

Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 12/6/2021 (ENSO Condition: La Nina watch)

Lake Okeechobee Net Inflow Outlook:

The Lake Okeechobee Net Inflow Outlook has been computed using 4 methods: Croley's method¹, the SFWMD empirical method², a sub-sampling of ENSO Neutral years³ and a sub-sampling of warm years of the Atlantic Multi-decadal Oscillation (AMO) in combination with ENSO Neutral years⁴. 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 ^{1*}		SFWMD Empirical Method ²		Sub-sampling of La Nina Years ³		Sub-sampling of AMO Warm + La Nina Years ⁴	
	Value (ft)	<u>Condition</u>	Value (ft)	<u>Condition</u>	Value (ft)	<u>Condition</u>	Value (ft)	<u>Condition</u>
Current (Dec-May)	N/A	N/A	0.33	Dry	-0.44	Dry	-0.41	Dry
Multi Seasonal (Dec-Oct)	N/A	N/A	3.01	Wet	2.29	Normal	2.08	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:

–**2077 cfs** 14-day running average for Lake Okeechobee Net Inflow through 12/06/2021. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

0.02 for Palmer Drought Index on 12/4/2021.

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 12/06/2021:

Lake Okeechobee Stage: **15.87 feet**

Lake Okeechobee Management Zone/Band		Bottom Elevation (feet, NGVD)	Current Lake Stage
High Lake Management Band		17.25	
Operational Band	High sub-band	16.88	
	Intermediate sub-band	16.25	
	Low sub-band	14.42	← 15.87 ft
Base Flow sub-band		12.71	
Beneficial Use sub-band		12.36	
Water Shortage Management Band			

Part C of LORS2008: Discharge to WCAs

Up to Maximum Practicable to the WCAs if Desirable or with Minimum Everglades Impacts; otherwise no releases.

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 12/6/2021 (ENSO Condition- La Nina Watch):

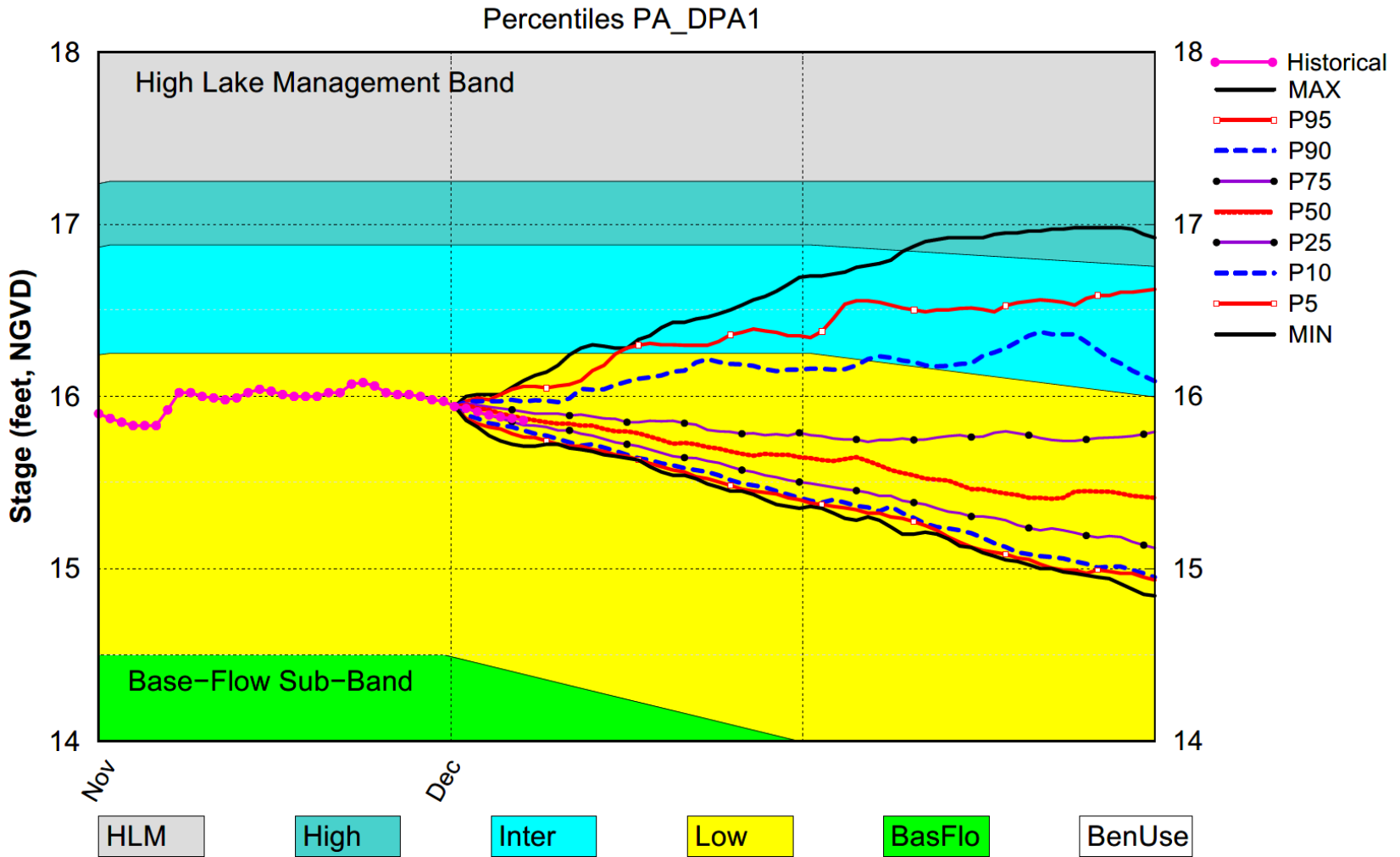
Status for week ending 12/6/2021:

