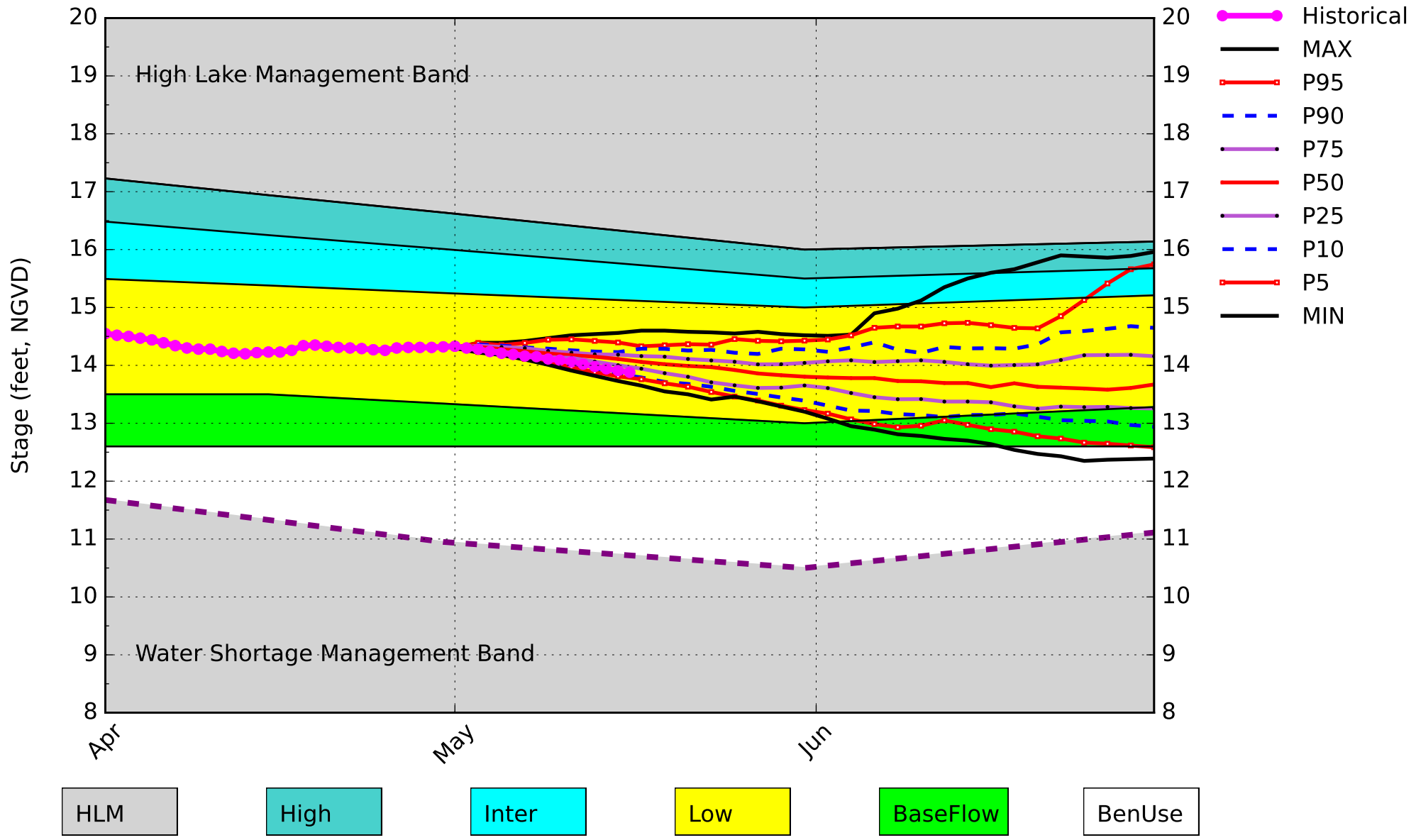
Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Low Sub-band	L
	Palmer Drought Index for LOK Tributary Conditions	-2.29 (Extremely Dry)	H
	CPC Precipitation Outlook	1 month: Above Normal	L
		3 months: Above Normal	L
	LOK Seasonal Net Inflow Outlook	2.48 ft	L
	ENSO Forecast	Normal to Extremely Wet	L
	LOK Multi-Seasonal Net Inflow Outlook	3.35 ft	L
	ENSO Forecast	Wet	L
WCAs	WCA 1: 3 Station Average (Site 1-8C)	Above Line 1 (15.72 ft)	L
	WCA 2A: Site S-11B	Above Line 1 (11.80 ft)	L
	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Above Line 1 (8.97 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.

*- S351, S352, and S354 flow data for May 13th is not available from the USACE Daily Reports and was substituted with alternative data sources from SFWMD DBHYDRO. Lake Okeechobee stage data for May 13th is not available from the USACE Daily Reports and was substituted with 4-Gauge average from SFWMD.

