

# Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 03/21/2022 (ENSO Condition: La Niña)

## Lake Okeechobee Net Inflow Outlook:

The Lake Okeechobee Net Inflow Outlook has been computed using 4 methods: Croley's method<sup>1</sup>, the SFWMD empirical method<sup>2</sup>, a sub-sampling of La Nina years<sup>3</sup> and a sub-sampling of warm years of the Atlantic Multi-decadal Oscillation (AMO) in combination with La Nina ENSO years<sup>4</sup>. 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 <sup>1*</sup>		SFWMD Empirical Method <sup>2</sup>		Sub-sampling of La Nina ENSO Years <sup>3</sup>		Sub-sampling of AMO Warm + La Nina ENSO Years <sup>4</sup>	
	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	1.19	Normal	0.67	Dry	0.85	Normal
Multi Seasonal (Mar-Oct)	N/A	N/A	2.70	Wet	2.02	Normal	2.10	Normal

\*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 ENSO forecast used.

## ***Tributary Hydrologic Conditions Graph:***

**-1022 cfs** 14-day running average for Lake Okeechobee Net Inflow through 03/21/2022. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

**-2.65** for Palmer Drought Index on 03/21/2022. 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 03/21/2022:**

Lake Okeechobee Stage: **14.13 feet**

Lake Okeechobee Management Zone/Band		Bottom Elevation (feet, NGVD)	Current Lake Stage
High Lake Management Band		17.25	
Operational Band	High sub-band	16.55	
	Intermediate sub-band	15.59	
	Low sub-band	13.50	← 14.13 ft
Base Flow sub-band		12.60	
Beneficial Use sub-band		11.76	
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.

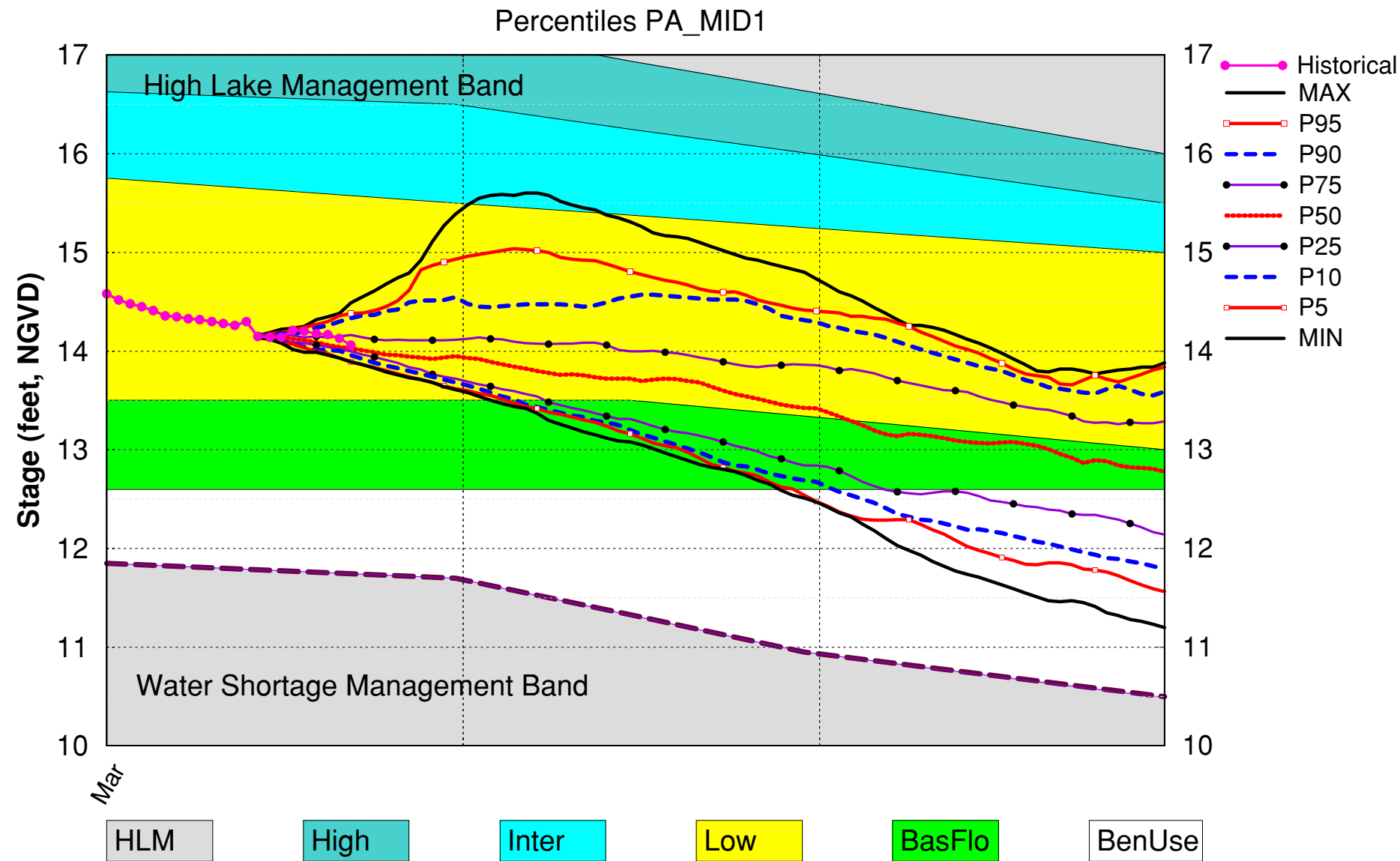
**LORS2008 Implementation on 03/21/2022 (ENSO Condition- La Nina Watch):****Status for week ending 03/21/2022:****Water Supply Risk Evaluation**