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	-0.02 (Dry)	L
	CPC Precipitation Outlook	1 month: Below Normal	M
		3 months: Below Normal	H
	LOK Seasonal Net Inflow Outlook	-0.43 ft	H
	ENSO Forecast	Extremely Dry	
	LOK Multi-Seasonal Net Inflow Outlook	2.30 ft	M
ENSO Forecast	Normal		
WCAs	WCA 1: 3 Station Average (Sites 1-7, 1-8T and 1-9)	Above Line 1 (17.36 ft)	L
	WCA 2A: Site 2-17	Above Line 1 (13.17 ft)	L
	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Above Line 1 (10.37 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

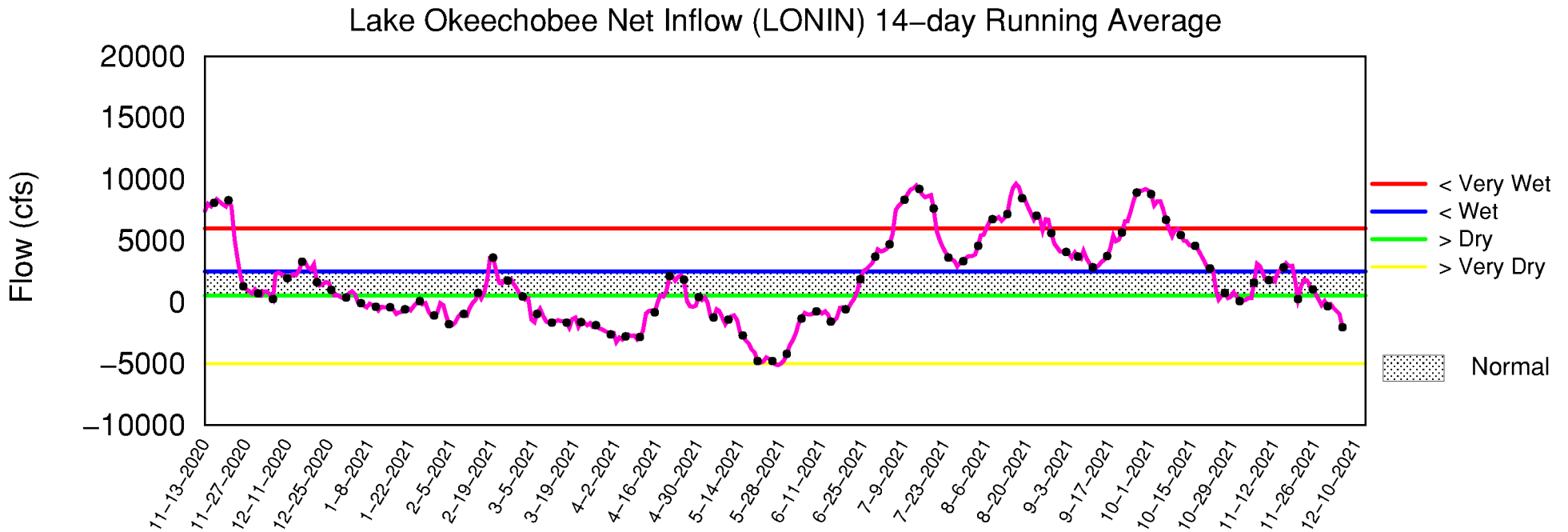
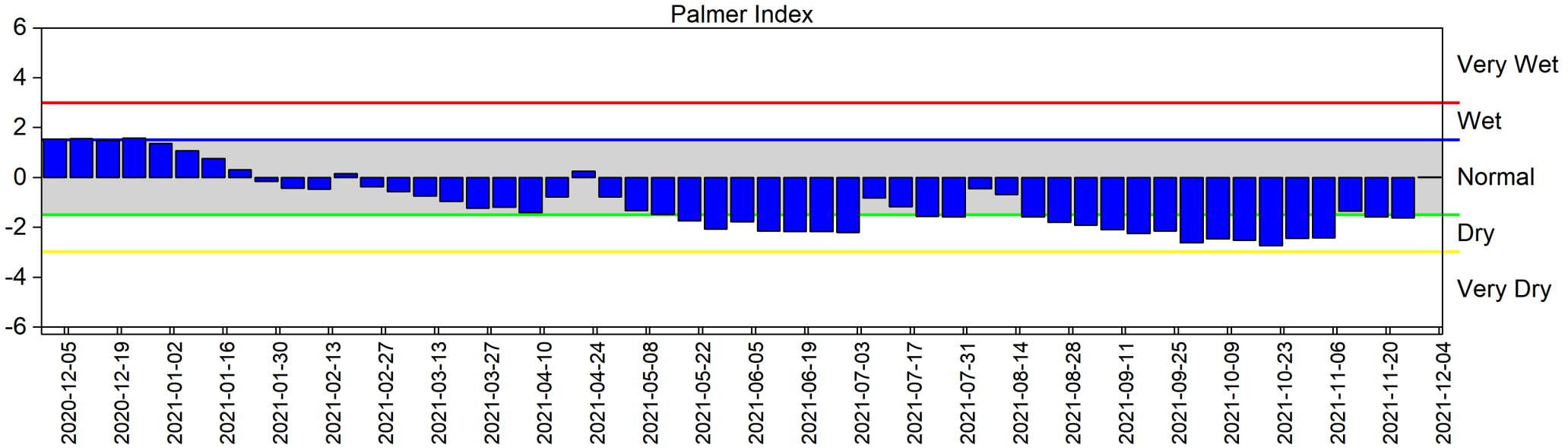
Note: The water supply risk classification based on the Palmer index, as well as the LOK seasonal and multi-seasonal net inflow outlooks use slightly different classification intervals than those used by the 2008-LORS.