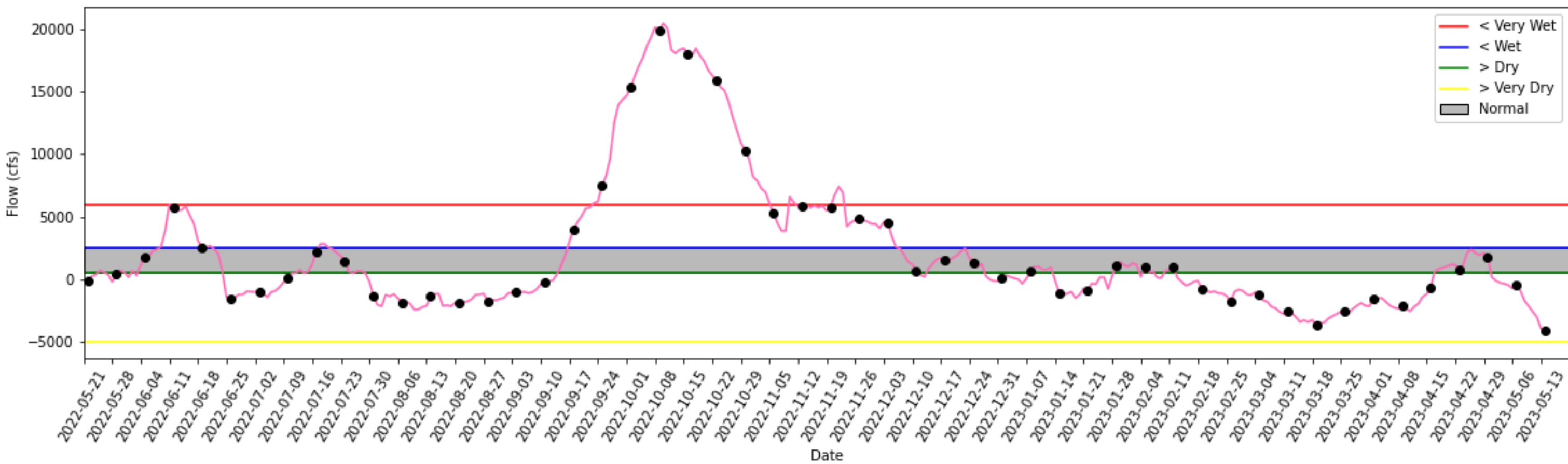
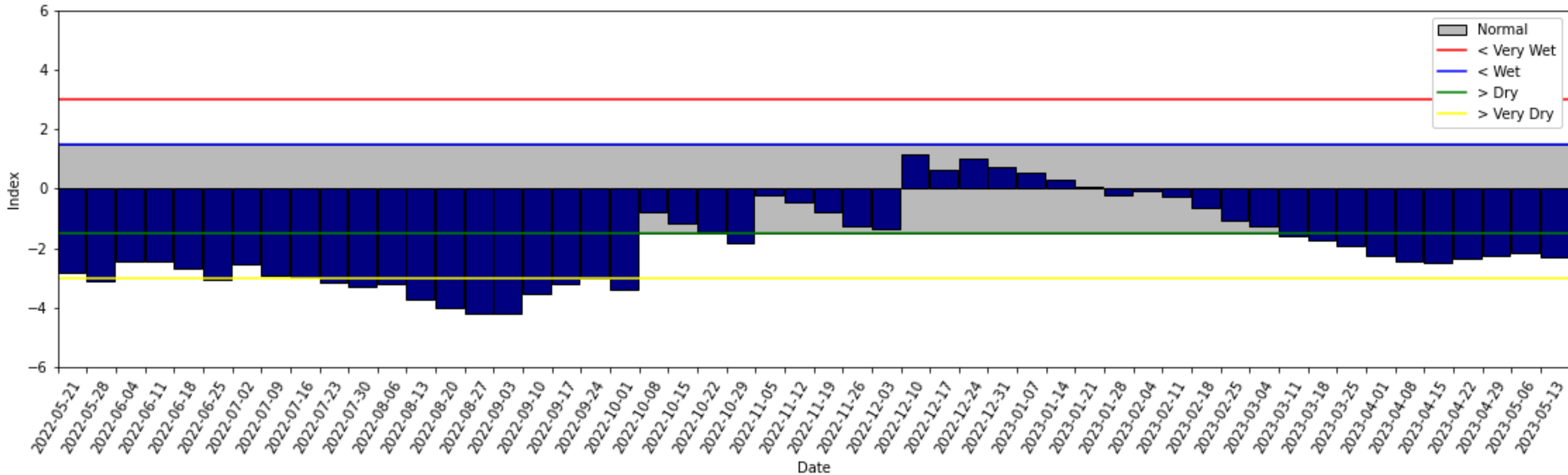
Lake Okeechobee SFWMM May 2023 Position Analysis

Percentiles PA



(See assumptions on the Position Analysis Results website)