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	-2.65 (Extremely Dry)	H
	CPC Precipitation Outlook	1 month: Below Normal	M
		3 months: Normal	L
	LOK Seasonal Net Inflow Outlook	0.67 ft	M
	ENSO Forecast	Dry	
	LOK Multi-Seasonal Net Inflow Outlook	2.02 ft	M
	ENSO Forecast	Normal	
WCAs	WCA 1: 3 Station Average (Sites 1-7, 1-8T and 1-9)	Above Line 1 (16.49 ft)	L
	WCA 2A: Site 2-17	Above Line 1 (12.07 ft)	L
	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Above Line 1 (9.15 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

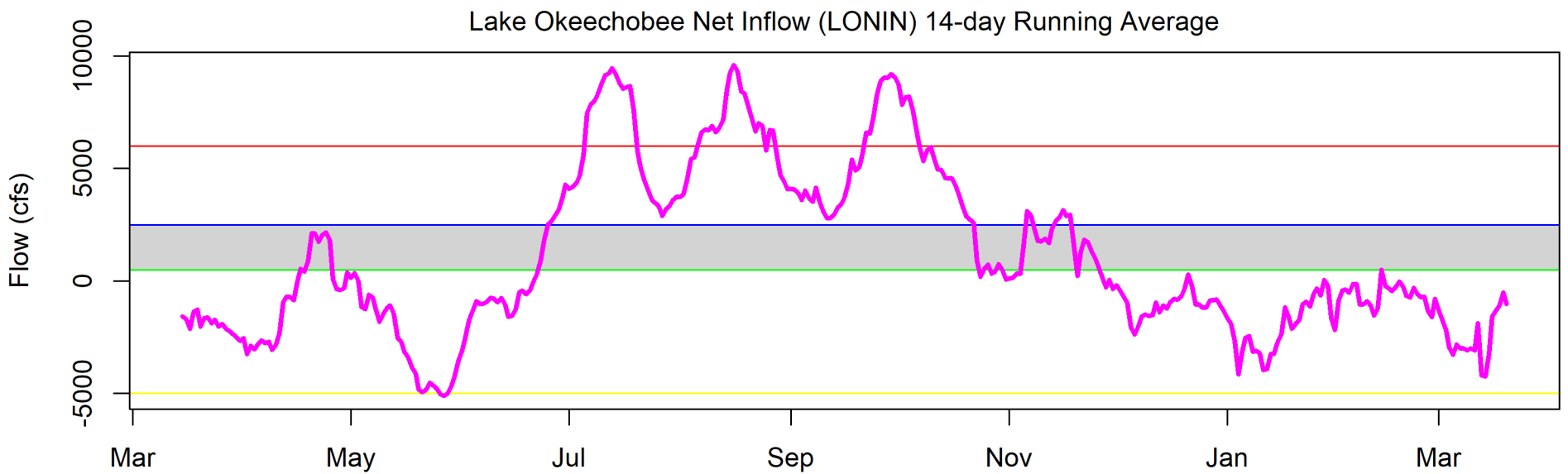
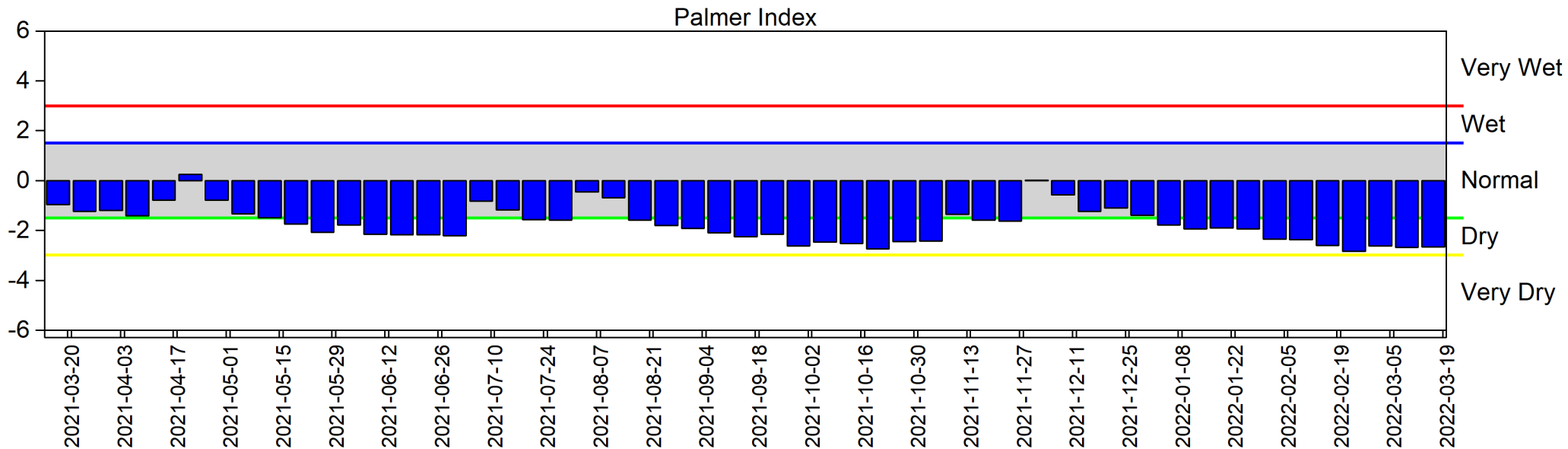
Note: The water supply risk classification based on the Palmer index, as well as the LOK seasonal and multi-seasonal net inflow outlooks use slightly different classification intervals than those used by the 2008-LORS.

