

# C&SF LOCAL ENGAGEMENT AND COLLABORATION NORTHERN SYSTEM

U.S. Army Corps of Engineers  
Jacksonville District

December 23, 2024

SLIDES ONLY



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# SUMMARY OF AGENCY INPUT



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# INTERAGENCY EVERGLADES ECOLOGICAL RECOMMENDATIONS: NORTHERN EVERGLADES 17 DECEMBER 2024

Agency	Update/Request	Ecological Purpose/Benefit
USFWS	<p>KCOL - If possible, maintain a max recession rate of 0.16 ft/wk or lower for snail kite nest success. Nesting on Lake Kissimmee has been on a downward trend in recent years, indicating that habitat quality on the lake has been degrading. Periodic prolonged low water levels, like the one we are recommending, can benefit SAV and emergent vegetation and lead to longer term improvements in habitat quality.</p> <p>Stages on East Lake Toho and Toho should be lowered to 0.5' below high pool by January 1, 2025 to avoid trapping snail kite nests in areas known to dry out rapidly. The dry season recession should begin from January 1 through May 31 to allow for the slowest recession rate possible. The max rate for snail kite nesting recessions is 0.16' per 7 days.</p> <p>Lake O - The Service is supportive of continuing to implement Recovery Operations in Lake Okeechobee. SAV in Lake Okeechobee is well below the 11,000-acre threshold set under LOSOM and Recovery Operations will be beneficial to the establishment of additional SAV.</p> <p>Flows to the south for Lake Okeechobee Recovery Operations should be limited for maintaining recession rates of 0.05 ft to 0.07 ft and no more than 0.17 ft/week to avoid impacts to foraging wood storks in northern WCA-3A (i.e., site 62) during the dry season.</p> <p>Caloosahatchee River Estuary - Lake Okeechobee releases should be limited until average daily salinities are within the optimum RECOVER Salinity Envelope for oysters (i.e., 10–25 psu) and shoal grass (i.e., 15-45 psu).</p> <p>St. Lucie River Estuary - St. Lucie River releases out of the S-308 should be restricted until average daily salinities are within the optimum RECOVER Salinity Envelope for oysters (i.e., 10–25 psu) and shoal grass (i.e., 15- 45 psu).</p> <p>The University of Florida (UF) observed 116 active snail kite nests last nesting season (2024) in Lake Okeechobee. The snail kite breeding season surveys ended in October with 359 kites observed in Lake Okeechobee. At this point, there are no active snail kite nests being monitored anywhere in the system. During the 2024 nesting season, there was successful snail kite nesting on Lake Toho, East Lake Toho, and Lake Kissimmee. Of note, twenty-eight snail kites were observed at the C-139 FEB located in Hendry County, adjacent to STA-5/6.</p>	Fish and wildlife resources, SAV, Snail Kite nesting
USFWS – Loxahatchee NWR	<p>While retaining as much rainfall as possible during the dry season, allow for natural recession rates up to .10 ft/week.</p> <p>Minimize canal water intrusion into marsh interior by maintaining minimal differences between canal stages and marsh stages &lt; .10'.</p> <p>Strive to keep any water management induced ascension rates at or below 0.18 ft./week to protect the ecology of the Refuge.</p> <p>Coordination is requested before any significant gate changes (i.e., S-10s) are made due to potential impacts to refuge maintenance programs and public activities.</p>	Marsh vegetation, aquatic prey production, wading bird foraging, water quality



# INTERAGENCY EVERGLADES ECOLOGICAL RECOMMENDATIONS:

## NORTHERN EVERGLADES

### 17 DECEMBER 2024

Agency	Update/Request	Ecological Purpose/Benefit
MTI	<p>Tribe implores the Corps and the SFWMD to show commitment to executing water planning that favors draw down system wide, favors lake recovery operations as soon as possible to give opportunity for SAV grow. Then increase water levels steadily to give SAV opportunity to rise along with the water.</p> <p>Tribe would favor all opportunities to send water south but recognizes there is maintenance needs on the STA,</p> <p>Tribe wants to see recession through all the WCAs, wants to see connectivity throughout the system. They want to see water in sloughs, see ridges get dry, and do not want northern 3A to be overly dry due to canals, they do not want to see soil oxidation.</p>	
FWC	<p>Kissimmee Chain of Lakes - The winter forecast predicts a weak La Nina, indicating that we can expect lower than average rainfall through the dry season, possibly providing an opportunity for prolonged low lake stage on Lake Kissimmee. We request the discharge rate of around 1,400 cfs be maintained for as long as possible even after stage has decreased into Zone B3 and below.</p> <p>We request that stages on East Lake Toho and Toho be lowered to 0.5' below high pool on both lakes by January 1, 2025 to avoid trapping snail kite nests in areas known to dry out rapidly. We also request that the dry season recession begin from January 1 through May 31 to allow for the slowest recession rate possible. The max rate for snail kite nesting recessions is 0.16' per 7 days. Starting the recession on January 1 would start the nesting season with a more beneficial recession rate of around 0.14' per 7 days (the slower the better)</p> <p>Lake Okeechobee. Continue recovery mode operations. One of the first targets USACE can aim for is to have Lake Okeechobee below 14ft (NGVD) stage prior to Snail Kite breeding season (March) to deter nest initiation.</p> <p>Everglades Complex and Wildlife Management Areas. FWC staff are monitoring the average of the 62 and 63 gauges in Northern WCA 3A. When the average stage of the 62 and 63 gauge falls below 9.30 feet, water levels are on average 1.0 ft below the surface over approximately 25% of WCA 3A North. FWC managers have determined that damaging muck fires occurred more often when water levels were from 1.3 – 2.0 feet below the ground surface.</p> <p>Other priorities. As water levels recede from the dry season highs, WMA managers and staff begin identifying appropriate areas for the application of prescribed burns. FWC staff had a prescribed burn scheduled for December 12th in the Miccosukee WCA 3South that was cancelled due to changing weather. Staff will continue to implement agency approved burn management for the WMA's as conditions dictate.</p>	Expansion of non-vascular and vascular SAV and increase in the fishery, Snail Kite Nesting
FDACS	Significant recession rates from late December through mid-January to support successful Recovery Operations and allow for moderation of recession rates as determined, later in the dry season based on the conditions experienced.	

# CURRENT OPERATIONS AND HYDROLOGIC CONDITIONS USACE



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# Kissimmee Chain of Lakes

Daily averages for 23 December 2024

Lakes Hart, Mary Jane  
60.98 ft

East Lake Tohopekaliga  
57.84 ft

Lake Tohopekaliga  
54.78 ft

Cypress Lake  
50.54 ft

Lake Hatchineha  
50.62 ft

Lake Kissimmee  
50.61 ft

S-62: 0

S-59: 191

S-61: 703

S-65: 1520

S-65A: 1413

Lake Istokpoga  
39.54 ft

S-68: 55

S-68X: 0

S-82: 72

S-84: 0

S-84X: 0

S-72: 0

S-71: 0

S-57: 0

S-58: 0

S-60: 0

S-63: 0

S-63A: 0

S-65D: 789

S-65DX1: 283

S-65DX2: 320

S-65E: 1340

S-65EX1: 0

S-154: 0

Lakes Myrtle, Preston, Joel  
61.78 ft

Lakes Trout, Coon  
Center, Lizzie, Alligator  
\_\_\_\_\_ ft

Lake Gentry  
61.47 ft

Kissimmee

Lake O and WCAs

C44 Reservoir

South Dade

[Water Management Main Page](#)

[Status Update Archives](#)

Elevations are ft-NGVD.

Flows are average daily CFS.

Data is provisional and subject to revision.

