

Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 10/2/2017 (ENSO Neutral Condition)

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 Neutral years³ and a sub-sampling of warm years of the Atlantic Multi-decadal Oscillation (AMO) in combination with Neutral ENSO 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 Neutral ENSO Years ³		Sub-sampling of AMO Warm + Neutral ENSO Years ⁴	
	Value (ft)	Condition	Value (ft)	Condition	Value (ft)	Condition	Value (ft)	Condition
Current (Oct-Mar)	N/A	N/A	0.96	Normal	0.84	Normal	2.42	Very Wet
Multi Seasonal (Oct-Apr)	N/A	N/A	0.92	Wet	0.73	Dry	2.36	Very 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.

[Tributary Hydrologic Conditions Graph:](#)

22487 cfs 14-day running average for Lake Okeechobee Net Inflow through 10/1/2017. According to the classification in [Tributary Hydrologic Conditions](#) table, this condition is Very Wet.

2.24 for Palmer Index on 9/30/2017.

According to the classification in [Tributary Hydrologic Conditions](#) table, this condition is Wet.

The wetter of the two conditions above is **Very Wet**.

[LORS2008 Classification Tables:](#)

Lake Okeechobee Stage on 10/2/2017

Lake Okeechobee Stage: **16.47 feet**

[USACE Report for Lake Okeechobee](#)

[Lake Okeechobee Stage Hydrograph](#)

Lake Okeechobee Management Zone/Band		Bottom Elevation (feet, NGVD)	Current Lake Stage
High Lake Management Band		16.76	
Operational Band	High sub-band	16.39	← 16.47
	Intermediate sub-band	15.92	
	Low sub-band	14.50	
Base Flow sub-band		13.00	
Beneficial Use sub-band		13.00	
Water Shortage Management Band			

Part C of LORS2008: Discharge to WCA's

Release Guidance Flow Chart Outcome: No releases to the WCAs.

Part D of LORS2008: Discharge to Tidewater

Release Guidance Flow Chart Outcome: Up to maximum discharge capacity to tidewater.

Technical Input Summaries from:

- [Lake Okeechobee Division](#)
- [Coastal Ecosystems](#)
- [Everglades Ecosystems Division](#)
- [Water Supply Department](#)
- [Water Resource Management Release Recommendation](#)
- [Kissimmee Watershed Environmental Conditions](#)
- [Environmental Conditions for Systems Operations](#)

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LORS2008 Implementation on 10/2/2017 (ENSO Neutral Condition):

Status for week ending 10/2/2017:

District wide, Raindar rainfall was 2.02 inches for the week. Lake stage on 10/2/2017 was 16.47 ft, up 0.32 ft from last week.

The updated Mid-September 2017 SFWMM Dynamic Position Analysis [percentile graph](#) for Lake Okeechobee show that the current lake stage is in the High Operational Sub-Band.

The LORS2008 tributary [indices](#) are classified as **Very Wet**. The PDSI indicates wet condition and the LONIN is Very Wet. The classification is based on the wetter of the two.

