

Disclaimer: Information contained in the report addresses environmental conditions only and is not the official South Florida Water Management District operations recommendation or decision.

## **M E M O R A N D U M**

**TO:** John Mitnik, Assistant Executive Director, Executive Office Staff

**FROM:** SFWMD Staff Environmental Advisory Team

**DATE:** October 8, 2025

**SUBJECT:** Weekly Environmental Conditions for Systems Operations

### **Summary**

#### **Weather Conditions and Forecast**

A pressure gradient is producing breezy easterly winds across the area, a pattern expected to persist through the end of the week. These onshore winds will contribute to periods of coastal flooding along portions of the east coast, associated with elevated king tides through the remainder of the 6 October New Moon cycle. On Wednesday, a drier air mass will briefly filter into South Florida, leading to a temporary reduction in rainfall coverage. By Thursday, however, deep tropical moisture is forecast to return. Scattered to numerous heavy showers and thunderstorms are likely along the lower east coast Thursday morning, with the thunderstorm activity possibly continuing into Thursday night. By Friday, a cold front will push southward through Florida, with a much drier continental air mass spreading in behind it on northerly to northwesterly winds by Saturday morning. The weekend will feature significantly drier and more stable conditions, with little to no rainfall expected other than a few light coastal showers or brief drizzle. Even drier air will arrive by Monday, resulting in a greater reduction in the daily rainfall. For the 7-day period ending next Tuesday morning, near-average total SFWMD rainfall is possible.

#### **Kissimmee**

In the past week, releases were made from East Lake Toho and Lake Toho to keep lake stage at the regulation schedule line. Releases from Kissimmee-Cypress-Hatchineha followed the Headwaters Revitalization Schedule Increment 1 Temporary Deviation Discharge Plan. Weekly average discharge on October 5, 2025, was 1,700 cfs at S-65 and 1,900 cfs at S-65A, respectively. Mean weekly water depth on the Kissimmee River floodplain decreased by 0.25 feet to 1.15 feet. The weekly average concentration of dissolved oxygen in the Kissimmee River increased from the previous week's value of 0.7 mg/L to 0.8 mg/L and remained in the lethal zone for aquatic species.

#### **Lake Okeechobee**

Lake Okeechobee stage was 12.30 feet NAVD88 (13.61 ft NGVD29) on October 5, 2025, which was 0.10 feet higher than the previous week and 0.99 feet higher than a month ago. Average daily inflows (excluding rainfall) decreased from 5,380 cfs the previous

week to 4,490 cfs. Average daily outflows (excluding evapotranspiration) were 30 cfs. The most recent non-obscured satellite image from October 5, 2025, NOAA's Harmful Algal Bloom Monitoring System suggests low cyanobacteria potential over most of the lake and moderate potential in the southwestern region. The September 15-17 sampling showed 26 of 32 phytoplankton samples had detectable levels of cyanotoxins. None exceeded the USEPA recreational standards. Four sites had bloom level chlorophyll concentrations.

## **Estuaries**

Total inflow to the St. Lucie Estuary averaged 2,580 cfs over the past week with no flow coming from Lake Okeechobee. Mean surface salinities decreased at the HR1 and US1 Bridge sites and remained the same at the A1A Bridge site. Salinity in the middle estuary was in the optimal range (10-25) for adult eastern oysters.

Total inflow to the Caloosahatchee Estuary averaged 2,589 cfs over the past week with no flow coming from Lake Okeechobee. Over the past week, salinities remained below 1 at S-79, Val I-75, and Ft. Myers, and increased at the remaining sites in the estuary. Mean salinities were in the optimal range (0-10) for tape grass in the upper estuary. Salinities were in the optimal range (10-25) for adult oysters at Shell Point, in the upper stressful range at Sanibel, and in the damaging range (< 5) at Cape Coral.

## **Stormwater Treatment Areas**

For the week ending Sunday, October 5, 2025, no Lake Okeechobee water was delivered to the FEBs/STAs. The total amount of Lake releases sent to the FEBs/STAs in WY2026 is approximately 32,000 ac-feet. The total amount of inflows to the STAs in WY2026 is approximately 445,100 ac-feet. Online STA treatment cells are at or above target stage. STA-1E Central Flow-way is offline for construction activities. Operational restrictions are in effect in STA-1E Western Flow-way, STA-2 Flow-ways 2 and 4, and STA-3/4 Eastern Flow-way for vegetation management. Additional restrictions are in place in STA-2 Flow-way 3 for post-drawdown vegetation grow-in. This week, if LOSOM recommends Lake releases to the WCAs and conditions allow, releases will be sent to STA-2.

## **Everglades**

Near average precipitation fell across all basins, with the local maxima averaging over 3.1 inches. Ascension rates were a mix of good and poor categories this week. WCA 2B and 3A had poor conditions as recessions occurred during a time when they were both at unseasonably low water depths. Southeastern WCA-2A, where depths have increased dramatically over the last four weeks, was also considered poor as more recessions are needed here to reduce water depths. Conversely, ascension rates throughout the rest of the Everglades Protection Area increased, helping to alleviate low water conditions in these areas. Taylor Slough stages increased throughout the region last week, with the average stage remaining above the recent average for this time of year. Florida Bay salinities have generally increased, with the western and central regions now at or above the 75th percentile and the eastern region nearing it. However, all regions remain below the hypersalinity threshold.

## Supporting Information

### Kissimmee Basin

#### *Upper Kissimmee*

On October 5, 2025, mean daily lake stages were 56.3 feet NAVD88 (0.2 feet above schedule) in East Lake Toho, 53.1 feet NAVD88 (0.2 feet above schedule) in Lake Toho, and 50.0 feet NAVD88 (0.9 feet below the Increment 1 Temporary Deviation schedule) in Lakes Kissimmee-Cypress-Hatchineha (KCH) (**Table KB-1, Figures KB-1-3**).

#### *Lower Kissimmee*

For the week ending October 5, 2025, the mean weekly discharge was 1,700 cfs at S-65 and 1,900 cfs at S-65A, respectively. Mean weekly discharge from the Kissimmee River was 3,100 cfs and 3,000 cfs at S-65D and S-65E, respectively (**Table KB-2**). Mean weekly headwater stages were 45.1 feet NAVD88 at S-65A and 26.3 feet NAVD88 at S-65D. Mean weekly river channel stage decreased by 0.5 feet from the previous week's value to 36.6 feet NAVD88 (**Figure KB-4**). Mean weekly water depth on the Kissimmee River floodplain decreased by 0.25 feet to 1.15 feet (**Table KB-2, Figure KB-5**). The weekly average concentration of dissolved oxygen in the Kissimmee River increased from 0.7 mg/L the previous week to 0.8 mg/L (**Table KB-2, Figure KB-6**). A fish kill in the Kissimmee River was reported previously during this low DO event.

#### *Water Management Recommendations*

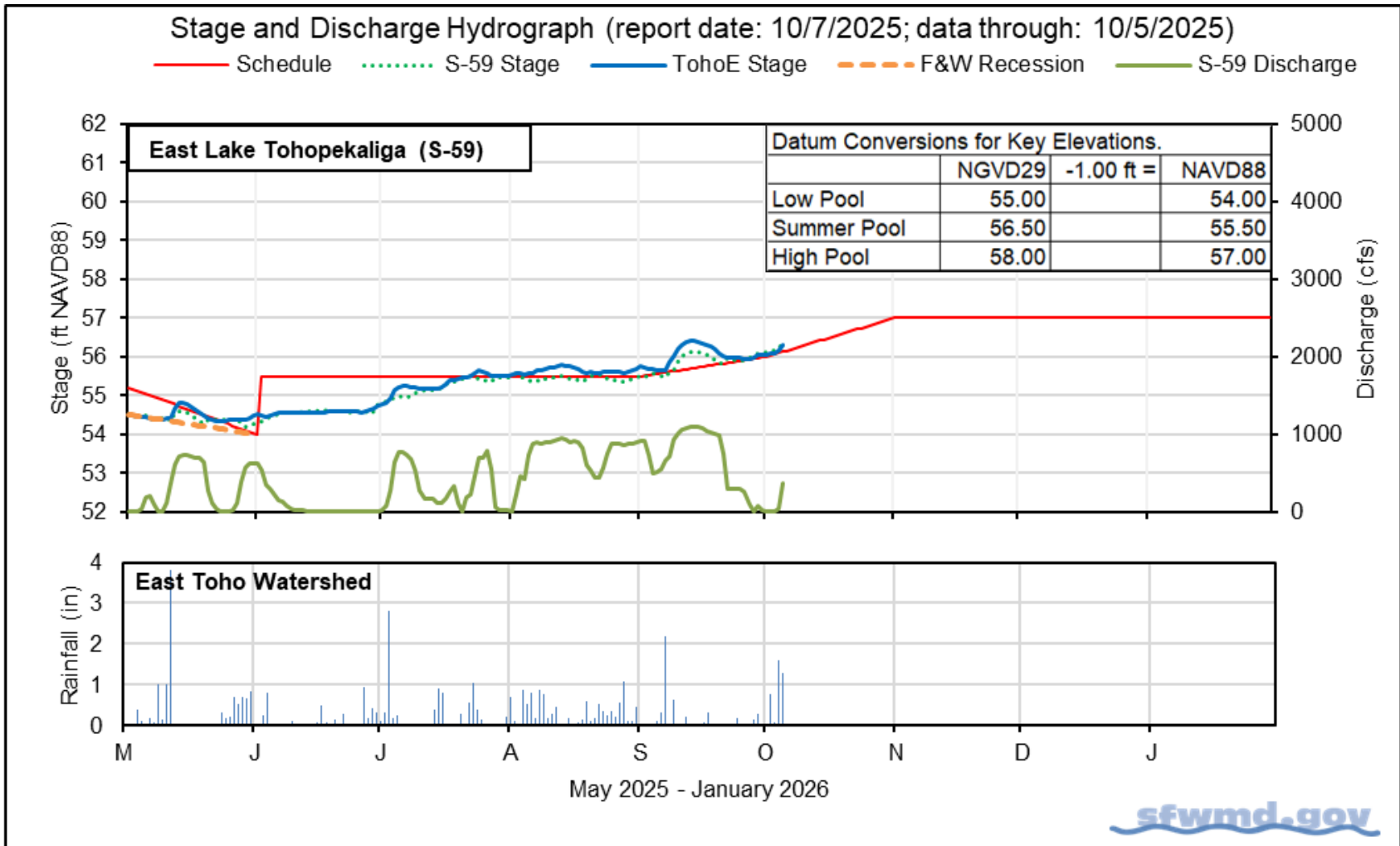
In KCH, follow the Headwaters Revitalization Schedule (HRS) Increment 1 Temporary Deviation Discharge Plan for S-65/S-65A (**Figure KB-7**). With KCH stage in Zone B1, use the Increment 1 Interpolation Tool to determine discharge relative to stage in KCH. When stage decreases into Zone B2, target flows of 1,400 cfs at S-65A.

**Table KB-1.** Average discharge for the preceding seven days, Sunday's average daily stage and Sunday's average daily departure from Kissimmee Chain of Lakes (KCOL) flood regulation lines or temporary schedules. All data are provisional.

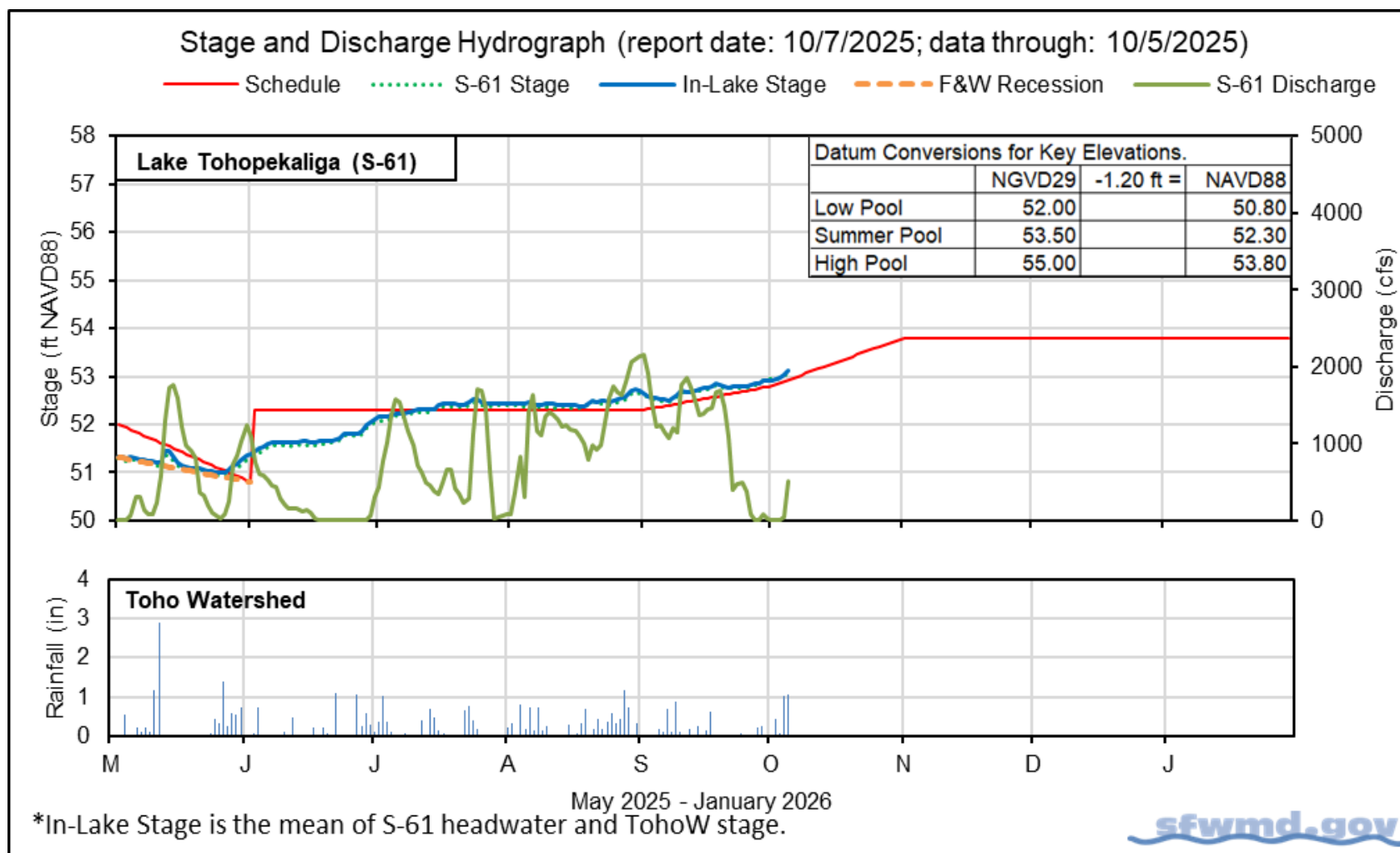
Water Body	Structure	Stage Monitoring Site	Weekly (7-Day) Average Discharge (cfs)	Sunday Lake Stage (feet NAVD88) <sup>a</sup>	Schedule Type <sup>b</sup>	Sunday Schedule Stage (feet NAVD88)	Sunday Departure from Regulation (feet)	
							10/5/25	9/28/25
Lakes Hart and Mary Jane	S-62	LKMJ	72	59.3	R	59.0	0.3	0.0
Lakes Myrtle, Preston and Joel	S-57	S-57	76	60.5	R	60.1	0.4	0.1
Alligator Chain	S-60	ALLI	63	62.6	R	62.3	0.3	0.0
Lake Gentry	S-63	LKGT	85	60.2	R	60.0	0.2	0.0
East Lake Toho	S-59	TOHOE	72	56.3	R	56.1	0.2	0.0
Lake Toho	S-61	TOHOW	97	53.1	R	52.9	0.2	0.1
Lakes Kissimmee, Cypress and Hatchineha	S-65	KUB011 LKIS5B	1700	50.0	T	50.9	-0.9	-0.5

a. Names of in-lake monitoring sites and structures used to determine lake stage. If more than one site is listed, an average is reported.

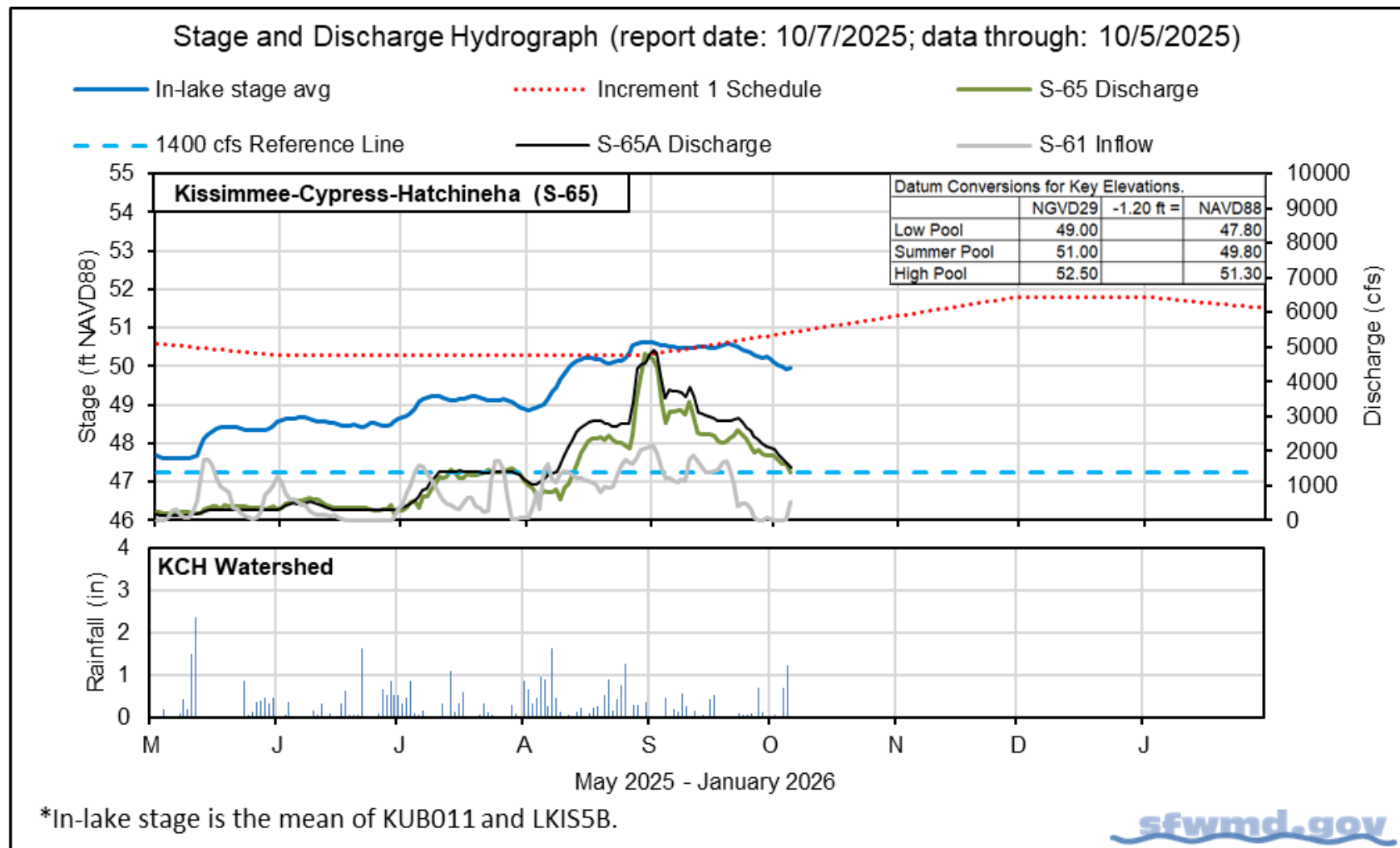
b. A: projected recession line; R: USACE regulation schedule; S: temporary recession target line; T: temporary schedule; NA: not applicable or not available.



**Figure KB-1.** East Lake Toho regulation schedule, stage, discharge, and rainfall.



**Figure KB-2.** Lake Toho regulation schedule, stage, discharge, and rainfall.



**Figure KB-3.** Lakes Kissimmee, Cypress and Hatchineha regulation schedule, stage, discharge, and rainfall.

**Table KB-2.** One- and seven-day average discharge and stage at Lower Kissimmee basin structures, river channel dissolved oxygen concentrations and water depths in the Phase I area floodplain. All data are provisional.

Metric	Location	Sunday Daily Average	Weekly Average for Previous Seven Day Periods			
		10/5/25	10/5/25	9/28/25	9/21/25	9/14/25
Discharge	S-65	1,400	1,700	2,200	2,400	2,900
Discharge	S-65A <sup>a</sup>	1,500	1,900	2,600	2,900	3,400
Headwater Stage (feet NAVD88)	S-65A	45.1	45.1	45.1	45.0	45.3
Discharge	S-65D <sup>b</sup>	2,800	3,100	3,600	4,100	4,800
Headwater Stage (feet NAVD88)	S-65D <sup>c</sup>	26.2	26.3	26.6	26.9	27.0
Discharge (cfs)	S-65E <sup>d</sup>	2,800	3,000	3,500	3,900	4,600
Discharge (cfs)	S-67	0	0	0	0	0
Dissolved Oxygen (mg/L) <sup>e</sup>	Phase I, II/III river channel	1.1	0.8	0.7	0.4	0.3
River channel mean stage (feet NAVD88) <sup>f</sup>	Phase I river channel	36.4	36.6	37.1	37.4	37.9
Mean depth (feet) <sup>g</sup>	Phase I floodplain	1.05	1.15	1.40	1.61	1.80

a. Combined discharge from main and auxiliary structures.

b. Combined discharge from S-65D, S-65DX1, and S-65DX2.

c. Average stage from S-65D and S-65DX1.

d. Combined discharge from S-65E and S-65EX1.