Report generated: 23 DEC 2024 @ 09:45



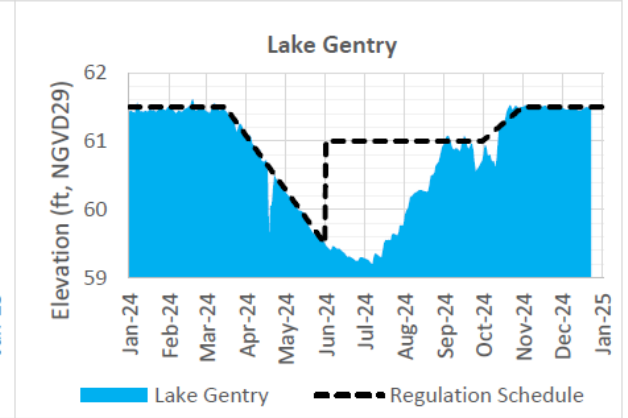
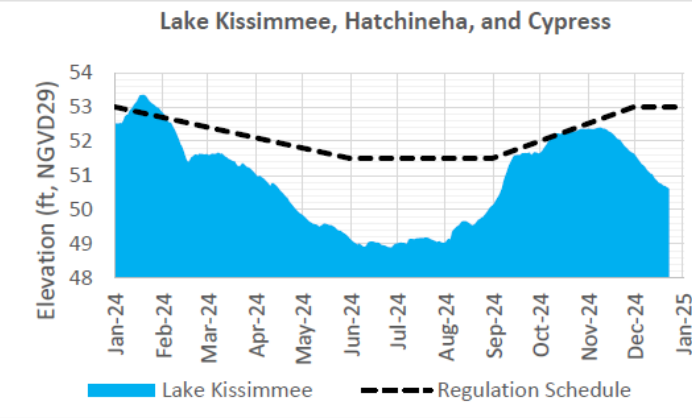
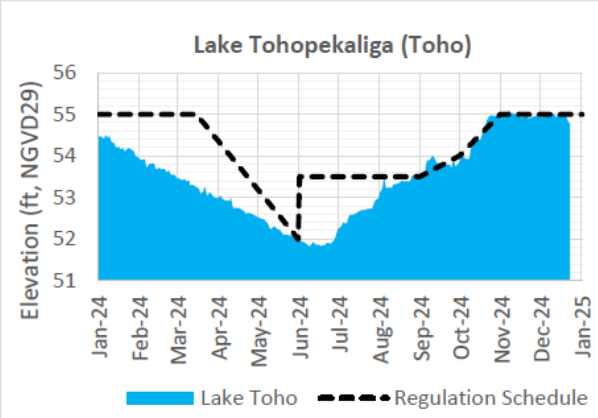
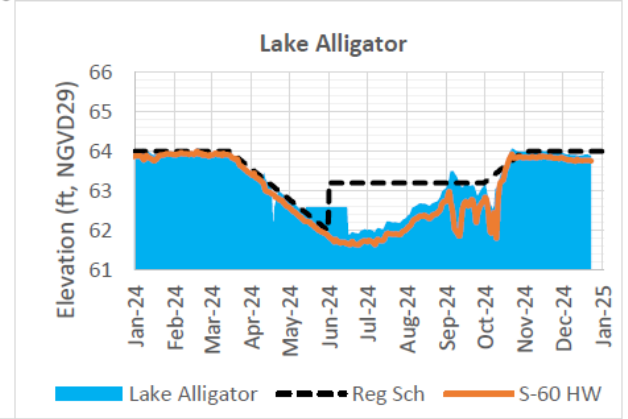
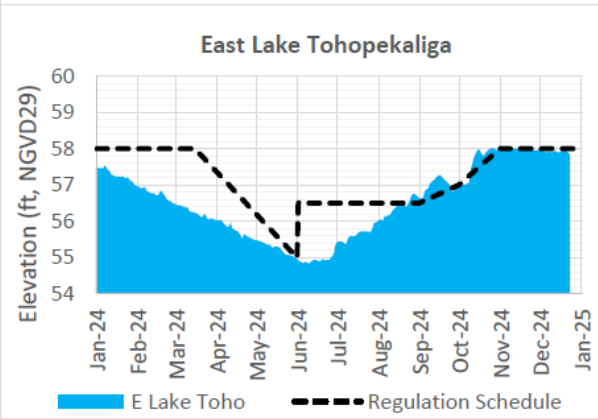
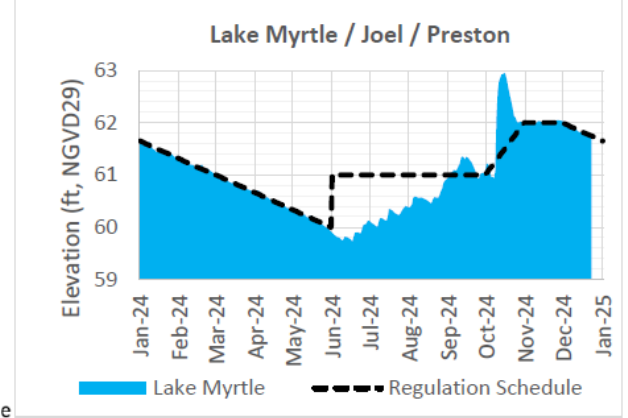
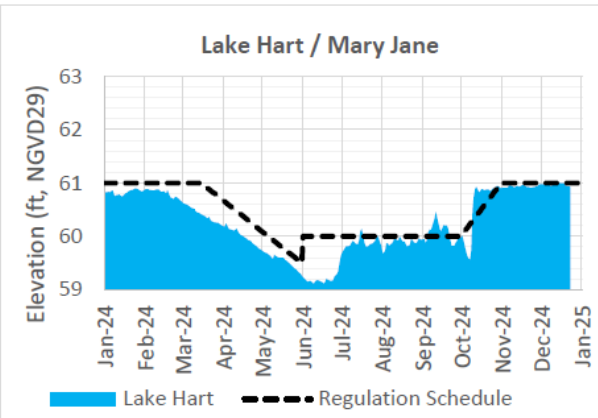
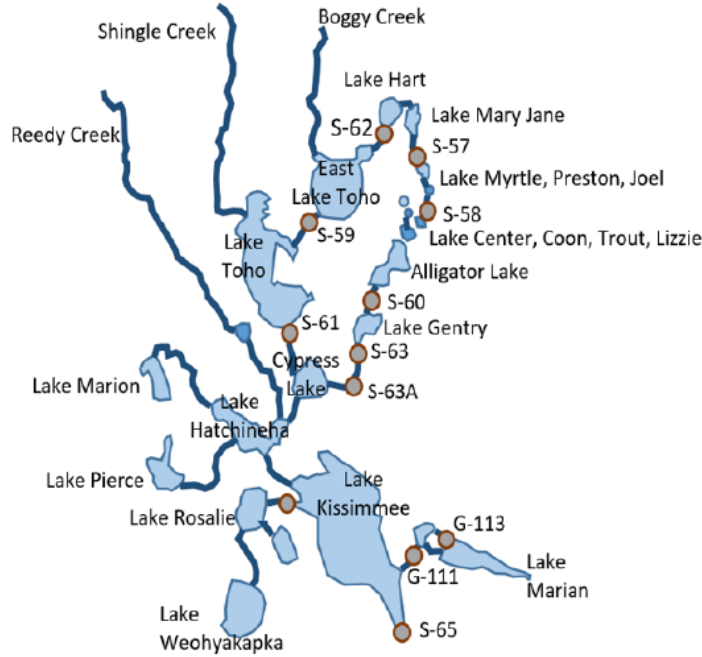
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# KISSIMMEE CHAIN OF LAKES