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# Lake Okeechobee SFWMM Mar Mid–Mon 2022 Position Analysis



(See assumptions on the Position Analysis Results website)



# 2008 LORS

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

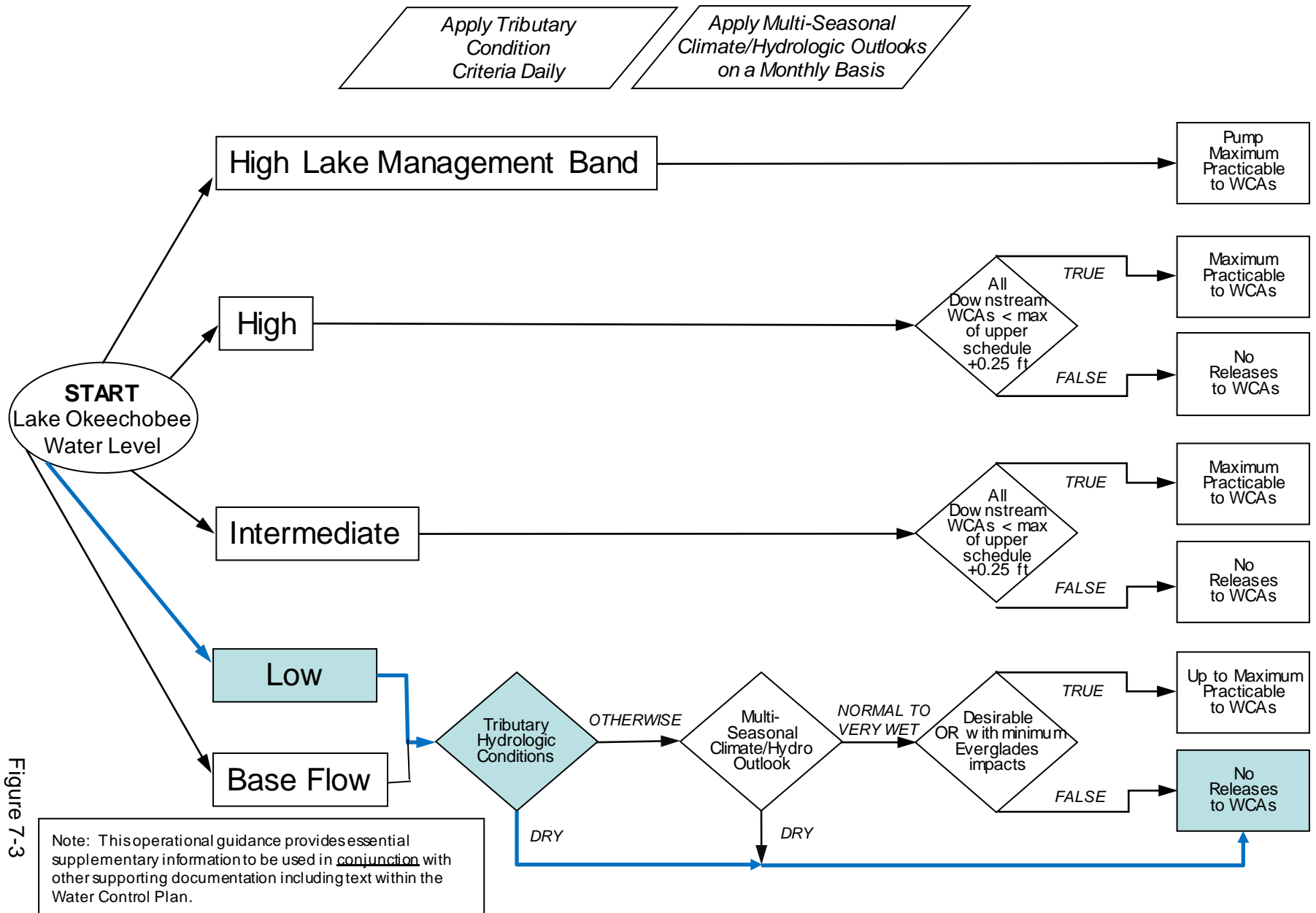
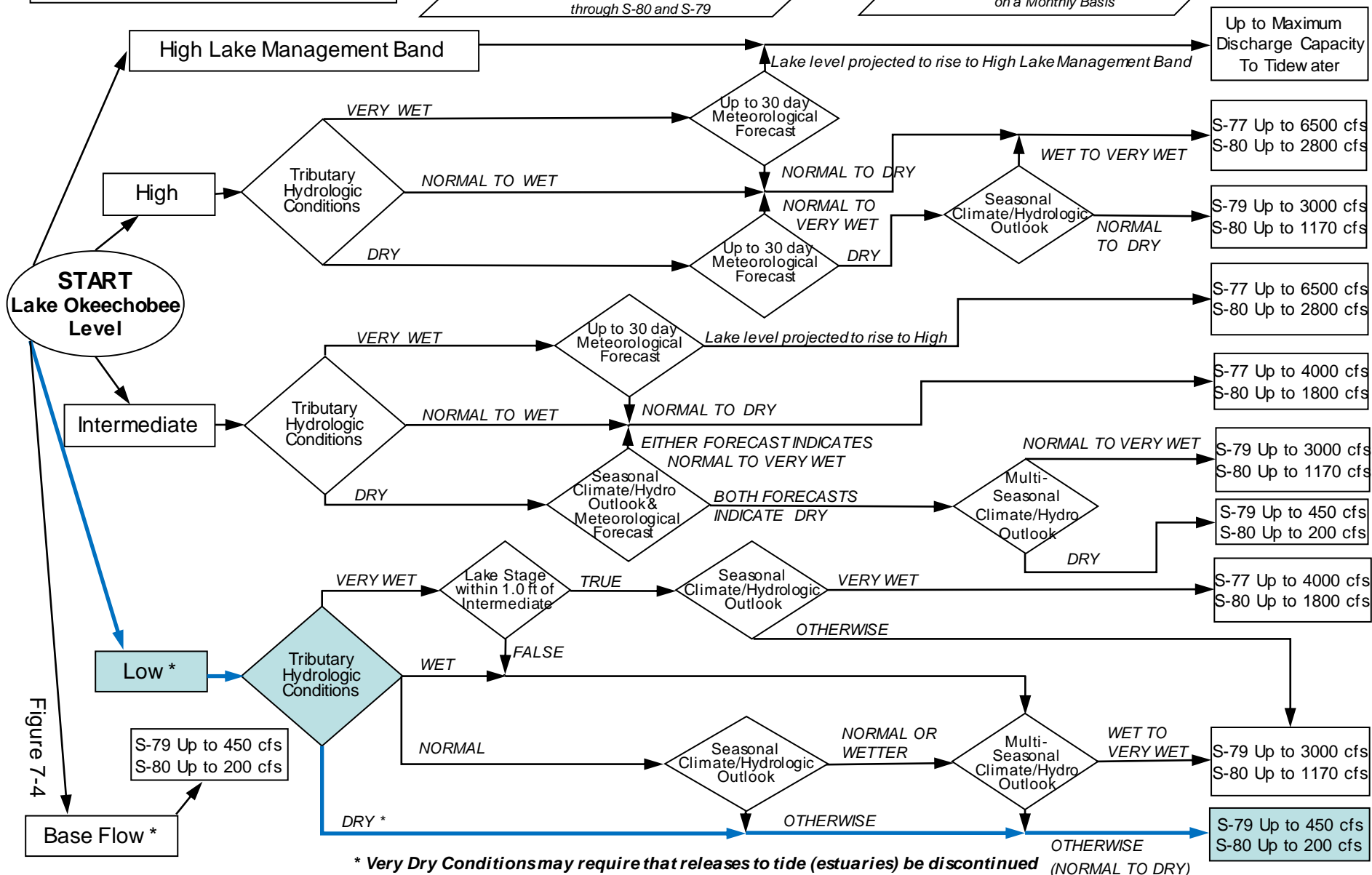


