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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: July 2, 2025

SUBJECT: Weekly Environmental Conditions for Systems Operations

Summary

Weather Conditions and Forecast

On Wednesday, numerous afternoon showers and thunderstorms will occur from the central interior to the east coast of the SFWMD. Thursday will see heavy rainfall across much of the SFWMD, especially north and west of Lake Okeechobee. By Friday, abundant tropical moisture will stream across the SFWMD in association with a broad but area of weak low pressure that would further support widespread rainfall. As a result, both Friday and Saturday are expected to carry a continued threat for heavy rainfall across the region. Given the cumulative rainfall expected over several days leading into the weekend, and the four days of heavy rainfall starting this past Saturday, the likelihood of substantial runoff will increase, especially in already saturated areas. By late this weekend and early next week, southerly to south-southwesterly steering winds will likely favor the greatest afternoon rains over the interior and perhaps the eastern part of the area, though with lower total SFWMD rainfall compared to the proceeding several days. By Monday, a somewhat drier air mass may begin to edge into the region resulting east-southeasterly to southeasterly steering rainfall over the south-central or southwestern interior, with additional activity around Lake Okeechobee. For the week ending next Tuesday morning, there is high confidence that total SFWMD rainfall will be above to much above normal.

Kissimmee

In the past week, almost no releases were made from East Lake Toho and Lake Toho to slow the rate of lake stage ascension. Releases from Lakes Kissimmee-Cypress-Hatchineha (KCH) followed the Headwaters Revitalization Schedule (HRS) Increment 1 Temporary Deviation Discharge Plan. Weekly average discharge on June 29, 2025, was 310 cfs at S-65 and 300 cfs at S-65A, respectively. Mean weekly water depth on the Kissimmee River floodplain remained at 0.19 feet. The weekly average concentration of dissolved oxygen in the Kissimmee River decreased from 7.5 mg/L the previous week to 7.3 mg/L, which is above both the potentially lethal level of 1.0 mg/L and the stressful level of 2.0 mg/L (**Figure KB-6**).

Lake Okeechobee

Lake Okeechobee stage was 9.76 feet NAVD88 (11.07 ft NGVD29) on June 29, 2025, which was 0.08 feet higher than the previous week and 0.11 feet higher than a month ago. Average daily inflows (excluding rainfall) increased slightly from 430 cfs the previous week to 470 cfs. Average daily outflows (excluding evapotranspiration) decreased from 830 cfs the previous week to 600 cfs. The most recent non-obscured satellite image from June 28, 2025, suggests moderate to high cyanobacteria activity in northern and western nearshore areas of the lake. Of the 29 water samples collected on June 9-11th, 7 were dominated by *Microcystis*, but no samples had detectable Microcystin toxin levels.

Estuaries

Total inflow to the St. Lucie Estuary averaged 1,054 cfs over the past week with no flow coming from Lake Okeechobee. Mean salinities increased at the HR1 site and decreased at the A1A Bridge and US1 Bridge sites over the past week. Salinity in the middle estuary was in the optimal range (10-25) for adult eastern oysters. Total inflow to the Caloosahatchee Estuary averaged 1,685 cfs over the past week with 26 cfs flow coming from Lake Okeechobee. Over the past week, salinities decreased at Sanibel and increased at the remaining sites in the estuary. The mean salinities were in the optimal range (0-10) for tape grass at S-79 and Val I-75 and in the stressed range at the Ft. Myers site. Salinities were in the optimal range for adult oysters at Cape Coral, and in the stressed range at Shell Point and Sanibel.

Stormwater Treatment Areas

For the week ending June 29, 2025, 2,900 ac-ft of Lake Okeechobee water was delivered to the FEBs/STAs. Lake releases sent to the FEBs/STAs in WY2026 is approximately 27,400 ac-feet. Inflows to the STAs in WY2026 is approximately 98,000 ac-feet. STA cells are near or above target stage except STA-5/6 EAV cells that are below target stage or are dry. STA-1E Central Flow-way is offline for construction activities, and STA-2 Flow-way 3 is offline for a post-drawdown vegetation grow-in. 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. An additional restriction is in place in STA-2 Flow-way 1 for inflow canal dredging. This week, if LOSOM recommends Lake releases to the WCAs and conditions allow, releases will be sent to STA-2 or STA-3/4.

Everglades

Below average rainfall throughout most of the Everglades Protection Area (EPA) resulted in continued recessions across all basins. A few active wood stork nests in WCA-3A should complete successful nesting within the next week or two. WCA-1 was the only area hosting foraging wading birds and maintaining a hydrologic environment beneficial for continued foraging success. Depths are well below average for this time of year across the EPA with only Northeast Shark River Slough (NESRS), northwestern WCA-3A, and Lostmans Slough near average. Salinities increased in Florida Bay, with the western region now above the hypersalinity threshold and the central region approaching it. All three regions remain near the 50th percentile for this time of year. The 30-day moving average salinity at Taylor River is now below the MFL threshold, however daily average salinity is at the threshold.

Supporting Information

Kissimmee Basin

Upper Kissimmee

On June 29, 2025, mean daily lake stages were 54.7 feet NAVD88 (0.8 feet below schedule) in East Lake Toho, 52.0 feet NAVD88 (0.3 feet below schedule) in Lake Toho, and 48.6 feet NAVD88 (1.7 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 June 29, 2025, mean weekly discharge was 310 cfs at S-65 and 300 cfs at S-65A, respectively. Mean weekly discharge from the Kissimmee River was 300 cfs and 250 cfs at S-65D and S-65E, respectively (**Table KB-2**). Mean weekly headwater stages were 45.4 feet NAVD88 at S-65A and 24.6 feet NAVD88 at S-65D. Mean weekly river channel stage increased by 0.1 feet to 30.6 feet NAVD88 (**Figure KB-4**). Mean weekly water depth on the Kissimmee River floodplain remained at 0.19 feet (**Table KB-2, Figure KB-5**). The weekly average concentration of dissolved oxygen in the Kissimmee River decreased from 7.5 mg/L the previous week to 7.3 mg/L (**Table KB-2, Figure KB-6**).

Water Management Recommendations

The dry season preferred stage recession lines in East Lake Toho and Lake Toho ended on June 1 and lake stages are rising. When possible, limit lake stage ascension rate in those lakes to 0.25 ft per 7 days. 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 rising and entering Zone B3 of Increment 1, target flows at S-65A of 300 cfs while stage is at the bottom of Zone B3 and gradually increase flow to 1,400 cfs as stage rises to the top of Zone B3. Use the Increment 1 Interpolation Tool to determine discharge relative to stage in KCH.

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)	
							6/29/25	6/22/25
Lakes Hart and Mary Jane	S-62	LKMJ	0	58.8	R	58.9	-0.1	-0.1
Lakes Myrtle, Preston and Joel	S-57	S-57	0	59.2	R	60.0	-0.8	-0.8
Alligator Chain	S-60	ALLI	0	61.6	R	62.2	-0.6	-0.6
Lake Gentry	S-63	LKGT	0	58.8	R	59.9	-1.1	-1.2
East Lake Toho	S-59	TOHOE	0	54.7	R	55.5	-0.8	-0.9
Lake Toho	S-61	TOHOW S-61	9	52.0	R	52.3	-0.3	-0.6
Lakes Kissimmee, Cypress and Hatchineha	S-65	KUB011 LKIS5B	310	48.6	T	50.3	-1.7	-1.9

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.

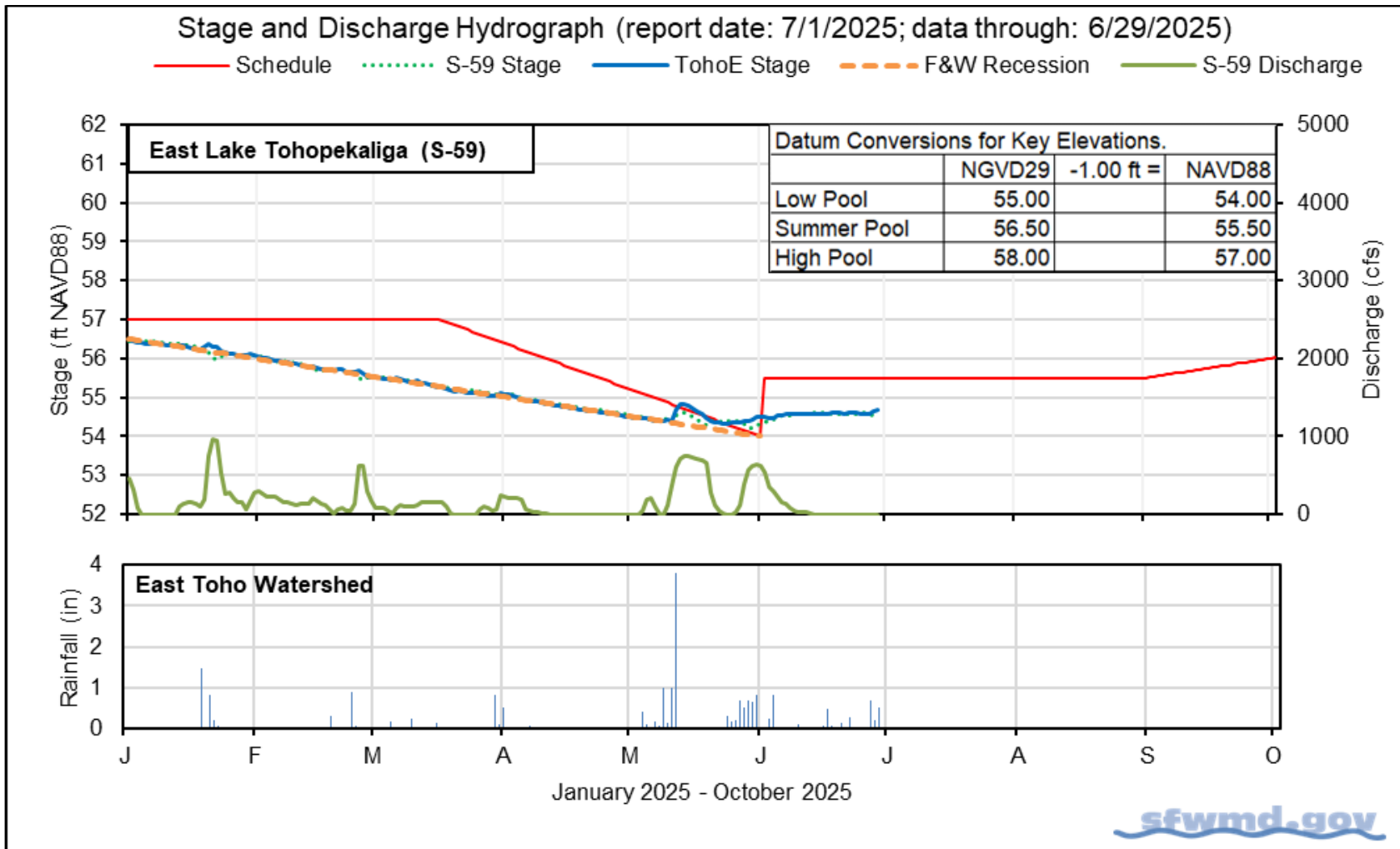


Figure KB-1. East Lake Toho regulation schedule, stage, discharge, and rainfall.

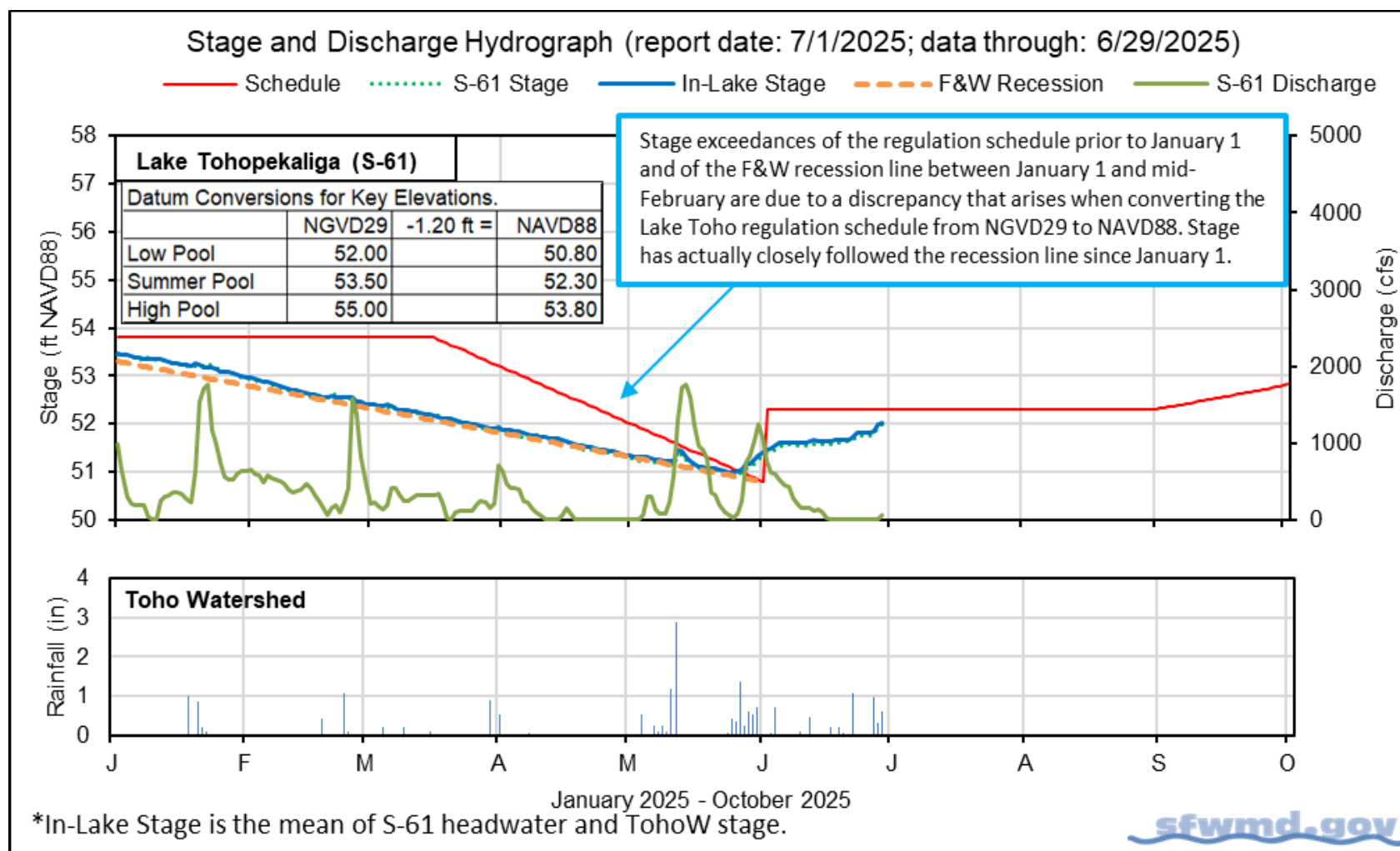


Figure KB-2. Lake Toho regulation schedule, stage, discharge, and rainfall.

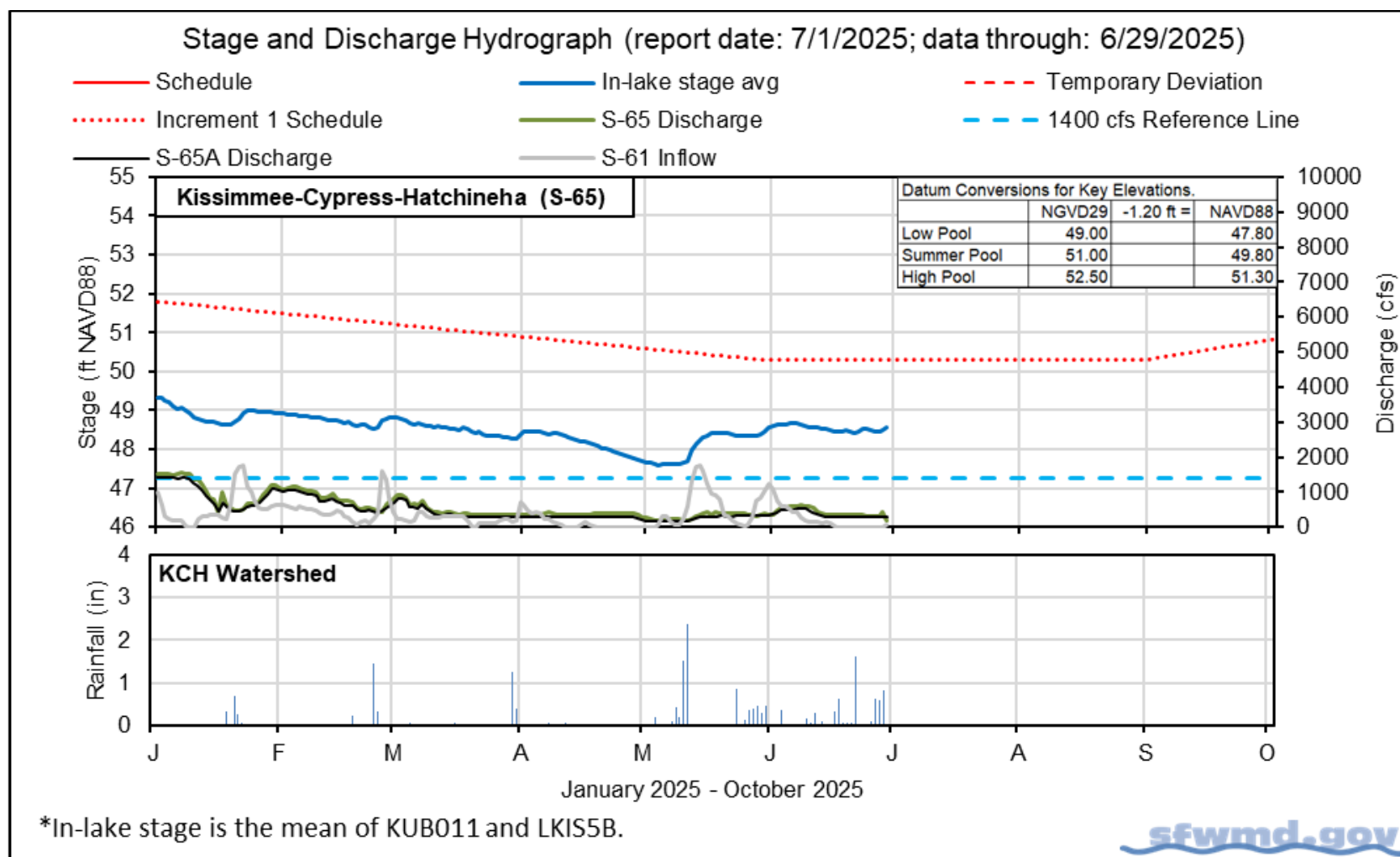


Figure KB-3. Lakes Kissimmee, Cypress and Hatchineha regulation schedule, stage, discharge, and rainfall.

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			
		6/29/25	6/29/25	6/22/25	6/15/25	6/8/25
Discharge	S-65	190	310	360	470	570
Discharge	S-65A ^a	300	300	300	390	490
Headwater Stage (feet NAVD88)	S-65A	45.4	45.4	45.3	45.2	45.0
Discharge	S-65D ^b	300	300	300	460	460
Headwater Stage (feet NAVD88)	S-65D ^c	24.6	24.6	24.5	24.6	24.6
Discharge (cfs)	S-65E ^d	260	250	250	390	470
Discharge (cfs)	S-67	0	0	0	0	0
Dissolved Oxygen (mg/L) ^e	Phase I, II/III river channel	6.3	7.3	7.5	7.1	6.8
River channel mean stage (feet NAVD88) ^f	Phase I river channel	30.7	30.6	30.5	31.5	31.5
Mean depth (feet) ^g	Phase I floodplain	0.19	0.19	0.19	0.20	0.59

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.

