

2025 Annual Report Lakes, Canals and Groundwater Monitoring

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April 2026

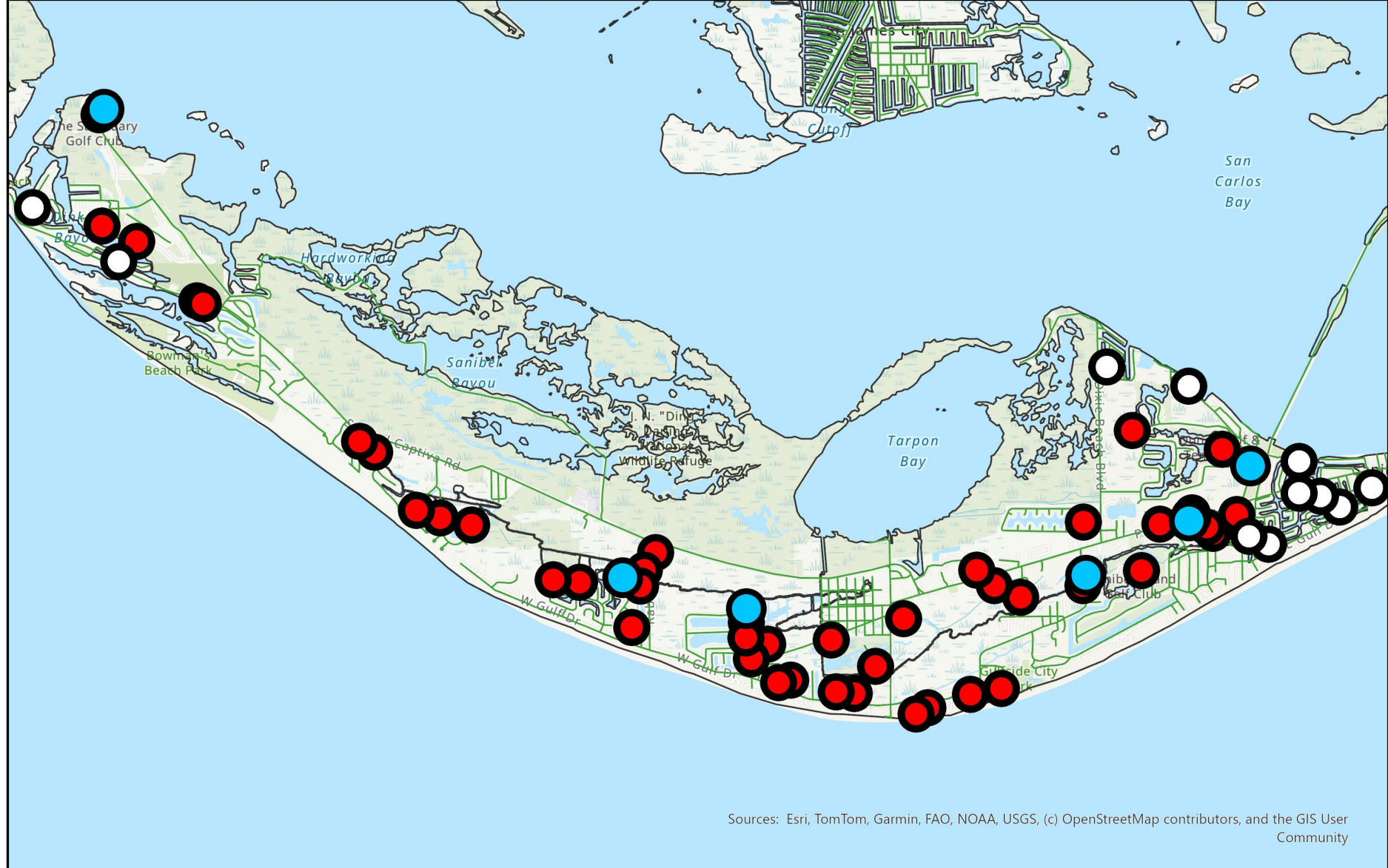
<https://sccf.org/>



SCCF
SANIBEL-CAPTIVA
CONSERVATION FOUNDATION



- 42 Lake Sites
- 11 Canals
- 6 Groundwater Monitoring Wells
- Jan – Oct 2025



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

2025 Monitoring Sites Sanibel Lakes and Groundwater

- Lake Sites
- Canal Sites
- Long Term Wells



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 CONSERVATION FOUNDATION

Salinity (PSU) = Saltiness

Fresh = 0-3_{PSU}

- Bass & Cattails
- Drink & Water Lawn

Estuarine = 3-30_{PSU}

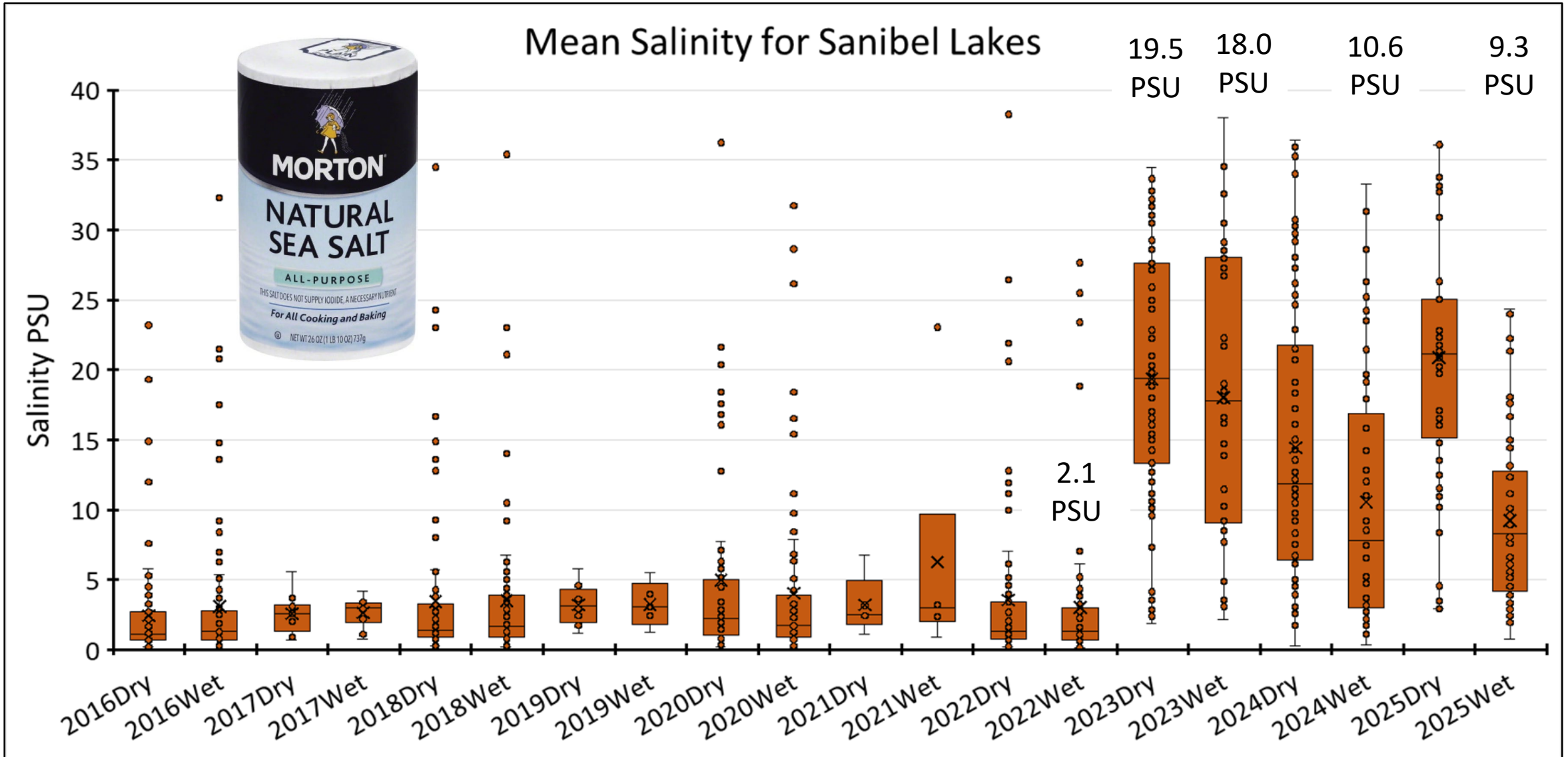
- Snook & Seagrass
- No Drink & Dead Lawn