Figure 7-3

## Part D: Establish Allowable Lake Okeechobee Releases to Tide (Estuaries)

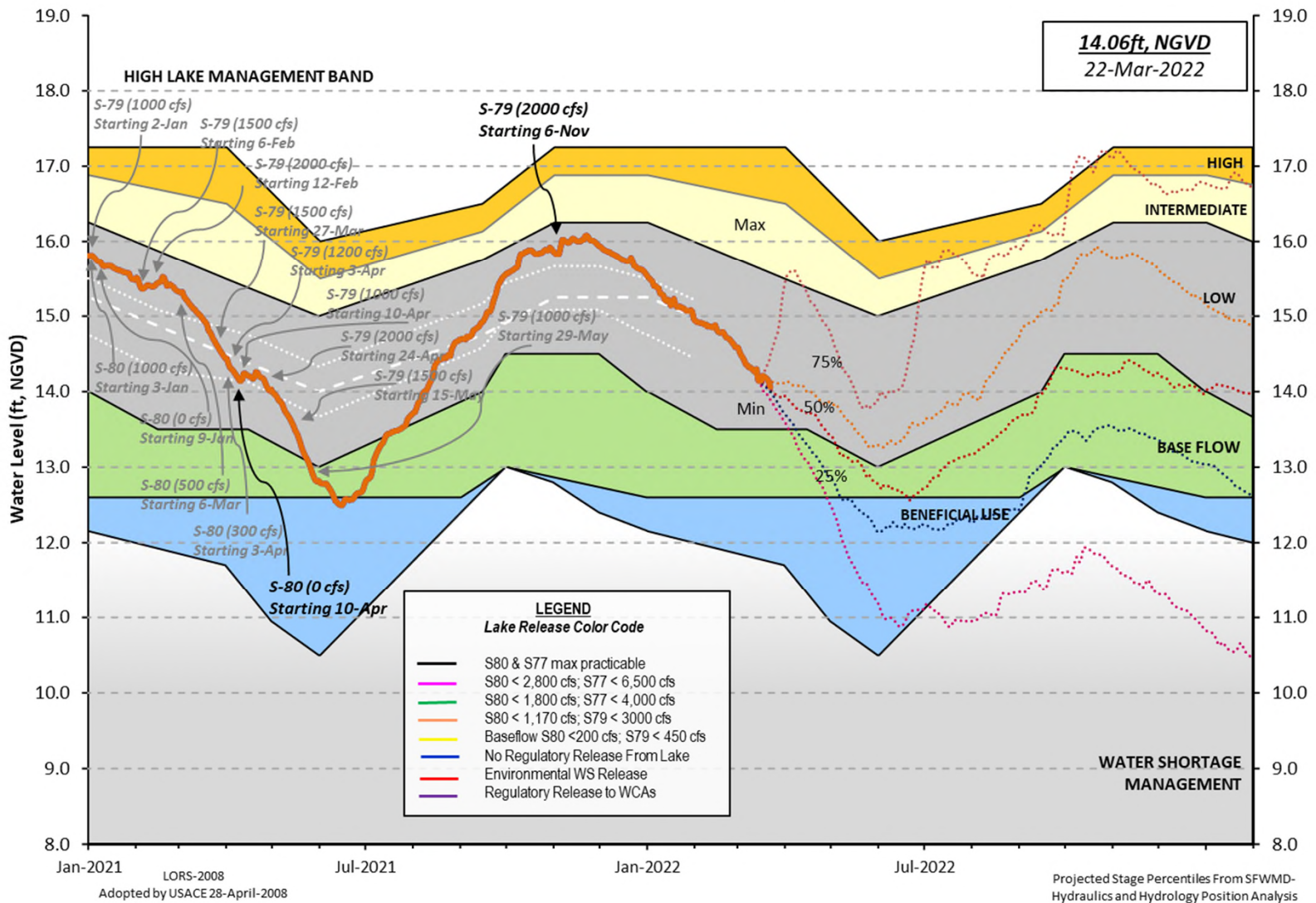
*When conducting Base Flow releases,  
flows can be distributed East and West  
up to 650 cfs as needed  
to minimize impacts or provide benefits  
through S-80 and S-79*

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





# 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     20 MAR 2022

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Okeechobee Lake Regulation	Elevation	Last Year	2YRS Ago
	(ft-NGVD)	(ft-NGVD)	(ft-NGVD)
*Okeechobee Lake Elevation	14.13	14.81	12.24 (Official Elv)
Bottom of High Lake Mngmt= 17.25    Top of Water Short Mngmt= 11.76			
Currently in Operational Management Band			

Simulated Average LORS2008 [1965-2000]	13.16
Difference from Average LORS2008	0.97

20MAR (1965-2007) Period of Record Average	14.41
Difference from POR Average	-0.28

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

++Navigation Depth (Based on 2007 Channel Condition Survey) Route 1 ÷ 8.07'

++Navigation Depth (Based on 2008 Channel Condition Survey) Route 2 ÷ 6.27'

Bridge Clearance = 49.65'