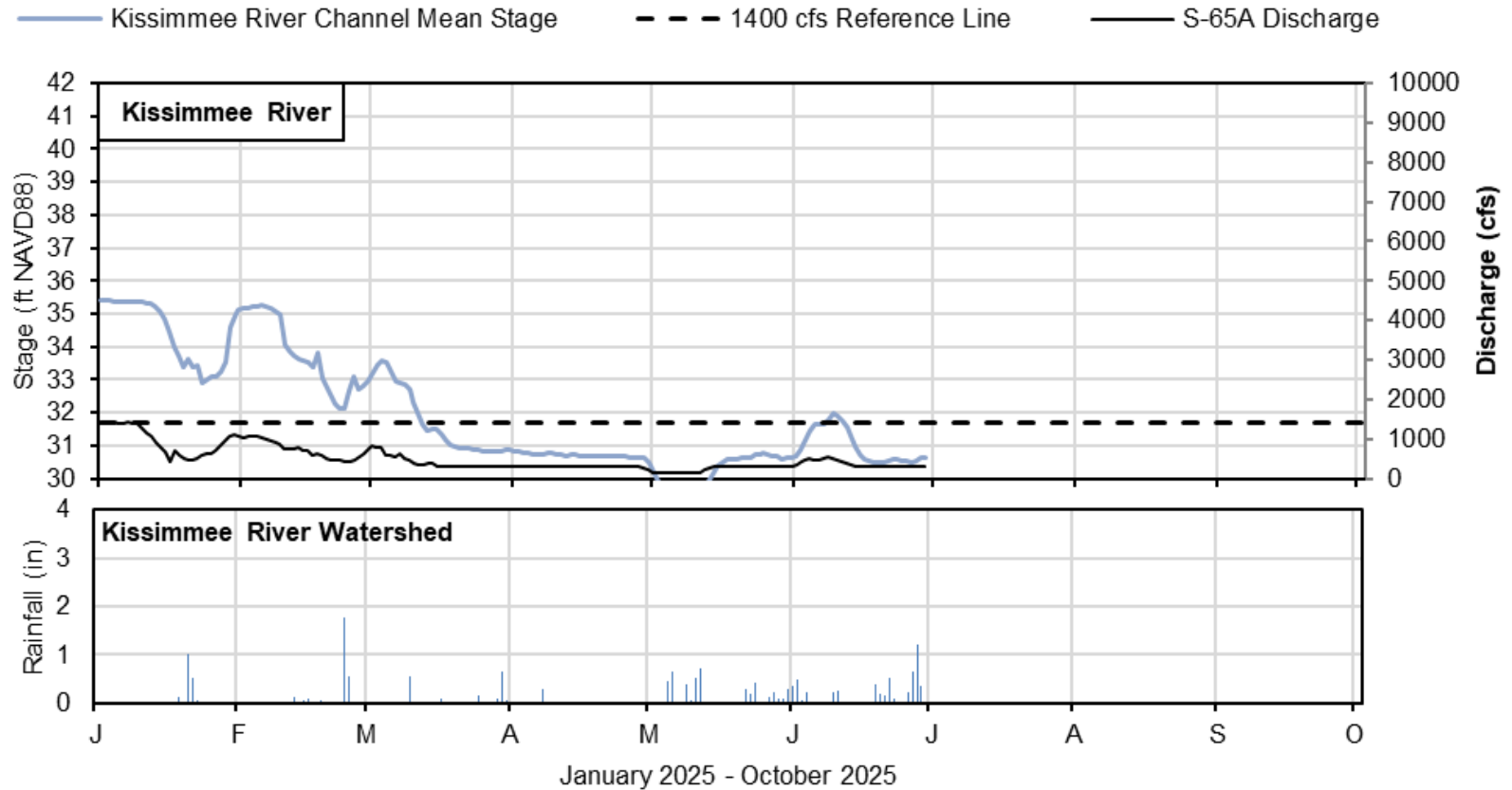
d. Combined discharge from S-65E and S-65EX1.

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: 7/1/2025; data through: 6/29/2025)



*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.

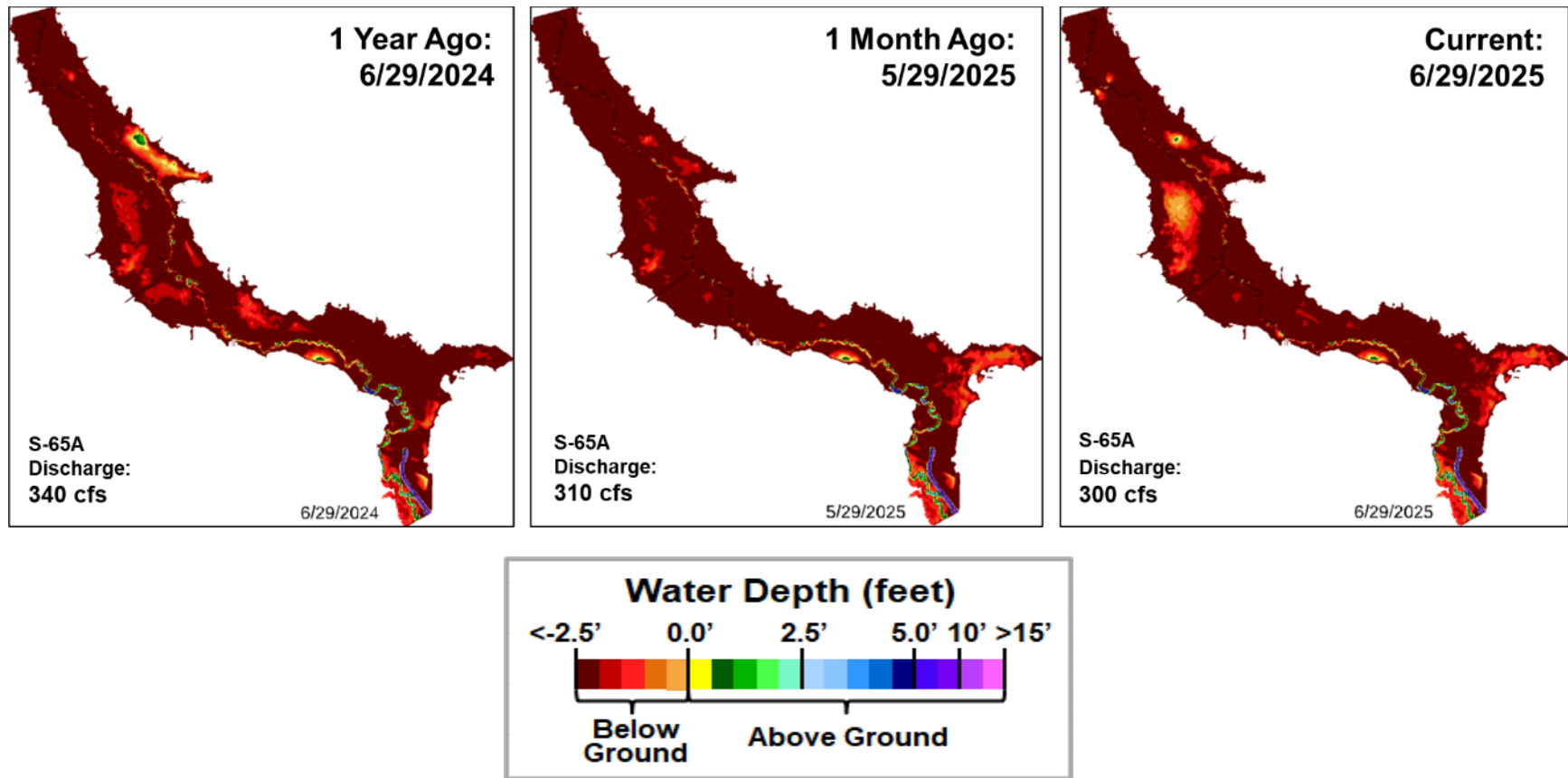
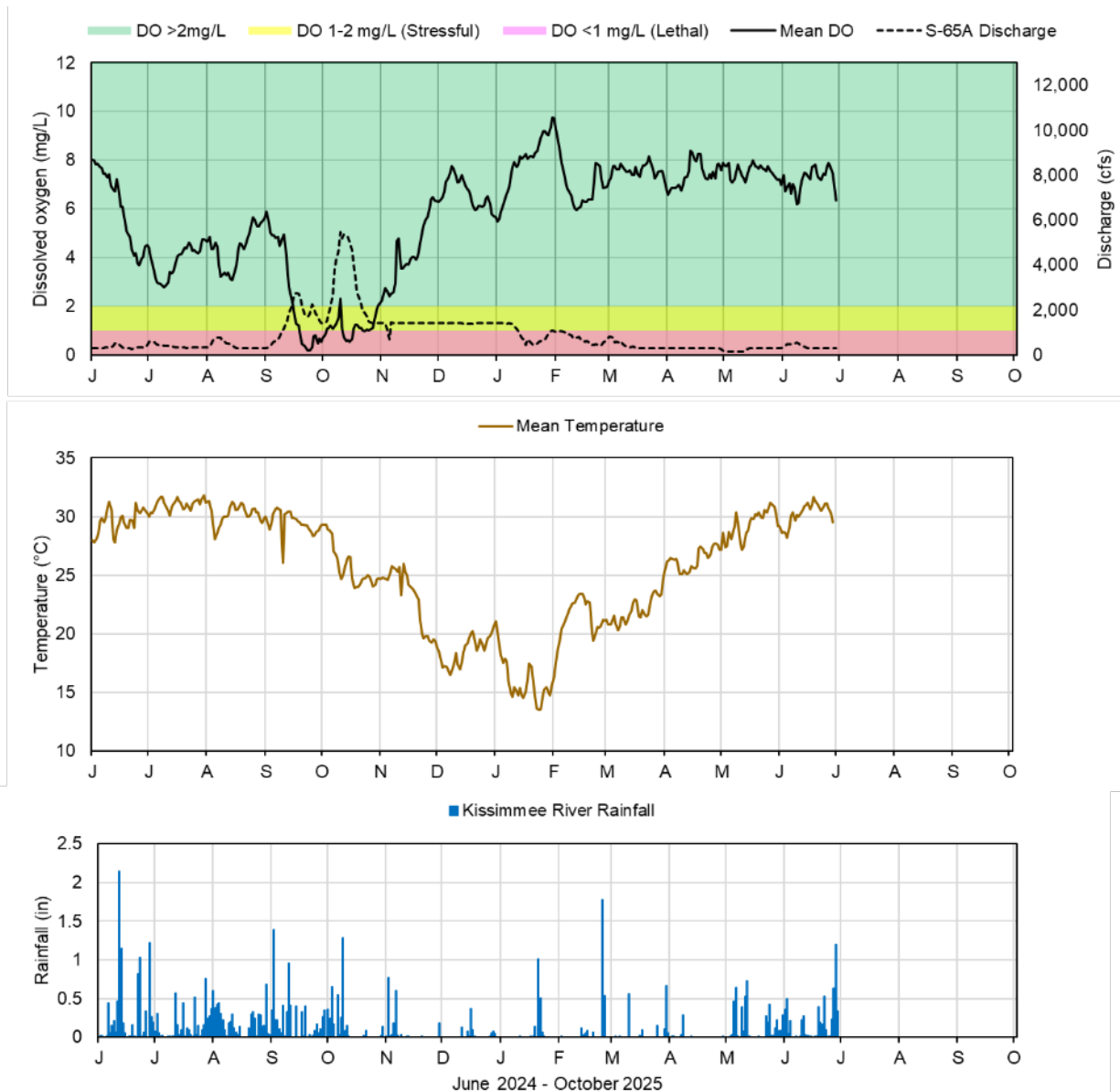


Figure KB-5. Phase I-II-III area Kissimmee River floodplain water depths (from left to right) one year ago, one month ago, and current.



Report Date: 7/1/2025; data are through: 6/29/2025

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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

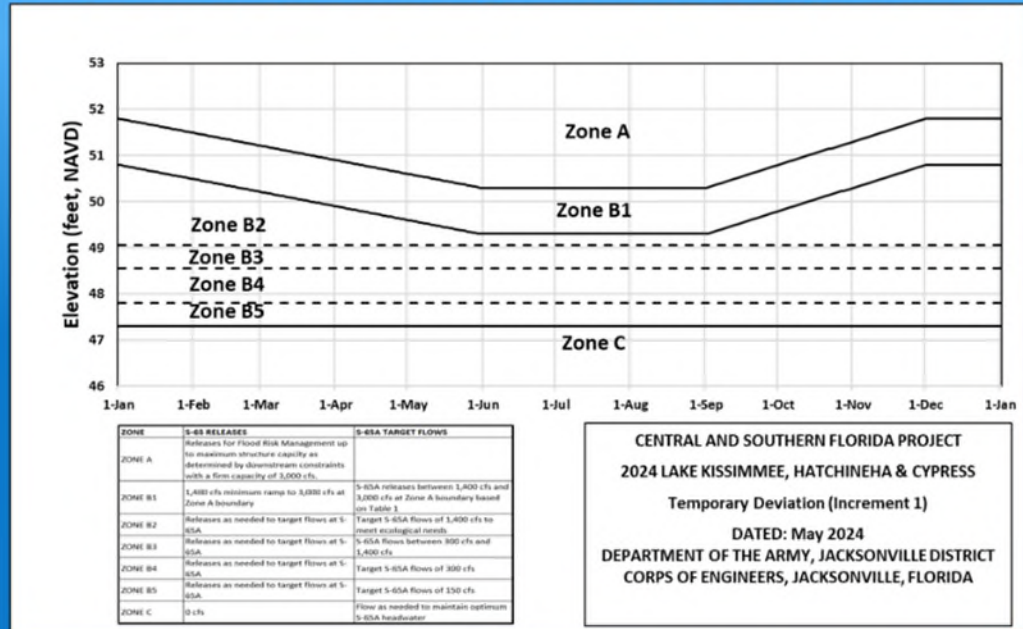
ZONE	S-65 RELEASES	S-65A TARGET FLOWS
ZONE A	Releases for Flood Risk Management up to maximum structure capacity as determined by downstream constraints with a firm capacity of 3,000 cfs.	
ZONE B1	1,400 cfs minimum ramp to 3,000 cfs at Zone A boundary	S-65A releases between 1,400 cfs and 3,000 cfs at 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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CENTRAL AND SOUTHERN FLORIDA PROJECT
2024 LAKE KISSIMMEE, HATCHINEHA & CYPRESS
Temporary Deviation (Increment 1)
DATED: May 2024
DEPARTMENT OF THE ARMY, JACKSONVILLE DISTRICT
CORPS OF ENGINEERS, JACKSONVILLE, FLORIDA

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 9.76 feet NAVD88 (11.07 ft NGVD29) on June 29, 2025, which was 0.08 feet higher than the previous week and 0.11 feet higher than a month ago (**Figure LO-1**). Lake stage dipped below Zone D of the regulation schedule and crossed into the Water Shortage Management Band this week (**Figure LO-2**) and is at the lower limit of the recovery ecological envelope (**Figure LO-3**). According to NEXRAD, 3.39 inches of rain fell directly over the Lake during the previous week, while 1.2 inches were lost to evapotranspiration.

Average daily inflows (excluding rainfall) increased slightly from 430 cfs the previous week to 470 cfs. The highest inflow came from the Kissimmee River via the S-65E(X1) structure (250 cfs). Average daily outflows (excluding evapotranspiration) decreased from 830 cfs the previous week to 600 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 June 28, 2025, NOAA's Harmful Algal Bloom Monitoring System suggests moderate to high cyanobacteria potential in northern and western nearshore areas of the lake, and low to moderate potential in some pelagic and southern regions (**Figure LO-6**).

The routine water quality and phytoplankton monitoring sampling trips are now on the bloom season (May-Nov) schedule and occur twice per month. Provisional phytoplankton results from the June 9-11th sampling showed 7 of the 29 phytoplankton communities were dominated by *Microcystis*, these were at the deeper, more turbid sites. No samples had detectable Microcystin toxin levels, although FEBOUT had 0.3 µg/L Anatoxin, which is below the USEPA drinking water safety guideline of < 1 µg/L. Fourteen of the sites had chlorophyll *a* concentrations between 20-40 µg/L, and 3 had concentrations >40 µg/L (**Figure LO-7**).

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

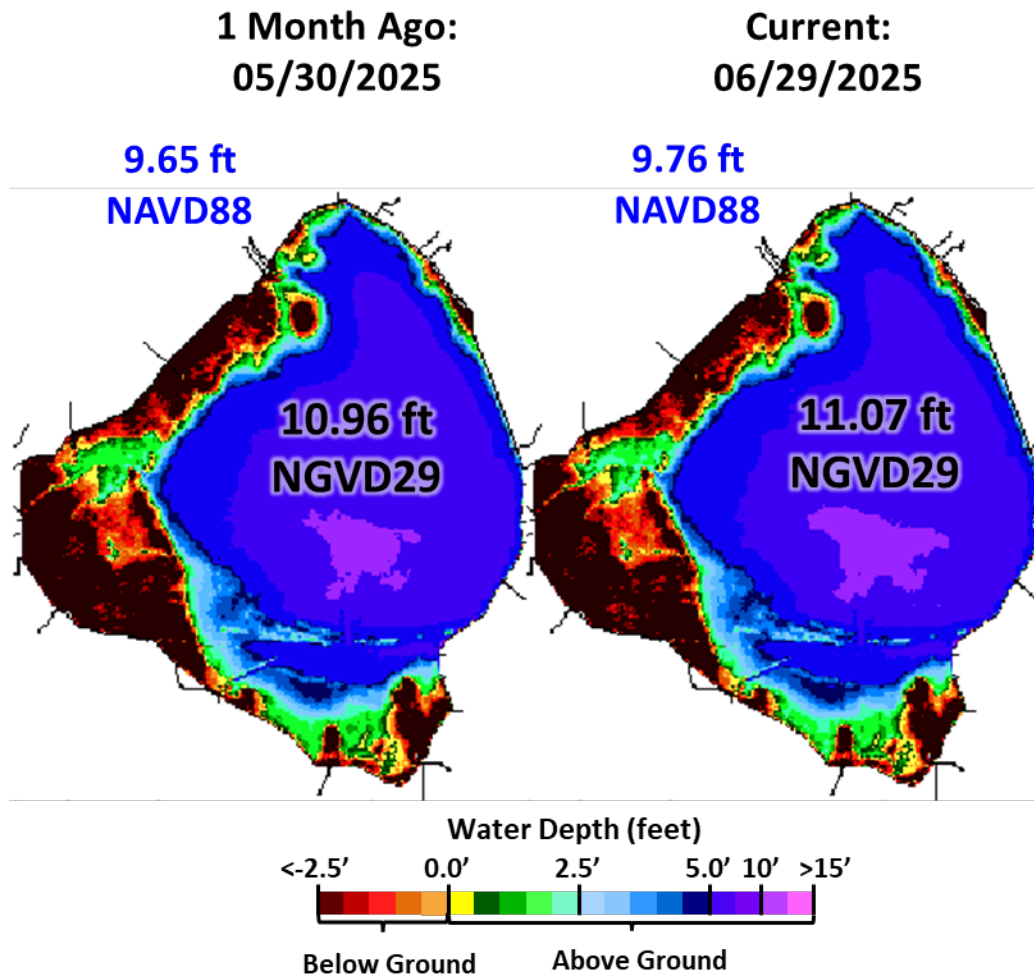


Figure LO-1. Lake Okeechobee water depth estimates based on South Florida Water Depth Assessment Tool (SFWDAT).