Marine = 30+_{PSU}

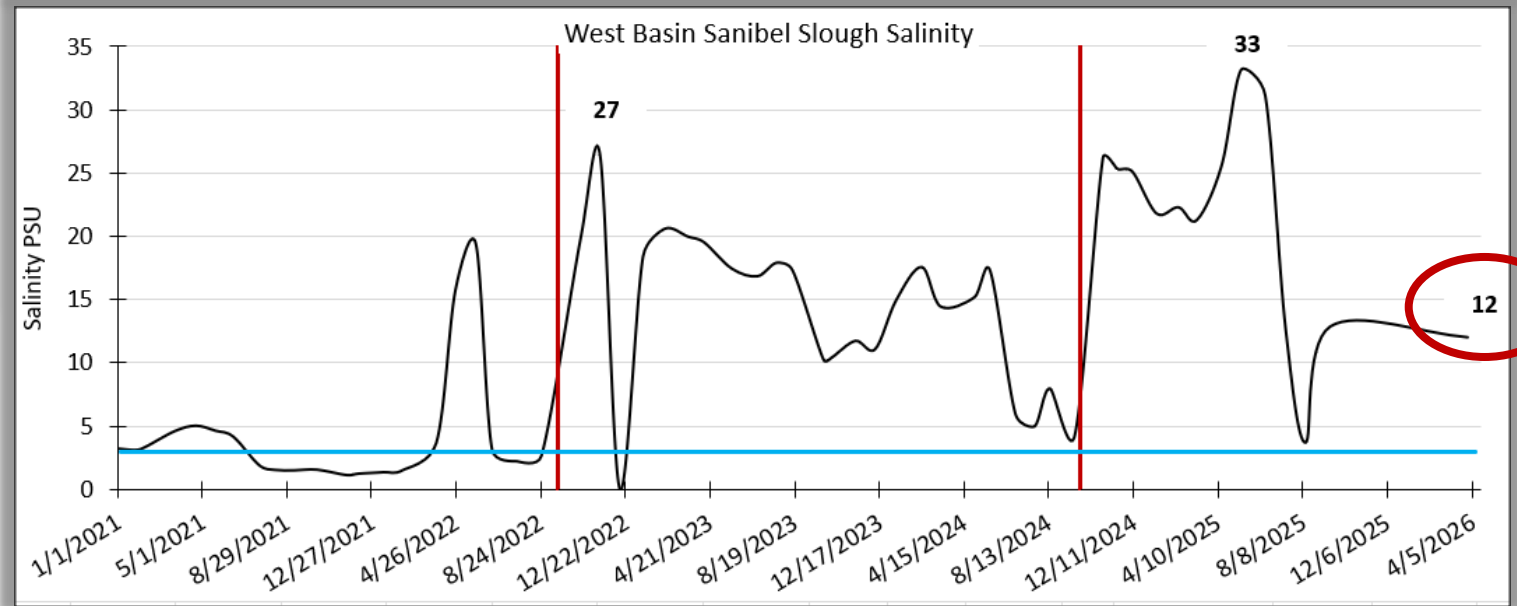
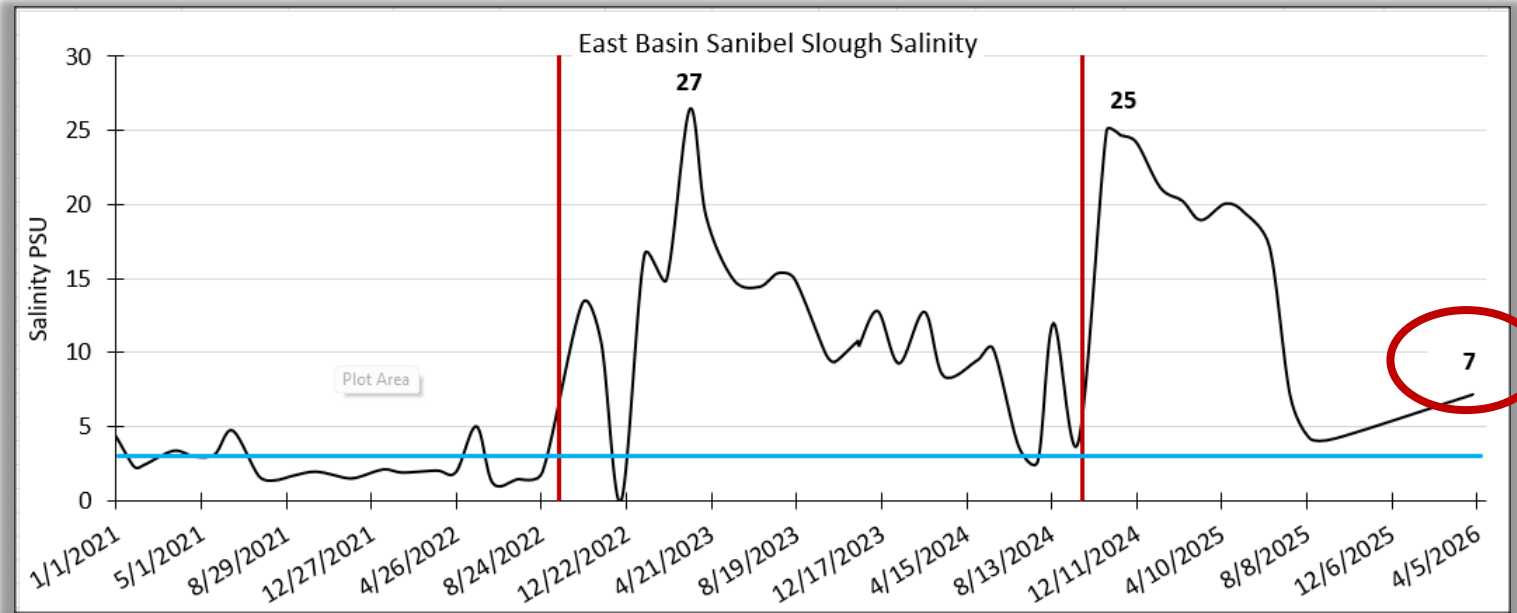
- Grouper & Reef
- No Drink & Lawn = Salt Mine



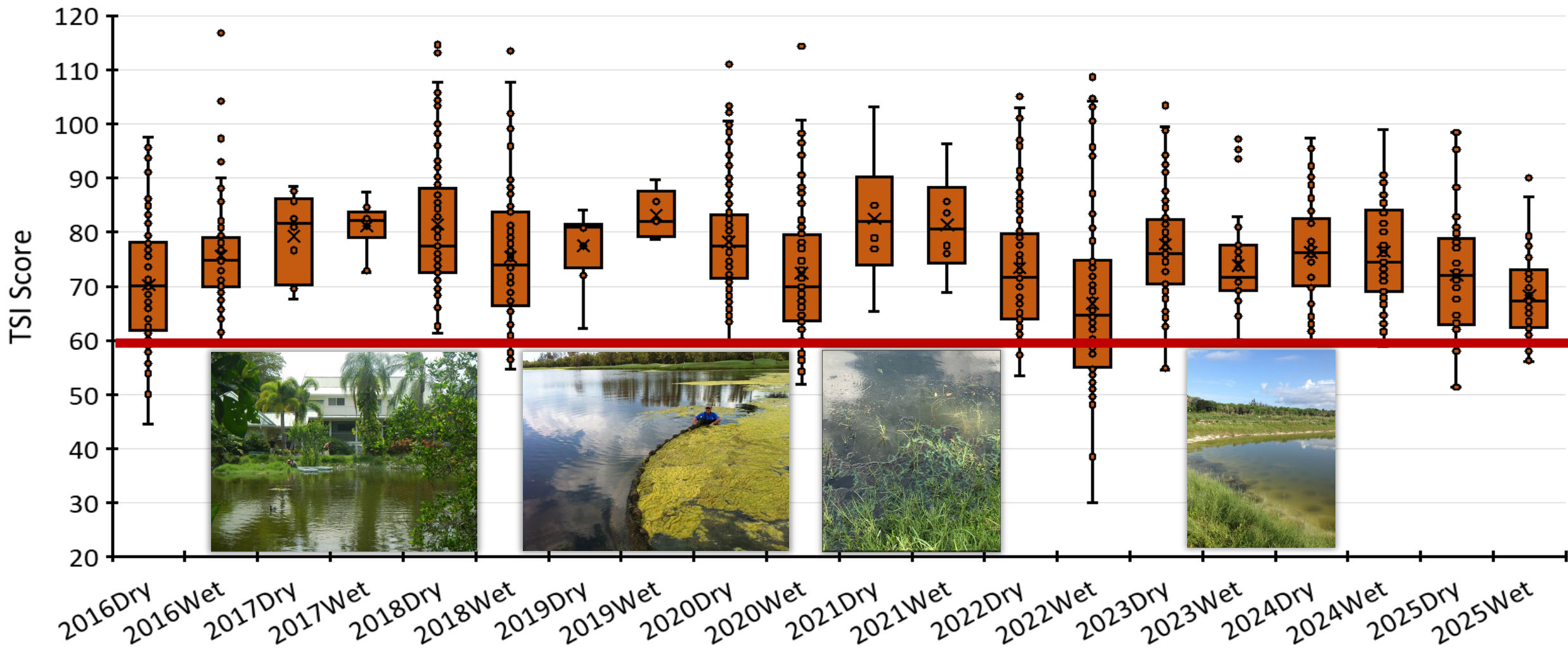
Average Salinity In Lakes on Sanibel through 2025



Sanibel Slough Salinity Time Series



Trophic State Index



Priority Rank	Station	Description	WQ Grade	WQ Trend
1	SCL05	CityReclaimDschrge	F	NC
2	SCL74	He...	F	B
3	SCL29			
4	SCL35	Seagull E		
5	SanSlou	West		
6	SCL32	A		
7	SCL80			
8	SanSlou	East		
9	SCL03	Pr		
10	SCL69			
11	SCL13	S		
12	SCL60	V		
13	SCL45	Pond -		
14	SCL26			
15	SCL31			
16	SCL71			
17	SCL62	C		
18	Devitt01	Pond at SCL Homestead	D	NC
19	SCL21	OceansReachCondo	C	NC
20	SCL43	PalmLake	C	NC
21	SCL64	TradewindsNLake	C	Better

