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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 22, 2025

SUBJECT: Weekly Environmental Conditions for Systems Operations

Summary

Weather Conditions and Forecast

By midweek, a cold front will move south into Florida accompanied by a dry continental air mass, spreading into South Florida beginning Wednesday. Behind the front, northeasterly winds will transport shallow oceanic moisture onshore, fueling light, isolated showers along parts of the east coast Thursday into Friday. By late in the week, the pattern becomes increasingly complex with another potential cold front diving into Florida bringing potentially more widespread rainfall. However, forecast confidence in the Sunday QPF is lower than usual. Additionally, a tropical cyclone is forecast to be located over the Caribbean Sea this weekend. Its future track remains highly uncertain. The pressure gradient between this tropical system and strong high pressure building over the eastern U.S. behind the front will increase, leading to breezy northeasterly to easterly winds at 15–20 mph beginning Friday and potentially persisting through Sunday. These winds will likely drive shallow oceanic moisture containing scattered showers and thunderstorms onshore along the east coast. Stronger winds and higher rain chances would be possible if the tropical cyclone strengthens or tracks closer to the region. For the 7-day period ending next Tuesday morning, below average total SFWMD rainfall is likely, but the rainfall could be near normal depending on how much rainfall occurs this weekend.

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 19, 2025, was 1,900 cfs at S-65 and 2,200 cfs at S-65A, respectively. Mean weekly water depth on the Kissimmee River floodplain increased by 0.03 feet to 1.04 feet. The weekly average concentration of dissolved oxygen in the Kissimmee River increased from the previous week's value of 1.5 mg/L to 1.8 mg/L and remained in the stressful zone for Florida bass and other species (**Figure KB-6**).

Lake Okeechobee

Lake Okeechobee stage was 12.59 feet NAVD88 (13.90 ft NGVD29) on October 19, 2025, which was 0.07 feet higher than the previous week and 0.78 feet higher than a month ago. Average daily inflows (excluding rainfall) decreased from 4,990 cfs the previous week to 4,170 cfs. Average daily outflows (excluding evapotranspiration) were 80 cfs. The most recent non-obscured satellite image from October 19, 2025, NOAA's Harmful Algal Bloom Monitoring System suggests low to moderate cyanobacteria potential in the northern and western nearshore areas of the lake. Provisional phytoplankton results from the October 13-14 sampling indicated 26 of 30 samples had detectable levels of cyanotoxin, but all sites were $< 1 \mu\text{g/L}$.

Estuaries

Total inflow to the St. Lucie Estuary averaged 1,725 cfs over the past week with no flow coming from Lake Okeechobee. Mean salinities increased at all sites in the estuary over the past week. Salinity in the middle estuary was in the lower stress range (5-10) for adult eastern oysters.

Total inflow to the Caloosahatchee Estuary averaged 1,078 cfs over the past week with no flow coming from Lake Okeechobee. Over the past week, salinities were above 1 at S-79 and Val I-75. Surface salinities decreased slightly at Shell Point 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 Cape Coral and Shell Point, and in the upper stressed range (> 25) at Sanibel.

Stormwater Treatment Areas

For the week ending October 19, 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 494,200 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 activities. Additional restrictions are in place in STA-2 Flow-way 3 for post-drawdown vegetation grow-in. This week, there is no capacity for Lake releases in the STAs.

Everglades

Below average rainfall was experienced across all basins last week. Recession rates fell into the good or fair categories, with northwestern WCA-3A the exception. The rate of stage change in northwestern WCA-3A was elevated due to heavy rain falling late in the reporting period. Southern WCA-2A remains unseasonably deep. The majority of WCA-3A remains dry, as it has for most of the water year limiting aquatic prey production and the predators that rely upon them (wading birds and herpetofauna). Wading bird nesting will be below average for the fifth consecutive year and damaging dry conditions can be expected by the end of the dry season, especially if La Niña predictions hold true. Taylor Slough stages decreased on average last week but remain above the recent average for this time of year. Average Florida Bay salinities decreased slightly last week, and all three regions remain within the Interquartile Range.

Supporting Information

Kissimmee Basin

Upper Kissimmee

On October 19, 2025, mean daily lake stages were 56.8 feet NAVD88 (0.2 feet above schedule) in East Lake Toho, 53.6 feet NAVD88 (0.2 feet above schedule) in Lake Toho, and 50.4 feet NAVD88 (0.7 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 19, 2025, mean weekly discharge was 1,900 cfs at S-65 and 2,200 cfs at S-65A, respectively. Mean weekly discharge from the Kissimmee River was 2,700 cfs at S-65D and 2,600 at S-65E, respectively (**Table KB-2**). Mean weekly headwater stages were 45.2 feet NAVD88 at S-65A and 26.1 feet NAVD88 at S-65D. Mean weekly river channel stage increased by 0.1 feet from the previous week's value to 36.4 feet NAVD88 (**Figure KB-4**). Mean weekly water depth on the Kissimmee River floodplain increased by 0.03 feet to 1.04 feet (**Table KB-2, Figure KB-5**). The weekly average concentration of dissolved oxygen in the Kissimmee River increased from 1.5 mg/L the previous week to 1.8 mg/L (**Table KB-2, Figure KB-6**).

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) ^a	Schedule Type ^b	Sunday Schedule Stage (feet NAVD88)	Sunday Departure from Regulation (feet)	
							10/19/25	10/12/25
Lakes Hart and Mary Jane	S-62	LKMJ	160	59.8	R	59.5	0.3	0.3
Lakes Myrtle, Preston and Joel	S-57	S-57	170	61.2	R	60.6	0.6	1.2
Alligator Chain	S-60	ALLI	370	63.0	R	62.7	0.3	0.6
Lake Gentry	S-63	LKGT	400	60.4	R	60.2	0.2	0.4
East Lake Toho	S-59	TOHOE	80	56.8	R	56.6	0.2	0.3
Lake Toho	S-61	TOHOW	120	53.6	R	53.4	0.2	0.3
Lakes Kissimmee, Cypress and Hatchineha	S-65	KUB011 LKIS5B	1900	50.4	T	51.1	-0.7	-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.

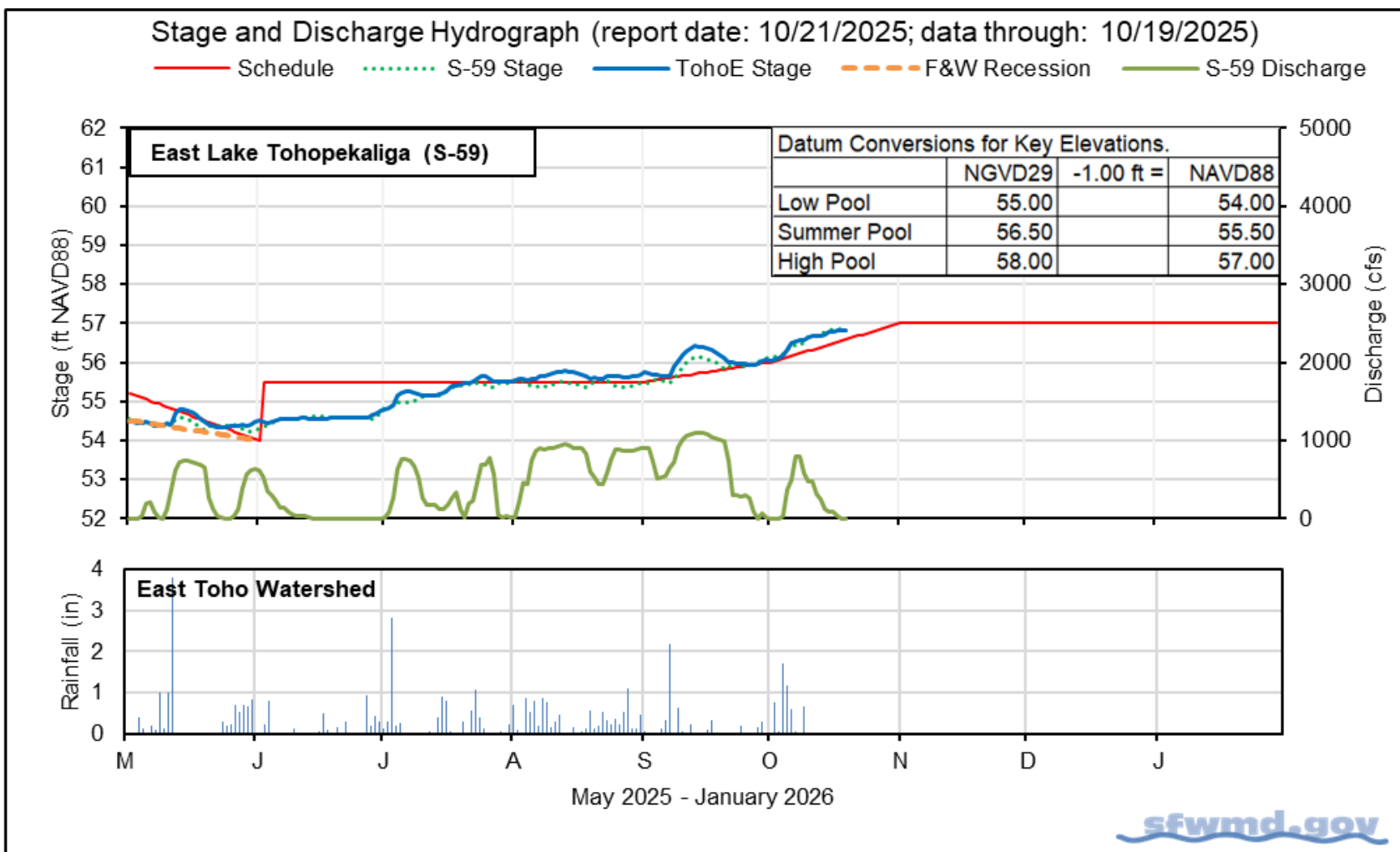


Figure KB-1. East Lake Toho regulation schedule, stage, discharge, and rainfall.

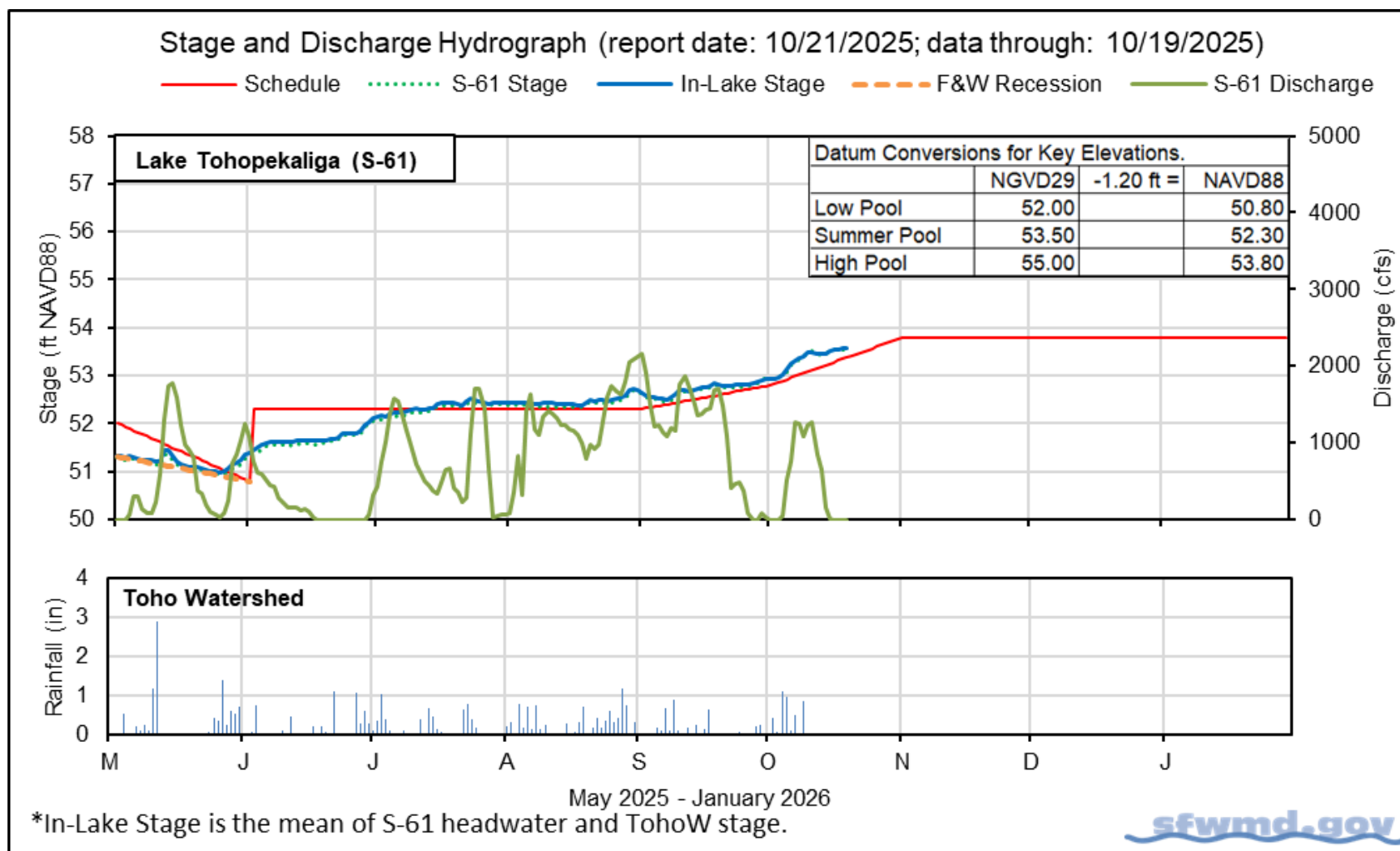


Figure KB-2. Lake Toho regulation schedule, stage, discharge, and rainfall.

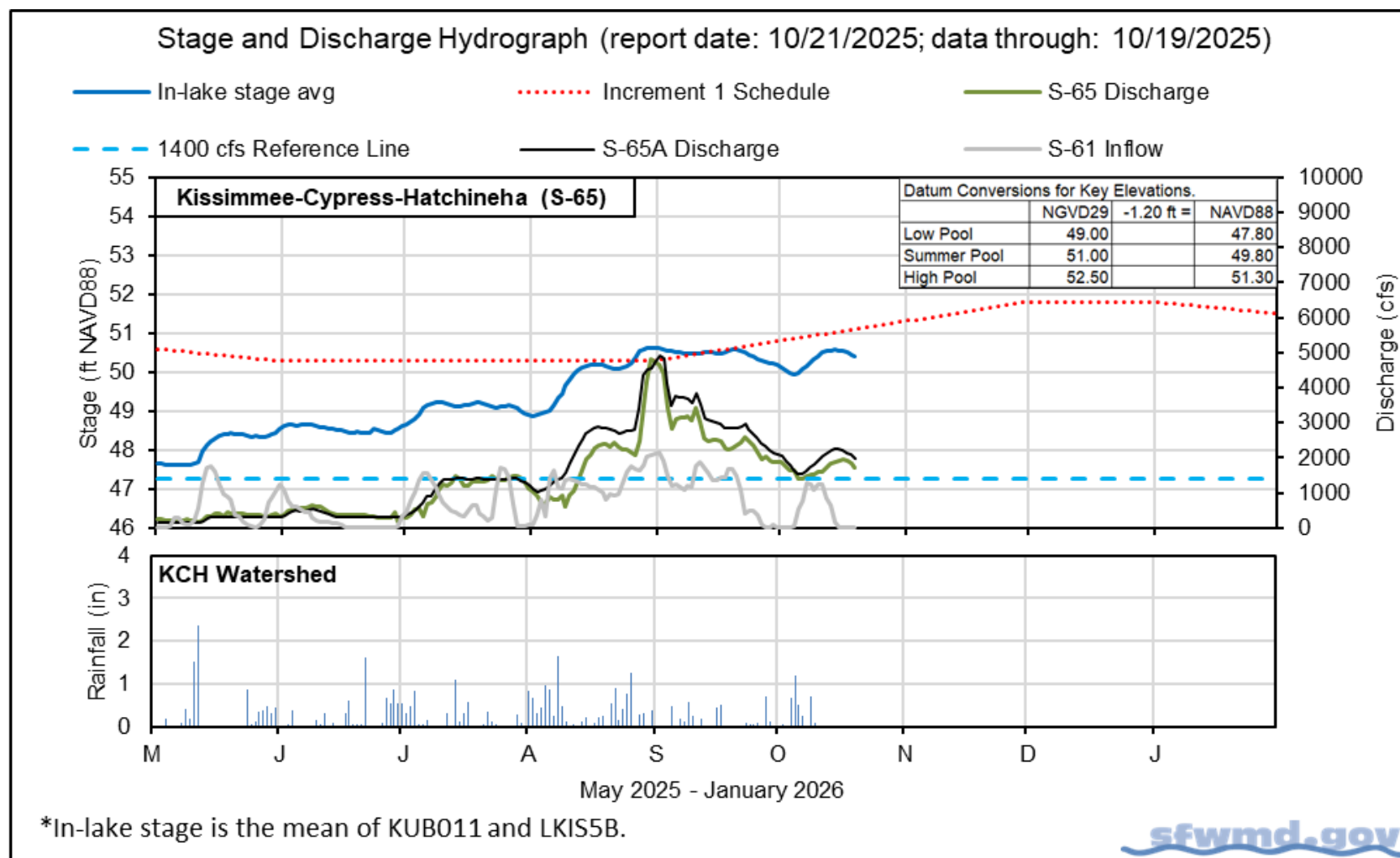


Figure KB-3. Lakes Kissimmee, Cypress and Hatchineha regulation schedule, stage, discharge, and rainfall.

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			
		10/19/25	10/19/25	10/12/25	10/5/25	9/28/25
Discharge	S-65	1,700	1,900	1,500	1,700	2,200
Discharge	S-65A ^a	2,000	2,200	1,800	1,900	2,600
Headwater Stage (feet NAVD88)	S-65A	45.1	45.2	45.3	45.1	45.1
Discharge	S-65D ^b	2,400	2,700	2,700	3,100	3,600
Headwater Stage (feet NAVD88)	S-65D ^c	26.1	26.1	26.1	26.3	26.6
Discharge (cfs)	S-65E ^d	2,400	2,600	2,700	3,000	3,500
Discharge (cfs)	S-67	0	0	0	0	0
Dissolved Oxygen (mg/L) ^e	Phase I, II/III river channel	1.7	1.8	1.5	0.8	0.7
River channel mean stage (feet NAVD88) ^f	Phase I river channel	36.5	36.4	36.3	36.6	37.1
Mean depth (feet) ^g	Phase I floodplain	1.07	1.04	1.01	1.19	1.44

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.