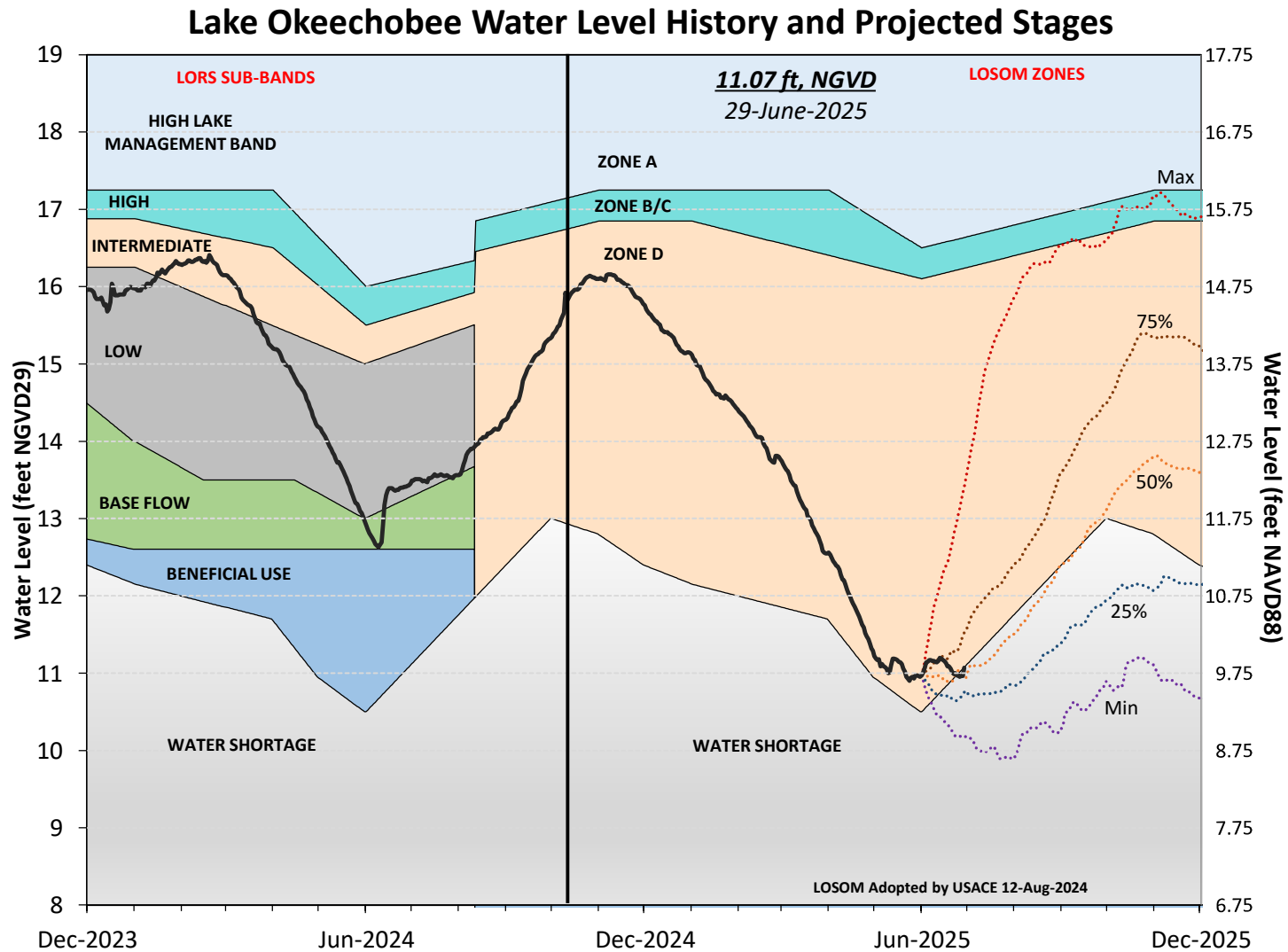


Figure LO-2. Recent Lake Okeechobee stages with projected stages based on a dynamic position analysis.
 Note: stages are in NGVD29, approximate NAVD88 values are shown for reference.

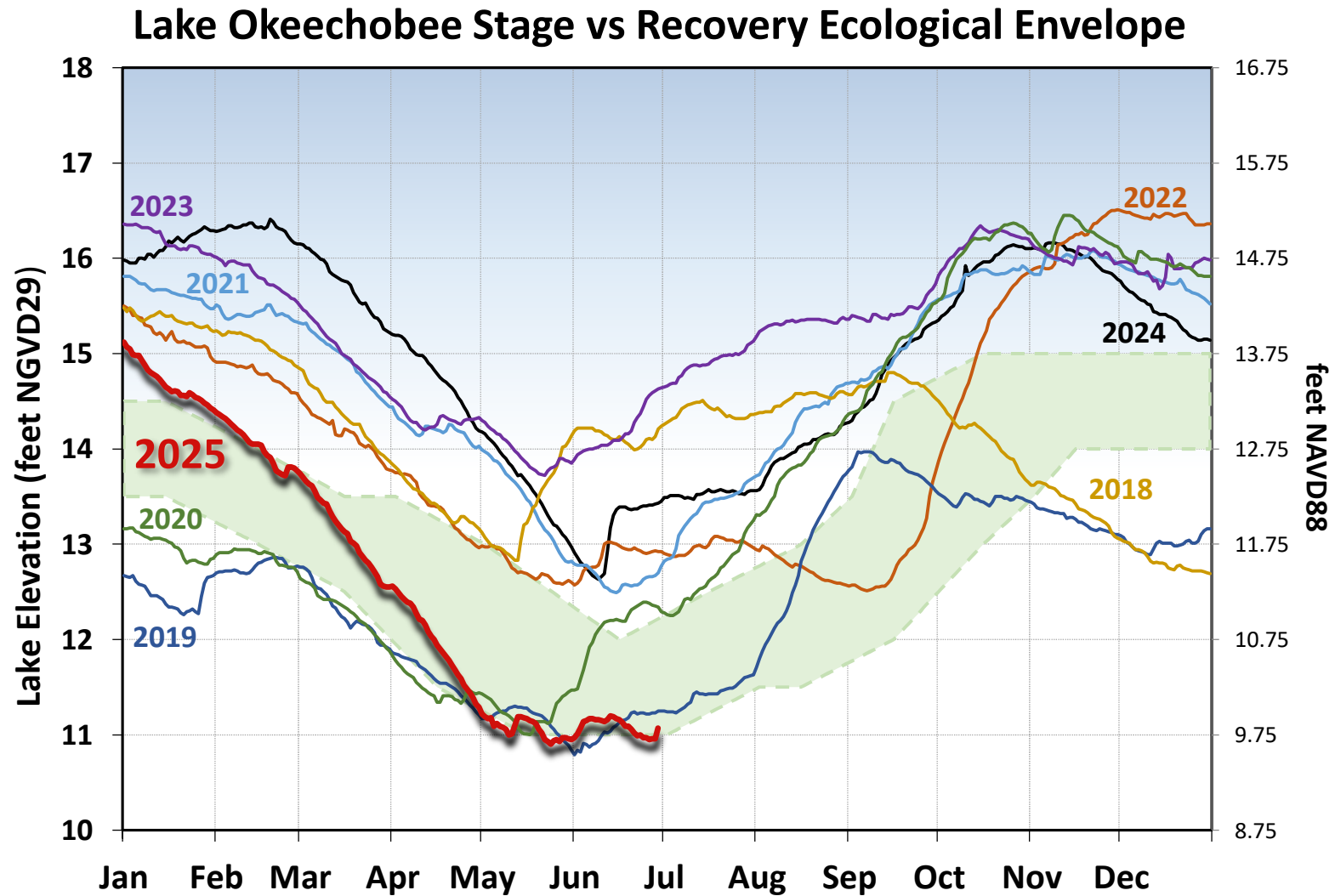


Figure LO-3. The current and seven prior year's annual stage hydrographs for Lake Okeechobee in comparison to the recovery envelope (light green). A shift from the normal ecological envelope to the recovery envelope occurred because the 30-day minimum lake stage (elevations exposed for at least 30 days,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

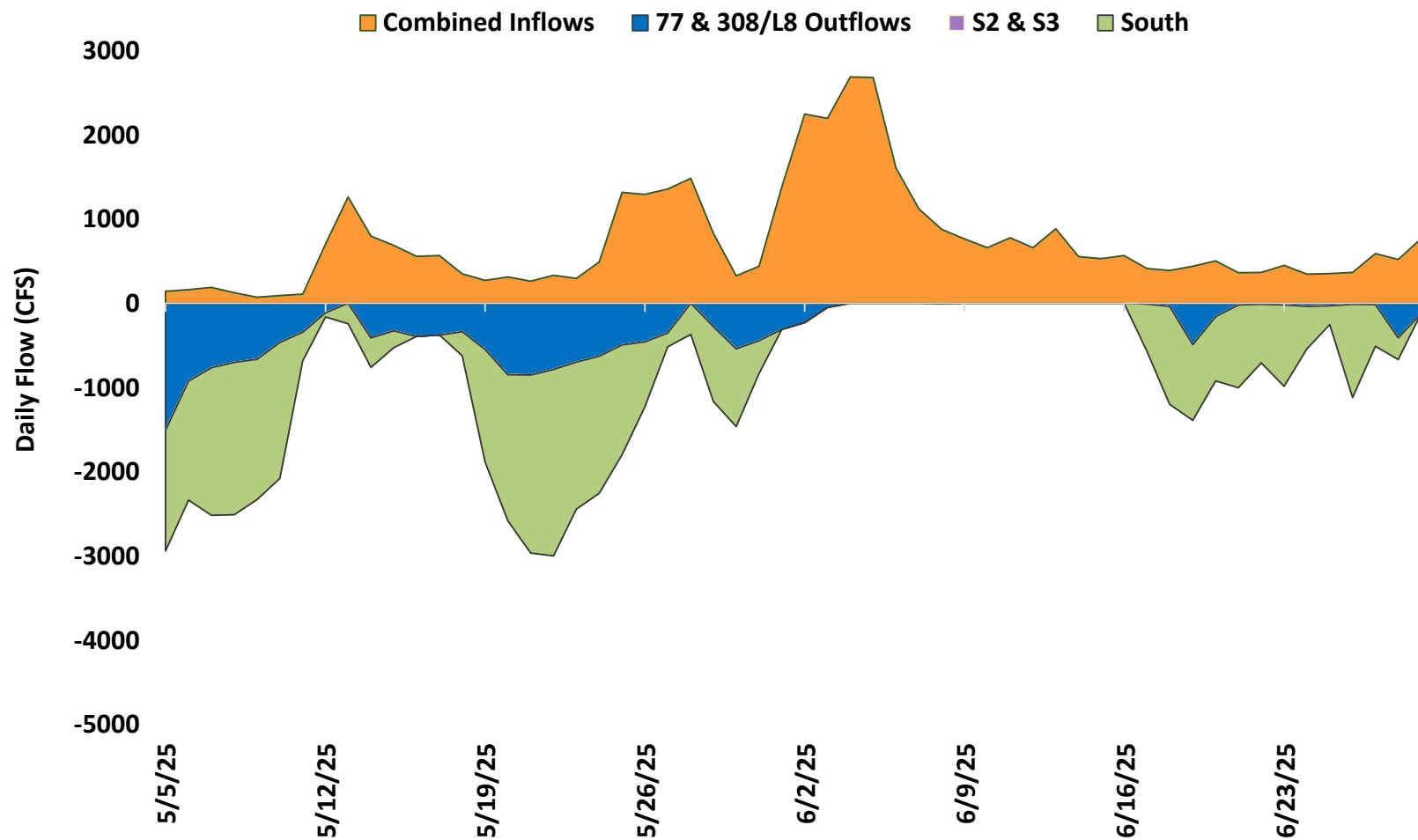


Figure LO-4. Major inflows (orange) to and outflows east and west (blue) from Lake Okeechobee. Outflows south are shown in green. Flows into Lake Okeechobee from the L-8 canal through S-271 (formerly Culvert 10A) or from the C-44 canal through the S-308 are included as inflows. Conversely, flows from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

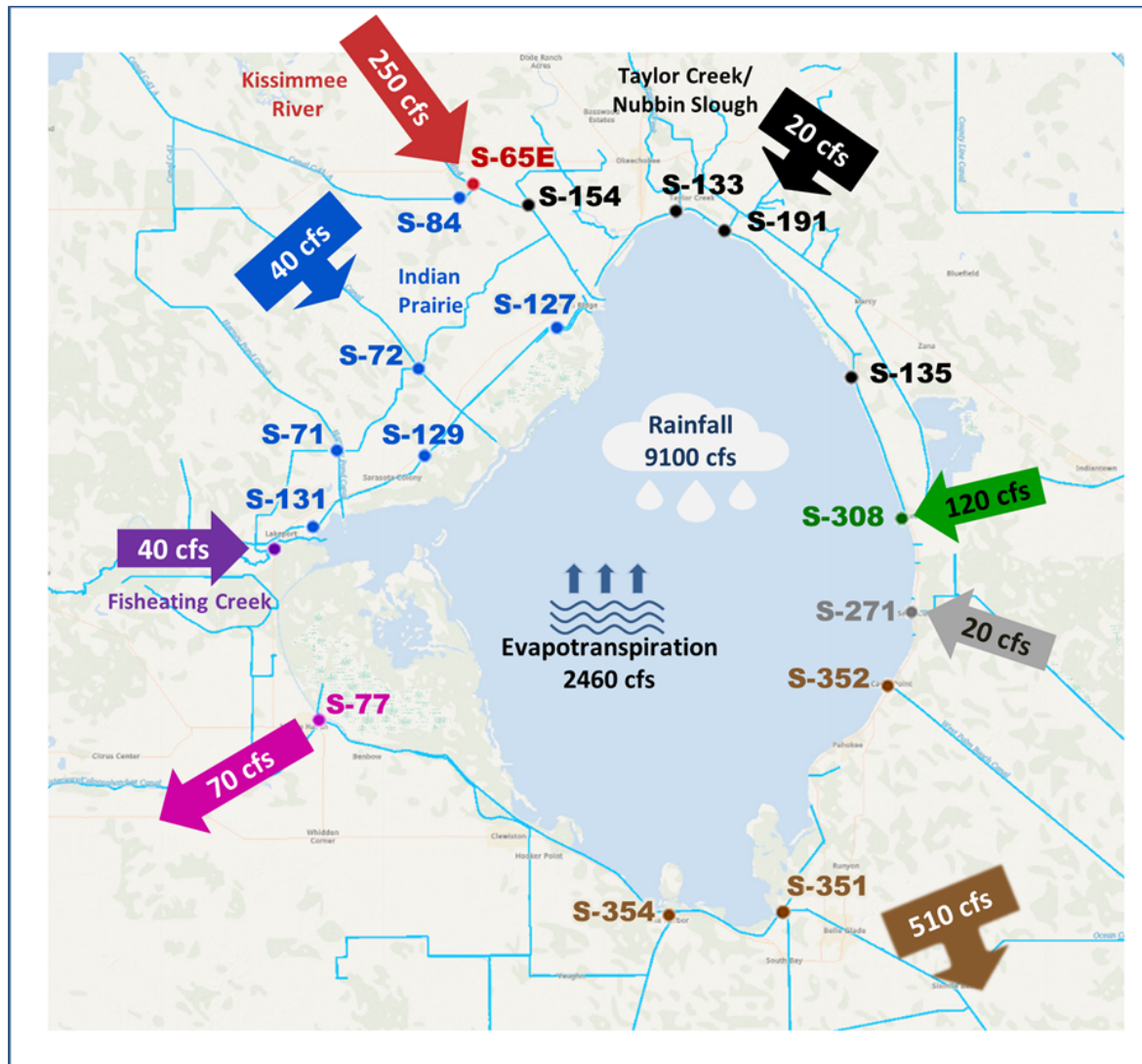


Figure LO-5. Inflows into Lake Okeechobee from Indian Prairie basins, Taylor Creek/Nubbin Slough, Kissimmee River and Fisheating Creek, and outflows to the west via S-77, to the east via S-308, to the south via S-351, S-352, S-354, and to southeast via S-271 (formerly Culvert 10A) for the week of June 23 - 29, 2025.

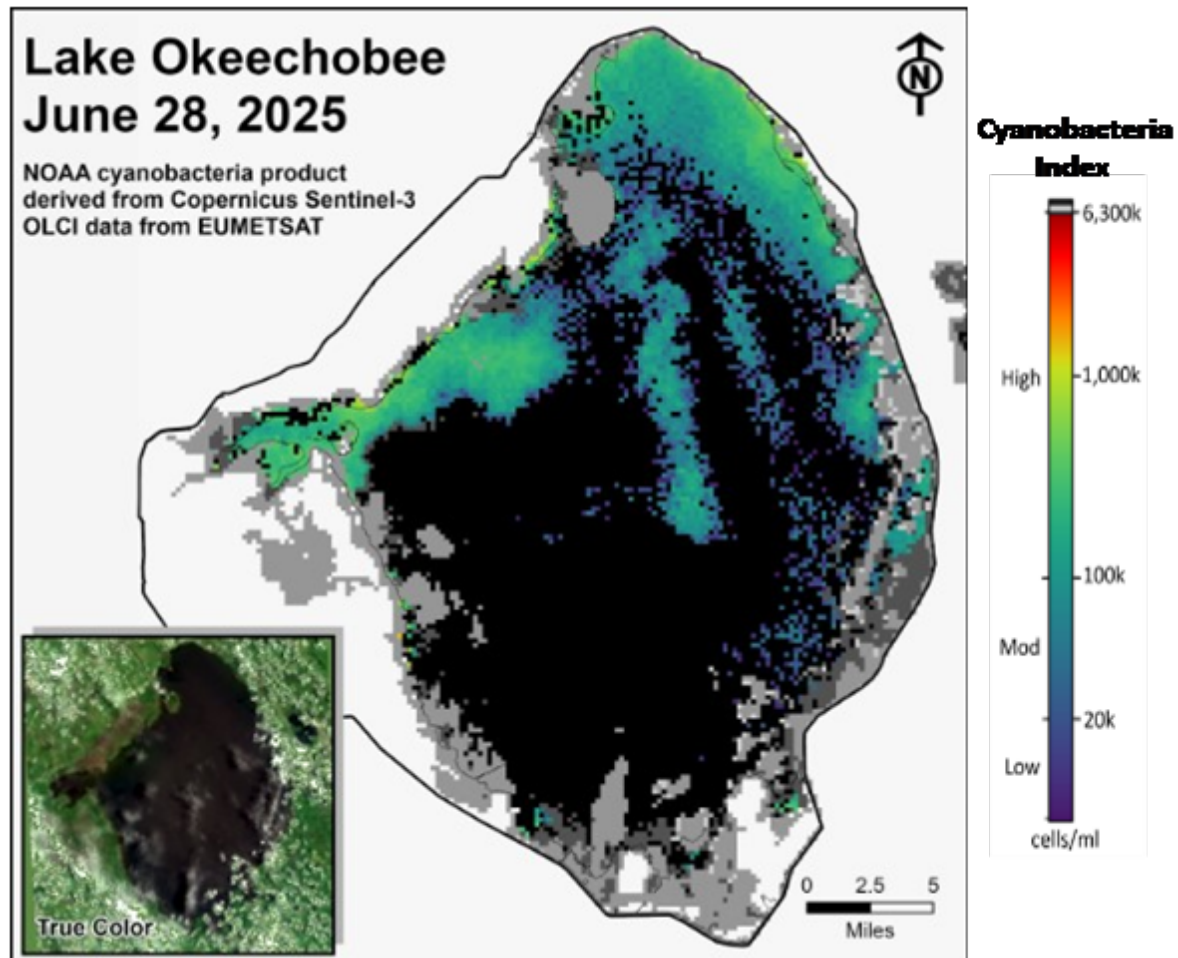


Figure LO-6. Cyanobacteria bloom index level on Lake Okeechobee, based on NOAA's harmful algal bloom monitoring system. Gray color indicates cloud cover. *Provisional NOAA image, subject to change*.