Water Supply Risk Evaluation

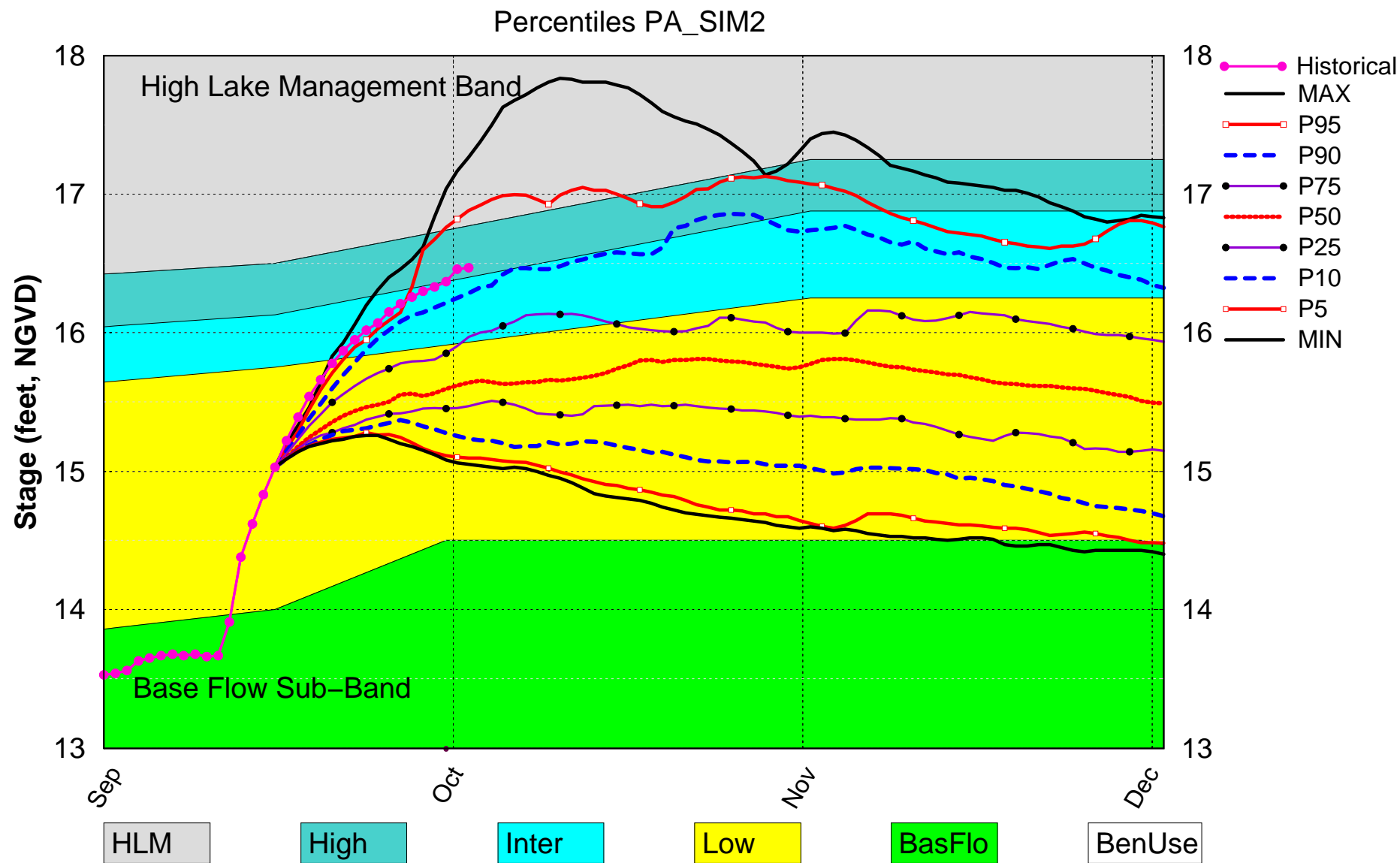
Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Intermediate Sub Band	L
	Palmer Index for LOK Tributary Conditions	2.24 (Normal)	L
	CPC Precipitation Outlook	1 month: Above Normal	L
		3 months: Normal	L
	LOK Seasonal Net Inflow Outlook	0.84 ft (Dry)	M
	ENSO La Nina Years		
	LOK Multi-Seasonal Net Inflow Outlook	0.73 ft (Dry)	H
	ENSO La Nina Years		
WCAs	WCA 1: Site 1-7, Site 1-8T, & Site 1-9 Average	Above Line 1 (17.10 ft)	L
	WCA 2A: Site 2-17 HW	Above Line 1 (14.03 ft)	L
	WCA-3A: 3 Station Average (Site 63, 64 and 65)	Above Line 1 (12.25 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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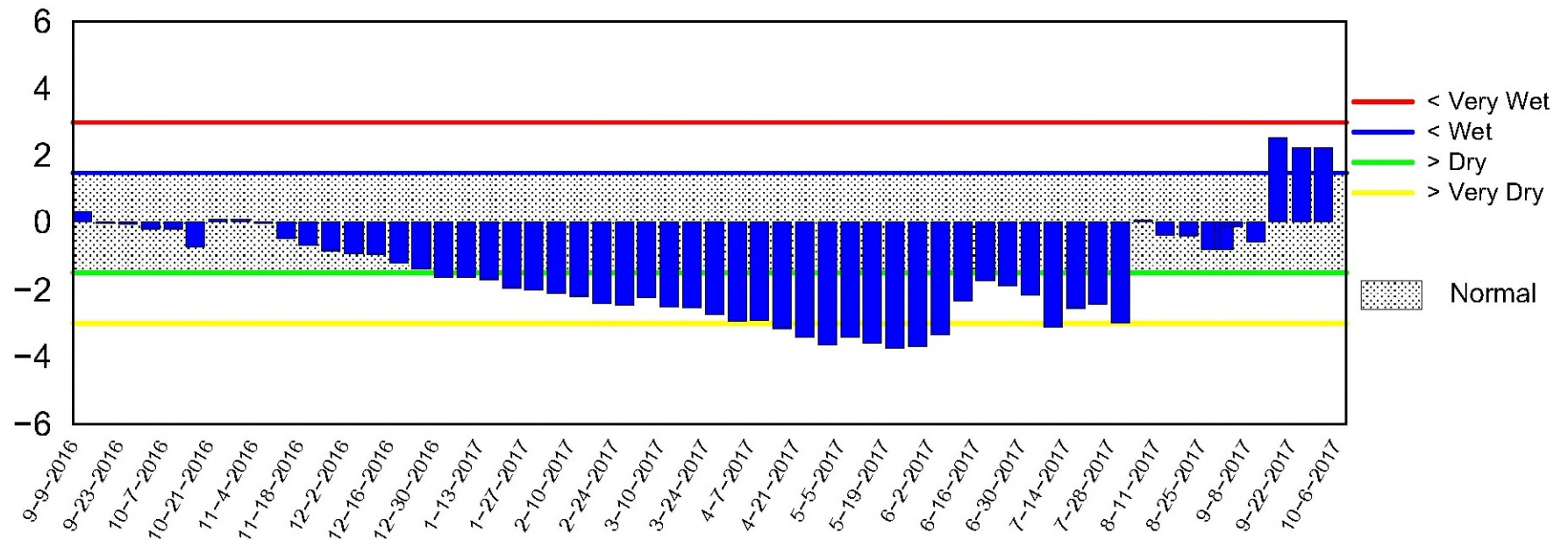
Lake Okeechobee SFWMM Sep 2017 Mid-Mon Dynamic Position Analysis