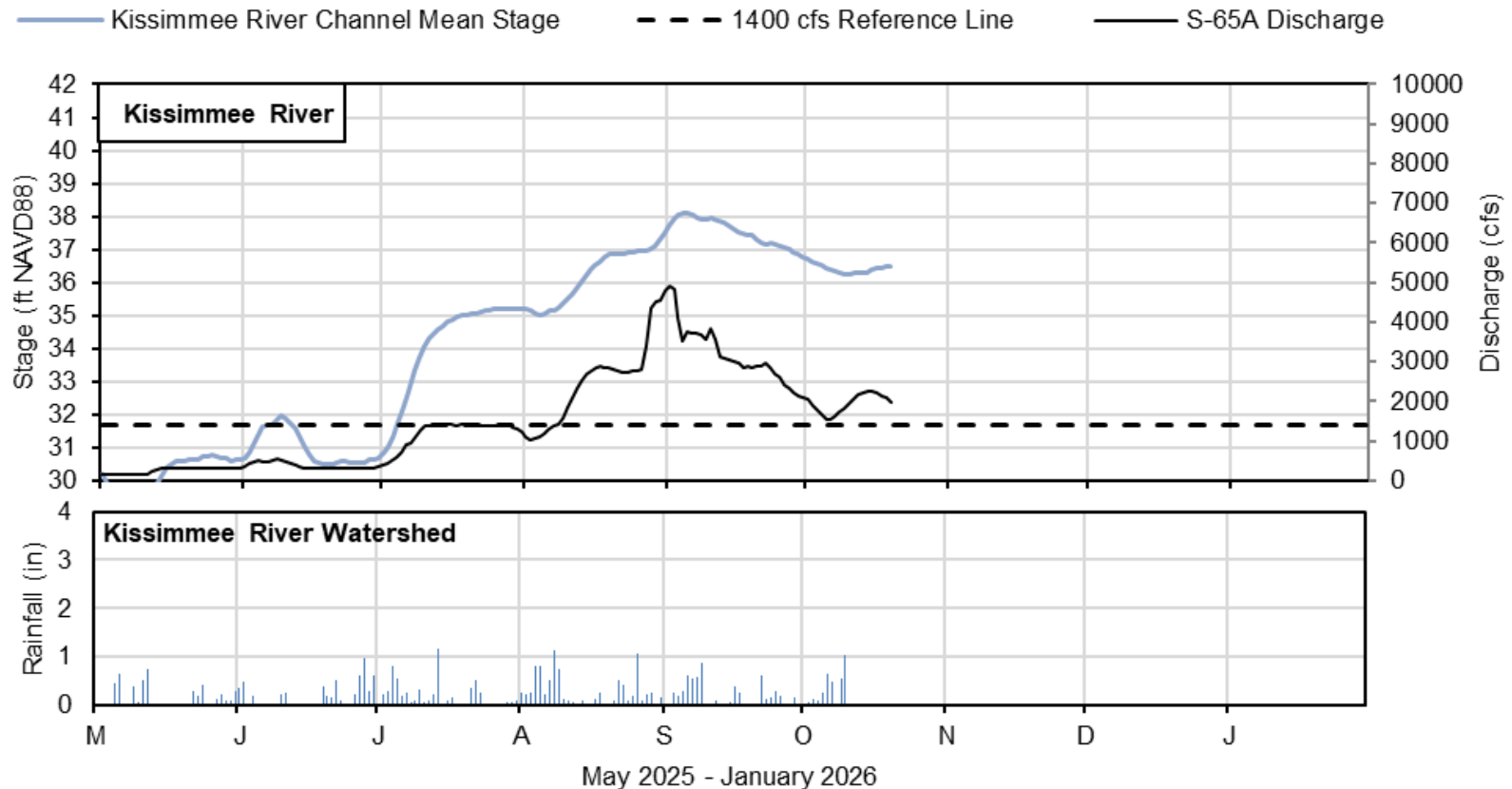
d. Combined discharge from S-65E and S-65EX1.

e. Dissolved oxygen is the average of 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: 10/21/2025; data through: 10/19/2025)



*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.

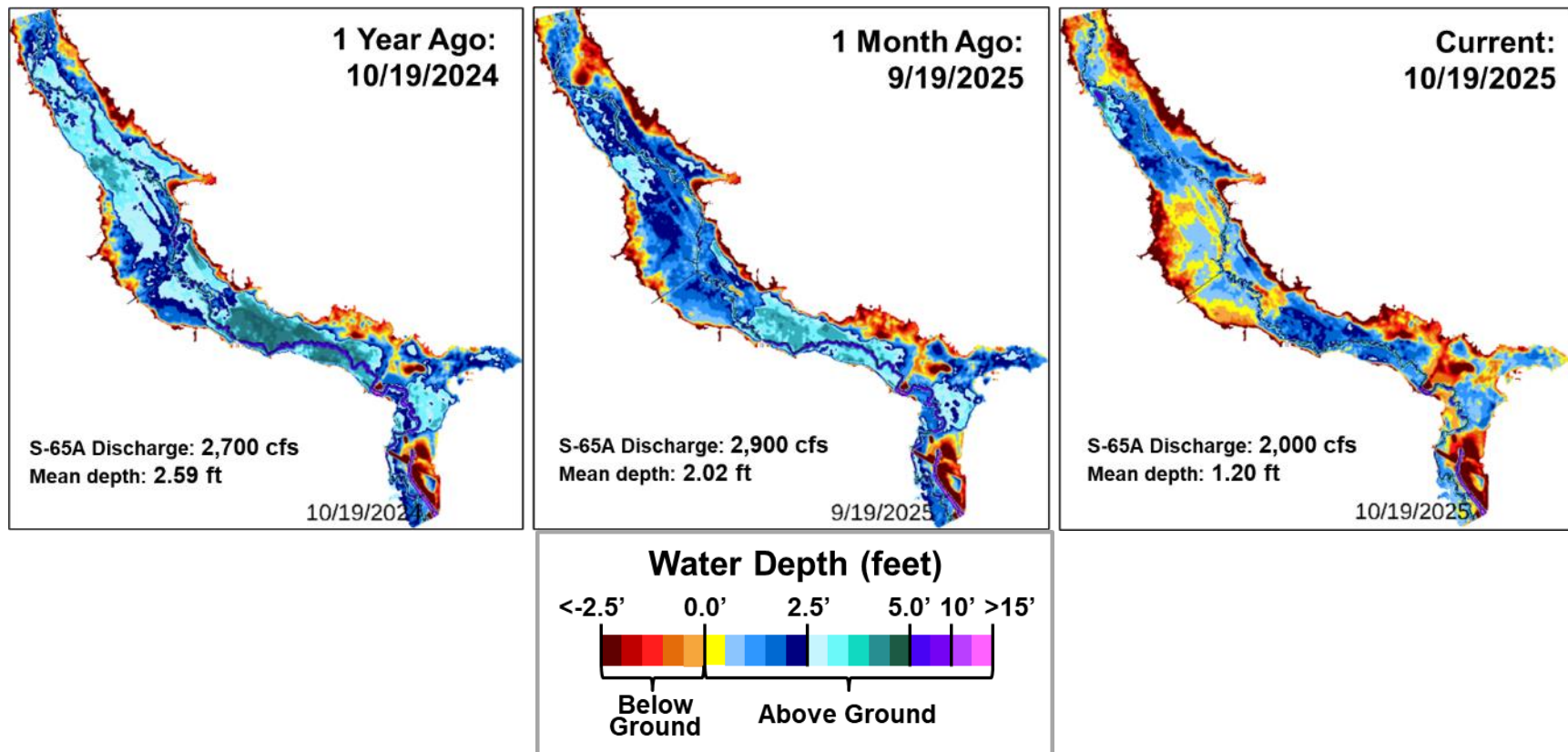
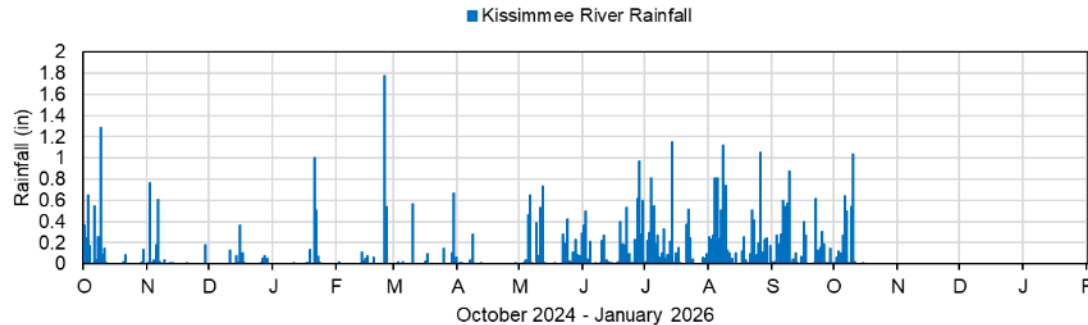
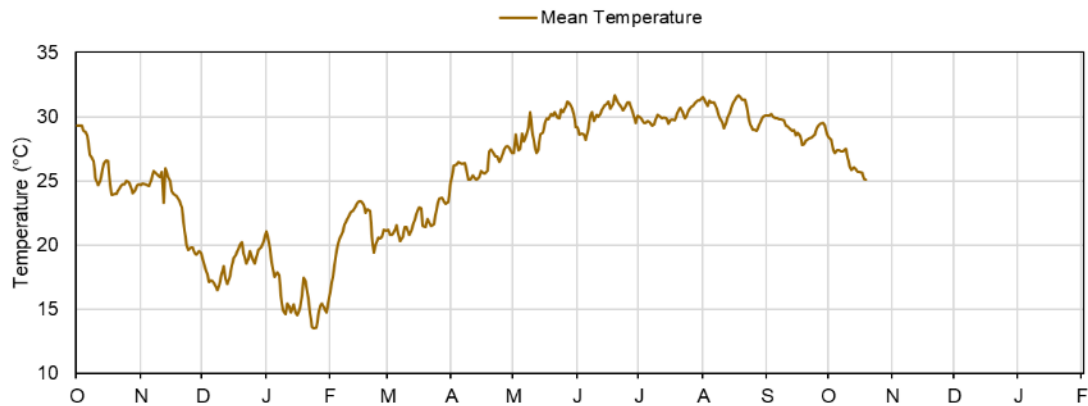
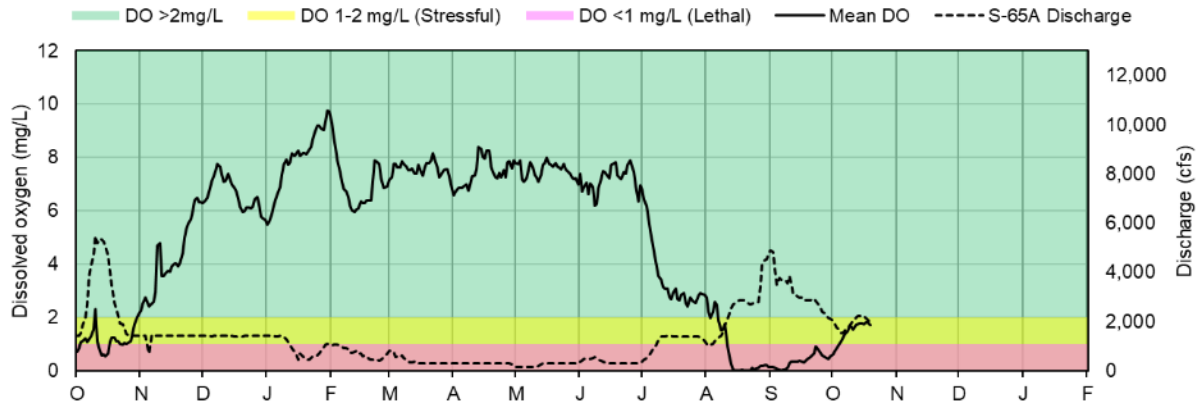


Figure KB-5. Phase I-II-III area Kissimmee River floodplain water depths (from left to right) one year ago, one month ago, and current.



Report Date: 10/21/2025; data are through: 10/19/2025

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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.

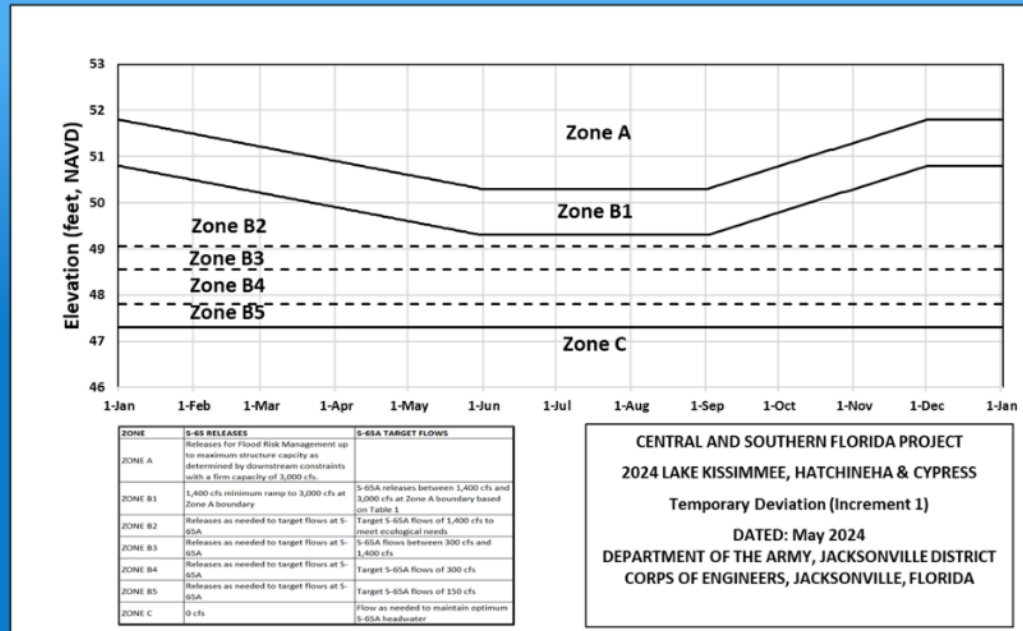
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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 12.59 feet NAVD88 (13.90 ft NGVD29) on October 19, 2025, which was 0.07 feet higher than the previous week and 0.78 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 more than 1 foot above the water shortage management band (**Figure LO-3**). According to NEXRAD, no 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 4,990 cfs the previous week to 4,170 cfs. The highest inflows came from the Kissimmee River (2,630 cfs via S-65E(X1)). Average daily outflows (excluding evapotranspiration) were 80 cfs. There have been no notable releases from the Lake for more than 7 weeks. **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 19, 2025, NOAA's Harmful Algal Bloom Monitoring System suggests low to moderate cyanobacteria potential in the northern and western nearshore areas of the Lake. This slight increase in potential from the previous week is likely due to recent reductions in wind speeds and rainfall over the Lake (**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 October 13-14 sampling indicate 26 of 30 samples had detectable levels of cyanotoxin. Twenty-five sites had detectable levels of cylindrospermopsin ($\geq 0.1 \mu\text{g/L}$), 2 had detectable microcystins ($\geq 0.2 \mu\text{g/L}$), 1 of which had both toxins present. None of the samples exceeded USEPA recreational standards, as all sites were $< 1 \mu\text{g/L}$ (**Figure LO-7**).

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

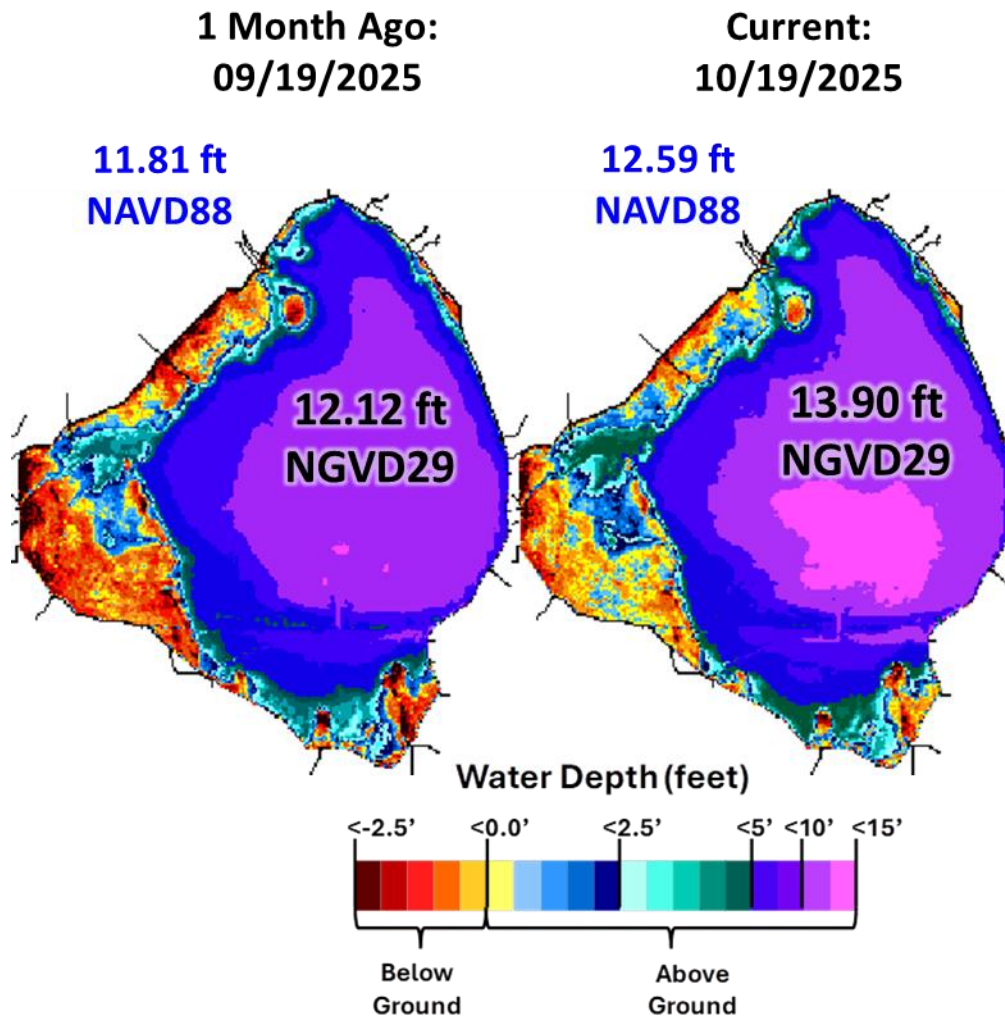


Figure LO-1. Lake Okeechobee water depth estimates based on South Florida Water Depth Assessment Tool (SFWDAT).

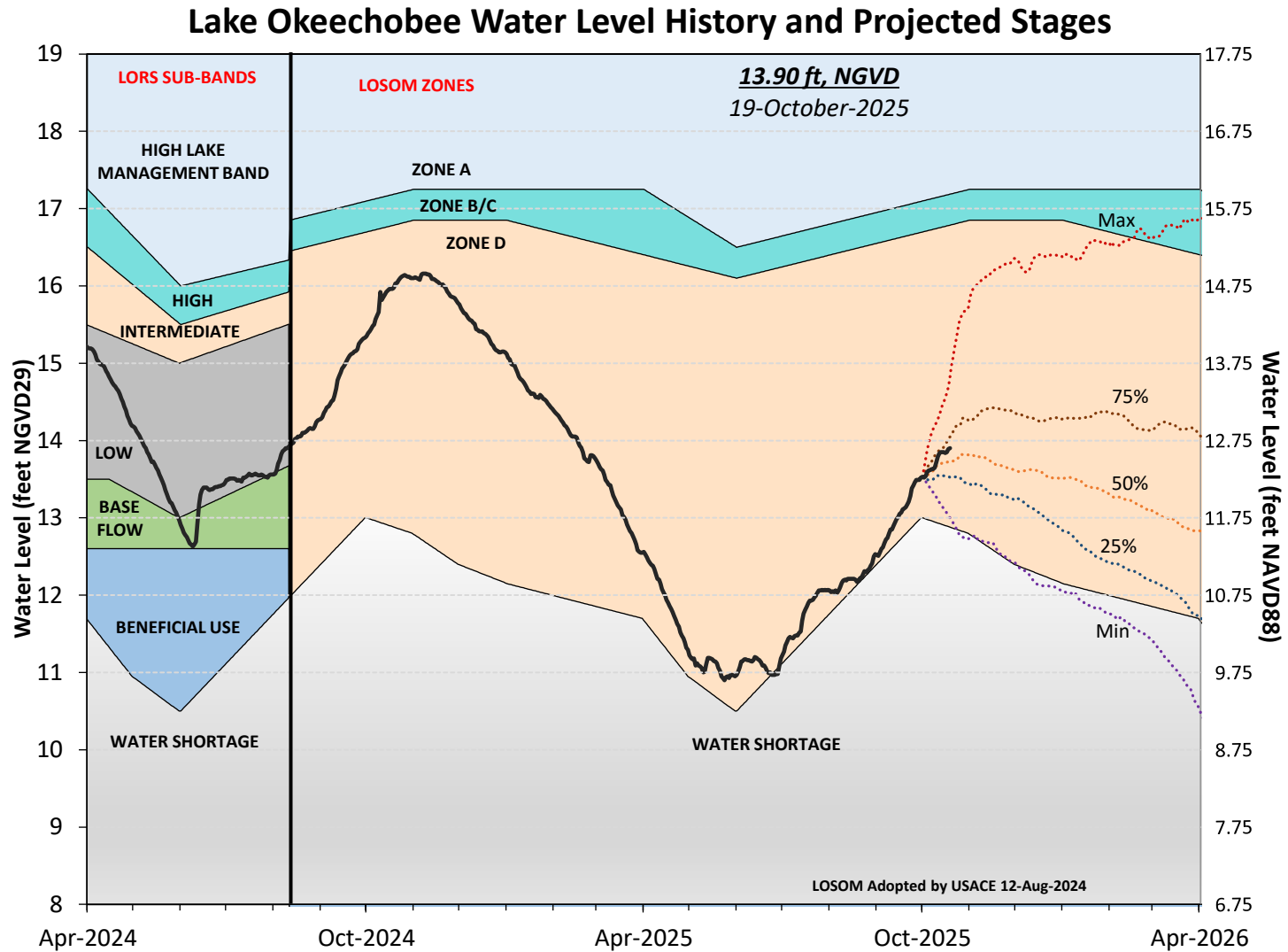


Figure LO-2. Recent Lake Okeechobee stages with projected stages based on a dynamic position analysis.
 Note: stages are in NGVD29, approximate NAVD88 values are shown for reference.