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

L001	L005	L006	LZ40	S4	S352	S308	S133
14.07	14.19	14.16	14.13	-NR-	14.24	14.10	13.97

\*Combination Okeechobee Avg-Daily Lake Average = 14.13  
(\*See Note)

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Okeechobee Inflows (cfs):

S65E	789	S65EX1	0	Fisheating Cr	-NR-
S154	0	S191	0	S135 Pumps	0
S84	0	S133 Pumps	0	S2 Pumps	0
S84X	0	S127 Pumps	0	S3 Pumps	0
S71	0	S129 Pumps	0	S4 Pumps	0
S72	0	S131 Pumps	0	C5	0
Total Inflows:	789				

Okeechobee Outflows (cfs):

S135 Culverts	-NR-	S354	97	S77	2003
S127 Culverts	0	S351	52	S308	218
S129 Culverts	0	S352	0		
S131 Culverts	0	L8 Canal Pt	-NR-		
Total Outflows:	2370				



S3 Pumps:	10.17	14.43	0	0	0	0		(cfs)
S354:	14.43	10.17	97	0.0	0.0			
S2 Pumps:	10.30	-NR-	0	-NR-	-NR-	-NR-	-NR-	(cfs)
S351:	-NR-	10.30	52	1.2	1.2	1.2		
S352:	14.20	10.23	0	0.0	0.0			
C10A:	-NR-	13.86		8.0	8.0	8.0	0.0	0.0
L8 Canal PT		13.87	-NR-					

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S351 and S352 Temporary Pumps/S354 Spillway

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S351:	10.30	-NR-	52	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-
S352:	10.23	14.20	0	-NR-	-NR-	-NR-	-NR-		
S354:	10.17	14.43	97	-NR-	-NR-	-NR-	-NR-		

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Caloosahatchee River (S77, S78, S79)

S47B:	14.09	12.07		0.3	0.3		
S47D:	12.01	11.11	0	0.0			

S77:

Spillway and Sector Preferred Flow:

14.06	11.00	2000	2.6	2.6	2.6	2.6
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Flow Due to Lockages+: 3

S78:

Spillway and Sector Flow:

11.00	3.04	1570	0.0	2.5	2.5	0.0
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Flow Due to Lockages+: 4

S79:

Spillway and Sector Flow:

3.10	0.67	2193	0.0	1.0	1.5	2.0	2.0	1.5	0.0
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0.0

Flow Due to Lockages+: 7

Percent of flow from S77 91%

Chloride (ppm) 0

St. Lucie Canal (S308, S80)

S308:

Spillway and Sector Preferred Flow:

13.95	13.85	218	0.0	3.0	3.0	0.0
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Flow Due to Lockages+: 0

S153:	18.62	13.64	52	0.1	0.0
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S80:

Spillway and Sector Flow:

13.89	1.17	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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Flow Due to Lockages+: 0

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

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----- Wind -----					
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Daily Precipitation Totals	1-Day	3-Day	7-Day	Direction	
Speed	(inches)	(inches)	(inches)	(Degø)	
(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:	4.75	4.75	5.11	99	4
S78:	0.39	0.42	0.78	11	1
S79:	7.48	7.48	7.48	336	5
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:	3.31	3.31	3.51	30	5
S80:	5.08	5.08	5.35	36	2
Okeechobee Average	4.03	0.62	0.66		
(Sites S78, S79 and S80 not included)					
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Oke Nexrad Basin Avg	-NR-	0.00	0.00		
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Okeechobee Lake Elevations	20 MAR 2022	14.13	Difference from
20MAR22			
20MAR22 -1 Day =	19 MAR 2022	14.17	0.04
20MAR22 -2 Days =	18 MAR 2022	14.18	0.05
20MAR22 -3 Days =	17 MAR 2022	14.20	0.07
20MAR22 -4 Days =	16 MAR 2022	14.21	0.08
20MAR22 -5 Days =	15 MAR 2022	14.14	0.01
20MAR22 -6 Days =	14 MAR 2022	14.14	0.01
20MAR22 -7 Days =	13 MAR 2022	14.15	0.02
20MAR22 -30 Days =	18 FEB 2022	14.79	0.66
20MAR22 -1 Year =	20 MAR 2021	14.81	0.68
20MAR22 -2 Year =	20 MAR 2020	12.24	-1.89

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Long Term Mean 30day Avearge ET for Lake Alfred (Inches) = -NR-

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Lake Okeechobee Net Inflow (LONIN)  
 Average Flow over the previous 14 days | Avg-Daily Flow