Date and Time:  
12/23/24 9:50

## Kissimmee River Upper Basin



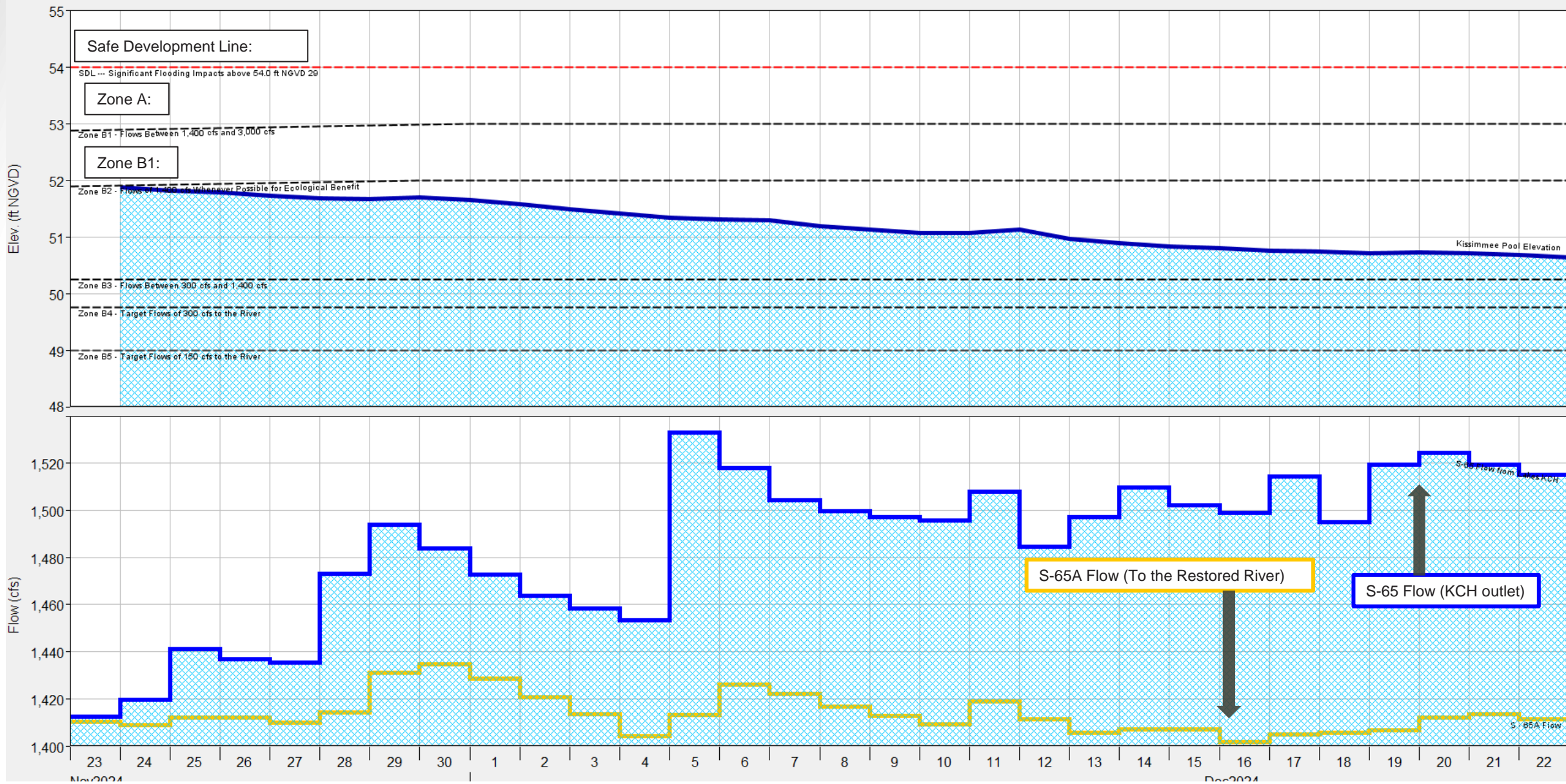


# KRR INCREMENT 1 DEVIATION

Lakes KCH Pool Elevation : 50.63 ft as of 23DEC2024, 05:00

S-65 Flow : 1515.0 cfs as of 23DEC2024, 05:00

S-65A Flow : 1411.0 cfs as of 23DEC2024, 05:00





# Lake Okeechobee and WCAs

Daily averages for 23 December 2024

Lake Okeechobee stage: 15.25 ft  
 Previous day: 15.29 ft  
 One week ago: 15.41 ft  
 (1965-2007 avg for today): 14.68 ft

Total Structure/Creek Inflows: 1345 cfs  
 Total Structure Outflow: 6218 cfs  
Quick Reference for Map Flows

## Current Lake Release Schedule\*

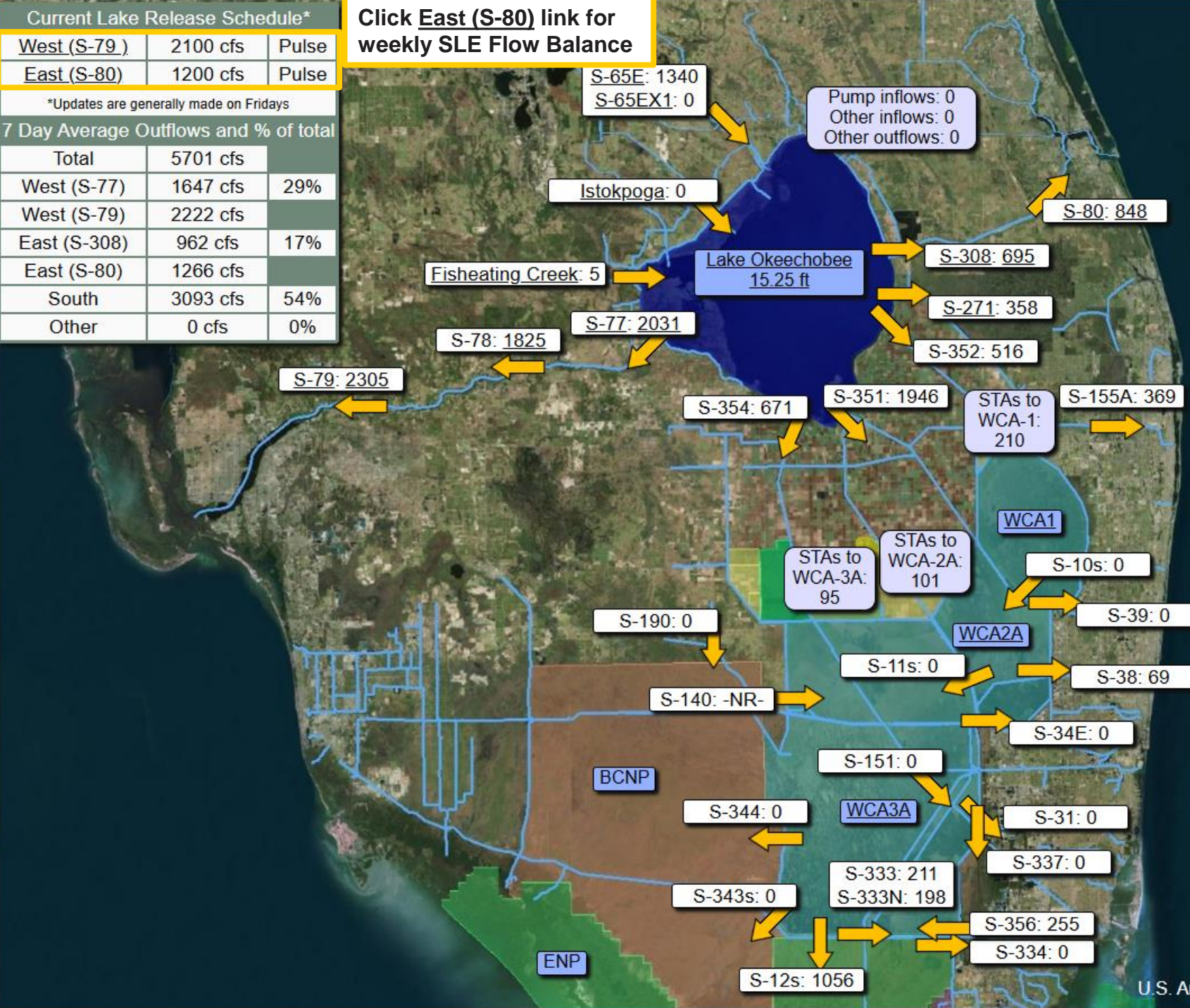
West (S-79)	2100 cfs	Pulse
East (S-80)	1200 cfs	Pulse