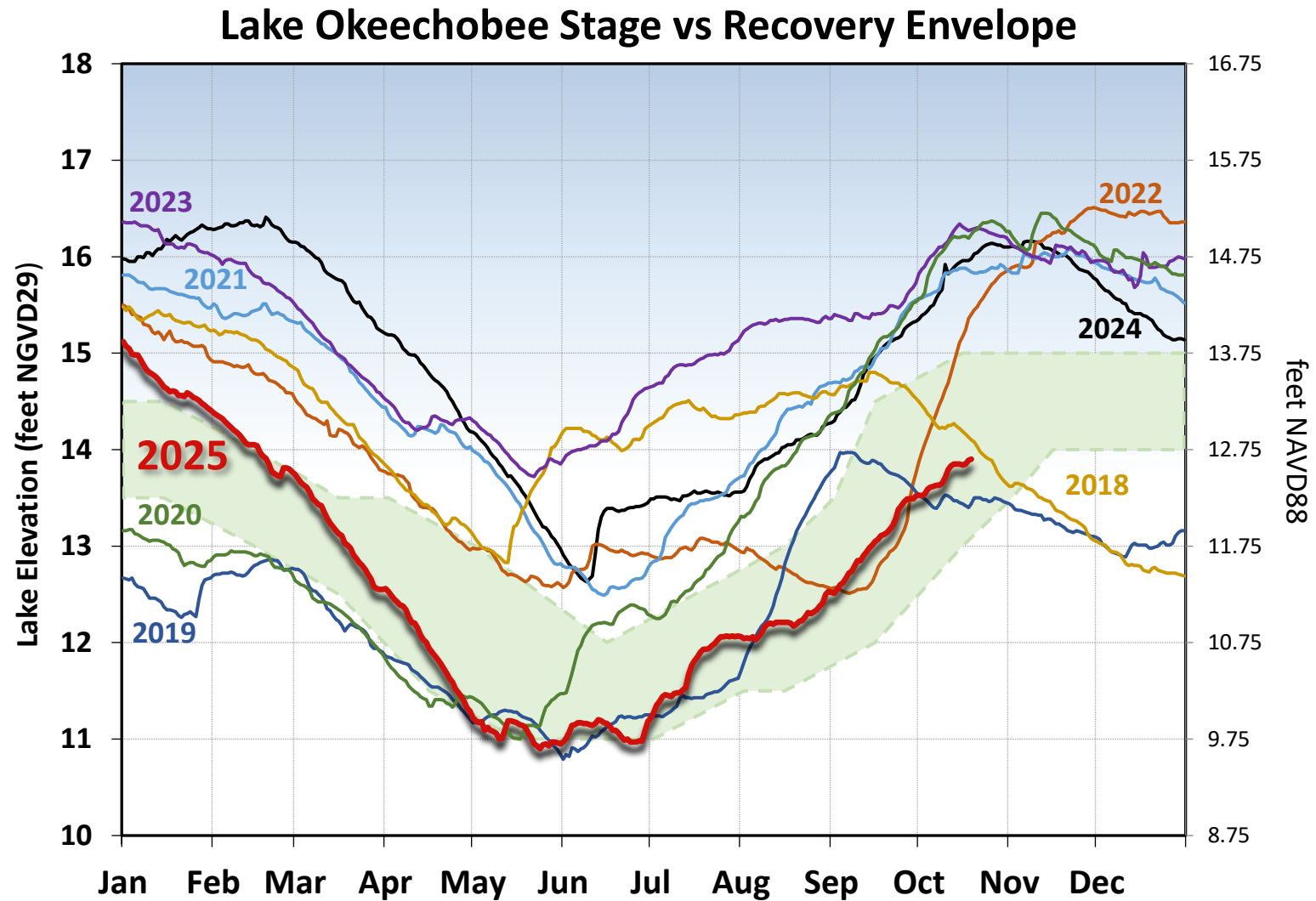


Figure LO-3. The current and seven prior year's annual stage hydrographs for Lake Okeechobee in comparison to the recovery envelope (light green). A shift from the normal to the recovery envelope occurred because the 30-day minimum lake stage (elevations exposed for at least 30 days, nonconsecutively)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

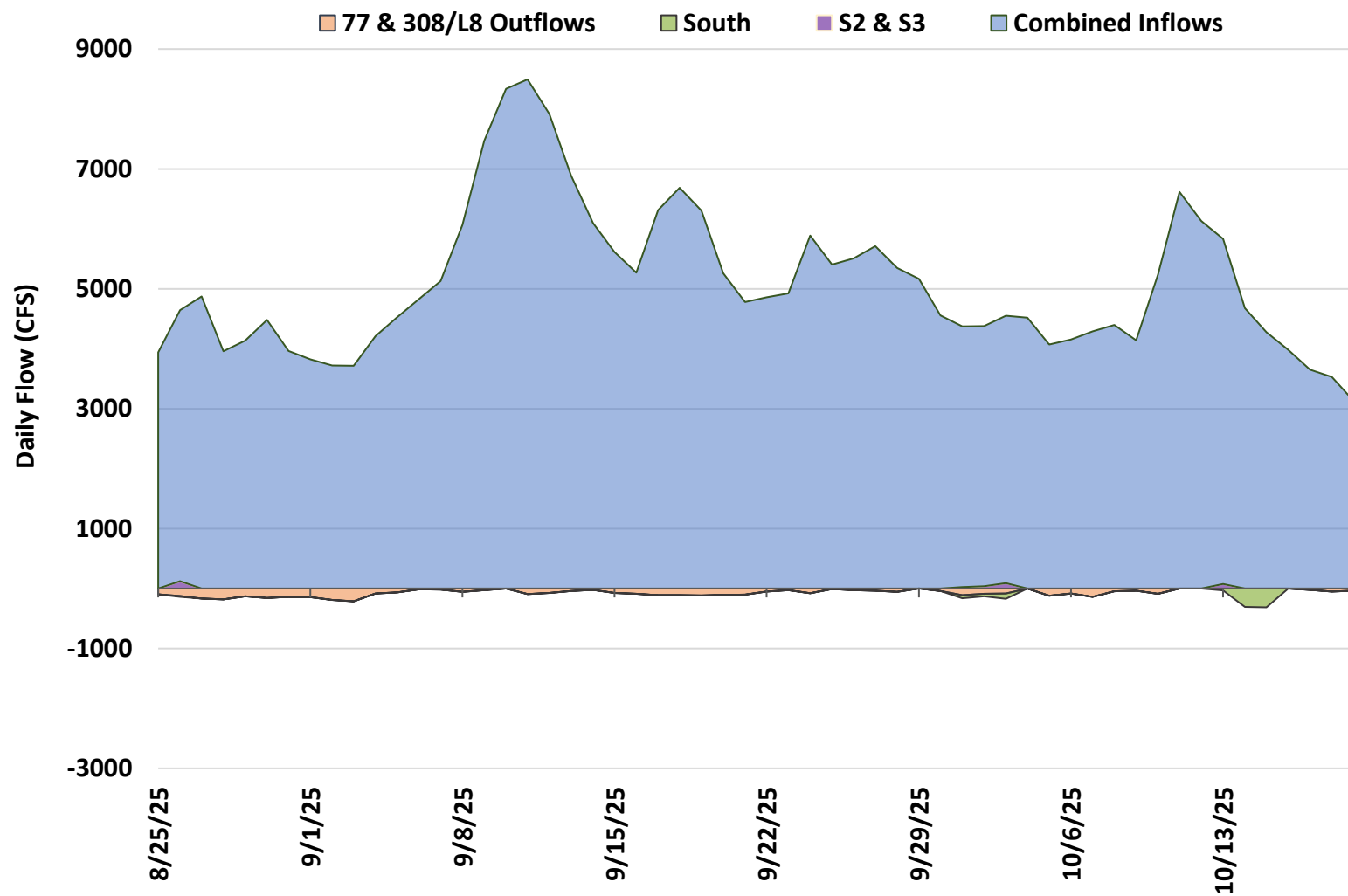


Figure LO-4. Major inflows (orange) to and outflows east and west (blue) from Lake Okeechobee. Outflows south are shown in green. Flows into Lake Okeechobee from the L-8 canal through S-271 (formerly Culvert 10A) or from the C-44 canal through the S-308 are included as inflows. Conversely, flows from 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.

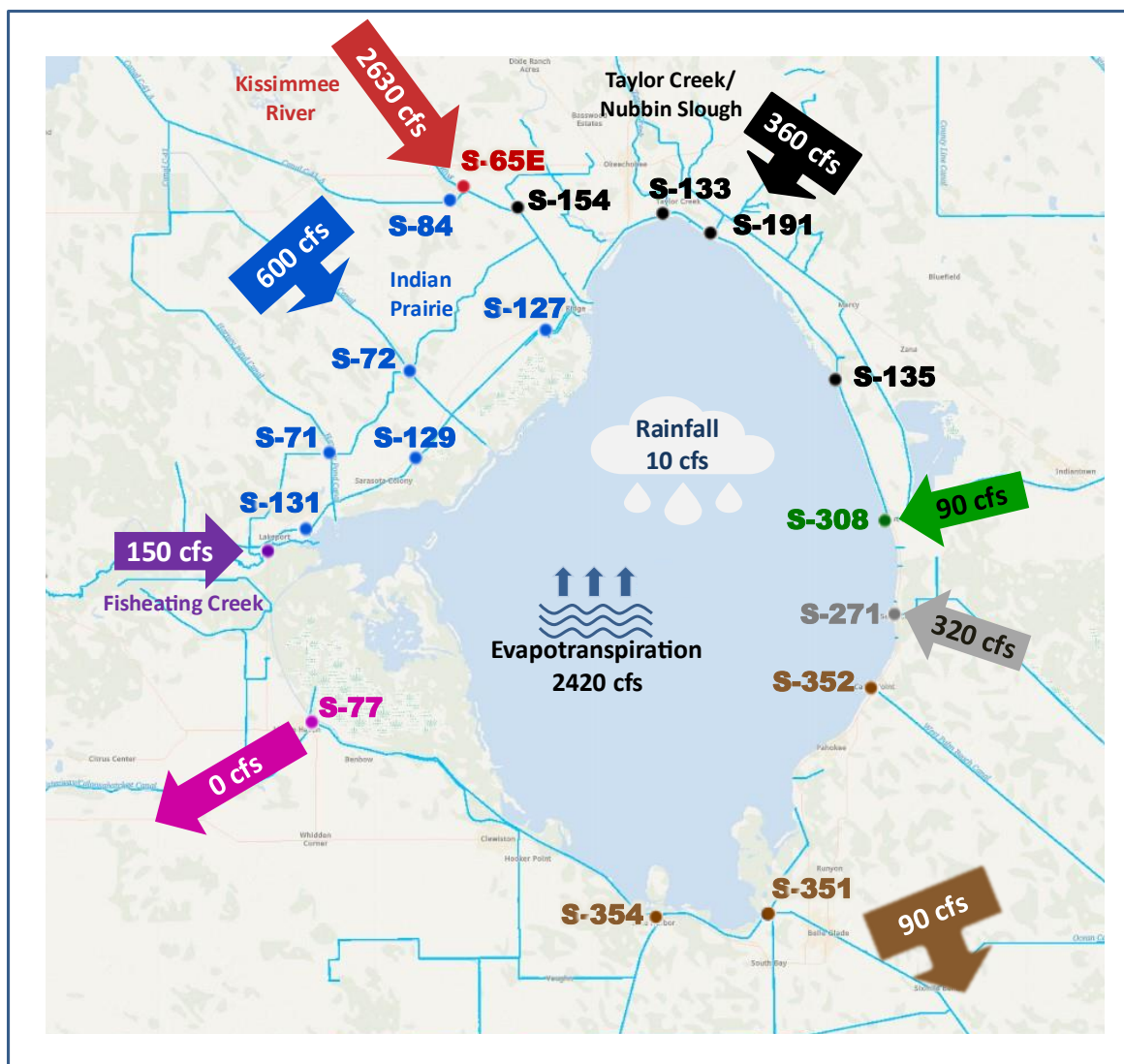


Figure LO-5. Inflows into Lake Okeechobee from Indian Prairie basins, Taylor Creek/Nubbin Slough, Kissimmee River and Fisheating Creek (currently no flow data available for FECR), and outflows to the west via S-77, to the east via S-308, to the south via S-351, S-352, S-354, and to southeast via S-271 (formerly Culvert 10A) for the week of Oct 13 -19, 2025.

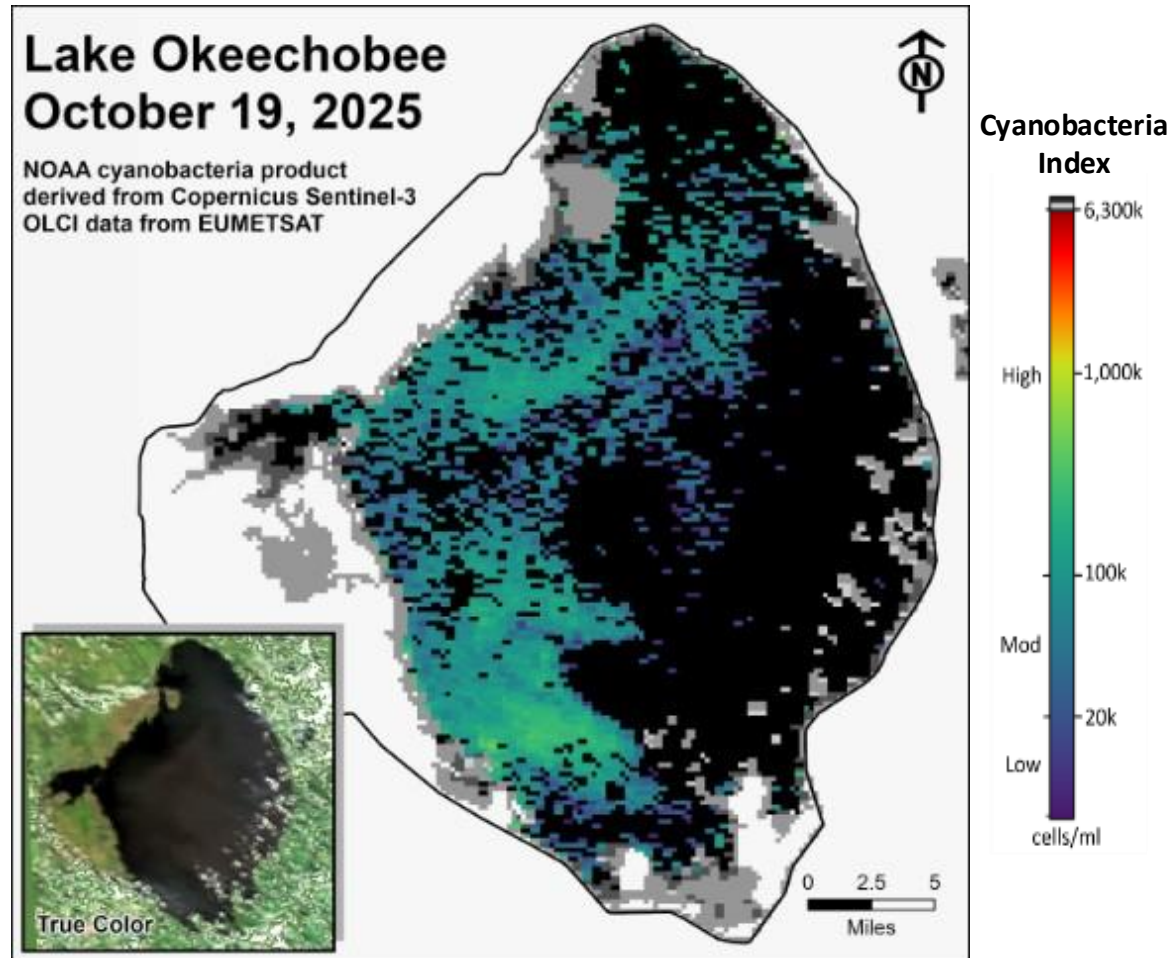


Figure LO-6. Cyanobacteria bloom index level on Lake Okeechobee, based on NOAA's harmful algal bloom monitoring system. Gray color indicates cloud cover. *Provisional NOAA image, subject to change*.

Collection Date: October 13 - 14, 2025

Station	CHL _a (ug/L)	TOXIN (ug/L)	TAXA	Station	CHL _a (ug/L)	TOXIN (ug/L)	TAXA
FEBIN	NS	NS	NS	L001		0.2	Planktol
FEBOUT	NS	NS	NS	L004		0.1	mixed
KISSR0.0		BDL	mixed	L006		0.3	Microcys
L005		0.1	Planktol	L007		0.6	Microcys
LZ2		0.2	Raphidio	L008		0.1	mixed
KBARSE		0.2	Raphi/Plank	LZ30		0.4	Micro/Dolic
RITTAE2		0.1	Microcys	LZ40		0.2	Planktol
PELBAY3		0.1	Microcys	CLV10A		0.1	mixed
POLE3S		0.3	Microcys	NCENTER		BDL	mixed
LZ25A		0.1	Dolichos				
PALMOUT		0.2	Raphi/Plank	S308C		BDL	mixed
PALMOUT1		0.1	Micro/Raphi	S77		BDL	mixed
PALMOUT2		0.1	Micro/Plank	SFWMD considers >40 µg/L Chlorophyll <i>a</i> (Chl _a) 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 <i>a</i> analyzed by SFWMD Toxin & Taxa analyzed by FDEP: <i>Microcys</i> = <i>Microcystis</i> ; <i>Raphi</i> = <i>Raphidiopsis</i> ; <i>Planktol</i> = <i>Planktolyngbya</i> ; <i>Dolicho</i> = <i>Dolichospermum</i> ; <i>Pseud</i> = <i>Pseudanabaena</i> ; <i>Woron</i> = <i>Woronichinia</i>			
PALMOUT3		0.2	Micro/Plank				
POLESOUT		0.1	Raphi/Plank				
POLESOUT1		0.2	Raphi/Plank				
POLESOUT2		0.2	Raphi/Plank				
POLESOUT3		0.1	mixed				
EASTSHORE		0.1	mixed				
NES135		0.2	Planktol				
NES191		0.1	mixed				

Toxins include cylindrospermopsin and/or microcystins

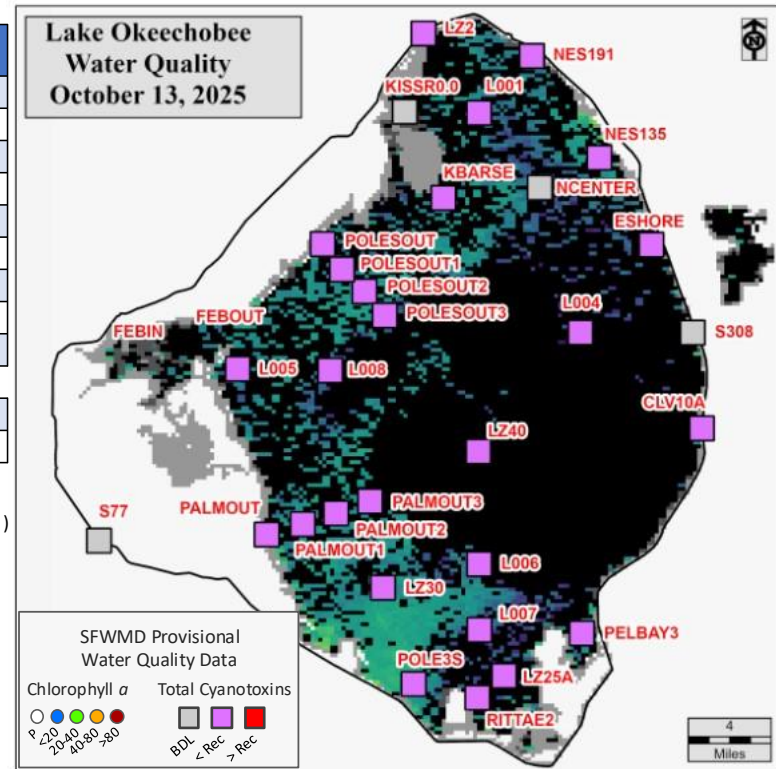


Figure LO-7. Dominant taxa, cyanotoxins (µg/L) and chlorophyll *a* (µg/L) concentration data from October 13 - 14, 2025. Sampling locations, chlorophyll *a*, and total toxin concentrations are overlaid on September 13, 2025, image from NOAA's harmful algal bloom monitoring system. Gray color indicates cloud cover.