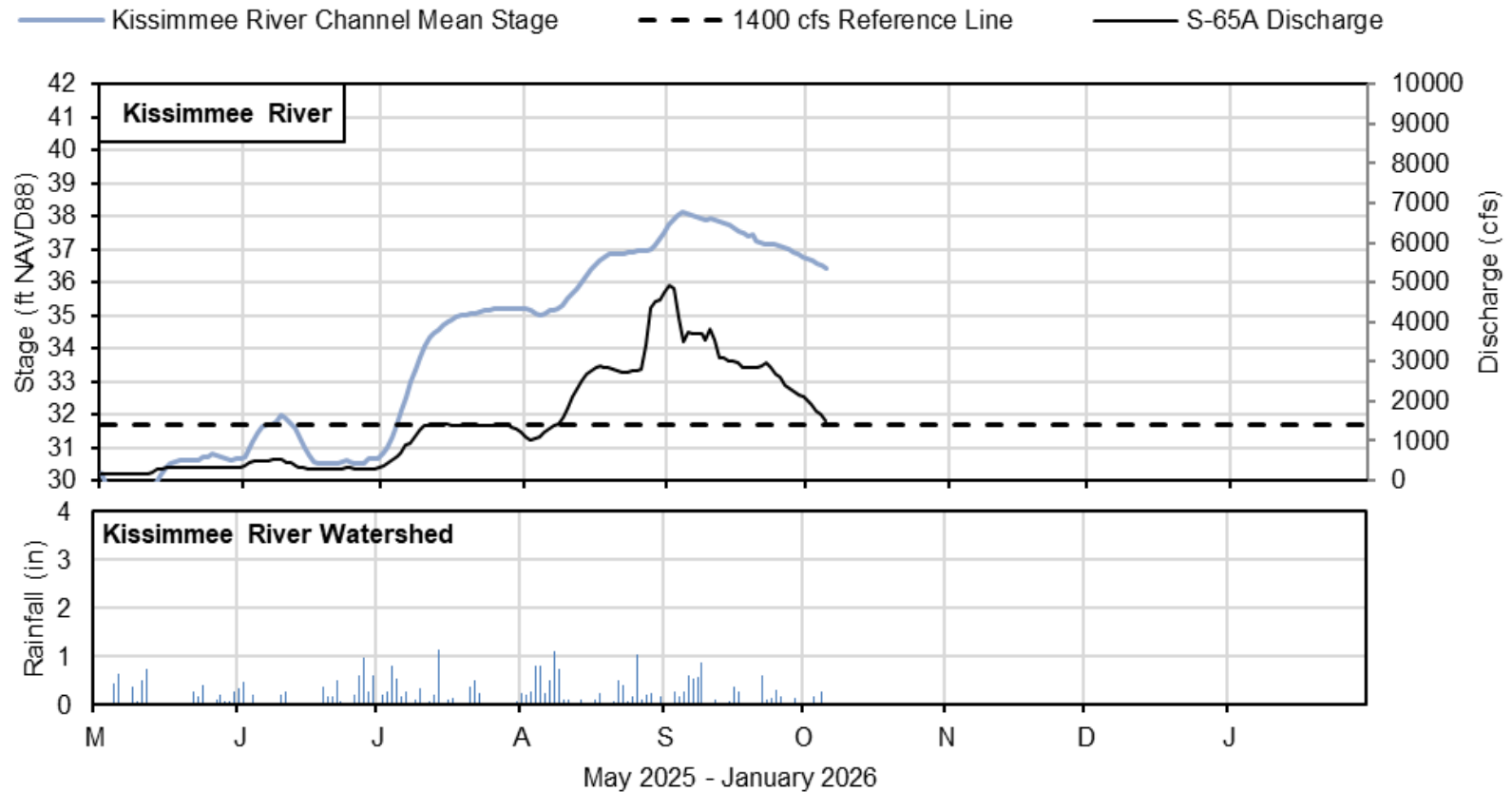
e. Dissolved oxygen is the average of values from sondes KRBN, PC62, PC33, PD62R, and PD42R.

f. Mean of five river channel stations (PC62, KRDR02, KRBN, PC33, PC11) in the Phase I area.

g. One-day spatial average obtained from the South Florida Water Depth Assessment Tool (SFWDAT).



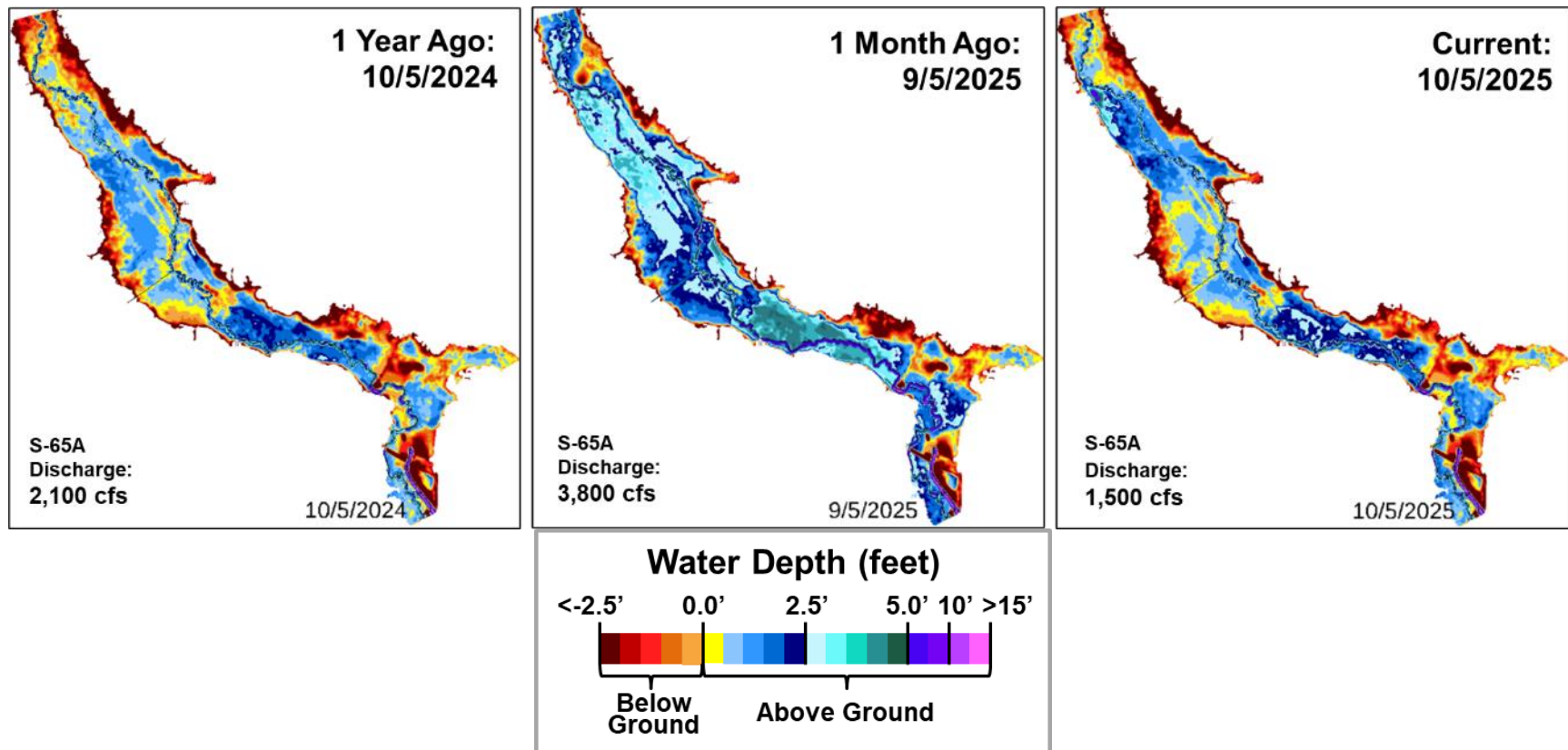
Stage and Discharge Hydrograph (report date: 10/7/2025; data through: 10/5/2025)



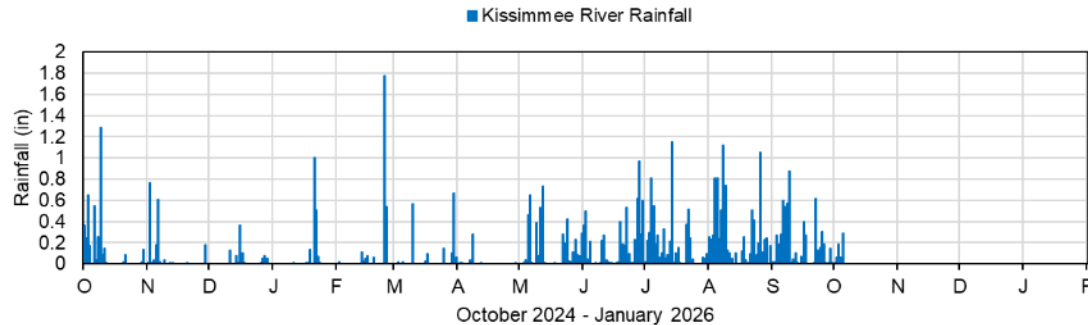
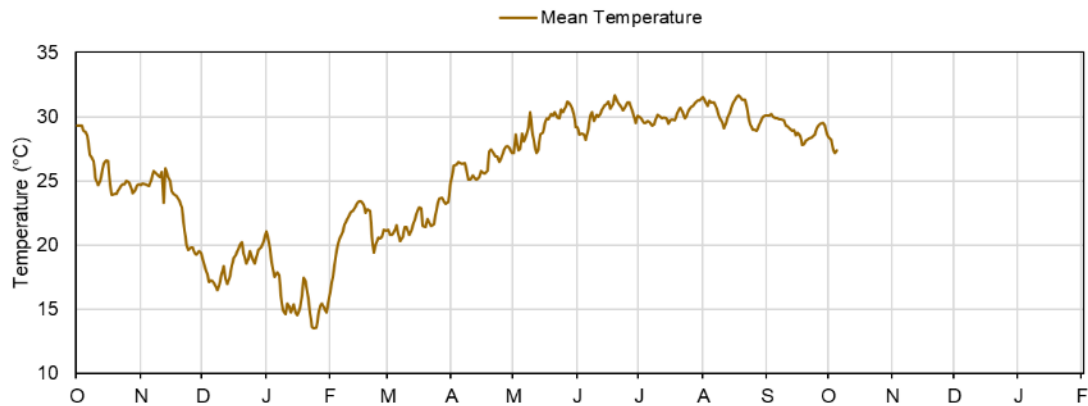
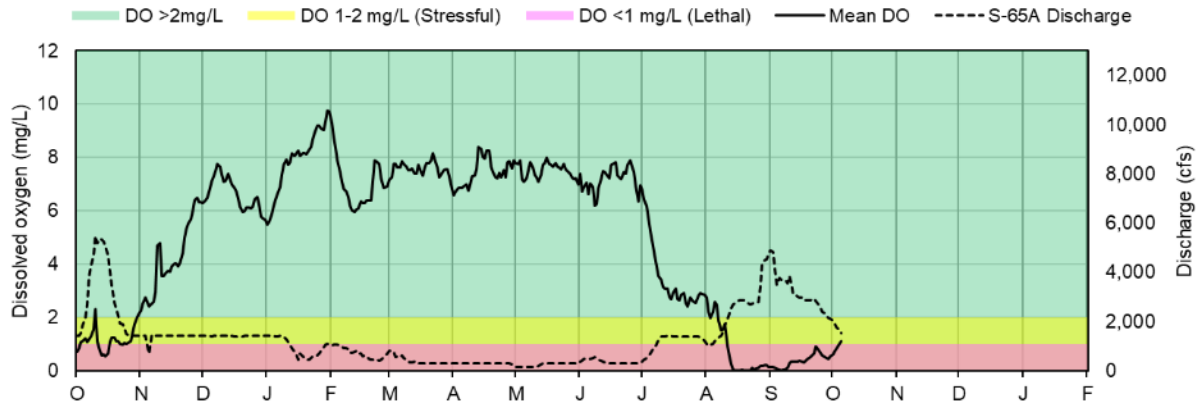
\*River Channel Stage is the average for PC62, KRDR02, KRBN, PC33, and PC11.

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**Figure KB-4.** Kissimmee River stage, discharge, and rainfall.



**Figure KB-5.** Phase I-II-III area Kissimmee River floodplain water depths (from left to right) one year ago, one month ago, and current.



Report Date: 10/7/2025; data are through: 10/5/2025

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**Figure KB-6.** Kissimmee River channel mean daily dissolved oxygen concentration (mg/L), S-65A discharge (cfs), temperature (°C) and rainfall (inches). Dissolved oxygen (DO) and temperature are mean daily values averaged for PC62, KRDR02, KRBN, PC33, PC11, PD62R, and PD42R with an average of five stations reporting this week. Rainfall values are daily totals for Kissimmee River (Pool BCD) AHED watershed.

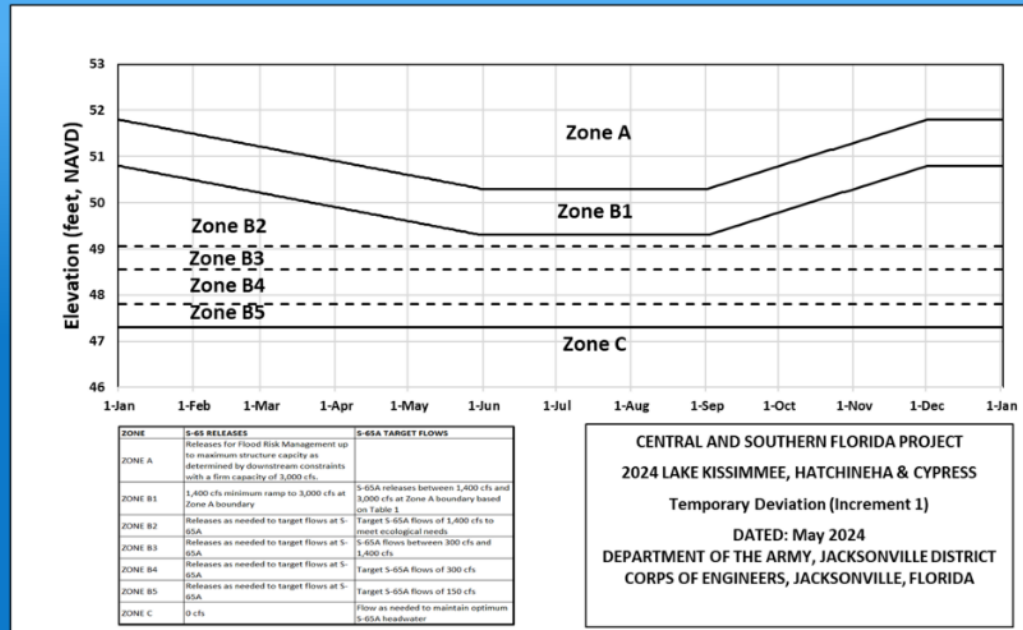
# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

## HRS Increment 1 Temporary Deviation Discharge Plan for S-65/S-65A

Discharge Guidance for Increment 1 Temporary Deviation Discharge Plan		
ZONE	S-65 RELEASES	S-65A TARGET FLOWS
ZONE A	Releases for Flood Risk Management up to maximum structure capacity as determined by downstream constraints with a firm capacity of 3,000 cfs.	
ZONE B1	1,400 cfs minimum ramp to 3,000 cfs at Zone A boundary	S-65A releases between 1,400 cfs and 3,000 cfs at Zone A boundary based on Table 1
ZONE B2	Releases as needed to target flows at S-65A	Target S-65A flows of 1,400 cfs to meet ecological needs
ZONE B3	Releases as needed to target flows at S-65A	S-65A flows between 300 cfs and 1,400 cfs
ZONE B4	Releases as needed to target flows at S-65A	Target S-65A flows of 300 cfs
ZONE B5	Releases as needed to target flows at S-65A	Target S-65A flows of 150 cfs
ZONE C	0 cfs	Flow as needed to maintain optimum S-65A headwater

Table KB-3. Maximum Rate of Change Limits for S-65A		
MAXIMUM Release Rate of Change Limits for S-65A. In general recommended rates of change will be slower than shown in this table.		
Q (cfs)	Maximum rate of INCREASE (cfs/day)	Maximum rate of DECREASE (cfs/day)
0-300	50	-50
301-650	75	-75
651-1400	150	-150
1401-3000	300	-600
>3000	1000	-2000

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### Other Considerations

- When possible, limit lake ascension rate in the Jun 1 - Aug 15 window to 0.25 ft per 7 days in Lakes Kissimmee, Cypress, Hatchineha (S-65), East Toho (S-59) and Toho (S-61).
- If outlook is for extreme dry conditions meet with KB staff to discuss modifications to this plan.

Slide Revised 7/29/2024

**Figure KB-7.** Headwaters Revitalization Schedule (HRS) Increment 1 Temporary Deviation Discharge Plan for S-65/S-65A.

## Lake Okeechobee

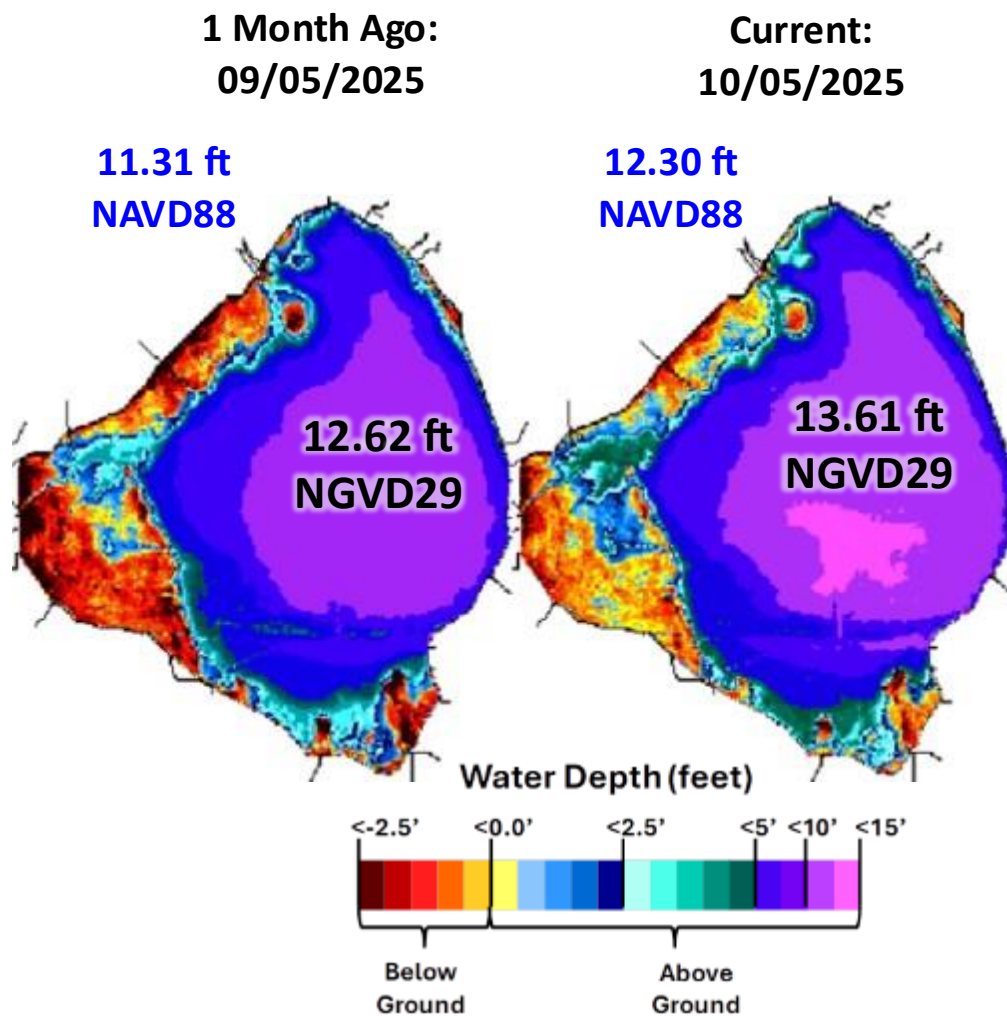
Lake Okeechobee stage was 12.30 feet NAVD88 (13.61 ft NGVD29) on October 5, 2025, which was 0.10 feet higher than the previous week and 0.99 feet higher than a month ago (**Figure LO-1**). Lake stage is in Zone D of the regulation schedule (**Figure LO-2**), is within the recovery ecological envelope, and is 0.64 feet above the water shortage management band (**Figure LO-3**). According to NEXRAD, 0.5 inches of rain fell directly over the lake during the previous week, while 1.0 inches were lost to evapotranspiration.

Average daily inflows (excluding rainfall) decreased from 5,380 cfs the previous week to 4,490 cfs. The highest inflows came from the Kissimmee River (3,000 cfs via S-65E(X1)). Average daily outflows (excluding evapotranspiration) were 30 cfs. **Figures LO-4 and LO-5** show the combined average daily inflows and outflows for the lake over the past eight weeks, and average inflows and outflows last week, respectively.