\*Updates are generally made on Fridays

## 7 Day Average Outflows and % of total

Total	5701 cfs	
West (S-77)	1647 cfs	29%
West (S-79)	2222 cfs	
East (S-308)	962 cfs	17%
East (S-80)	1266 cfs	
South	3093 cfs	54%
Other	0 cfs	0%

**Click East (S-80) link for weekly SLE Flow Balance**



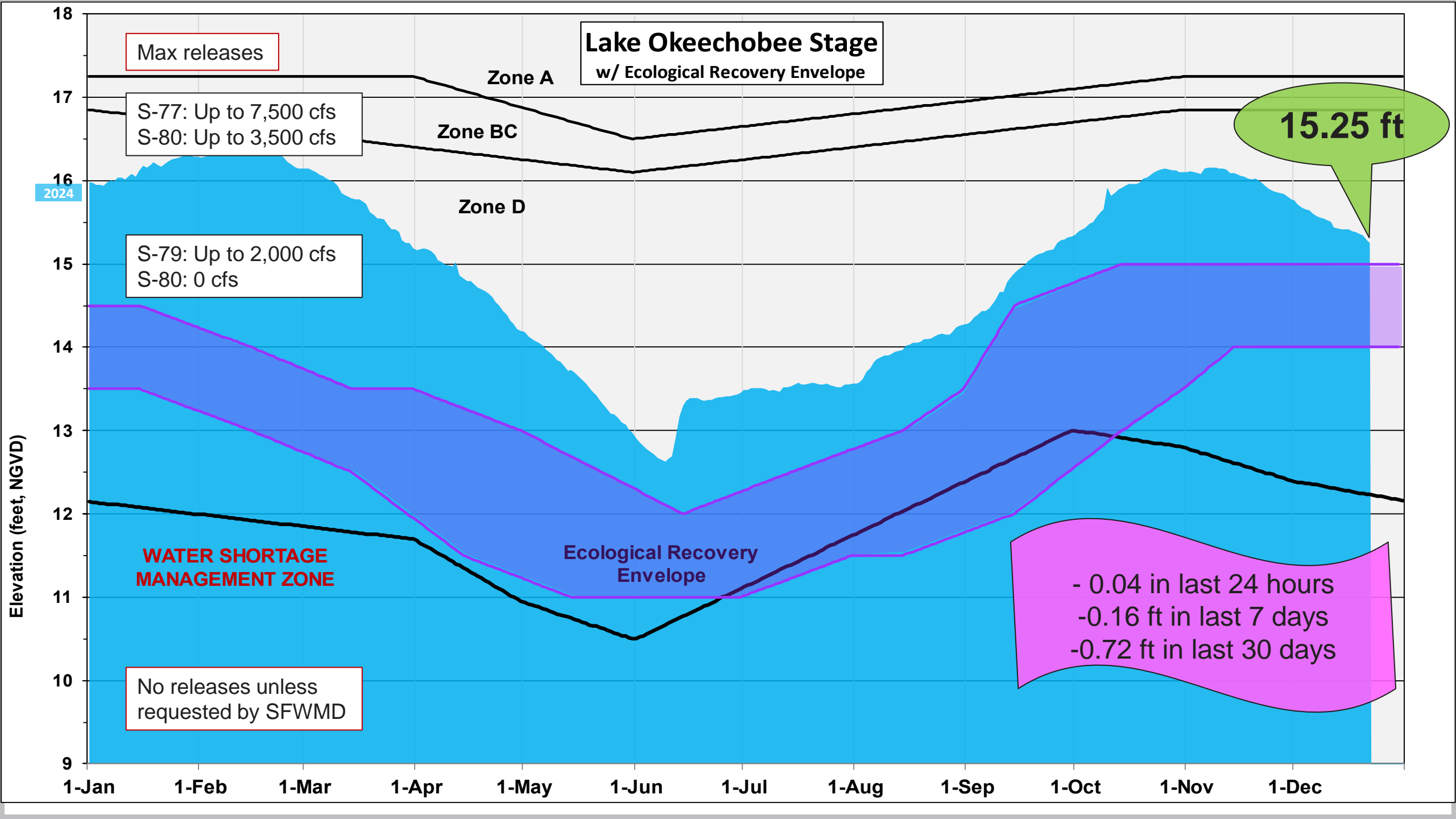
Area	Stages (hover for notes)	Schedule
WCA-1	Site 1-8C: 16.88 ft 3-Station: 16.69 ft	17.27 ft
WCA-2A	Site 2-17: 12.83 ft S-11B HW: 12.87 ft	11.65 ft
WCA-3A	3-Station: 10.06 ft	10.50 ft



[Water Management Main Page](#)  
[Status Update Archives](#) [WRDA Archives](#)  
 Elevations are ft-NGVD.  
 Flows are average daily CFS...  
 Data is provisional and subject to revision.  
 Report generated: 23 DEC 2024 @ 09:55



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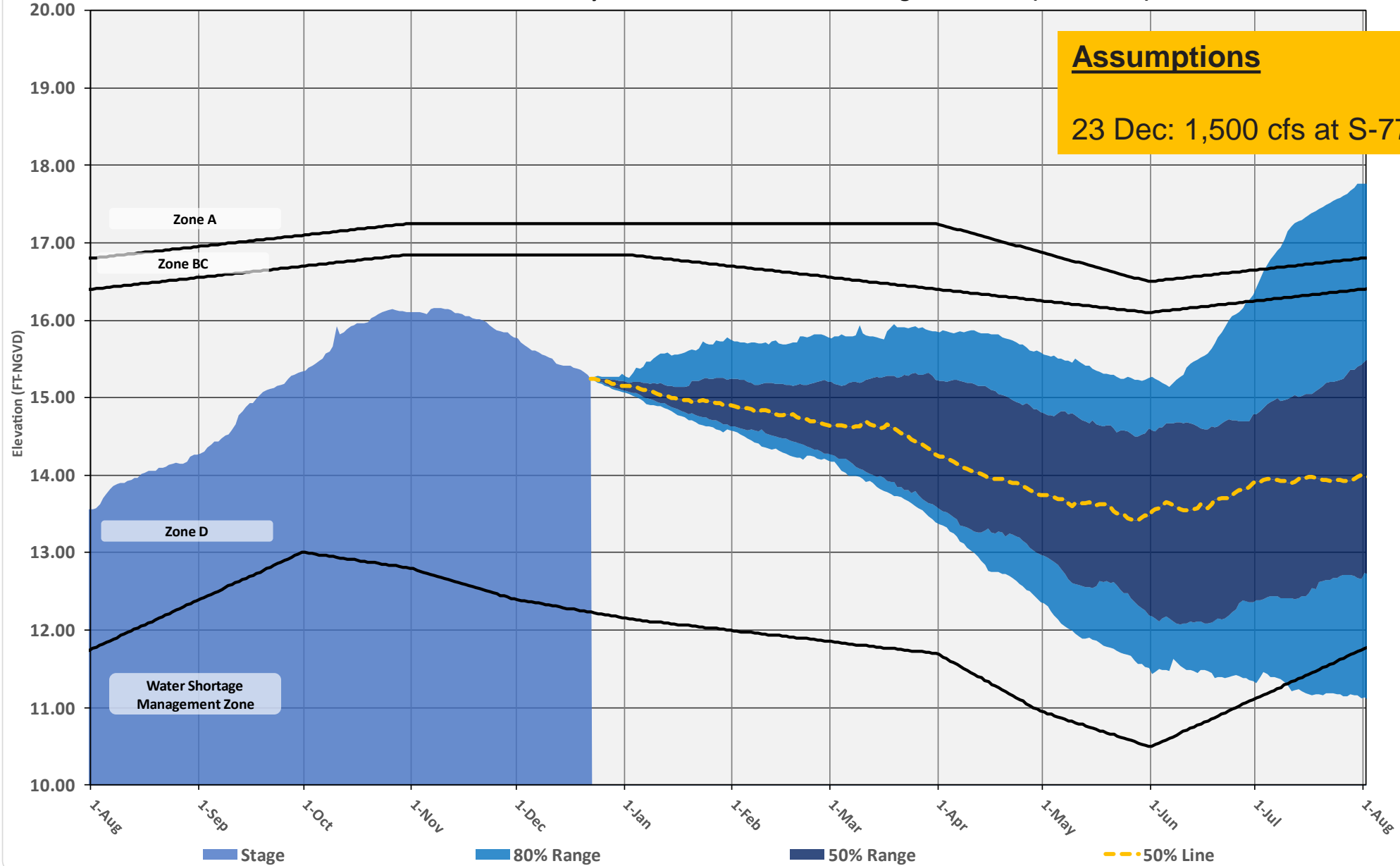


