



South Florida Water Management District

BIG CYPRESS BASIN BOARD MEETING AGENDA

August 23, 2024

11:00 AM

Collier County Government Center

Commission Chambers, 3rd Floor

3299 Tamiami Trail East, Naples, FL 34112

Zoom Registration Link: <https://sfwmd.link/4a66e9X>

FINAL

1. Call to Order - Charlette Roman, Chair, Big Cypress Basin Board
2. Pledge of Allegiance
3. Agenda Revisions - Lisa Koehler
4. Agenda Item Abstentions by Board Members
5. Consider Approval of the Minutes for the July 08, 2024 Meeting
6. Basin Administrator's Report - Lisa Koehler
7. General Public Comment
8. Lake Trafford Aquatic Enhancement: Past and Future - Beacham Furse, Biological Administrator, Florida Fish and Wildlife Conservation Commission (Staff contact, Lisa Koehler)
9. Restoring Plant Communities and Aquatic Fauna within the Picayune Strand Restoration Project (Staff contact, Cassondra Armstrong, Ph.D.)
10. Bird Rookery Swamp Boardwalk Replacement (Staff contact, Kathy Collins, P.E.)

11. Fiscal Year 2024-2025 Budget Presentation (Staff contact, Candida Heater)

Resolution No. BCBB 2024 - 0801 A Resolution of the Big Cypress Basin Board of the South Florida Water Management District approving the submittal of the millage rate (0.0978 mill) for Fiscal Year 2024-2025; requesting the Governing Board of the South Florida Water Management District to levy ad valorem taxes within the Big Cypress Basin based on that rate to finance Basin functions contained in the Fiscal Year 2024-2025 Basin budget; providing an effective date.

Resolution No. BCBB 2024 - 0802 A Resolution of the Big Cypress Basin Board of the South Florida Water Management District submitting the Fiscal Year 2024-2025 Basin budget in the amount of \$22,006,945 to the Governing Board of the South Florida Water Management District for inclusion in the District budget; providing an effective date.

Resolutions

Agenda Item Background:

[Resolution No. BCBB 2024-0801](#)

[Resolution No. BCBB 2024-0802](#)

12. Board Comment

Technical Reports

13. Field Station Activity Report - Andrew Wolf
14. Water Conditions Report - Brad Jackson, P.E.

Staff Reports

15. Monthly Financial Report - Candida Heater
16. General Public Comment
17. Board Comment
18. Adjourn

Draft Presentations:

Agenda Item Background:

[Item 08 - Lake Trafford Aquatic Enhancement](#)

[Item 09 - Restoring Plant Communities and Aquatic Fauna](#)

[Item 10 - Bird Rookery Boardwalk Swamp Replacement](#)

[Item 12 - BCB Fiscal Year 2024-2025 Adopted Millage & Budget Update](#)

[Item 13 - Field Station Activity August](#)

[Item 14 - Water Conditions Report August](#)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

BIG CYPRESS BASIN

RESOLUTION NO. BCBB 2024-0801

A Resolution of the Big Cypress Basin Board of the South Florida Water Management District approving the submittal of the millage rate (0.0978 mill) for Fiscal Year 2024-2025; requesting the Governing Board of the South Florida Water Management District to levy ad valorem taxes within the Big Cypress Basin based on that rate to finance Basin functions contained in the Fiscal Year 2024-2025 Basin budget; providing an effective date.