20MAR22	Today =	20 MAR 2022	-357	MON	-6146
20MAR22	-1 Day =	19 MAR 2022	194	SUN	-198
20MAR22	-2 Days =	18 MAR 2022	-290	SAT	-2441
20MAR22	-3 Days =	17 MAR 2022	-441	FRI	312
20MAR22	-4 Days =	16 MAR 2022	-641	THU	18462
20MAR22	-5 Days =	15 MAR 2022	-2286	WED	3303
20MAR22	-6 Days =	14 MAR 2022	-3163	TUE	-539
20MAR22	-7 Days =	13 MAR 2022	-3024	MON	-30159
20MAR22	-8 Days =	12 MAR 2022	-654	SUN	10720
20MAR22	-9 Days =	11 MAR 2022	-1762	SAT	-651
20MAR22	-10 Days =	10 MAR 2022	-1647	FRI	134
20MAR22	-11 Days =	09 MAR 2022	-1724	THU	254
20MAR22	-12 Days =	08 MAR 2022	-1710	WED	1995
20MAR22	-13 Days =	07 MAR 2022	-1744	TUE	-39

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S65E					
Average Flow over previous 14 days					Avg-Daily Flow
20MAR22	Today=	20 MAR 2022	563	MON	908
20MAR22	-1 Day =	19 MAR 2022	520	SUN	850
20MAR22	-2 Days =	18 MAR 2022	488	SAT	848
20MAR22	-3 Days =	17 MAR 2022	458	FRI	804
20MAR22	-4 Days =	16 MAR 2022	437	THU	796
20MAR22	-5 Days =	15 MAR 2022	420	WED	603
20MAR22	-6 Days =	14 MAR 2022	419	TUE	535
20MAR22	-7 Days =	13 MAR 2022	426	MON	420
20MAR22	-8 Days =	12 MAR 2022	445	SUN	466
20MAR22	-9 Days =	11 MAR 2022	472	SAT	342
20MAR22	-10 Days =	10 MAR 2022	512	FRI	355
20MAR22	-11 Days =	09 MAR 2022	564	THU	329
20MAR22	-12 Days =	08 MAR 2022	618	WED	293
20MAR22	-13 Days =	07 MAR 2022	677	TUE	334

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S65EX1					
Average Flow over previous 14 days					Avg-Daily Flow
20MAR22	Today=	20 MAR 2022	0	MON	0
20MAR22	-1 Day =	19 MAR 2022	0	SUN	0
20MAR22	-2 Days =	18 MAR 2022	0	SAT	0
20MAR22	-3 Days =	17 MAR 2022	0	FRI	0
20MAR22	-4 Days =	16 MAR 2022	0	THU	0
20MAR22	-5 Days =	15 MAR 2022	0	WED	0
20MAR22	-6 Days =	14 MAR 2022	0	TUE	0
20MAR22	-7 Days =	13 MAR 2022	0	MON	0
20MAR22	-8 Days =	12 MAR 2022	0	SUN	0
20MAR22	-9 Days =	11 MAR 2022	0	SAT	0
20MAR22	-10 Days =	10 MAR 2022	0	FRI	0
20MAR22	-11 Days =	09 MAR 2022	0	THU	0
20MAR22	-12 Days =	08 MAR 2022	0	WED	0
20MAR22	-13 Days =	07 MAR 2022	0	TUE	0

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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)
20 MAR 2022			4015	4089	3124	4366
19 MAR 2022			2891	2959	3028	3822
18 MAR 2022			2817	2801	2692	3557
17 MAR 2022			2827	2990	2647	3822
16 MAR 2022			3436	3565	2891	3743
15 MAR 2022			3670	3488	3004	3866
14 MAR 2022			2440	2503	2727	3482
13 MAR 2022			3375	3162	2612	4695
12 MAR 2022			3511	3256	2507	3802
11 MAR 2022			3803	3607	2980	3932
10 MAR 2022			3343	3059	2757	3586
09 MAR 2022			3278	3259	2714	3731
08 MAR 2022			3958	3753	3206	3842
07 MAR 2022			4051	3973	3344	3880

			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)
20 MAR 2022			120	103	0	193	-NR-
19 MAR 2022			127	0	0	41	-NR-
18 MAR 2022			115	0	0	0	-NR-
17 MAR 2022			-4	636	0	0	-NR-
16 MAR 2022			17	1036	0	267	-NR-
15 MAR 2022			86	1109	0	0	-NR-
14 MAR 2022			17	444	0	0	-NR-
13 MAR 2022			72	0	0	0	-NR-
12 MAR 2022			225	256	60	15	-NR-
11 MAR 2022			83	1781	311	297	-NR-
10 MAR 2022			65	2871	599	363	-NR-
09 MAR 2022			169	2997	646	384	-NR-
08 MAR 2022			122	2573	270	238	-NR-
07 MAR 2022			166	2355	145	501	-NR-