Lake Okeechobee SFWMM Dec 2021 Position Analysis



(See assumptions on the Position Analysis Results website)

Tributary Basin Condition Indicators as of December 6 2021



Mon Dec 06 12:50:08 EST 2021

2008 LORS

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

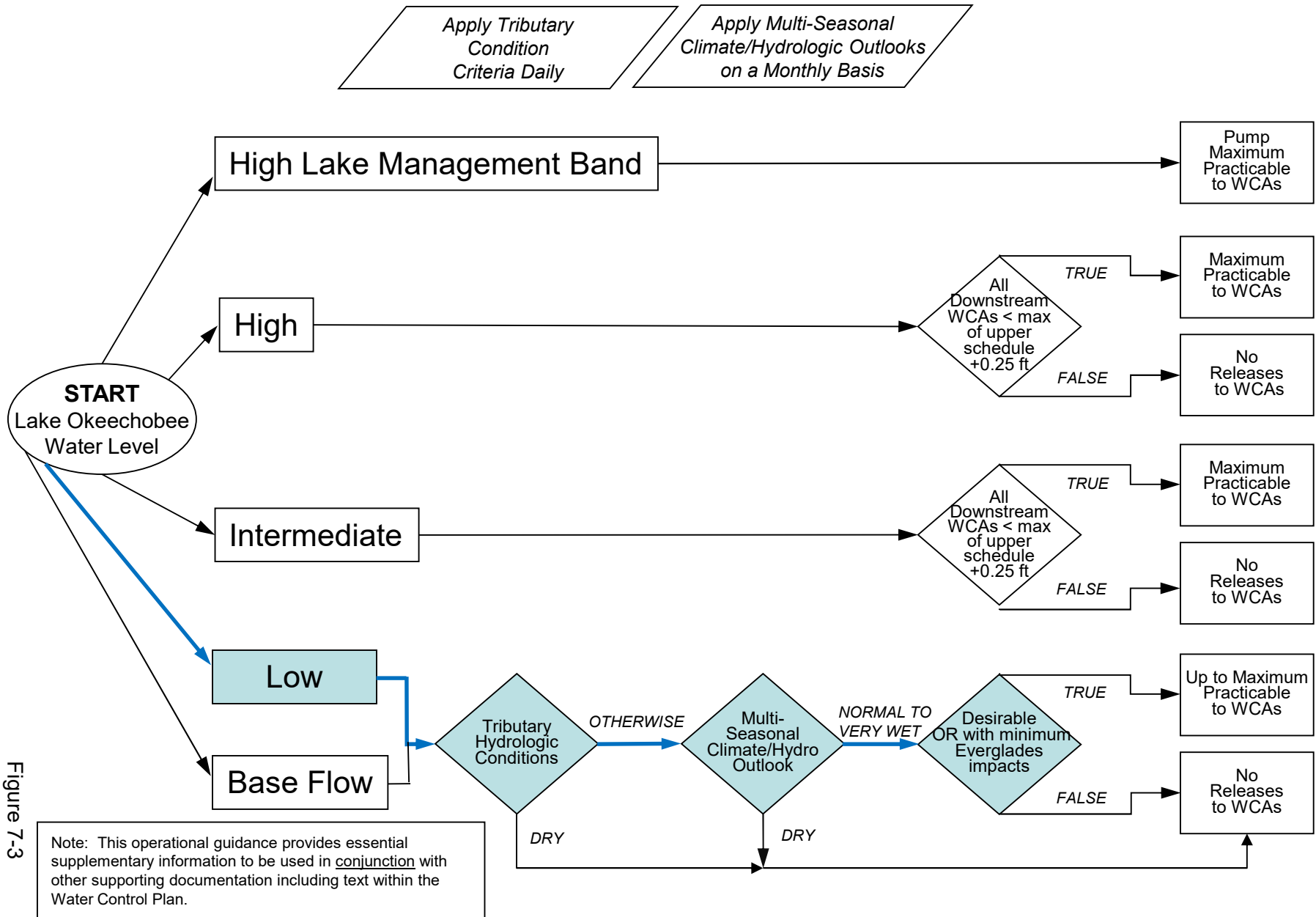


Figure 7-3

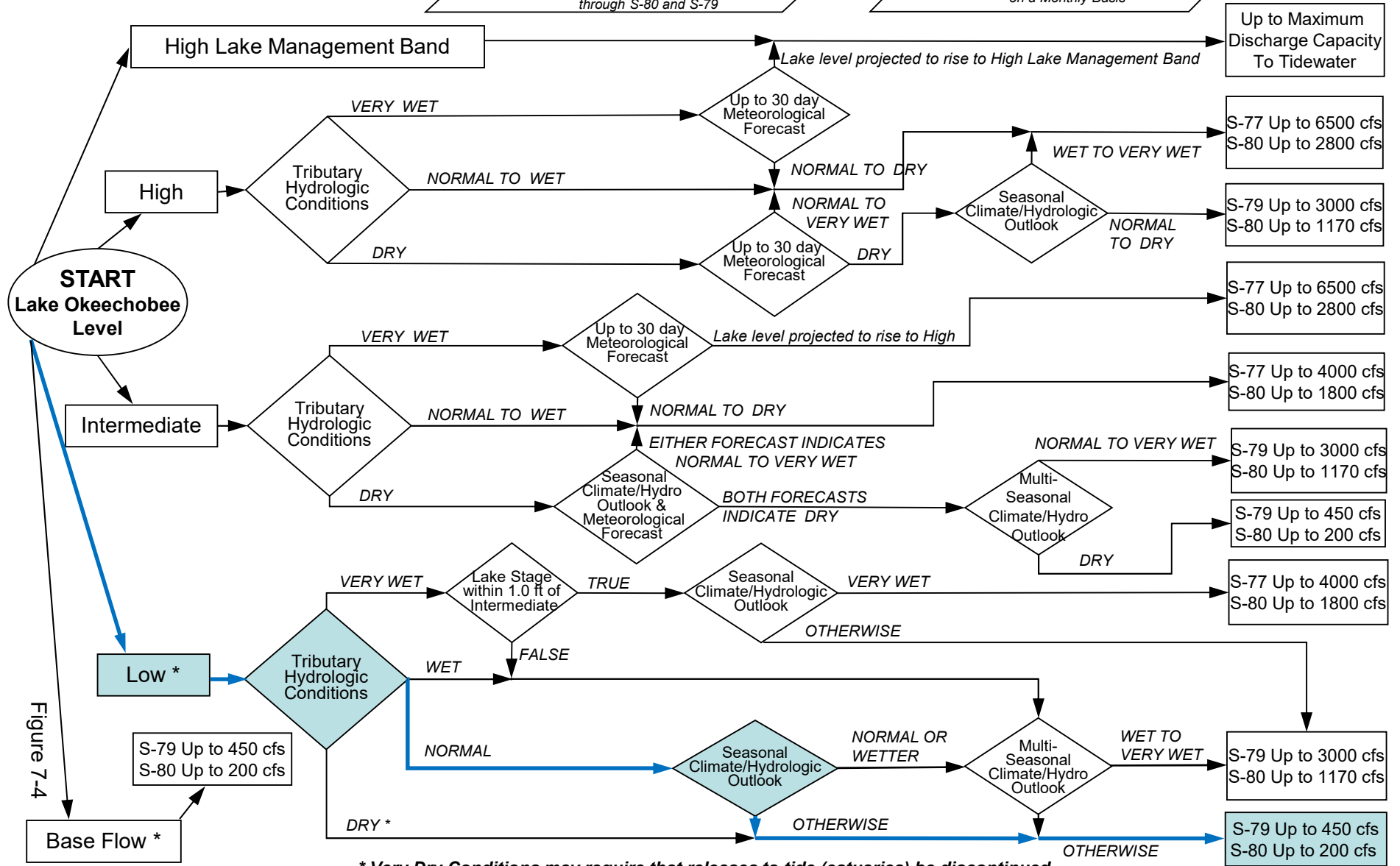
2008 LORS

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