Collection Date: June 09-11, 2025

Station	CHLa (ug/L)	TOXIN (ug/L)	TAXA	Station	CHLa (ug/L)	TOXIN (ug/L)	TAXA
FEBIN	NS	NS	NS	L001	32.0	BDL	Planktol
FEBOUT	44.8	0.3	Planktol	L004	20.4	BDL	Microcys
KISSR0.0	36.6	BDL	Micro/Plank	L006	14.3	BDL	Microcys
L005	20.7	BDL	Dolichos	L007	8.4	BDL	mixed
LZ2	28.1	BDL	Planktol	L008	13.7	BDL	Microcys
KBARSE	46.2	BDL	Microcys	LZ30	12.8	BDL	Microcys
RITTAE2	NS	NS	NS	LZ40	13.8	BDL	Microcys
PELBAY3	5.1	BDL	Micro/Chlam	CLV10A	25.0	BDL	Microcys
POLE3S	2.4	BDL	mixed	NCENTER	30.1	BDL	Planktol
LZ25A	NS	NS	NS				
PALMOUT	2.1	BDL	mixed	S308C	P	BDL	mixed
PALMOUT1	3.3	BDL	mixed	S77	20.5	BDL	mixed
PALMOUT2	11.7	BDL	Dolichos				
PALMOUT3	13.6	BDL	Dolichos				
POLESOUT	26.3	BDL	Dolic/Plank				
POLESOUT1	35.6	BDL	Dolic/Plank				
POLESOUT2	22.5	BDL	Planktol				
POLESOUT3	23.6	BDL	Microcys				
EASTSHORE	23.2	BDL	mixed				
NES135	20.7	BDL	Planktol				
NES191	49.5	BDL	Dolic/Plank				

➤ SFWMD considers >40 µg/L Chlorophyll *a* (Chla) an algal bloom
 ➤ BDL – Below Detectable Limit of 0.25 µg/L
 ➤ ND – No Dominant taxa
 ➤ P – Pending (white squares)
 ➤ NS – Not Sampled
 ➤ Station bold font – crew observed possible BGA
 ➤ Chlorophyll *a* analyzed by SFWMD
 ➤ Toxin and Taxa analyzed by FDEP:
 Microcys = Microcystis; Raphidio = Raphidiopsis;
 Planktol = Planktolyngbya; Dolicho = Dolichospermum;
 Pseud = Pseudanabaena; Cylindra = Cylindrospermopsis

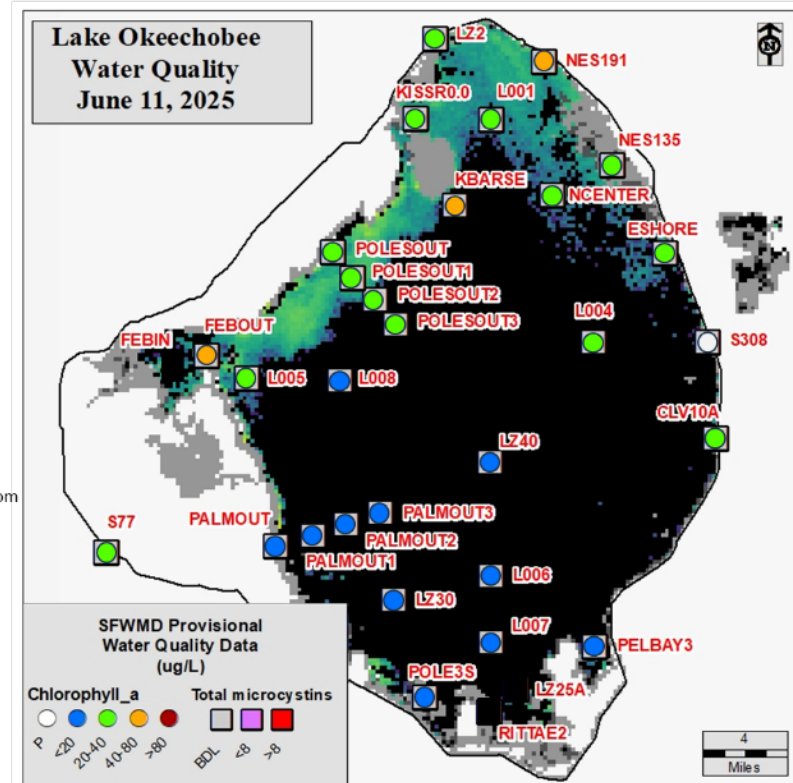


Figure LO-7. Dominant taxa, total microcystin (µg/L) and chlorophyll *a* (µg/L) concentration data from June 9-11, 2025. Sampling locations, chlorophyll *a*, and total microcystin concentrations are overlaid on the June 11, 2025, image from NOAA's harmful algal bloom monitoring system. Gray color indicates cloud cover.

Estuaries

St. Lucie Estuary

Over the past week, mean total inflow to the St. Lucie Estuary was 1,054 cfs (**Figures ES-1 and ES-2**), and the previous 30-day mean inflow was 805 cfs. For comparison, the historical provisional mean inflows from contributing areas are shown in **Figure ES-2**.

Over the past week, salinities increased at the HR1 site and decreased at the A1A Bridge and US1 Bridge sites (**Table ES-1 and Figure ES-3**). The seven-day moving average of the surface and bottom salinities at the US1 Bridge was 17.7. 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 June increased to 17.7 spat/shell at Rio, indicating that spawning activity is currently underway (**Figure ES-5**).

Caloosahatchee River Estuary

Over the past week, mean total inflow to the Caloosahatchee River Estuary was 1,685 cfs (**Figures ES-6 and ES-7**), and the previous 30-day mean inflow was 1,465 cfs. For comparison, the historical provisional mean inflows from the contributing areas are shown in **Figure ES-7**.

Over the past week, salinities decreased at Sanibel 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 at S-79 and Val I-75 and in the stressed range at the Ft. Myers site. The seven-day mean salinity values were within the optimal range for adult eastern oysters at Cape Coral and in the upper stressed range at Sanibel and Shell Point (**Figure ES-10**). The mean larval oyster recruitment rates reported by the FWRI in June increased to 6.2 spat/shell at Iona Cove and 8.1 spat/shell at Bird Island, indicating that spawning is occurring at both stations in the CRE (**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 1,201 cfs. Model results from all scenarios predict daily salinity to be between 0.6 and 1.8 and the 30-day moving average surface salinity to be 2.7 to 3.0 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 June 27, 2025, that *Karenia brevis*, the Florida red tide dinoflagellate, was not observed in any samples collected statewide over the past week.

Water Management Recommendations

Lake stage is just above the Water Shortage Management Zone. Current climatological and hydrological conditions are normal. The LOSOM release guidance suggests no releases at S-79 to the Caloosahatchee River Estuary, and no releases at S-80 to the St. Lucie Estuary.

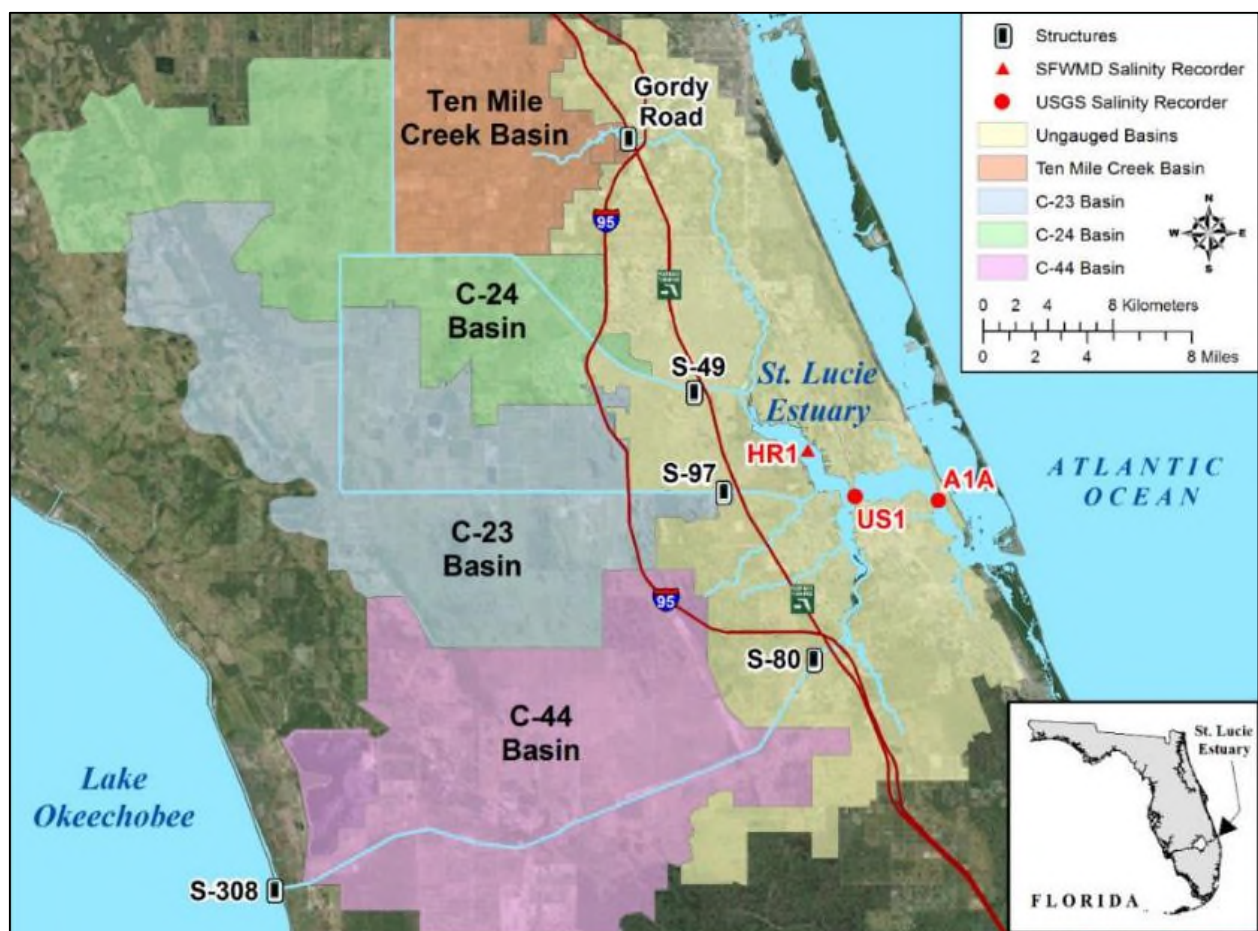


Figure ES-1. Basins, water control structures and salinity monitoring sites in the St. Lucie Estuary.

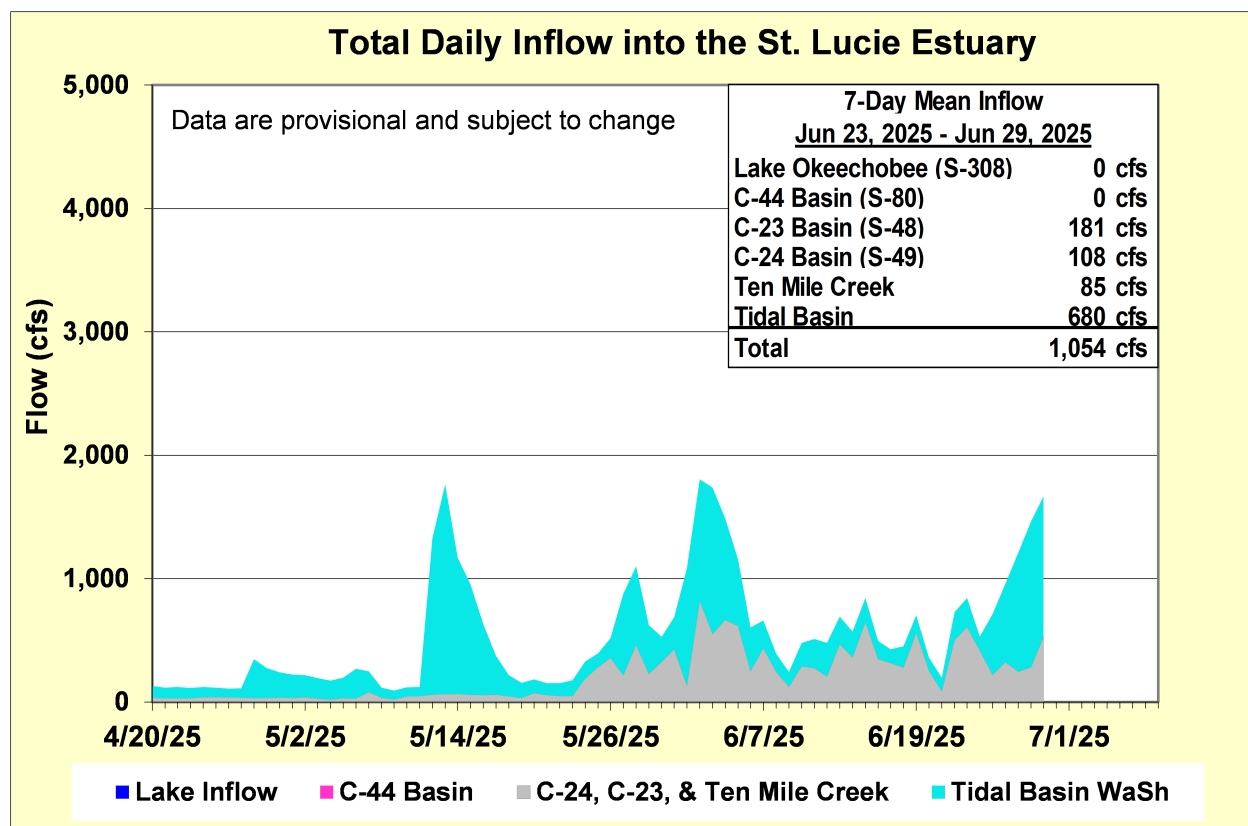


Figure ES-2. Total daily inflows from Lake Okeechobee and runoff from the C-44, C-23, C-24, Ten Mile Creek, and Tidal Basins into the St. Lucie Estuary.

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)	9.7 (9.5)	15.9 (15.3)	10.0 – 25.0
US1 Bridge	17.0 (17.9)	18.4 (23.3)	10.0 – 25.0
A1A Bridge	26.4 (27.0)	28.9 (29.6)	10.0 – 25.0

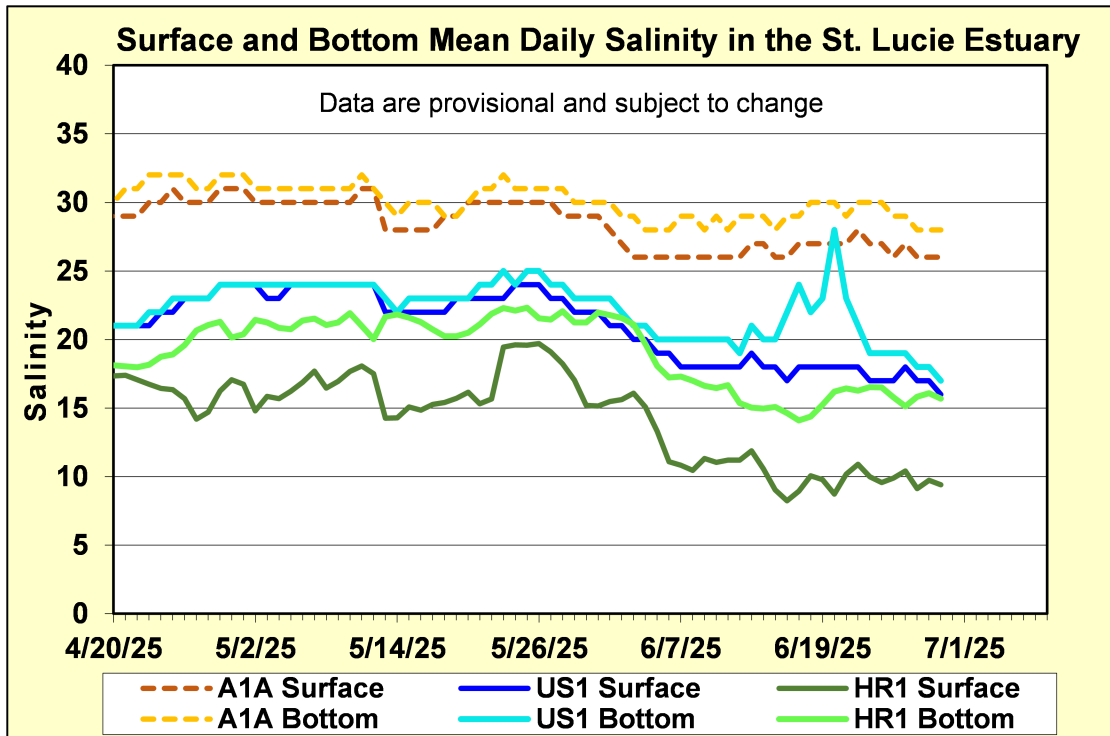


Figure ES-3. Mean daily salinity at the A1A, US1, and HR1 sites in the St. Lucie Estuary.

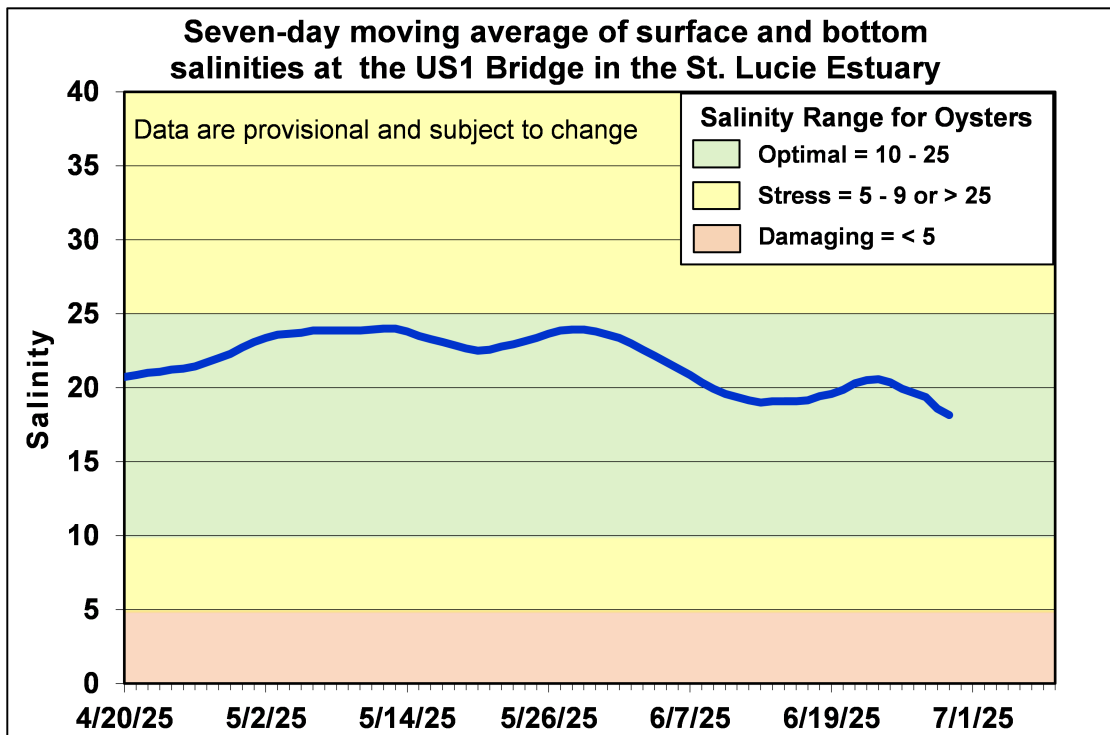


Figure ES-4. Seven-day moving average of the surface and bottom salinities at the US1 Bridge in the St. Lucie Estuary.

