Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 11/1/2021 (ENSO Condition: La Nina watch**)**

Lake Okeechobee Net Inflow Outlook:

The Lake Okeechobee Net Inflow Outlook has been computed using 4 methods: Croley's method[1], the SFWMD empirical method[2], a sub-sampling of ENSO Neutral years[3] and a sub-sampling of warm years of the Atlantic Multi-decadal Oscillation (AMO) in combination with ENSO Neutral years[4]. 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)	Condition	Value (ft)	Condition	Value (ft)	Condition	Value (ft)	Condition
Current (Oct-Mar)	N/A	N/A	0.44	Dry	-0.26	Dry	-0.48	Dry
Multi Seasonal (Oct-Apr)	N/A	N/A	3.11	Wet	2.33	Normal	2.15	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:

59 cfs 14-day running average for Lake Okeechobee Net Inflow through 11/1/2021.
According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

-2.44 for Palmer Drought Index on 10/30/2021.
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 11/1/2021:

Lake Okeechobee Stage: **15.87 feet**

Lake Okeechobee Management Zone/Band		Bottom Elevation (feet, NGVD)	Current Lake Stage
High Lake Management Band		17.23	
Operational Band	High sub-band	16.86	
	Intermediate sub-band	16.24	
	Low sub-band	14.50	← 15.87 ft
Base Flow sub-band		12.87	
Beneficial Use sub-band		12.80	
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.

LORS2008 Implementation on 11/01/2021 (ENSO Condition- La Nina Watch):

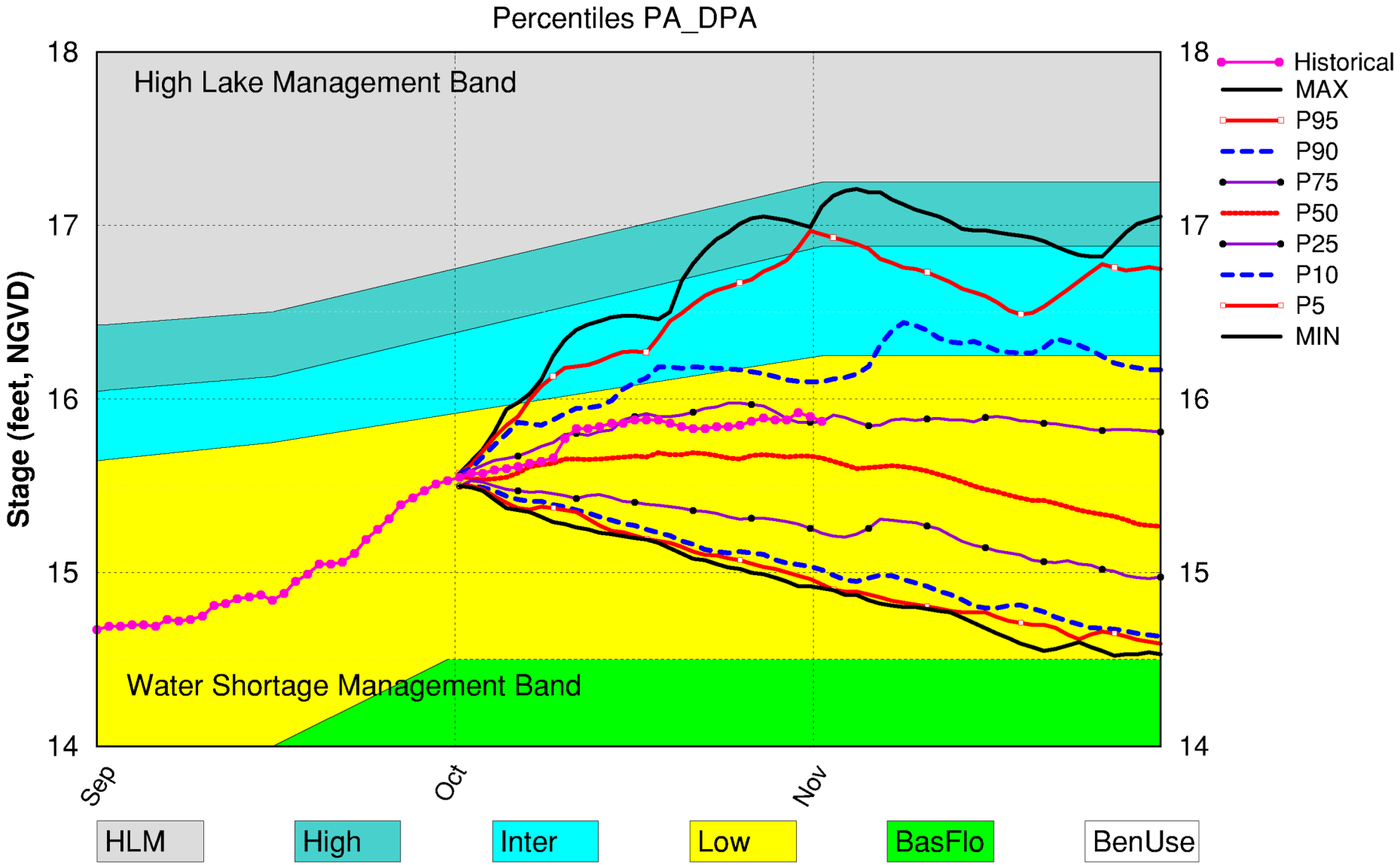
Status for week ending 11/01/2021:

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	-2.44 (Extremely Dry)	H
	CPC Precipitation Outlook	1 month: Below Normal	M
		3 months: Below Normal	M
	LOK Seasonal Net Inflow Outlook	-0.26 ft	H
	ENSO Forecast	Extremely Dry	
	LOK Multi-Seasonal Net Inflow Outlook	2.33 ft	M
	ENSO Forecast	Normal	
WCAs	WCA 1: 3 Station Average (Sites 1-7, 1-8T and 1-9)	Above Line 1 (17.33 ft)	L
	WCA 2A: Site 2-17	Above Line 1 (13.55 ft)	L
	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Above Line 1 (10.38 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.

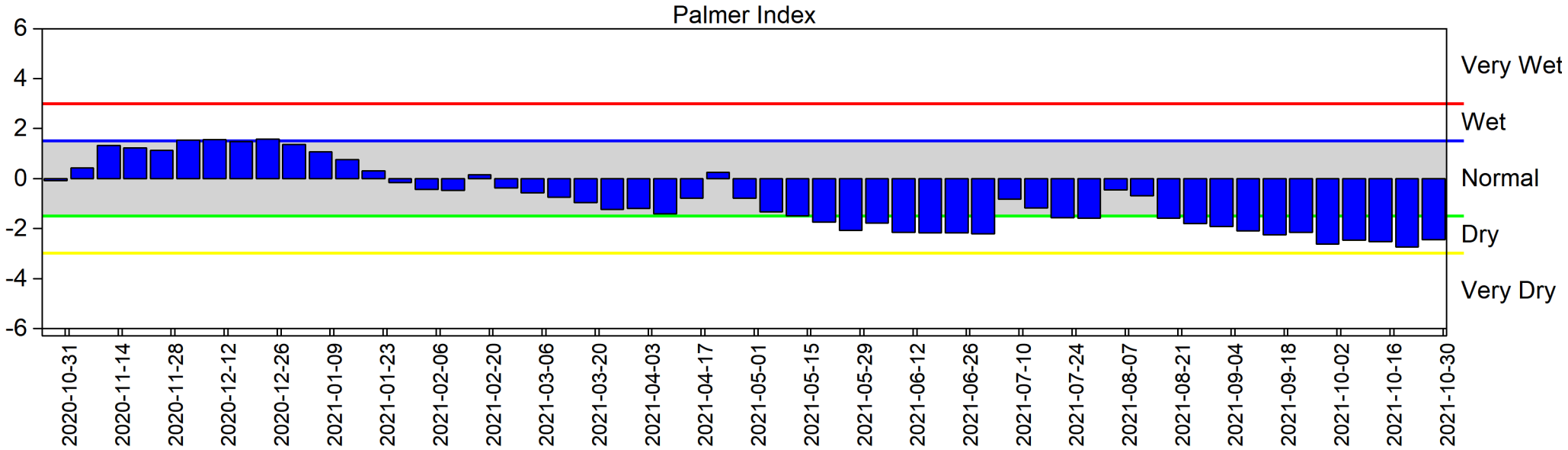
Lake Okeechobee SFWMM Oct 2021 Position Analysis