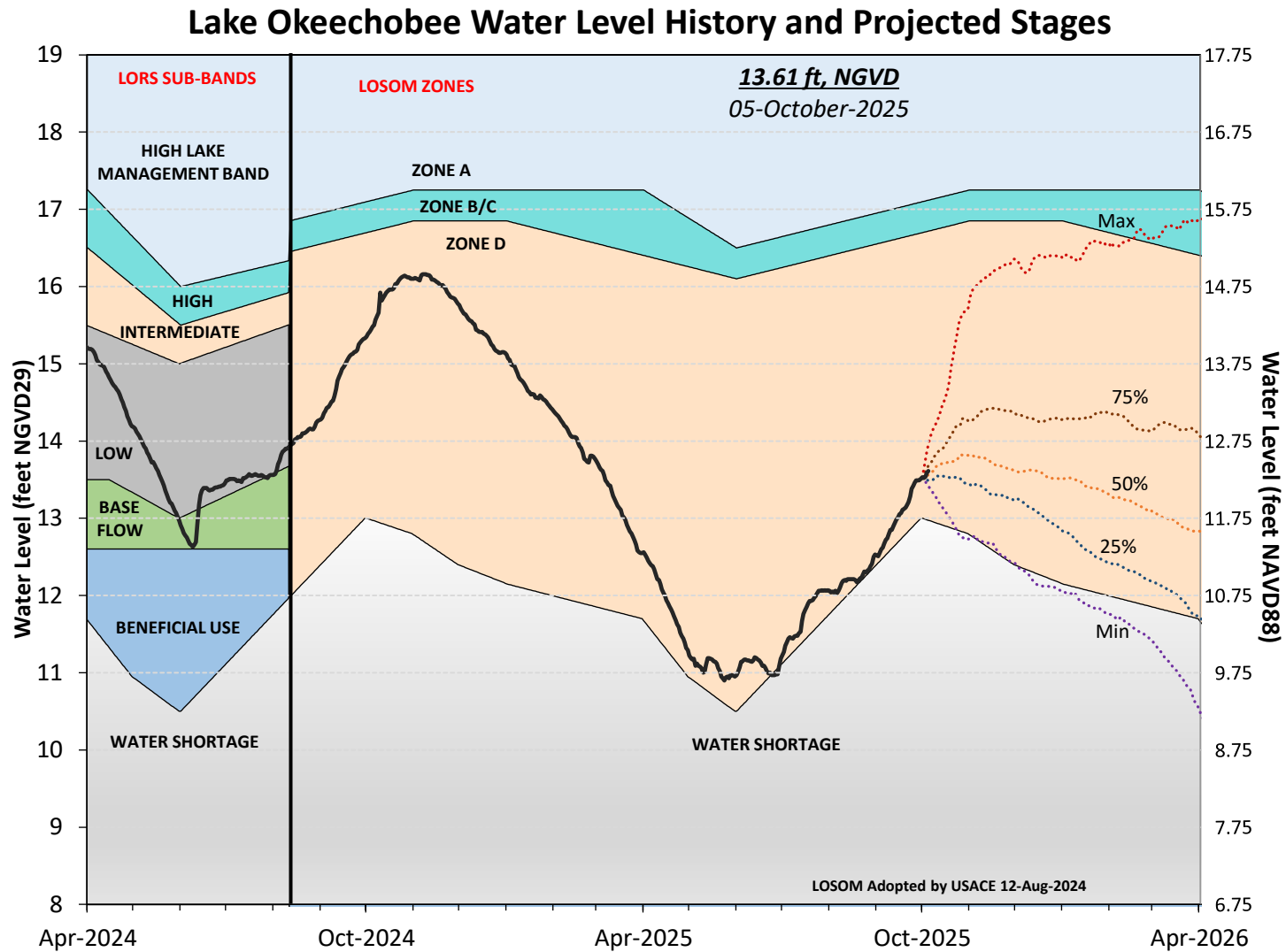
In the most recent non-obscured satellite image from October 5, 2025, NOAA's Harmful Algal Bloom Monitoring System suggests moderate cyanobacteria activity in the southwestern side of the lake, which is likely due to consistently strong winds from the east/northeast for the past few days (**Figure LO-6**).

The routine water quality and phytoplankton monitoring sampling trips are on the bloom season (May-Oct) schedule and occur twice per month. Provisional phytoplankton results from the September 15-17 sampling showed 26 of 32 phytoplankton samples had detectable levels of cyanotoxin. Twenty-three sites had detectable levels of cylindrospermopsin ( $\geq 0.1 \mu\text{g/L}$ ), 5 had detectable microcystins ( $\geq 0.2 \mu\text{g/L}$ ), 2 of which had both toxins present. None of the samples exceeded the USEPA recreational standards. Site L006 had a high of  $3.8 \mu\text{g/L}$  of microcystins, while all samples with cylindrospermopsin were  $< 1 \mu\text{g/L}$  (**Figure LO-7**). Of the 32 samples, 4 had chlorophyll *a* value above the bloom threshold of  $40 \mu\text{g/L}$ , 7 had values between 20 and  $40 \mu\text{g/L}$ , and 7 samples were flagged due to lack of accuracy/precision.

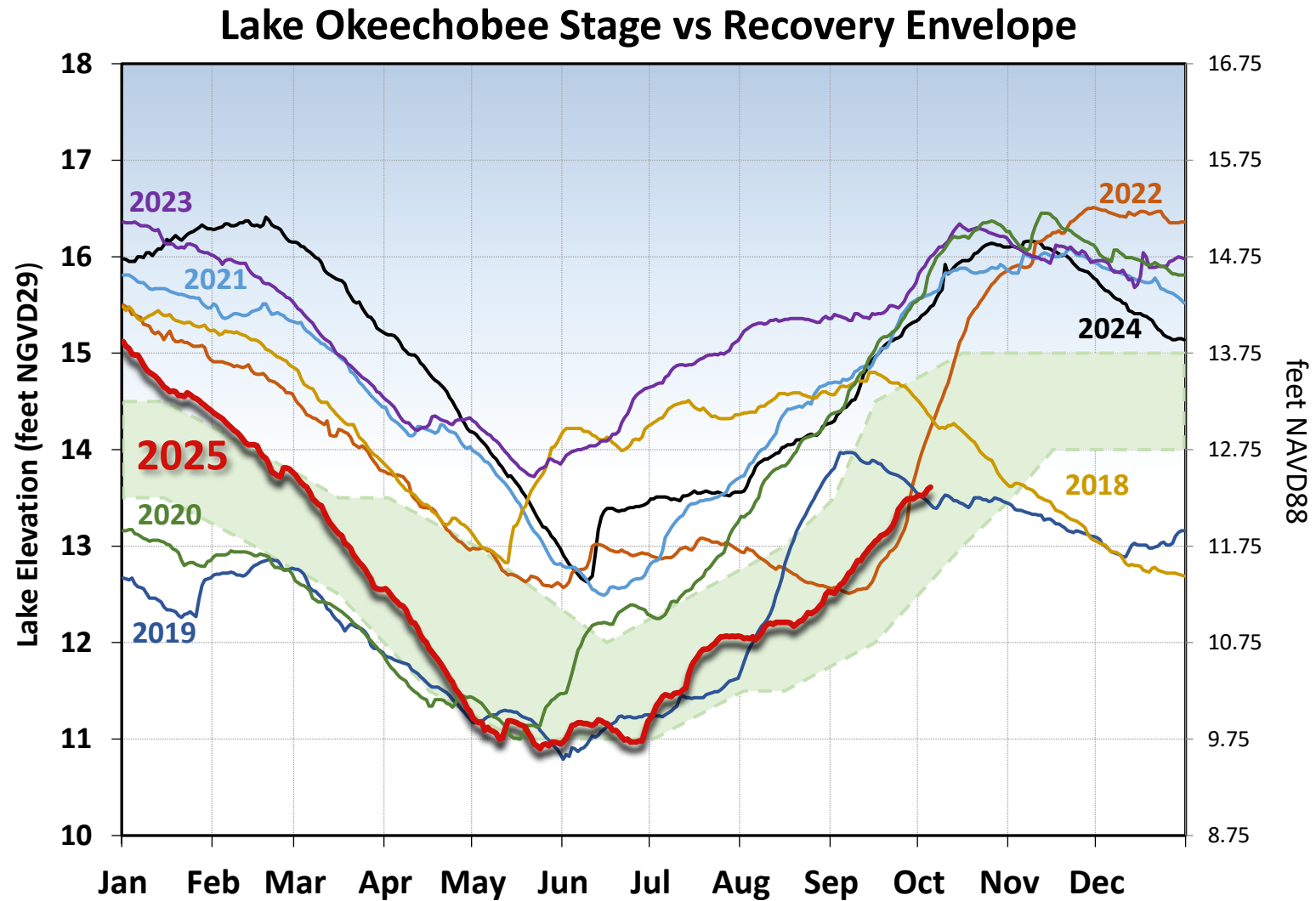
Note: All data presented in this report are provisional and are subject to change.



**Figure LO-1.** Lake Okeechobee water depth estimates based on South Florida Water Depth Assessment Tool (SFWDAT).

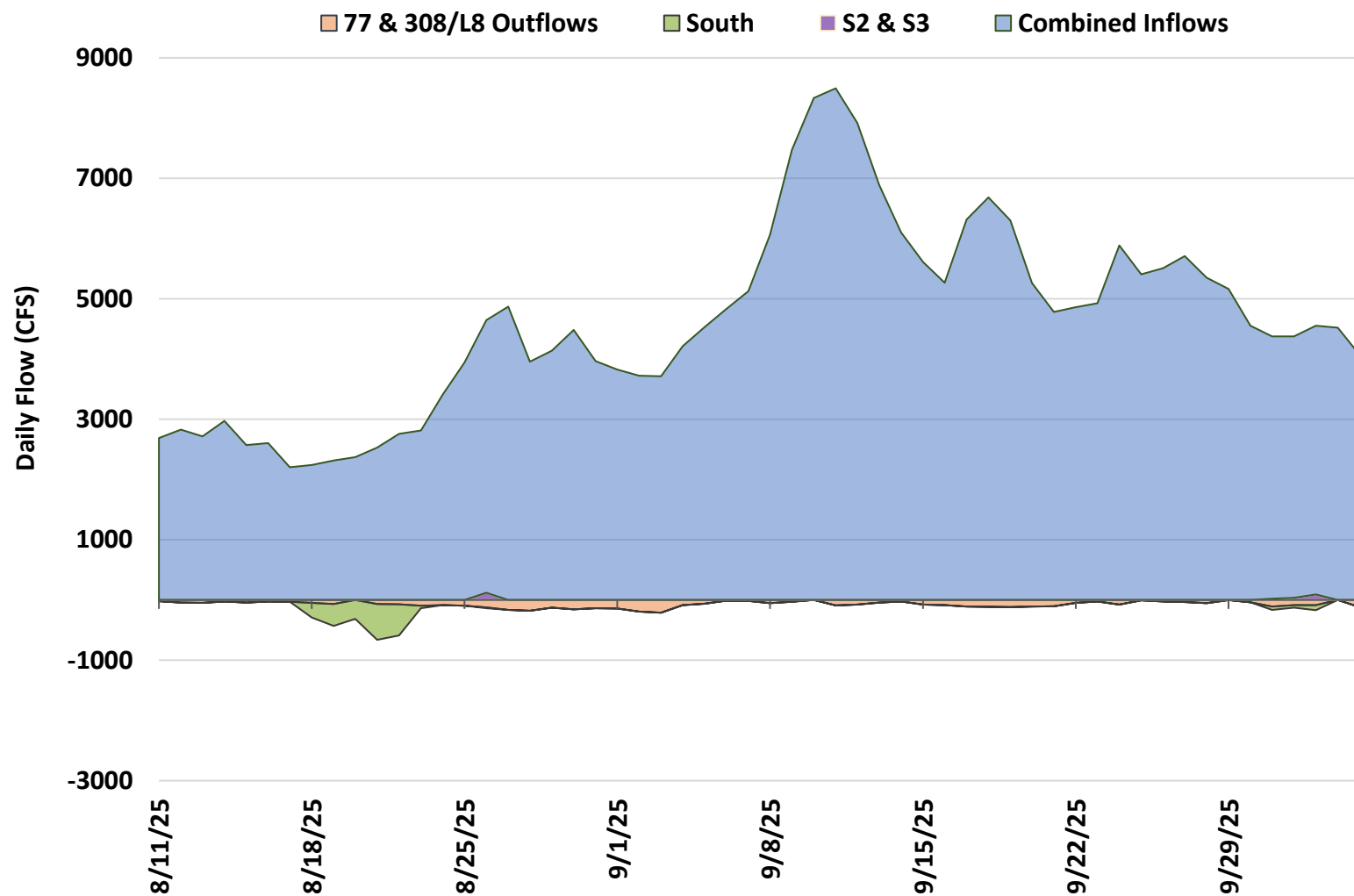


**Figure LO-2.** Recent Lake Okeechobee stages with projected stages based on a dynamic position analysis.  
 Note: stages are in NGVD29, approximate NAVD88 values are shown for reference.

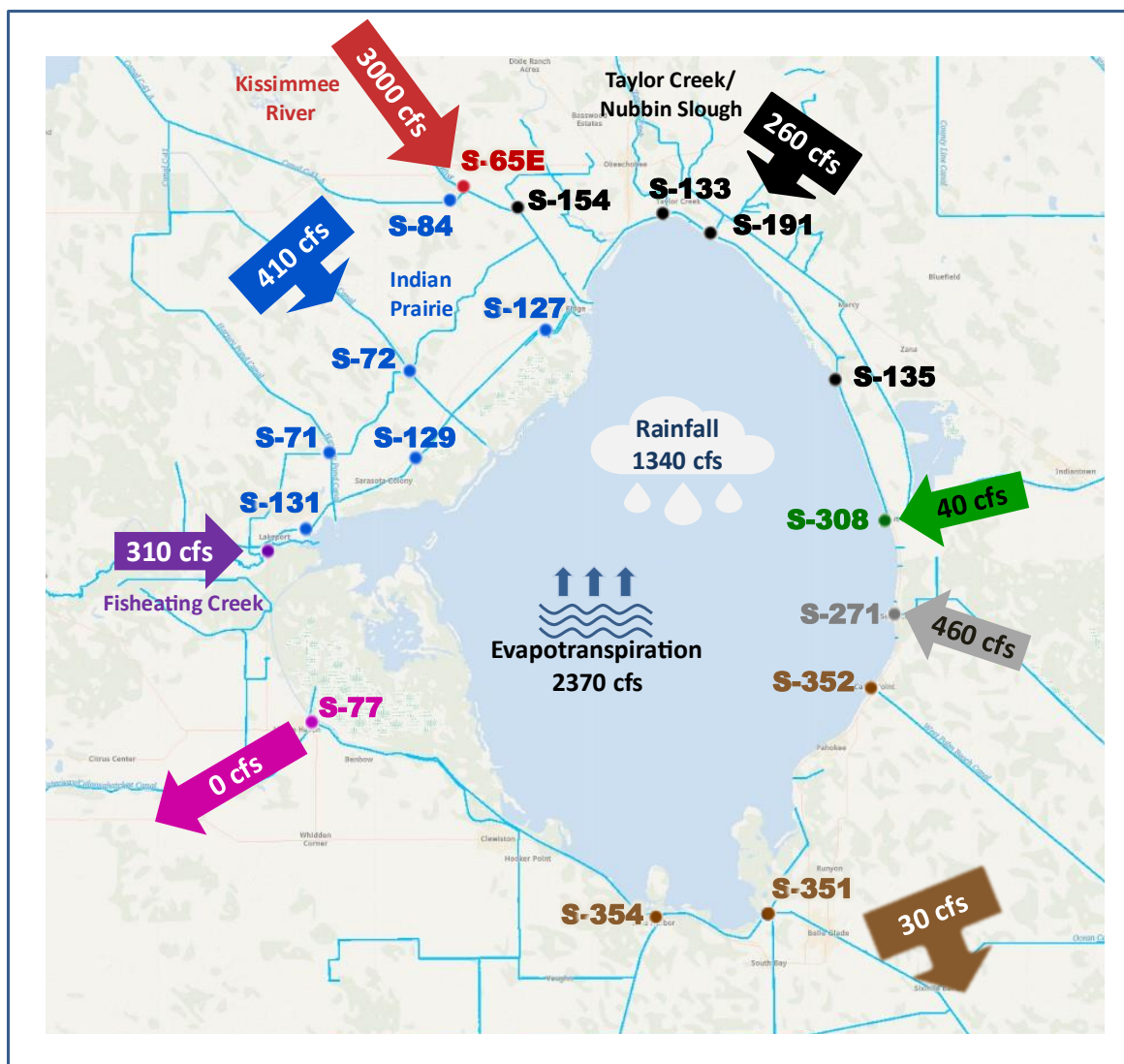


**Figure LO-3.** The current and seven prior year's annual stage hydrographs for Lake Okeechobee in comparison to the recovery envelope (light green). A shift from the normal to the recovery envelope occurred because the 30-day minimum lake stage (elevations exposed for at least 30 days, nonconsecutively) in the June 1 – July 31, 2023 (and 2024), window was >13 ft NGVD29 (11.75 ft NAVD88).

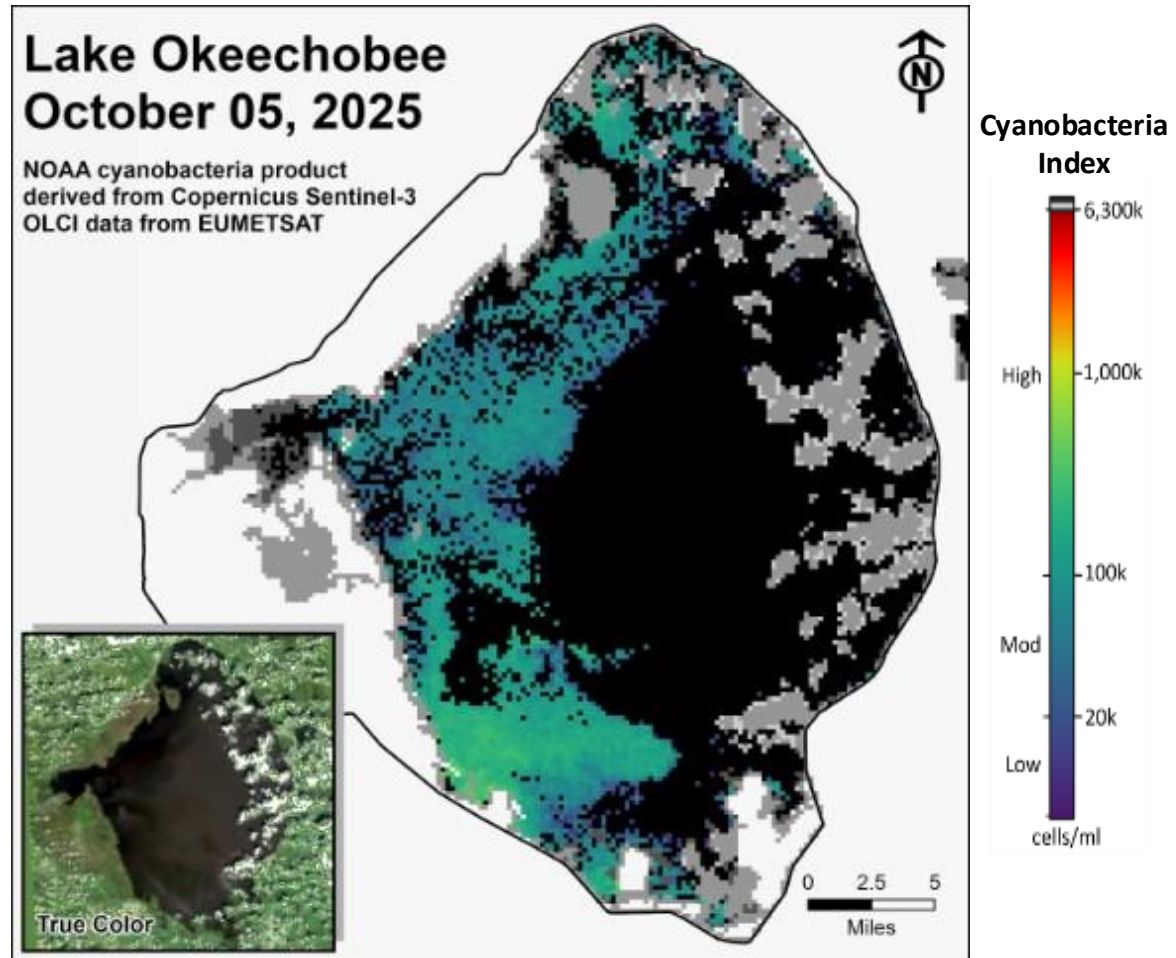




**Figure LO-4.** Major inflows (orange) to and outflows east and west (blue) from Lake Okeechobee. Outflows south are shown in green. Flows into Lake Okeechobee from the L-8 canal through S-271 (formerly Culvert 10A) or from the C-44 canal through the S-308 are included as inflows. Conversely, flows from Lake Okeechobee into the L-8 or C-44 canals are included with outflows. Inflows are shown as positive values; outflows are negative. Outflows through the S-77 (Caloosahatchee) and S-308 (C-44 Canal) structures are based on downstream gauges to include flows to lock openings for navigation.



**Figure LO-5.** Inflows into Lake Okeechobee from Indian Prairie basins, Taylor Creek/Nubbin Slough, Kissimmee River and Fisheating Creek (currently no flow data available for FECR), and outflows to the west via S-77, to the east via S-308, to the south via S-351, S-352, S-354, and to southeast via S-271 (formerly Culvert 10A) for the week of Sep 29 – Oct 5, 2025.



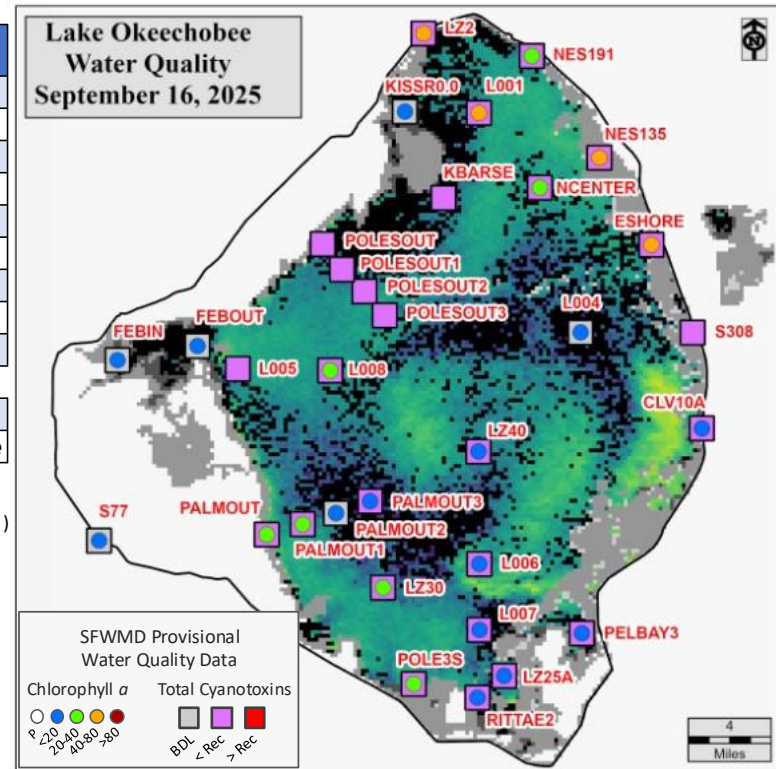
**Figure LO-6.** Cyanobacteria bloom index level on Lake Okeechobee, based on NOAA's harmful algal bloom monitoring system. Gray color indicates cloud cover. \*Provisional NOAA image, subject to change\*.