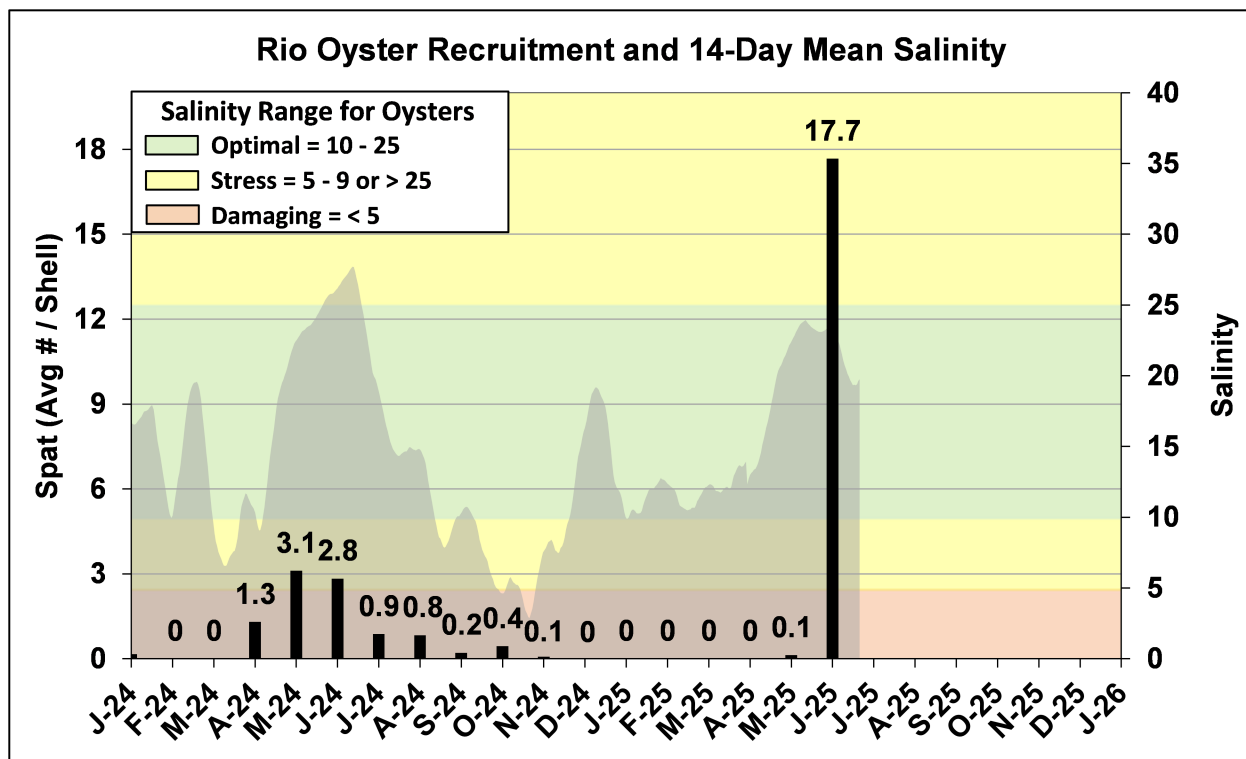


Figure ES-5. Mean oyster recruitment at the Rio oyster monitoring station and 14-day mean salinity at US1 Bridge.

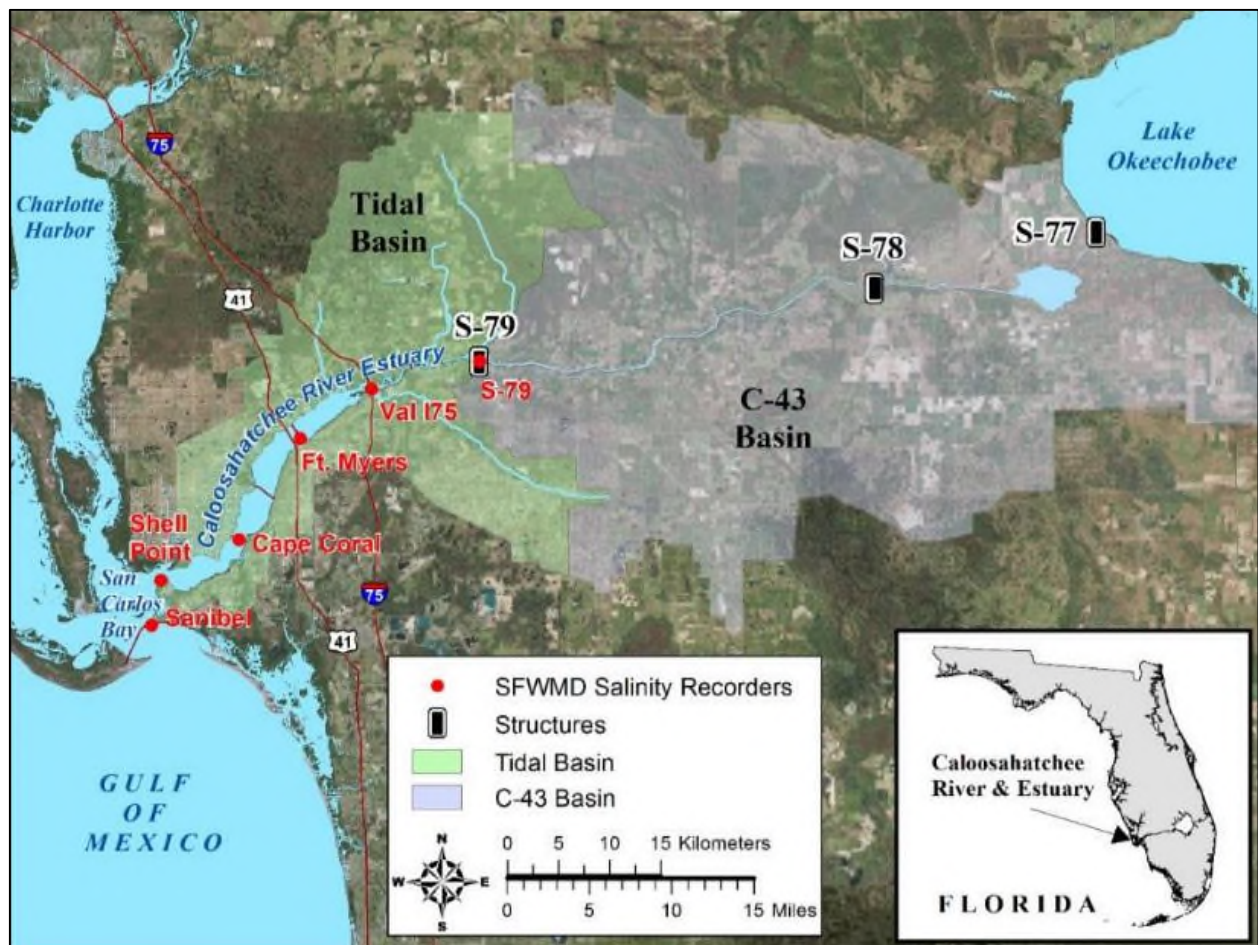


Figure ES-6. Basins, water control structures, and salinity monitoring sites in the Caloosahatchee River Estuary.

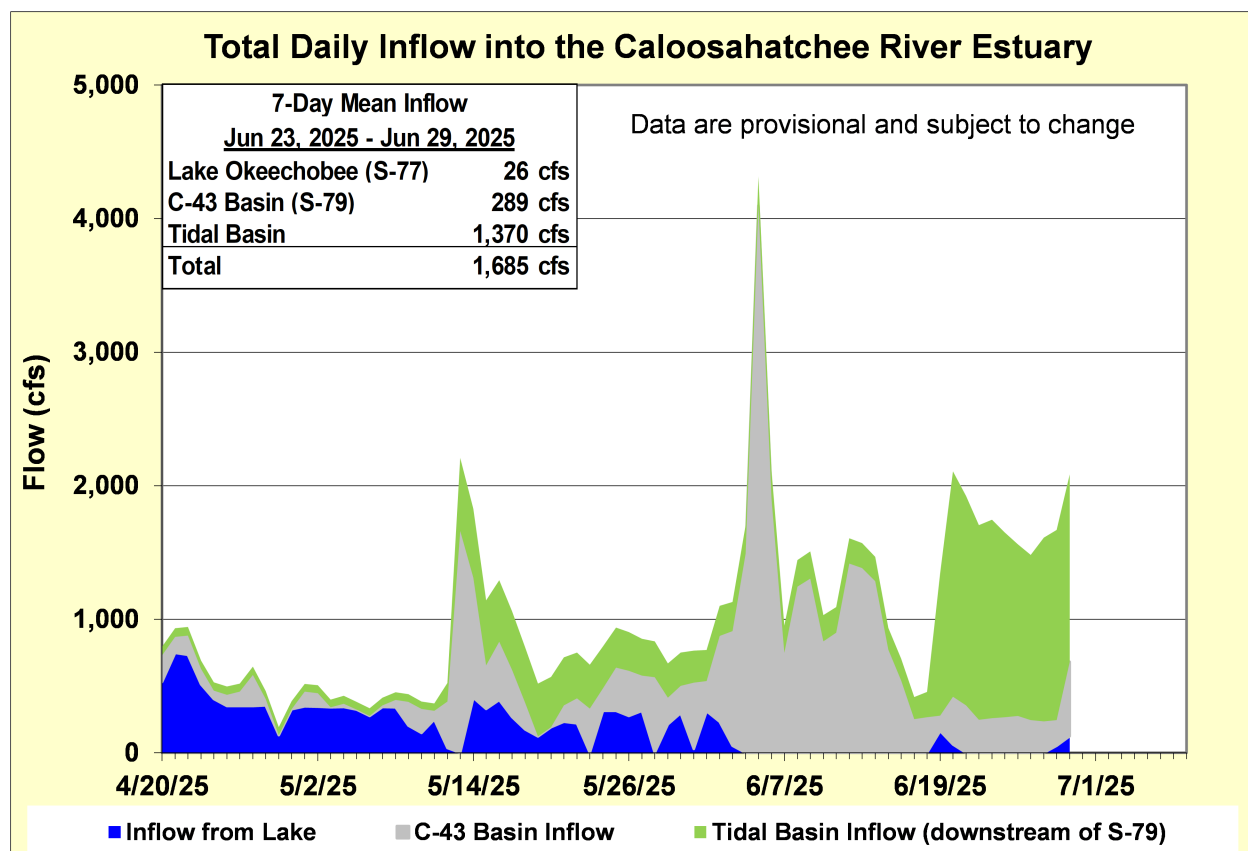


Figure ES-7. Total daily inflows from Lake Okeechobee, and runoff from the C-43 and Tidal basins into the Caloosahatchee River Estuary.

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)	6.2 (2.5)	6.5 (2.6)	0.0 – 10.0
Val I-75	4.8 (2.3)	8.4 (3.7)	0.0 – 10.0
Fort Myers Yacht Basin	11.3 (9.1)	14.4 (12.8)	0.0 – 10.0
Cape Coral	18.9 (17.3)	19.5 (18.6)	10.0 – 25.0
Shell Point	31.4 (30.9)	31.8 (31.3)	10.0 – 25.0
Sanibel	34.2 (35.0)	34.9 (35.7)	10.0 – 25.0

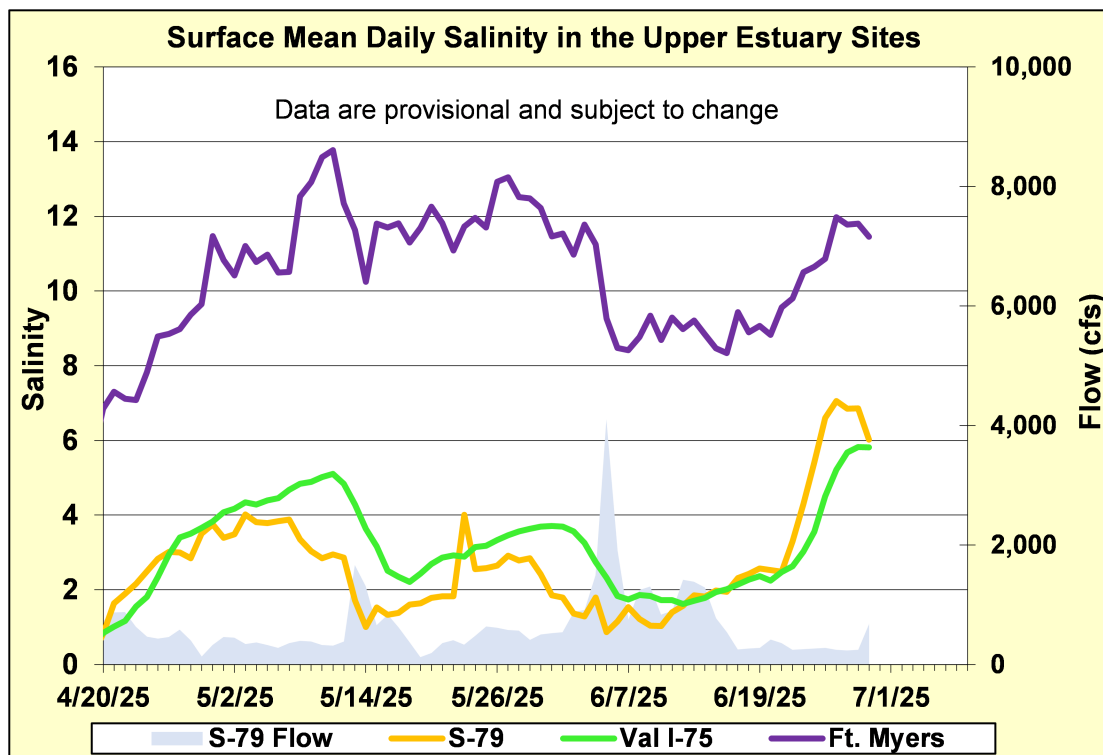


Figure ES-8. Mean daily salinity at upper Caloosahatchee River Estuary monitoring sites and mean daily flow at S-79.

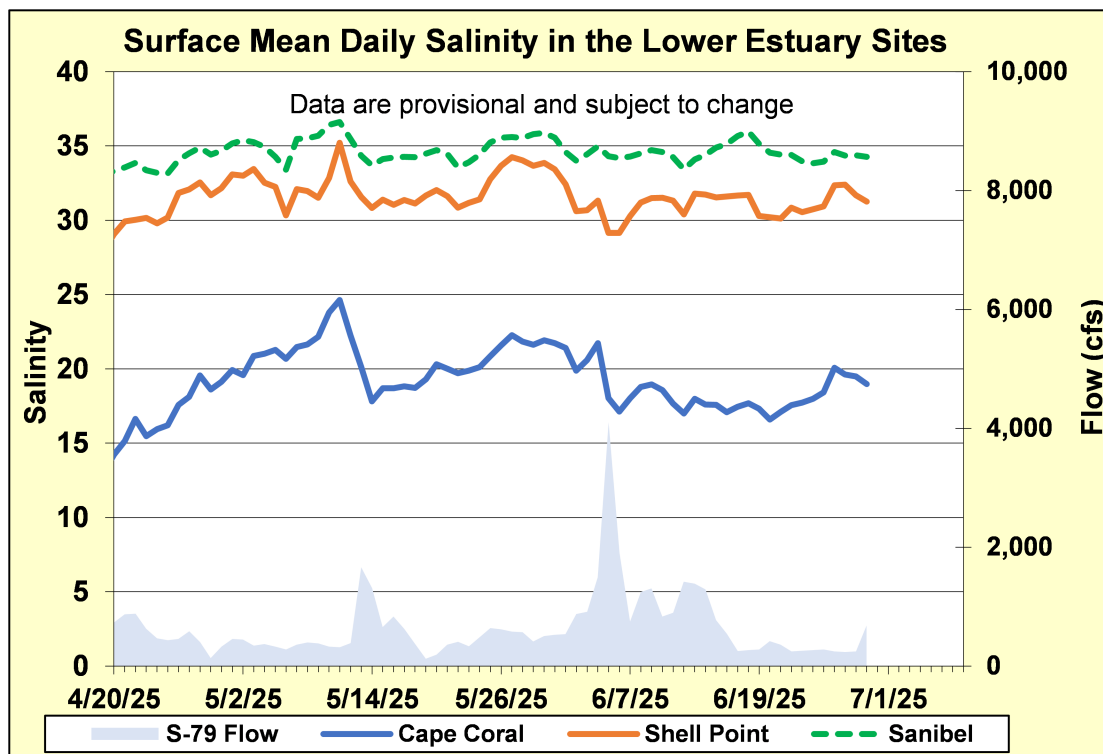


Figure ES-9. Mean daily surface salinity at lower Caloosahatchee River Estuary monitoring sites and mean daily flow at S-79.

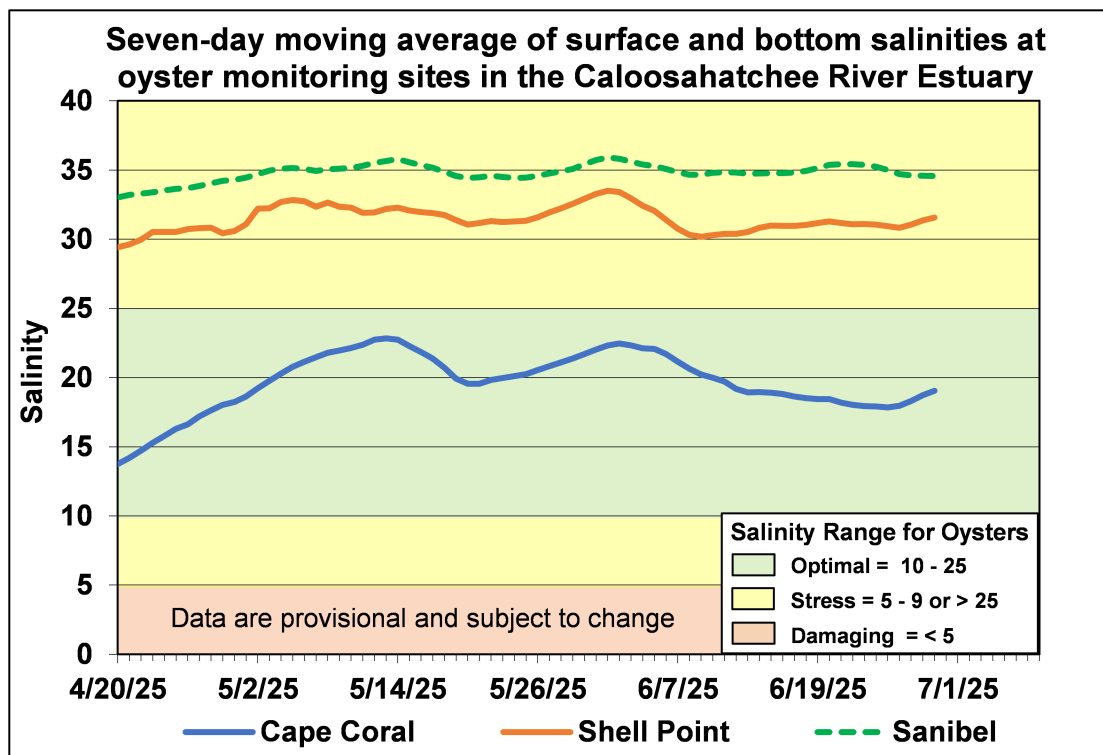


Figure ES-10. Seven-day moving average of surface and bottom salinities at Cape Coral, Shell Point, and Sanibel monitoring sites in the Caloosahatchee River Estuary.