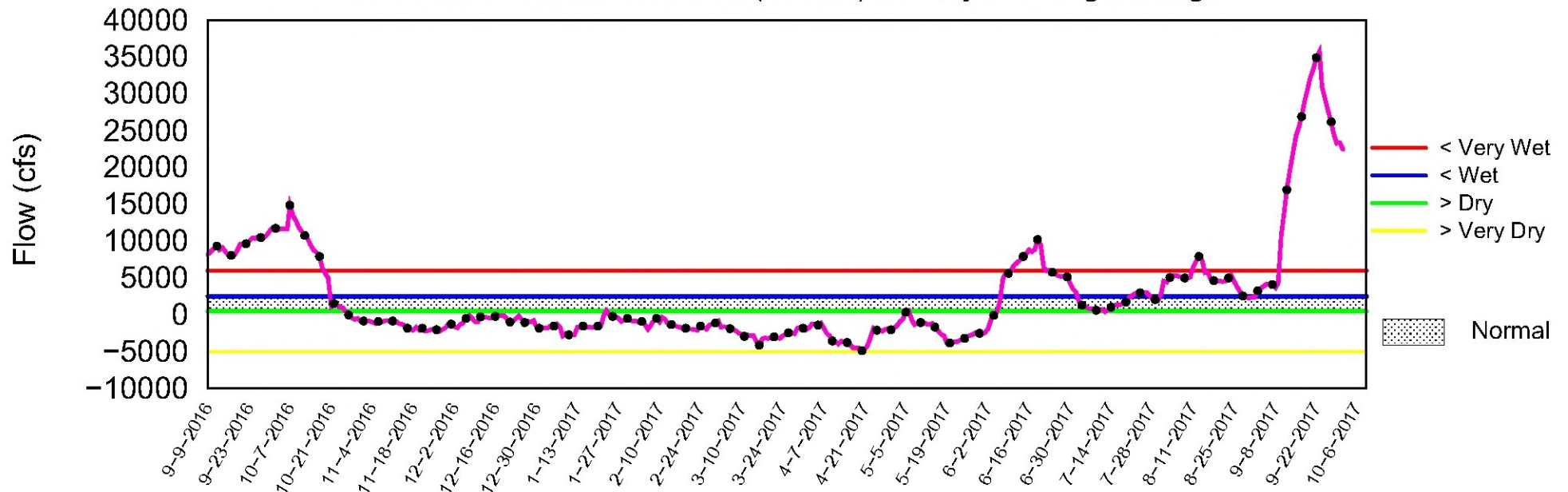
(See assumptions on the Position Analysis Results website)