Estuaries

St. Lucie Estuary

Over the past week, mean total inflow to the St. Lucie Estuary was 1,725 cfs (**Figures ES-1 and ES-2**), and the previous 30-day mean inflow was 2,580 cfs. For comparison, the historical provisional mean inflows from contributing areas are shown in **Figure ES-2**.

Over the past week, salinities increased at all sites (**Table ES-1 and Figure ES-3**). The seven-day moving average of the surface and bottom salinities at the US1 Bridge was 8.9. Salinity conditions in the middle estuary were estimated to be within the lower stress 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, which was an increase from the previous month (**Figure ES-5**).

Caloosahatchee River Estuary

Over the past week mean total inflow to the Caloosahatchee River Estuary was 1,078 cfs (**Figures ES-6 and ES-7**), and the previous 30-day mean inflow was 2,996 cfs. For comparison, the historical provisional mean inflows from the contributing areas are shown in **Figure ES-7**.

Over the past week, salinities were above 1 at S-79 and Val I-75. Surface salinities decreased slightly at Shell Point and increased at all 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 Cape Coral and Shell Point and in the upper stressed range at Sanibel (**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**).

Surface salinity at Val I-75 was forecast for the next two weeks using an autoregression model (Qiu and Wan, 2013¹) 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 202 cfs. Model results from all scenarios predict daily salinity to be 2.6 or lower and the 30-day moving average surface salinity to be 1.0 or lower at Val I-75 at the end of the two-week period (**Table ES-3 and Figure ES-13**). This keeps predicted salinities in the upper estuary within the optimal salinity range (0-10) for tape grass.

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

Red Tide

The FWRI reported on October 17, 2025, that *Karenia brevis*, the Florida red tide dinoflagellate, was not observed in any samples collected within the District region over the past week.

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.

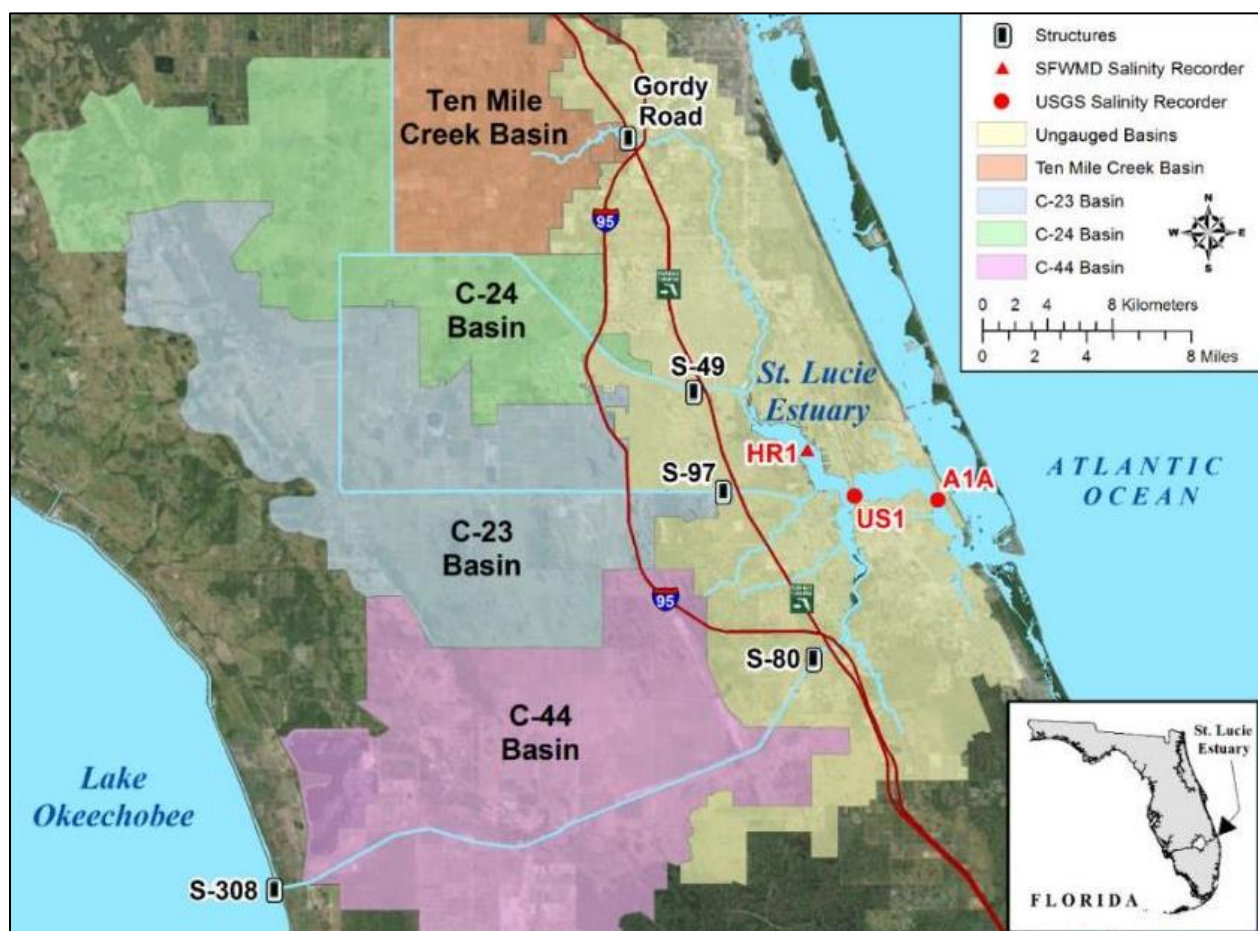


Figure ES-1. Basins, water control structures and salinity monitoring sites in the St. Lucie Estuary.

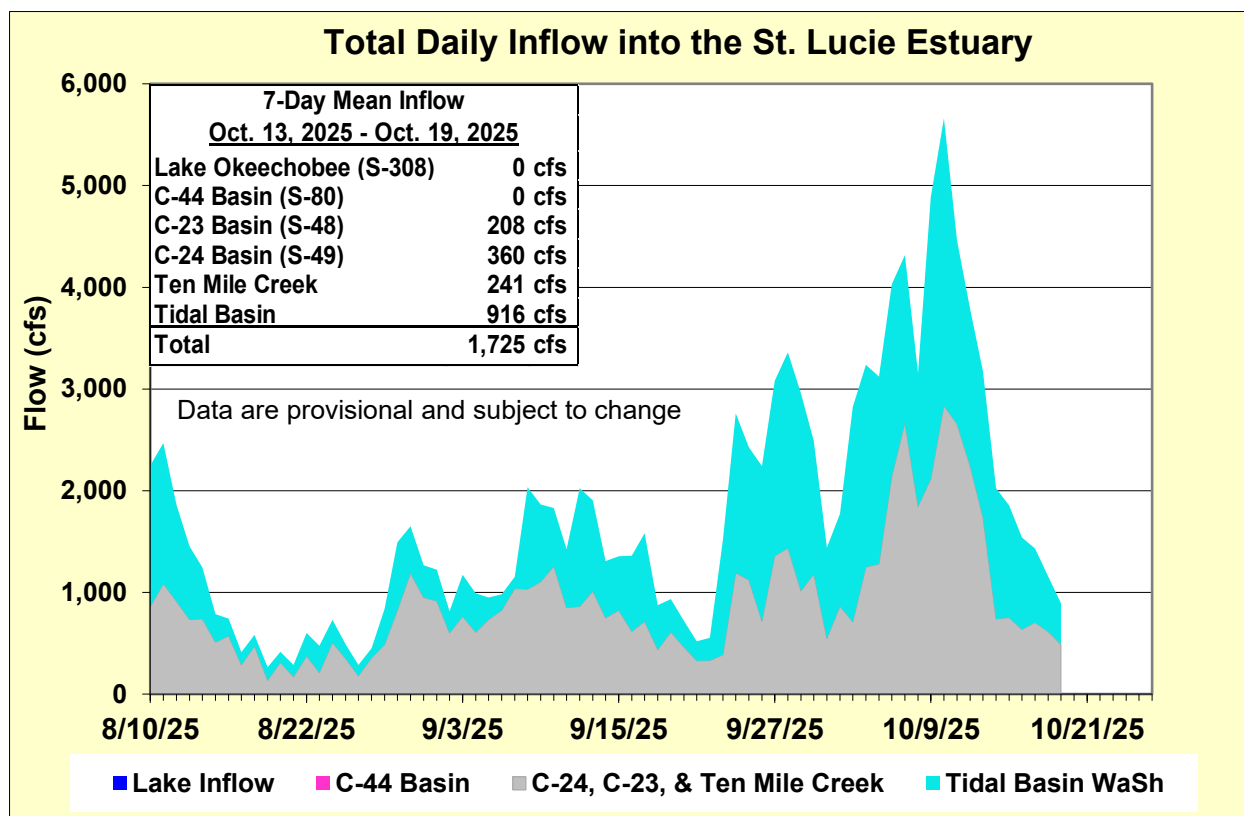


Figure ES-2. Total daily inflows from Lake Okeechobee and runoff from the C-44, C-23, C-24, Ten Mile Creek, and Tidal Basins into the St. Lucie Estuary.

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)	2.8 (1.0)	6.9 (5.1)	10.0 – 25.0
US1 Bridge	6.5 (4.3)	11.3 (5.5)	10.0 – 25.0
A1A Bridge	14.2 (11.8)	22.4 (19.4)	10.0 – 25.0

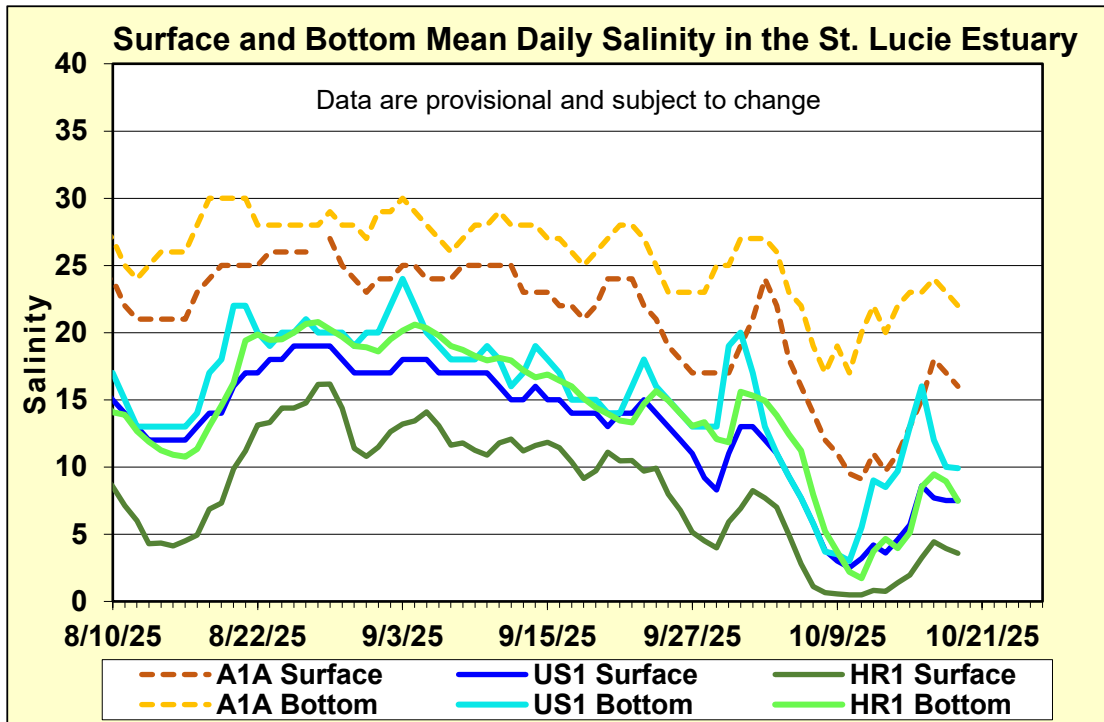


Figure ES-3. Mean daily salinity at the A1A, US1, and HR1 sites in the St. Lucie Estuary.

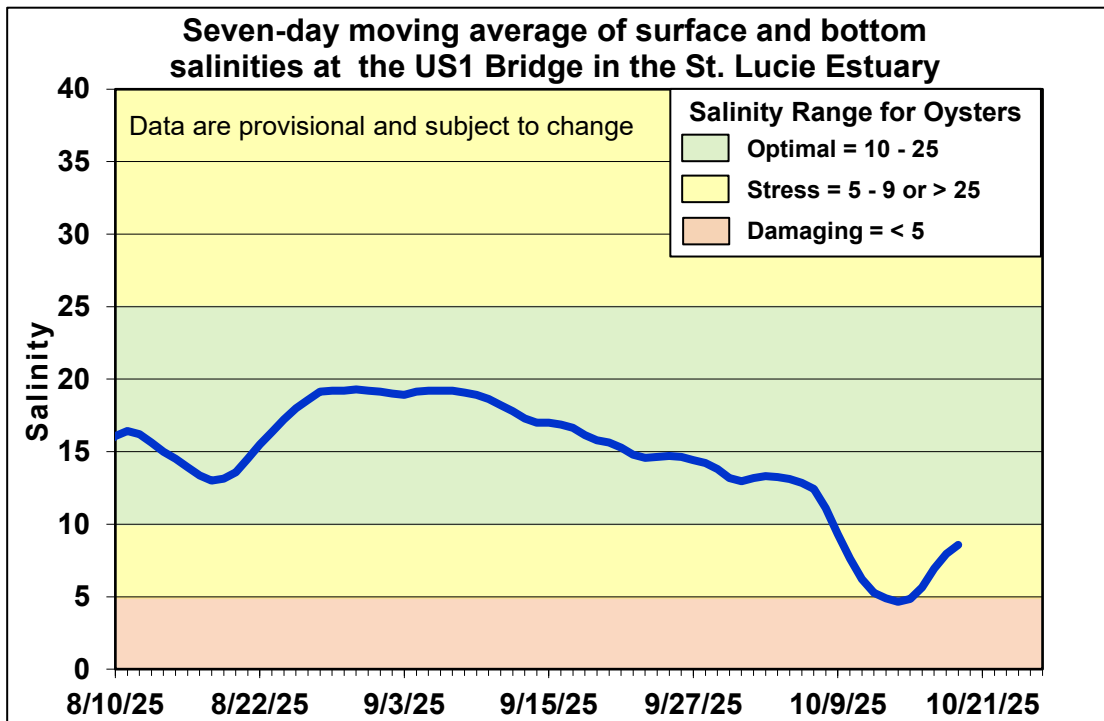


Figure ES-4. Seven-day moving average of the surface and bottom salinities at the US1 Bridge in the St. Lucie Estuary.

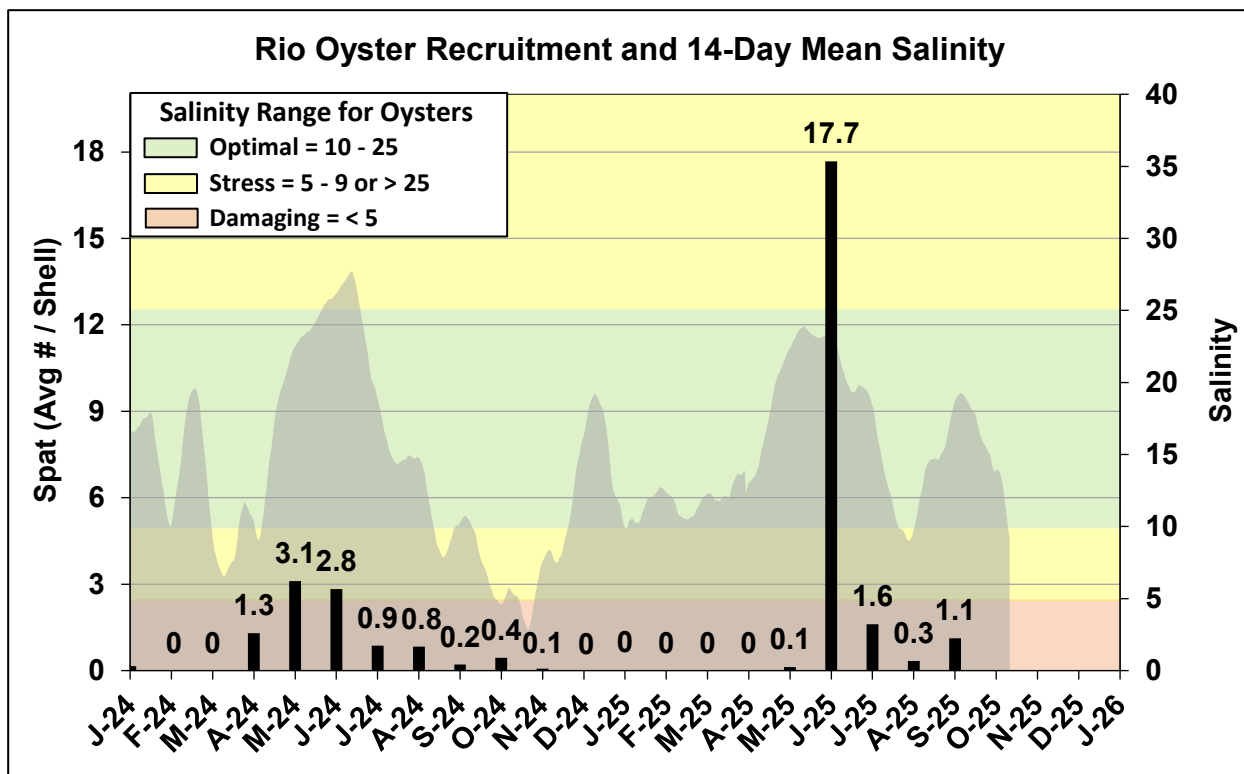


Figure ES-5. Mean oyster recruitment at the Rio oyster monitoring station and 14-day mean salinity at US1 Bridge.