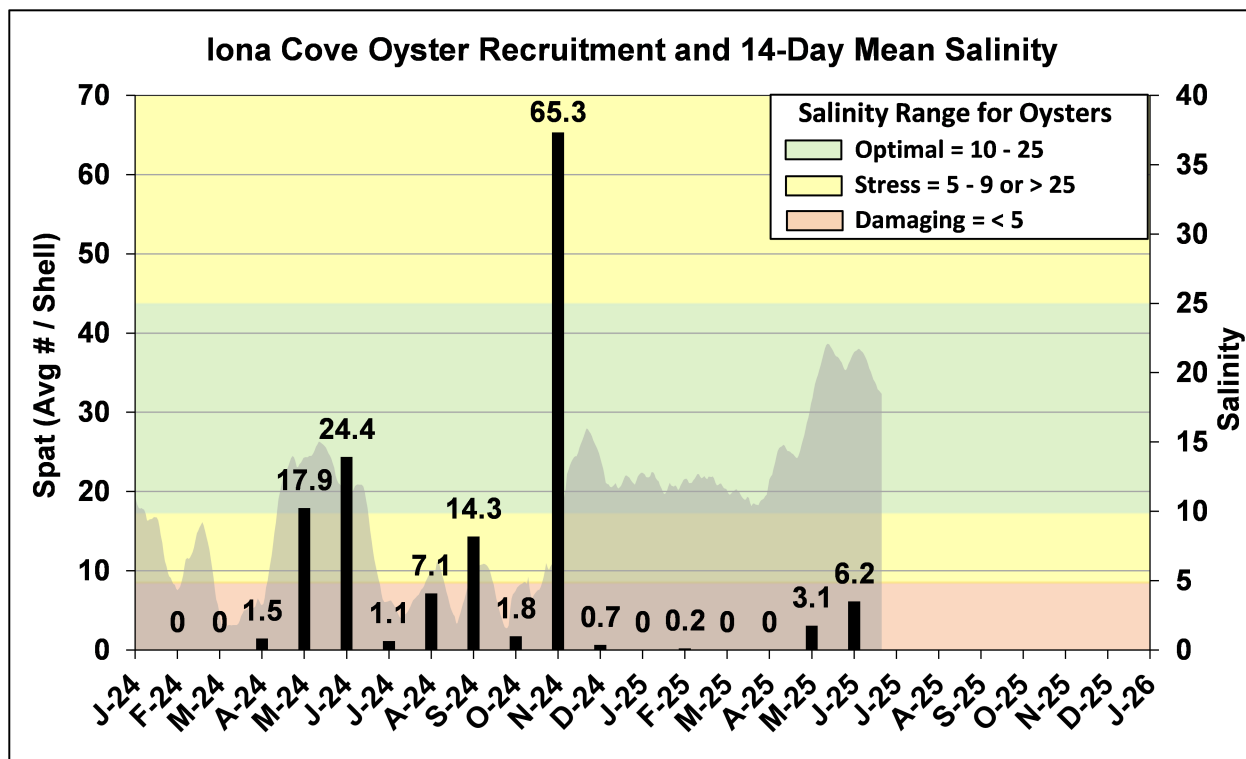


Figure ES-11. Mean oyster recruitment at the Iona Cove oyster monitoring station and 14-day mean salinity at Cape Coral.

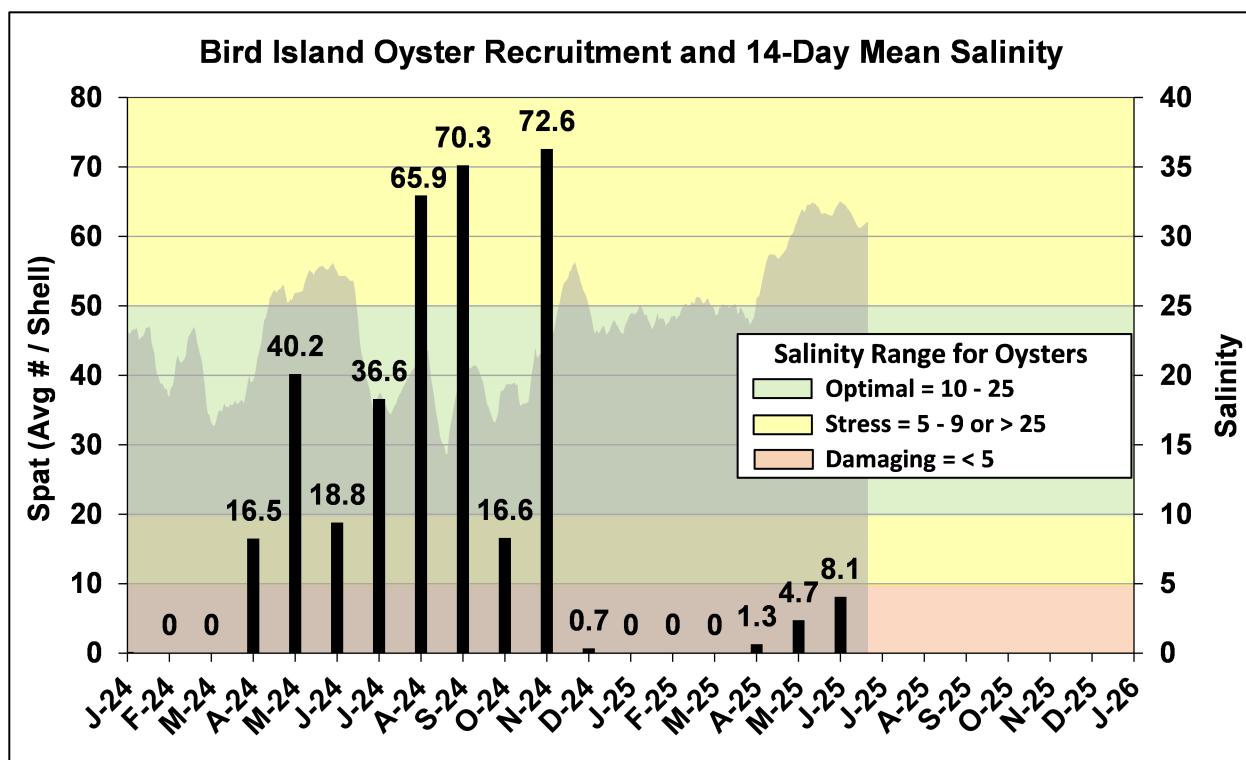


Figure ES-12. Mean oyster recruitment at the Bird Island oyster monitoring station and 14-day mean salinity at Shell Point.

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	1201	1.8	3.0
B	750	1201	1.2	2.8
C	1000	1201	1.0	2.8
D	1500	1201	0.9	2.7
E	2000	1201	0.6	2.7

Observed and Forecasted Flow at S-79 and Salinity at Val I-75

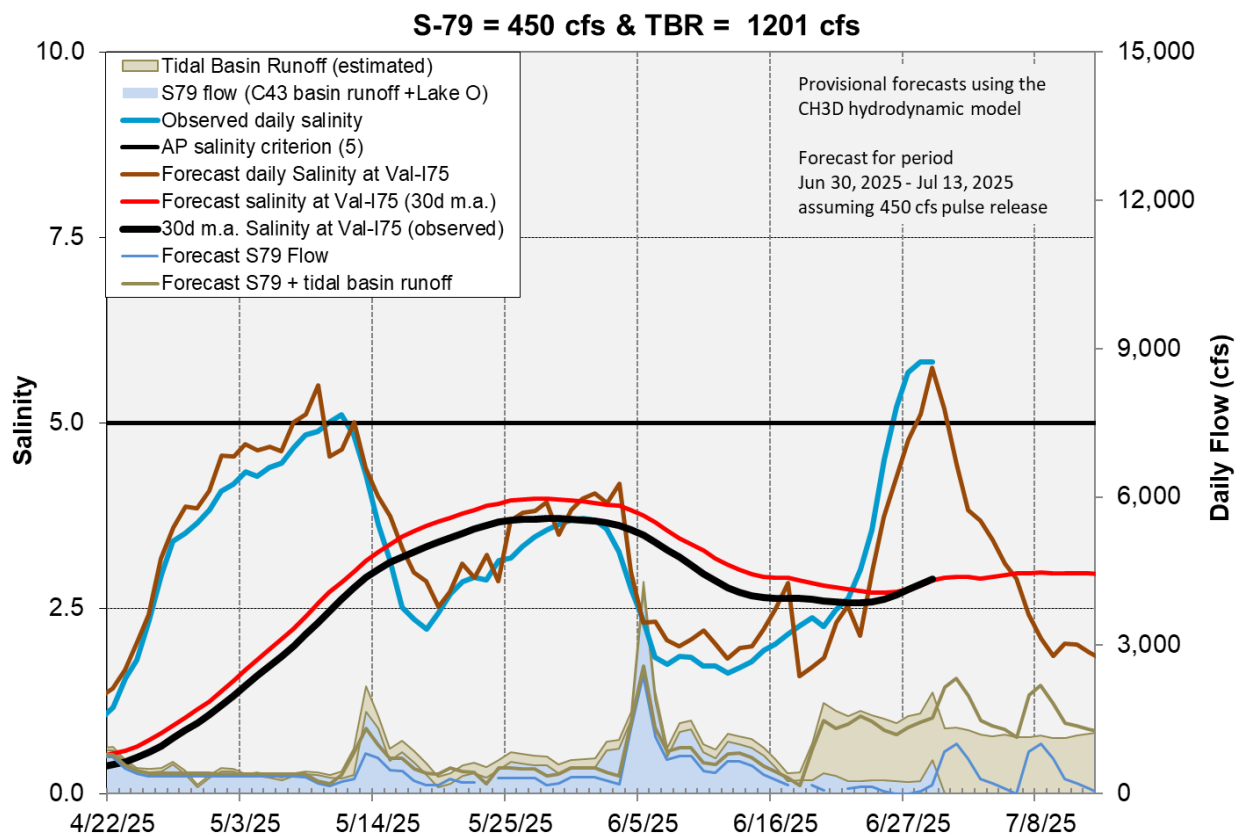


Figure ES-13. Surface salinity forecast at the Val I-75 site assuming a 450 cfs pulse release at S-79.

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 near target stage. The 365-day PLR for the Western Flow-way is below $1.0 \text{ g/m}^2/\text{year}$ (**Figure S-2**).

STA-1W: 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 $1.0 \text{ g/m}^2/\text{year}$. The 365-day PLR for the Western Flow-way is high (**Figure S-2**).

STA-2: STA-2 Flow-way 3 is offline for post-drawdown vegetation grow-in. Operational restrictions are in place in Flow-ways 2 and 4 for vegetation management activities. An additional restriction is in place for inflow canal dredging in Flow-way 1. Online treatment cells are near target stage. Vegetation in Flow-ways 2 is stressed, and in Flow-way 5 is highly stressed. The 365-day PLRs for Flow-ways 1, 2, 4, and 5 are below $1.0 \text{ g/m}^2/\text{year}$ (**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 near or 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 $1.0 \text{ g/m}^2/\text{year}$ (**Figure S-3**).

STA-5/6: Treatment cells are below target stage. All treatment cells have highly stressed or stressed vegetation conditions. The 365-day PLRs for Flow-ways 1, 2, 6, 7, and 8 are below $1.0 \text{ g/m}^2/\text{year}$, and the 365-day PLRs for Flow-ways 3, 4, and 5 are high. (**Figure S-4**).

For definitions on STA operational language see glossary following figures

Everglades Stormwater Treatment Areas - STAs

- Total WY2026 inflows to STAs (5/1/2025 to 6/29/2025): ~98,000 ac-ft
- Lake Okeechobee releases to FEBs/STAs
 - 6/23/2025 to 6/29/2025: 2,900 ac-ft
 - WY2026: ~27,400 ac-ft
- Extensive vegetation management activities underway to address stressed and highly stressed vegetation in EAV cells
- Most treatment cells are near or above target water depth except STA-5/6 EAV cells which are below target

Estimated Inflow and Outflow Volumes

Jun. 23 – Jun. 29, 2025

Includes preliminary data

	Total Inflow (acre-feet)	Total Outflow (acre-feet)
STA-1E	1,100	200
STA-1W	1,700	500
STA-2	1,500	1,400
STA-3/4	4,900	6,600
STA-5/6	100	0

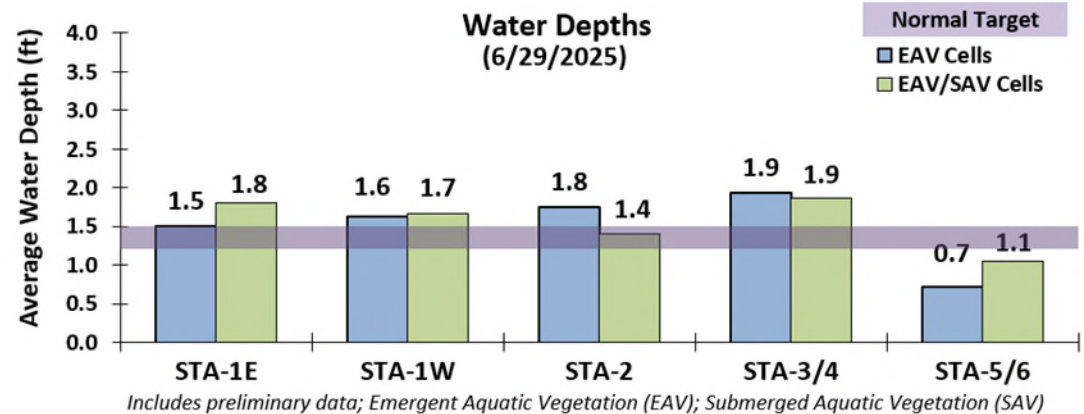


Figure S-1. STA depths and flow volumes

0 CFS Lake release capacity in Eastern Flow Path:
6/30/2025-7/6/2025

- Subject to change weekly as wet season progresses

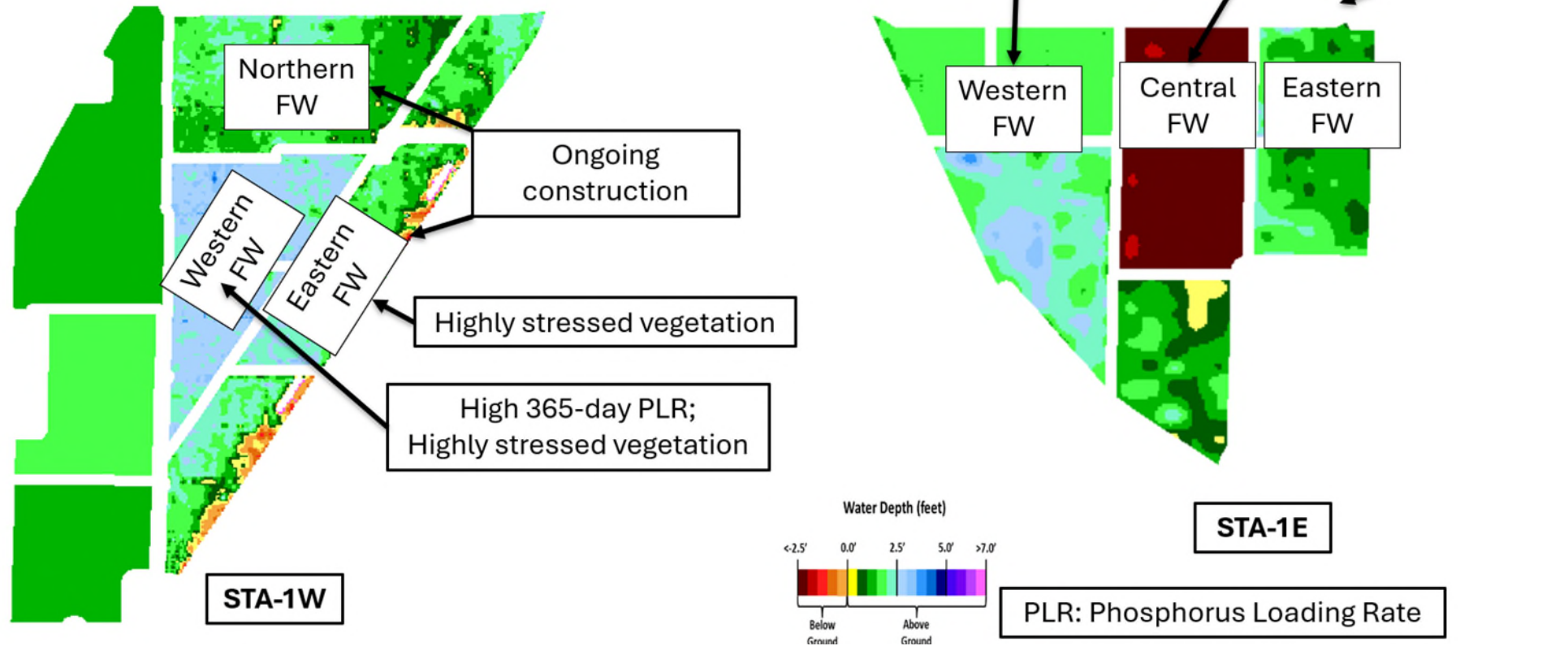


Figure S-2. Eastern Flow Path Weekly Status Report

800 CFS Lake release capacity in Central Flow Path:
6/30/2025-7/6/2025

- **200 CFS in STA-2**
- **600 CFS in STA-3/4**
- Subject to change weekly as wet season progresses