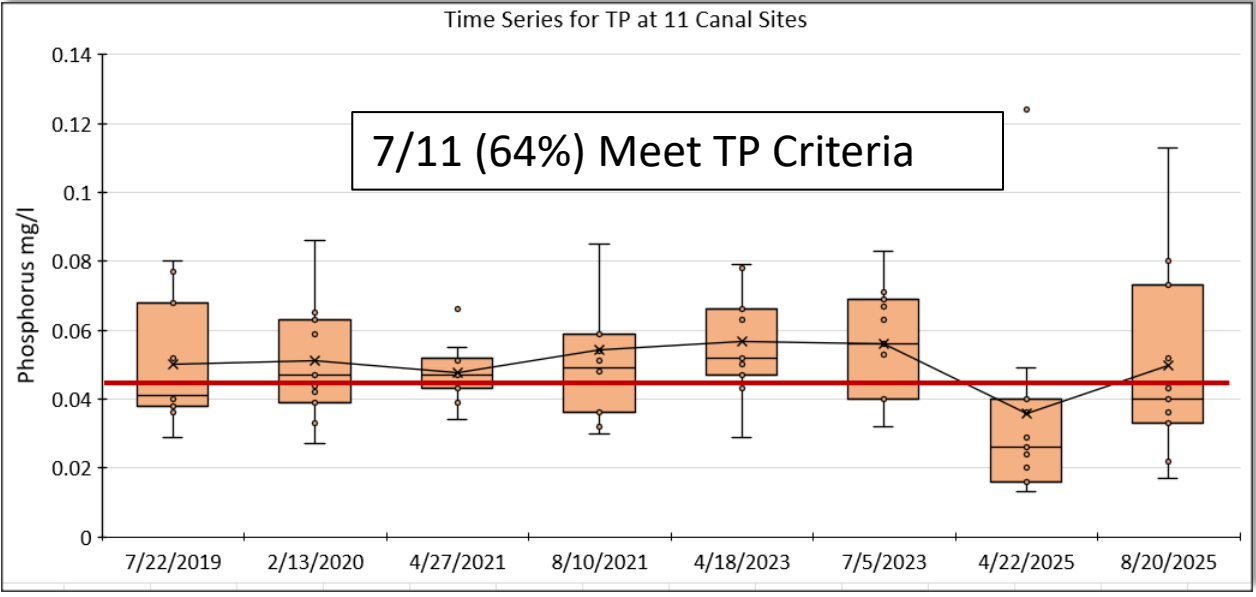
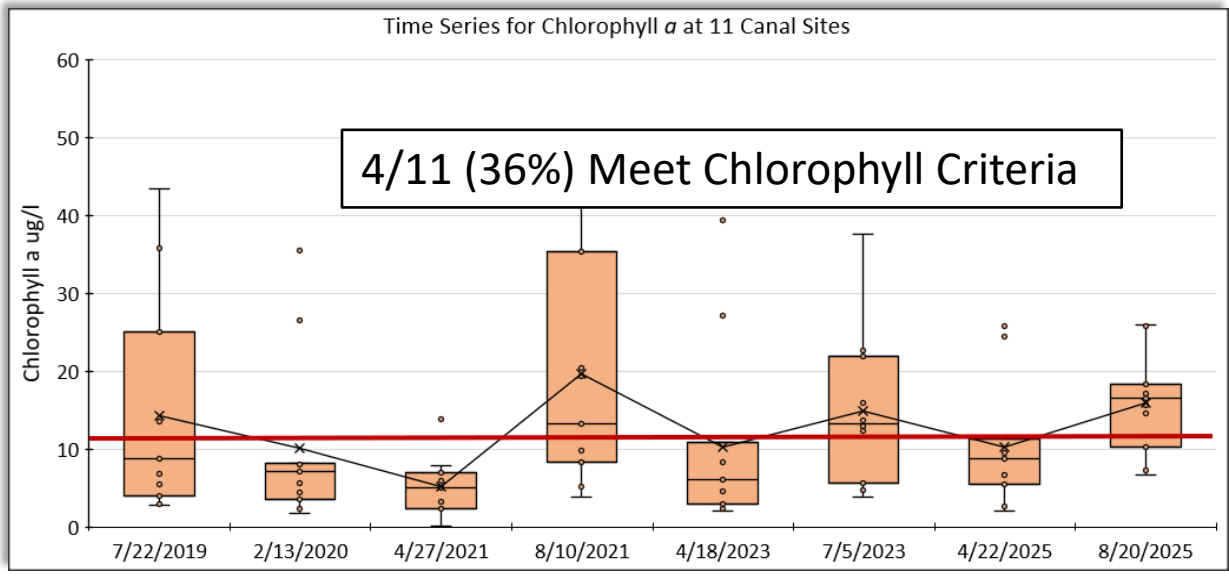
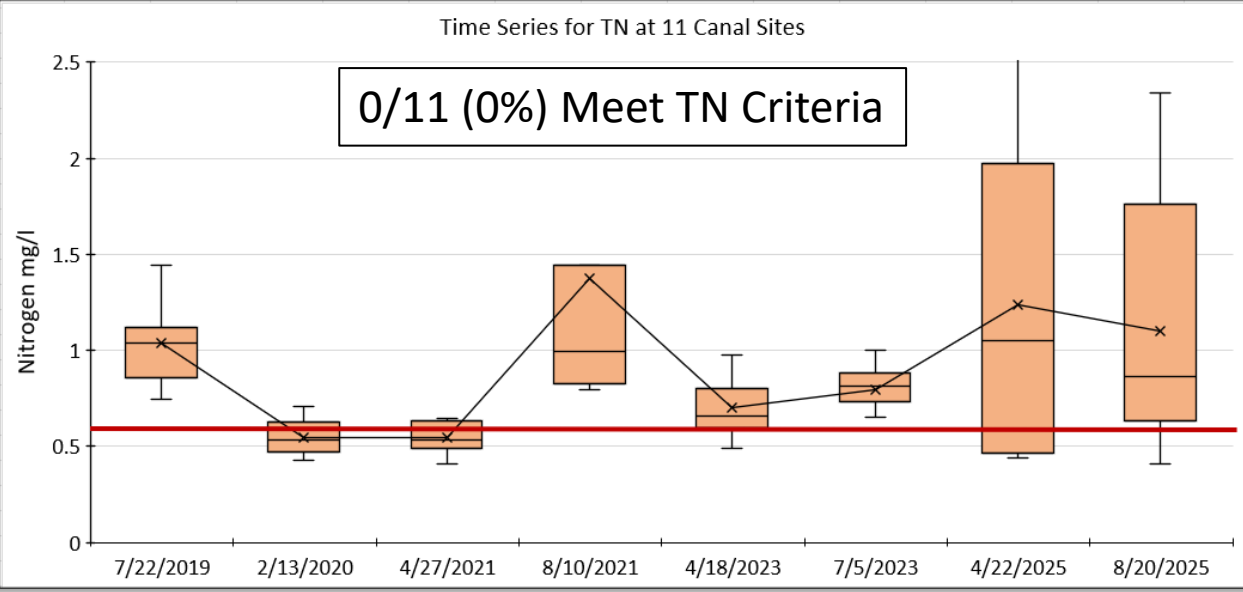
Priority Rank	Station	Description	2025 WQ Grade	WQ Trend
22	SCL70	BluCrabLake	C	Better
			D	Worse
			C	Better
			C	NC
			C	NC
			C	NC
			C	NC
			C	NC
			C	NC
			C	NC
			B	Better
			B	Better
			B	Better
			B	Better
			C	NC
			B	Better
			C	NC
			C	NC
			C	NC
			B	Better
			C	NC
			C	NC
			B	Better
			C	NC

- **B Grade** **6/42 (14%)(better)**
- **C** **18/42 (43%)**
- **D or F** **18/42 (43%) (better)**
- **9/42** **21% of lakes are trending better (up)**