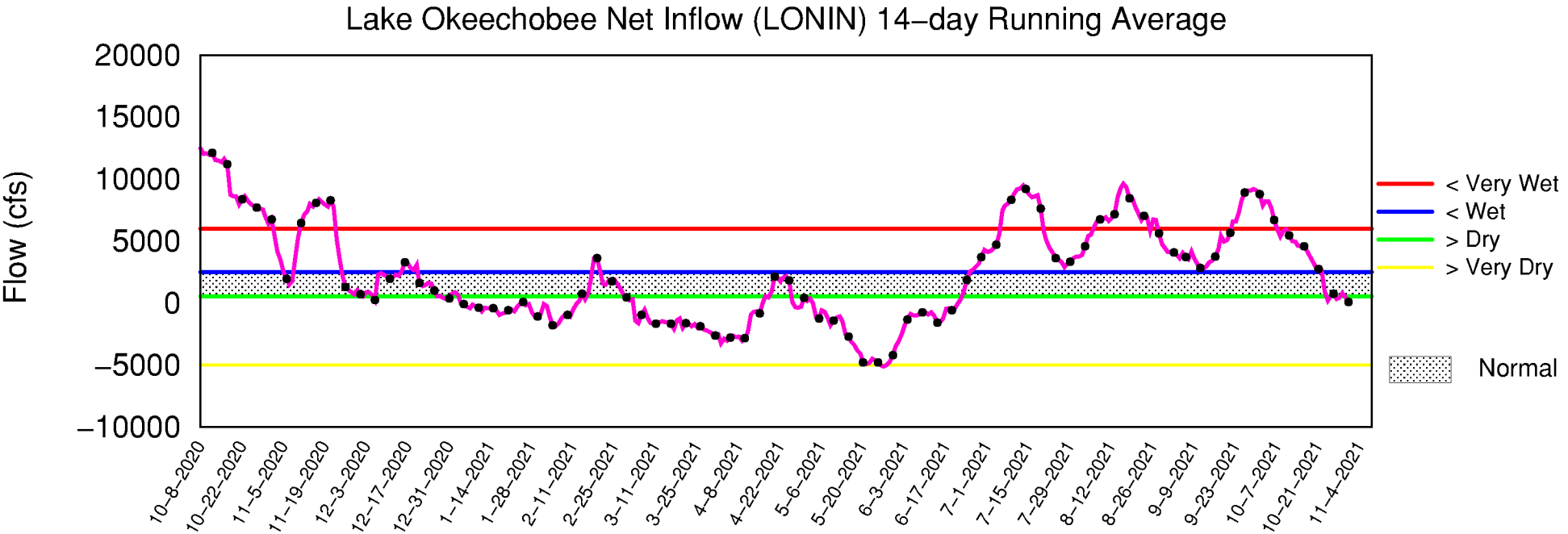


(See assumptions on the Position Analysis Results website)