Collection Date: September 15 - 17, 2025

Station	CHL <sub>a</sub> (ug/L)	TOXIN (ug/L)	TAXA	Station	CHL <sub>a</sub> (ug/L)	TOXIN (ug/L)	TAXA
FEBIN	2.9	BDL	<i>mixed</i>	L001	<b>50.8</b>	<b>0.2</b>	<i>Micro/Plank</i>
FEBOUT	9.6	BDL	<i>mixed</i>	L004	17.5	BDL	<i>mixed</i>
KISSR0.0	11.9	BDL	<i>mixed</i>	L006	7.9	<b>3.9</b>	<i>Microcys</i>
L005	F	<b>0.2</b>	<i>Planktol</i>	L007	9.6	<b>0.1</b>	<i>mixed</i>
LZ2	<b>63.7</b>	<b>0.2</b>	<i>Micro/Plank</i>	L008	<b>39.0</b>	<b>0.2</b>	<i>Planktol</i>
KBARSE	F	<b>0.1</b>	<i>Micro/Raphi</i>	LZ30	<b>23.0</b>	<b>0.3</b>	<i>Dolic/Plank</i>
RITTAE2	19.4	<b>0.4</b>	<i>Micro/Plank</i>	LZ40	10.0	<b>2.0</b>	<i>Microcys</i>
PELBAY3	19.5	<b>0.3</b>	<i>Microcys</i>	CLV10A	19.6	<b>2.7</b>	<i>Microcys</i>
POLE3S	<b>38.0</b>	<b>0.6</b>	<i>Micro/Plank</i>	NCENTER	<b>39.0</b>	<b>0.2</b>	<i>Micro/Plank</i>
LZ25A	16.7	<b>0.7</b>	<i>Microcys</i>				
PALMOUT	<b>25.6</b>	<b>0.3</b>	<i>Dolic/Plank</i>	S308C	F	<b>0.2</b>	<i>Microcys</i>
PALMOUT1	<b>26.8</b>	<b>0.2</b>	<i>Dolic/Plank</i>	S77	11.9	BDL	<i>Dinophyceae</i>
PALMOUT2	14.2	BDL	<i>Microcys</i>				
PALMOUT3	9.8	<b>0.3</b>	<i>Microcys</i>				
POLESOUT	F	<b>0.2</b>	<i>Micro/Plank</i>				
POLESOUT1	F	<b>0.2</b>	<i>Micro/Plank</i>				
POLESOUT2	F	<b>0.3</b>	<i>Micro/Plank</i>				
POLESOUT3	F	<b>0.2</b>	<i>Woron/Plank</i>				
EASTSHORE	<b>59.2</b>	<b>0.3</b>	<i>Micro/Plank</i>				
NES135	<b>59.7</b>	<b>0.5</b>	<i>Micro/Plank</i>				
NES191	<b>32.6</b>	<b>0.2</b>	<i>Micro/Plank</i>				

➤ SFWMD considers >40 µg/L Chlorophyll *a* (Chl<sub>a</sub>) an algal bloom  
 ➤ BDL – Below Detectable Limit of **0.2** µg/L (Cyl = 0.1 µg/L)  
 ➤ ND – No Dominant taxa  
 ➤ F – Flagged Sample  
 ➤ NS – Not Sampled  
 ➤ Station bold font – crew observed possible BGA  
 ➤ Chlorophyll *a* analyzed by SFWMD  
 ➤ Toxin & Taxa analyzed by FDEP:  
*Microcys* = *Microcystis*; *Raphi* = *Raphidiopsis*;  
*Planktol* = *Planktolyngbya*; *Dolicho* = *Dolichospermum*;  
*Pseud* = *Pseudanabaena*; *Woron* = *Woronichinia*

Toxins include cylindrospermopsin and/or microcystins



**Figure LO-7.** Dominant taxa, cyanotoxins (µg/L) and chlorophyll *a* (µg/L) concentration data from September 15 - 17, 2025. Sampling locations, chlorophyll *a*, and total toxin concentrations are overlaid on the September 16, 2025, image from NOAA's harmful algal bloom monitoring system. Gray color indicates cloud cover.

## Estuaries

### *St. Lucie Estuary*

Over the past week, mean total inflow to the St. Lucie Estuary was 2,580 cfs (**Figures ES-1 and ES-2**), and the previous 30-day mean inflow was 1,863 cfs. For comparison, the historical provisional mean inflows from contributing areas are shown in **Figure ES-2**.

Over the past week, surface salinities decreased at the HR1 and US1 Bridge sites and remained the same at the A1A Bridge site (**Table ES-1 and Figure ES-3**). The seven-day moving average of the surface and bottom salinities at the US1 Bridge was 12.9. Salinity conditions in the middle estuary were estimated to be within the optimal range for adult eastern oysters (**Figure ES-4**). The mean larval oyster recruitment rate reported by the Fish and Wildlife Research Institute (FWRI) for September was 1.1 spat/shell at Rio, an increase from the previous month (**Figure ES-5**). Mean live oyster density was 965 oysters/m<sup>2</sup> in September, which was an increase from the previous density recorded in June.

### *Caloosahatchee River Estuary*

Over the past week, mean total inflow to the Caloosahatchee River Estuary was 2,589 cfs (**Figures ES-6 and ES-7**), and the previous 30-day mean inflow was 5,412 cfs. For comparison, the historical provisional mean inflows from the contributing areas are shown in **Figure ES-7**.

Over the past week, salinities remained below 1 at S-79, Val I-75, and Ft. Myers and increased at the remaining sites in the estuary (**Table ES-2 and Figures ES-8 and ES-9**). The seven-day mean salinities (**Table ES-2**) were in the optimal range (0-10) for tape grass in the upper estuary. The seven-day mean salinity values were within the optimal range for adult eastern oysters at Shell Point, in the upper stressful range at Sanibel, and in the damaging range at Cape Coral (**Figure ES-10**). The mean larval oyster recruitment rates reported by the FWRI in September were 12.2 spat/shell at Iona Cove and 18.5 spat/shell at Bird Island, which were both decreases from the previous month (**Figures ES-11 and ES-12**). Mean live oyster density was 222 oysters/m<sup>2</sup> at Iona Cove and 266 oysters/m<sup>2</sup> at Bird Island in September, which was a decrease from the previous densities recorded in June.

Surface salinity at Val I-75 was forecast for the next two weeks using an autoregression model (Qiu and Wan, 2013<sup>1</sup>) coupled with a linear reservoir model for the tidal basin. Model scenarios included pulse releases at S-79 ranging from 450 to 2,000 cfs, with estimated tidal basin inflows of 372 cfs. Model results from all scenarios predict daily salinity to be 0.3 or lower and the 30-day moving average surface salinity to be 0.2 or lower at Val I-75 at the end of the two-week period (**Table ES-3 and Figure ES-13**). This

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<sup>1</sup> Qiu, C., and Y. Wan. 2013. Time series modeling and prediction of salinity in the Caloosahatchee River Estuary. *Water Resources Research* 49:5804-5816.



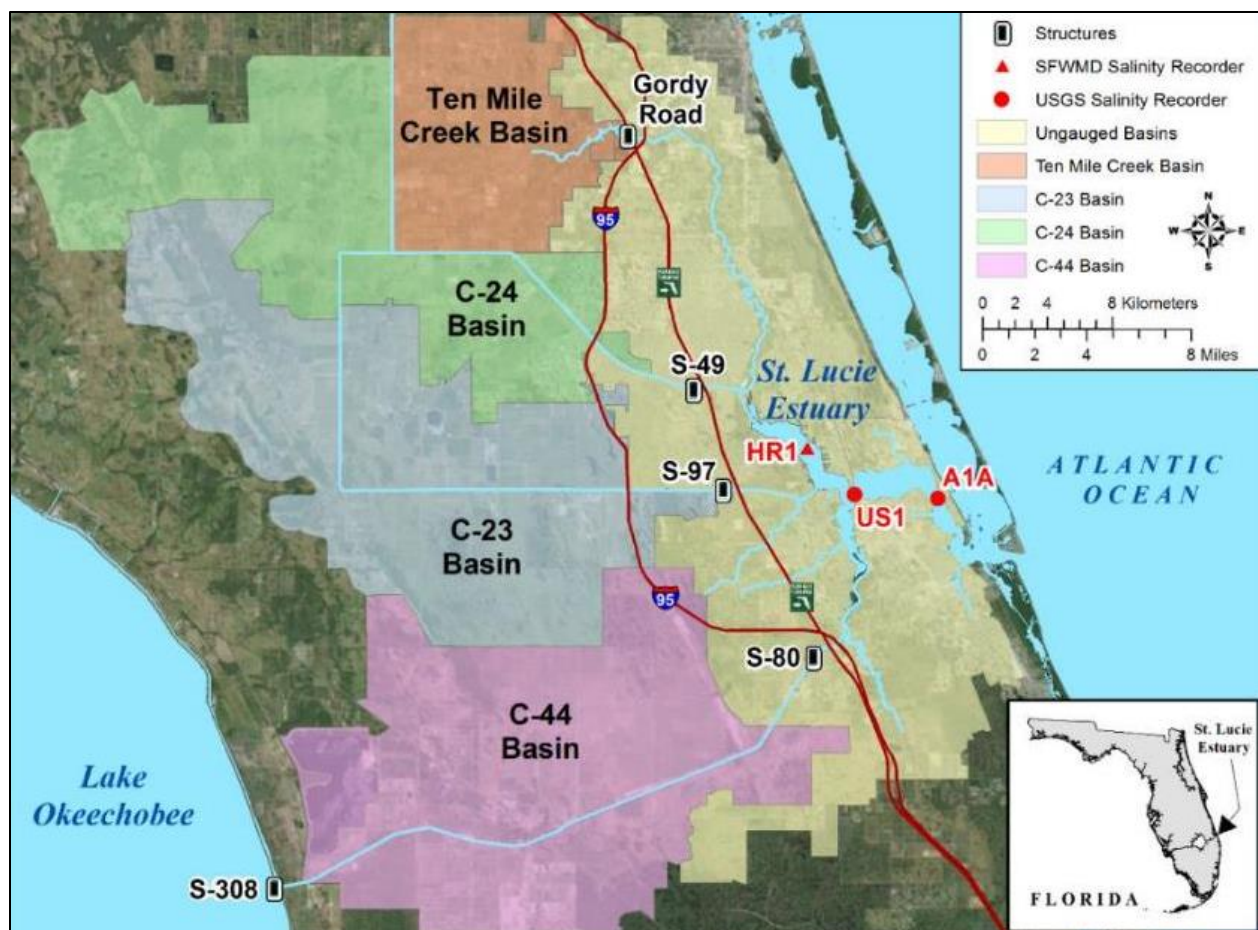
keeps predicted salinities in the upper estuary within the optimal salinity range (0-10) for tape grass.

### **Red Tide**

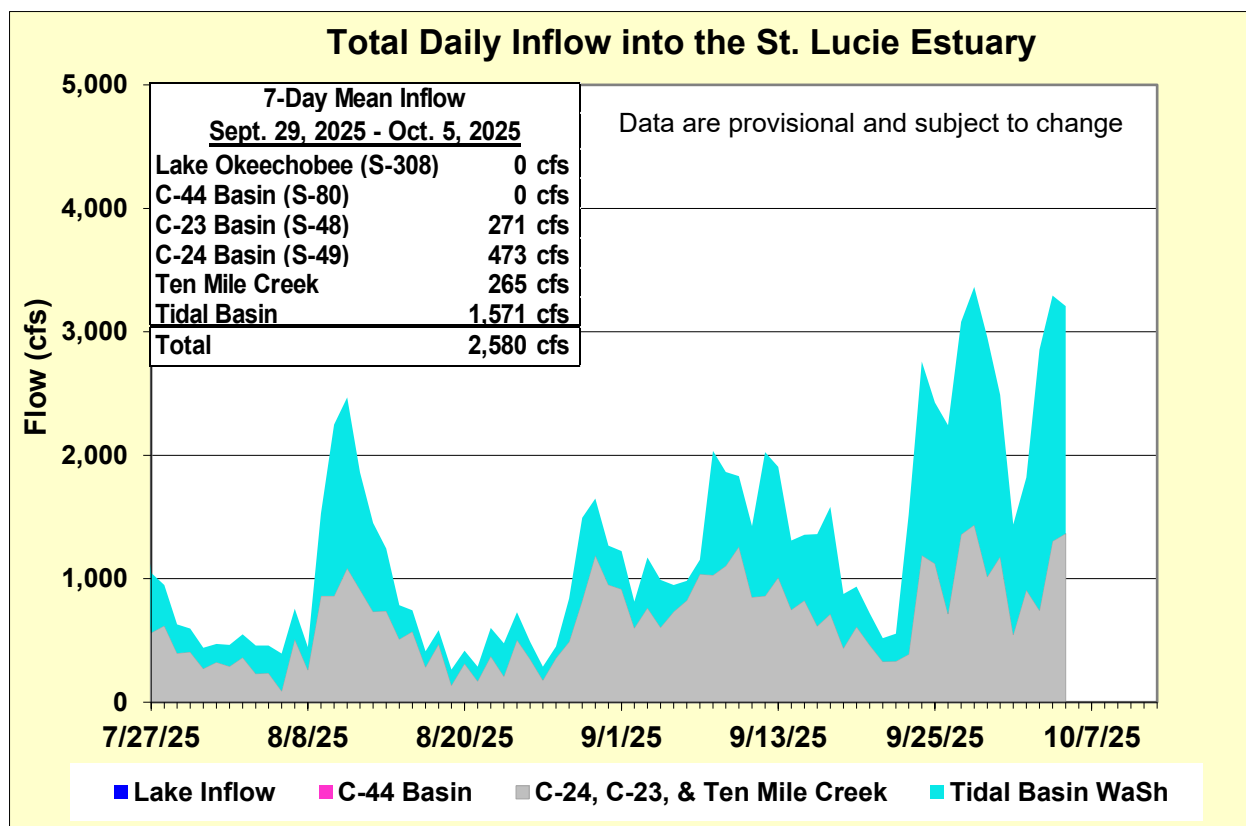
The FWRI reported on October 3, 2025, that *Karenia brevis*, the Florida red tide dinoflagellate, was not observed at bloom concentrations in any samples collected within the District region.

### **Water Management Recommendations**

Lake stage is in Zone D. Current climatological and hydrological conditions are normal. The LOSOM release guidance suggests up to 2,000 cfs release at S-79 to the Caloosahatchee River Estuary and no releases at S-80 to the St. Lucie Estuary.



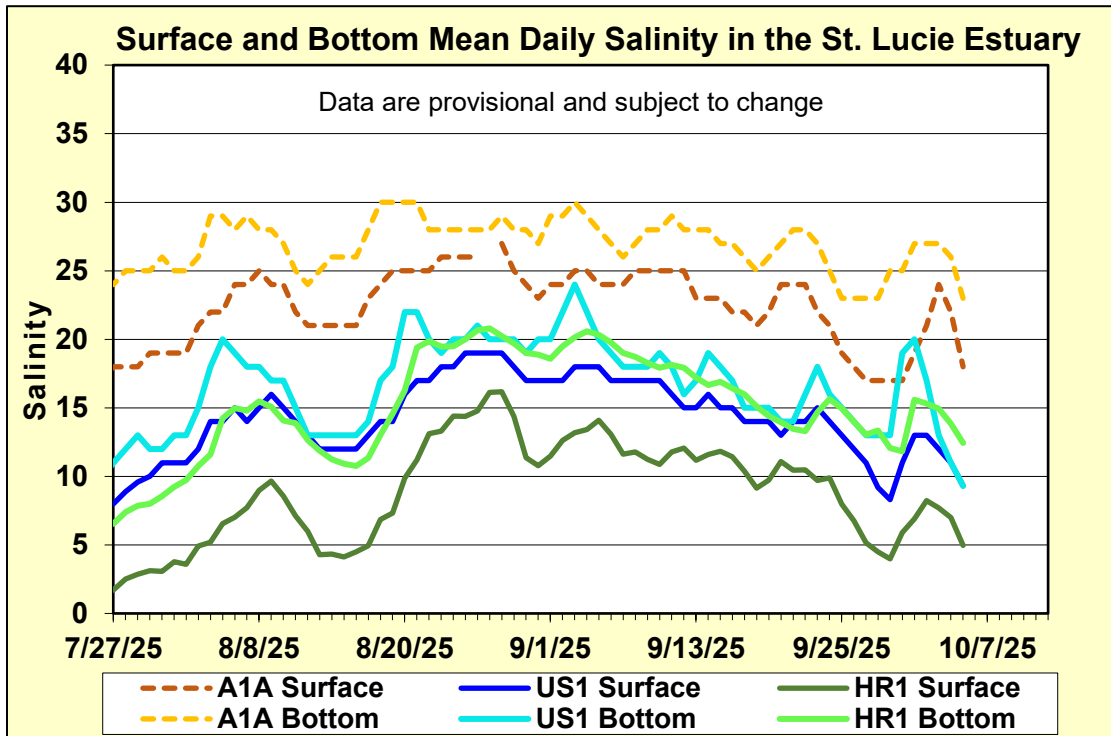
**Figure ES-1.** Basins, water control structures and salinity monitoring sites in the St. Lucie Estuary.



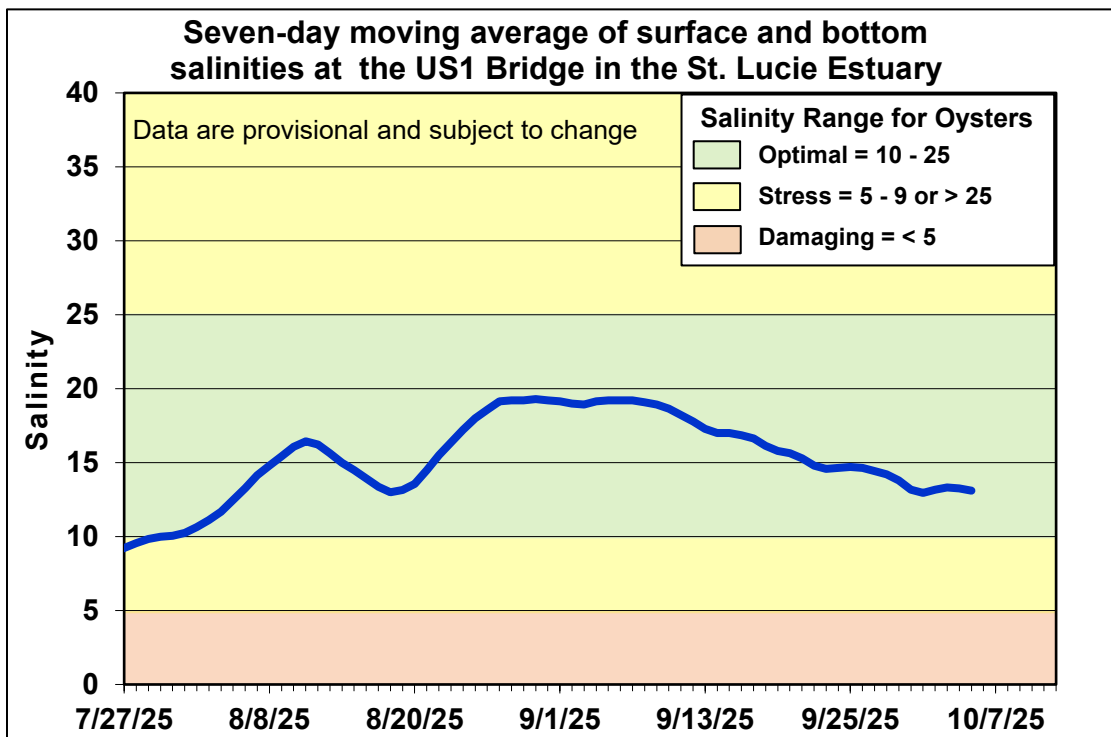
**Figure ES-2.** Total daily inflows from Lake Okeechobee and runoff from the C-44, C-23, C-24, Ten Mile Creek, and Tidal Basins into the St. Lucie Estuary.

**Table ES-1.** Seven-day mean salinity at oyster monitoring sites in the St. Lucie Estuary. Current means are in bold font; previous week's means are in parentheses. The envelope reflects the optimum salinity range for adult eastern oysters (*Crassostrea virginica*) in the estuary. Data are provisional.