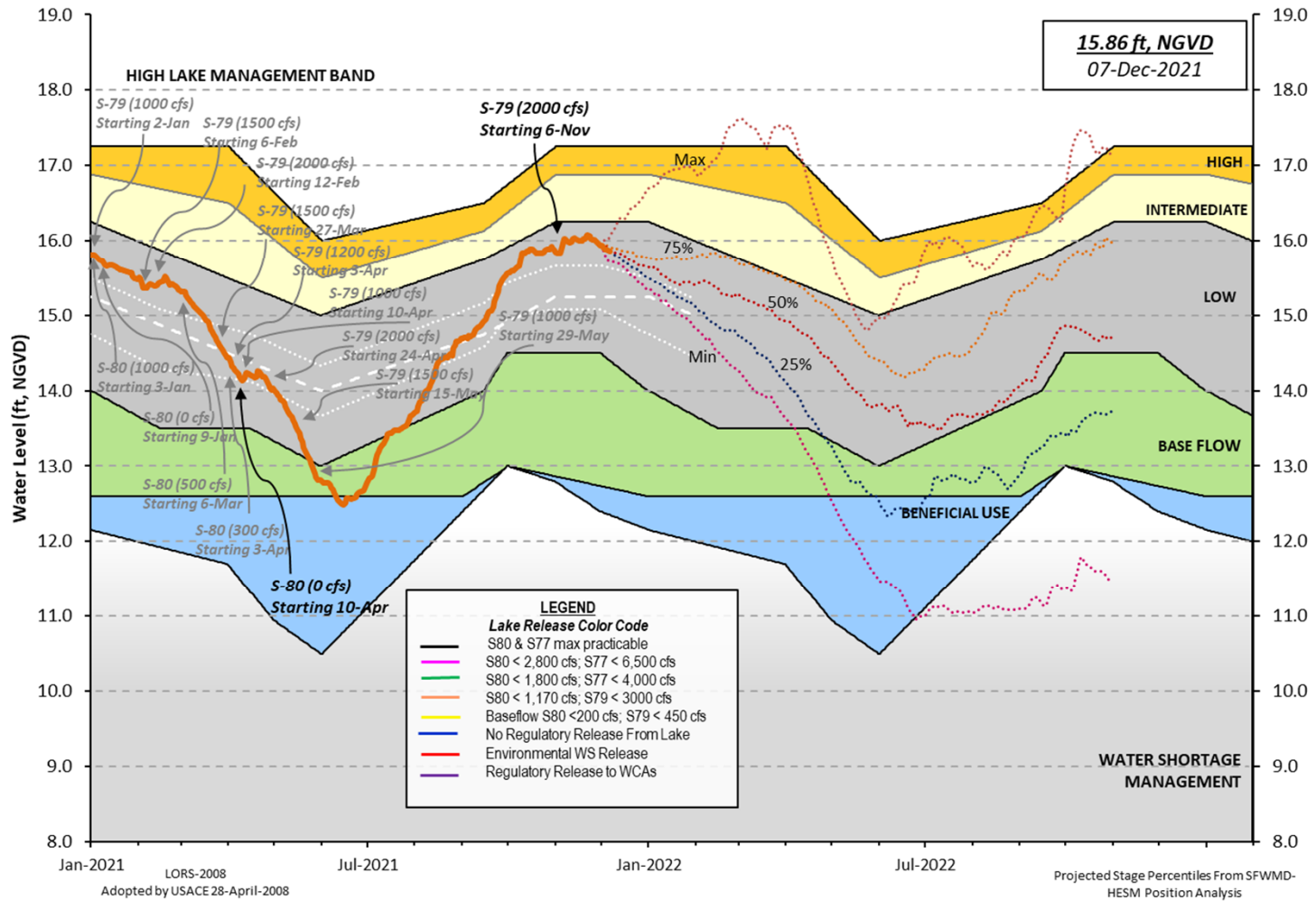
Apply Meteorological Forecasts on a Weekly Basis; apply Seasonal and Multi-Seasonal Climate/Hydrologic Outlooks on a Monthly Basis