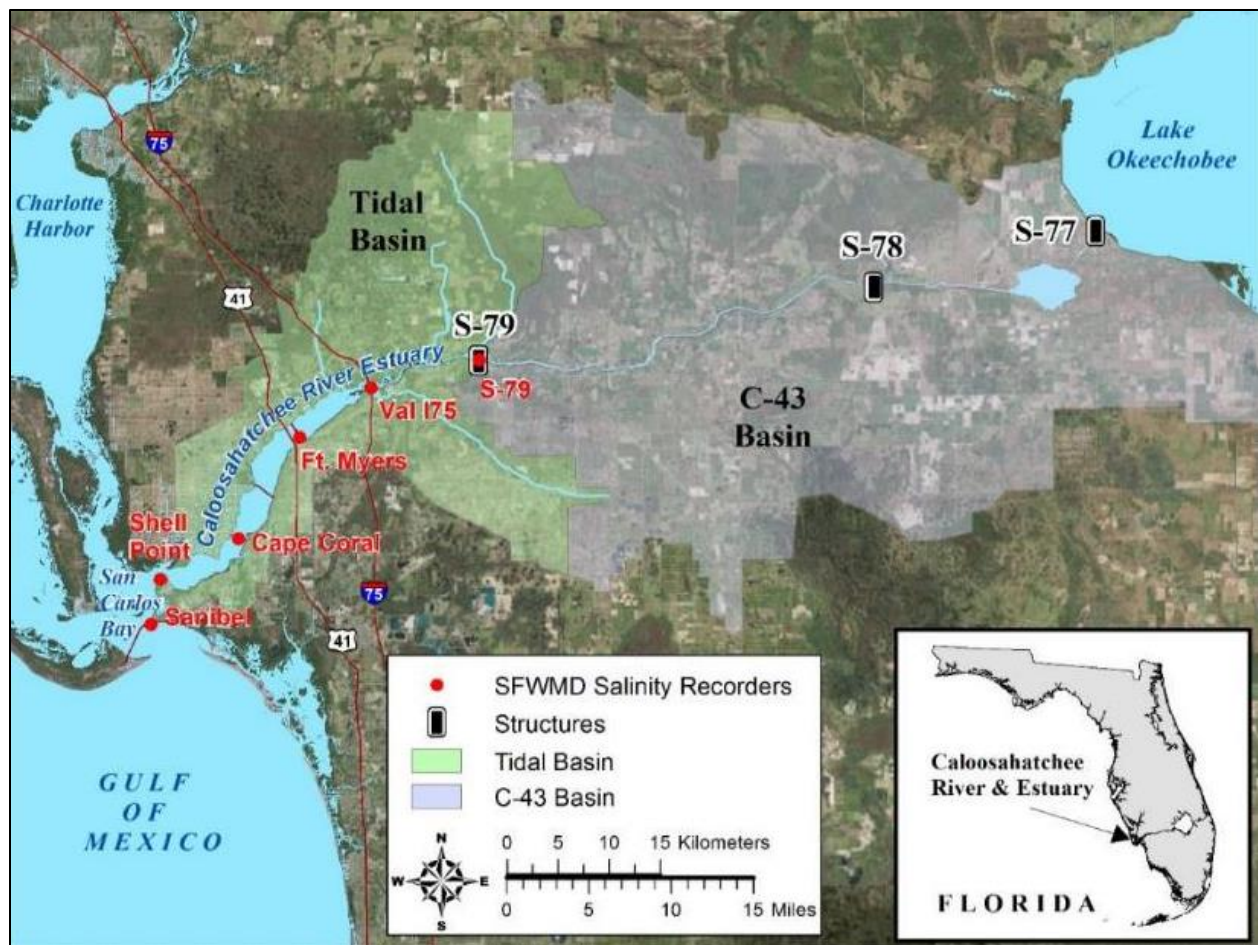


Figure ES-6. Basins, water control structures, and salinity monitoring sites in the Caloosahatchee River Estuary.

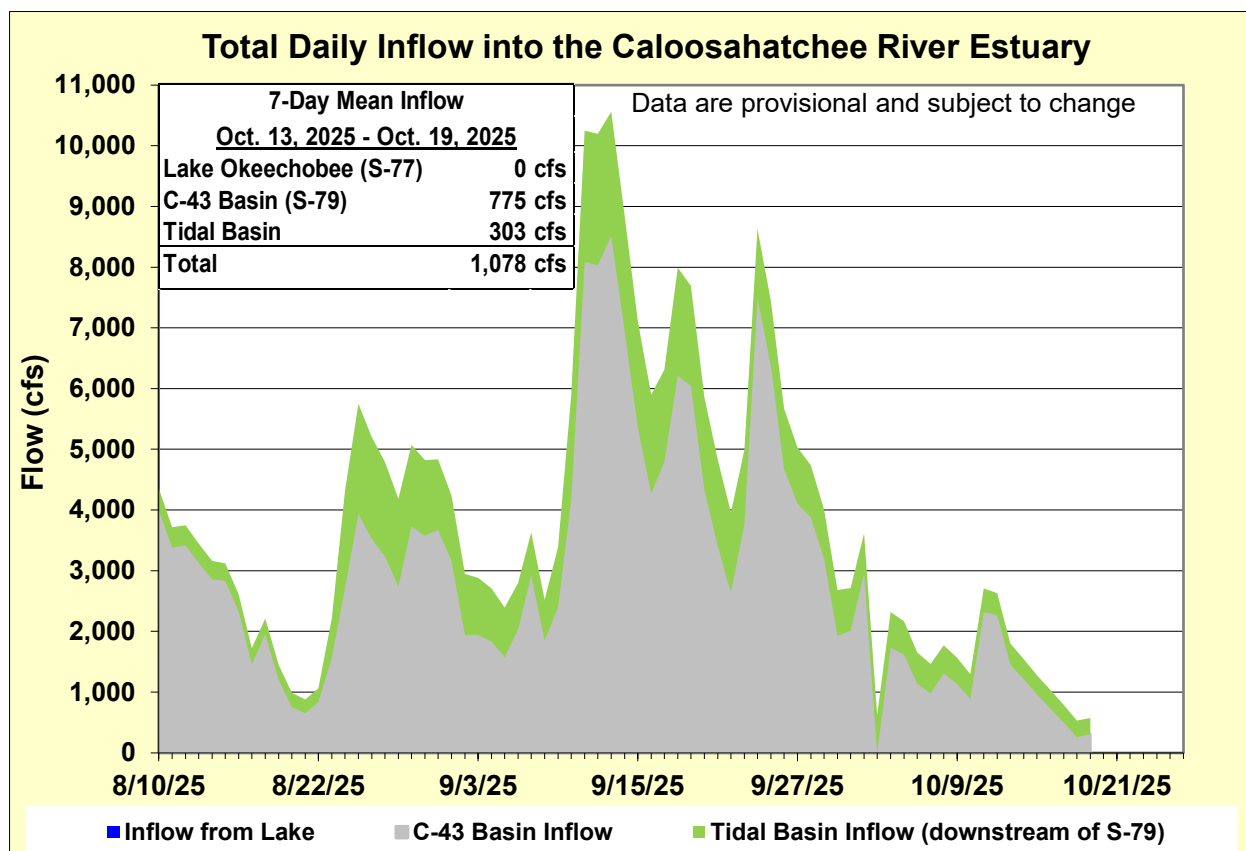


Figure ES-7. Total daily inflows from Lake Okeechobee, and runoff from the C-43 and Tidal basins into the Caloosahatchee River Estuary.

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)	2.0 (0.2)	2.1 (0.2)	0.0 – 10.0
Val I-75	1.2 (0.4)	2.9 (0.5)	0.0 – 10.0
Fort Myers Yacht Basin	5.9 (3.9)	8.8 (6.5)	0.0 – 10.0
Cape Coral	11.7 (10.3)	13.9 (13.2)	10.0 – 25.0
Shell Point	24.1 (24.2)	24.8 (25.5)	10.0 – 25.0
Sanibel	29.0 (28.2)	29.9 (30.1)	10.0 – 25.0

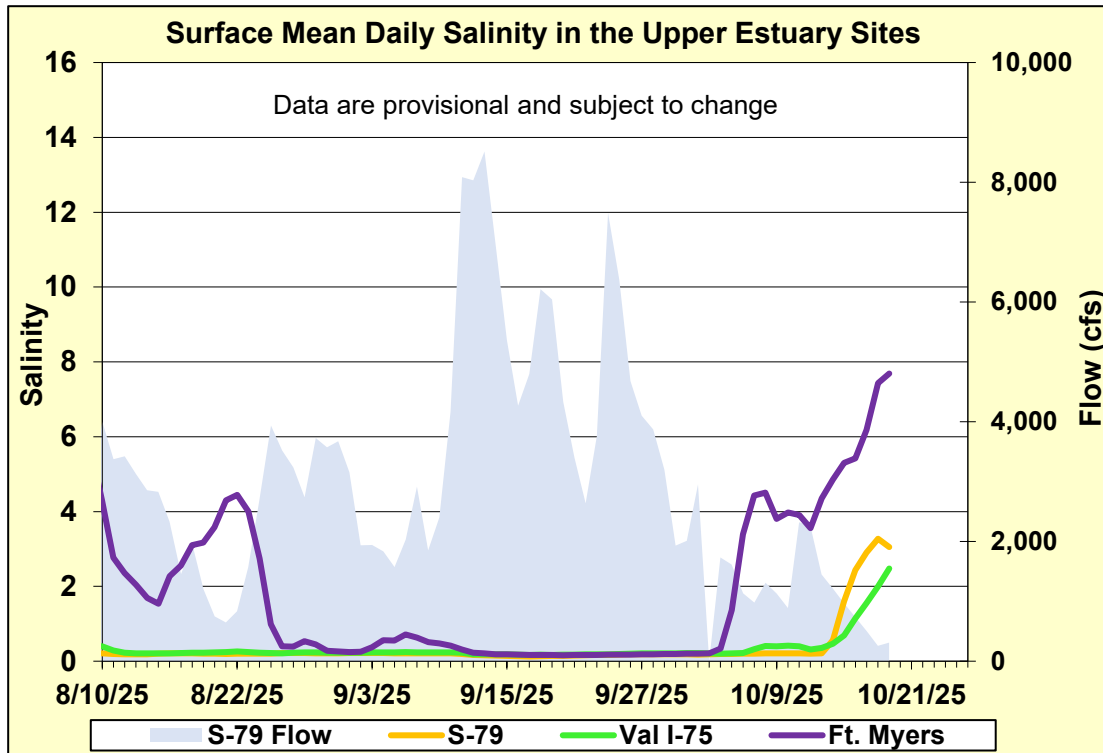


Figure ES-8. Mean daily salinity at upper Caloosahatchee River Estuary monitoring sites and mean daily flow at S-79.

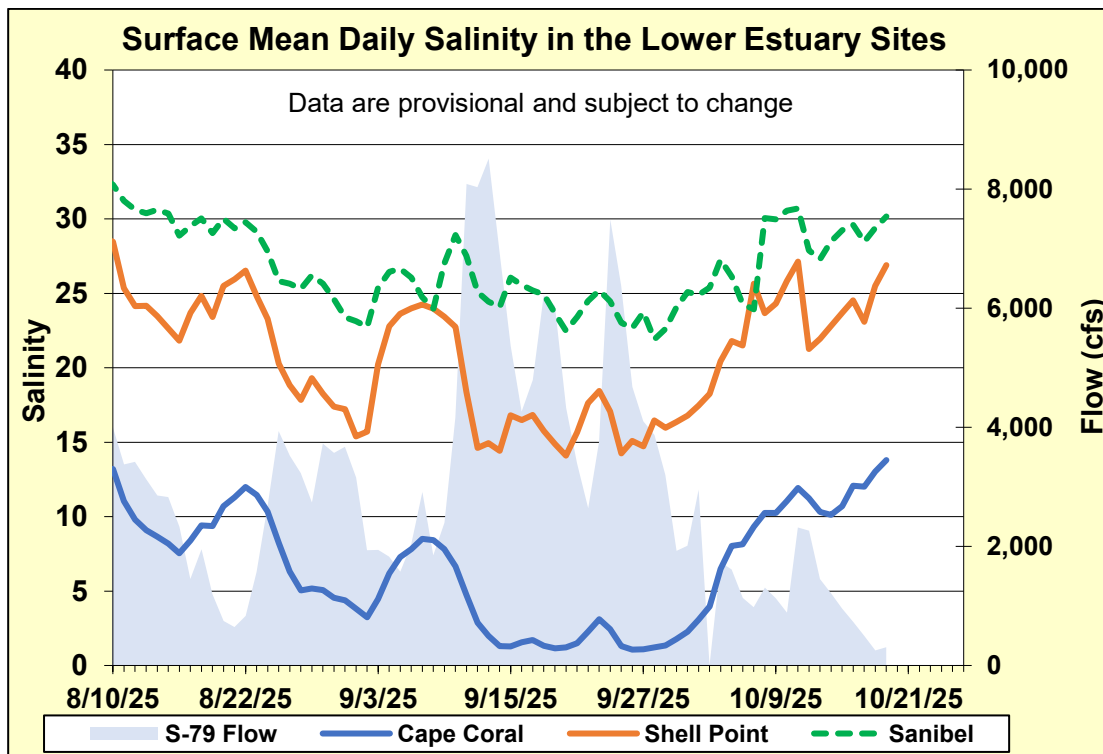


Figure ES-9. Mean daily surface salinity at lower Caloosahatchee River Estuary monitoring sites and mean daily flow at S-79.

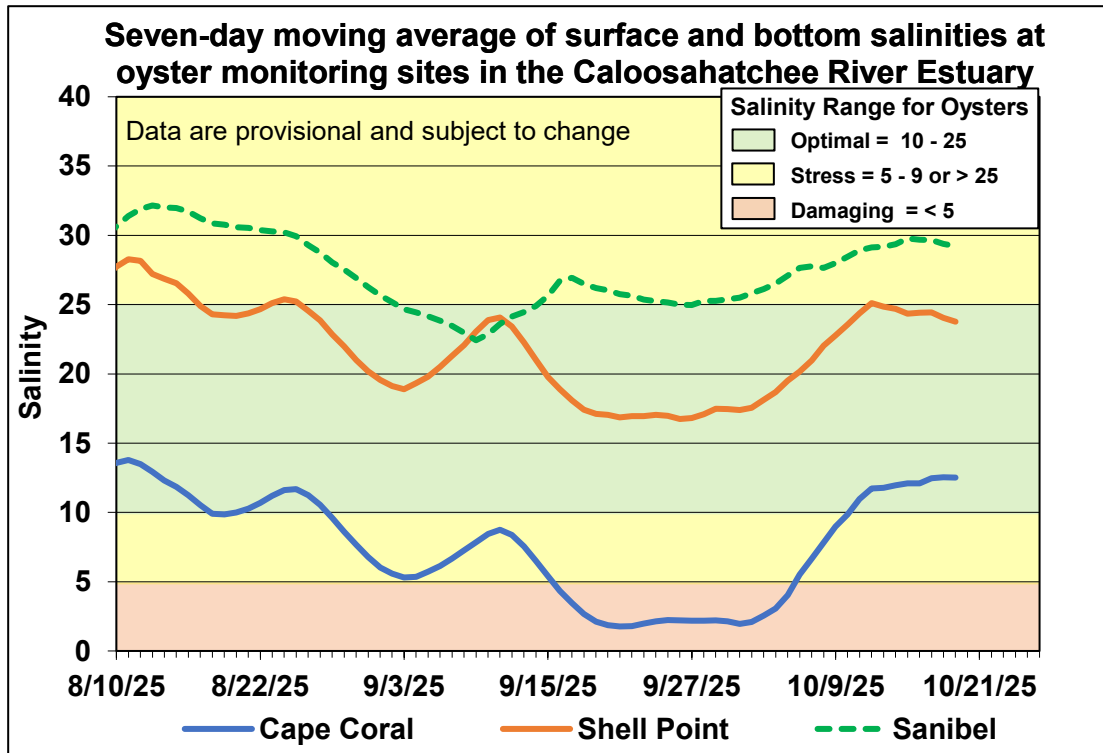


Figure ES-10. Seven-day moving average of surface and bottom salinities at Cape Coral, Shell Point, and Sanibel monitoring sites in the Caloosahatchee River Estuary.

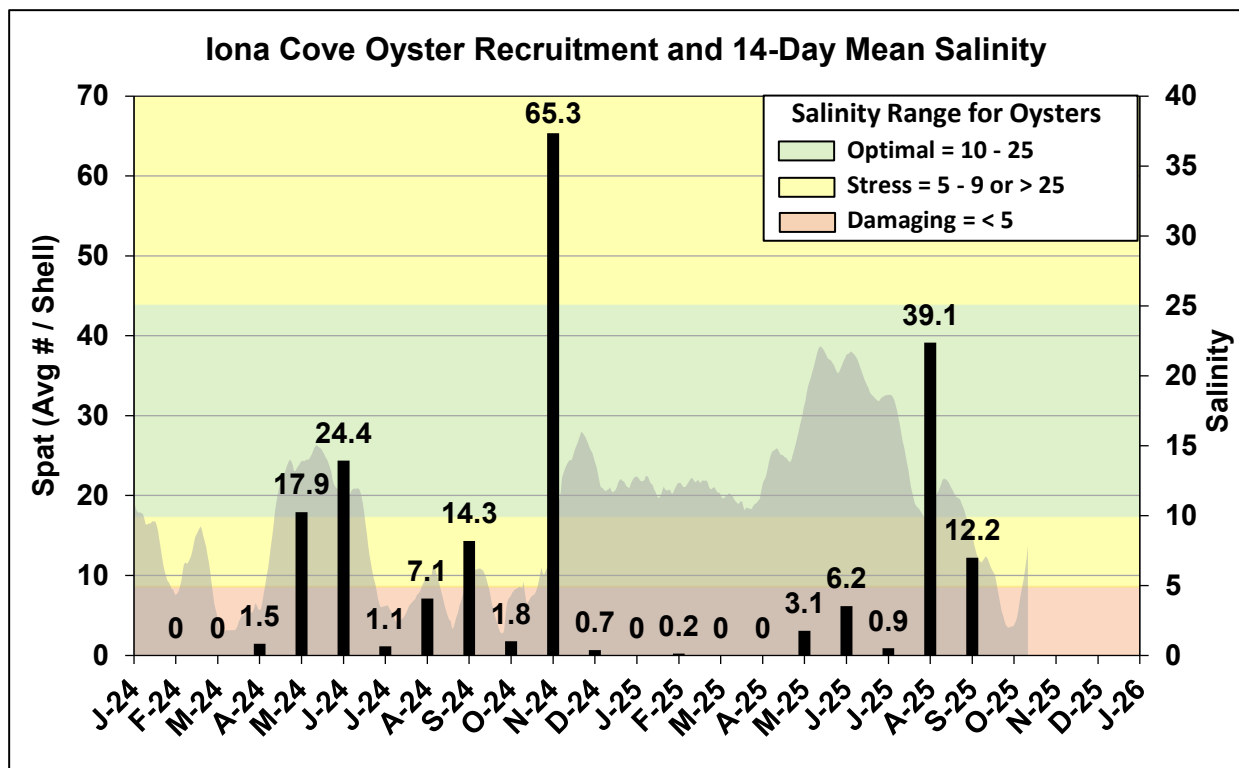


Figure ES-11. Mean oyster recruitment at the Iona Cove oyster monitoring station and 14-day mean salinity at Cape Coral.