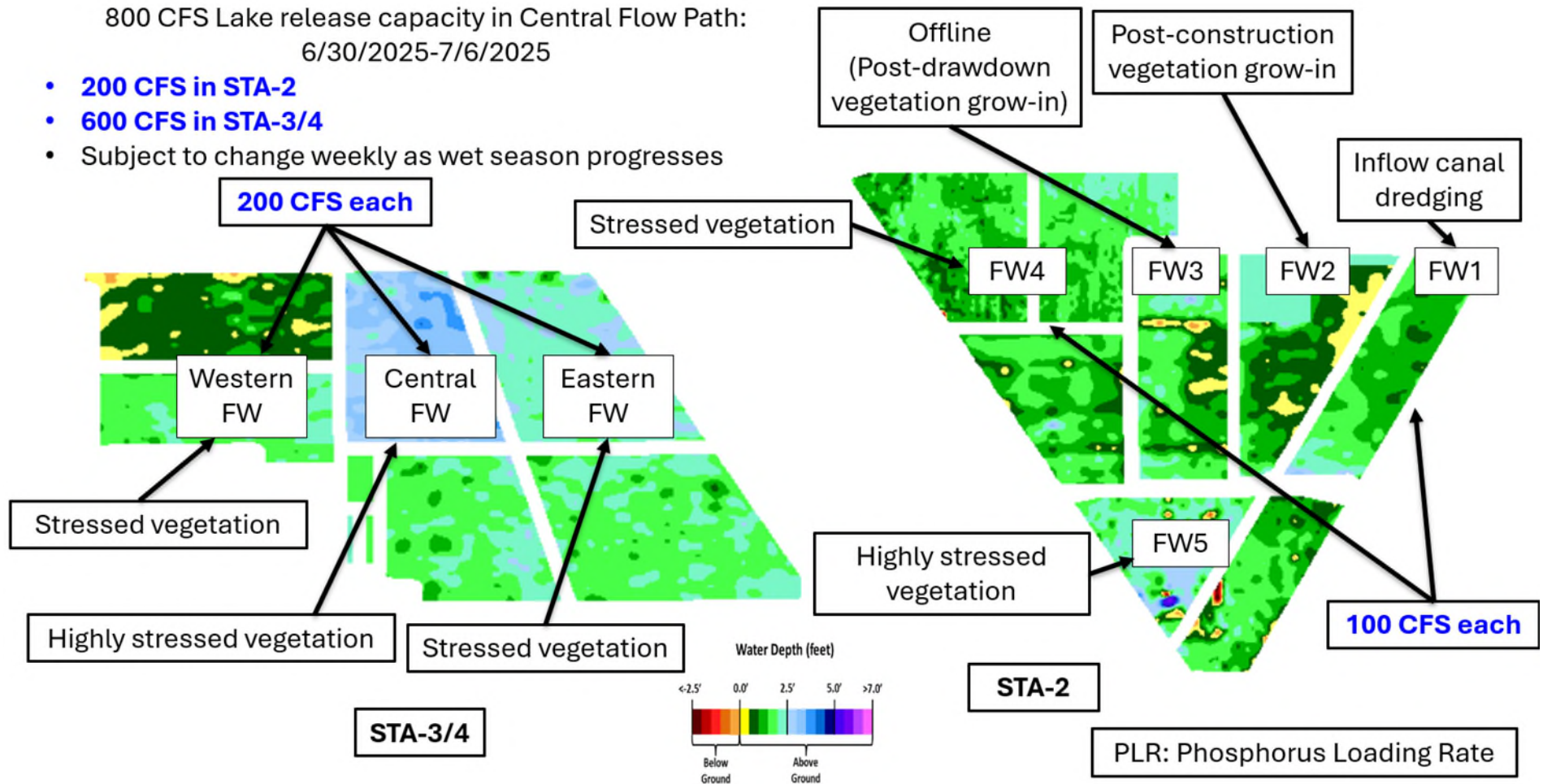


Figure S-3. Central Flow Path Weekly Status Report

0 CFS Lake release capacity in Western Flow Path:
6/30/2025-7/6/2025

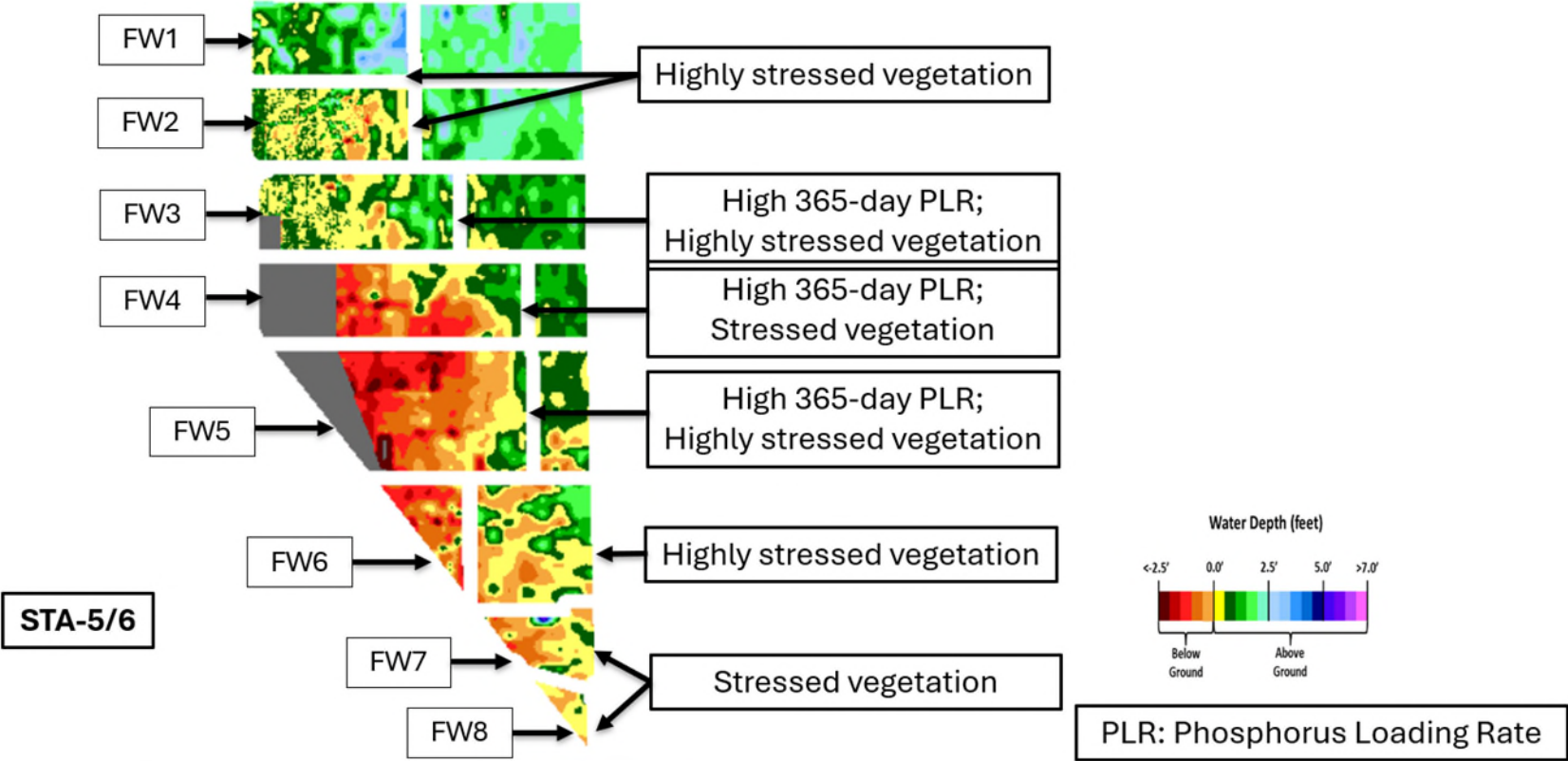


Figure S-4. Western Flow Path Weekly Status Report

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 1-8C Gauge continues a downward trend and was 0.45 feet below the A1 Zone regulation line on Sunday, June 29, 2025. WCA-2A: S11B stage fell below the water supply line last week and was 0.67 feet below the Zone A regulation line on Sunday. WCA-3A: The 3-gauge average remains in Zone B; on Sunday stages were 1.0 feet below the Zone A regulation line. WCA-3A North: Stage at Gauge 62 (NW corner) remains steady below the Upper Schedule regulation line; on Sunday, stage was 0.83 feet below that line. See **Figures EV-1 — EV-4**.

Water Depths

The SFWDAT model output for June 30, 2025, illustrates the continuation of very dry conditions in WCA-1 and WCA-2A. Conditions remain relatively dry in WCA-3A South, but depths are increasing across WCA-3A, especially along the north and western regions. Big Cypress Basin depths continue to be significantly below soil surface only along Tamiami Trail, but that basin remains dry overall. Hydrologic connectivity has now diminished in Shark River and Taylor Sloughs with little to no flow connectivity in either. Depths in the Everglades Protection Area (EPA) are well below average for this time of year. Depths remain in the 10th – 30th percentile throughout the EPA with the exceptions of WCA-3A North, Lostmans Slough region, and northeast Shark River Slough, which are slightly above average for this time of year. See **Figures EV-5 — EV-6**.

Taylor Slough and Florida Bay

All stages decreased across Taylor Slough over the past week, with an average decrease of 0.17 feet. Changes ranged from –0.49 feet at E112 in the northern slough to –0.01 feet at EPSW in the C-111 area (**Figure EV-7 and Figure EV-8**). Taylor Slough Bridge (TSB) stage is now below ground, indicating a lack of water at the head of the slough. Taylor Slough water levels remain below the recent average (WY1993-2016) for this time of year by 6.6 inches compared to before the Florida Bay initiative (starting in 2017), a decrease of 4.4 inches relative to last week's comparison. The Craighead Pond (CP) and TSB stages remain below the estimated average for 1900 by 1.09 and 2.63 feet, respectively.

Average Florida Bay salinity was 36.6, an increase of 0.7 from last week. Salinity changes ranged from –0.7 at Garfield Bight (GB) in the western nearshore region to +2.0 at Johnson Key (JK) in the western offshore region (**Figure EV-7**). Salinity is above the estimated average for 1900 and within the WY2001-2016 Interquartile Range (IQR) for all three regions, though is above the hypersalinity threshold in the western region and nearing the threshold in the central region (**Figure EV-9**). Average Florida Bay salinity is above its recent average (WY1993-2016) for this time of year by 4.3, an increase of 1.3 relative to last week's comparison.

Salinity at the Taylor River (TR) station in the mangrove zone (tracked for the Florida Bay MFL) was 30.3. The 30-day moving average was 25.4 (**Figure EV-10**), a decrease of 1.2

from last week. The 365-day moving sum of flow from the five major creeks (McCormick Creek, Taylor River, Mud Creek, Trout Creek, West Highway Creek) was 226,936 acre-feet, a decrease of 9,733 acre-feet from last week (**Figure EV-10**).

Average rainfall across Taylor Slough and Florida Bay was approximately 0.44 inches over the past week based on the 18 gauges used for this report. Rainfall ranged from 0.05 inches at Royal Palm Lake (RPL) in the northern slough to 1.33 inches at EPSW in the C-111 area (**Figure EV-11**). Wind directions and speeds in Florida Bay ranged from 5.8 mph NE on June 27th to 27.3 mph SE on June 26th (**Figure EV-11**).

Average daily flow from the five major creeks totaled -109 acre-feet, with net negative flows over the past week. Total daily creek flow ranged from -1,348 acre-feet on June 27th to 938 acre-feet on June 24th (**Figure EV-12**). Average daily flow was 4,729 acre-feet below estimated historical levels (circa 1900).

Implications for water management

Maintaining stable water depths in WCA-1 can help to support the remaining foraging needed for the last of the fledgling wood storks. Switching to a hydrologic regime that is focused on supporting apple snail reproduction in the next few weeks will become more important for the function of Everglades ecology. Florida Bay salinity is continuing to increase toward hypersalinity thresholds in the central and western regions, however with expected wet season rainfall, salinity should decrease before ecologically harmful conditions begin. Florida Bay will continue to benefit from freshwater input to the system and direct rainfall. Individual regional recommendations can be found in **Table EV-2**.

Table EV-2. Previous week's rainfall and water depth changes in Everglades basins. NR is not reporting.

Everglades Region	Rainfall (inches)	Stage change (feet)
WCA-1	1.05	-0.07
WCA-2A	0.46	-0.08
WCA-2B	0.65	NR
WCA-3A	1.65	-0.01
WCA-3B	0.49	-0.07
ENP	0.67	-0.10

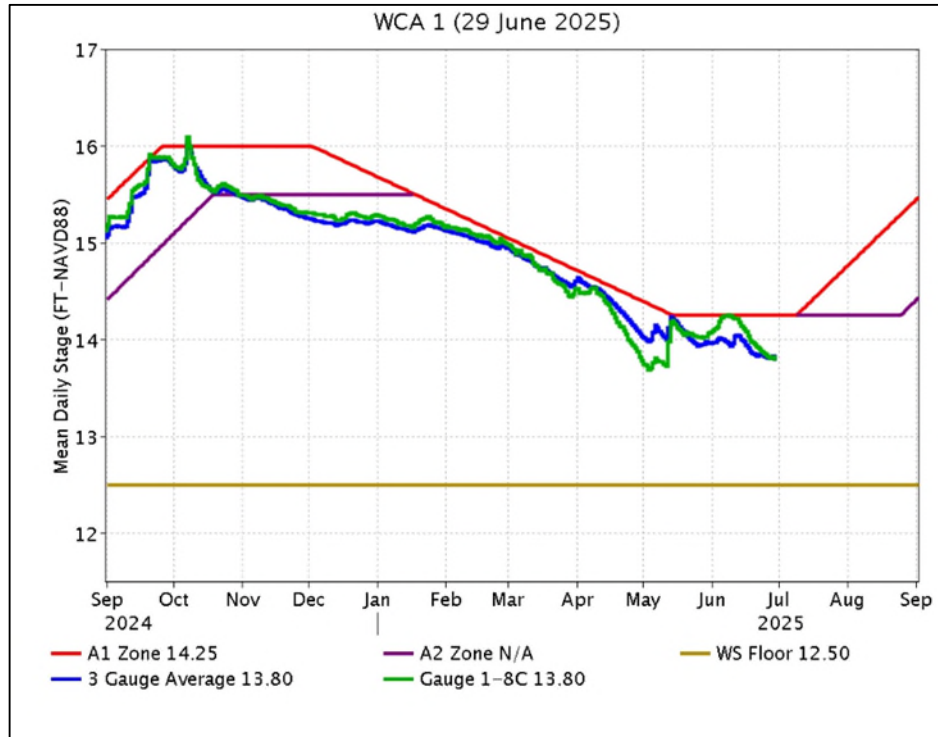


Figure EV-1. WCA-1 stage hydrographs and regulation schedule.

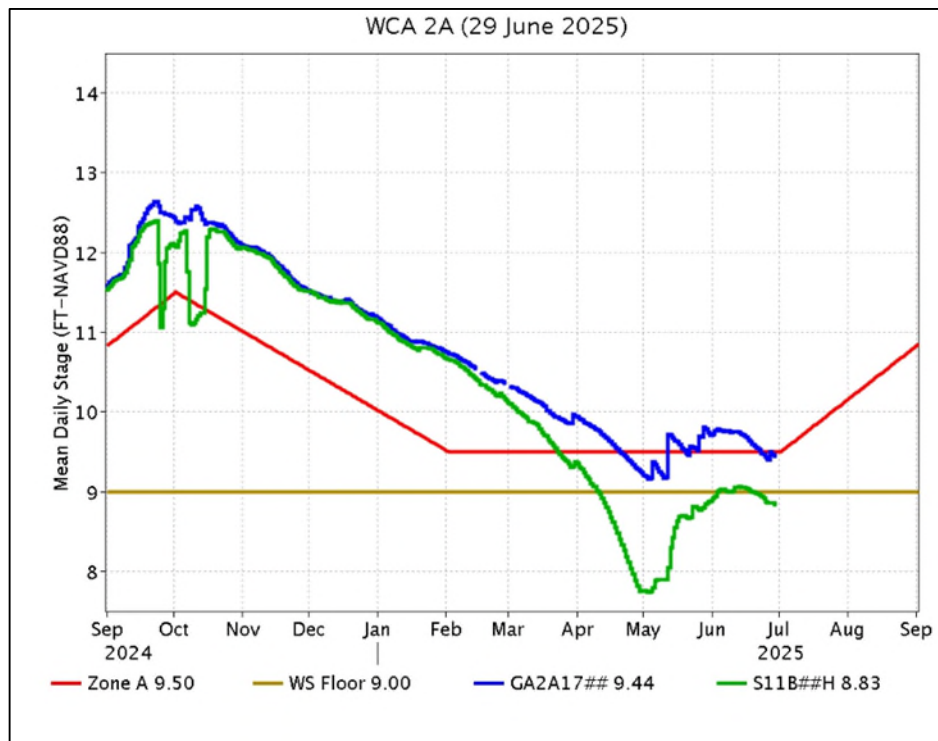


Figure EV-2. WCA-2A stage hydrographs and regulation schedule.

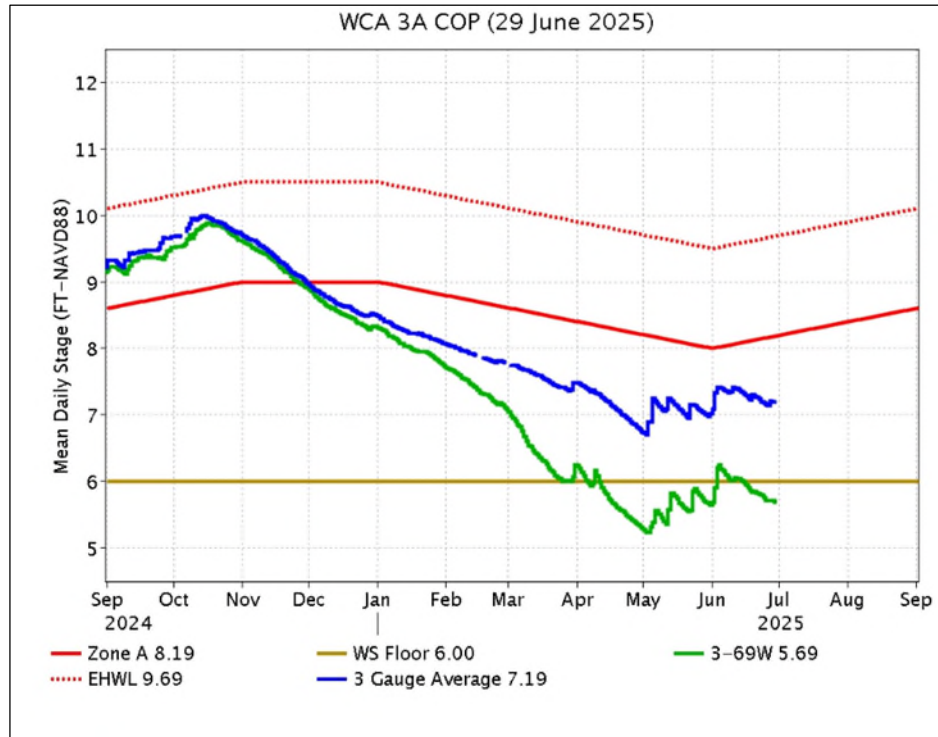


Figure EV-3. WCA-3A stage hydrographs (three-gauge average, 3-69W) and regulation schedule.

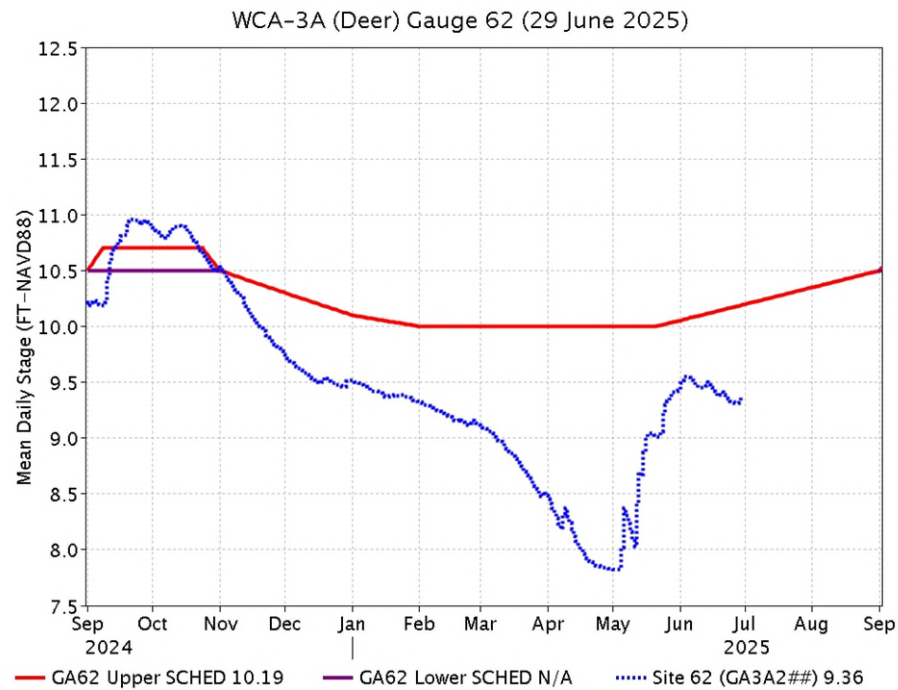


Figure EV-4. WCA-3A stage hydrograph (Deer Gauge; Site 62) and GA62 regulation schedule.

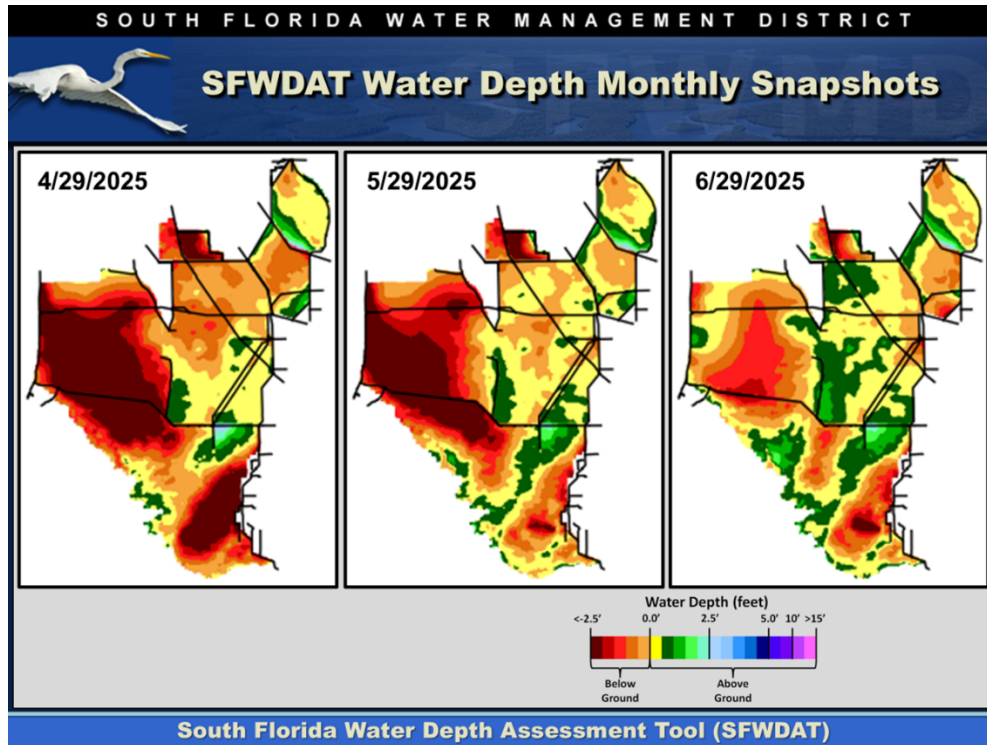


Figure EV-5. Everglades water depths from two months ago (left), one month ago (center) and present (right), based on SFWDAT.