* 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 -2168 cfs or -4300 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:	13.66	15.80	0	0	0	0	0	0	0	0	(cfs)
S193:											
S191:	18.69	15.78	0	0.0	0.0	0.0					
S135 Pumps:	13.40	15.74	0	0	0	0	0				(cfs)
S135 Culverts:			-NR-	-NR-	-NR-						
North West Shore											
S65E:	20.92	15.59	0	-0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	
S65EX1:	20.92	15.59	546								
S127 Pumps:	13.54	15.78	0	0	0	0	0	0	0	0	(cfs)
S127 Culvert:			0	0.0							
S129 Pumps:	13.05	15.84	0	0	0	0					(cfs)
S129 Culvert:			0	0.0							
S131 Pumps:	13.07	15.84	0	0	0						(cfs)
S131 Culvert:			0								
Fisheating Creek											
nr Palmdale		29.44	40								
nr Lakeport											
C5:		-NR-	0	-NR-	-NR-	-NR-					
South Shore											
S4 Pumps:	11.60	15.86	0	0	0	0					(cfs)
S169:		-NR-	-NR-	-NR-	-NR-	-NR-					
S310:	15.80		53								
S3 Pumps:	11.06	15.82	0	0	0	0					(cfs)
S354:	15.82	11.06	471	0.5	0.5						
S2 Pumps:	10.43	-NR-	0	0	0	0	0				(cfs)
S351:	-NR-	10.43	245	0.1	0.0	0.2					
S352:	15.96	10.68	25	0.1	0.1						
C10A:	-NR-	15.81		8.0	8.0	8.0	0.0	0.0			
L8 Canal PT			-NR-								

S351 and S352 Temporary Pumps/S354 Spillway

S351:	10.43	-NR-	245	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	
S352:	10.68	15.96	25	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	
S354:	11.06	15.82	471	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	

Caloosahatchee River (S77, S78, S79)

S47B:	13.29	12.98		3.0	3.0						
S47D:	12.94	11.24	6	0.0							
S77:											
Spillway and Sector Preferred Flow:	15.70	11.13	1036	0.5	2.5	0.5	0.0				
Flow Due to Lockages+:			3								

S78:

Spillway and Sector Flow:
 11.14 2.72 1093 1.5 0.0 0.0 2.0
 Flow Due to Lockages+: 15

S79:

Spillway and Sector Flow:
 2.89 1.77 1661 0.0 0.0 2.0 2.0 2.0 1.0 0.0 0.0
 Flow Due to Lockages+: 4
 Percent of flow from S77 62%
 Chloride (ppm) -N

St. Lucie Canal (S308, S80)

S308:

Spillway and Sector Preferred Flow:
 15.85 13.97 0 0.0 0.0 0.0 0.0
 Flow Due to Lockages+: 4

S153: 19.09 13.83 0 0.0 0.0

S80:

Spillway and Sector Flow:
 14.12 1.61 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Flow Due to Lockages+: 25
 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 (DegØ)	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:	2.51	2.51	2.51	57	3
S78:	0.00	0.00	0.00	38	1
S79:	3.39	3.39	3.39	345	2
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:	1.16	1.16	1.16	348	3
S80:	10.36	10.36	10.36	284	0
Okeechobee Average (Sites S78, S79 and S80 not included)	1.84	0.28	0.28		

Oke Nexrad Basin Avg	-NR-	0.00	0.00		

Okeechobee Lake Elevations 05 DEC 2021 15.87 Difference from 05DEC21
 05DEC21 -1 Day = 04 DEC 2021 15.88 0.01

05DEC21	-2 Days =	03 DEC 2021	15.89	0.02
05DEC21	-3 Days =	02 DEC 2021	15.91	0.04
05DEC21	-4 Days =	01 DEC 2021	15.93	0.06
05DEC21	-5 Days =	30 NOV 2021	15.94	0.07
05DEC21	-6 Days =	29 NOV 2021	15.97	0.10
05DEC21	-7 Days =	28 NOV 2021	15.98	0.11
05DEC21	-30 Days =	05 NOV 2021	15.92	0.05
05DEC21	-1 Year =	05 DEC 2020	15.97	0.10
05DEC21	-2 Year =	05 DEC 2019	12.97	-2.90