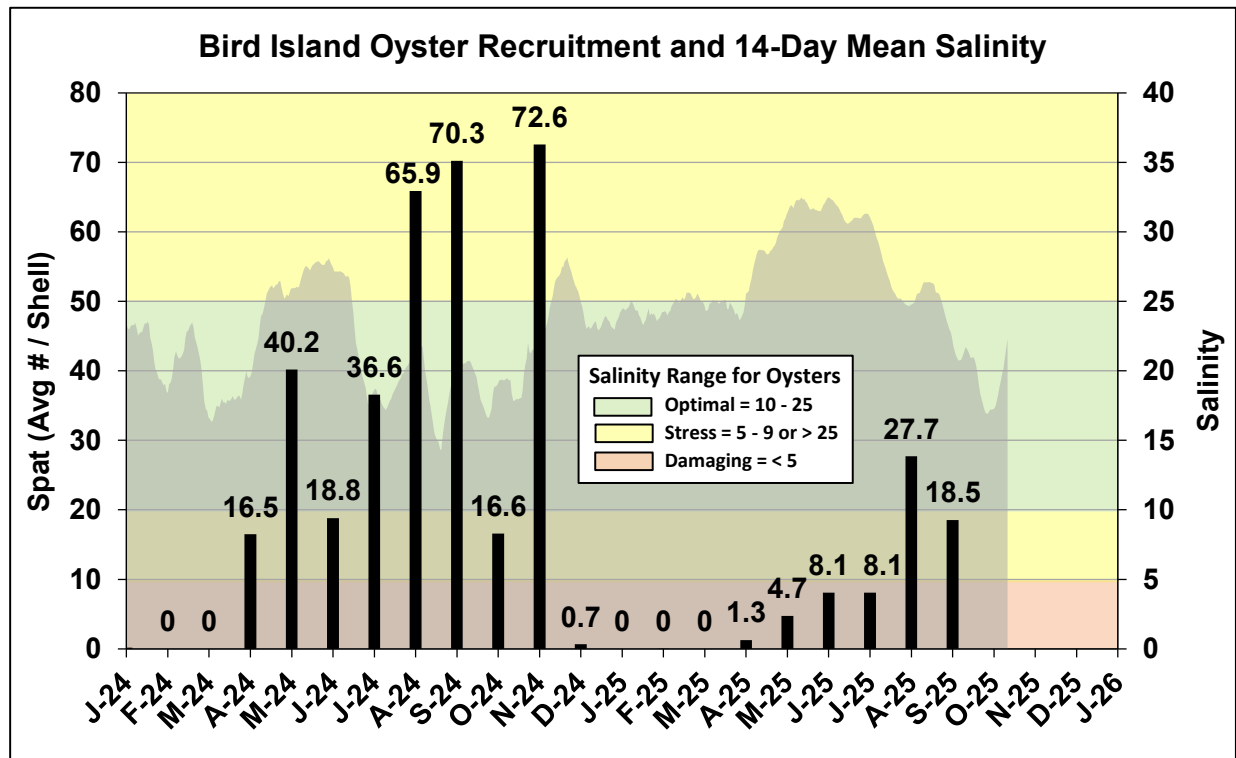


Figure ES-12. Mean oyster recruitment at the Bird Island oyster monitoring station and 14-day mean salinity at Shell Point.

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	202	2.6	1.0
B	750	202	1.9	0.9
C	1,000	202	1.4	0.7
D	1,500	202	0.4	0.6
E	2,000	202	0.3	0.5

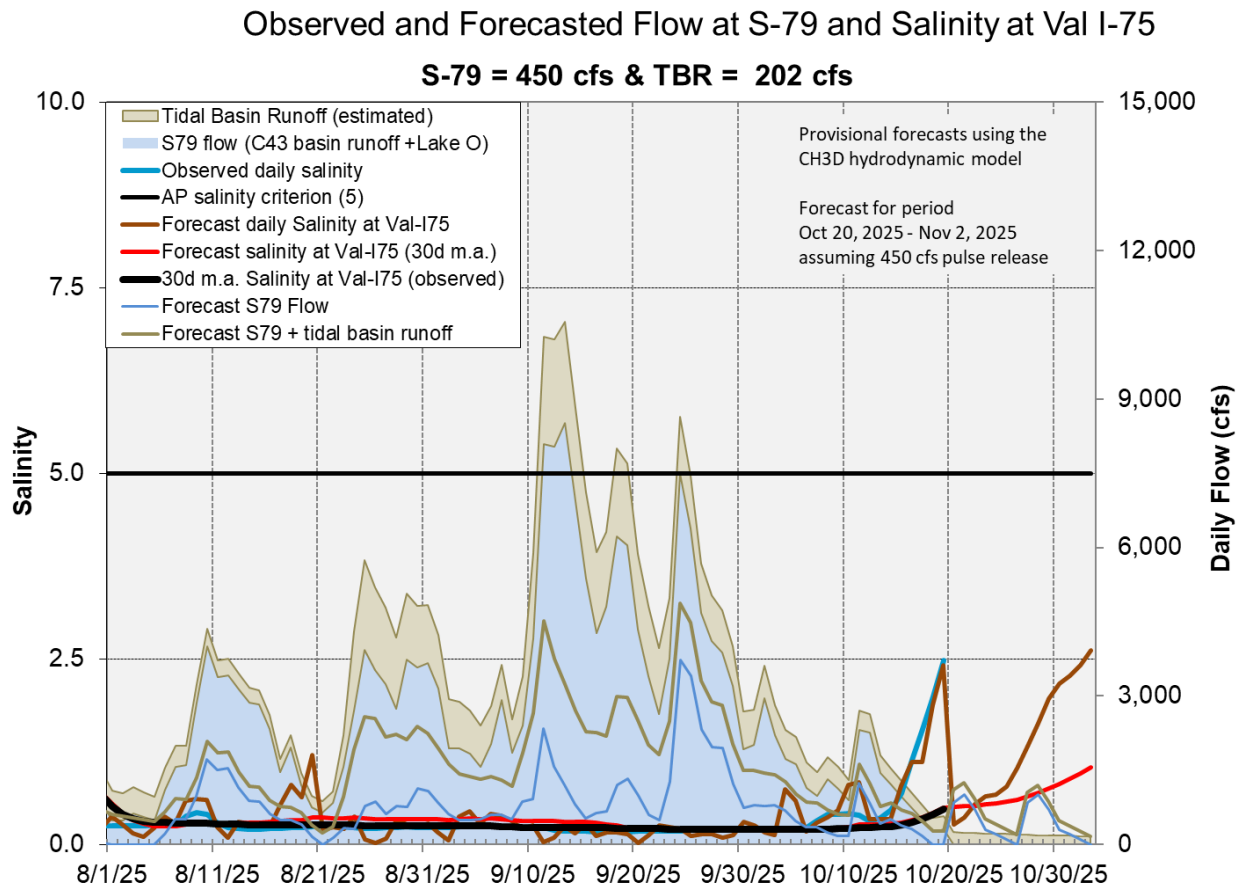


Figure ES-13. Surface salinity forecast at the Val I-75 site assuming a 450 cfs pulse release at S-79.

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/m²/year (**Figure S-2**).

STA-1W: STA-1W Eastern Flow-way is online with restrictions for G-253 structure replacements. Treatment cells are near 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/m²/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 at or above target stage. The 365-day PLRs for all Flow-ways are below 1.0 g/m²/year (**Figure S-3**).

STA-3/4: An operational restriction is in place in the Eastern Flow-way for vegetation management activities. 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/m²/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/m²/year. (**Figure S-4**).

For definitions on STA operational language see glossary following figures.

- Total WY2026 inflows to STAs (5/1/2025 to 10/19/2025): ~494,200 ac-ft
- Lake Okeechobee releases to FEBs/STAs
 - 10/13/2025 to 10/19/2025: 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

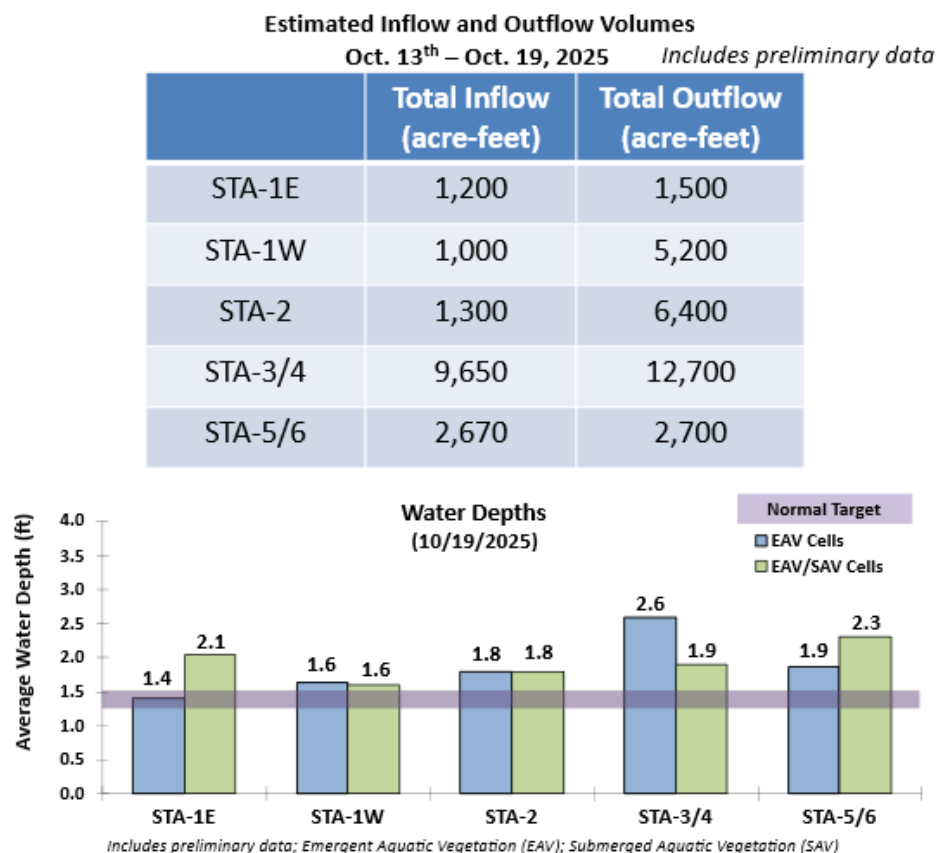


Figure S-1. STA depths and flow volumes

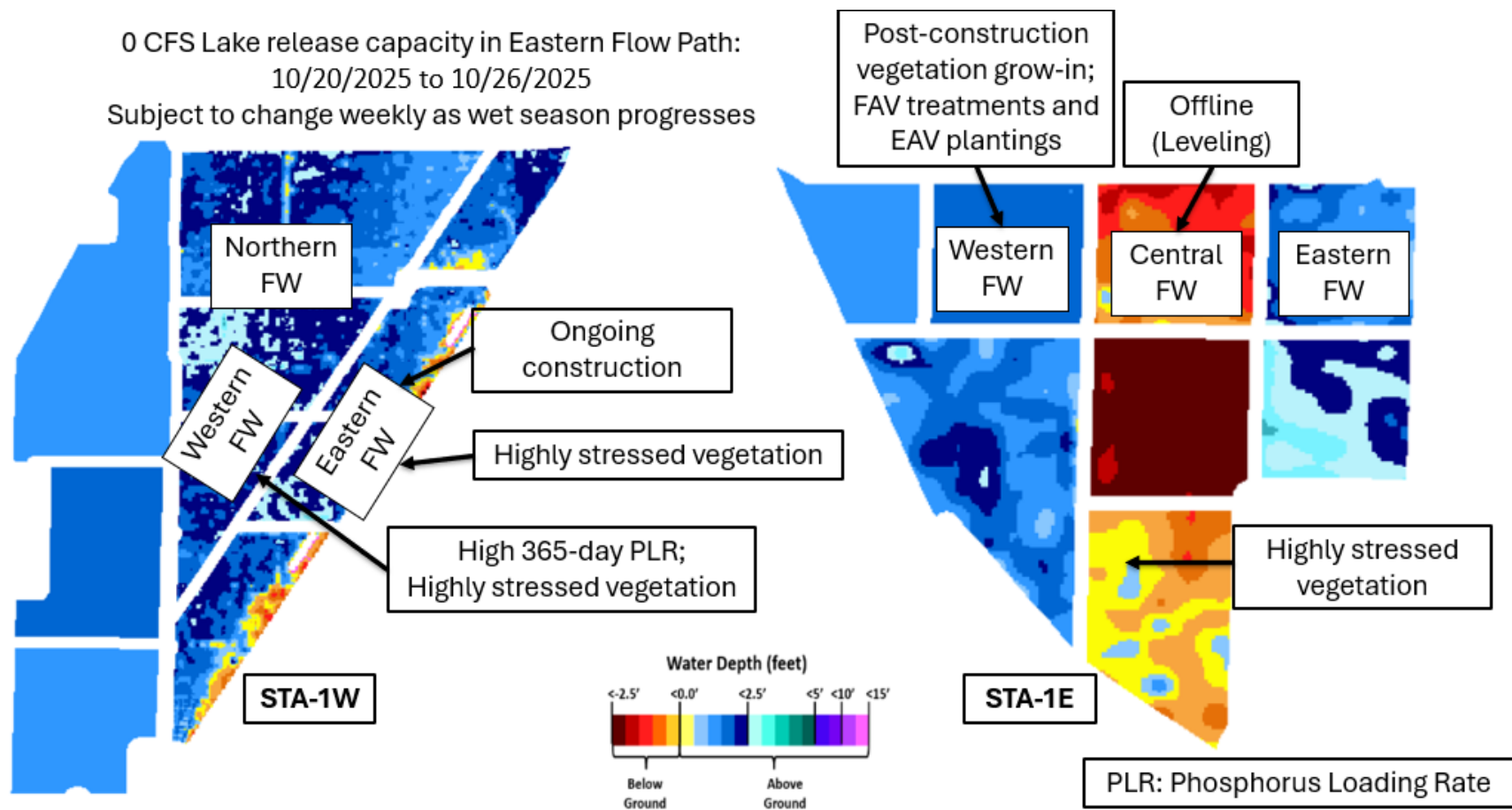


Figure S-2. Eastern Flow Path Weekly Status Report

0 CFS Lake release capacity in Central Flow Path:
10/20/2025 to 10/26/2025

- Subject to change weekly as wet season progresses

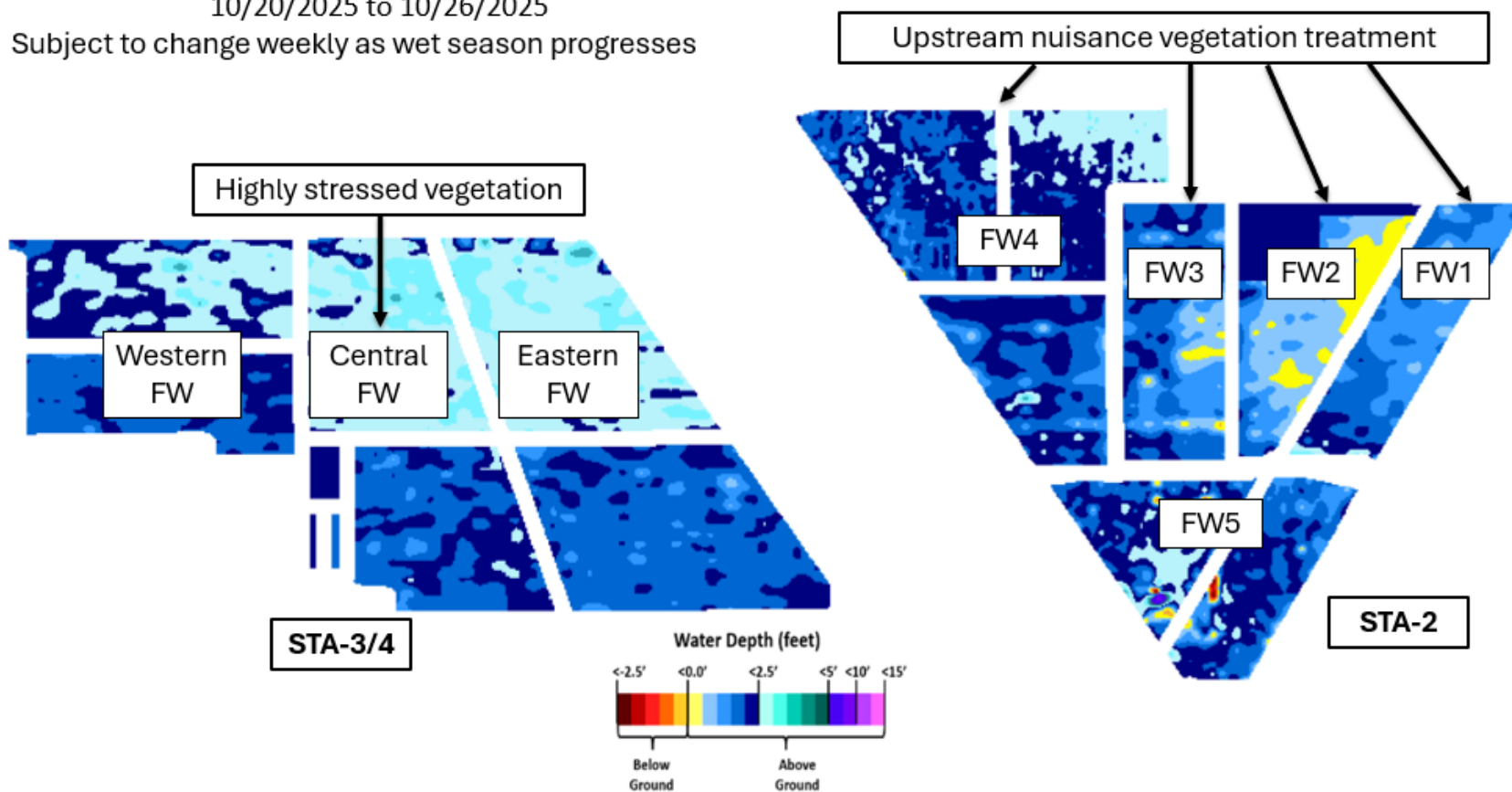


Figure S-3. Central Flow Path Weekly Status Report

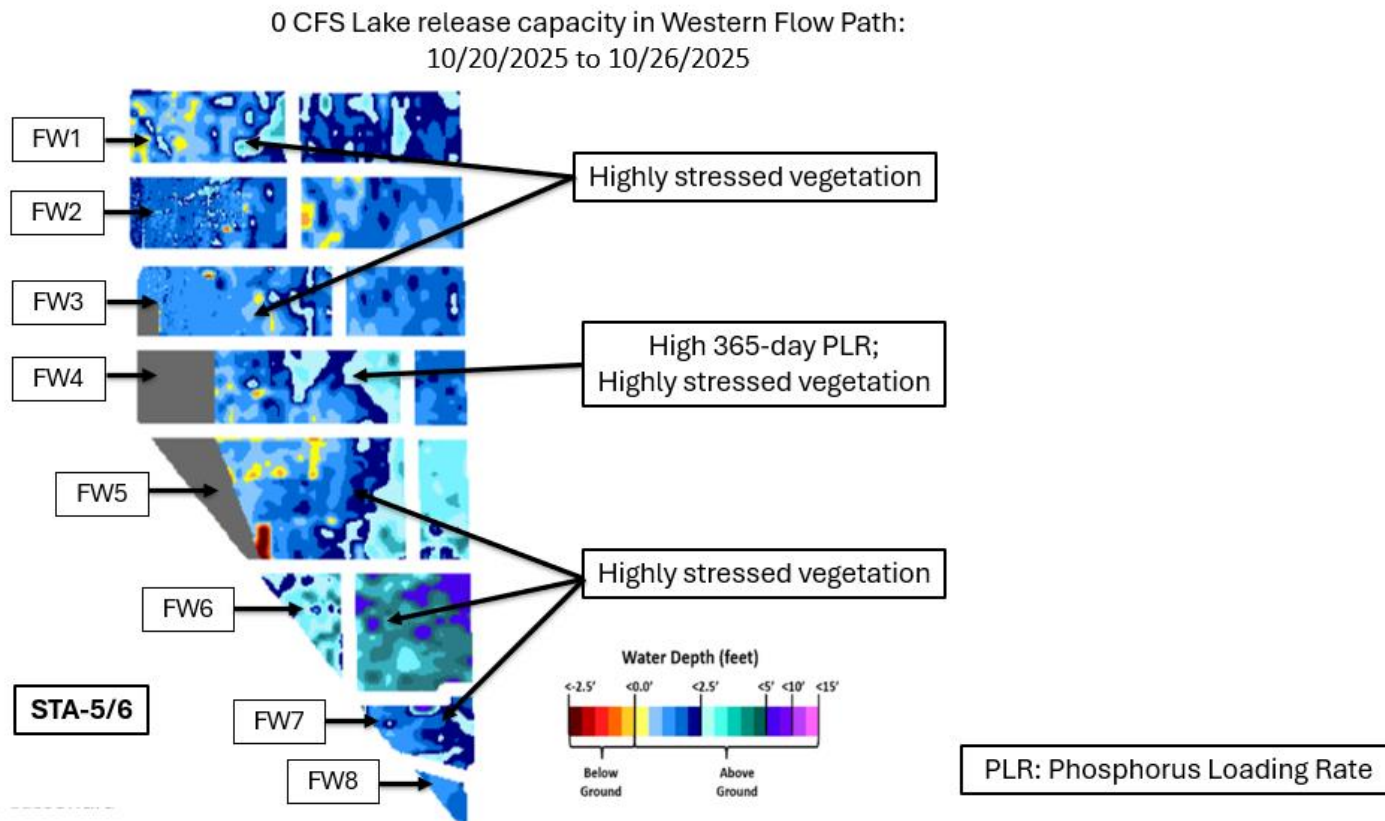


Figure S-4. Western Flow Path Weekly Status Report

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: Change at the 3-gauge average stage was minimal last week, stages were 0.50 feet below the flat A1 Zone regulation line on October 19th, 2025. WCA-2A: Stage at the 2-17 gauge fell slightly last week but remains 1.50 feet above the A1 Zone regulation line. WCA-3A: The 3-gauge average remains in Zone B, and stage change was minimal. On Sunday, stages were around 0.72 feet below the Zone A regulation line. WCA-3A North: Stage at Gauge 62 (NW corner) decreased and remains 0.63 feet below the Upper Schedule regulation line as of Sunday. See **Figures EV-1 through EV-4**.