Mon Nov 1 2021

Tributary Basin Condition Indicators as of November 1 2021





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2008 LORS

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

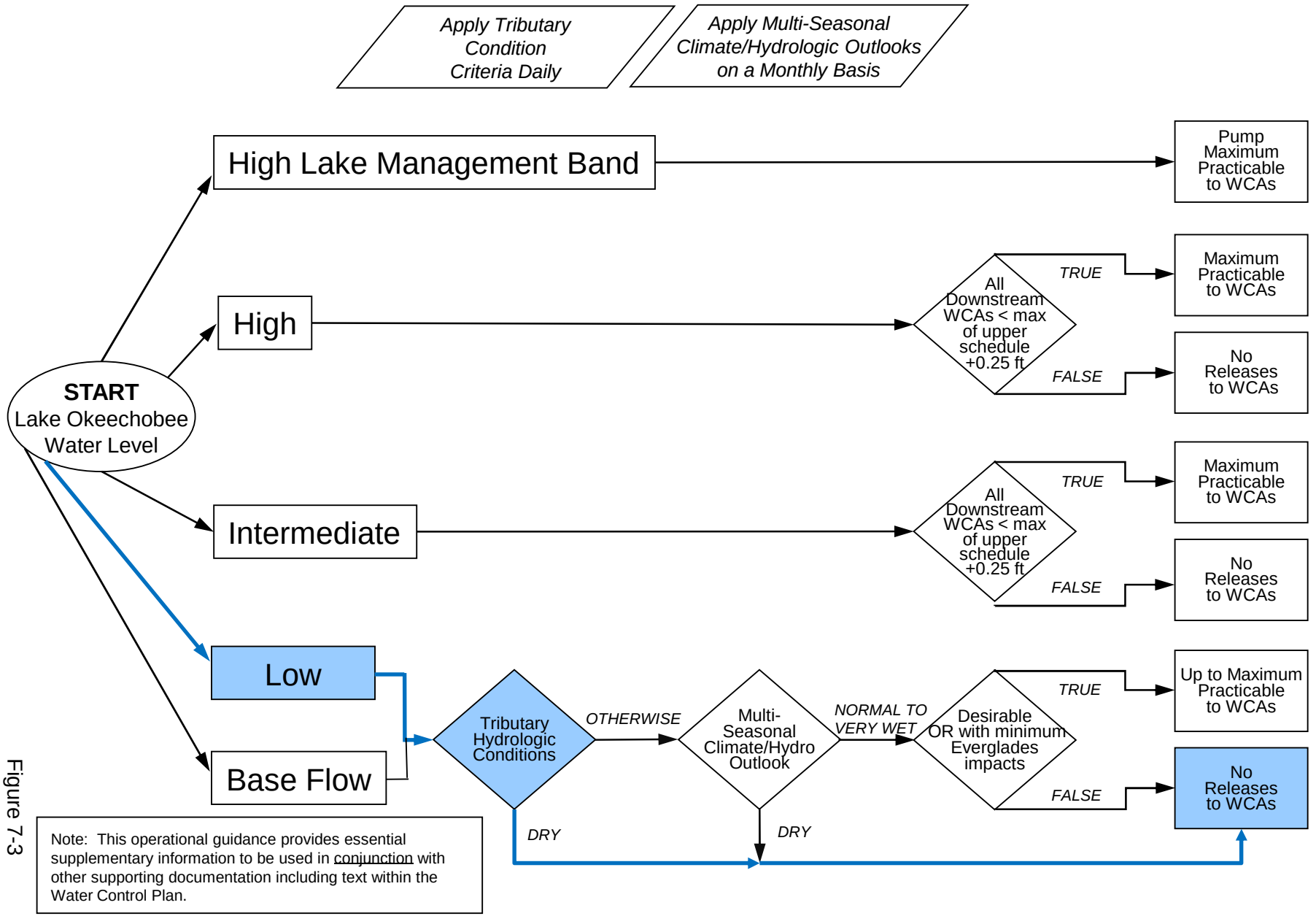
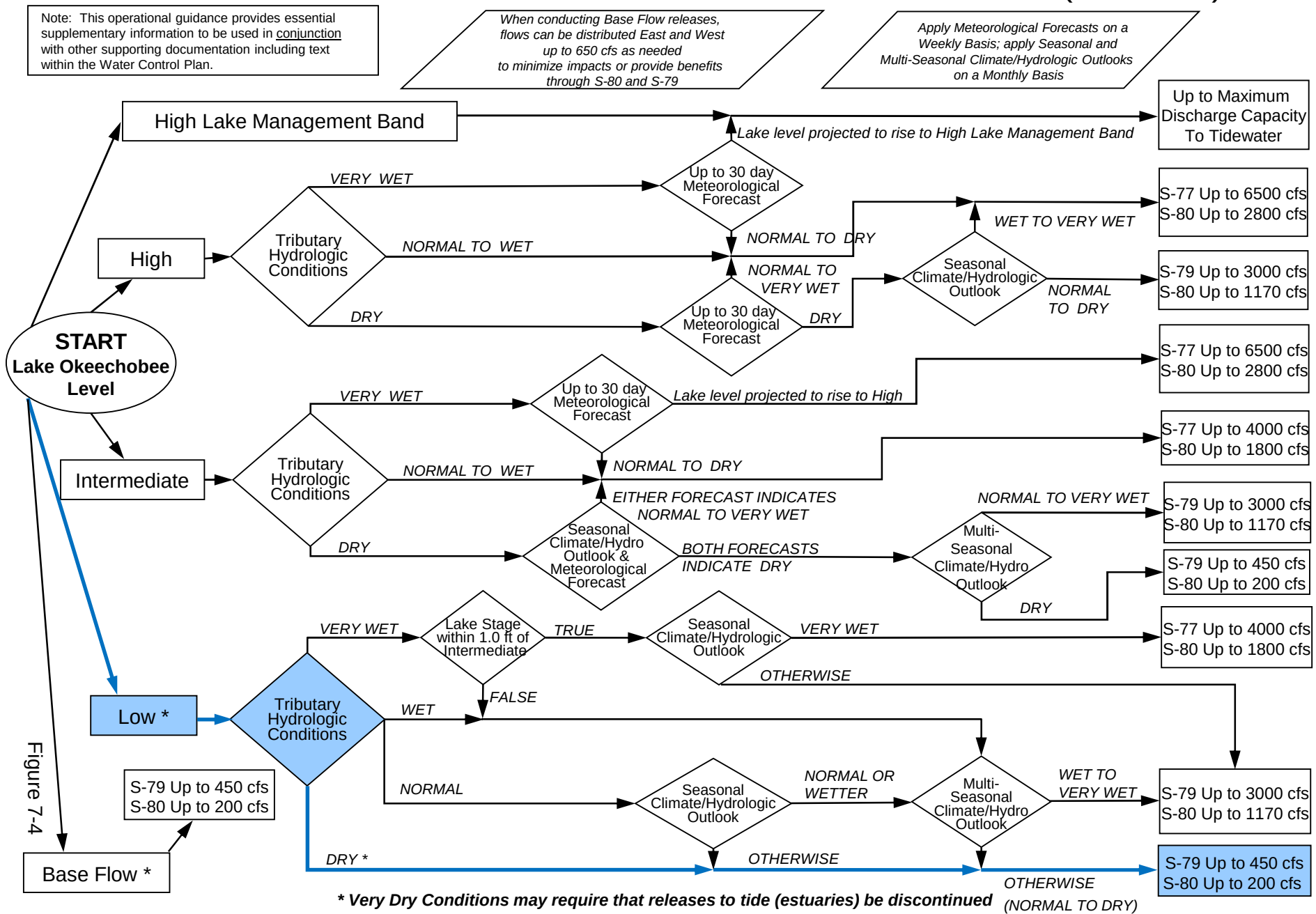