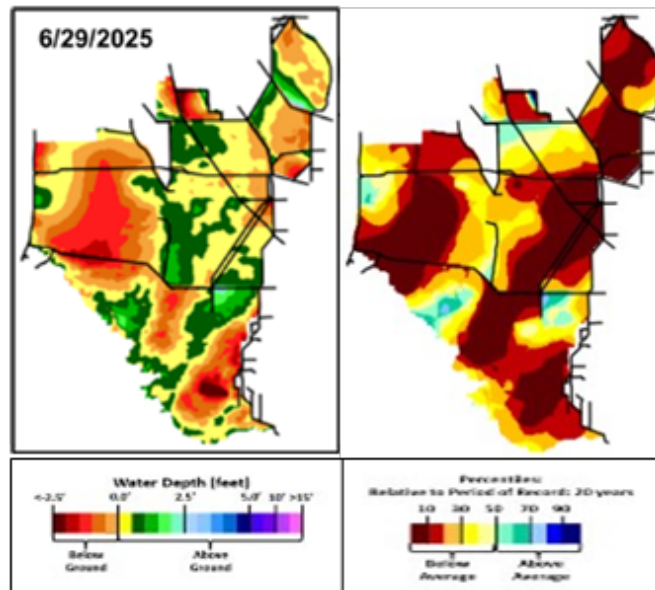


Figure EV-6. Present water depths (June 29, 2025) compared to the day of year relative to average (percentile) over the previous 20 years.

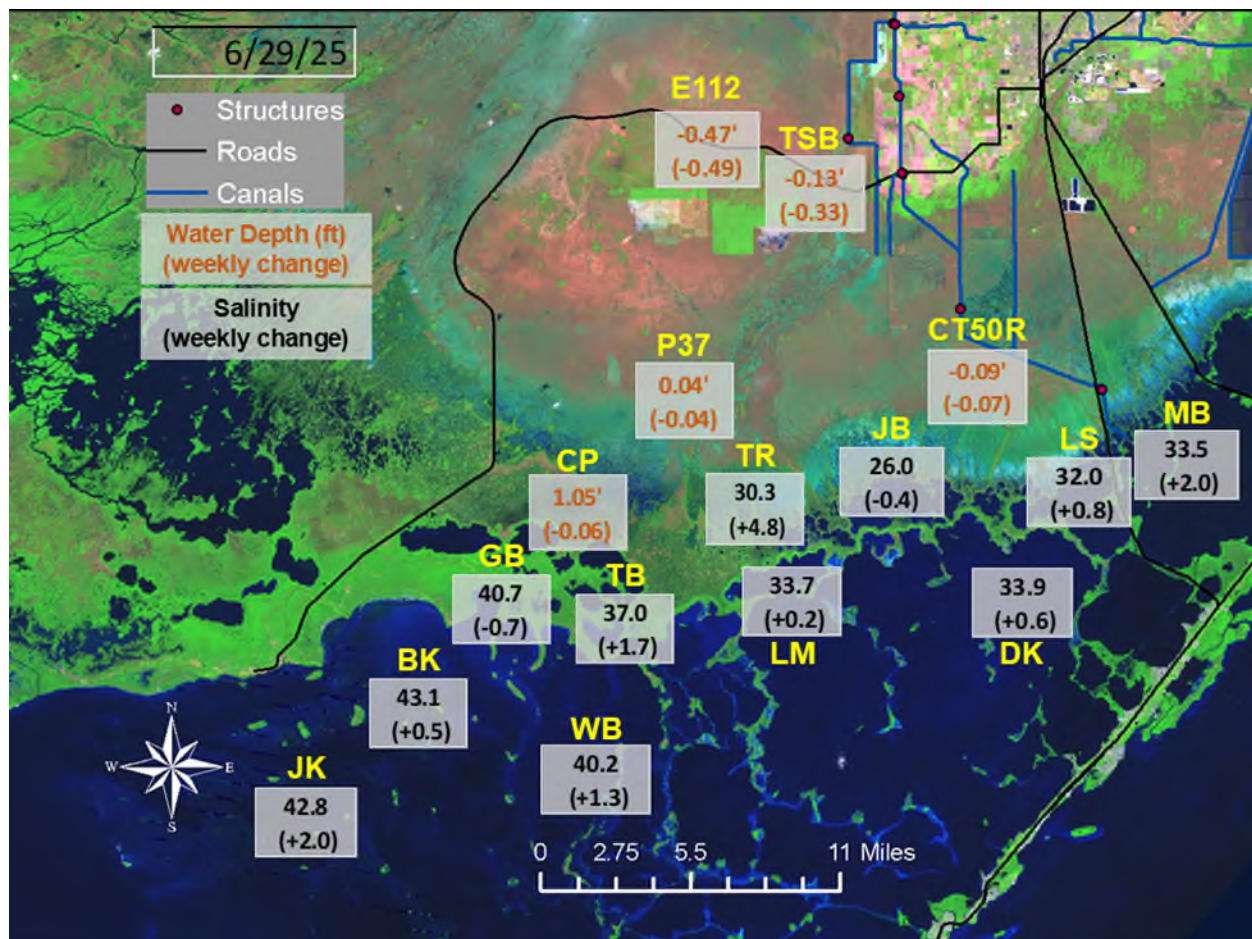


Figure EV-7. Taylor Slough water depths and Florida Bay salinities with changes since a week ago.

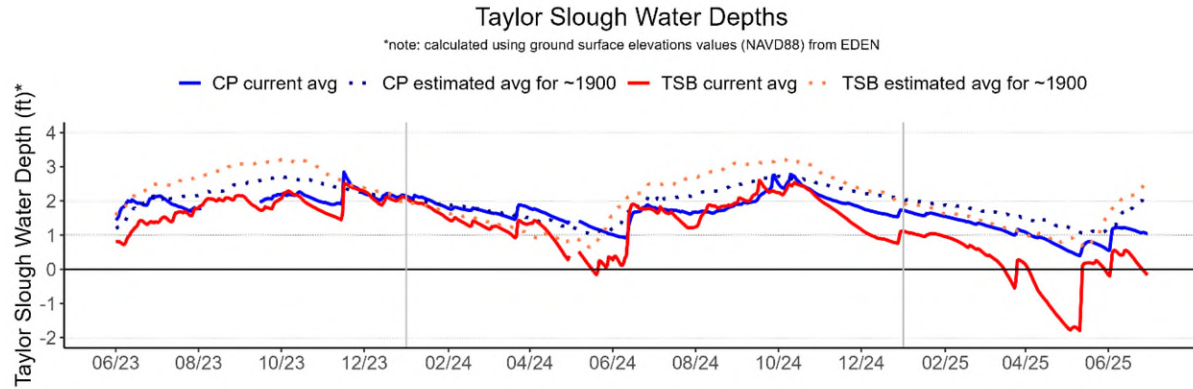


Figure EV-8. Taylor Slough water depth time series for Taylor Slough Bridge (TSB; northern slough) and Craighead Pond (CP; southern slough).

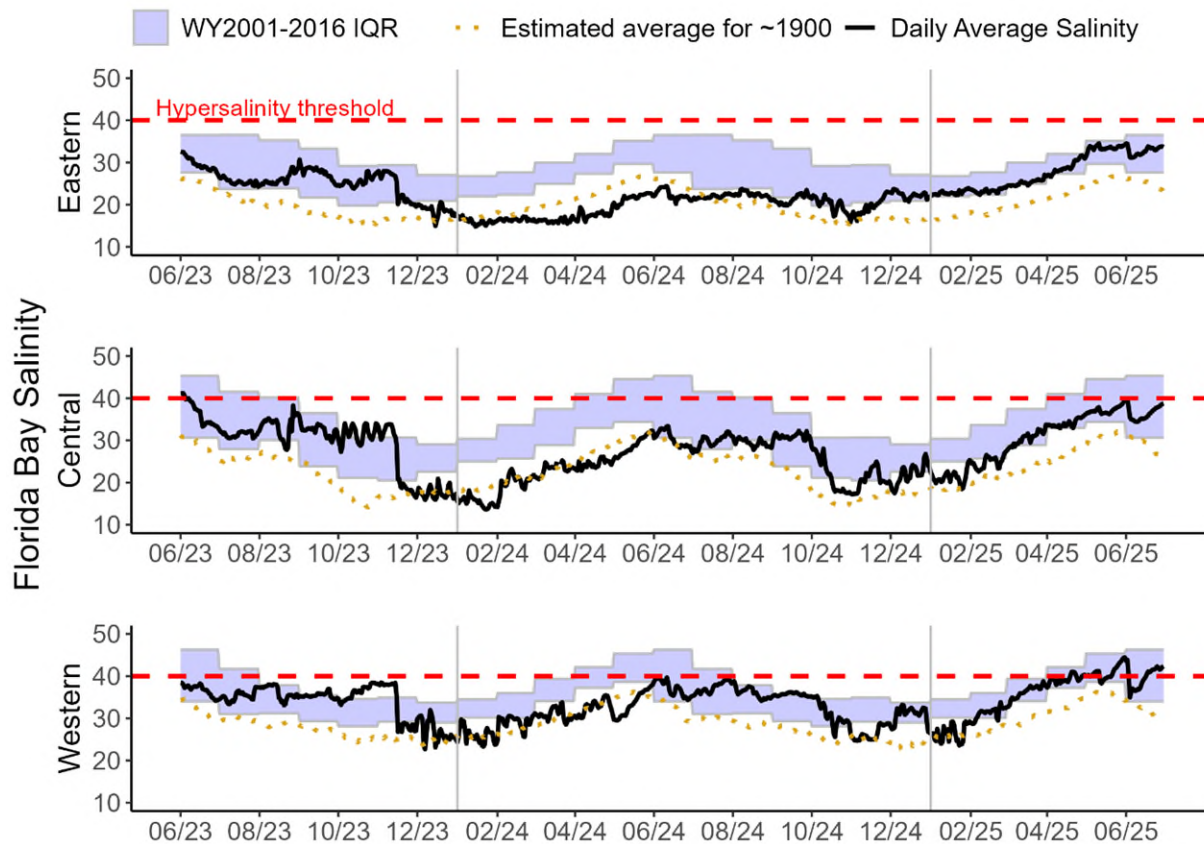


Figure EV-9. Eastern (top panel), Central (middle panel) and Western (bottom panel) Florida Bay daily average salinities with WY2001-2016 interquartile (25-75 percentile) ranges (IQR) and estimated historical daily average salinities. The hypersalinity threshold indicates the level at which salinities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

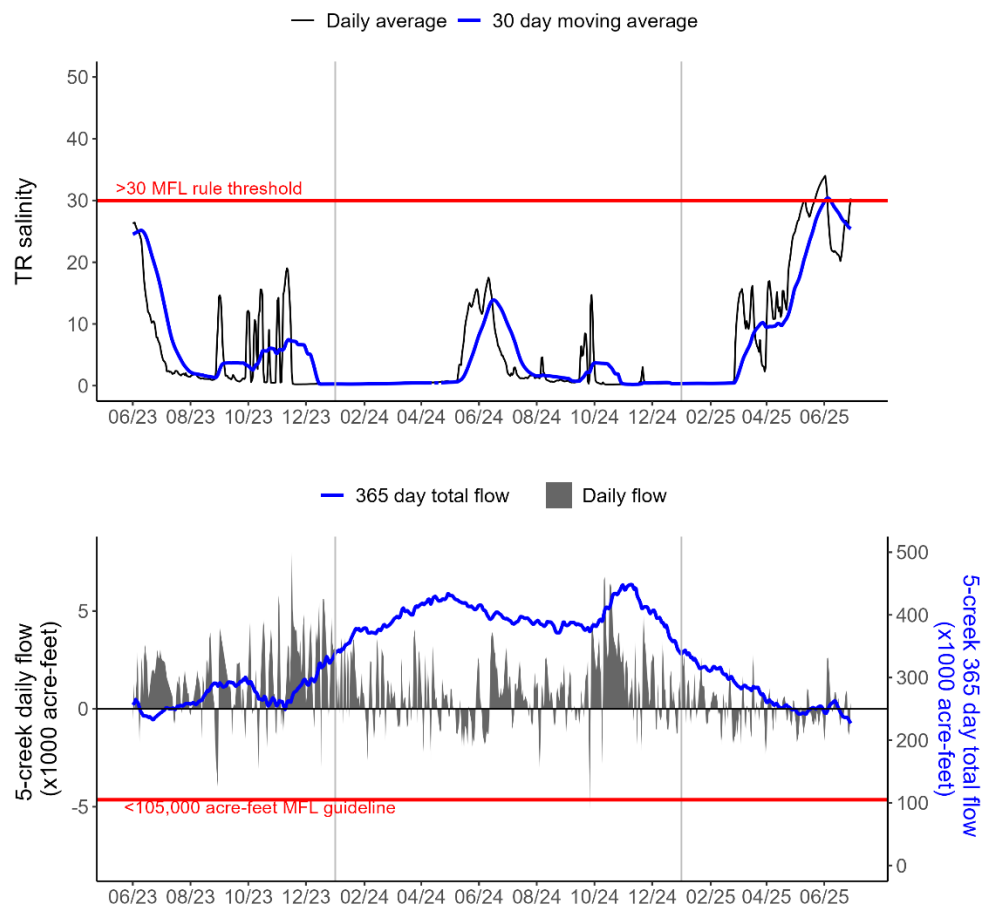


Figure EV-10. Salinity at Taylor River (TR; top) and creek inflow to Florida Bay (bottom) from the five major creeks (McCormick Creek, Taylor River, Mud Creek, Trout Creek, and West Highway Creek). The 30-day moving average salinity and 365-day total creek flow are tracked for the Florida Bay MFL criteria.

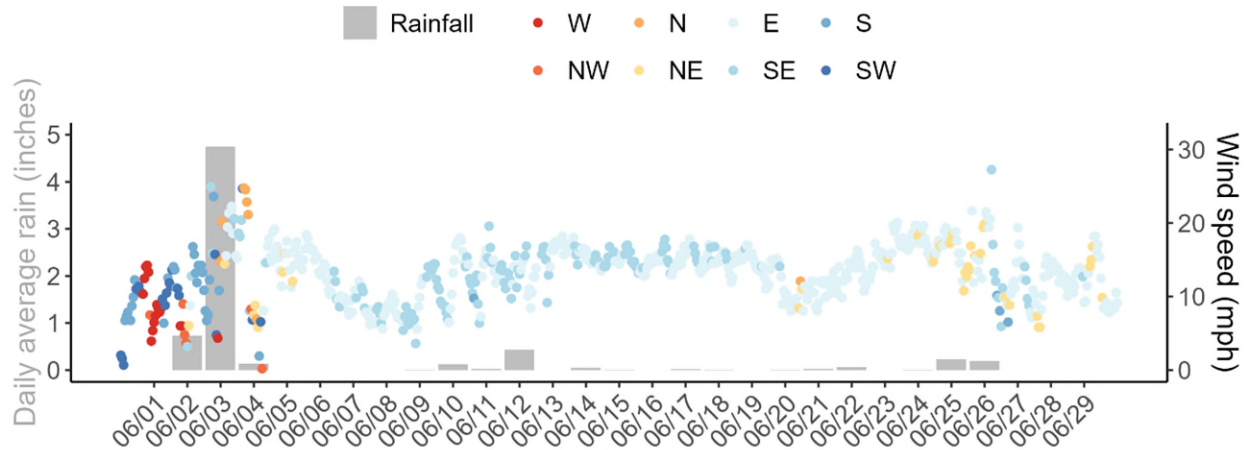


Figure EV-11. Daily average rain across Taylor Slough and Florida Bay, along with hourly average wind speed and direction (measured at Long Key) in Florida Bay over the past four weeks.

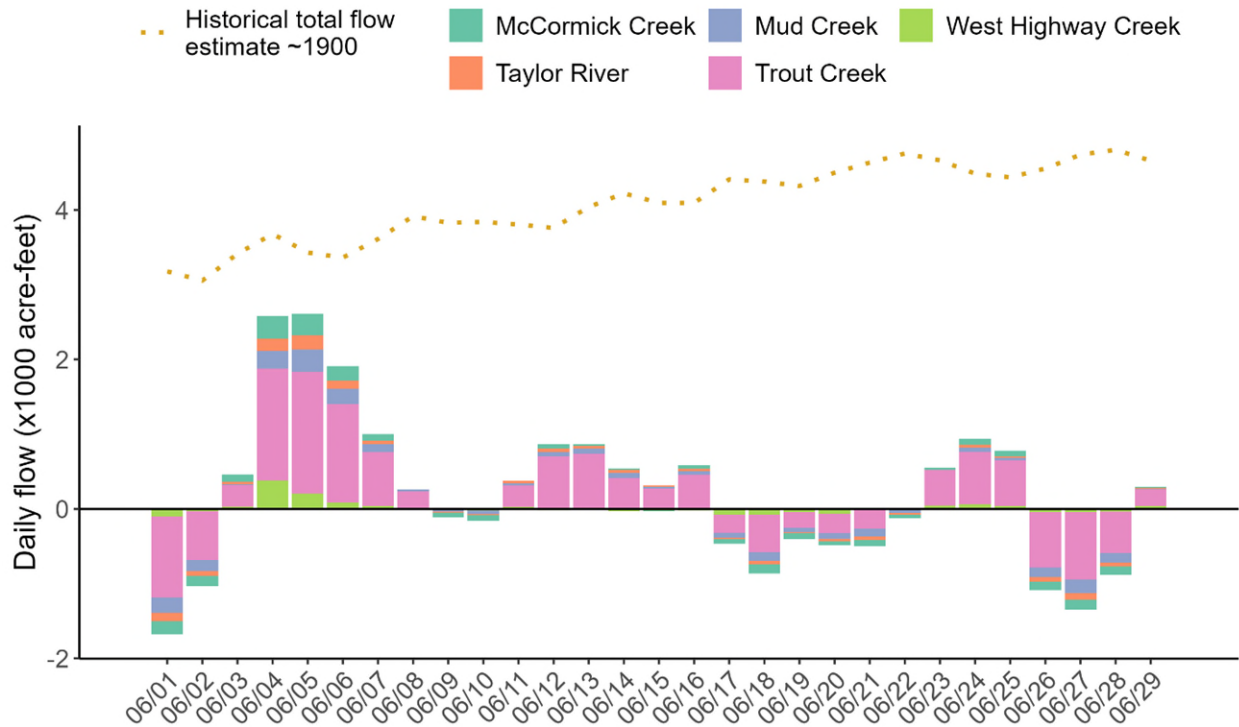


Figure EV-12. Daily average creek flow summed between five creeks with estimated historical daily flow over the past four weeks.

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

SFWMD Everglades Ecological Recommendations, June 29, 2025 (red is new)			
	Weekly change	Recommendation	Reasons
WCA-1	Stage decreased by 0.07 feet	Ascension rate of less than 0.06 feet per week.	Protect within basin and downstream habitat and wildlife. Preserving suitable wading bird foraging habitat throughout the nesting season.
WCA-2A	Stage decreased by 0.08 feet	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.
WCA-2B	Stage decreased by 0.45 feet	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.
WCA-3A NE	Stage decreased by 0.10 feet	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.
WCA-3A NW	Stage increased by 0.06 feet	Ascension rate no faster than 0.18 feet per week or 0.36 feet per two weeks.	
Central WCA-3A S	Stage increased by 0.08 feet	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.
Southern WCA-3A S	Stage decreased by 0.08 feet		
WCA-3B	Stage decreased by 0.07 feet	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.
ENP-SRS	Stage decreased by 0.10 feet	Make discharges to ENP according to COP and TTFF protocol while adaptively considering upstream and downstream ecological conditions.	Protect within basin and upstream habitat and wildlife.
Taylor Slough	Stage changes ranged from - 0.49 feet to -0.01 feet	Move water southward as possible.	When available, provide freshwater to promote water movement.
FB- Salinity	Salinity changes ranged from -0.7 to +2.0	Move water southward as possible.	When available, provide freshwater to promote water movement.