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# LAKE STAGE - NORMAL LOSOM OPERATIONS



Lake Okeechobee Positional Analysis for variable releases through S77+S308 (1965-2019)



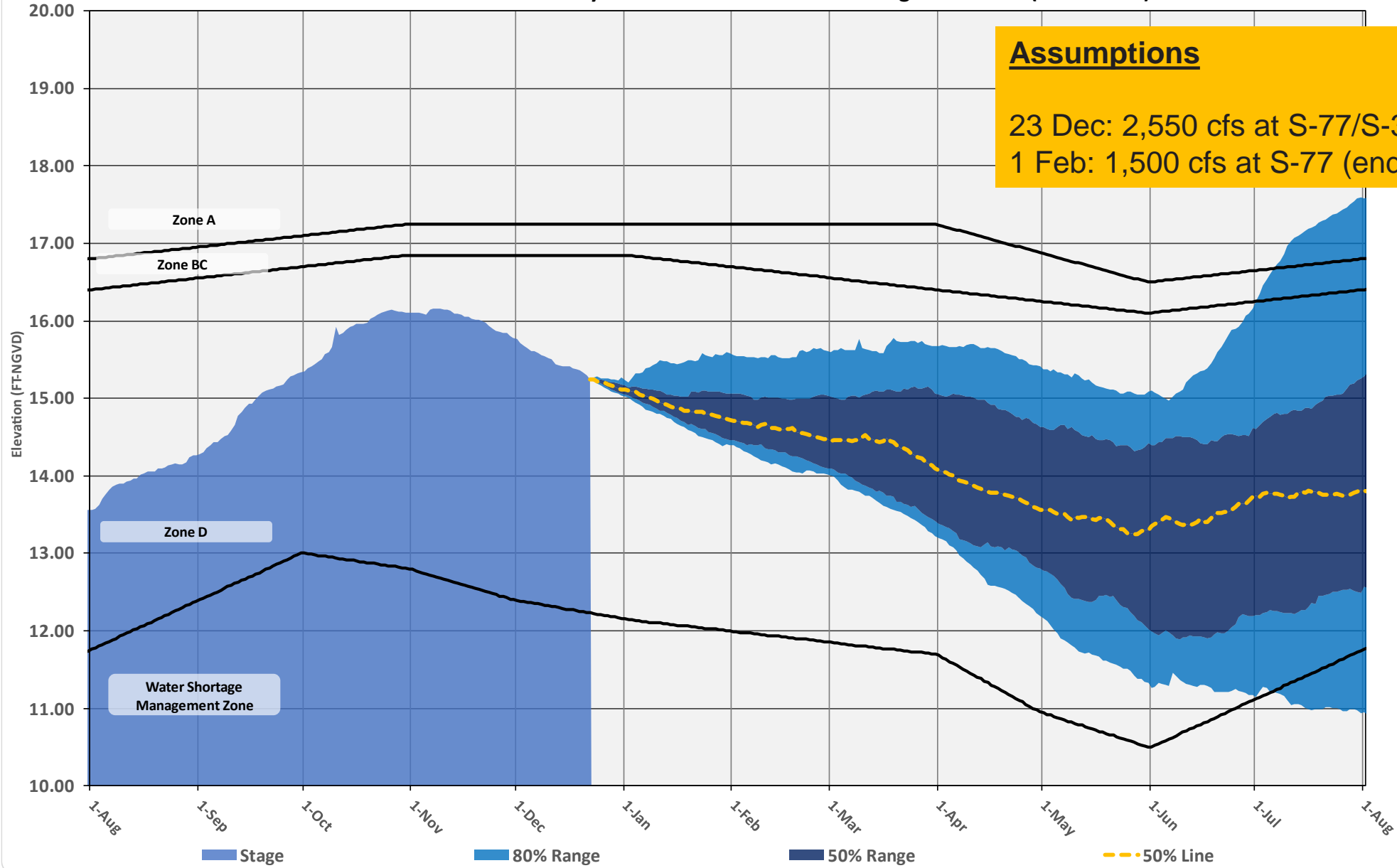


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# LAKE STAGE – RECOVERY OPERATIONS CEASE 1 FEB



Lake Okeechobee Positional Analysis for variable releases through S77+S308 (1965-2019)





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# LAKE STAGE - RECOVERY OPERATIONS



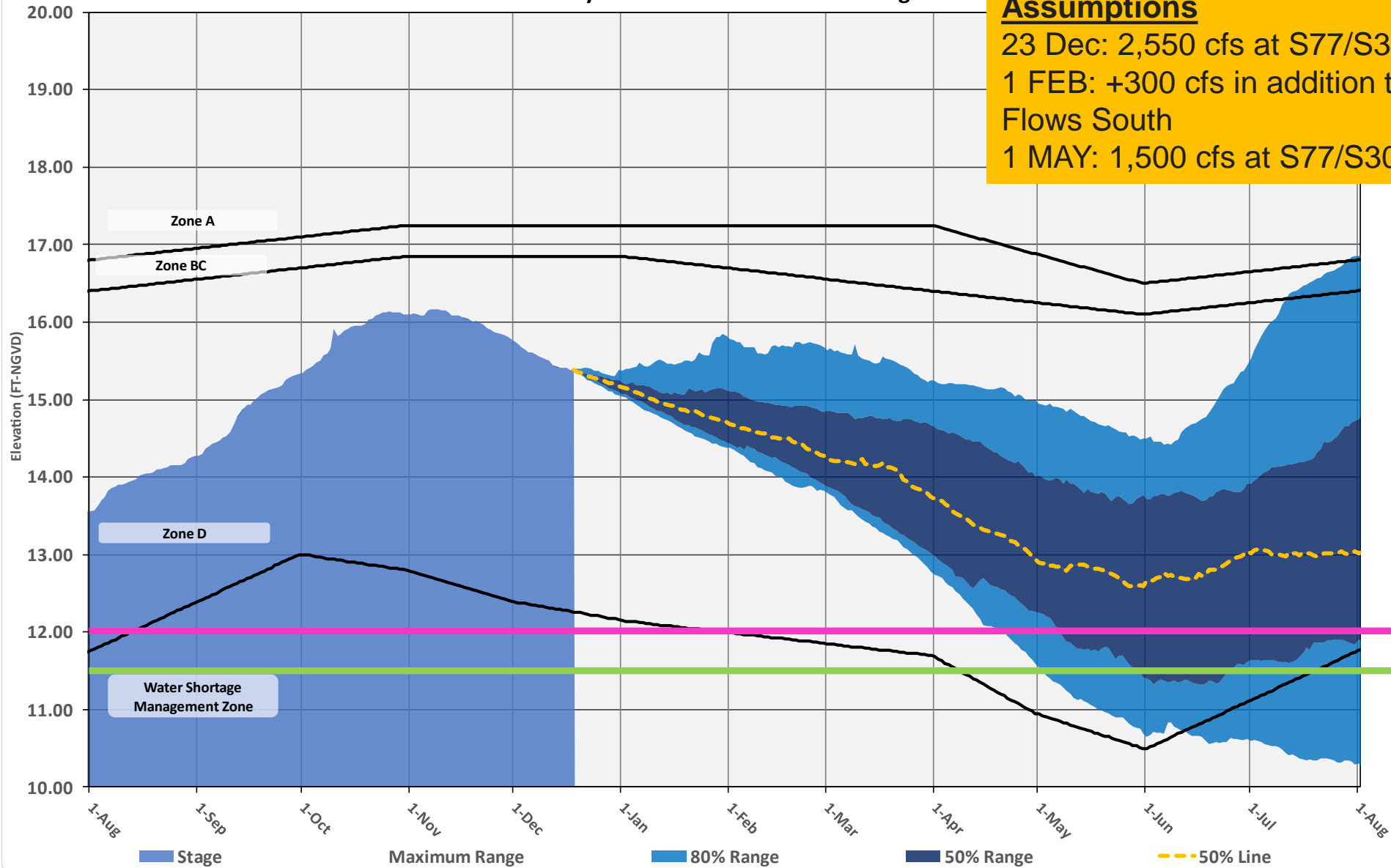
Lake Okeechobee Positional Analysis for variable releases through S77+S