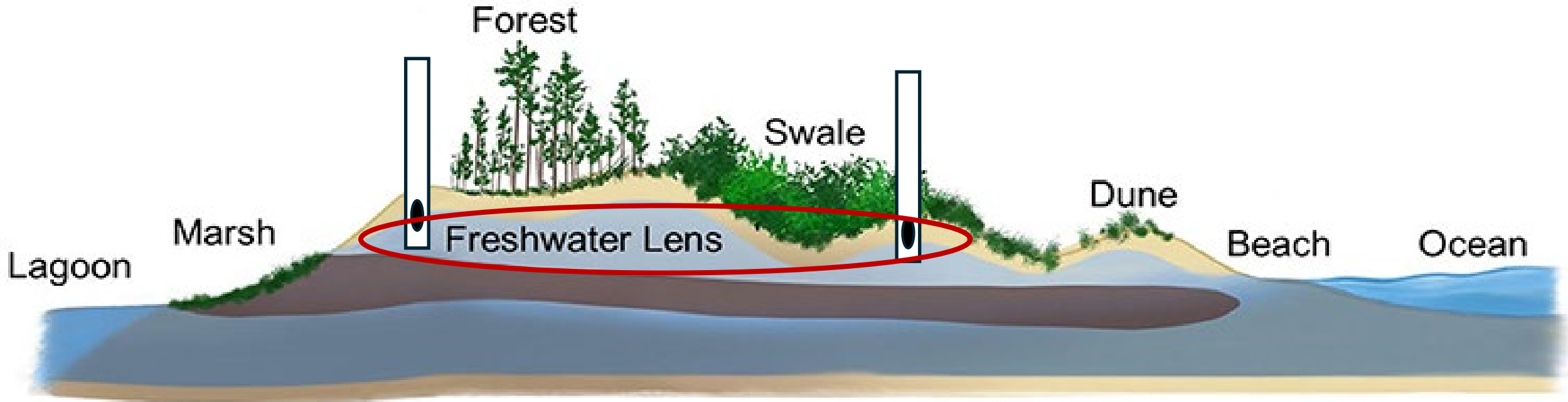
<https://sanibelcleanwater.org/>



Sanibel Canals Summary



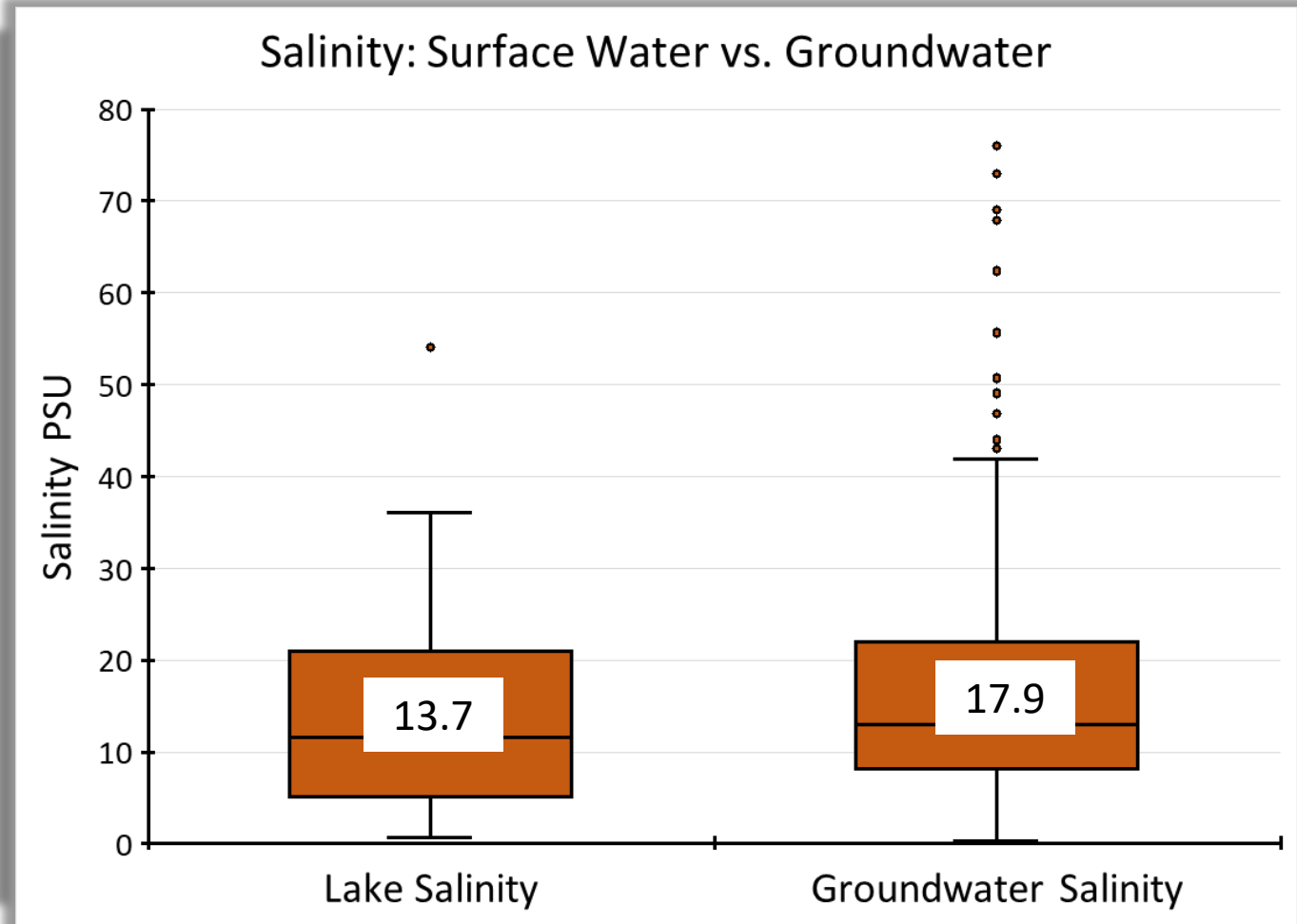
Groundwater: Findings 2025



Groundwater: Findings 2025



Surface vs. Groundwater



**Surface Water Management
Master Plan Update
Following Hurricane Ian (2022)**

Prepared For:



September 2025

Prepared By:

JOHNSON
ENGINEERING
— An Apex Company —
Johnson Engineering, LLC
2122 Johnson St.

**Sanibel Surface Water Management Plan
Water Level Schedule**

W. Basin > 1.0 ft at end of May

To remain +1 feet above MSL

Prevent saltwater intrusion

Weir Policy Evaluation



The primary objective of the City's Weir Control Policy should be to continue retaining as much freshwater on the island as practical.

- There are not stormwater issues as a result of basins being full (2.0/1.6 NAVD)
- To account for dry season evapotranspiration losses, need 1 foot above Mean Sea Level (MSL) on May 1.
- Options for Operational Flexibility
 - Under high salinity conditions a lowering levels at the beginning of the wet season may be beneficial to flush salt water from the system.
 - Under certain conditions, there may be some flexibility in early/mid wet season to keep levels lower than full to help with capacity for high intensity rain events
 - Crucial to coordinate with the partners to ensure no adverse impacts to the freshwater lens.

Table 5. Monthly average total rainfall, atmospheric outflows, surplus/deficit, and mean sea level on Sanibel.

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg. Rainfall	3.7	1.8	2.1	3.0	1.5	1.2	1.9	2.5	6.9	7.9	9.1	8.8
Avg. Evap. & ET	3.7	3.1	2.9	3.2	3.1	4.5	5.1	5.8	4.9	5.2	4.8	3.9
Surplus (+) / Deficit (-)	0.0	-1.3	-0.9	-0.2	-1.6	-3.3	-3.3	-3.4	2.0	2.7	4.3	5.0
Cumulative Deficit	0.0	-1.3	-2.2	-2.3	-4.0	-7.3	-10.6	-13.9	-11.9	-9.2	-5.0	0.0
Mean Sea Level	0.4	0.2	-0.1	-0.3	-0.3	-0.2	0.0	0.0	0.2	0.1	0.3	0.5
Min. Basin WL to Overcome MSL	2.2	2.1	2.0	2.0	1.9	1.6	1.3	1.0	N/A	N/A	N/A	N/A

Water Elevation Comparison For Previous 12 Months

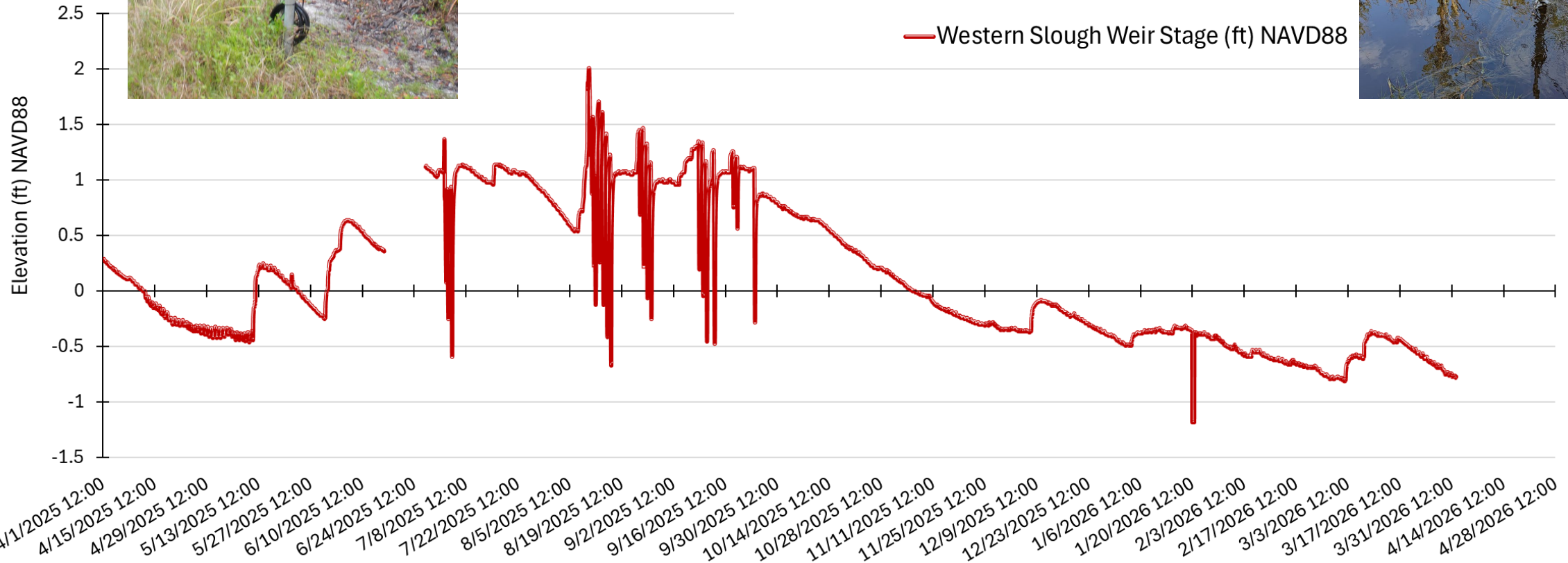


Using Real Time Water Level Instrumentation Sanibel Slough (MSL)