Tributary Basin Condition Indicators as of May 14 2023



2008 LORS

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

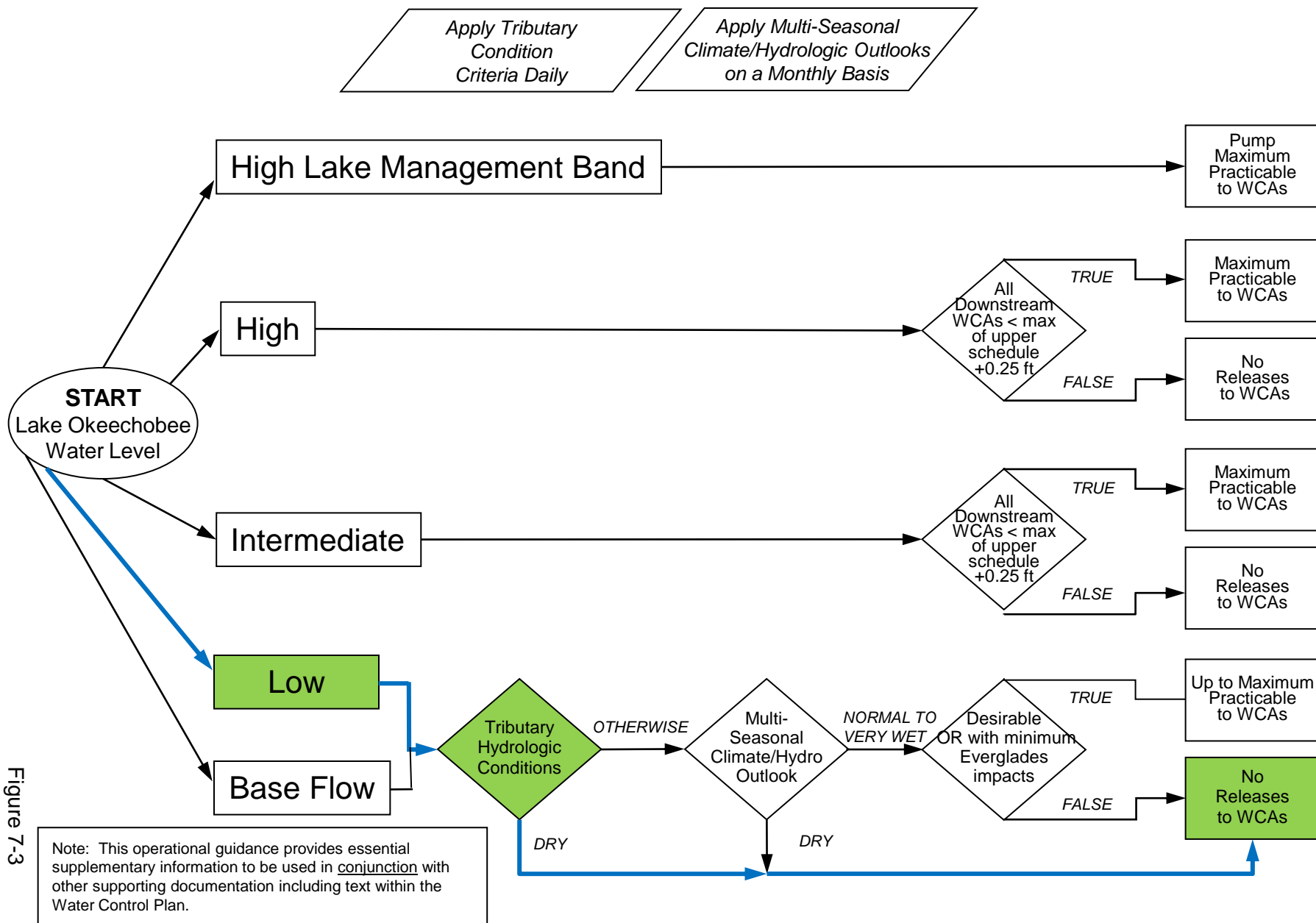