### Assumptions

23 Dec: 2,550 cfs at S77/S308

1 FEB: +300 cfs in addition to Historical Flows South

1 MAY: 1,500 cfs at S77/S308 (end of RO)



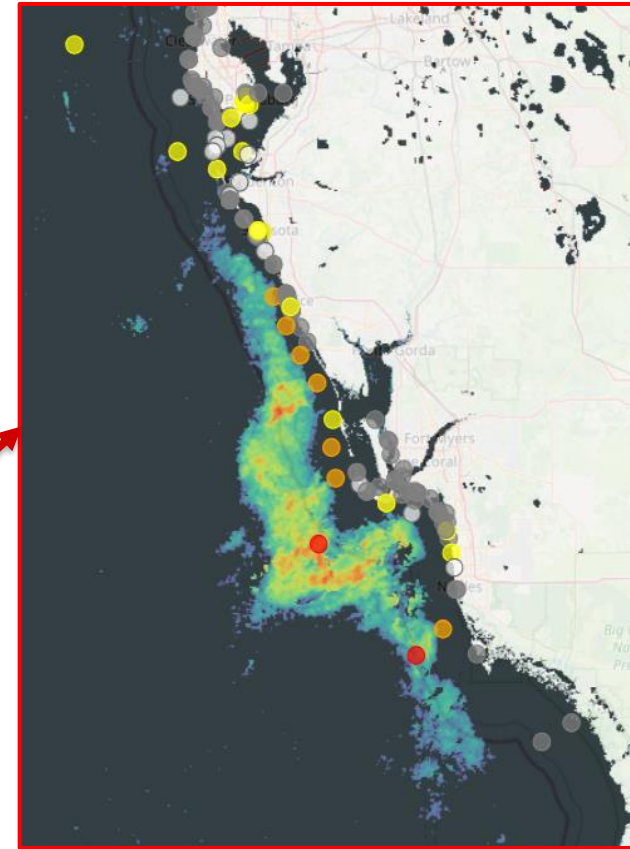
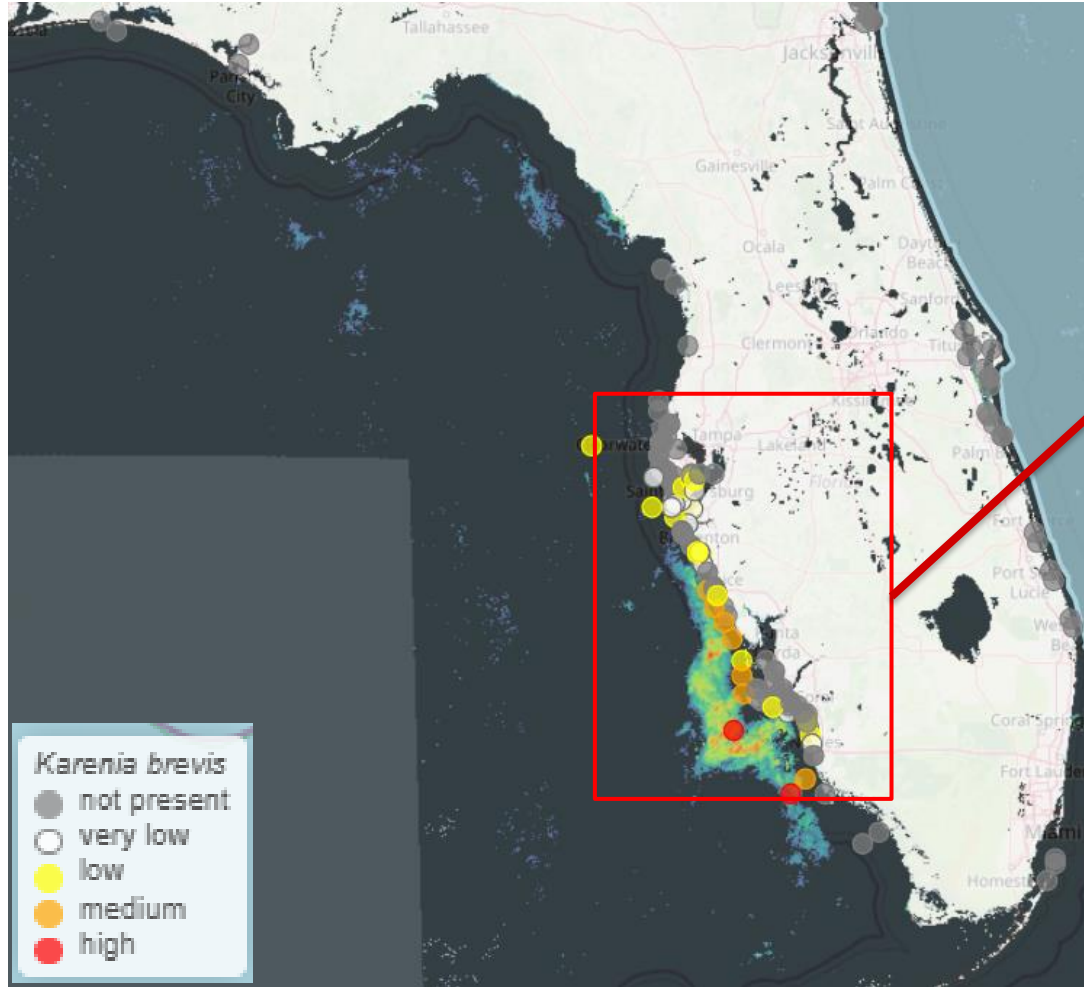
12 feet

11.5 feet



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# RED TIDE STATUS



K. Brevis observed up to *high* concentrations off-shore of Lee and Collier Co.

Wind and current conditions are expected to pull the bloom south over the next few days.