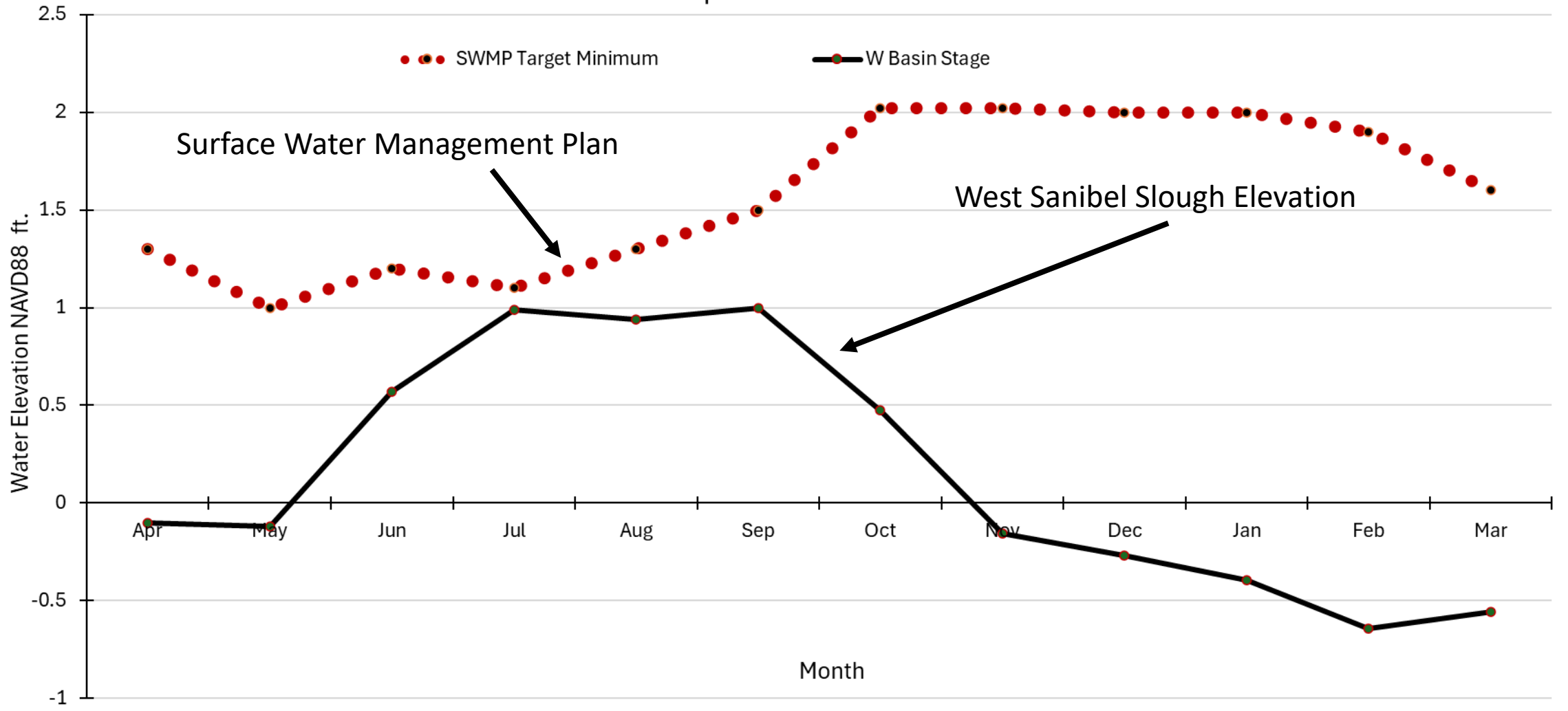


Water Elevation SIRR Wells

— Western Slough Weir Stage (ft) NAVD88



Water Elevation Comparison For Previous Last 12 Months



Sanibel Surface Water Management Plan

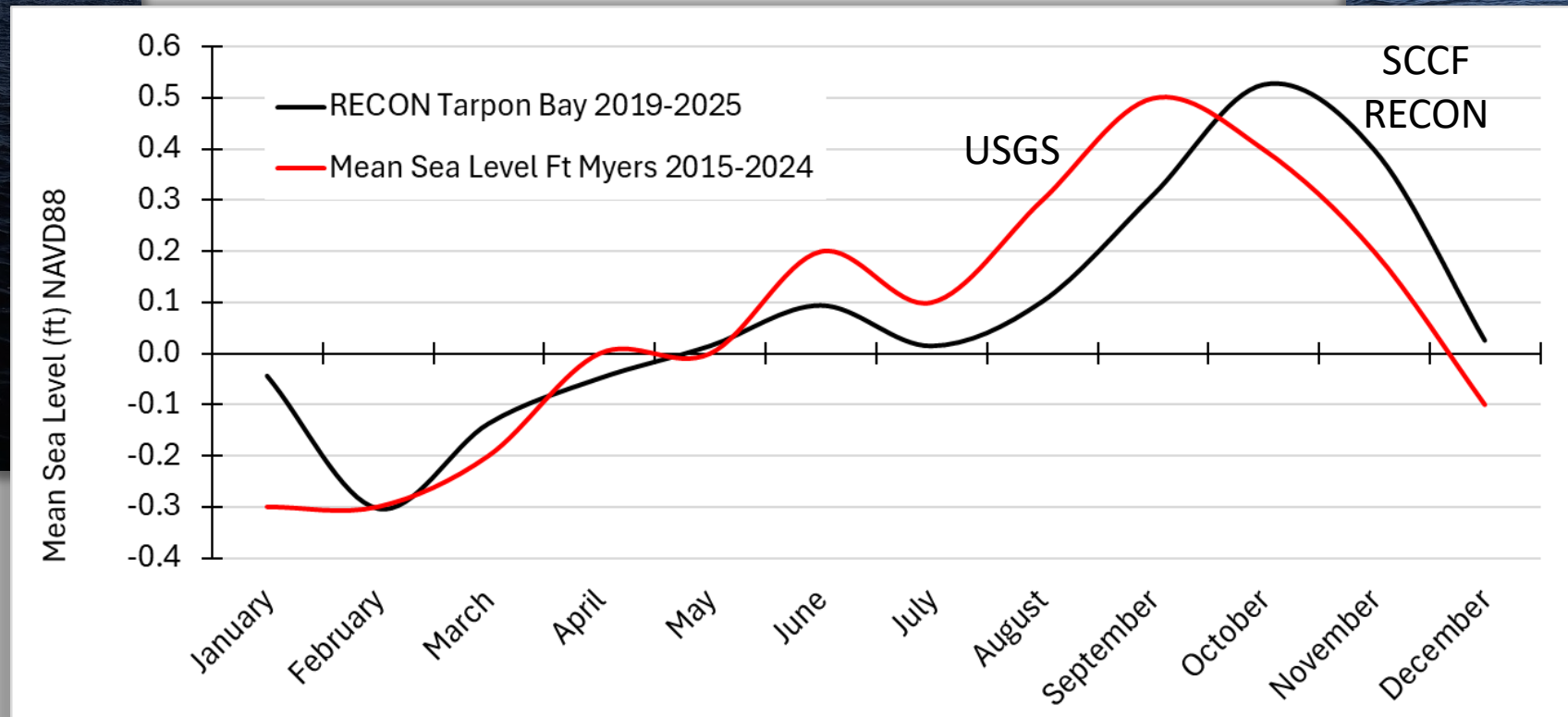
Target Water Levels For West Basin

March 31, 2026 - W. Basin Water Level = - 0.77 feet

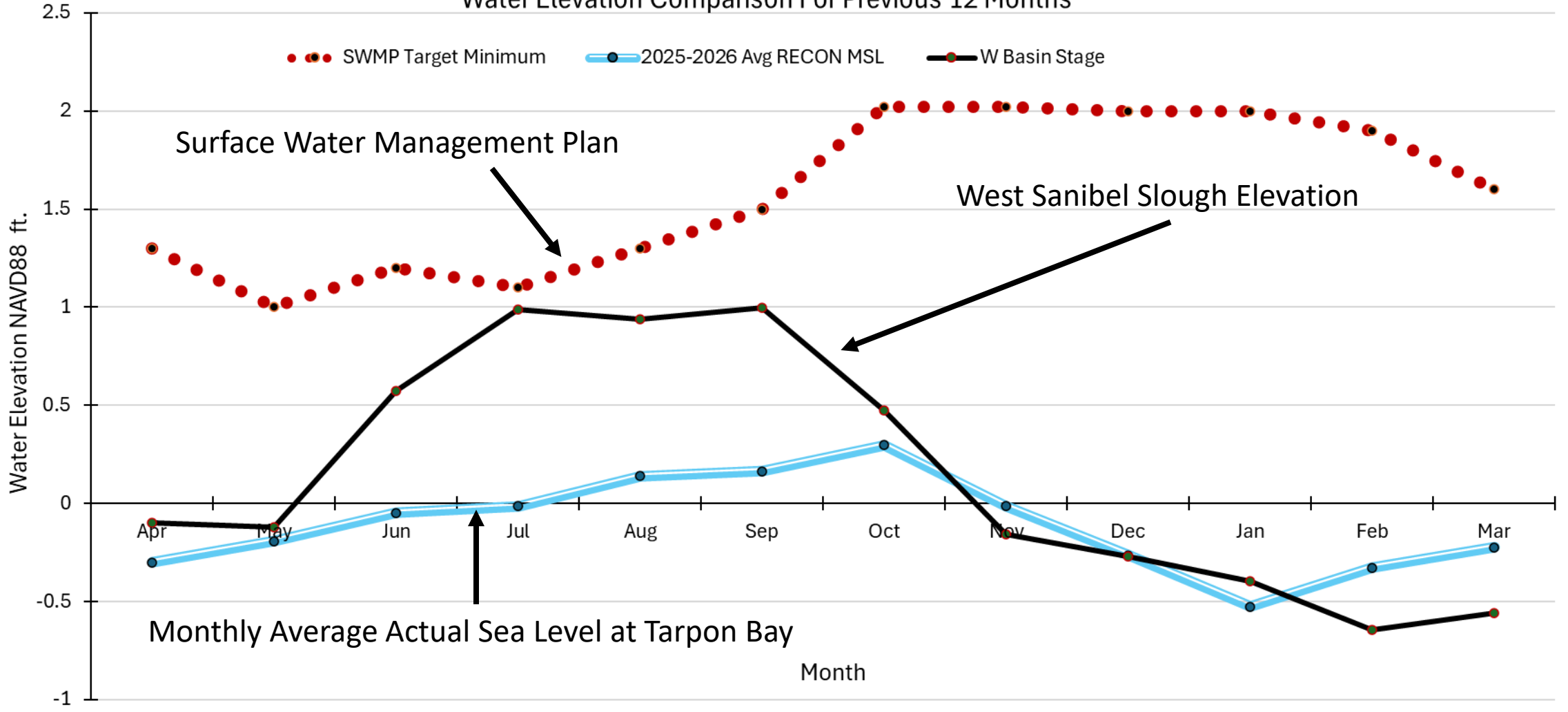
This is **2.3** feet below SWMP target for March