Water Depths

The SFWDAT model output for October 19, 2025, illustrates a continued steady increase in depths within WCA-1. The southern two-thirds of WCA-2A are very deep for this time of year. The entire WCA-2A basin remains well above the average depth for this time of year, with a majority of that basin in the 90th percentile. Dry conditions persist in Northeastern WCA-3A along the L-38W canal. Depths show slight increases across WCA-3A but remain relatively low in southern and northeastern WCA-3A North, limiting aquatic prey production in these regions that are key to wading birds foraging. Conditions remain in the 10th percentile across a majority of WCA-3A. Hydrologic connectivity continues to strengthen in all three major sloughs within Everglades National Park (ENP). See **Figures EV-5 through EV-6**.

Taylor Slough and Florida Bay

All stages across Taylor Slough decreased, averaging a decrease of 0.20 feet for the week. Changes ranged from -0.27 feet at Taylor Slough Bridge (TSB) in the northern slough to -0.14 feet at EPSW in the C-111 area (**Figure EV-8 and Figure EV-9**). Taylor Slough water levels remain above the recent average (WY1993-2016) for this time of year by 2.8 inches compared to before the Florida Bay initiative (starting in 2017), a decrease of 2.7 inches compared to last week. The Craighead Pond (CP) and TSB stages remain below the estimated historical average (circa 1900) by 0.51 and 1.25 feet, respectively.

Average Florida Bay salinity was 25.8, a decrease of 0.3 from last week. Salinity changes ranged from -3.9 at Little Madeira Bay (LM) to +3.2 at Long Sound (LS), both in the eastern nearshore region (**Figure EV-8**). Salinity is above the estimated historical average (circa 1900) and is within the WY2001-2016 Interquartile Range (IQR) for all three regions, though is nearing the 75th percentile in the central region (**Figure EV-10**). Average Florida Bay salinity remains above its recent average (WY1993-2016) for this time of year by 2.8, a decrease of 0.3 compared 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 5.3 from last week (**Figure EV-11**). The 365-day moving sum of flow from the five major creeks (McCormick Creek, Taylor River, Mud Creek, Trout Creek, West Highway Creek) was 212,097 acre-feet, a decrease of 11,519 acre-feet from last week (**Figure EV-11**).

Average rainfall across Taylor Slough and Florida Bay was approximately 0.31 inches over the past week, based on the 18 gauges used for this report. Rainfall ranged from 0.0 inches at Long Sound (LS) in the eastern nearshore region to 0.92 inches at Johnson Key (JK) in the western region (**Figure EV-12**). Wind directions and speeds in Florida Bay ranged from 0.6 mph NW on October 13th to 22.9 mph NE on October 18th (**Figure EV-12**).

Average daily flow from the five major creeks totaled 2,953 acre-feet, with net positive flows for the week. Total daily creek flow ranged from 1,197 acre-feet on October 19th to 4,864 acre-feet on October 14th (**Figure EV-13**). Average daily flow was 2,088 acre-feet below estimated historical levels (circa 1900). Average daily flow from Alligator creek was unable to be assessed due to missing data (**Figure EV-13**).

Implications/considerations for water management.

- Stage has increased within the Everglades Protection Area over the last month. But with the wet season coming to a close, the depths within WCA-3A are not high enough (need ~2.5 to 3.0 feet peak depths) to recover aquatic prey populations from antecedent dry conditions or to protect peat soils throughout the dry season, especially given a La Niña climate prediction this winter.
 - WCA-3A South and WCA-3A North, east of the Miami canal, continue to experience unseasonably dry conditions.
 - Populations of prey, already 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 conditions.
 - This has the potential to further extend the recent run of 4 consecutive poor wading bird nesting years into the 2026 nesting seasons.
 - With the potential for another La Niña dry season, conserving water within the WCAs in the early dry season may prove ecologically beneficial, especially in regions prone to dry out (e.g. WCA-3A North).
- Water depths are deep (~3.5 feet) in south-central WCA-2A impeding recovery of ridge and slough habitat.
- Taylor Slough water depths remain above recent averages. However, salinities are above their recent average in Florida Bay.
 - All regions of the Bay are within the interquartile range.
 - Continued freshwater input through Taylor Slough and increased local rainfall would help moderate salinities and support recovery of estuarine conditions.
- 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	0.22	+0.00
WCA-2A	0.07	-0.03
WCA-2B	<0.01	+0.11
WCA-3A	0.21	-0.07
WCA-3B	0.05	-0.05
ENP	0.14	-0.05

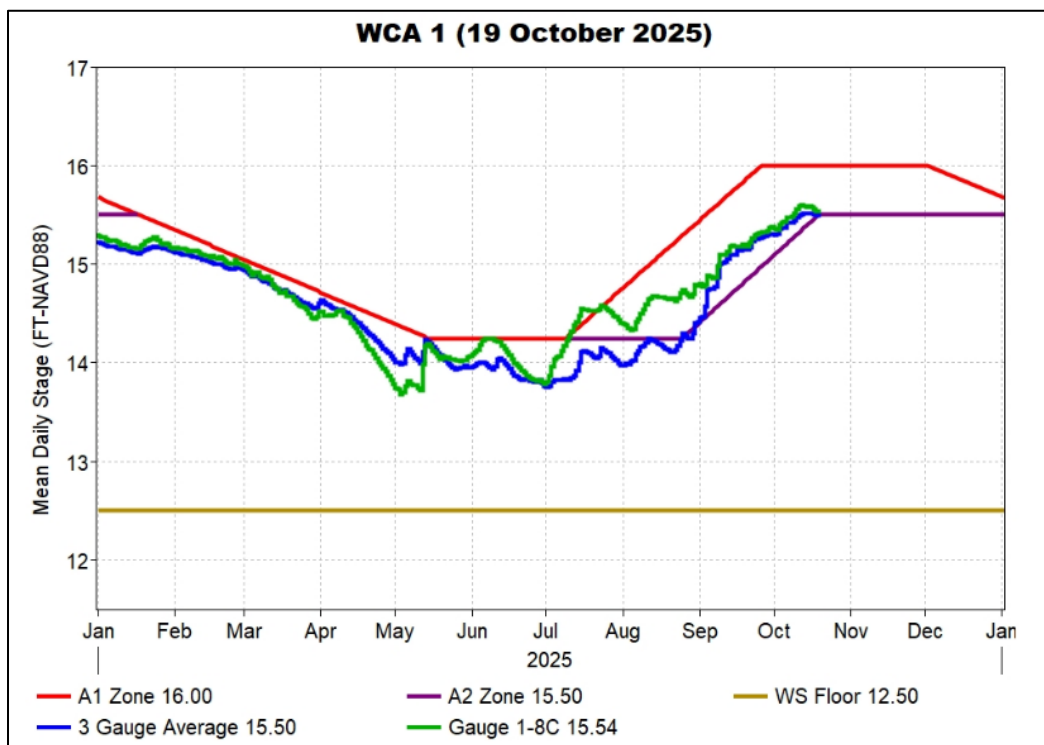


Figure EV-1. WCA-1 stage hydrographs and regulation schedule.

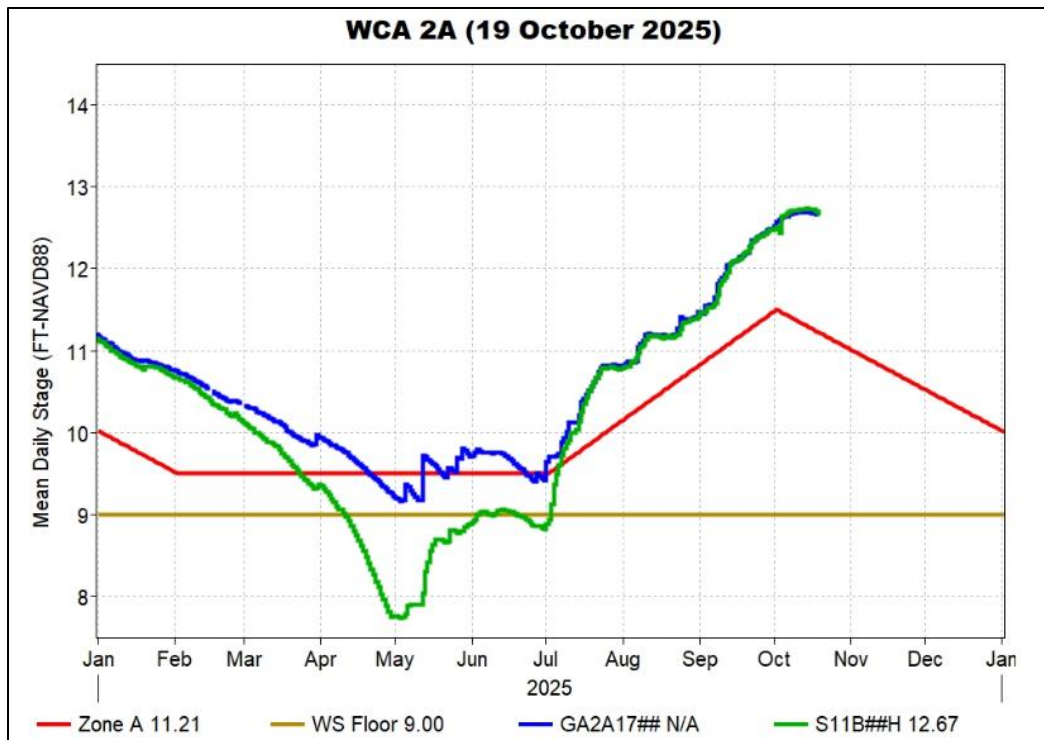


Figure EV-2. WCA-2A stage hydrographs and regulation schedule.

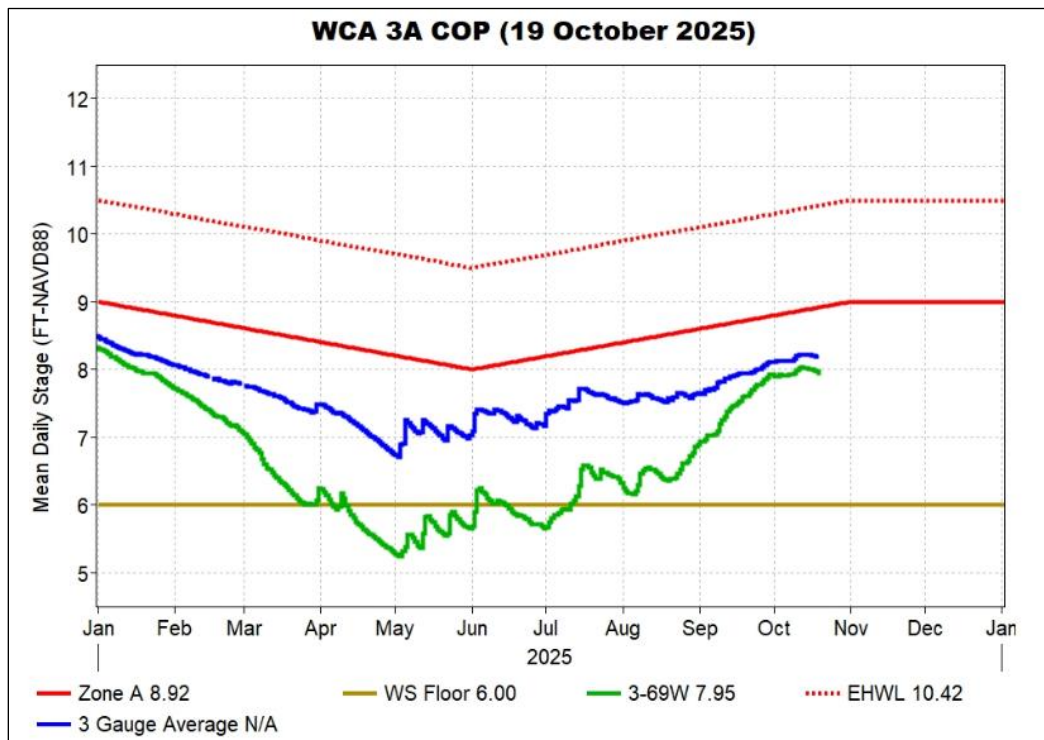


Figure EV-3. WCA-3A stage hydrographs (three-gauge average, 3-69W) and regulation schedule.

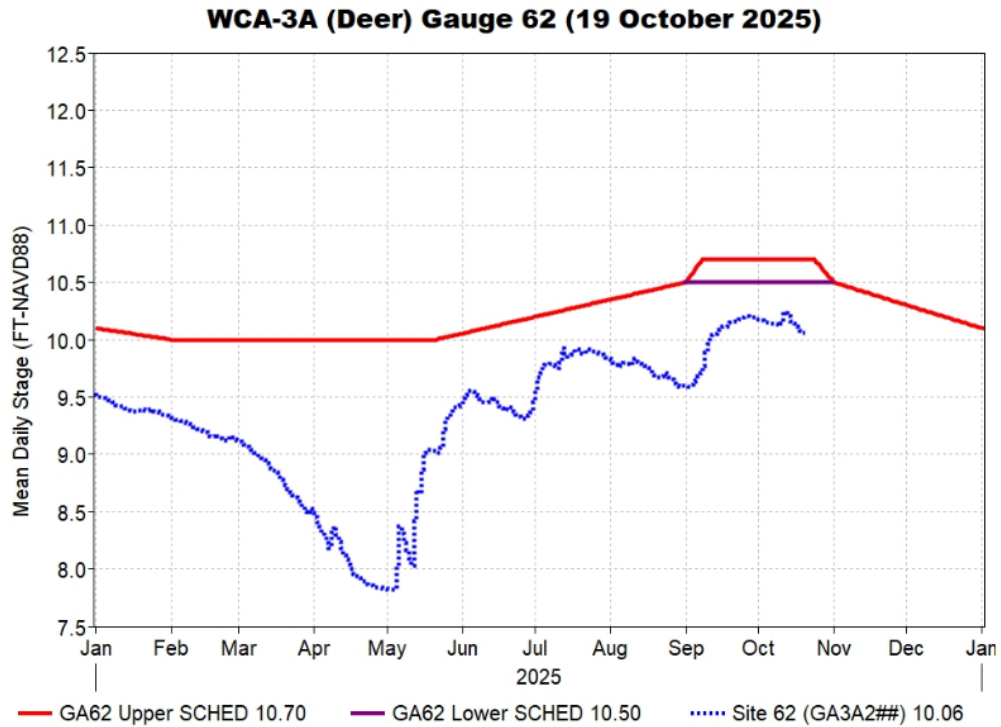


Figure EV-4. WCA-3A stage hydrograph (Deer gauge; Site 62) and GA62 regulation schedule.

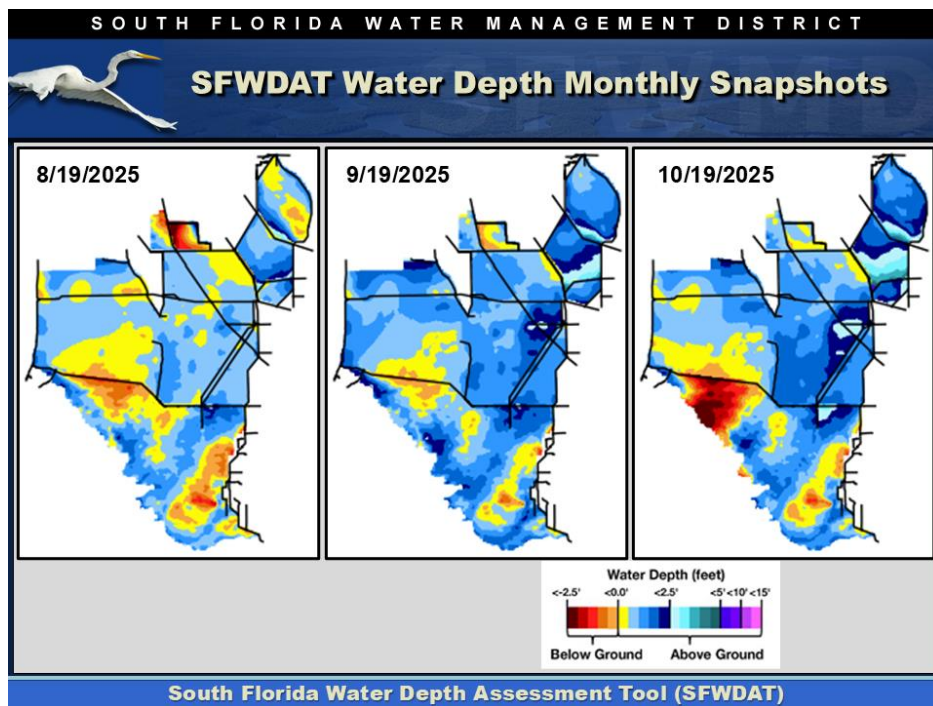


Figure EV-5. Everglades water depths from two months ago (left), one month ago (center) and present (right), based on SFWDAT.

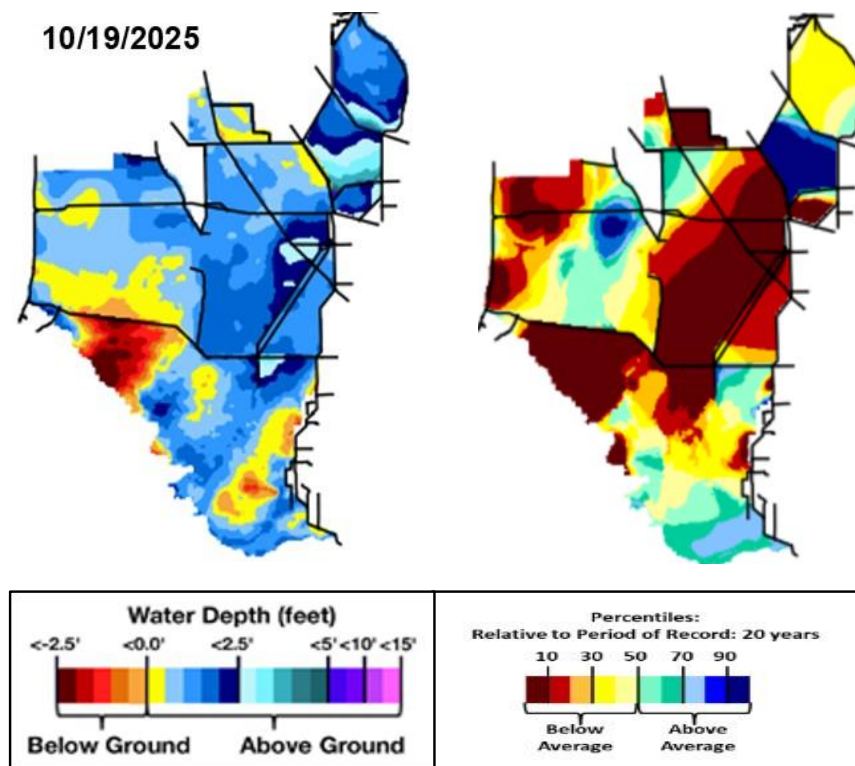


Figure EV-6. Present water depths (October 19, 2025) compared to the day of year relative to average (percentile) over the previous 20 years.