<https://coastalscience.noaa.gov/science-areas/habs/hab-forecasts/gulf-of-mexico/florida-satellite-imagery/>

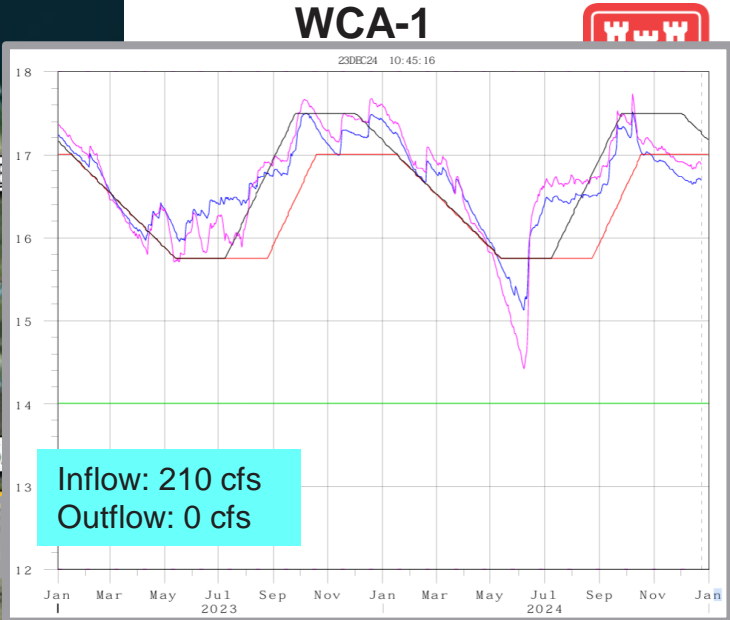
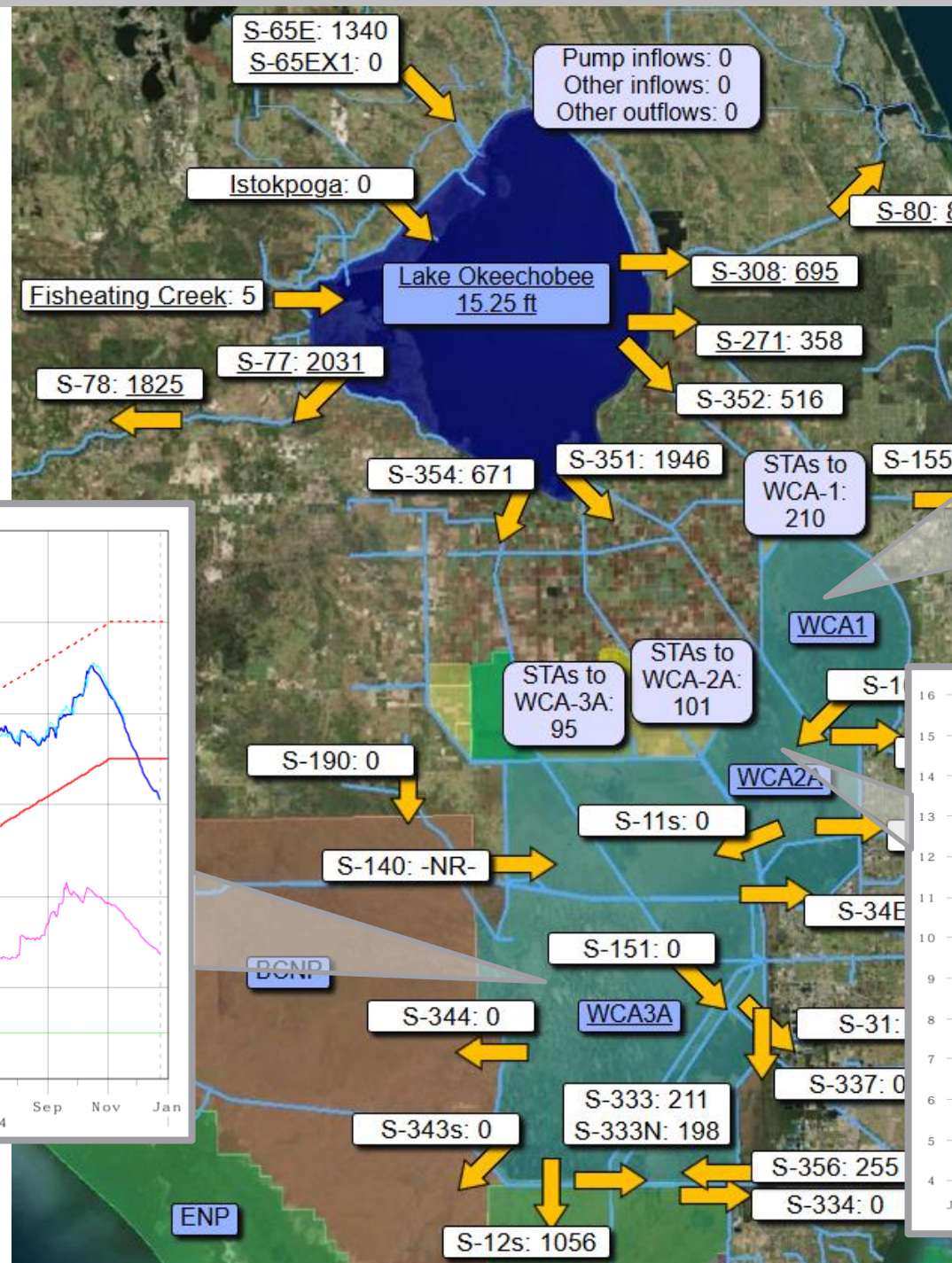
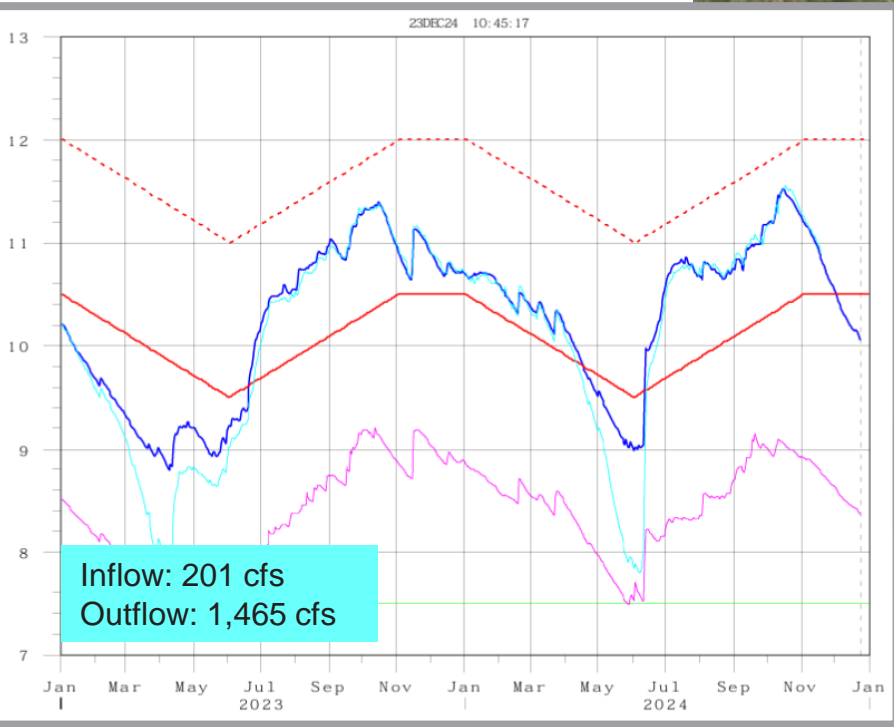


# WCA'S

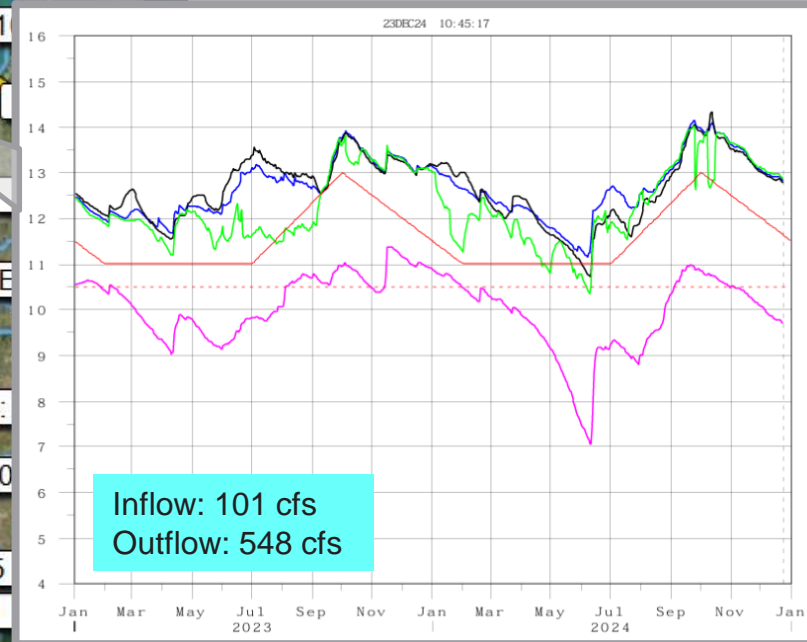
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Area	Stages (hover for notes)	Schedule
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## WCA-3A