Month	Target Water Level (ft) NAVD 88
January	2
February	1.9
March	1.6
April	1.3
May	1
June	1.2
July	1.1
August	1.3
September	1.5
October	2.02
November	2.02
December	2

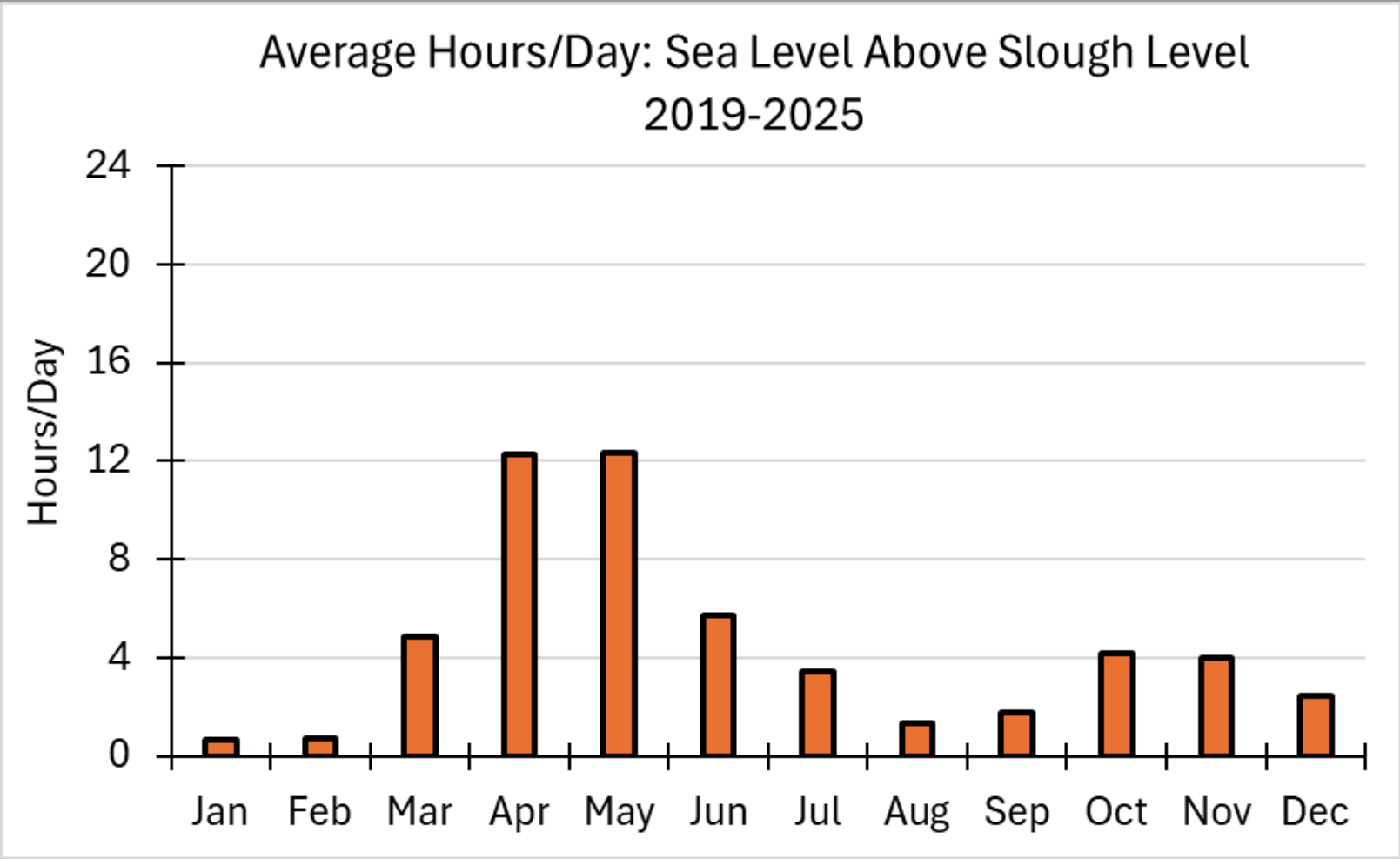
Using Tarpon Bay RECON for Real Time Tide Level (MSL)



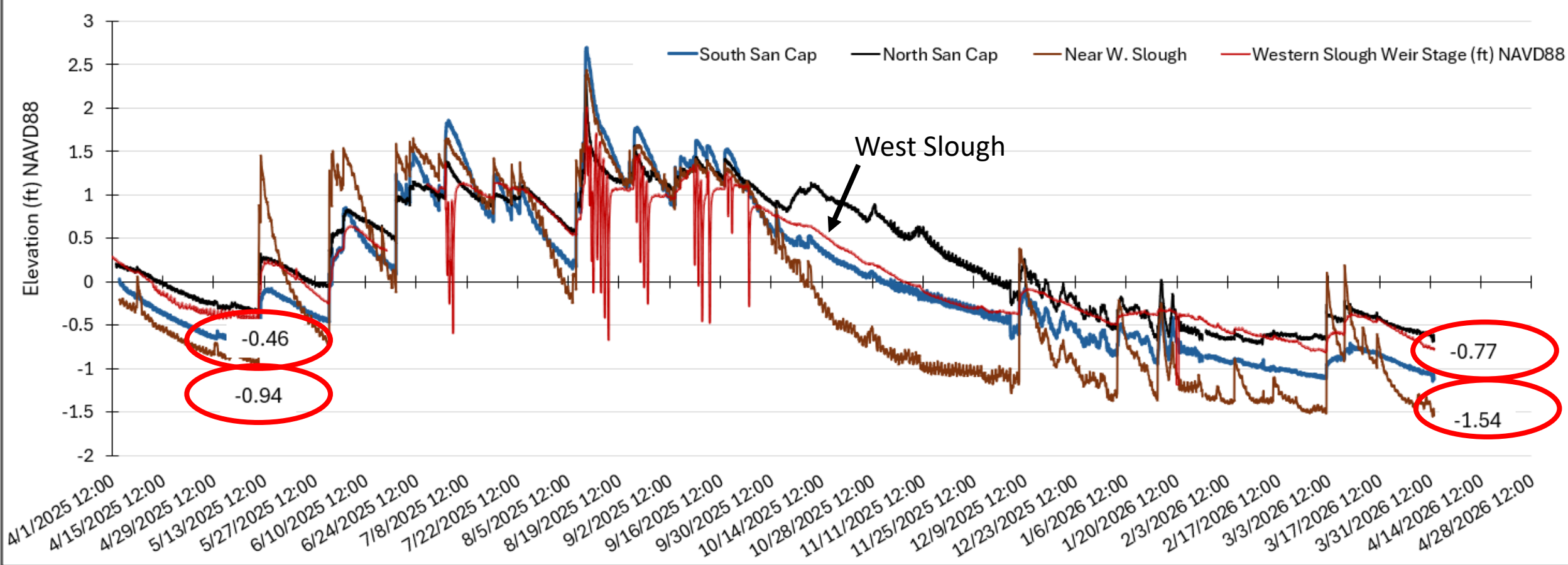
Water Elevation Comparison For Previous 12 Months