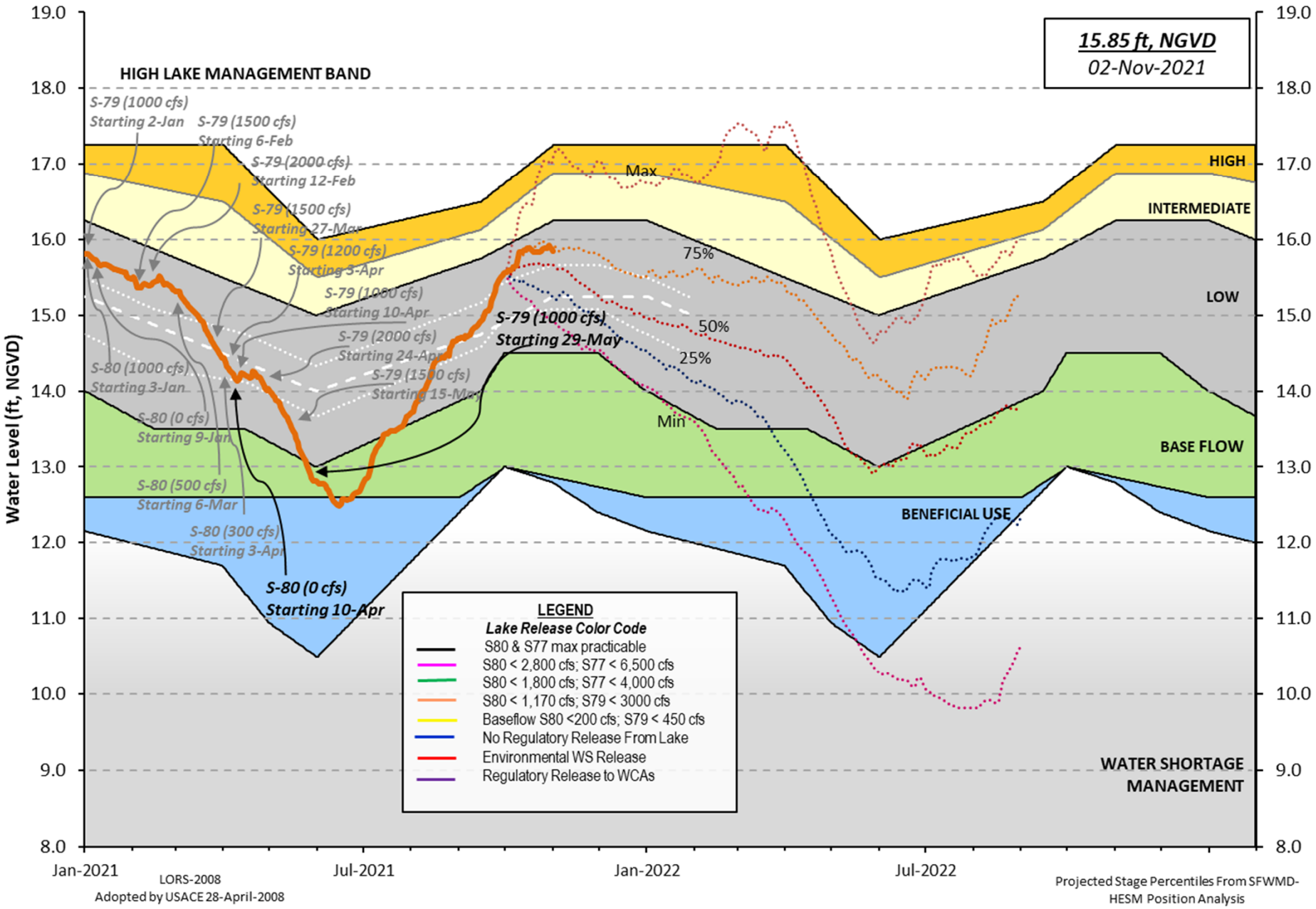
Figure 7-3

2008 LORS

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



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 31 OCT 2021

Okeechobee Lake Regulation	Elevation (ft-NGVD)	Last Year (ft-NGVD)	2YRS Ago (ft-NGVD)	
*Okeechobee Lake Elevation	15.87	16.26	13.45	(Official Elv)

Bottom of High Lake Mngmt= 17.23 Top of Water Short Mngmt= 12.80
Currently in Operational Management Band

Simulated Average LORS2008 [1965-2000] 13.97
Difference from Average LORS2008 1.90

31OCT (1965-2007) Period of Record Average 15.03
Difference from POR Average 0.84

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

++Navigation Depth (Based on 2007 Channel Condition Survey) Route 1 ÷ 9.81'
++Navigation Depth (Based on 2008 Channel Condition Survey) Route 2 ÷ 8.01'
Bridge Clearance = 49.85'

---

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

L001	L005	L006	LZ40	S4	S352	S308	S133
15.83	15.87	15.87	15.85	15.87	15.98	15.87	15.76

*Combination Okeechobee Avg-Daily Lake Average = 15.87
(*See Note)

Okeechobee Inflows (cfs):

S65E	1501	S65EX1	0	Fisheating Cr	110
S154	17	S191	75	S135 Pumps	0
S84	208	S133 Pumps	0	S2 Pumps	0
S84X	37	S127 Pumps	0	S3 Pumps	0
S71	85	S129 Pumps	0	S4 Pumps	0
S72	55	S131 Pumps	0	C5	0
Total Inflows:	2089				