Tributary Basin Condition Indicators as of October 2 2017

Palmer Index



Lake Okeechobee Net Inflow (LONIN) 14-day Running Average



Mon Oct 02 13:54:21 EDT 2017

2008 LORS

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

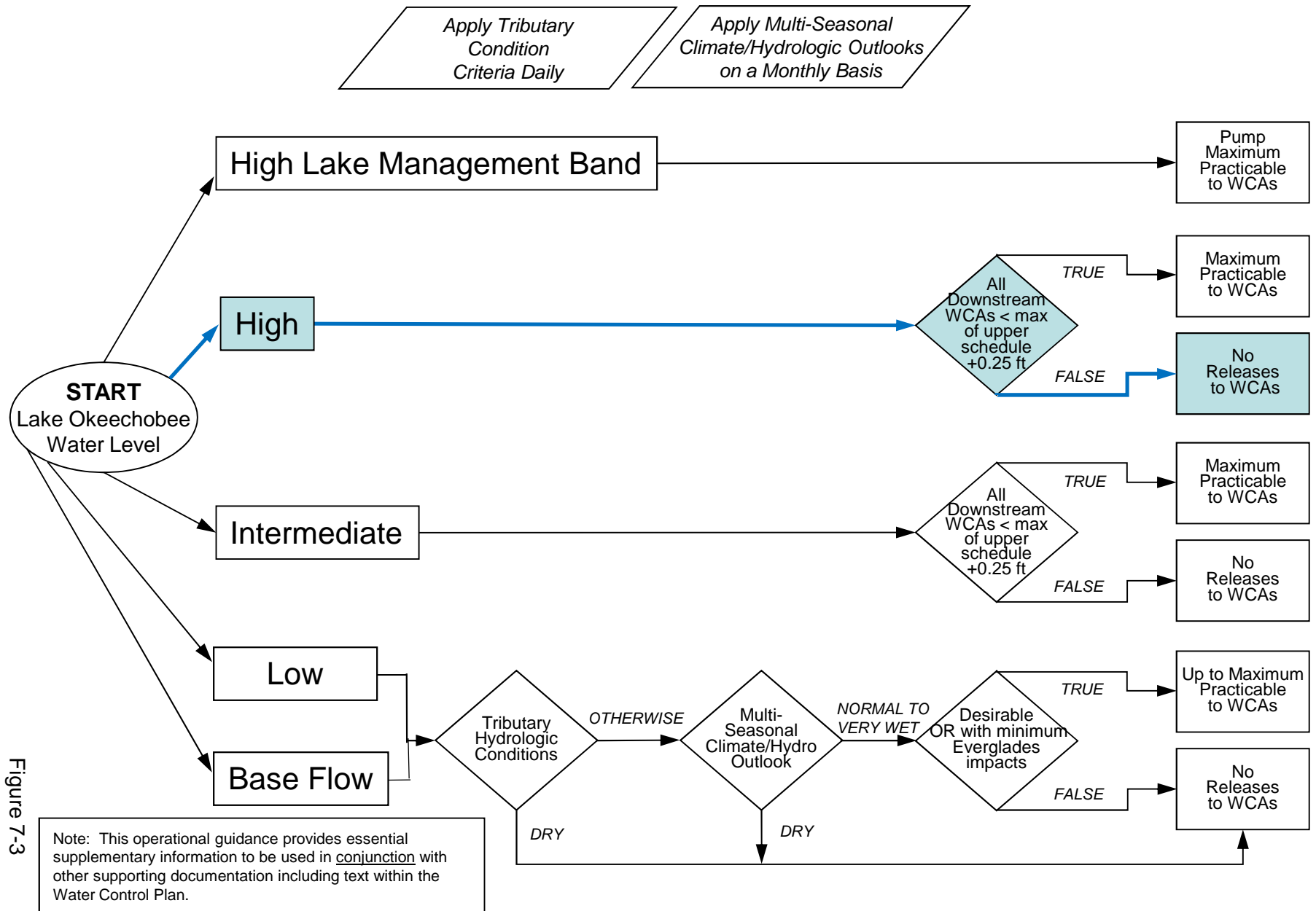


Figure 7-3

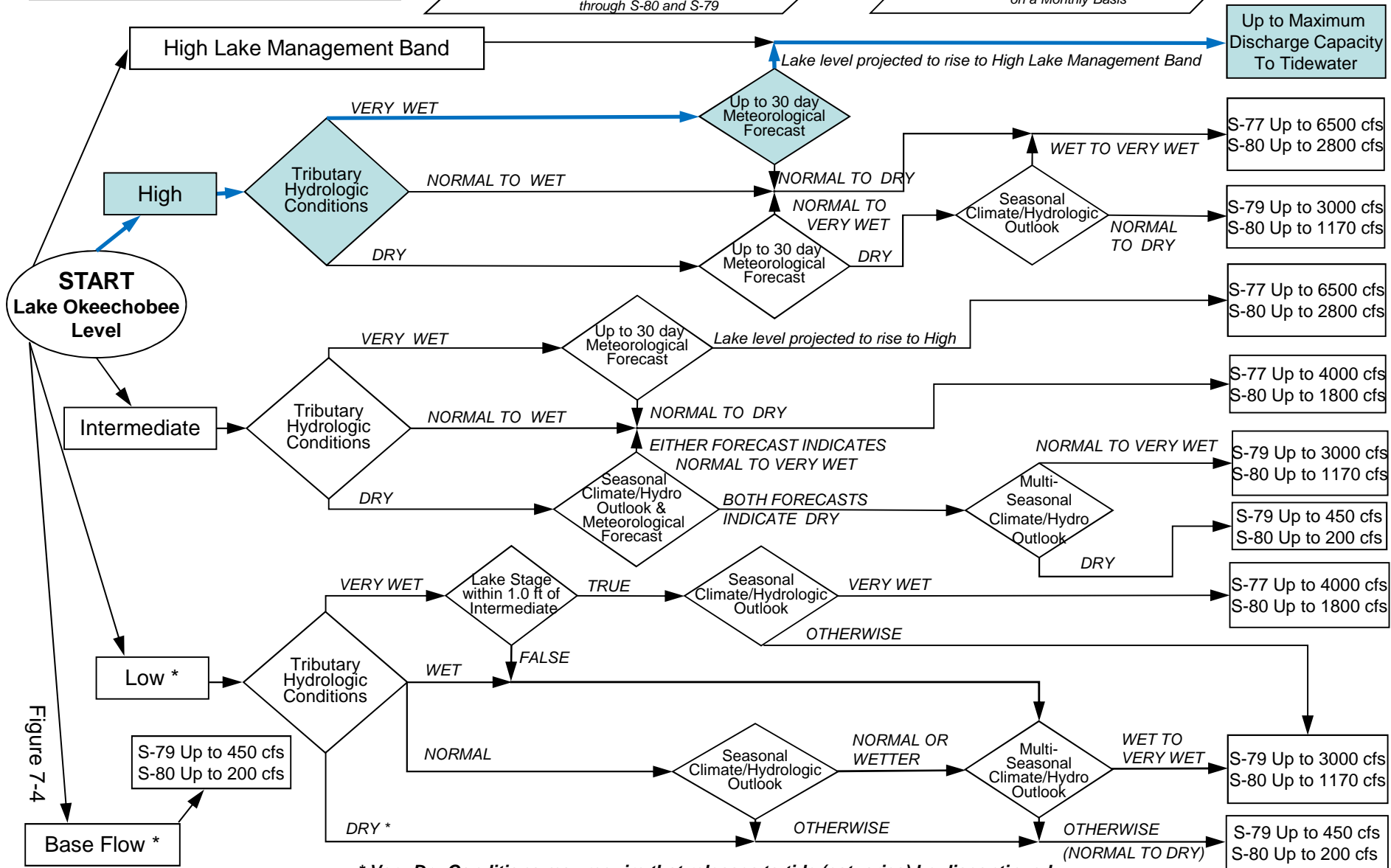