Actual Sea Level Compared to West Sanibel Slough Water Level

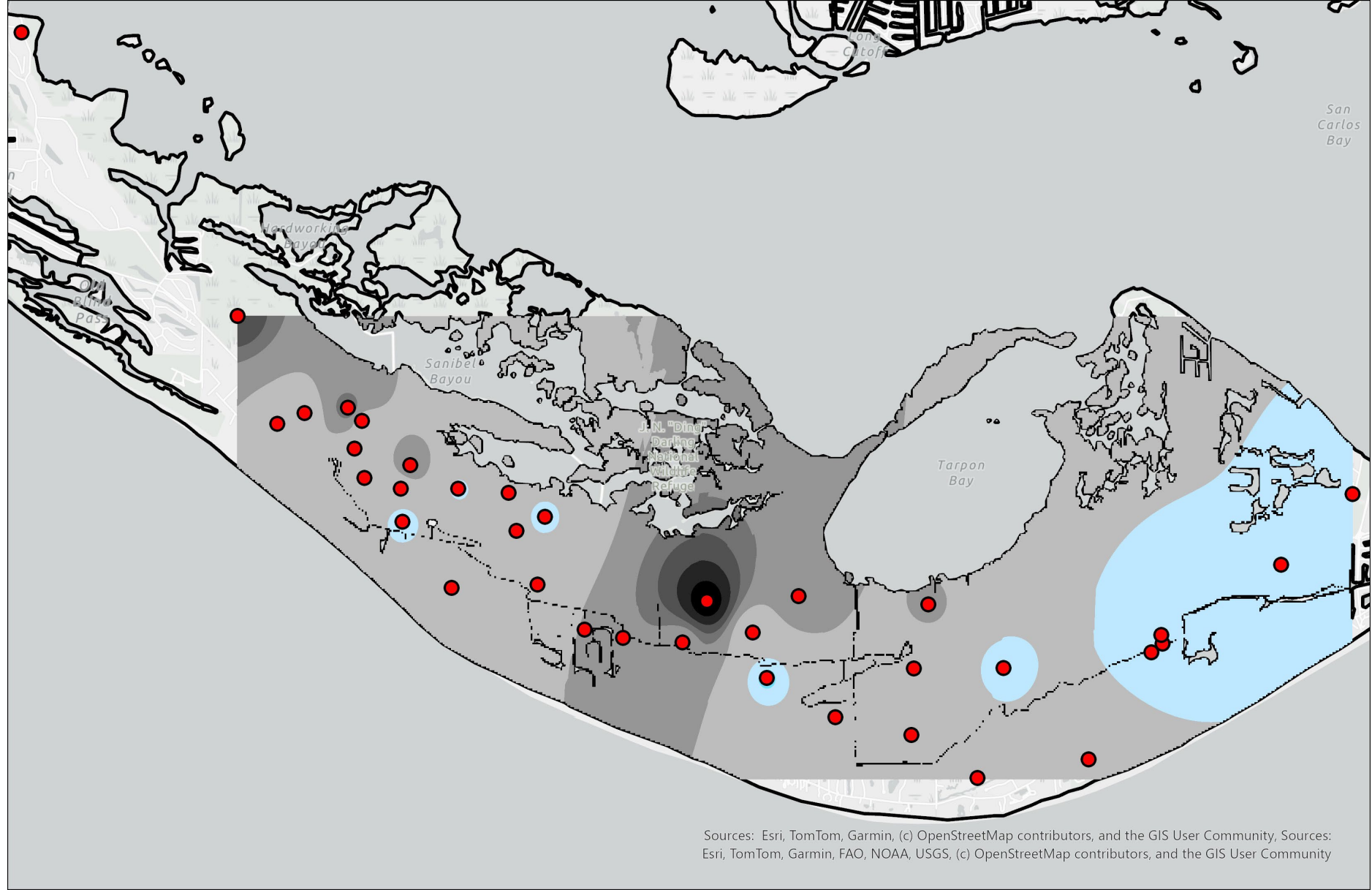


Water Elevation SIRR Wells

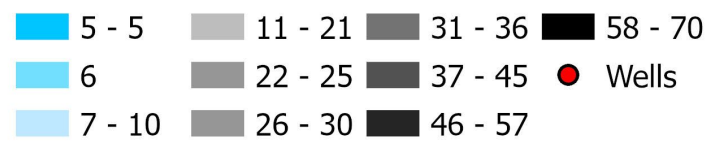


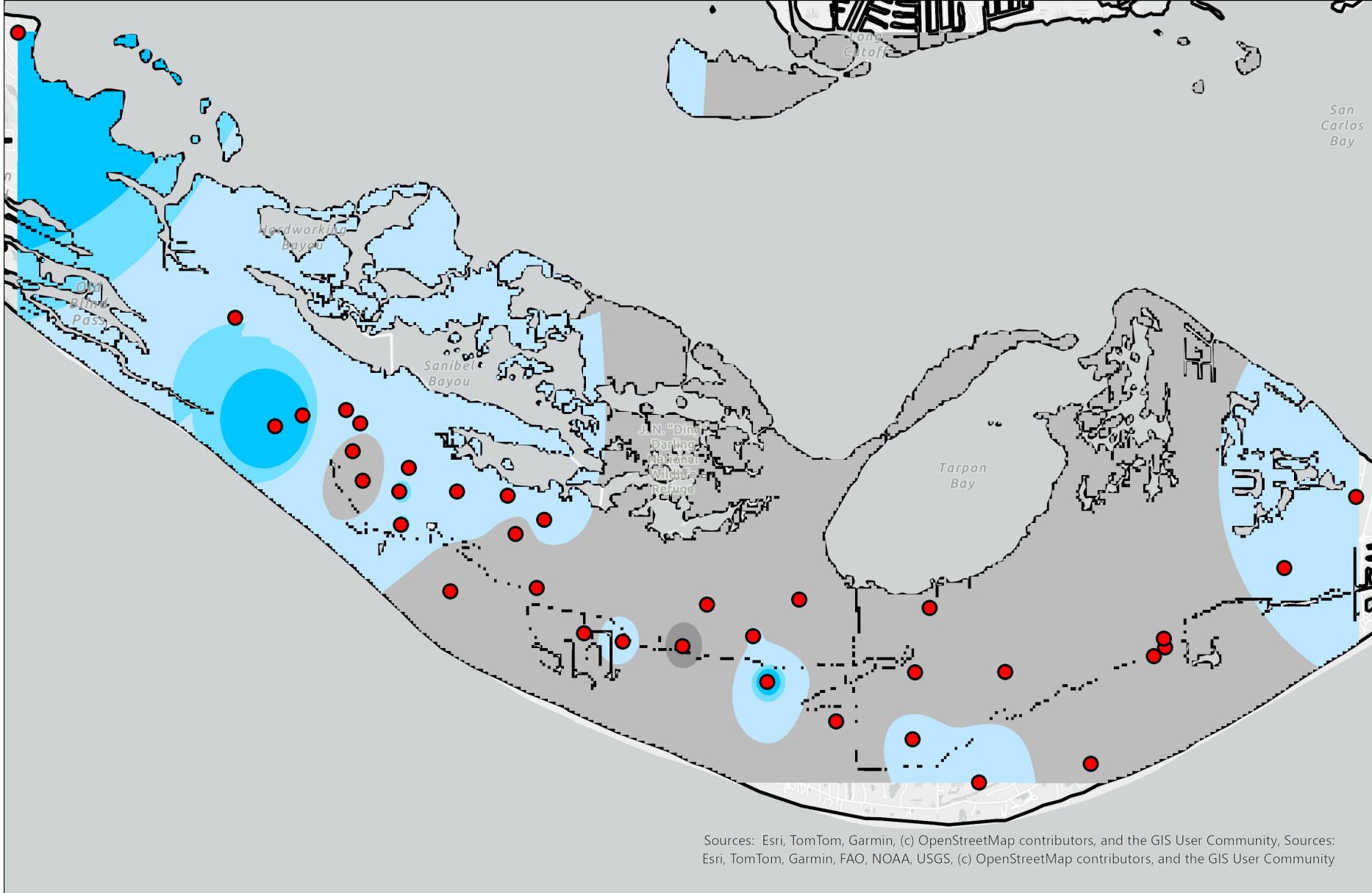
West Slough = 0.31 ft lower than May last year