Okeechobee Outflows (cfs):

S135 Culverts	-NR-	S354	229	S77	366
S127 Culverts	0	S351	0	S308	6
S129 Culverts	0	S352	29		
S131 Culverts	0	L8 Canal Pt	-NR-		
Total Outflows:	630				

****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	0.12	S308	0.28

Average Pan Evap x 0.75 Pan Coefficient = 0.15" = 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 -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:	13.65	15.54	0	0	0	0	0	0	(cfs)		
S193:											
S191:	19.34	15.55	75	0.5	0.0	0.0					
S135 Pumps:	13.43	15.60	0	0	0	0	0		(cfs)		
S135 Culverts:			-NR-	-NR-	-NR-						
North West Shore											
S65E:	20.83	15.30	1501	0.5	0.6	1.2	0.5	0.5	1.0		
S65EX1:	20.83	15.30	0								
S127 Pumps:	13.46	15.69	0	0	0	0	0	0	(cfs)		
S127 Culvert:			0	0.0							
S129 Pumps:	13.06	15.80	0	0	0	0			(cfs)		
S129 Culvert:			0	0.0							
S131 Pumps:	12.93	15.76	0	0	0				(cfs)		
S131 Culvert:			0								
Fisheating Creek											
nr Palmdale		30.84	110								
nr Lakeport											
C5:		-NR-	0	-NR-	-NR-	-NR-					
South Shore											
S4 Pumps:	11.72	15.98	0	0	0	0			(cfs)		
S169:	15.51	15.55	-NR-	-NR-	-NR-	-NR-					
S310:	15.91		9								
S3 Pumps:	10.23	16.16	0	0	0	0			(cfs)		
S354:	16.16	10.23	229	0.0	0.0						
S2 Pumps:	9.09	-NR-	0	-NR-	-NR-	-NR-	-NR-		(cfs)		
S351:	-NR-	9.09	0	0.0	0.0	0.0					
S352:	16.05	10.05	29	0.1	0.0						
C10A:	-NR-	15.53		8.0	8.0	8.0	0.0	0.0			
L8 Canal PT			-NR-								
S351 and S352 Temporary Pumps/S354 Spillway											
S351:	9.09	-NR-	0	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-		
S352:	10.05	16.05	29	-NR-	-NR-	-NR-	-NR-				
S354:	10.23	16.16	229	-NR-	-NR-	-NR-	-NR-				
Caloosahatchee River (S77, S78, S79)											
S47B:	13.11	12.68		2.8	3.3						
S47D:	12.36	11.02	155	1.4							
S77:											
Spillway and Sector Preferred Flow:											
	15.71	10.92	360	0.5	0.5	0.5	0.0				
Flow Due to Lockages+:			6								
S78:											

```
    Spillway and Sector Flow:
              10.94      3.05    1199    1.5  0.0  0.0  1.5
    Flow Due to Lockages+:          12

  S79:
    Spillway and Sector Flow:
               3.25      1.80    1321    0.0  0.0  0.0  2.0  2.5  2.0  0.0  0.0
    Flow Due to Lockages+:           4
    Percent of flow from S77        27%
    Chloride            (ppm)      0


St. Lucie Canal (S308, S80)
  S308:
    Spillway and Sector Preferred Flow:
              15.85     13.65       0  0.0  0.0  0.0  0.0
    Flow Due to Lockages+:           6

  S153:        19.05     13.31       0    0.0  0.0
  S80:
    Spillway and Sector Flow:
              13.56      0.94       0    0.0  0.0  0.0  0.0  0.0  0.0  0.0
    Flow Due to Lockages+:          20
    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:	0.03	0.06	0.12	332	4
S78:	0.00	0.17	1.22	64	1
S79:	0.00	0.12	1.43	252	3
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	0.41	358	6
S80:	0.00	0.04	0.37	23	2
Okeechobee Average (Sites S78, S79 and S80 not included)	0.01	0.00	0.04		
Oke Nexrad Basin Avg	-NR-	0.00	0.00		