Sampling Site	Surface	Bottom	Optimum Envelope
HR1 (North Fork)	<b>6.4</b> (7.8)	<b>13.7</b> (14.1)	10.0 – 25.0
US1 Bridge	<b>11.1</b> (12.6)	<b>14.6</b> (15.0)	10.0 – 25.0
A1A Bridge	<b>19.7</b> (19.7)	<b>25.7</b> (24.6)	10.0 – 25.0

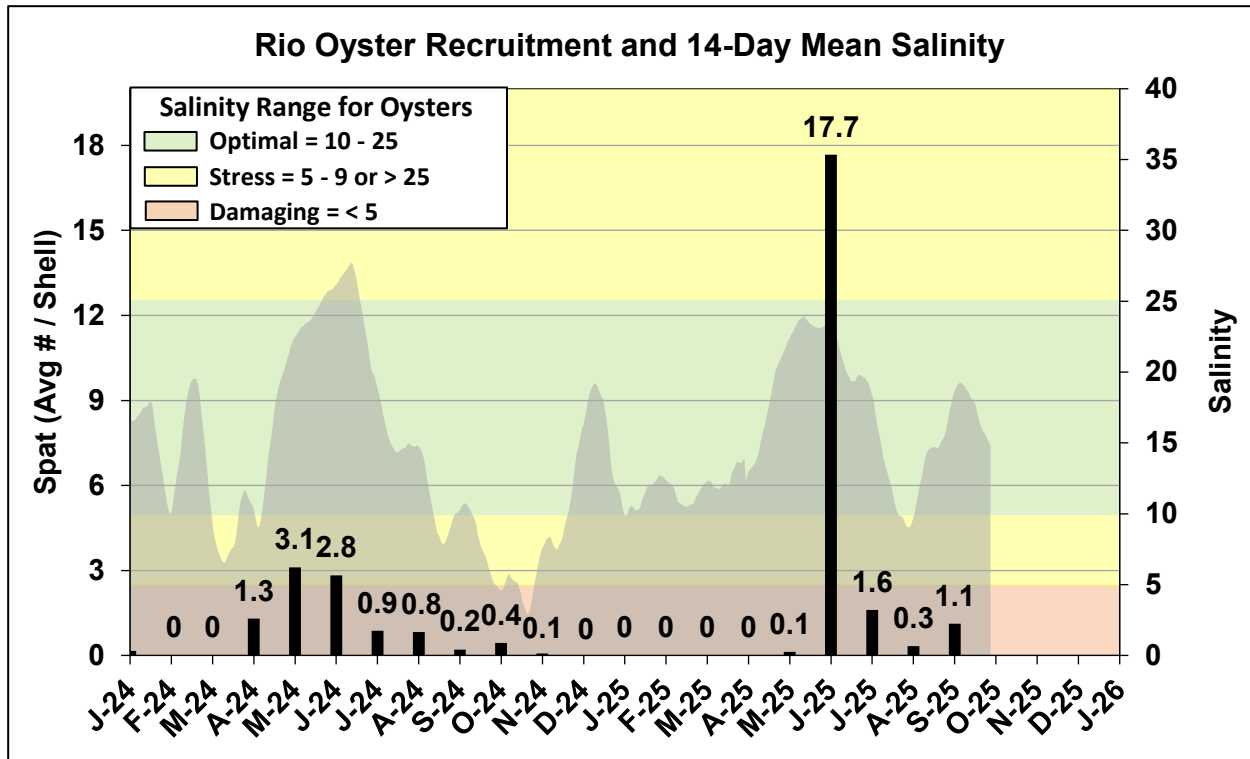


**Figure ES-3.** Mean daily salinity at the A1A, US1, and HR1 sites in the St. Lucie Estuary.

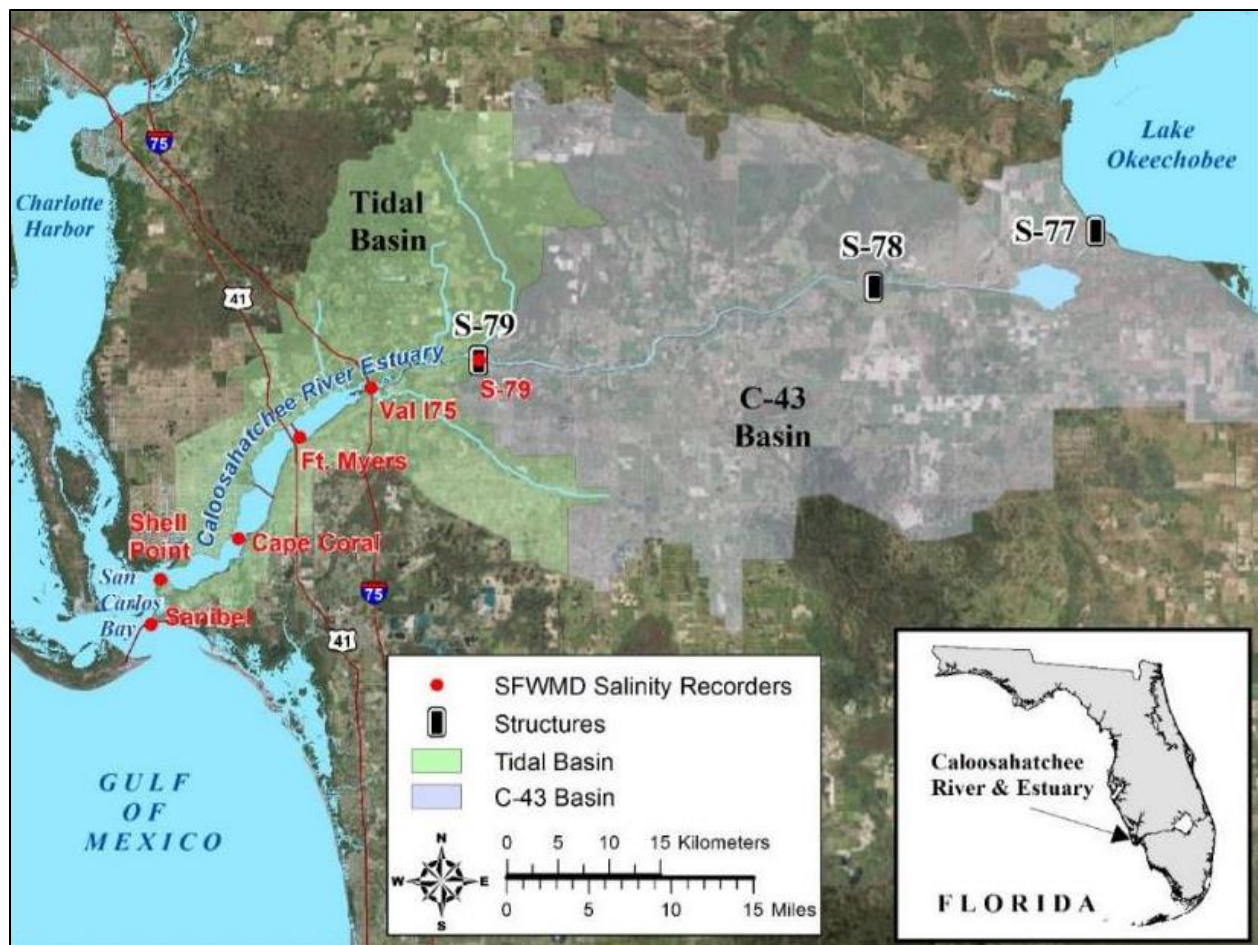


**Figure ES-4.** Seven-day moving average of the surface and bottom salinities at the US1 Bridge in the St. Lucie Estuary.

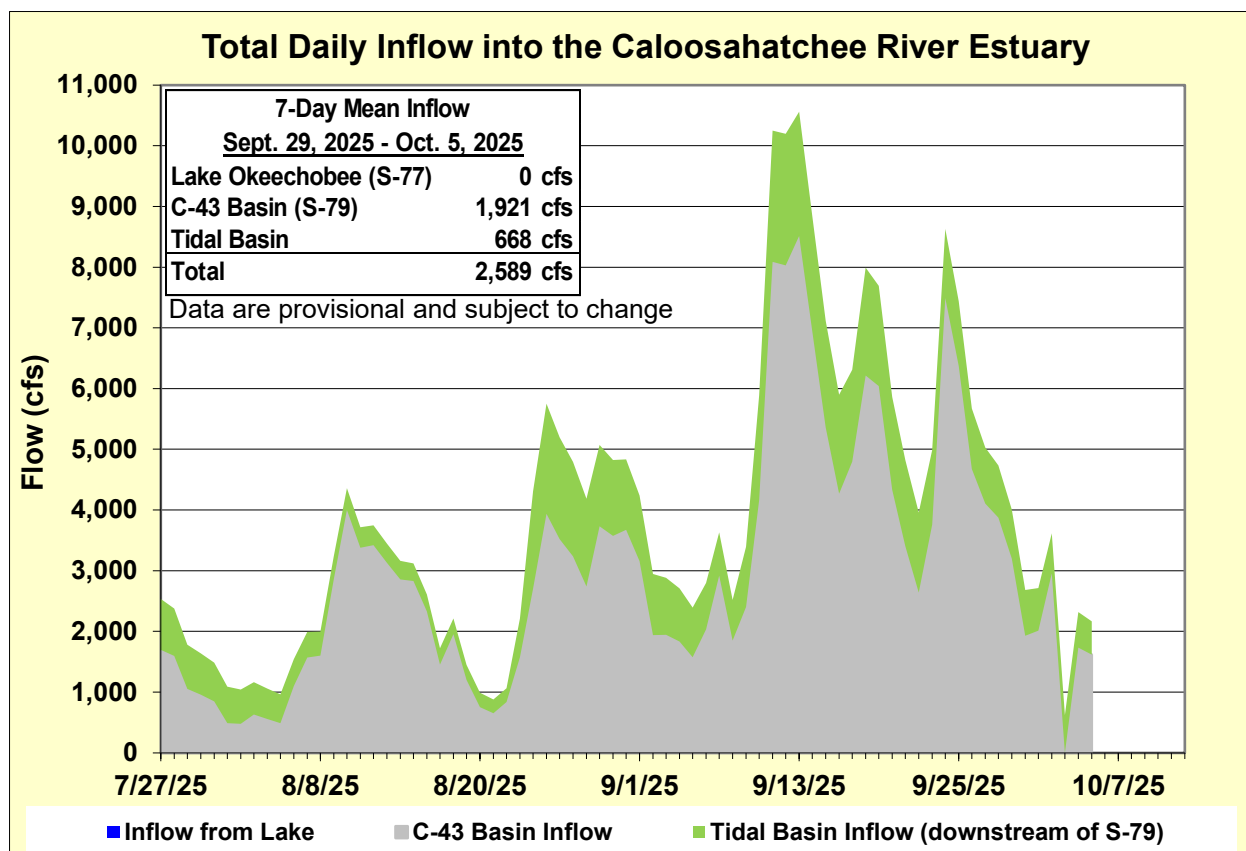




**Figure ES-5.** Mean oyster recruitment at the Rio oyster monitoring station and 14-day mean salinity at US1 Bridge.



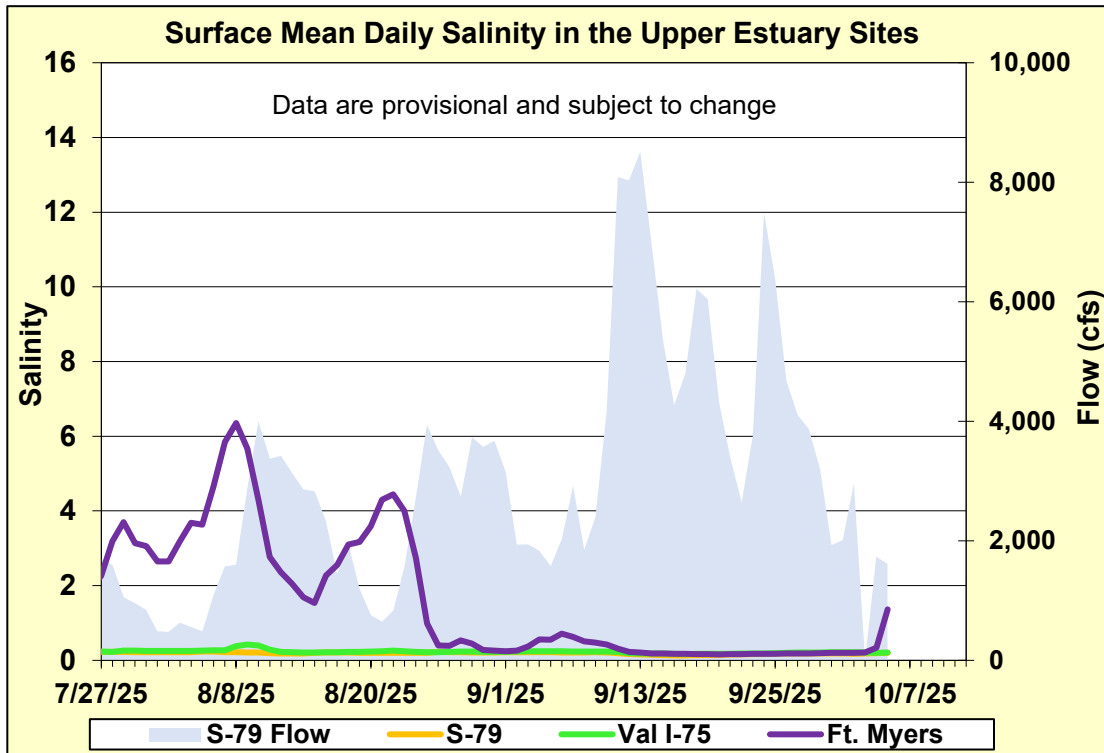
**Figure ES-6.** Basins, water control structures, and salinity monitoring sites in the Caloosahatchee River Estuary.



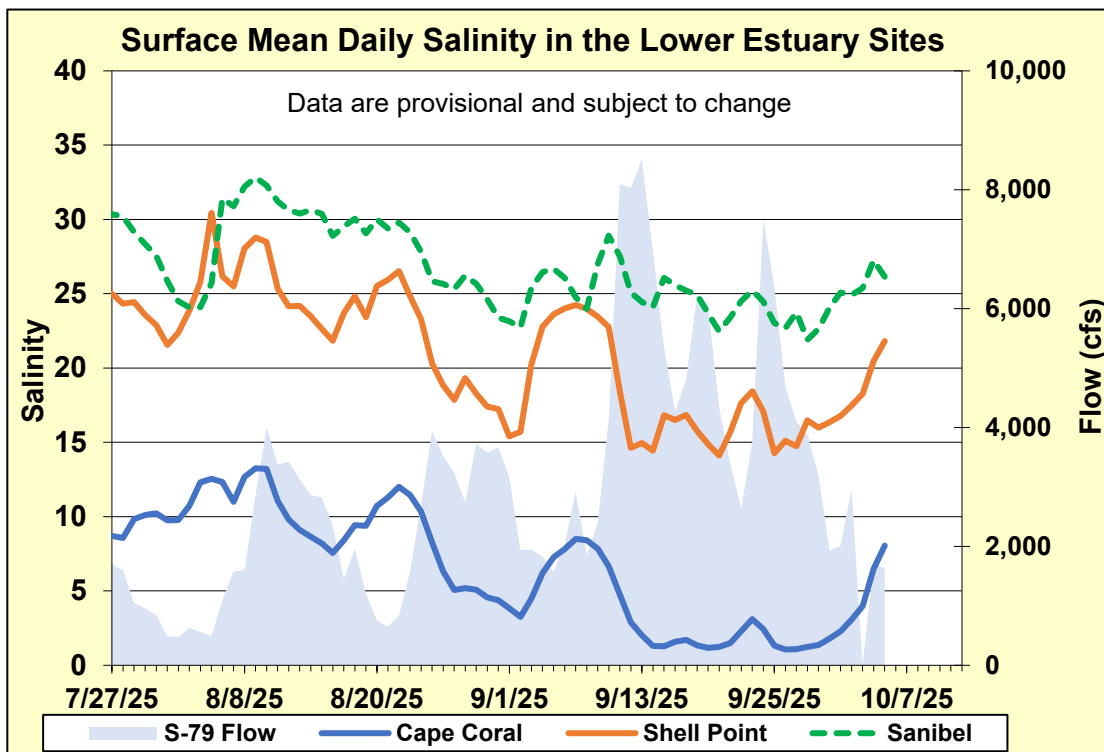
**Figure ES-7.** Total daily inflows from Lake Okeechobee, and runoff from the C-43 and Tidal basins into the Caloosahatchee River Estuary.

**Table ES-2.** Seven-day mean salinity at six monitoring sites in the Caloosahatchee River Estuary. Current means are in bold font; previous week's means are in parentheses. The envelope in the upper estuary sites is for the protection of tape grass and the envelope in the lower estuary is the optimum salinity range for adult eastern oysters (*Crassostrea virginica*). Data are provisional.

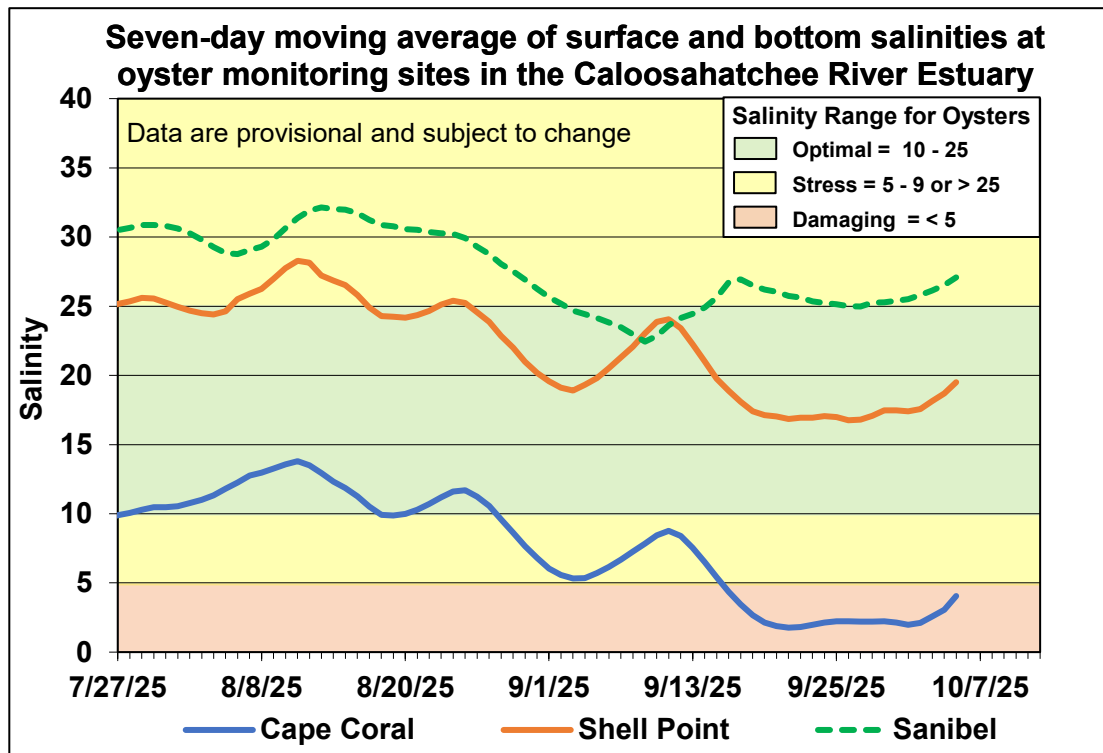
Sampling Site	Surface	Bottom	Optimum Envelope
S-79 (Franklin Lock)	<b>0.2</b> (0.2)	<b>0.2</b> (0.2)	0.0 – 10.0
Val I-75	<b>0.2</b> (0.2)	<b>0.2</b> (0.2)	0.0 – 10.0
Fort Myers Yacht Basin	<b>0.4</b> (0.2)	<b>0.5</b> (0.2)	0.0 – 10.0
Cape Coral	<b>3.9</b> (1.8)	<b>7.2</b> (2.6)	10.0 – 25.0
Shell Point	<b>18.2</b> (16.2)	<b>22.2</b> (18.7)	10.0 – 25.0
Sanibel	<b>25.1</b> (23.6)	<b>30.2</b> (26.9)	10.0 – 25.0



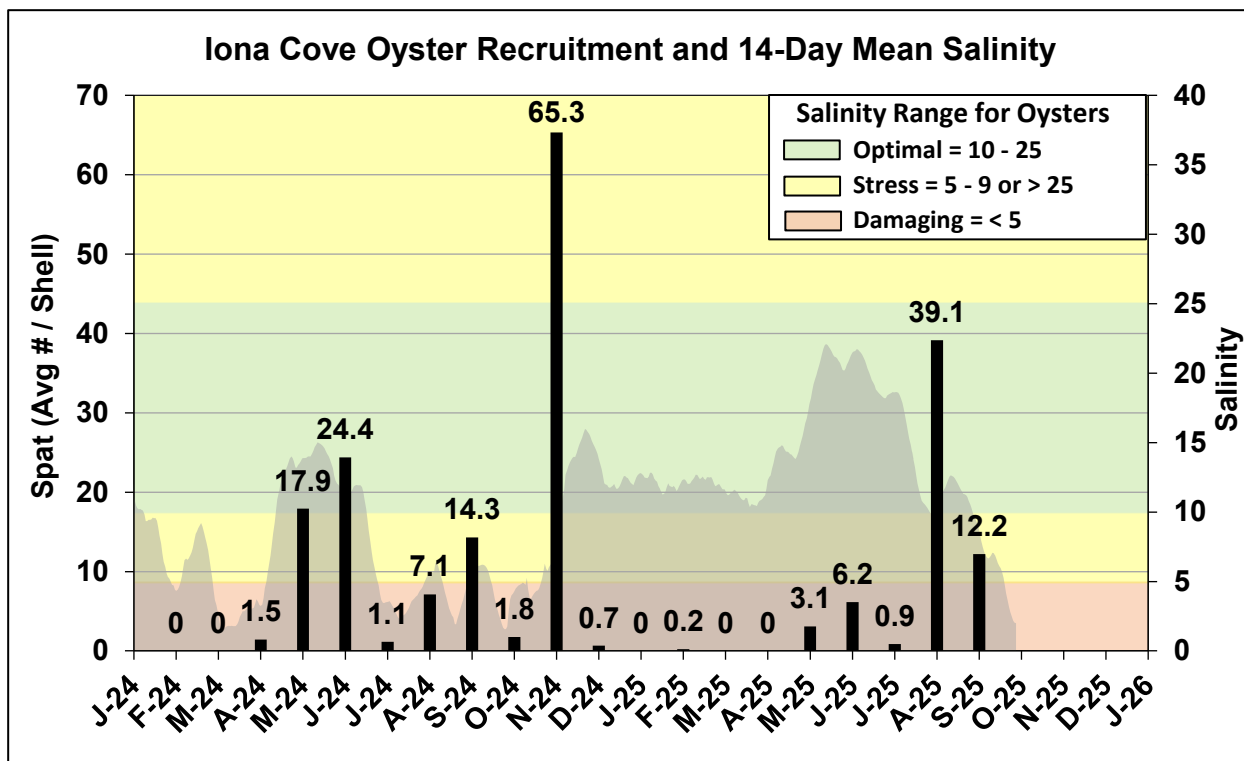
**Figure ES-8.** Mean daily salinity at upper Caloosahatchee River Estuary monitoring sites and mean daily flow at S-79.