Figure 7-3

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

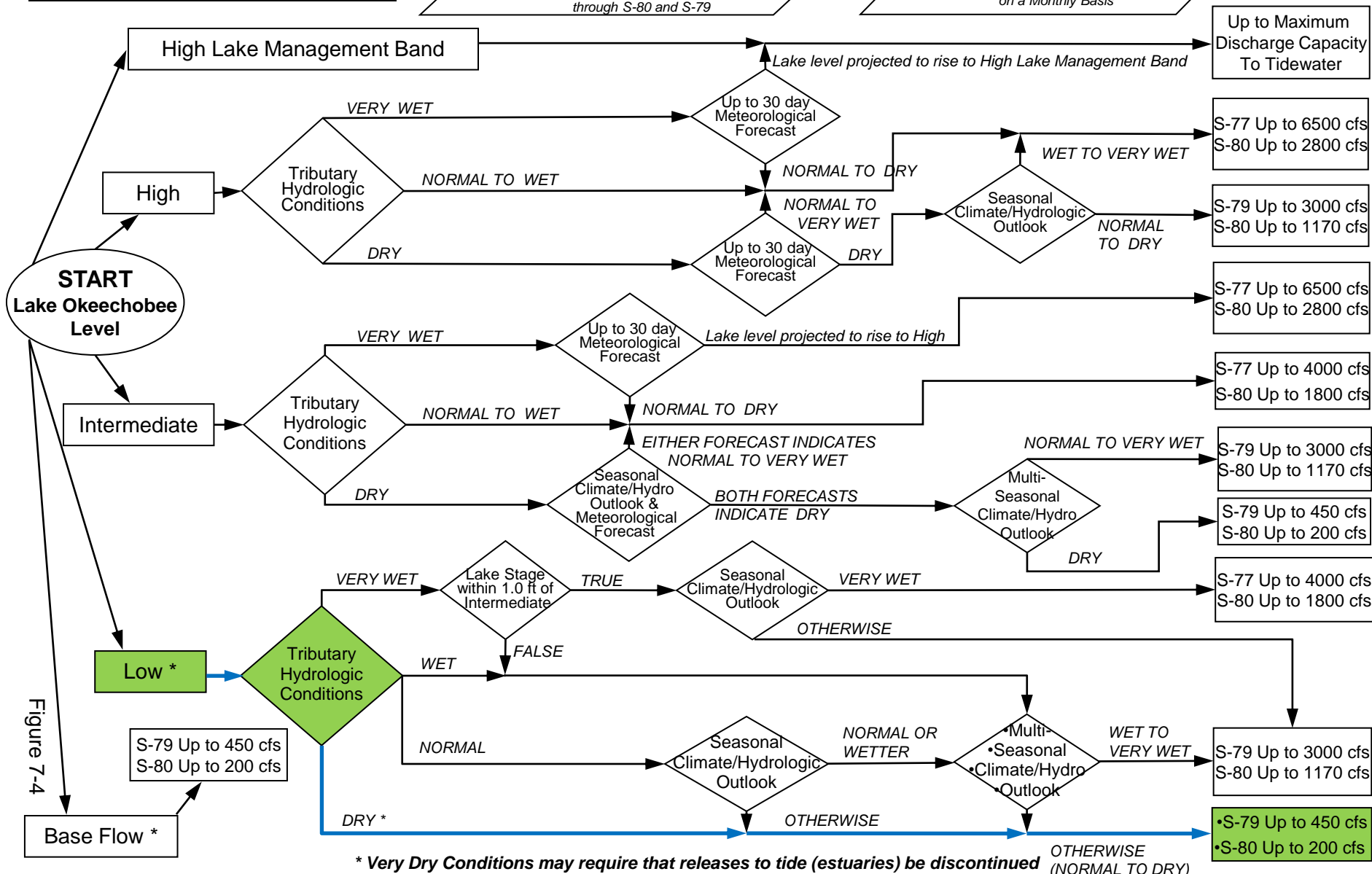
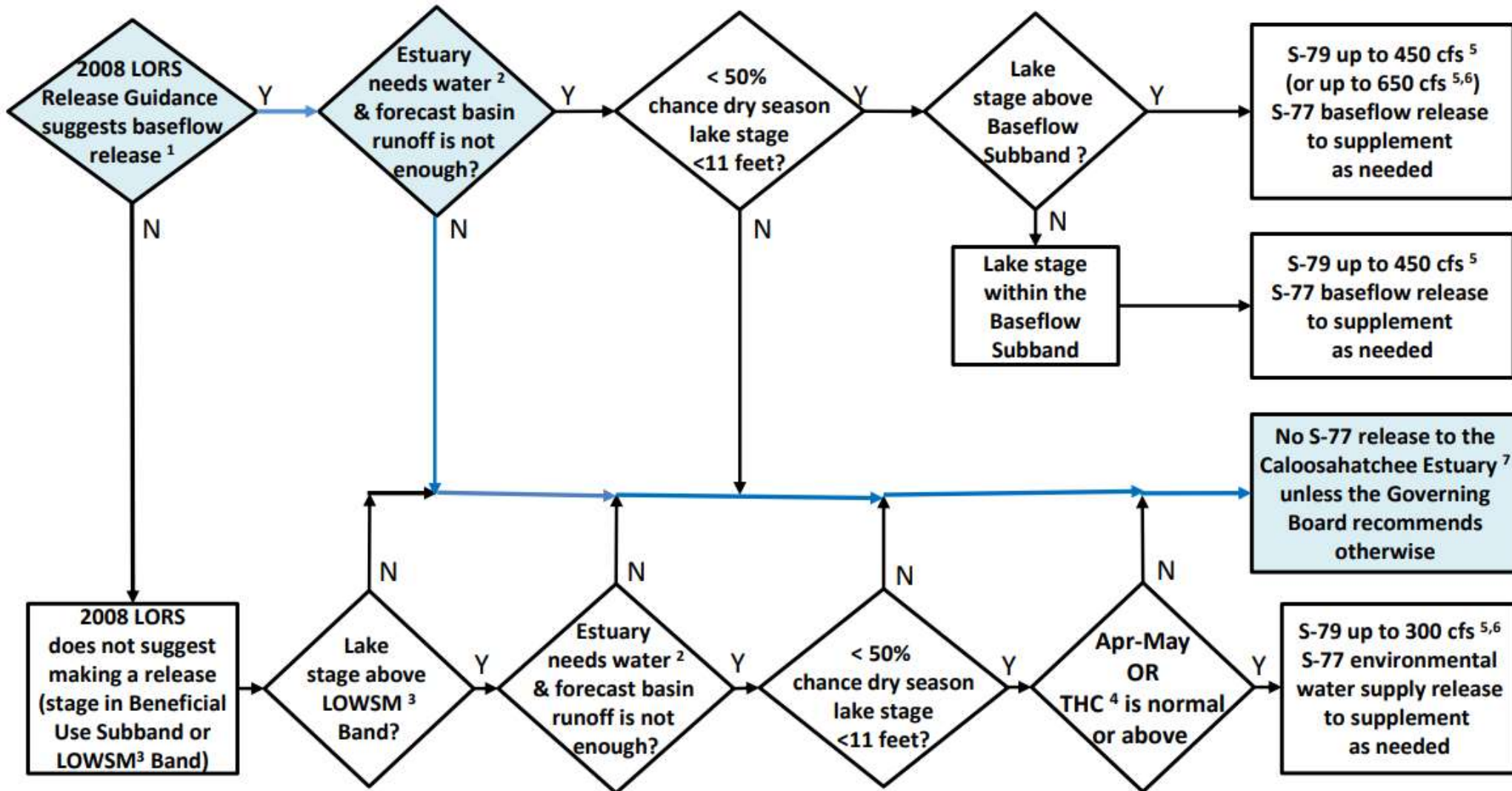