```
Okeechobee Lake Elevations  31 OCT 2021          15.87 Difference from 31OCT21
   31OCT21  -1 Day  =       30 OCT 2021          15.90             0.03
```

31OCT21	-2 Days =	29 OCT 2021	15.92	0.05
31OCT21	-3 Days =	28 OCT 2021	15.88	0.01
31OCT21	-4 Days =	27 OCT 2021	15.88	0.01
31OCT21	-5 Days =	26 OCT 2021	15.89	0.02
31OCT21	-6 Days =	25 OCT 2021	15.87	0.00
31OCT21	-7 Days =	24 OCT 2021	15.85	-0.02
31OCT21	-30 Days =	01 OCT 2021	15.57	-0.30
31OCT21	-1 Year =	31 OCT 2020	16.26	0.39
31OCT21	-2 Year =	31 OCT 2019	13.45	-2.42

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
31OCT21	Today =	31 OCT 2021	169	MON	-5886
31OCT21	-1 Day =	30 OCT 2021	590	SUN	-3967
31OCT21	-2 Days =	29 OCT 2021	873	SAT	9038
31OCT21	-3 Days =	28 OCT 2021	537	FRI	393
31OCT21	-4 Days =	27 OCT 2021	509	THU	-1776
31OCT21	-5 Days =	26 OCT 2021	946	WED	4454
31OCT21	-6 Days =	25 OCT 2021	782	TUE	4422
31OCT21	-7 Days =	24 OCT 2021	466	MON	2370
31OCT21	-8 Days =	23 OCT 2021	1226	SUN	205
31OCT21	-9 Days =	22 OCT 2021	2915	SAT	2418
31OCT21	-10 Days =	21 OCT 2021	3052	FRI	429
31OCT21	-11 Days =	20 OCT 2021	3177	THU	-1813
31OCT21	-12 Days =	19 OCT 2021	3617	WED	-3976
31OCT21	-13 Days =	18 OCT 2021	4056	TUE	-3942

S65E

		Average Flow over previous 14 days			Avg-Daily Flow
31OCT21	Today=	31 OCT 2021	1826	MON	1648
31OCT21	-1 Day =	30 OCT 2021	1855	SUN	1673
31OCT21	-2 Days =	29 OCT 2021	1883	SAT	1682
31OCT21	-3 Days =	28 OCT 2021	1909	FRI	1758
31OCT21	-4 Days =	27 OCT 2021	1930	THU	1790
31OCT21	-5 Days =	26 OCT 2021	1949	WED	1843
31OCT21	-6 Days =	25 OCT 2021	1957	TUE	1871
31OCT21	-7 Days =	24 OCT 2021	1959	MON	1871
31OCT21	-8 Days =	23 OCT 2021	1977	SUN	1890
31OCT21	-9 Days =	22 OCT 2021	2009	SAT	1740
31OCT21	-10 Days =	21 OCT 2021	2049	FRI	1879
31OCT21	-11 Days =	20 OCT 2021	2061	THU	1915
31OCT21	-12 Days =	19 OCT 2021	2101	WED	1991
31OCT21	-13 Days =	18 OCT 2021	2139	TUE	2017

S65EX1

		Average Flow over previous 14 days			Avg-Daily Flow
31OCT21	Today=	31 OCT 2021	0	MON	0
31OCT21	-1 Day =	30 OCT 2021	0	SUN	0
31OCT21	-2 Days =	29 OCT 2021	0	SAT	0
31OCT21	-3 Days =	28 OCT 2021	0	FRI	0
31OCT21	-4 Days =	27 OCT 2021	0	THU	0
31OCT21	-5 Days =	26 OCT 2021	0	WED	0
31OCT21	-6 Days =	25 OCT 2021	0	TUE	0