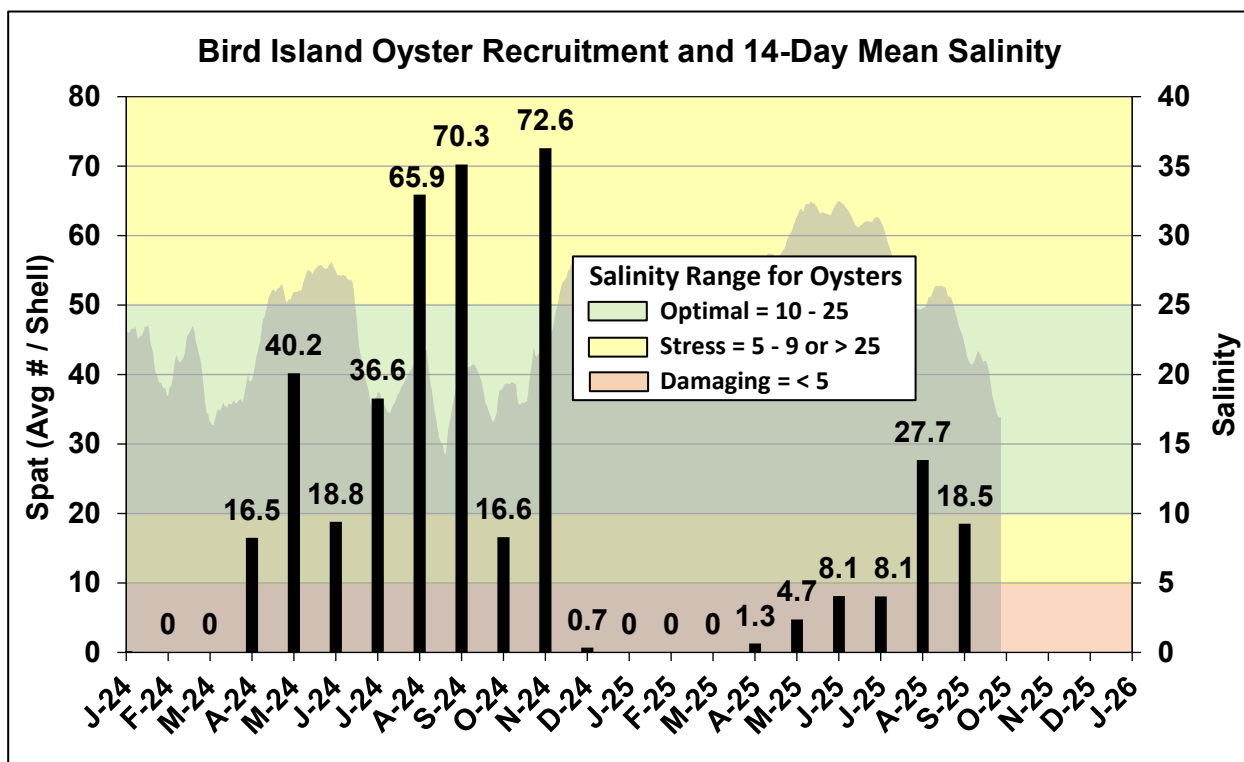
**Figure ES-9.** Mean daily surface salinity at lower Caloosahatchee River Estuary monitoring sites and mean daily flow at S-79.



**Figure ES-10.** Seven-day moving average of surface and bottom salinities at Cape Coral, Shell Point, and Sanibel monitoring sites in the Caloosahatchee River Estuary.



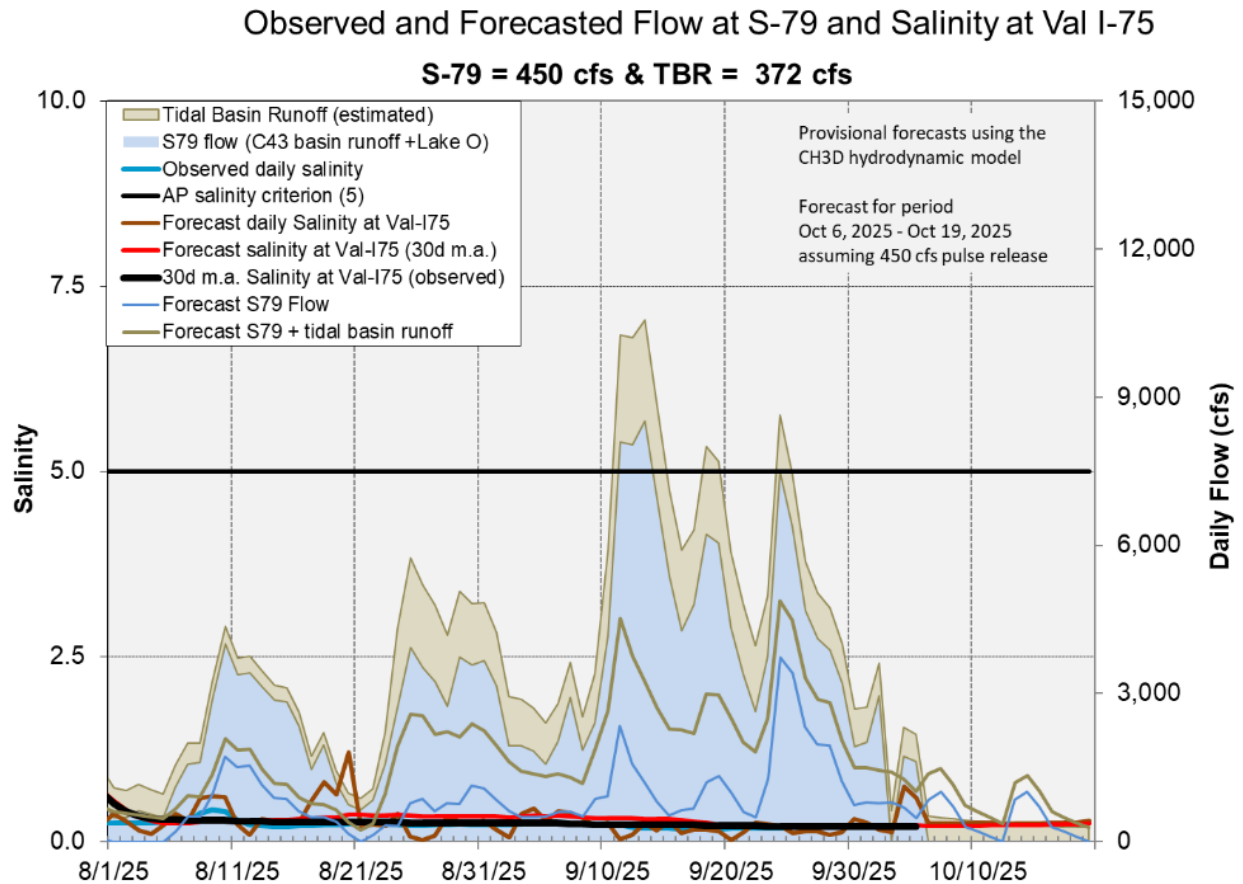
**Figure ES-11.** Mean oyster recruitment at the Iona Cove oyster monitoring station and 14-day mean salinity at Cape Coral.



**Figure ES-12.** Mean oyster recruitment at the Bird Island oyster monitoring station and 14-day mean salinity at Shell Point.

**Table ES-3.** Predicted salinity at Val I-75 in the Caloosahatchee River Estuary at the end of the forecast period for various S-79 flow release scenarios.

Scenario	Simulated S-79 Flow (cfs)	Tidal Basin Runoff (cfs)	Daily Salinity	30-Day Mean Salinity
A	450	372	0.3	0.2
B	750	372	0.3	0.2
C	1,000	372	0.3	0.2
D	1,500	372	0.3	0.2
E	2,000	372	0.3	0.2



**Figure ES-13.** Surface salinity forecast at the Val I-75 site assuming a 450 cfs pulse release at S-79.

## Stormwater Treatment Areas

**STA-1E:** STA-1E Central Flow-way is offline for construction activities. An operational restriction is in place in the Western Flow-way for post-construction vegetation grow-in. Online treatment cells are at or above target stage. The 365-day PLR for the Western and Eastern Flow-way is below 1.0 g/m<sup>2</sup>/year (**Figure S-2**).

**STA-1W:** STA-1W Eastern Flow-way is online with restrictions for G-253 structure replacements. Treatment cells are at or above target stage. Vegetation in the Western and Eastern Flow-ways is highly stressed. The 365-day PLRs for the Eastern and Northern Flow-ways are below 1.0 g/m<sup>2</sup>/year. The 365-day PLR for the Western Flow-way is high (**Figure S-2**).

**STA-2:** Operational restrictions are in place in Flow-ways 2 and 4 for vegetation management activities and in Flow-way 3 for post-drawdown vegetation grow-in. Treatment cells are above target stage. The 365-day PLRs for all Flow-ways are below 1.0 g/m<sup>2</sup>/year (**Figure S-3**).

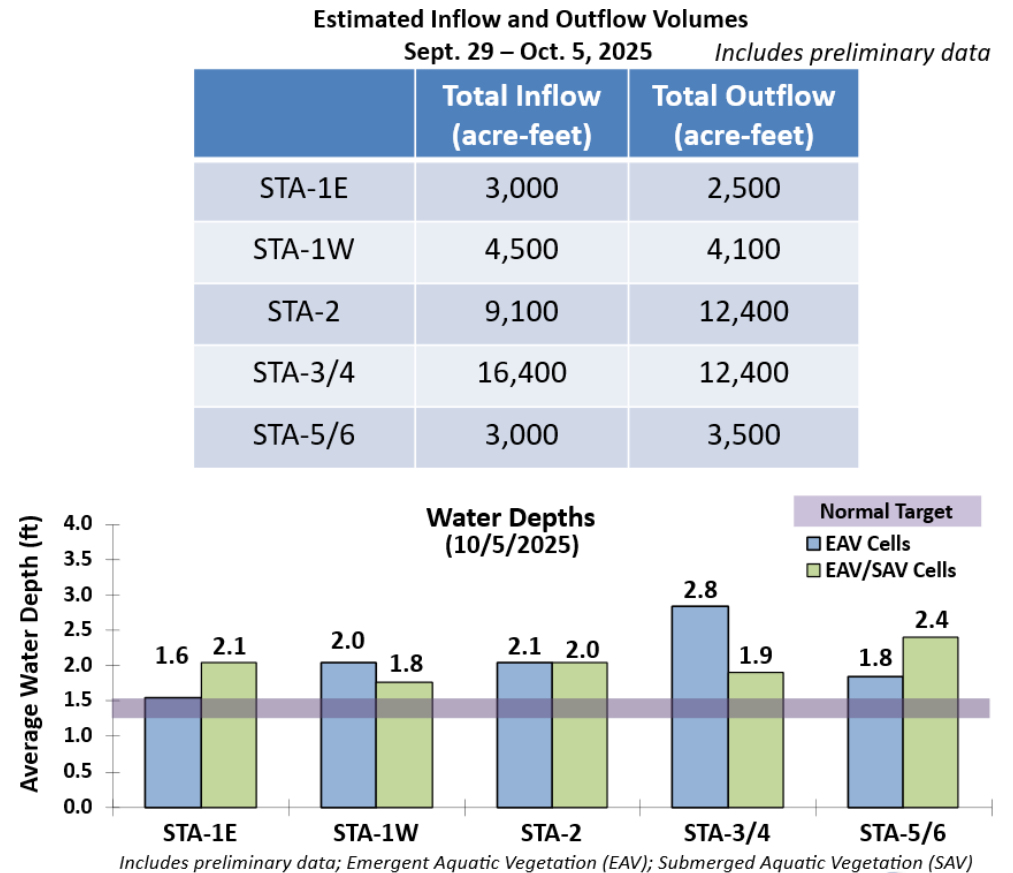
**STA-3/4:** An operational restriction is in place in the Eastern Flow-way for post-drawdown vegetation grow-in. Treatment cells are above target stage. Vegetation in the Central Flow-way is highly stressed. The 365-day PLR for the Eastern, Central, and Western Flow-ways are below 1.0 g/m<sup>2</sup>/year (**Figure S-3**).

**STA-5/6:** Most treatment cells are above target stage. All treatment cells have highly stressed or stressed vegetation conditions. The 365-day PLRs for all Flow-ways are below 1.0 g/m<sup>2</sup>/year. (**Figure S-4**).

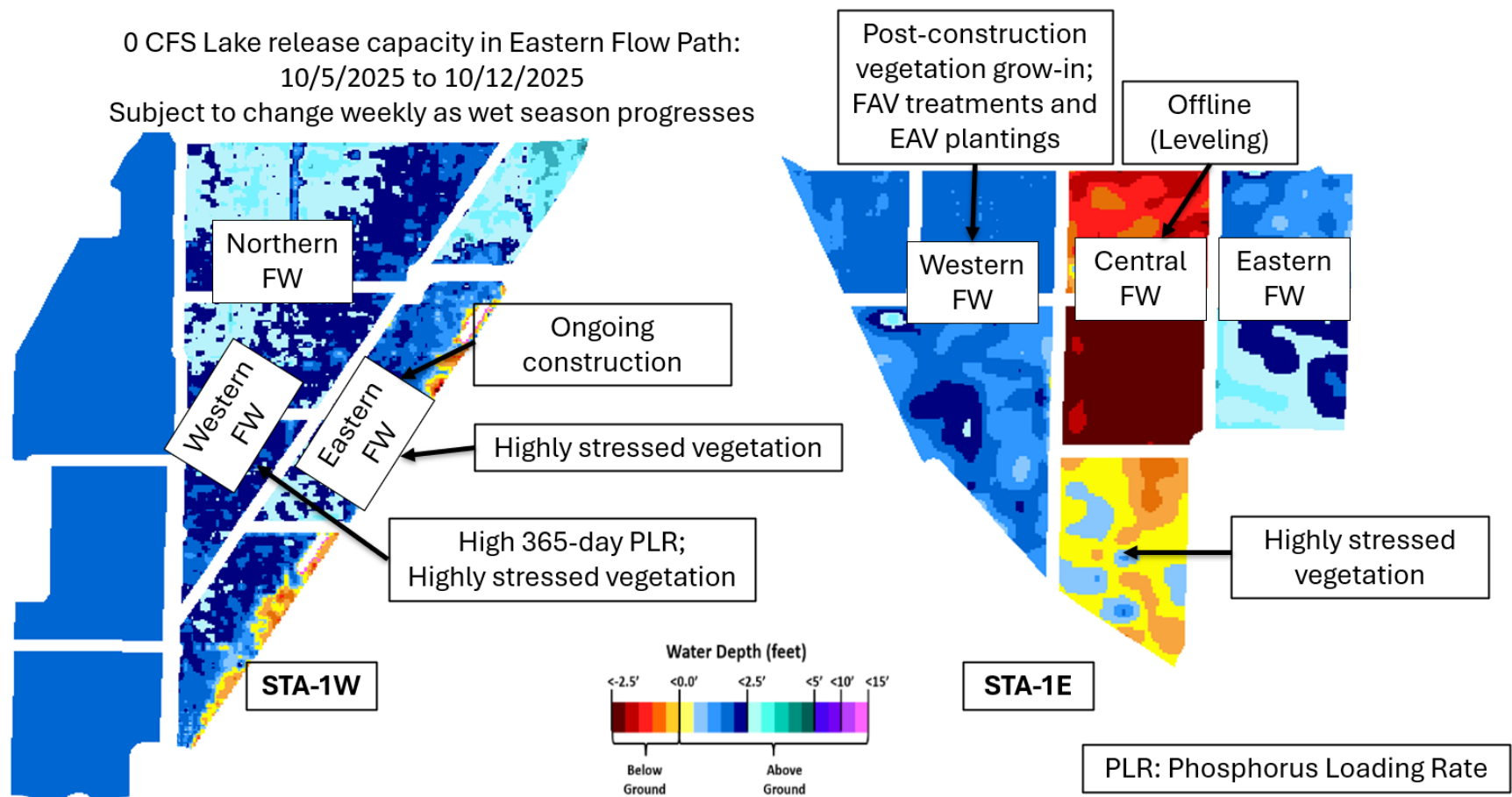
For definitions on STA operational language see glossary following figures



- Total WY2026 inflows to STAs (5/1/2025 to 10/5/2025): ~445,100 ac-ft
- Lake Okeechobee releases to FEBs/STAs
  - 9/29/2025 to 10/5/2025: 0 ac-ft
  - WY2026: ~ 32,000 ac-ft
- Extensive vegetation management activities underway to address stressed and highly stressed vegetation in EAV cells
- All treatment cells are at or above target water depth



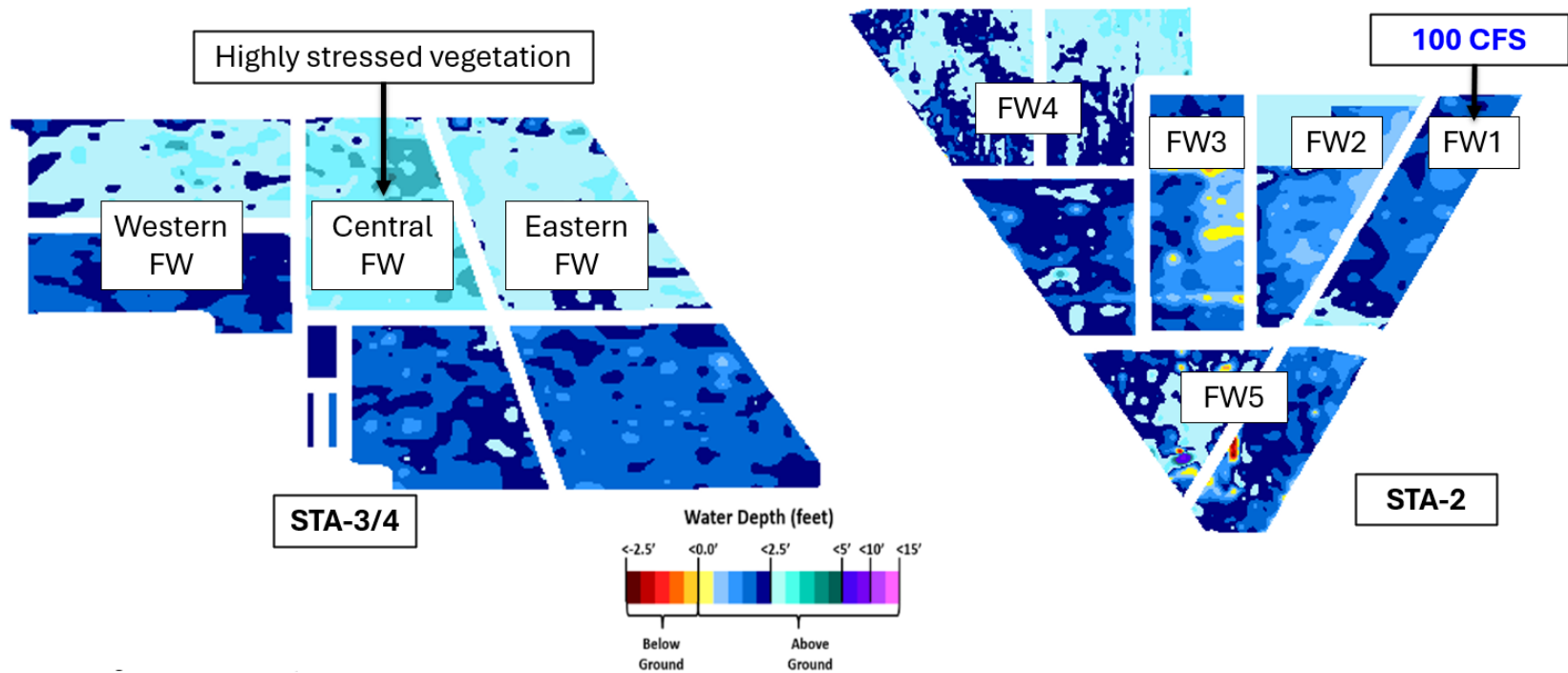
**Figure S-1.** STA depths and flow volumes



**Figure S-2.** Eastern Flow Path Weekly Status Report

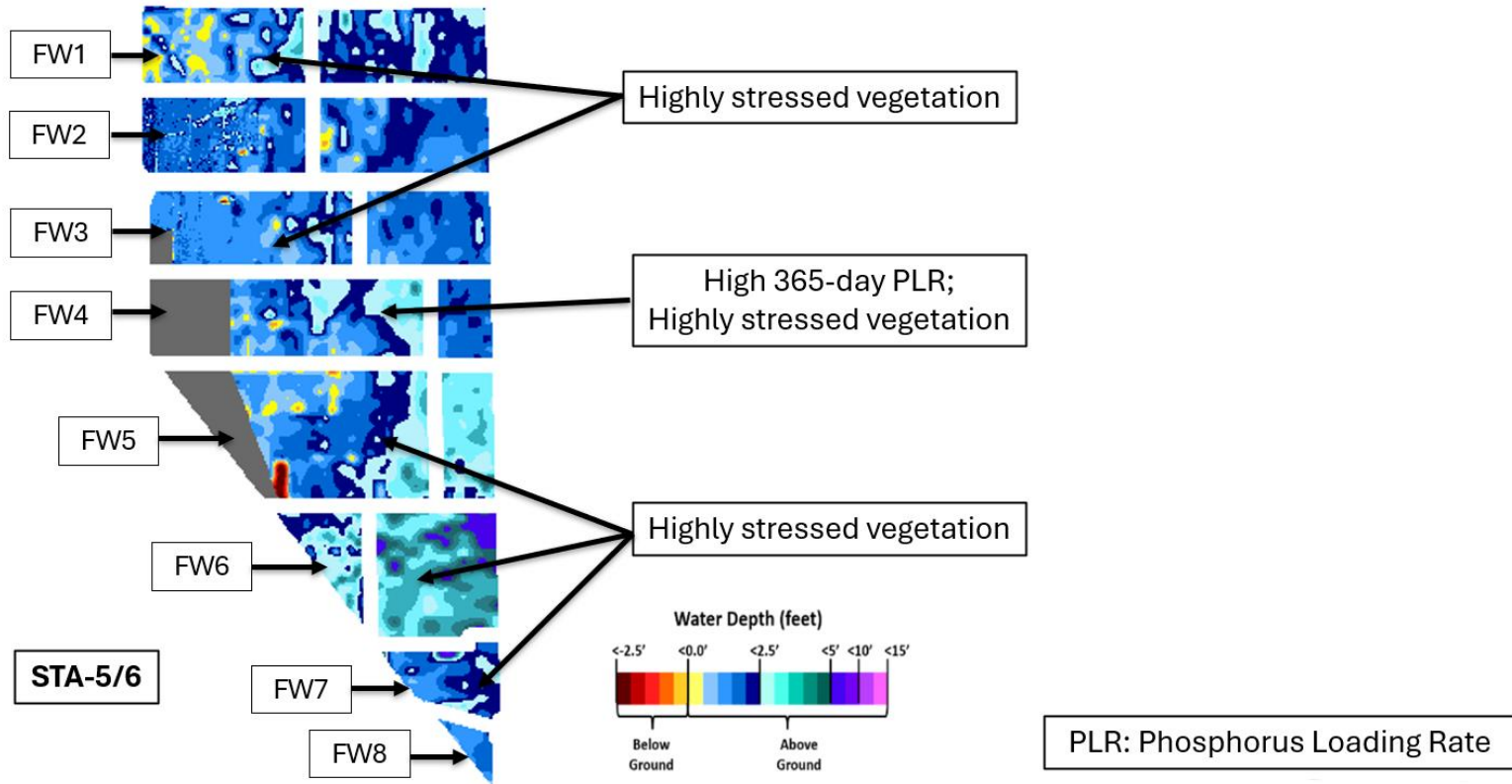
100 CFS Lake release capacity in Central Flow Path:  
10/5/2025 to 10/12/2025