Figure 7-4

Flowchart to Guide Recommendations for Lake Okeechobee Releases to the Caloosahatchee Estuary for 2008 LORS Baseflow & for Environmental Water Supply (revised 9-Aug-2012)



¹The 2008 LORS Release Guidance (Part D) can suggest baseflow releases in the Intermediate, Low, or Baseflow Subbands.

²Estuary “needs” water when the 30-day moving average salinity at I-75 bridge is projected to exceed 5 practical salinity units (psu) within 2 weeks.

³LOWSM = Lake Okeechobee Water Shortage Management.

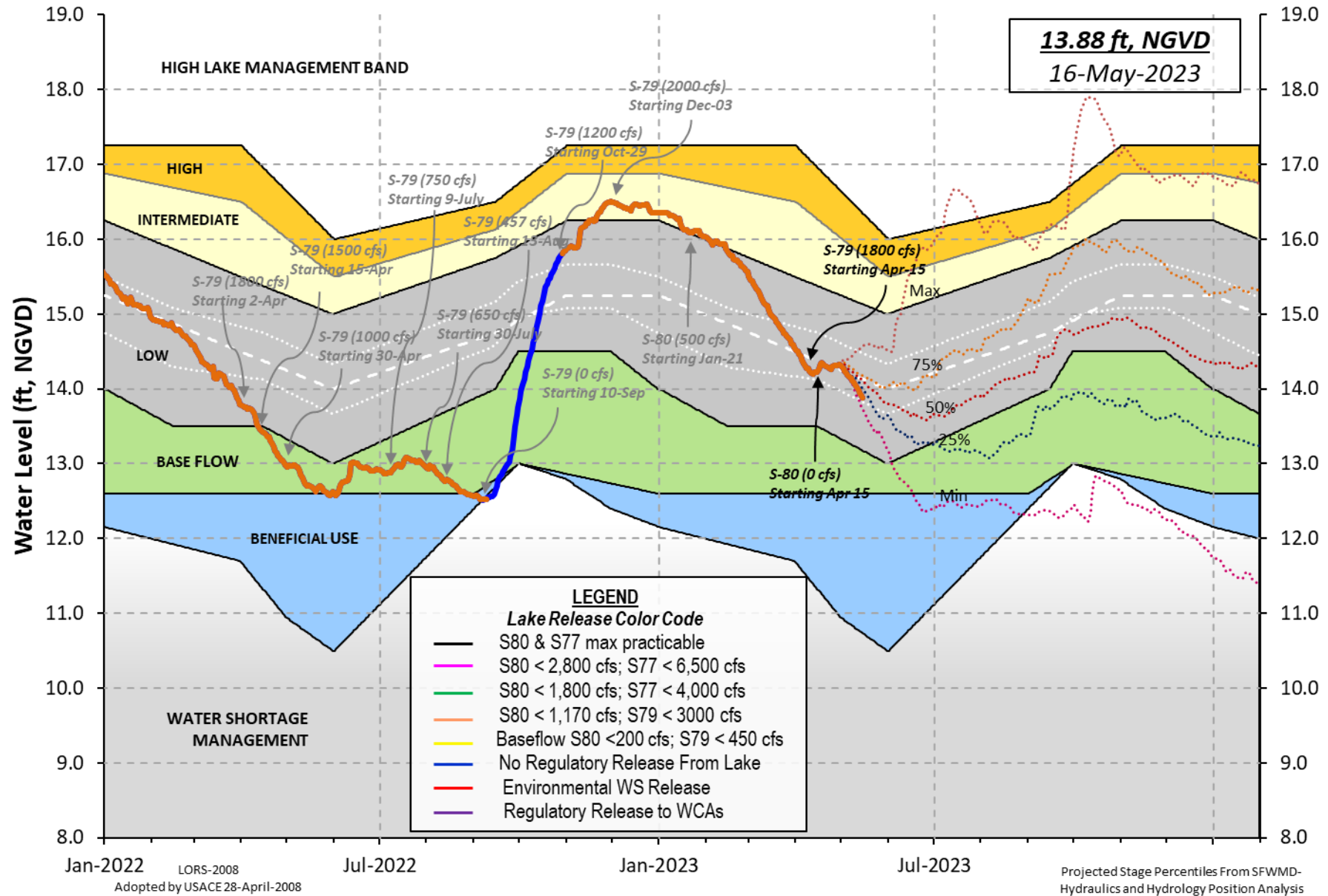
⁴Tributary Hydrologic Condition (THC) is based on classification of Lake Okeechobee Net Inflow and Palmer Index.