2008 LORS

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

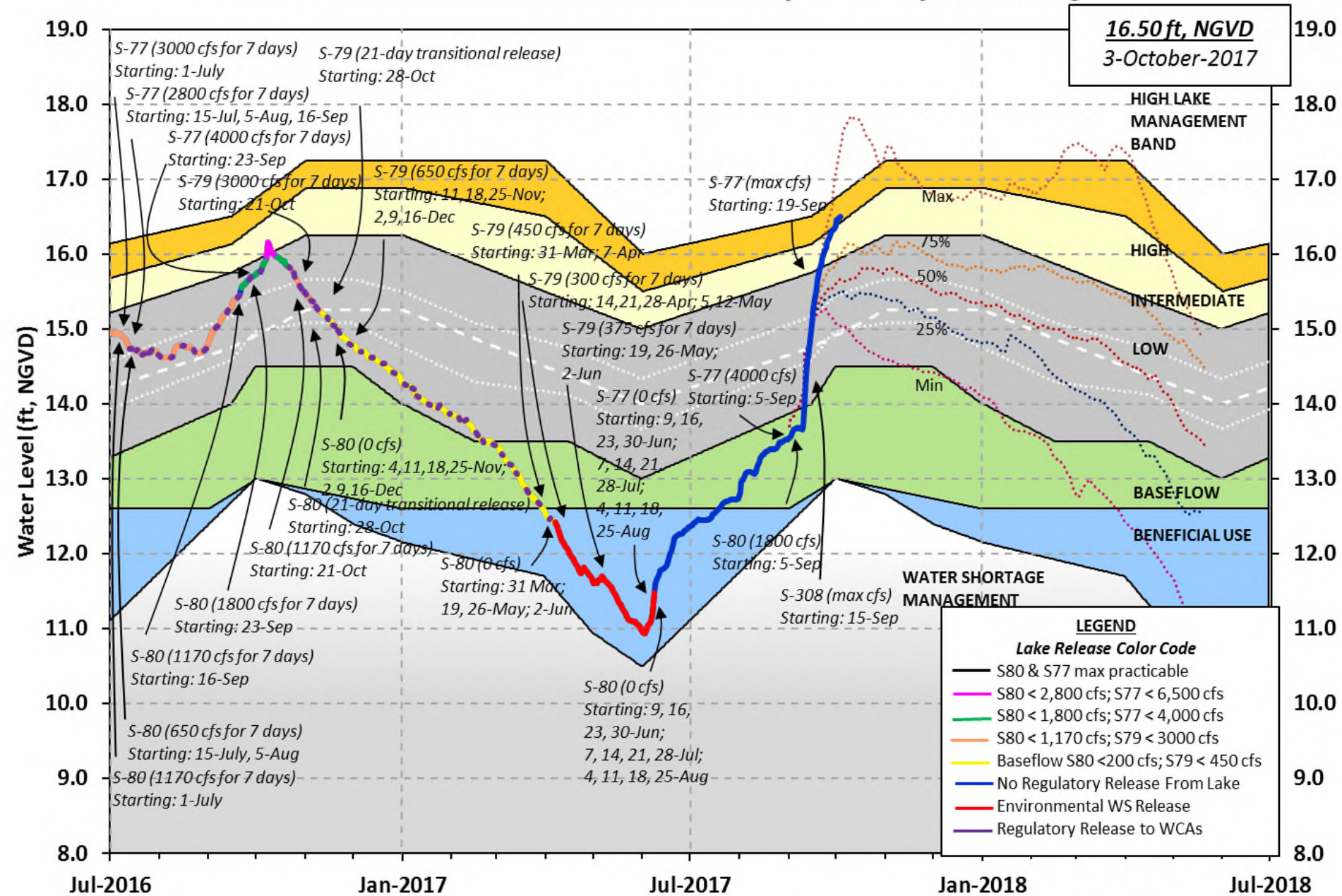
Note: This operational guidance provides essential supplementary information to be used in conjunction with other supporting documentation including text within the Water Control Plan.