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
05DEC21	Today =	05 DEC 2021	-1444 MON	-387
05DEC21	-1 Day =	04 DEC 2021	-525 SUN	-59
05DEC21	-2 Days =	03 DEC 2021	-479 SAT	-1690
05DEC21	-3 Days =	02 DEC 2021	30 FRI	-1178
05DEC21	-4 Days =	01 DEC 2021	206 THU	176
05DEC21	-5 Days =	30 NOV 2021	302 WED	-4260
05DEC21	-6 Days =	29 NOV 2021	500 TUE	-831
05DEC21	-7 Days =	28 NOV 2021	316 MON	-3128
05DEC21	-8 Days =	27 NOV 2021	404 SUN	-1159
05DEC21	-9 Days =	26 NOV 2021	876 SAT	1324
05DEC21	-10 Days =	25 NOV 2021	1261 FRI	-1313
05DEC21	-11 Days =	24 NOV 2021	1509 THU	-7708
05DEC21	-12 Days =	23 NOV 2021	1905 WED	-3434
05DEC21	-13 Days =	22 NOV 2021	2316 TUE	3429

S65E

Average Flow over previous 14 days				Avg-Daily Flow
05DEC21	Today=	05 DEC 2021	422 MON	0
05DEC21	-1 Day =	04 DEC 2021	490 SUN	0
05DEC21	-2 Days =	03 DEC 2021	585 SAT	0
05DEC21	-3 Days =	02 DEC 2021	692 FRI	0
05DEC21	-4 Days =	01 DEC 2021	808 THU	-NR-
05DEC21	-5 Days =	30 NOV 2021	860 WED	-NR-
05DEC21	-6 Days =	29 NOV 2021	911 TUE	426
05DEC21	-7 Days =	28 NOV 2021	997 MON	598
05DEC21	-8 Days =	27 NOV 2021	1070 SUN	622
05DEC21	-9 Days =	26 NOV 2021	1142 SAT	629
05DEC21	-10 Days =	25 NOV 2021	1213 FRI	650
05DEC21	-11 Days =	24 NOV 2021	1282 THU	680
05DEC21	-12 Days =	23 NOV 2021	1348 WED	698
05DEC21	-13 Days =	22 NOV 2021	1412 TUE	757

S65EX1

Average Flow over previous 14 days				Avg-Daily Flow
05DEC21	Today=	05 DEC 2021	236 MON	546
05DEC21	-1 Day =	04 DEC 2021	197 SUN	549
05DEC21	-2 Days =	03 DEC 2021	158 SAT	549
05DEC21	-3 Days =	02 DEC 2021	118 FRI	551
05DEC21	-4 Days =	01 DEC 2021	79 THU	562
05DEC21	-5 Days =	30 NOV 2021	39 WED	460
05DEC21	-6 Days =	29 NOV 2021	6 TUE	85
05DEC21	-7 Days =	28 NOV 2021	0 MON	0
05DEC21	-8 Days =	27 NOV 2021	0 SUN	0
05DEC21	-9 Days =	26 NOV 2021	0 SAT	0
05DEC21	-10 Days =	25 NOV 2021	0 FRI	0
05DEC21	-11 Days =	24 NOV 2021	0 THU	0
05DEC21	-12 Days =	23 NOV 2021	0 WED	0
05DEC21	-13 Days =	22 NOV 2021	0 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)
05 DEC 2021	2039	2601	2205	3304
04 DEC 2021	2735	2924	2171	3346
03 DEC 2021	2710	2802	2757	4216
02 DEC 2021	3731	4072	2740	3928
01 DEC 2021	3392	3559	2681	3741
30 NOV 2021	-NR-	3156	2692	3524
29 NOV 2021	2483	2555	2534	3942
28 NOV 2021	2218	2215	2398	3654
27 NOV 2021	1990	2113	2198	3876
26 NOV 2021	1885	2014	2081	3345
25 NOV 2021	1902	2062	2075	3554
24 NOV 2021	2713	2871	2807	4114
23 NOV 2021	2250	2227	2657	4064
22 NOV 2021	2275	2364	2283	4493

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)
05 DEC 2021	105	486	49	935	-NR-
04 DEC 2021	100	789	49	619	-NR-
03 DEC 2021	5	1509	137	882	-NR-
02 DEC 2021	-1	1500	0	1041	-NR-
01 DEC 2021	5	755	0	530	-NR-
30 NOV 2021	3	780	0	668	-NR-
29 NOV 2021	0	0	0	187	-NR-
28 NOV 2021	1	0	0	196	-NR-
27 NOV 2021	3	0	0	228	-NR-
26 NOV 2021	-2	0	0	758	-NR-
25 NOV 2021	7	0	0	0	-NR-
24 NOV 2021	9	0	0	0	-NR-
23 NOV 2021	-1	0	0	0	-NR-
22 NOV 2021	10	0	0	0	-NR-