⁵Can release less than the “up to” limit if lower release is sufficient to reach or sustain desired estuary salinity; cfs = cubic feet per second.

⁶After reviewing conditions in Water Conservation Areas (WCAs), Stormwater Treatment Areas (STAs), ENP, St. Lucie Estuary and Lake Okeechobee.

⁷Should this condition be reached, the Governing Board will be briefed at their next regularly scheduled meeting as part of the State of the Water Resources agenda item.

Lake Okeechobee Water Level History and Projected Stages



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

	Headwater (ft-msl)	Tailwater (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: _____		-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	(cfs)
S193: _____											
S191: _____		-NR-	-NR-	-NR-	-NR-	-NR-					
S135 Pumps: _____		-NR-	-NR-	-NR-	-NR-	-NR-	-NR-				(cfs)
S135 Culverts:			-NR-	-NR-	-NR-						
North West Shore											
S65E: _____		-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	
S65EX1: _____		-NR-	-NR-								
S127 Pumps: _____		-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	(cfs)
S127 Culvert:			-NR-	-NR-							
S129 Pumps: _____		-NR-	-NR-	-NR-	-NR-	-NR-					(cfs)
S129 Culvert:			-NR-	-NR-							
S131 Pumps: _____		-NR-	-NR-	-NR-	-NR-						(cfs)
S131 Culvert:			-NR-								
Fisheating Creek											
nr Palmdale		27.23	0								
nr Lakeport											
C5: _____		-NR-	0	-NR-	-NR-	-NR-					
South Shore											
S4 Pumps: _____		-NR-	-NR-	-NR-	-NR-	-NR-					(cfs)
S169: _____		-NR-	-NR-	-NR-	-NR-	-NR-					
S310: 14.01			87								
S3 Pumps: _____		-NR-	-NR-	-NR-	-NR-	-NR-					(cfs)
S354: -NR-		-NR-	-NR-	-NR-	-NR-						
S2 Pumps: _____		-NR-	-NR-	-NR-	-NR-	-NR-	-NR-				(cfs)
S351: -NR-		-NR-	-NR-	-NR-	-NR-	-NR-					
S352: _____		-NR-	-NR-	-NR-	-NR-						
C10A: -NR-		-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	
L8 Canal PT		13.76	225								

S351 and S352 Temporary Pumps/S354 Spillway

S351: _____		-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	
S352: -NR-		-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	
S354: _____		-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	

Caloosahatchee River (S77, S78, S79)

S47B: _____		-NR-		-NR-	-NR-						
S47D: _____		-NR-	-NR-	-NR-							

S77:

Spillway and Sector Preferred Flow:

13.90 10.91 1051 0.5 3.0 0.5 0.5

Flow Due to Lockages+: 2

S78:

Spillway and Sector Flow:
 10.93 3.06 874 0.0 0.0 2.5 0.0
 Flow Due to Lockages+: -NR-

S79:

Spillway and Sector Flow:
 3.27 1.83 1241 0.0 0.0 0.0 1.5 2.0 1.0 0.0 0.0
 Flow Due to Lockages+: 10
 Percent of flow from S77 85%
 Chloride (ppm) 0

St. Lucie Canal (S308, S80)

S308:

Spillway and Sector Preferred Flow:
 13.86 13.69 0 0.0 0.0 0.0 0.0
 Flow Due to Lockages+: -NR-

S153: _____ -NR- -NR- -NR- -NR-

S80:

Spillway and Sector Flow:
 13.69 0.69 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Flow Due to Lockages+: 11
 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:	-NR-	0.00	0.00	116	6
S78:	-NR-	0.00	0.00	97	7
S79:	-NR-	0.00	0.00	67	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:	-NR-	0.00	0.00	67	4
S80:	-NR-	0.00	0.00	118	2
Okeechobee Average (Sites S78, S79 and S80 not included)	-NR-	0.00	0.00		

Oke Nexrad Basin Avg	-NR-	0.00	0.00		

Okeechobee Lake Elevations 14 MAY 2023 -NR- Difference from 14MAY23
 14MAY23 -1 Day = 13 MAY 2023 -NR- -NR-