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



Lake Okeechobee Water Level History and Projected Stages



Data Ending 2400 hours 01 OCT 2017

Bridge Clearance = 47.23'

S135 Culverts	0	S354	0	S77	7468
S127 Culverts	0	S351	0	S308	3395
S129 Culverts	0	S352	0		
S131 Culverts	0	L8 Canal Pt	-49		
Total Outflows:		10813			

	Headwater	Tailwater		Gate Positions						
	Elevation	Elevation	Disch	#1	#2	#3	#4	#5	#6	#7
	(ft-msl)	(ft-msl)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
(I) see note at bottom										
North East Shore										
S133 Pumps:	13.38	16.38	166	42	48	42	0	36	(cfs)	
S193:										
S191:	18.47	16.35	1041	3.0	2.5	3.0				
S135 Pumps:	13.35	16.31	91	30	24	36	0		(cfs)	
S135 Culverts:			0	0.0	0.0					
North West Shore										
S65E:	20.92	16.94	7155	3.0	4.0	4.1	4.1	3.5	3.5	
S65EX1:	20.92	16.94	5648							
S127 Pumps:	13.32	16.46	47	0	0	0	12	0	(cfs)	
S127 Culvert:			0	0.0						
S129 Pumps:	12.97	16.63	73	48	30	0			(cfs)	
S129 Culvert:			0	0.0						
S131 Pumps:	12.94	16.80	54	18	42				(cfs)	
S131 Culvert:			0							
Fisheating Creek										
nr Palmdale			-NR-							
nr Lakeport										
C5:		-NR-	0	-NR-	-NR-	-NR-				
South Shore										
S4 Pumps:	11.56	16.65	0	0	0	0			(cfs)	
S169:	14.49	11.55	0	0.0	0.0	0.0				
S310:	16.53		1							

S3 Pumps:	9.96	16.58	0	0	0	0		(cfs)
S354:	16.58	9.96	0	0.0	0.0			
S2 Pumps:	10.59	16.59	0	0	0	0	0	(cfs)
S351:	16.59	10.59	0	0.0	0.0	0.0		
S352:	16.57	10.40	0	0.0	0.0			
C10A:	-NR-	16.65		8.0	8.0	8.0	0.0	0.0
L8 Canal PT		16.49	-49					

S351 and S352 Temporary Pumps/S354 Spillway

S351:	10.59	16.59	0	-NR--NR--NR--NR--NR--NR-
S352:	10.40	16.57	0	-NR--NR--NR--NR-
S354:	9.96	16.58	0	-NR--NR--NR--NR-

Caloosahatchee River (S77, S78, S79)

S47B:	13.48	11.19		1.0	1.0
S47D:	11.10	11.09	98	6.5	

S77:

Spillway and Sector Flow:

16.04	11.45	*****	6.0	6.0	6.0	6.0
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Flow Due to Lockages+: 5

S77 Below USGS Flow Gage 7462

S78:

Spillway and Sector Flow:

10.50	3.78	8023	5.5	6.0	8.0	7.5
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Flow Due to Lockages+: 9

S79:

Spillway and Sector Flow:

2.87	2.00	12976	6.0	6.0	7.0	7.0	7.0	7.0	6.0
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6.0

Flow Due to Lockages+: 1

Percent of flow from S77 58%

Chloride (ppm) 40

St. Lucie Canal (S308, S80)

S308:

Spillway and Sector Flow:

16.42	16.27	*****	7.5	7.5	7.5	7.5
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Flow Due to Lockages+: 0

S308 Below USGS Flow Gage 3394

S153:	18.65	15.91	365	1.0	1.0
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S80:

Spillway and Sector Flow:

15.22	2.53	3560	0.0	2.0	0.0	0.0	2.0	0.0	0.0
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Flow Due to Lockages+: 9

Percent of flow from S308 95%

Steele Point Top Salinity (mg/ml) 6825

Steele Point Bottom Salinity (mg/ml) ****

Speedy Point Top Salinity (mg/ml) 776
 Speedy Point Bottom Salinity (mg/ml) 831

+ 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.

					----- Wind -----	
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:	0.05	1.15	1.32	116	5	
S78:	0.02	0.60	1.95	69	4	
S79:	0.00	0.89	0.89	183	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:	0.00	0.00	0.00	101	3	
S80:	0.00	0.00	0.00	97	5	
Okeechobee Average	0.03	0.09	0.10			
(Sites S78, S79 and S80 not included)						

Oke Nexrad Basin Avg	-NR-	0.63	1.02			

Okeechobee Lake Elevations	01 OCT 2017	16.47	Difference from
01OCT17			
01OCT17 -1 Day =	30 SEP 2017	16.46	-0.01
01OCT17 -2 Days =	29 SEP 2017	16.37	-0.10
01OCT17 -3 Days =	28 SEP 2017	16.33	-0.14
01OCT17 -4 Days =	27 SEP 2017	16.31	-0.16
01OCT17 -5 Days =	26 SEP 2017	16.27	-0.20
01OCT17 -6 Days =	25 SEP 2017	16.21	-0.26
01OCT17 -7 Days =	24 SEP 2017	16.15	-0.32
01OCT17 -30 Days =	01 SEP 2017	13.56	-2.91
01OCT17 -1 Year =	01 OCT 2016	15.76	-0.71
01OCT17 -2 Year =	01 OCT 2015	14.76	-1.71