- **100 CFS in STA-2**
- Subject to change weekly as wet season progresses



**Figure S-3.** Central Flow Path Weekly Status Report

0 CFS Lake release capacity in Western Flow Path:  
10/5/2025 to 10/12/2025



**Figure S-4.** Western Flow Path Weekly Status Report

## Basic Concepts and Definitions for STA Weekly Status Report

- **Inflow:** Sum of flow volume at all inflow structures to an STA.
- **Lake Inflow:** Portion of the STA total inflow volume that originates from Lake Okeechobee.
- **Outflow:** Sum of flow volume at outflow structures from an STA.
- **Total Phosphorus (TP):** Total mass of phosphorus in all its forms; including particulate, dissolved, etc.
- **Inflow Concentration:** TP concentration is the mass of TP in micrograms per liter of water,  $\mu\text{g/L}$  or ppb. Inflow concentration refers to the flow-weighted mean TP from all inflow structures over a period of time.
- **Outflow Concentration:** The flow-weighted mean TP from all outflow structures over a period of time. The outflow concentration represents the reduction of inflow TP achieved by STA treatment of the inflow water.
- **WQBEL:** The STA outflow concentration that is required upon completion of the Restoration Strategies projects by December 2025. The outflow concentration shall not exceed 13 ppb as an annual flow weighted mean in more than 3 out of 5 water years on a rolling basis and shall not exceed 19 ppb as an annual flow weighted in any water year.
- **Flow-Way (FW):** One or more treatment cells connected in series. Cells typically have emergent aquatic vegetation (EAV) in the front portion of the flow-way followed by a mix of EAV and submerged aquatic vegetation (SAV)
- **Vegetation Status:** Healthy means the vegetation condition is good and will allow the STA to perform as designed. Stressed means the vegetation is showing signs of poor health, such as browning or areas of vegetation die-off, or the cell contains undesirable vegetation such as floating exotic vegetation requiring treatment. The TP reduction capability of the STA is affected when the vegetation condition is poor.
- **Phosphorus Loading Rate (PLR):** Mass of inflow TP in grams, divided by total treatment area of STA in square meters, per year. In general, a 365-day value of less than 1.0 is needed for an STA to perform optimally. A PLR of 2.0 is considered very high and a PLR of 3.0 is considered extremely high. The TP reduction capability of the STA is affected when the PLR is high, very high and extremely high.
- **Online:** Online status means the FW can receive and treat inflow.
- **Online with Restriction:** The FW can receive and treat inflow, but the amount of flow or water level may be limited temporarily. For example, a vegetation rehabilitation effort may require reduced flows through an area while the new plants are establishing, or nesting by protected species may require a certain water level not to be exceeded.
- **Offline:** The FW is unable to receive and treat inflow due to repairs, construction, or other prohibitive reasons.
- **Depth:** Difference between the average surface water level in a cell and the average ground elevation in that cell. Target depths, or depths between flow events, are between 1.25 ft to 1.5 ft. As depth approaches or drops below zero, an increasing percentage of the cell is considered dry and STA conditions deteriorate. An increase in depth above target depth is expected with increasing flow. However, as depth increases much above the target depth and is sustained over a period of time, it can be detrimental to vegetation health and overall STA treatment performance.
- **Note:** The data provided in this summary report were developed using a combination of provisional and quality-assured flow and water quality data. In some cases, best professional judgment was used to estimate missing data and revise questionable data. Values provided are not considered final but are appropriate for use in STA operational decision-making.

## **Everglades**

### ***Water Conservation Area Regulation Schedules***

WCA-1: Stage at the 3-gauge average continues to increase; stages were 0.63 feet below the A1 Zone regulation line on Sunday, October 5, 2025. WCA-2A: Stage continues to rise above the A1 Zone regulation line at the 2-17 gauge and was about 1.22 feet above the line on Sunday. WCA-3A: The 3-gauge average remains in Zone B but continues to slowly ascend; on Sunday, stages were around 0.82 feet below the Zone A regulation line. WCA-3A North: Stage at Gauge 62 (NW corner) started to decrease last week and remains below the Upper Schedule regulation line; on Sunday, stage was 0.55 feet below that line. See **Figures EV-1 through EV-4**.

### ***Water Depths***

The SFWDAT model output for October 5, 2025, illustrates a continued rehydration of WCA-1, but water depths remain below average for this time of year. WCA-2A water depth is at or above average across most of that basin, except for the southeast portion which is approaching the 90<sup>th</sup> percentile. Drier conditions persist in Northeastern WCA-3A along the L-38W canal. Depths increased slightly in WCA-3A but remain relatively low in the southern and northeastern WCA-3A North, which may limit aquatic prey production in this region. Conditions remain in the 10<sup>th</sup> percentile across Central and South WCA-3A. Big Cypress Basin, near the Tamiami trail, is now drier than last month. Hydrological connectivity has improved compared to one month ago in all three of the major sloughs within Everglades National Park (ENP). Water depths in the ENP are both below (west) and above average (east) for this time of year. See **Figures EV-5 through EV-6**.

### ***Taylor Slough and Florida Bay***

All stages increased across Taylor Slough over the past week, with an average increase of 0.10 feet for the week. Changes ranged from +0.03 feet at Craighead Pond (CP) in the southern slough to +0.23 feet at CT50R in the C-111 area (**Figure EV-7 and Figure EV-8**). Taylor Slough water levels remain above the recent average (WY1993-2016) for this time of year by 4.1 inches compared to before the Florida Bay initiative (starting in 2017), an increase of 0.5 inches relative to last week. The CP and Taylor Slough Bridge (TSB) stages remain below the estimated historical average (circa 1900) by 0.55 and 1.03 feet, respectively.

Average Florida Bay salinity was 28.4, an increase of 2.2 from last week. Salinity changes ranged from -2.4 at Duck Key (DK) in the eastern region to +12.7 at Terrapin Bay (TB) in the central nearshore region (**Figure EV-7**). Salinity is above the estimated historical average (circa 1900) and is now at the WY2001-2016 Interquartile Range (IQR) 75<sup>th</sup> percentile in the eastern and western regions and above the 75<sup>th</sup> percentile in the central region (**Figure EV-9**). Average Florida Bay salinity remains above its recent average (WY1993-2016) for this time of year by 5.8, an increase of 3.8 relative to last week.

Salinity at the Taylor River (TR) station in the mangrove zone (tracked for the Florida Bay MFL) was 8.6, a decrease of 0.7 from last week (**Figure EV-10**). The 365-day moving

sum of flow from the five major creeks (McCormick Creek, Taylor River, Mud Creek, Trout Creek, West Highway Creek) was 228,973 acre-feet, a decrease of 12,447 acre-feet from last week (**Figure EV-10**).

Average rainfall across Taylor Slough and Florida Bay was approximately 2.03 inches over the past week, based on the 18 gauges used for this report. Rainfall ranged from 0.0 inches at Long Sound (LS) and 4.13 inches at Highway Creek (HC), both in the eastern nearshore region (**Figure EV-11**). Wind directions and speeds in Florida Bay ranged from 0.6 mph from NE on October 2<sup>nd</sup> to 22.9 mph N on October 13<sup>th</sup> (**Figure EV-11**).

Average daily flow from the five major creeks totaled 1,177 acre-feet, with net positive flows for the week. Total daily creek flow ranged from -728 acre-feet on October 5<sup>th</sup> to 3,325 acre-feet on October 3<sup>rd</sup> (**Figure EV-12**). Average daily flow was 4,628 acre-feet below estimated historical levels (circa 1900). Average daily flow from Alligator creek was 27 acre-feet, with net positive flows for the week (**Figure EV-12**).

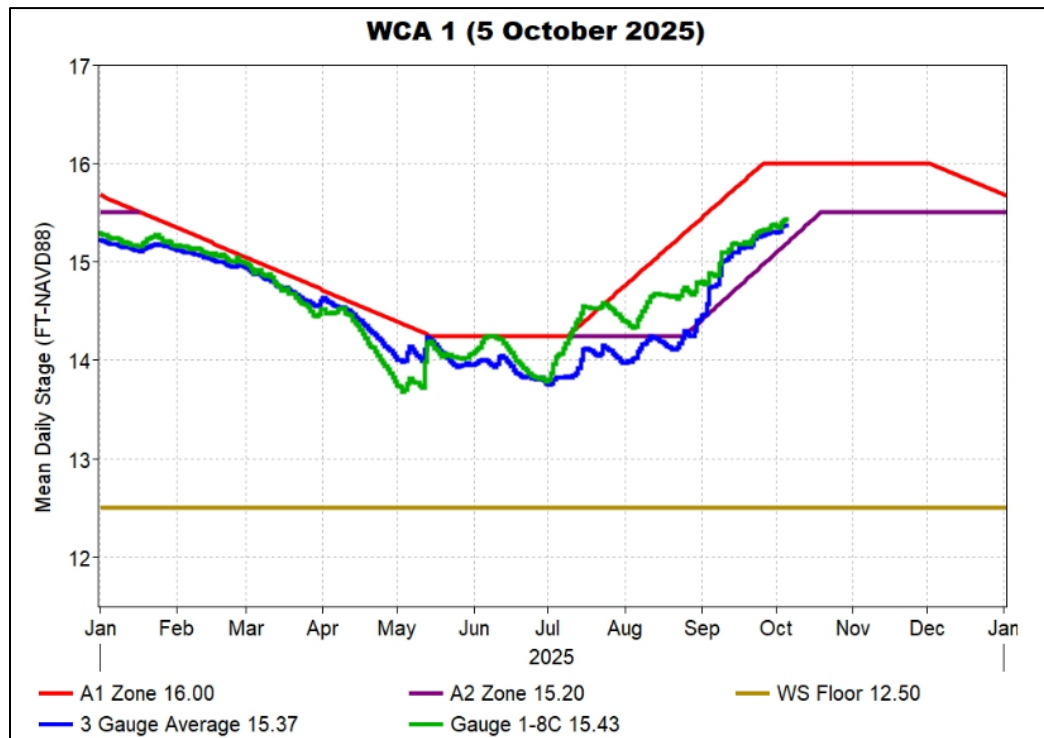
***Implications/considerations for water management.***

- Average to above average rainfall within the Everglades Protection Area over the last three weeks has increased water depths across the region; but continued increases in depth (and associated hydroperiod) are required this wet season to support aquatic fauna recovery in the central Everglades.
  - WCA-3A South and WCA-3A North, east of the Miami canal, continue to experience unseasonably dry conditions.
  - Populations of prey, already heavily depleted by the extended dry down in the last dry season, are unlikely to recover for another year or even longer if water levels do not return to more average or above average conditions.
  - This has the potential to further extend the recent run of 4 consecutive poor wading bird nesting years into the 2026 and 2027 nesting seasons.
  - With the potential for another La Niña dry season conserving water within the WCAs in the latter half of the wet season may prove ecologically beneficial to aquatic fauna and the predators that feed on them, as well as protect peat soil and facilitate post-wildfire recovery in those areas.
- Taylor Slough depths remain above the recent averages; however, salinities are above their recent average in Florida Bay and at or above the 75<sup>th</sup> percentile in all regions of the bay.
  - All regions of the Bay have experienced a notable increase in salinity over the past week, with the western and central regions showing the largest upticks.
  - Continued freshwater input through Taylor Slough and increased local rainfall would help moderate rising salinities and support recovery of estuarine conditions.
  - Maintaining or enhancing freshwater flow into eastern and central Florida Bay will be important to prevent hypersaline conditions, sustain submerged aquatic vegetation, and promote suitable habitat for estuarine fauna such as fish and invertebrates.

- Conserving water in the WCAs while providing freshwater input to the sloughs of ENP will require careful consideration of a balance between the upstream and downstream ecological needs of the system. Individual regional recommendations can be found in **Table EV-2**.

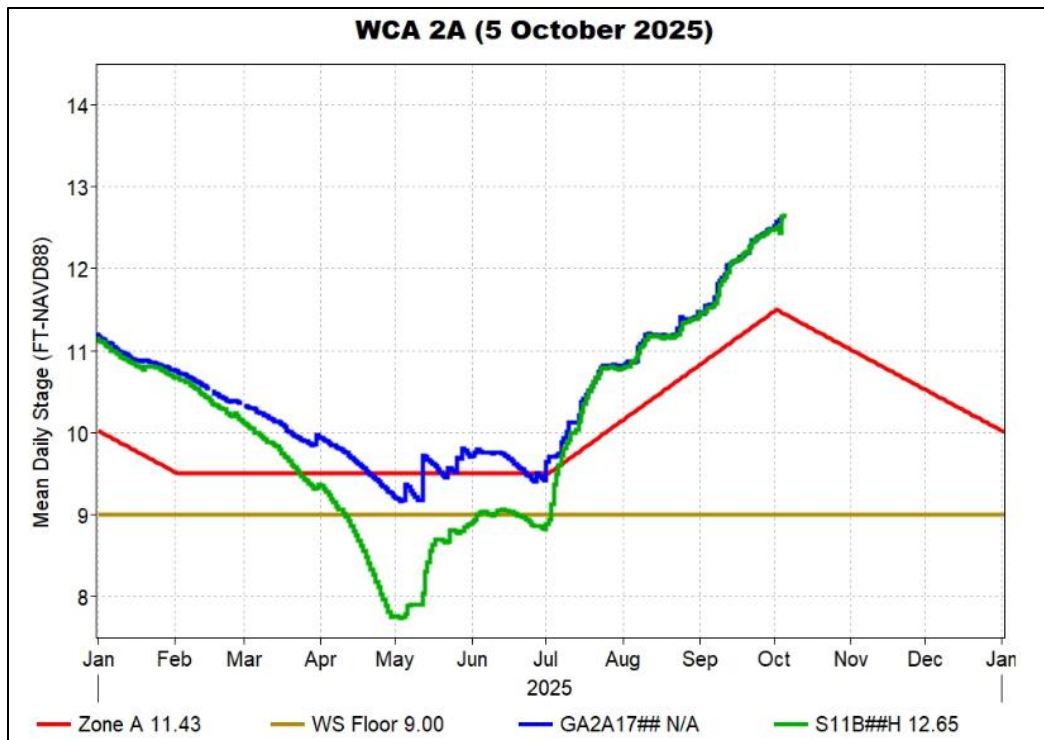
**Table EV-2.** Previous week's rainfall and water depth changes in Everglades basins.

Everglades Region	Rainfall (inches)	Stage change (feet)
WCA-1	1.62	+0.11
WCA-2A	0.94	+0.15
WCA-2B	0.62	-0.04
WCA-3A	0.46	+0.02
WCA-3B	1.32	+0.12
ENP	1.49	+0.04

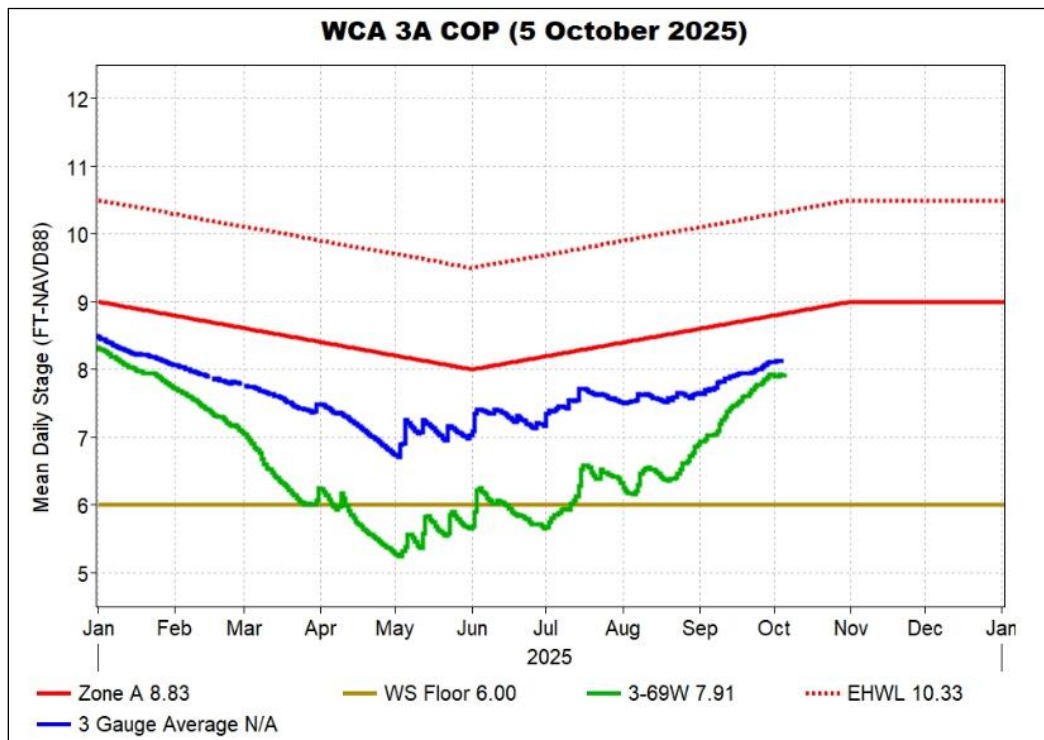


**Figure EV-1.** WCA-1 stage hydrographs and regulation schedule.

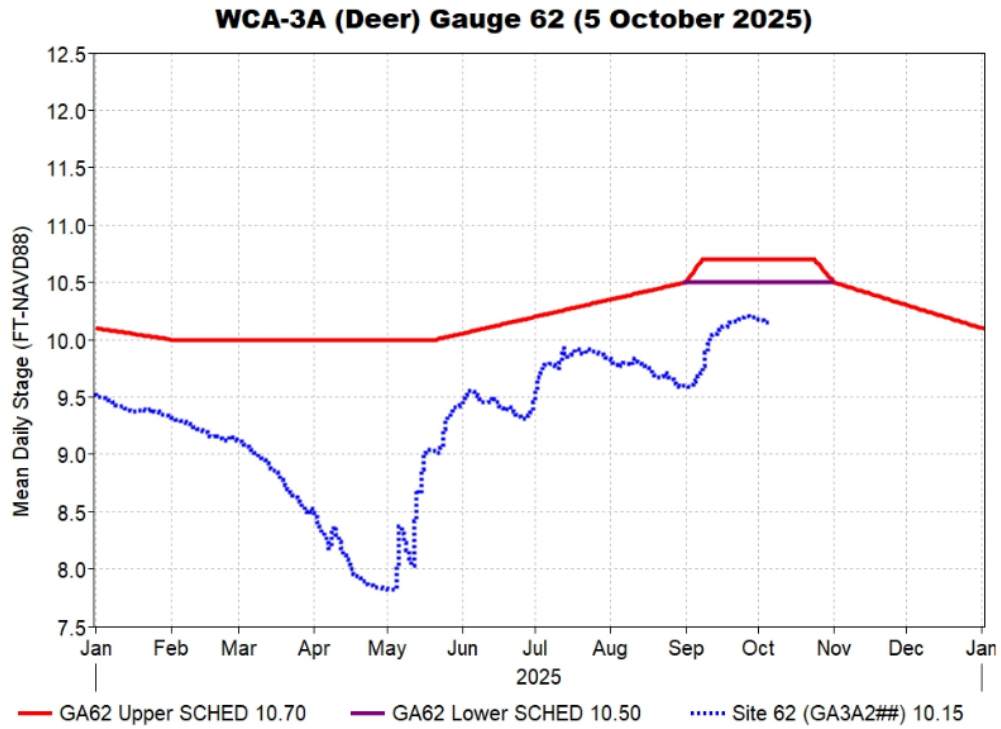




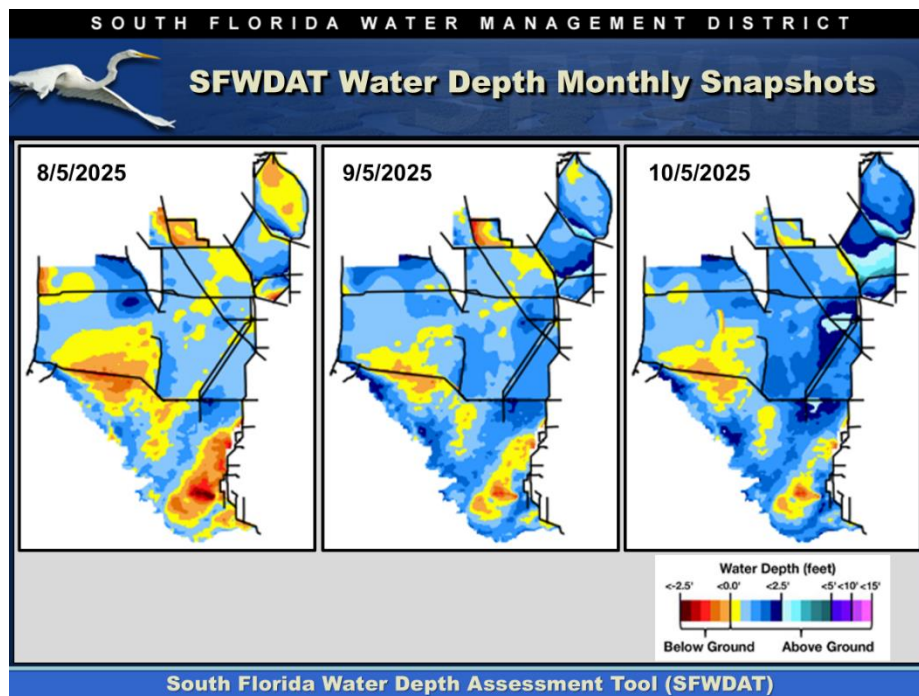
**Figure EV-2.** WCA-2A stage hydrographs and regulation schedule.