## WCA-2A



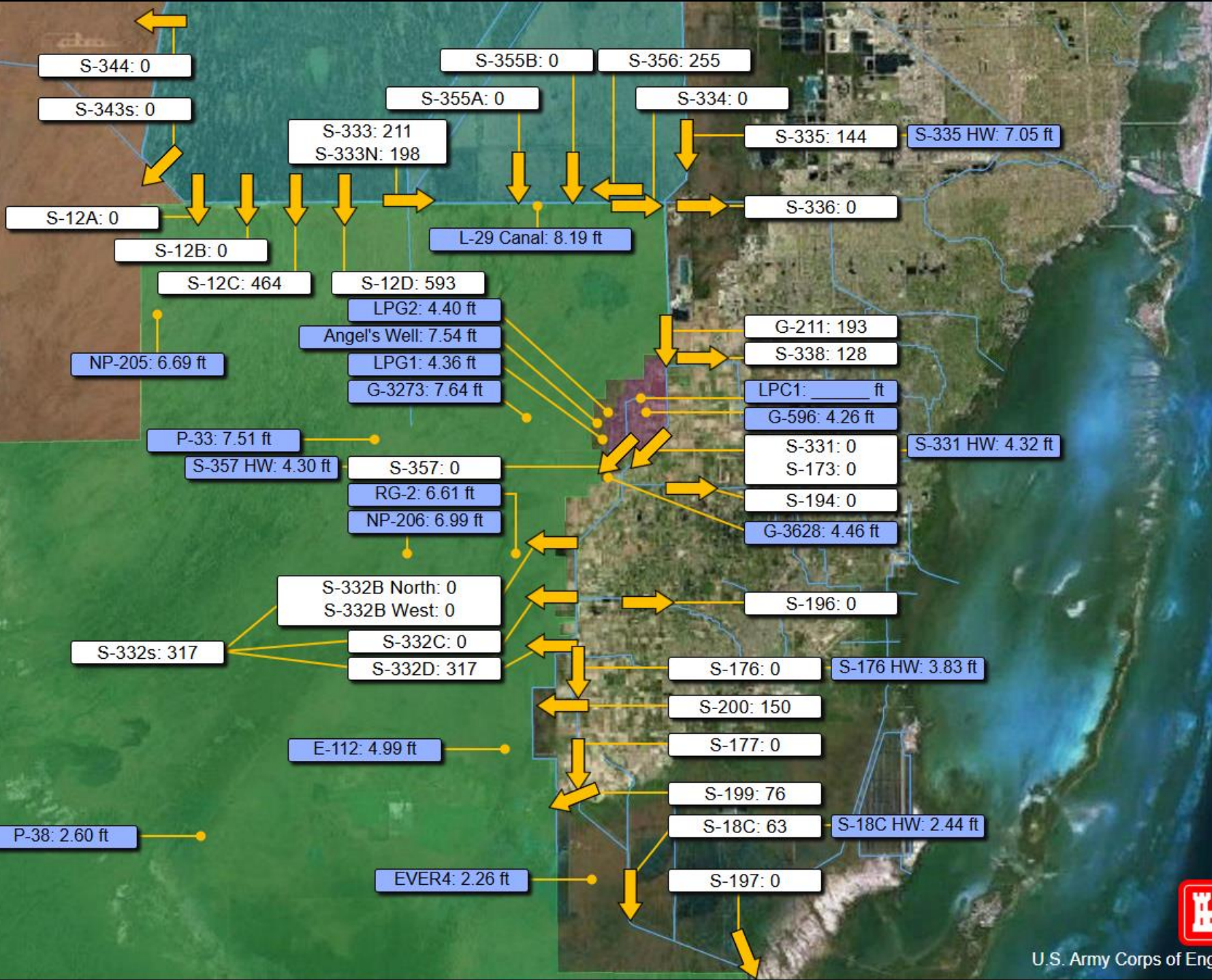
# South Dade

Daily averages for 23 December 2024

WCA-3A 3-Station Average  
10.06 ft

WCA-3A Regulation Zones

Top of Zone B = 10.50 ft  
TTFF Target = 1542 cfs



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Elevations are ft-NGVD.

Flows are average daily CFS.

Data is provisional and subject to revision.

Report generated: 23 DEC 2024 @ 11:05







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# CURRENT PRINCIPAL CONSIDERATIONS IN ZONE D



**Lake Stage:** Slightly above normal for this time of year, levels have come down 0.7 feet in last 30 days, in upper portion of Zone D

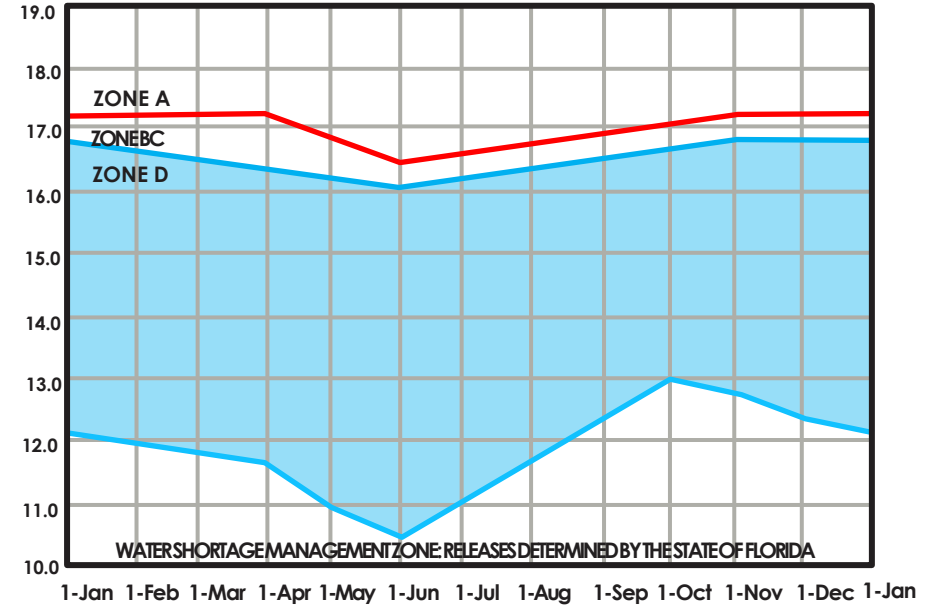
**Lake Okeechobee Net Inflow:** Inflows – Outflows = LONIN ~580 cfs, normal

**Forecasts:** Recovery Operations forecasts indicate success metrics could be met

**Downstream Capacity:** Targeting max practicable flows south

**System Conditions:** High stages inundates marsh and impacts vegetation, SAV coverage is very low, no active snail kite nests

**Synthesis:** Release decision last week to continue Recovery Operations.



Recovery Ops	Allowable Releases (cfs)
S-79	Up to 2,100
SLE (S-80 + S-97 + S-49 + Gordy)	Up to 1,400
S-271 and S-352 to LWL	Up to 300
South	Max practicable

## Jacksonville Water Management Page

<https://www.saj.usace.army.mil/WaterManagement/>

- Reports
- Plots
- Water Control Plans
- Navigation information

## System Status Map

<https://w3.saj.usace.army.mil/h2o/reports/StatusDaily.htm>

## Algae Information

<https://www.saj.usace.army.mil/Algae/>