Long Term Mean 30day Avearge ET for Lake Alfred (Inches) = 3.86

Lake Okeechobee Net Inflow (LONIN)

Average Flow over the previous 14 days					Avg-Daily Flow
01OCT17	Today =	01 OCT 2017	22027	MON	13126
01OCT17	-1 Day =	30 SEP 2017	23604	SUN	28887
01OCT17	-2 Days =	29 SEP 2017	24383	SAT	19200
01OCT17	-3 Days =	28 SEP 2017	26070	FRI	11451
01OCT17	-4 Days =	27 SEP 2017	28313	THU	17862
01OCT17	-5 Days =	26 SEP 2017	30224	WED	19604
01OCT17	-6 Days =	25 SEP 2017	32490	TUE	22581
01OCT17	-7 Days =	24 SEP 2017	38022	MON	25739
01OCT17	-8 Days =	23 SEP 2017	39813	SUN	19263
01OCT17	-9 Days =	22 SEP 2017	38589	SAT	23373
01OCT17	-10 Days =	21 SEP 2017	36986	FRI	24256
01OCT17	-11 Days =	20 SEP 2017	35785	THU	24775
01OCT17	-12 Days =	19 SEP 2017	34234	WED	29392
01OCT17	-13 Days =	18 SEP 2017	32353	TUE	28875

S65E

Average Flow over previous 14 days					Avg-Daily Flow
01OCT17	Today=	01 OCT 2017	7207	MON	7183
01OCT17	-1 Day =	30 SEP 2017	7278	SUN	7243
01OCT17	-2 Days =	29 SEP 2017	7350	SAT	7327
01OCT17	-3 Days =	28 SEP 2017	7414	FRI	7335
01OCT17	-4 Days =	27 SEP 2017	7397	THU	7367
01OCT17	-5 Days =	26 SEP 2017	7180	WED	7337
01OCT17	-6 Days =	25 SEP 2017	6850	TUE	7326
01OCT17	-7 Days =	24 SEP 2017	6398	MON	7280
01OCT17	-8 Days =	23 SEP 2017	5882	SUN	7016
01OCT17	-9 Days =	22 SEP 2017	5380	SAT	6644
01OCT17	-10 Days =	21 SEP 2017	4906	FRI	6689
01OCT17	-11 Days =	20 SEP 2017	4428	THU	6998
01OCT17	-12 Days =	19 SEP 2017	3928	WED	7353
01OCT17	-13 Days =	18 SEP 2017	3403	TUE	7797

S65EX1

Average Flow over previous 14 days					Avg-Daily Flow
01OCT17	Today=	01 OCT 2017	6402	MON	5648
01OCT17	-1 Day =	30 SEP 2017	6491	SUN	5970
01OCT17	-2 Days =	29 SEP 2017	6566	SAT	5824
01OCT17	-3 Days =	28 SEP 2017	6672	FRI	6056
01OCT17	-4 Days =	27 SEP 2017	6815	THU	6192
01OCT17	-5 Days =	26 SEP 2017	6955	WED	6322
01OCT17	-6 Days =	25 SEP 2017	7087	TUE	6639
01OCT17	-7 Days =	24 SEP 2017	7146	MON	6652
01OCT17	-8 Days =	23 SEP 2017	6980	SUN	6734
01OCT17	-9 Days =	22 SEP 2017	6667	SAT	6701
01OCT17	-10 Days =	21 SEP 2017	6349	FRI	6698
01OCT17	-11 Days =	20 SEP 2017	6030	THU	6681
01OCT17	-12 Days =	19 SEP 2017	5712	WED	6725
01OCT17	-13 Days =	18 SEP 2017	5395	TUE	6789

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)
01 OCT 2017		13486	14798	15934	25623
30 SEP 2017		13269	14649	15667	25931
29 SEP 2017		12532	13235	14008	21948
28 SEP 2017		10405	8988	10308	17752
27 SEP 2017		12995	10708	11029	18071
26 SEP 2017		12918	10504	11789	18595
25 SEP 2017		12188	10511	11699	18648
24 SEP 2017		11528	10084	12689	20584
23 SEP 2017		11395	10167	12697	21295
22 SEP 2017		11255	9836	12917	22452
21 SEP 2017		8633	8489	11136	22155
20 SEP 2017		7044	6916	10146	19904
19 SEP 2017		3899	3931	9382	19444
18 SEP 2017		4	-433	5292	19227

		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)
01 OCT 2017		1	0	0	0	-98
30 SEP 2017		6	0	0	0	-112
29 SEP 2017		16	0	0	0	29
28 SEP 2017		26	0	0	0	11
27 SEP 2017		11	0	0	0	-13
26 SEP 2017		18	0	0	0	44
25 SEP 2017		9	0	0	0	-40
24 SEP 2017		6	0	0	0	-170
23 SEP 2017		12	0	0	0	-356
22 SEP 2017		7	0	0	0	-342
21 SEP 2017		11	0	0	0	-469
20 SEP 2017		15	0	0	0	-799
19 SEP 2017		5	0	0	0	-1237
18 SEP 2017		-16	0	0	0	-1333