31OCT21	-7 Days =	24 OCT 2021	0	MON	0
31OCT21	-8 Days =	23 OCT 2021	0	SUN	0
31OCT21	-9 Days =	22 OCT 2021	0	SAT	0
31OCT21	-10 Days =	21 OCT 2021	0	FRI	0
31OCT21	-11 Days =	20 OCT 2021	0	THU	0
31OCT21	-12 Days =	19 OCT 2021	0	WED	0
31OCT21	-13 Days =	18 OCT 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)
31 OCT 2021	727	1235	2388	2541
30 OCT 2021	686	1022	2379	4723
29 OCT 2021	677	1051	-NR-	3392
28 OCT 2021	726	1127	-NR-	2225
27 OCT 2021	760	1023	1252	2513
26 OCT 2021	199	294	1201	2605
25 OCT 2021	112	428	1083	3405
24 OCT 2021	356	607	1042	1633
23 OCT 2021	353	720	234	1178
22 OCT 2021	370	320	21	675
21 OCT 2021	383	324	28	195
20 OCT 2021	151	239	20	1440
19 OCT 2021	13	-16	117	1046
18 OCT 2021	9	66	595	2928

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)
31 OCT 2021	18	0	58	454	-NR-
30 OCT 2021	9	0	59	0	-NR-
29 OCT 2021	13	0	60	0	-NR-
28 OCT 2021	12	0	59	0	-NR-
27 OCT 2021	10	0	59	0	-NR-
26 OCT 2021	7	0	59	0	-NR-
25 OCT 2021	11	0	59	0	-NR-
24 OCT 2021	171	0	59	0	-NR-
23 OCT 2021	247	0	58	0	-NR-
22 OCT 2021	12	0	60	72	-NR-
21 OCT 2021	71	0	287	199	-NR-
20 OCT 2021	76	0	355	215	-NR-
19 OCT 2021	25	0	237	478	-NR-
18 OCT 2021	2	0	267	514	-NR-

DATE	S-308 Discharge (ALL DAY) (AC-FT)	Below S-308 Discharge (ALL-DAY) (AC-FT)	S-80 Discharge (ALL-DAY) (AC-FT)
31 OCT 2021	12	-NR-	40
30 OCT 2021	10	-NR-	44
29 OCT 2021	6	-NR-	45
28 OCT 2021	9	-NR-	29
27 OCT 2021	13	-NR-	52
26 OCT 2021	9	-NR-	138
25 OCT 2021	7	-NR-	345
24 OCT 2021	4	-NR-	444
23 OCT 2021	10	-NR-	50
22 OCT 2021	6	-NR-	33
21 OCT 2021	5	-NR-	29
20 OCT 2021	8	9	40
19 OCT 2021	7	70	149
18 OCT 2021	2	-5	461

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

(I) - Flows preceeded 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 Okechobee elevation is determined from the 4 Int & 4 Edge stations

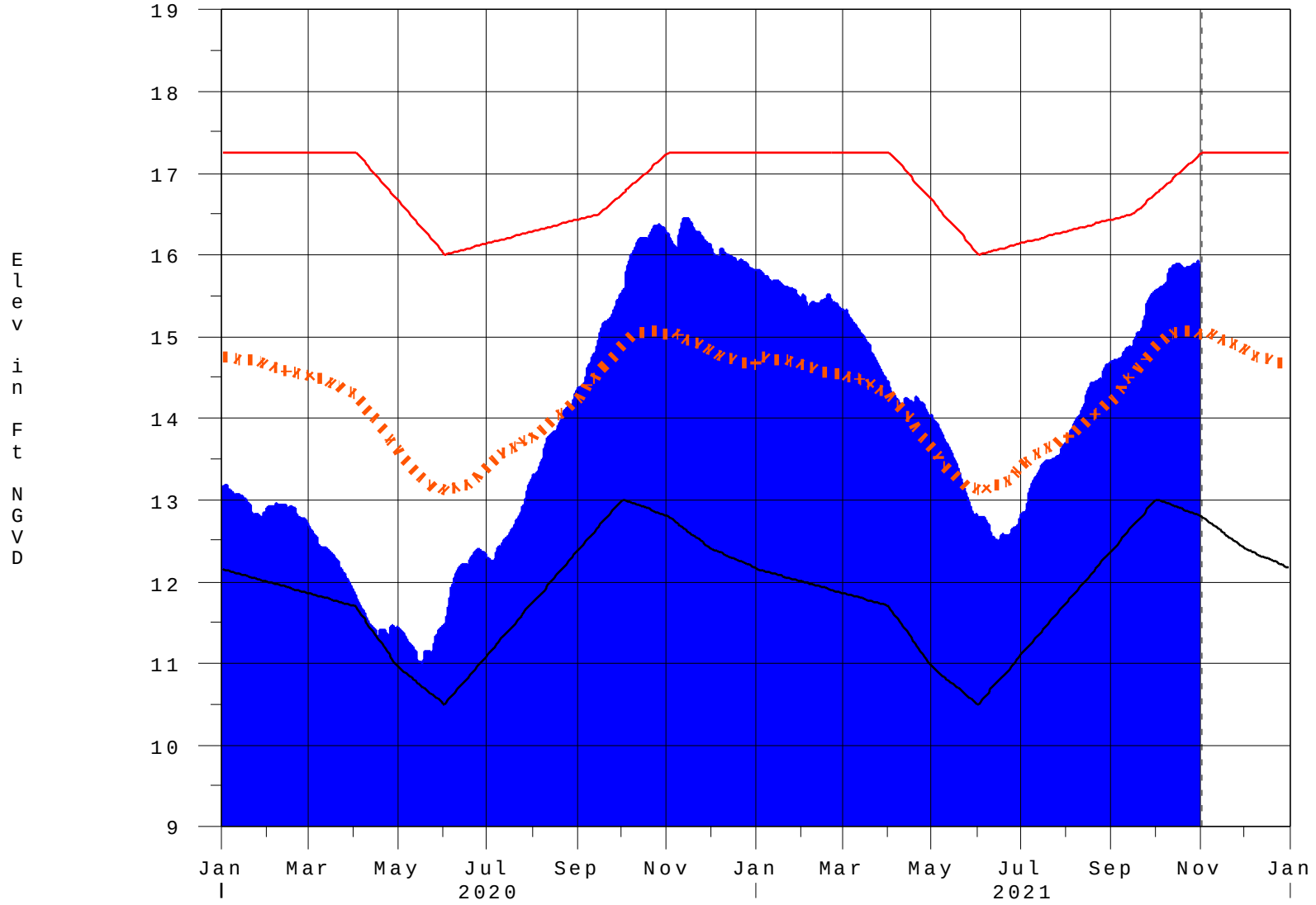
++ For more information see the Jacksonville District Navigation website
at http://www.saj.usace.army.mil/

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

Report Generated 01NOV2021 @ 10:15 ** Preliminary Data - Subject to Revision **

Lake Okeechobee

01NOV21 10:31:54



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 >= 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