14MAY23	-2 Days =	12 MAY 2023	13.98	-NR-
14MAY23	-3 Days =	11 MAY 2023	14.02	-NR-
14MAY23	-4 Days =	10 MAY 2023	14.06	-NR-
14MAY23	-5 Days =	09 MAY 2023	14.09	-NR-
14MAY23	-6 Days =	08 MAY 2023	14.11	-NR-
14MAY23	-7 Days =	07 MAY 2023	14.15	-NR-
14MAY23	-30 Days =	14 APR 2023	14.23	-NR-
14MAY23	-1 Year =	14 MAY 2022	12.71	-NR-
14MAY23	-2 Year =	14 MAY 2021	13.57	-NR-

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
14MAY23	Today =	14 MAY 2023	-4004 MON	-NR-
14MAY23	-1 Day =	13 MAY 2023	-3452 SUN	-NR-
14MAY23	-2 Days =	12 MAY 2023	-2997 SAT	-5388
14MAY23	-3 Days =	11 MAY 2023	-2570 FRI	-5208
14MAY23	-4 Days =	10 MAY 2023	-2116 THU	-2800
14MAY23	-5 Days =	09 MAY 2023	-1702 WED	-1551
14MAY23	-6 Days =	08 MAY 2023	-896 TUE	-6248
14MAY23	-7 Days =	07 MAY 2023	-479 MON	115
14MAY23	-8 Days =	06 MAY 2023	-705 SUN	-4862
14MAY23	-9 Days =	05 MAY 2023	-449 SAT	-3173
14MAY23	-10 Days =	04 MAY 2023	-343 FRI	-5084
14MAY23	-11 Days =	03 MAY 2023	-267 THU	-6419
14MAY23	-12 Days =	02 MAY 2023	-111 WED	-2198
14MAY23	-13 Days =	01 MAY 2023	197 TUE	-5231

S65E

Average Flow over previous 14 days				Avg-Daily Flow
14MAY23	Today=	14 MAY 2023	282 MON	-NR-
14MAY23	-1 Day =	13 MAY 2023	281 SUN	-NR-
14MAY23	-2 Days =	12 MAY 2023	284 SAT	295
14MAY23	-3 Days =	11 MAY 2023	285 FRI	283
14MAY23	-4 Days =	10 MAY 2023	288 THU	302
14MAY23	-5 Days =	09 MAY 2023	300 WED	306
14MAY23	-6 Days =	08 MAY 2023	305 TUE	314
14MAY23	-7 Days =	07 MAY 2023	304 MON	272
14MAY23	-8 Days =	06 MAY 2023	303 SUN	253
14MAY23	-9 Days =	05 MAY 2023	301 SAT	251
14MAY23	-10 Days =	04 MAY 2023	304 FRI	272
14MAY23	-11 Days =	03 MAY 2023	305 THU	290
14MAY23	-12 Days =	02 MAY 2023	309 WED	264
14MAY23	-13 Days =	01 MAY 2023	317 TUE	283

S65EX1

Average Flow over previous 14 days				Avg-Daily Flow
14MAY23	Today=	14 MAY 2023	0 MON	-NR-
14MAY23	-1 Day =	13 MAY 2023	0 SUN	-NR-
14MAY23	-2 Days =	12 MAY 2023	0 SAT	0
14MAY23	-3 Days =	11 MAY 2023	0 FRI	0
14MAY23	-4 Days =	10 MAY 2023	0 THU	0
14MAY23	-5 Days =	09 MAY 2023	0 WED	0
14MAY23	-6 Days =	08 MAY 2023	0 TUE	0
14MAY23	-7 Days =	07 MAY 2023	0 MON	0
14MAY23	-8 Days =	06 MAY 2023	0 SUN	0
14MAY23	-9 Days =	05 MAY 2023	0 SAT	0
14MAY23	-10 Days =	04 MAY 2023	0 FRI	0
14MAY23	-11 Days =	03 MAY 2023	0 THU	0
14MAY23	-12 Days =	02 MAY 2023	0 WED	0
14MAY23	-13 Days =	01 MAY 2023	3 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)
14 MAY 2023	2053	2237	-NR-	2487
13 MAY 2023	3512	3418	1976	2734
12 MAY 2023	4156	4257	2885	3759
11 MAY 2023	5333	5517	3653	4672
10 MAY 2023	5356	5305	4025	4939
09 MAY 2023	4107	3817	3223	3918
08 MAY 2023	2851	2821	1950	2563
07 MAY 2023	3836	3655	2191	2772
06 MAY 2023	2838	3037	2036	2105
05 MAY 2023	1780	2101	1313	2287
04 MAY 2023	2199	2405	1718	2701
03 MAY 2023	3873	3915	2979	3424
02 MAY 2023	3947	4211	3512	4139
01 MAY 2023	2238	2940	3085	4937

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)
14 MAY 2023	173	-NR-	-NR-	-NR-	446
13 MAY 2023	226	-NR-	-NR-	-NR-	445
12 MAY 2023	422	176	687	719	378
11 MAY 2023	434	158	0	553	428
10 MAY 2023	123	119	0	546	433
09 MAY 2023	50	93	0	652	346
08 MAY 2023	-46	146	0	909	311
07 MAY 2023	-9	158	0	0	286
06 MAY 2023	-27	160	0	0	318
05 MAY 2023	4	160	0	0	272
04 MAY 2023	-9	117	0	0	195
03 MAY 2023	24	0	0	0	906
02 MAY 2023	-72	0	0	0	170
01 MAY 2023	*****	0	0	0	-17