		S-308	Below S-308	S-80
		Discharge	Discharge	Discharge
		(ALL DAY)	(ALL-DAY)	(ALL-DAY)
DATE		(AC-FT)	(AC-FT)	(AC-FT)
01 OCT 2017		8787	6731	6806
30 SEP 2017		8835	6643	8011
29 SEP 2017		8779	6814	-NR-
28 SEP 2017		9126	7167	6541
27 SEP 2017		8871	6717	7229
26 SEP 2017		7815	5833	5626
25 SEP 2017		-NR-	5743	6147
24 SEP 2017		4946	5050	5570
23 SEP 2017		5516	5973	6391
22 SEP 2017		-NR-	6150	6727
21 SEP 2017		5291	5457	5826
20 SEP 2017		3527	3198	5163
19 SEP 2017		3859	2766	4482

18 SEP 2017 5747 4816 5391

*** 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

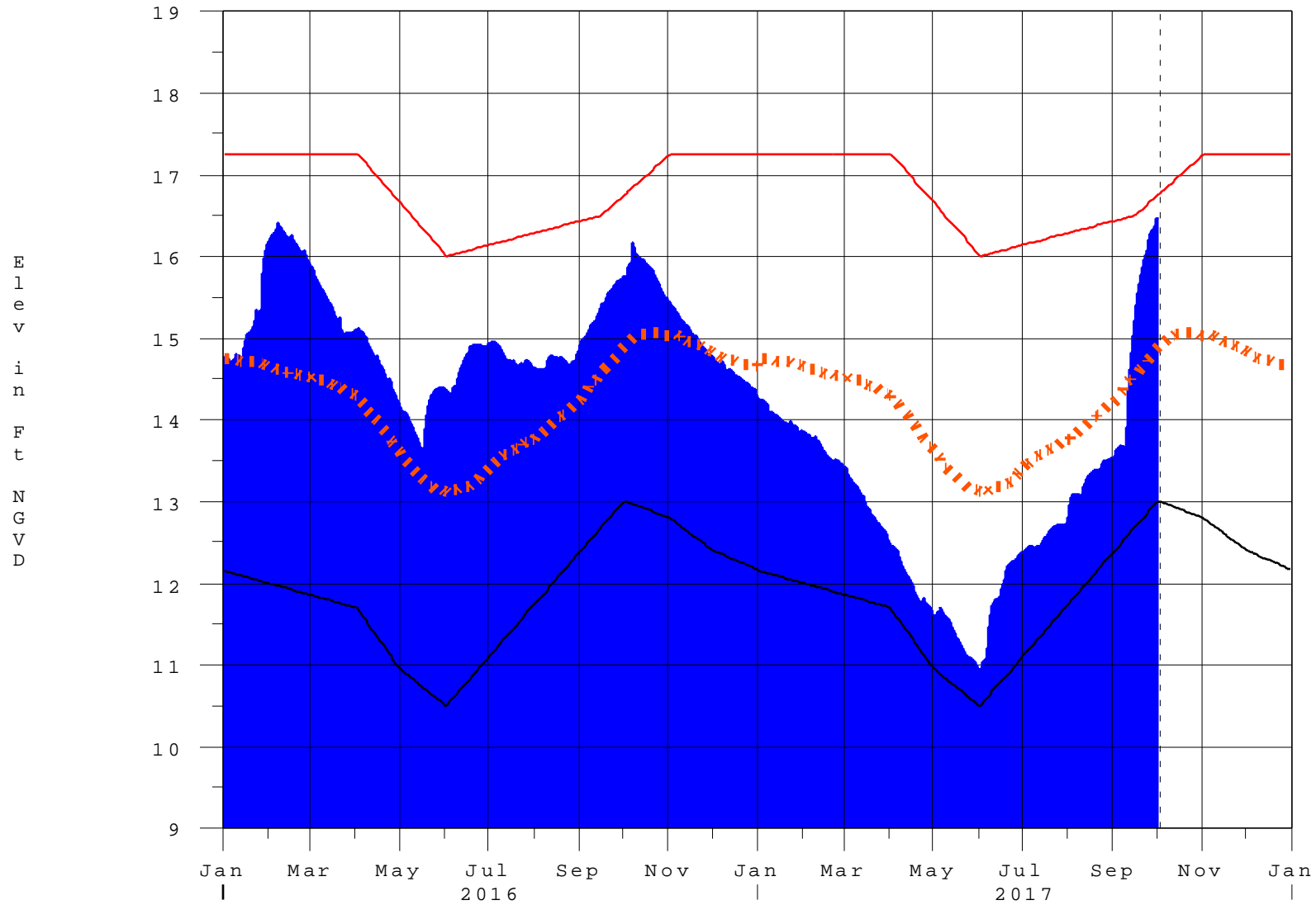
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* On 11 May 1999, Lake Okeechobee Elevation was switched from
Instantaneous 2400 value to an average-daily lake average.
On 14 Mar 2001, due to the isolation of various gages within the
standard
10 stations, the average of the interior 4 station gages 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

—
Report Generated 02OCT2017 @ 11:15 ** Preliminary Data - Subject to Revision
**

Lake Okeechobee

02OCT17 11:30:21



- 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