DATE	S-308 Discharge (ALL DAY) (AC-FT)	Below S-308 Discharge (ALL-DAY) (AC-FT)	S-80 Discharge (ALL-DAY) (AC-FT)
05 DEC 2021	8	-NR-	49
04 DEC 2021	10	-NR-	49
03 DEC 2021	12	-NR-	45
02 DEC 2021	10	-NR-	56
01 DEC 2021	10	-NR-	29
30 NOV 2021	14	-NR-	65
29 NOV 2021	10	-NR-	296
28 NOV 2021	6	-NR-	490
27 NOV 2021	9	-NR-	49
26 NOV 2021	11	-NR-	238
25 NOV 2021	5	-NR-	148
24 NOV 2021	4	-NR-	572
23 NOV 2021	6	-NR-	886
22 NOV 2021	9	-NR-	940

*** 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

* 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

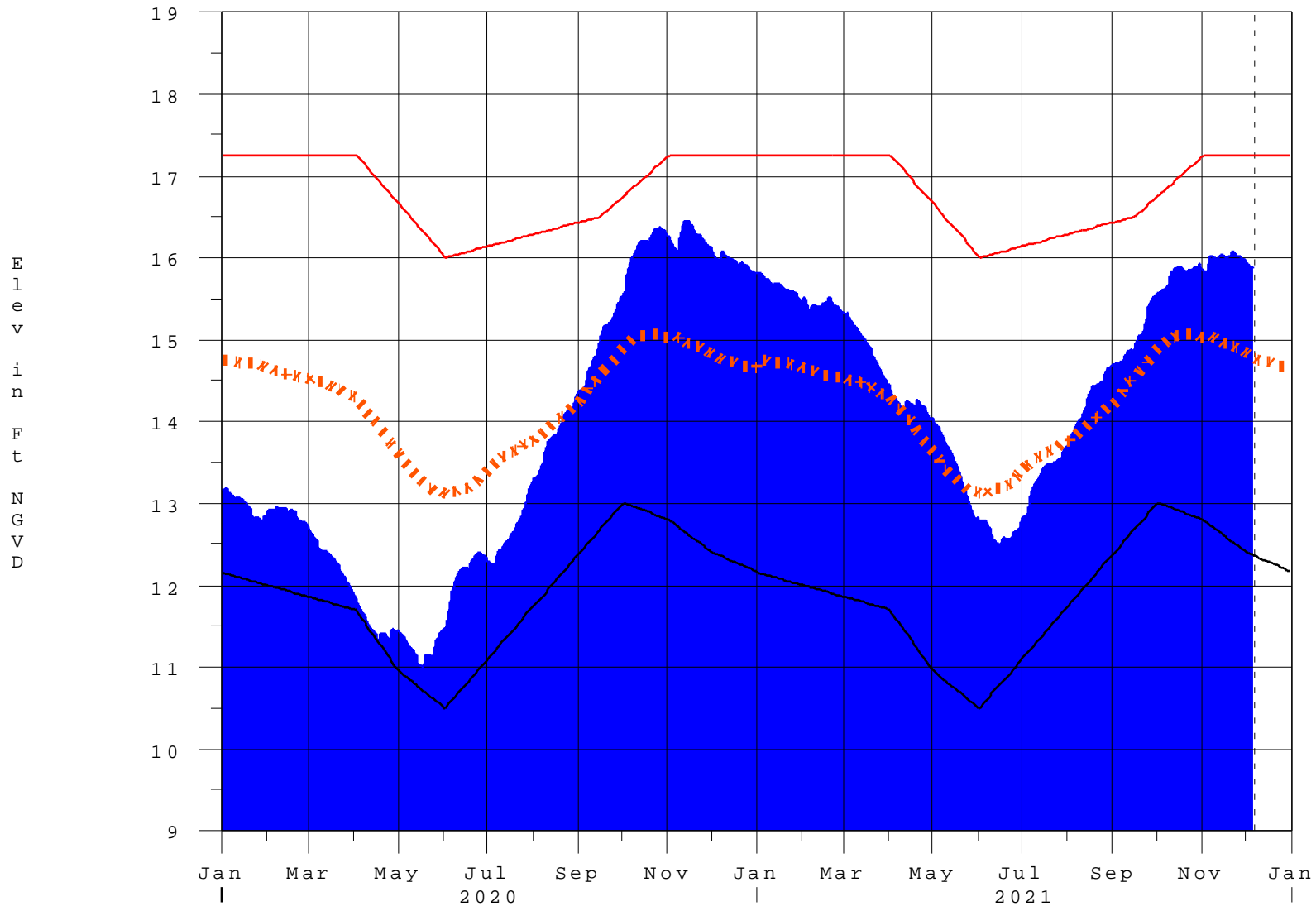
++ For more information see the Jacksonville District Navigation website at <http://www.saj.usace.army.mil/>

\$ For information regarding Lake Okeechobee Service Area water restrictions please refer to www.sfwmd.gov

Report Generated 06DEC2021 @ 07:45 ** Preliminary Data - Subject to Revision **

Lake Okeechobee

06DEC21 08:00:27



- 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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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