DATE	S-308 Discharge (ALL DAY) (AC-FT)	Below S-308 Discharge (ALL-DAY) (AC-FT)	S-80 Discharge (ALL-DAY) (AC-FT)
14 MAY 2023	-NR-	-NR-	22
13 MAY 2023	-NR-	-NR-	15
12 MAY 2023	-NR-	-NR-	11
11 MAY 2023	0	-NR-	23
10 MAY 2023	573	-NR-	8
09 MAY 2023	270	-NR-	11
08 MAY 2023	583	-NR-	15
07 MAY 2023	209	-NR-	18
06 MAY 2023	1	-NR-	41
05 MAY 2023	0	-NR-	0
04 MAY 2023	0	-NR-	11
03 MAY 2023	0	-NR-	942
02 MAY 2023	-0	-NR-	8
01 MAY 2023	1	-NR-	338

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

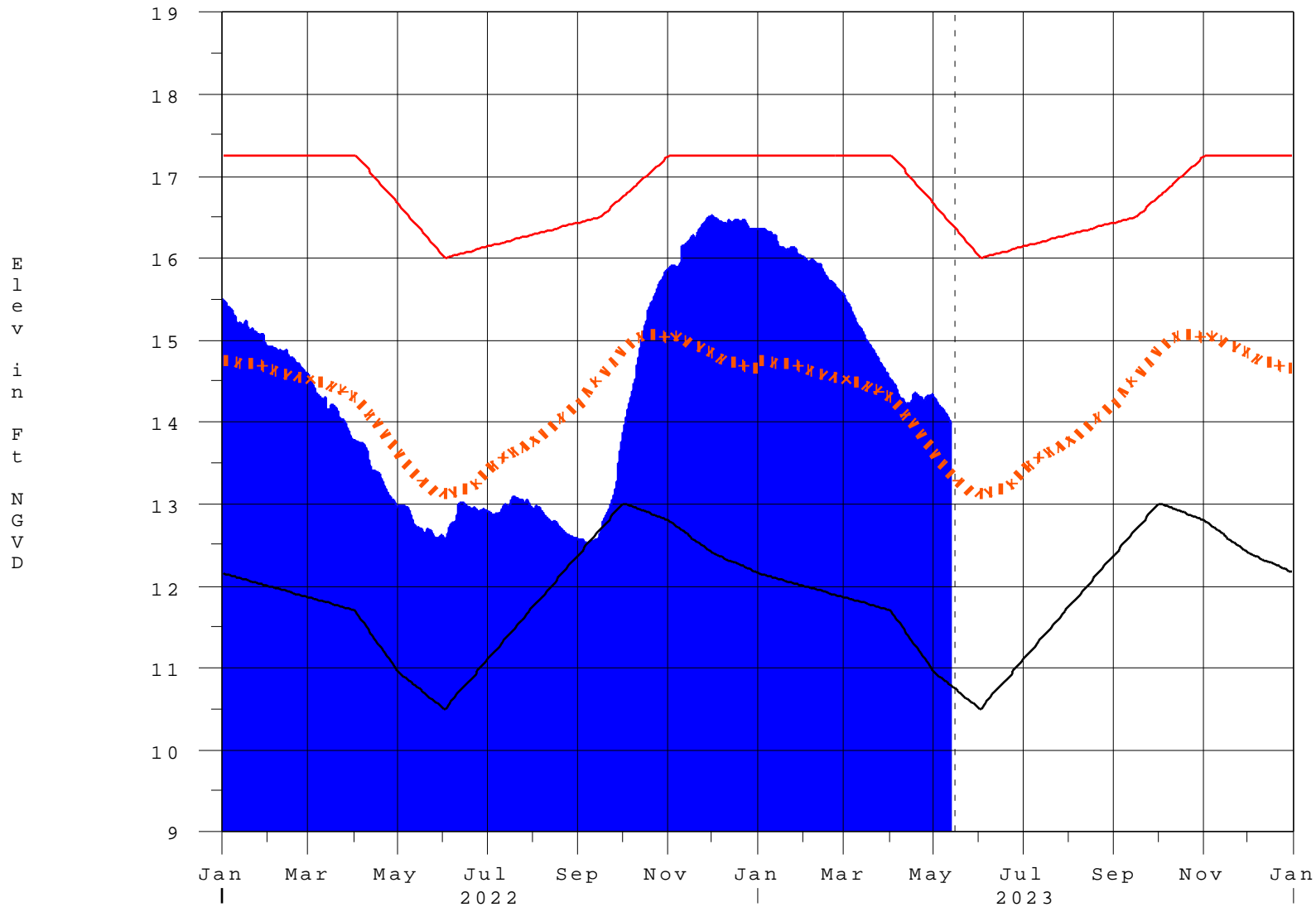
(I) - Flows preceded by "I" signify an instantaneous flow computed from the single value reported for the day

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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 15MAY2023 @ 08:45 ** Preliminary Data - Subject to Revision **

Lake Okeechobee

15MAY23 08:45:23



- 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