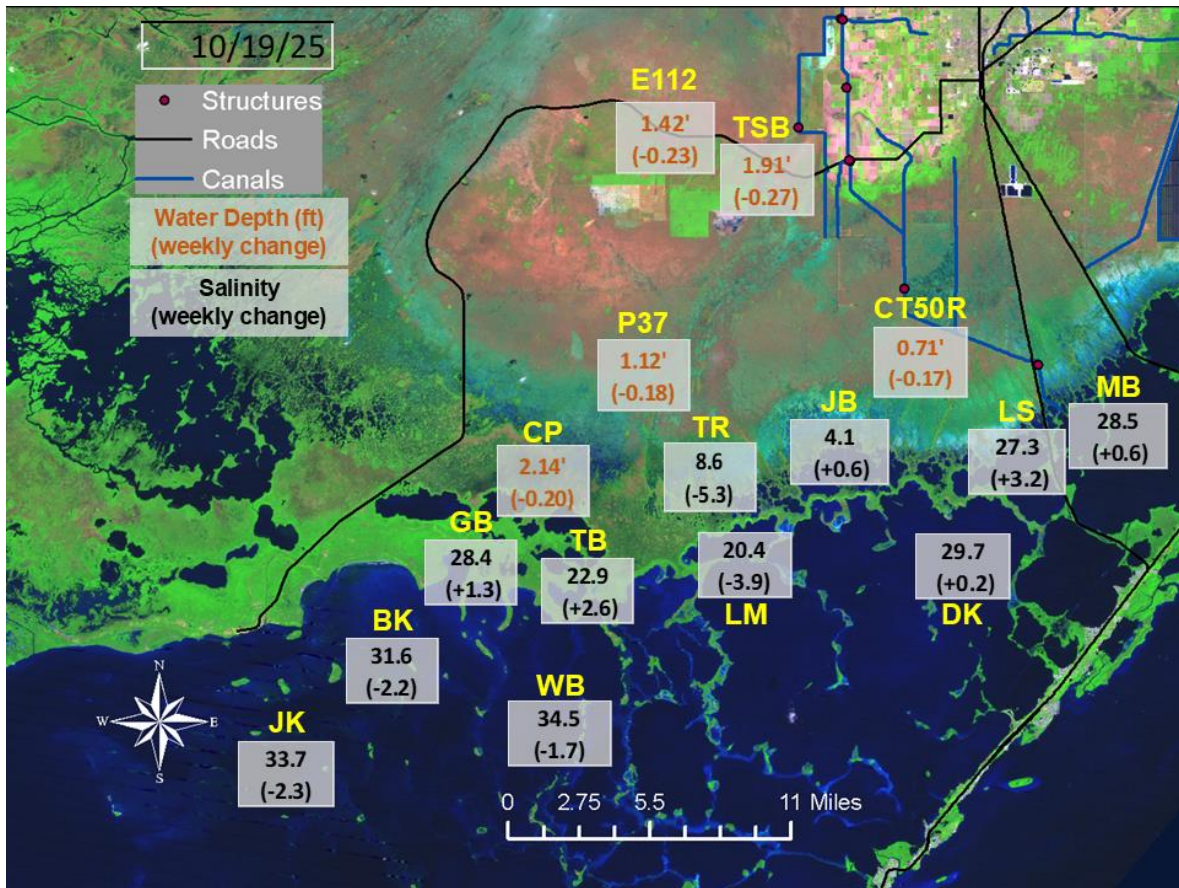


Figure EV-7. Taylor Slough water depths and Florida Bay salinities with changes since one week ago.

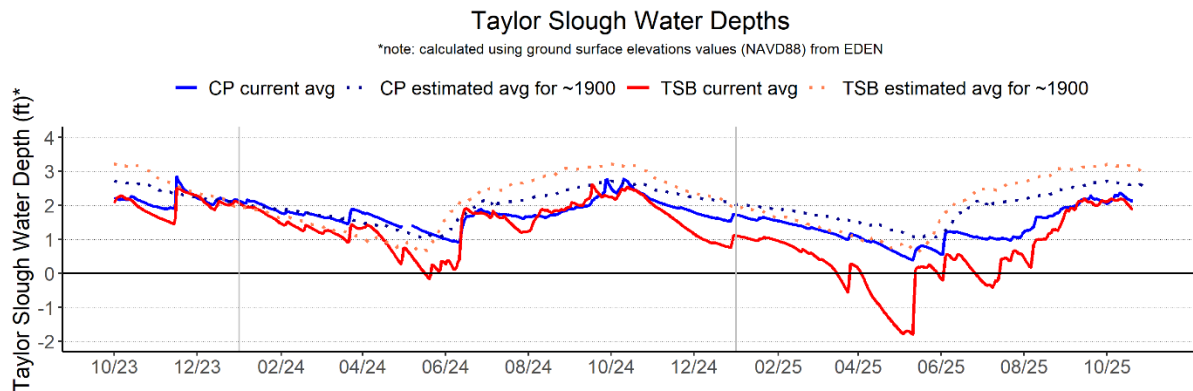


Figure EV-8. Taylor Slough water depth time series for Taylor Slough Bridge (TSB; northern slough) and Craighead Pond (CP; southern slough).

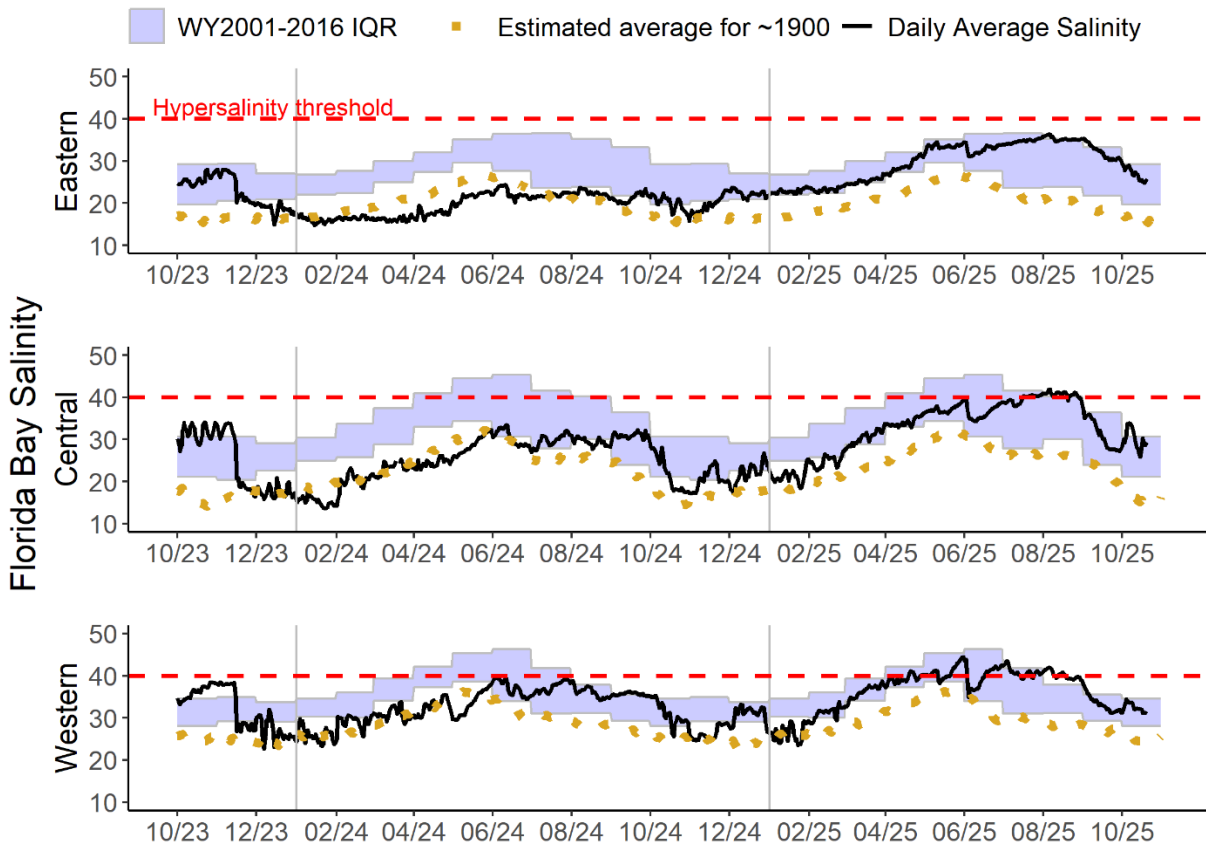


Figure EV-9. Eastern (top panel), Central (middle panel) and Western (bottom panel) Florida Bay daily average salinities with WY2001-2016 interquartile (25-75 percentile) ranges (IQR) and estimated historical daily average salinities. The hypersalinity threshold indicates the level at which salinities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

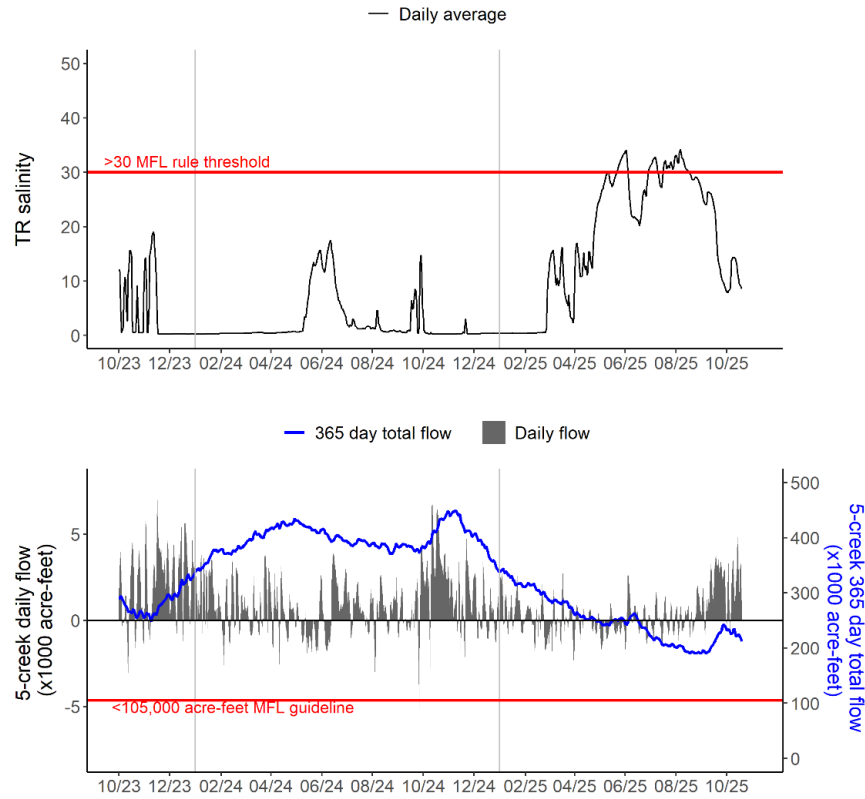


Figure EV-10. Salinity at Taylor River (TR; top) and creek inflow to Florida Bay (bottom) from the five major creeks (McCormick Creek, Taylor River, Mud Creek, Trout Creek, and West Highway Creek). The daily average salinity and 365-day total creek flow are tracked for the Florida Bay MFL criteria.

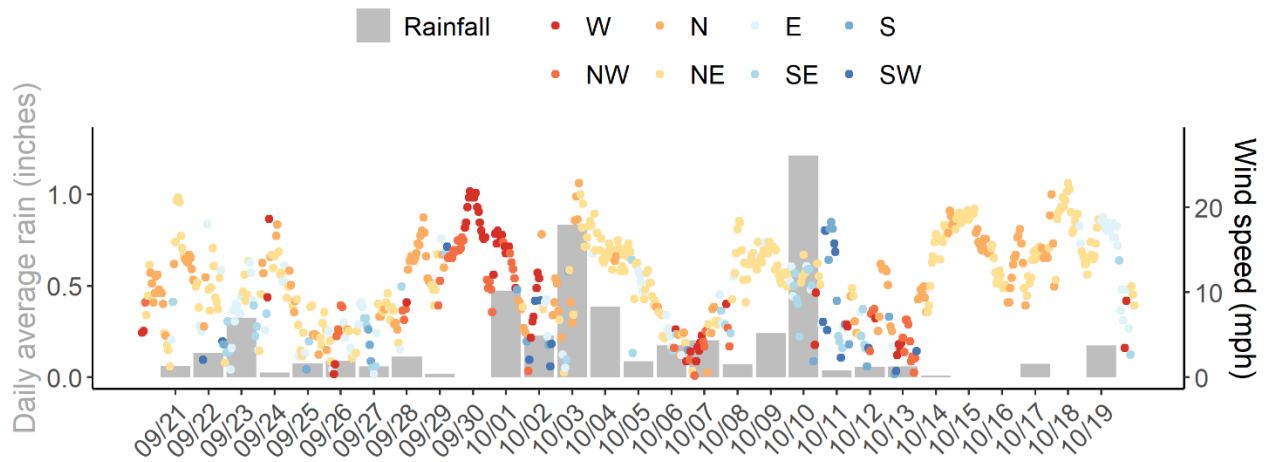


Figure EV-11. Daily average rain across Taylor Slough and Florida Bay, along with hourly average wind speed and direction (measured at Long Key) in Florida Bay over the past four weeks.

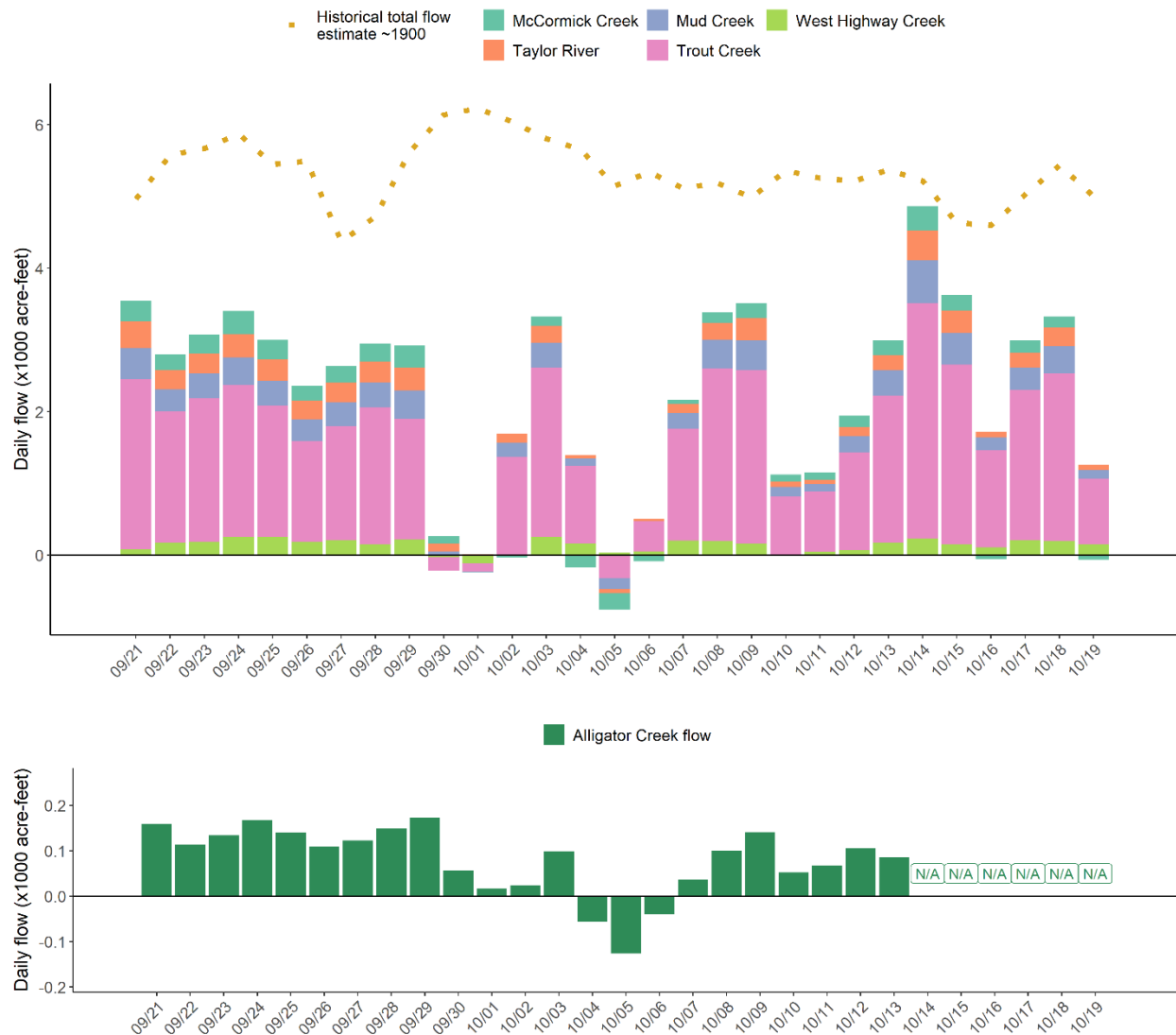


Figure EV-12. Top: daily average creek flow summed between the five major creeks with estimated historical daily flow over the past four weeks. Bottom: daily average creek flow from Alligator Creek over the past four weeks. N/A indicates missing data.

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

SFWMD Everglades Ecological Recommendations, October 19, 2025 (red is new)			
	Weekly change	Recommendation	Reasons
WCA-1	Stage was unchanged	A recession of no faster than 0.05 feet per week.	Conserve water, maintain within basin and downstream habitat and wildlife. Maintain maintenance access.
WCA-2A	Stage decreased by 0.03 feet	A recession of no faster than 0.12 feet per week.	Maintain within basin (north versus south) and downstream habitat and wildlife.
WCA-2B	Stage increased by 0.11 feet	A recession of no faster than 0.12 feet per week.	Protect within basin and downstream habitat and wildlife.
WCA-3A NE	Stage decreased by 0.08 feet	A recession of no faster than 0.05 feet per week.	Conserve water, maintain within basin and downstream habitat and wildlife. Provide suitable depths for aquatic prey and protect against peat soil loss during the dry season.
WCA-3A NW	Stage decreased by 0.16 feet	A recession of no faster than 0.05 feet per week.	
Central WCA-3A S	Stage decreased by 0.02 feet	A recession of no faster than 0.05 feet per week.	Conserve water, maintain within basin and downstream habitat and wildlife. Provide suitable depths for aquatic prey.
Southern WCA-3A S	Stage was unchanged		
WCA-3B	Stage remained unchanged	A recession of no faster than 0.12 feet per week.	Protect within basin and downstream habitat and wildlife.
ENP-SRS	Stage decreased by 0.01 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.
Taylor Slough	Stage changes ranged from -0.27 feet to -0.14 feet	Move water southward as possible.	When available, provide freshwater to promote water movement.
FB- Salinity	Salinity changes ranged from -3.9 to +3.2	Move water southward as possible.	When available, provide freshwater to promote water movement.