Well South = 0.60 feet lower than last May



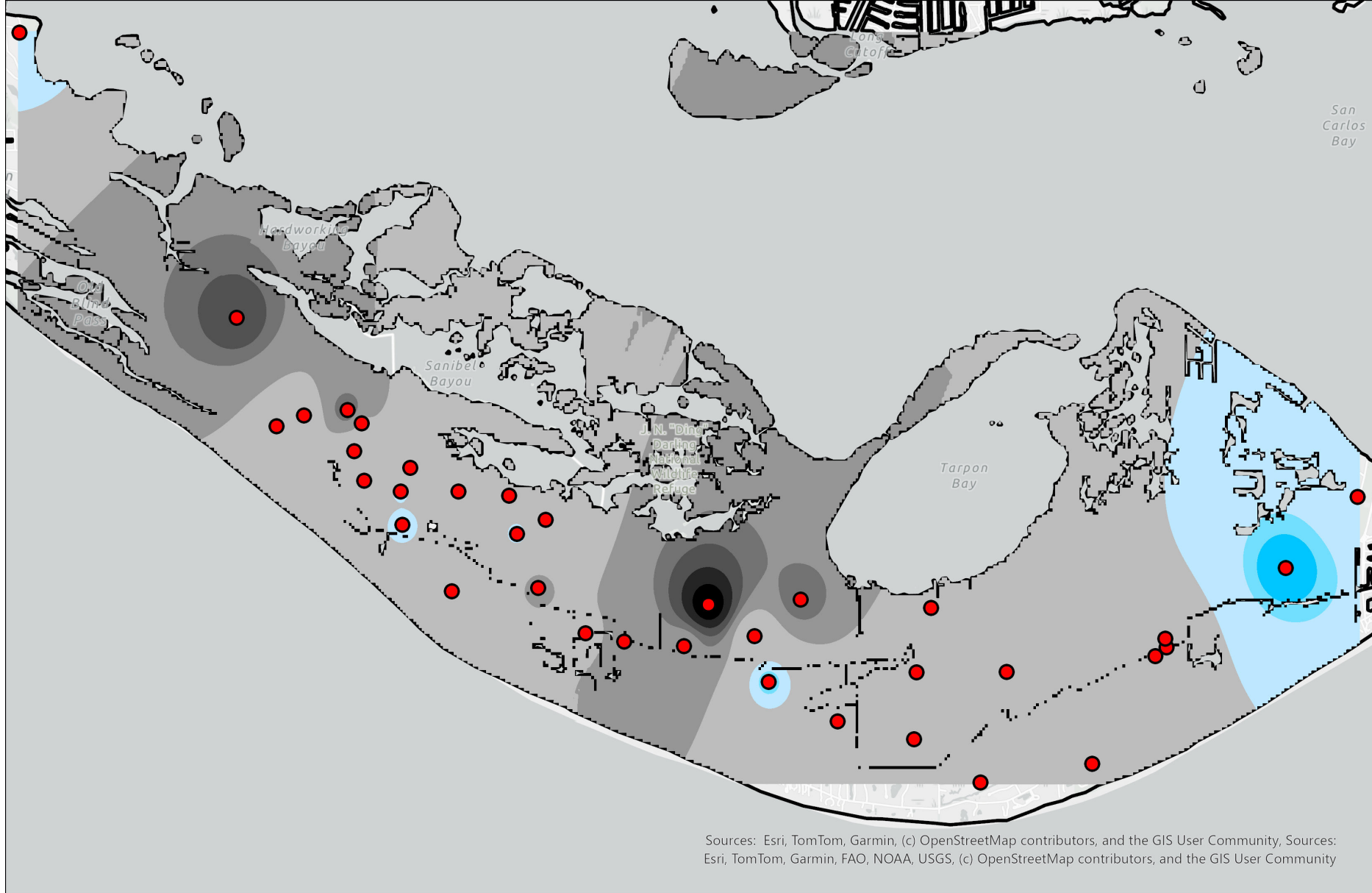
GW Salinity May 2025



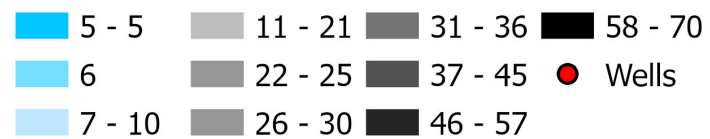


GW Salinity August 2025



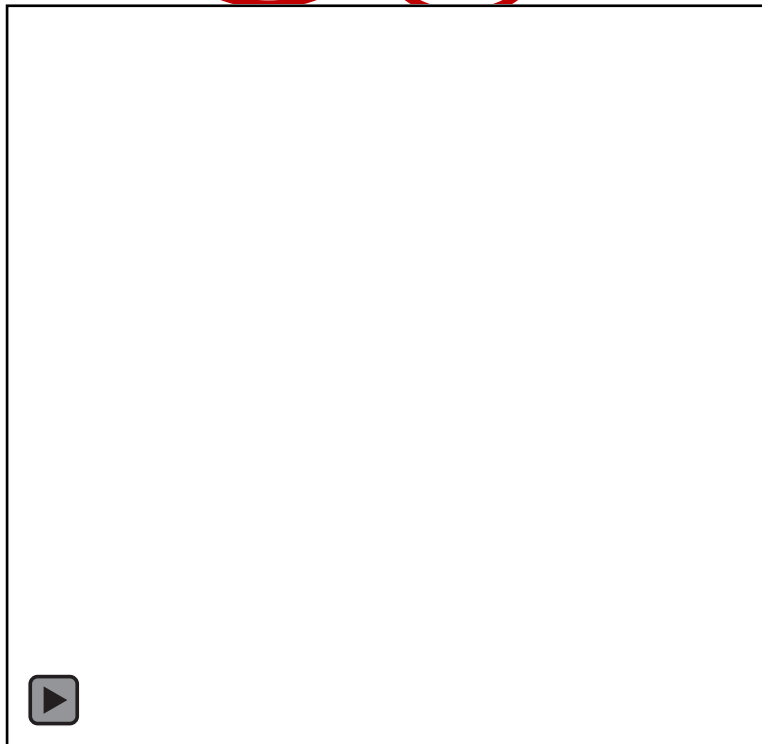
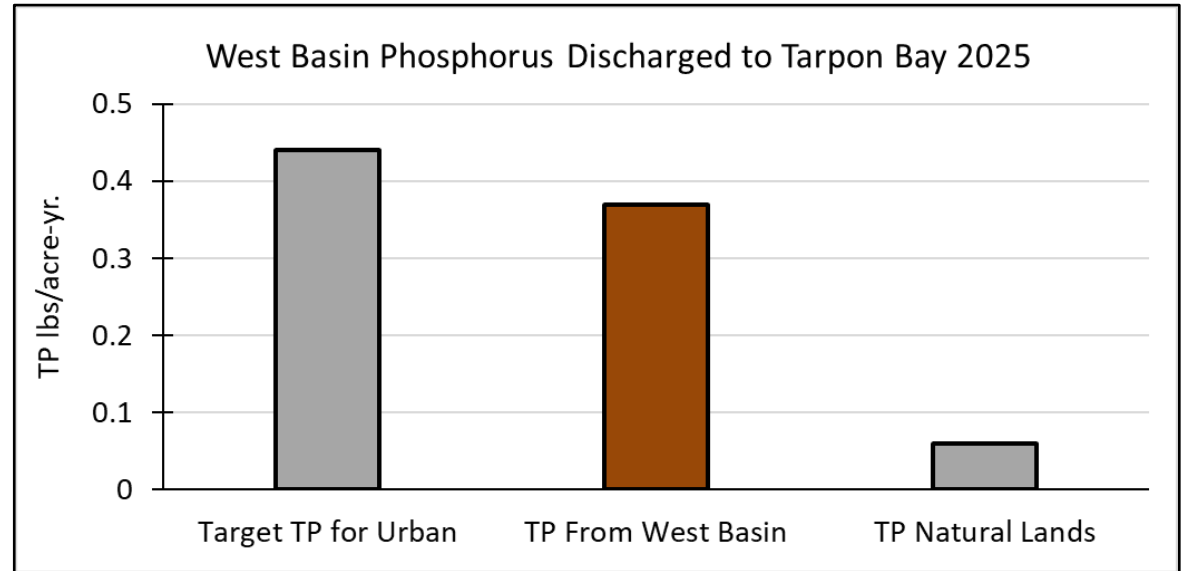
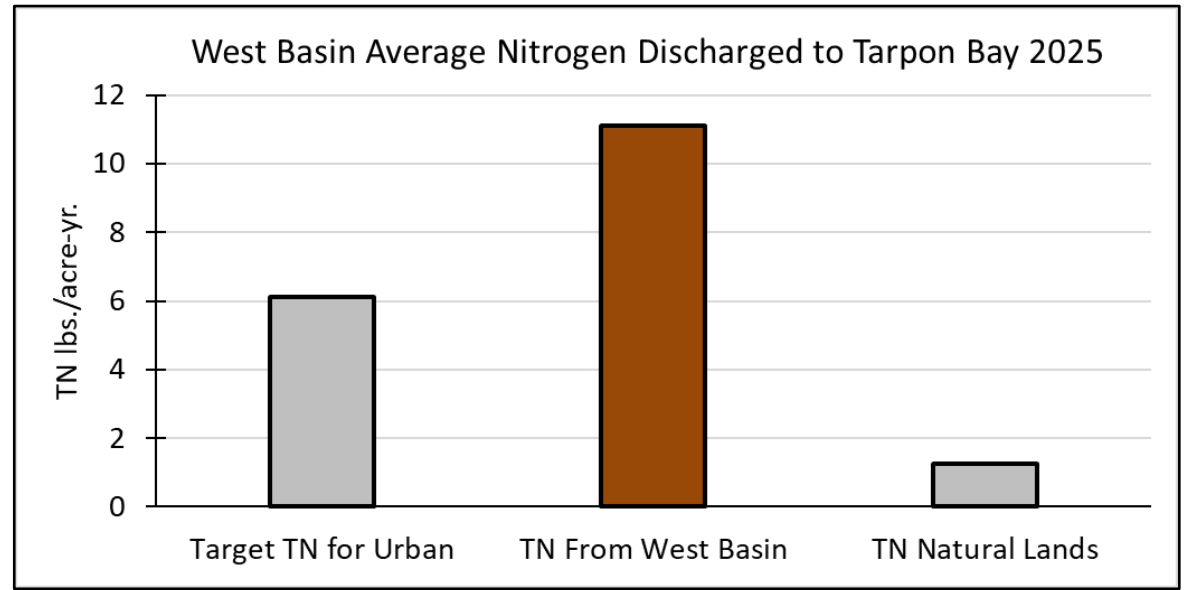


GW Salinity February 2026



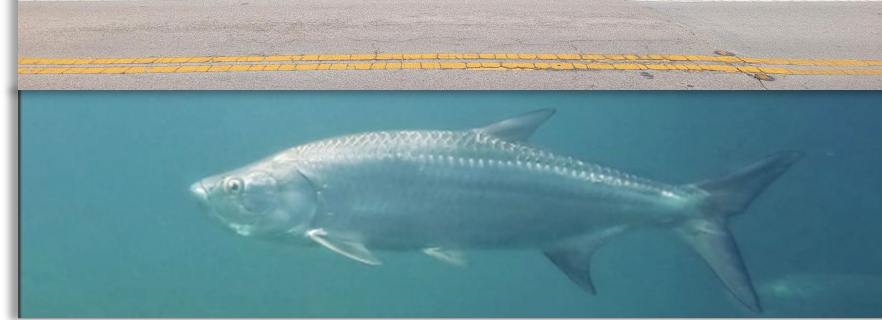
West Basin Nutrient Load To Tarpon Bay

Year	West Basin Area Acres	TN Load lbs	TP Load lbs	TN lb/acre	TP lb/acre
2019	1978	59	3	0.0	0.00
2020	1978	35664	924	18.0	0.47
2021	1978	7651	161	3.9	0.08
2022	1978	5437	187	2.7	0.09
2023	1978	1285	47	0.6	0.02
2024	1978	45511	1963	23.0	0.99
2025	1978	21923	727	11.1	0.37



Summary

- Lakes water quality seems to be improving from post Ian lows. But still poor.
- Canal water quality about the same and very similar to estuary water quality.
- Average lake salinity came down post Milton. Still salty – but rainy season will help.
- Sanibel slough salinity low enough to support cichlids again.
- Groundwater levels are very low and salty – below mean sea level most of dry season. Saltwater intrusion potential.
- Sanibel slough and groundwater are closely related. When slough is below sea level, groundwater is also below sea level.



Questions



<https://sccf.org/>

<https://sanibelcleanwater.org/>