			S-308	Below S-308	S-80
			Discharge	Discharge	Discharge
			(ALL DAY)	(ALL-DAY)	(ALL-DAY)
DATE			(AC-FT)	(AC-FT)	(AC-FT)
20 MAR 2022			388	-NR-	0
19 MAR 2022			666	-NR-	0
18 MAR 2022			679	-NR-	0
17 MAR 2022			1001	-NR-	0
16 MAR 2022			1401	-NR-	0
15 MAR 2022			1504	-NR-	0
14 MAR 2022			0	-NR-	111
13 MAR 2022			0	-NR-	222
12 MAR 2022			30	-NR-	0
11 MAR 2022			407	-NR-	0
10 MAR 2022			1084	-NR-	0
09 MAR 2022			1210	-NR-	0
08 MAR 2022			840	-NR-	0
07 MAR 2022			791	-NR-	0

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

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(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 Okechobee 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](http://www.sfwmd.gov)

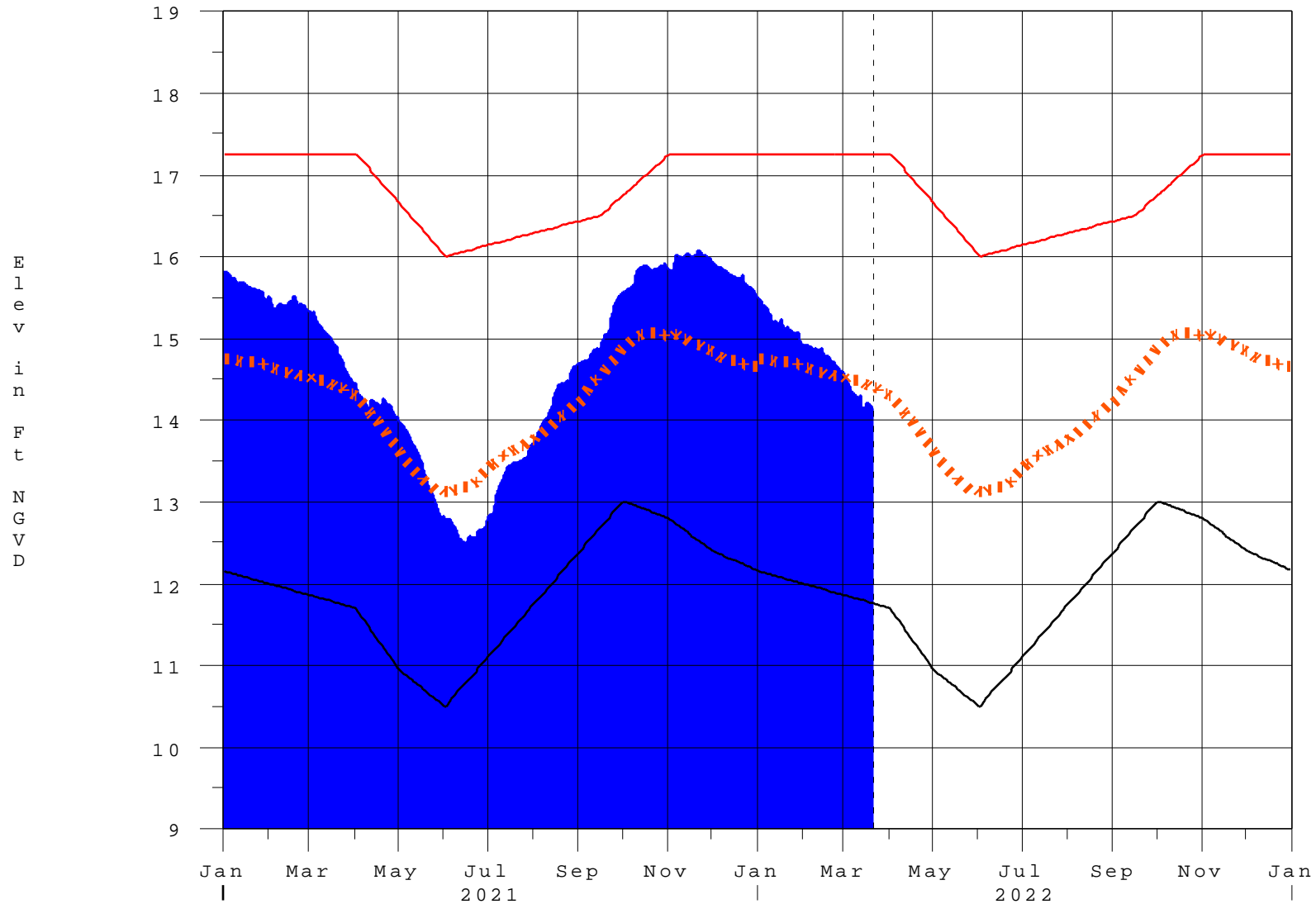
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Report Generated 21MAR2022 @ 14:07 \*\* Preliminary Data - Subject to Revision  
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# Lake Okeechobee

21MAR22 16:30:21



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

# Classification Tables

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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 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\*

<b>Lake Net Inflow Prediction  [million acre-feet]</b>	<b>Equivalent Depth**  [feet]</b>	<b>Lake Okeechobee  Net Inflow  Seasonal Outlook</b>
> 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\*

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

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

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