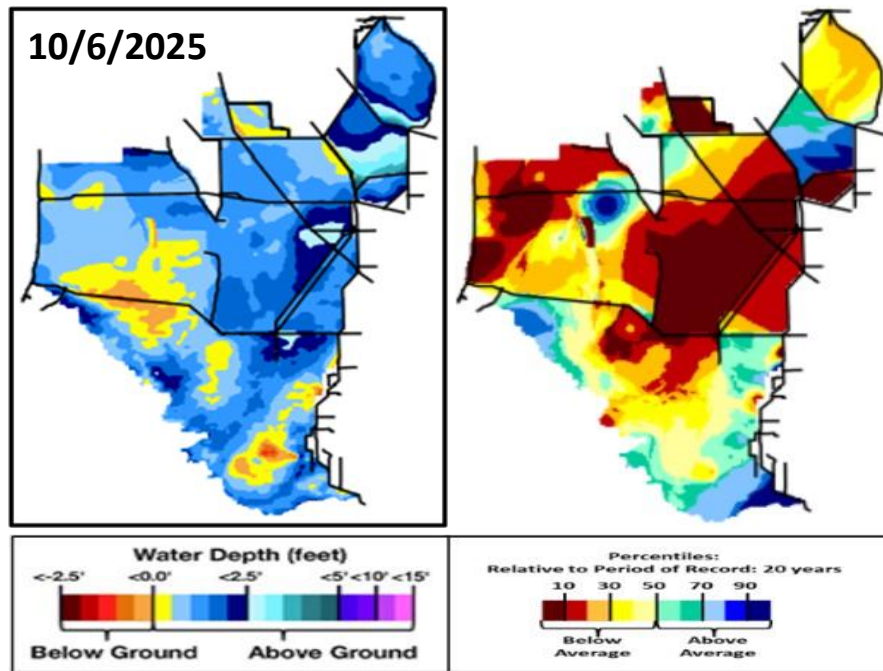
**Figure EV-3.** WCA-3A stage hydrographs (three-gauge average, 3-69W) and regulation schedule.



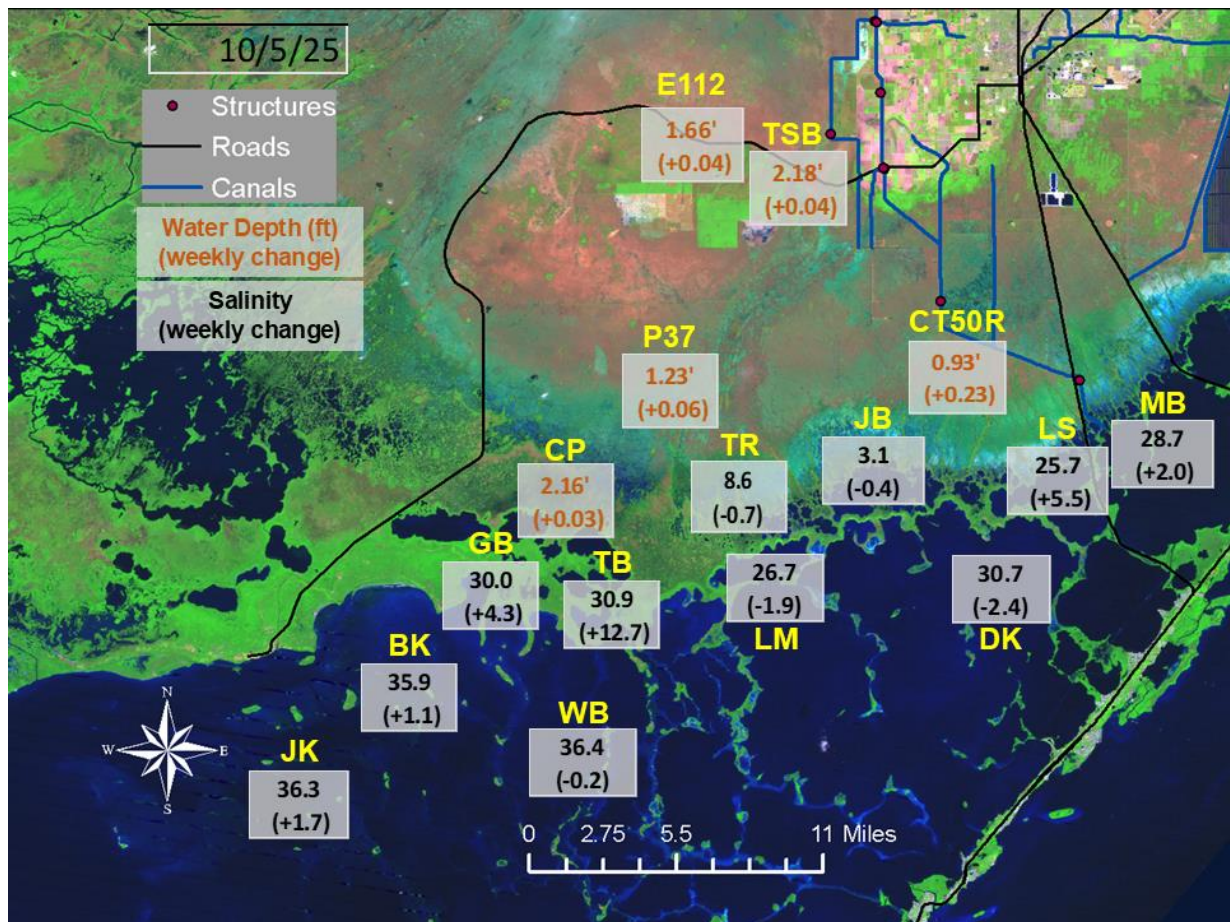
**Figure EV-4.** WCA-3A stage hydrograph (Deer gauge; Site 62) and GA62 regulation schedule.



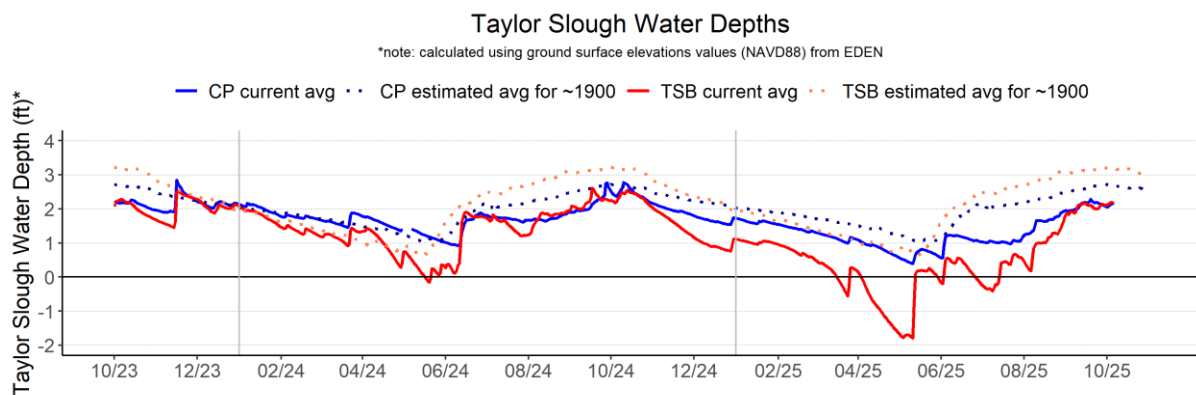
**Figure EV-5.** Everglades water depths from two months ago (left), one month ago (center) and present (right), based on SFWDAT



**Figure EV-6.** Present water depths (October 6, 2025) compared to the day of year relative to average (percentile) over the previous 20 years.

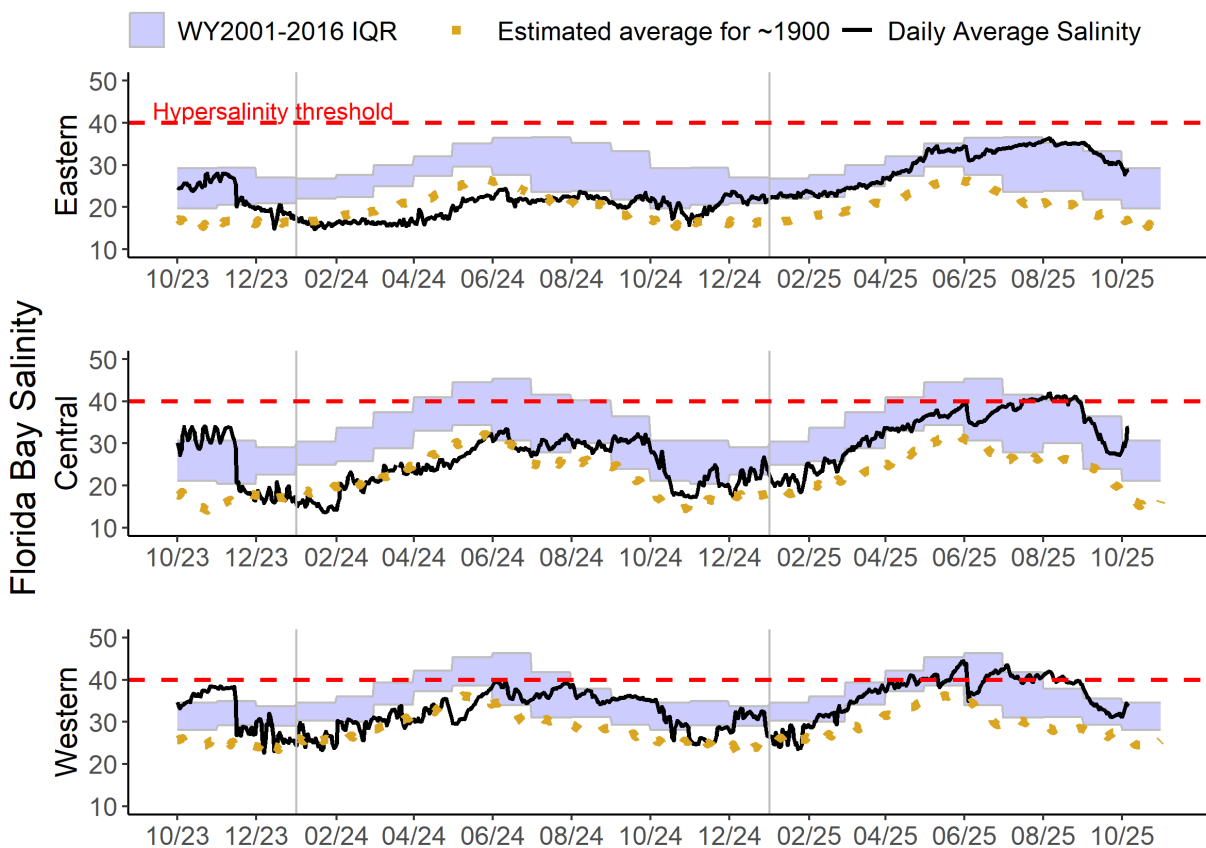


**Figure EV-7.** Taylor Slough water depths and Florida Bay salinities with changes since one week ago.

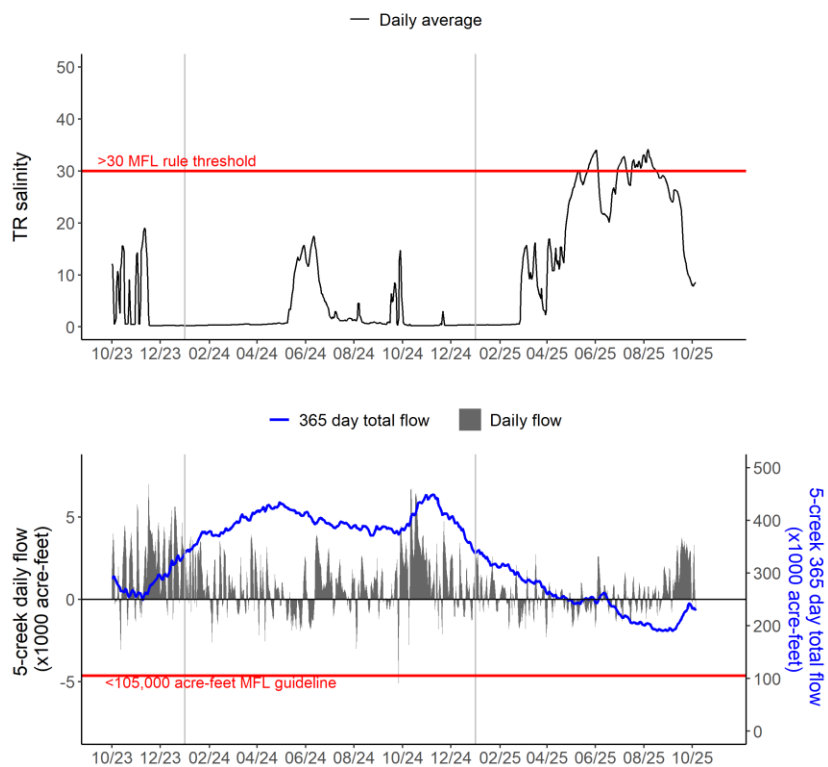


**Figure EV-8.** Taylor Slough water depth time series for Taylor Slough Bridge (TSB; northern slough) and Craighead Pond (CP; southern slough).

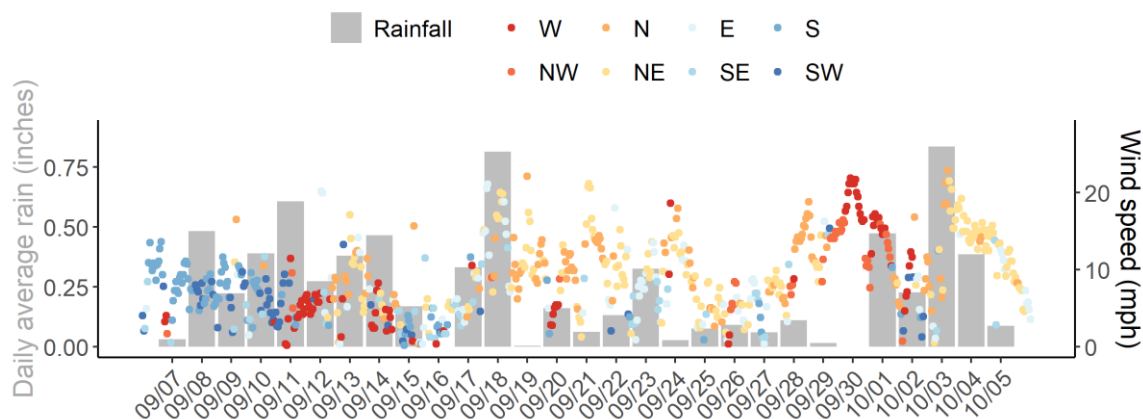




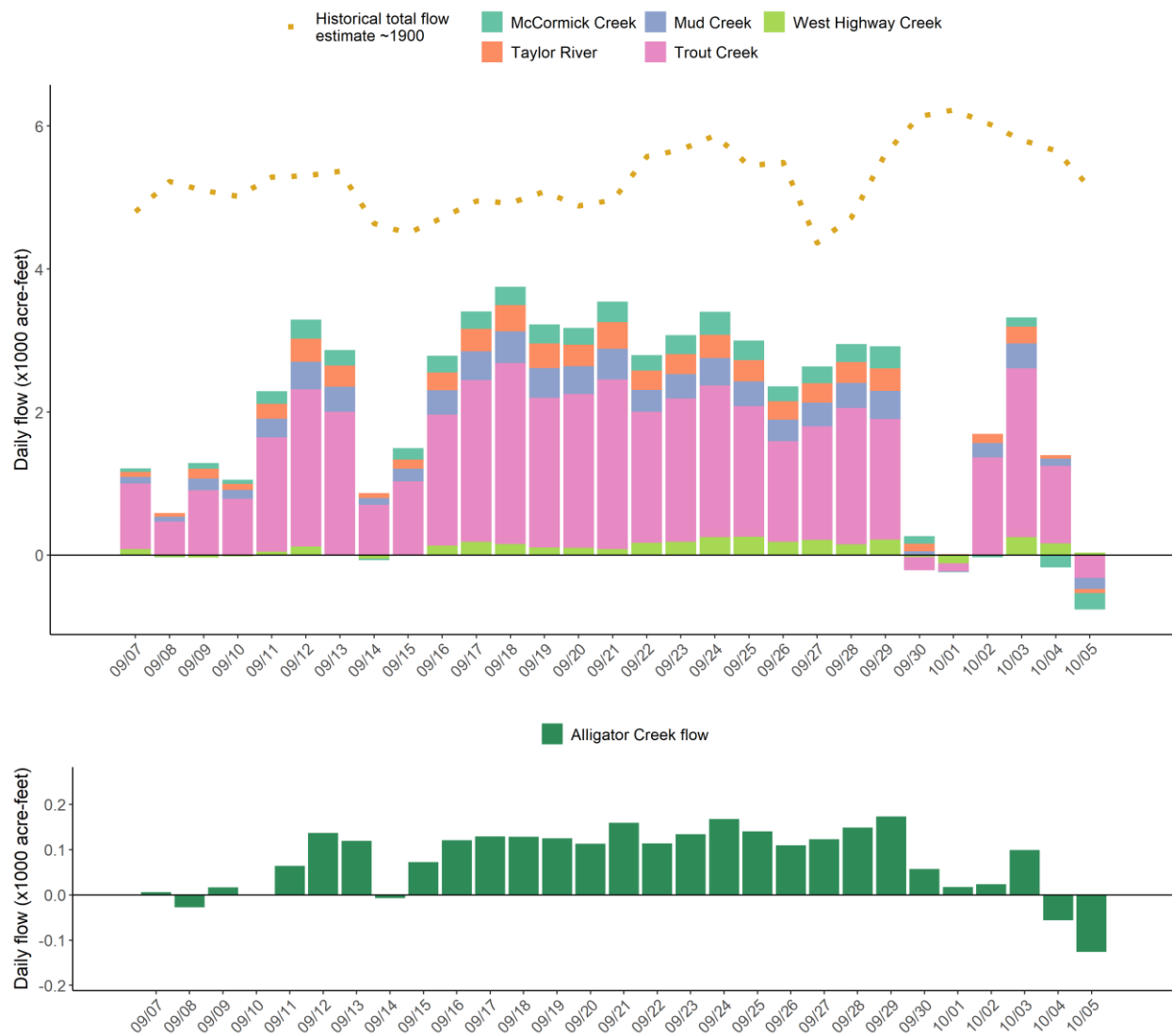
**Figure EV-9.** Eastern (top panel), Central (middle panel) and Western (bottom panel) Florida Bay daily average salinities with WY2001-2016 interquartile (25-75 percentile) ranges (IQR) and estimated historical daily average salinities. The hypersalinity threshold indicates the level at which salinities start to become harmful to seagrass.



**Figure EV-10.** Salinity at Taylor River (TR; top) and creek inflow to Florida Bay (bottom) from the five major creeks (McCormick Creek, Taylor River, Mud Creek, Trout Creek, and West Highway Creek). The daily average salinity and 365-day total creek flow are tracked for the Florida Bay MFL criteria.



**Figure EV-11.** Daily average rain across Taylor Slough and Florida Bay, along with hourly average wind speed and direction (measured at Long Key) in Florida Bay over the past four weeks.



**Figure EV-12.** Top: daily average creek flow summed between the five major creeks with estimated historical daily flow over the past four weeks. Bottom: daily average creek flow from Alligator Creek over the past four weeks.

**Table EV-2.** Weekly water depth changes and water management recommendations

<b>SFWMD Everglades Ecological Recommendations, October 5, 2025 (red is new)</b>			
	Weekly change	Recommendation	Reasons
<b>WCA-1</b>	Stage increased by 0.11 feet	No recession and ascension rate no faster than 0.18 feet per week, or 0.36 feet per two weeks.	Protect within basin and downstream habitat and wildlife.
<b>WCA-2A</b>	Stage increased by 0.15 feet	No recession and ascension rate no faster than 0.18 feet per week, or 0.36 feet per two weeks.	Protect within basin and downstream habitat and wildlife.
<b>WCA-2B</b>	Stage decreased by 0.04 feet	No recession and ascension rate no faster than 0.18 feet per week or 0.36 feet per two weeks.	Protect within basin and downstream habitat and wildlife.
<b>WCA-3A NE</b>	Stage remained the same with no change.	No recession and ascension rate no faster than 0.18 feet per week or 0.36 feet per two weeks.	Protect within basin and downstream habitat and wildlife.
<b>WCA-3A NW</b>	Stage decreased by 0.05 feet	No recession and ascension rate no faster than 0.18 feet per week or 0.36 feet per two weeks.	
<b>Central WCA-3A S</b>	Stage increased by 0.07 feet	No recession and ascension rate no faster than 0.18 feet per week or 0.36 feet per two weeks.	Protect within basin and downstream habitat and wildlife.
<b>Southern WCA-3A S</b>	Stage increased by 0.07 feet		
<b>WCA-3B</b>	Stage increased by 0.12 feet	No recession and ascension rate no faster than 0.18 feet per week or 0.36 feet per two weeks.	Protect within basin and downstream habitat and wildlife.
<b>ENP-SRS</b>	Stage increased by 0.04 feet.	Make discharges to ENP according to COP and TTFF protocol while considering upstream and downstream ecological conditions.	Protect within basin and upstream habitat and wildlife.
<b>Taylor Slough</b>	Stage changes ranged from +0.03 feet to +0.23 feet	Move water southward as possible.	When available, provide freshwater to promote water movement.
<b>FB- Salinity</b>	Salinity changes ranged from -2.4 to +12.7	Move water southward as possible.	When available, provide freshwater to promote water movement.