WHEREAS, Section 373.0697, Florida Statutes provides that Basins may, pursuant to s. 9(b), Art. VII of the State Constitution, by resolution request the Governing Board of the District to levy ad valorem taxes within such Basin; and

WHEREAS, upon receipt of such request, the Governing Board of the District shall levy a Basin tax to finance statutory Basin functions; and

WHEREAS, the Big Cypress Basin Board of the South Florida Water Management District (District), by the passage of this resolution, hereby requests the Governing Board of the District to levy ad valorem taxes within the Basin to finance statutory basin functions reflected in the Fiscal Year 2024-2025 Basin budget; and

WHEREAS, the gross taxable value for the operating purposes not exempt from taxation within the Big Cypress Basin of the District has been certified by the Collier and Monroe County Property Appraisers to the District as \$152,359,910,421; and

WHEREAS, the Big Cypress Basin Board of the District has determined that a tax levy of nine hundred seventy-eight ten thousandths mill (0.0978 mill) (\$0.0978 per \$1,000 of assessed value) upon all property lying within the Big Cypress Basin subject to the Basin's tax in the amount of \$14,900,799 is necessary to provide funds for Big Cypress Basin budgeted expenditures as set forth in the tentative budget; and

WHEREAS, the Big Cypress Basin Board conducted a public meeting on August 23, 2024 on this resolution and provided an opportunity for the public to be heard regarding the proposed levy of taxes and the proposed millage rate.

NOW THEREFORE, BE IT RESOLVED BY THE BIG CYPRESS BASIN BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT:

Section 1. The Big Cypress Basin Board of the District hereby requests the Governing Board of the District to levy ad valorem taxes within the Basin to finance statutory basin functions at the millage rate set forth in Section 2 of this resolution.

BIG CYPRESS BASIN
Resolution No. BCBB 2024-0801

Section 2. The Big Cypress Basin Board hereby approves a tax levy of nine hundred seventy-eight ten thousandths mill (0.0978 mill) (\$0.0978 per \$1,000 of assessed value) upon all property lying within the Basin subject to the Basin's tax in the amount of \$14,900,799 in order to provide funds for Basin budgeted expenditures and is hereby submitted to the Governing Board of the District for final adoption.

Section 3. This resolution shall take effect immediately upon adoption.

PASSED and **ADOPTED** this 23rd day of August, 2024.

BIG CYPRESS BASIN OF THE SOUTH FLORIDA
WATER MANAGEMENT DISTRICT, BY ITS
GOVERNING BOARD

By:

Chair

ATTEST:

Approved as to form:

By:

Office of Counsel

District Clerk/Secretary

Print name:

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

BIG CYPRESS BASIN

Resolution No. BCBB 2024-0802

A Resolution of the Big Cypress Basin Board of the South Florida Water Management District submitting the Fiscal Year 2024-2025 Basin budget in the amount of \$22,006,945 to the Governing Board of the South Florida Water Management District for inclusion in the District budget; providing an effective date.

WHEREAS, Section 373.0695, Florida Statutes, provides that a Basin board prepare the annual budget for the basin and submit the budget to the Governing Board of the District for inclusion in the District budget; and

WHEREAS, the Big Cypress Basin Board has prepared a budget for Fiscal Year 2024-2025, a copy of which is attached to this resolution; and

WHEREAS, the Big Cypress Basin Board conducted a public meeting on August 23, 2024 on the budget and provided an opportunity for the public to be heard regarding the budget; and

WHEREAS, the Big Cypress Basin Board has determined that it is necessary, proper and in the public interest to submit the attached budget to the Governing Board of the South Florida Water Management District (District) for inclusion in the District budget.

NOW THEREFORE, BE IT RESOLVED BY THE BIG CYPRESS BASIN BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT:

Section 1. The attached Fiscal Year 2024-2025 budget for the Big Cypress Basin is approved and is hereby submitted to the Governing Board of the District for inclusion in the District budget.

Section 2. This Resolution shall take effect immediately upon adoption.

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BIG CYPRESS BASIN
Resolution No. BCBB 2024-0802

PASSED and **ADOPTED** this 23rd day of August, 2024.

BIG CYPRESS BASIN OF THE SOUTH FLORIDA
WATER MANAGEMENT DISTRICT, BY ITS
GOVERNING BOARD

By:

Chair

ATTEST:

Approved as to form:

By:

Office of Counsel

District Clerk/Secretary

Print name:

Lake Trafford Aquatic Enhancement: Past and Future



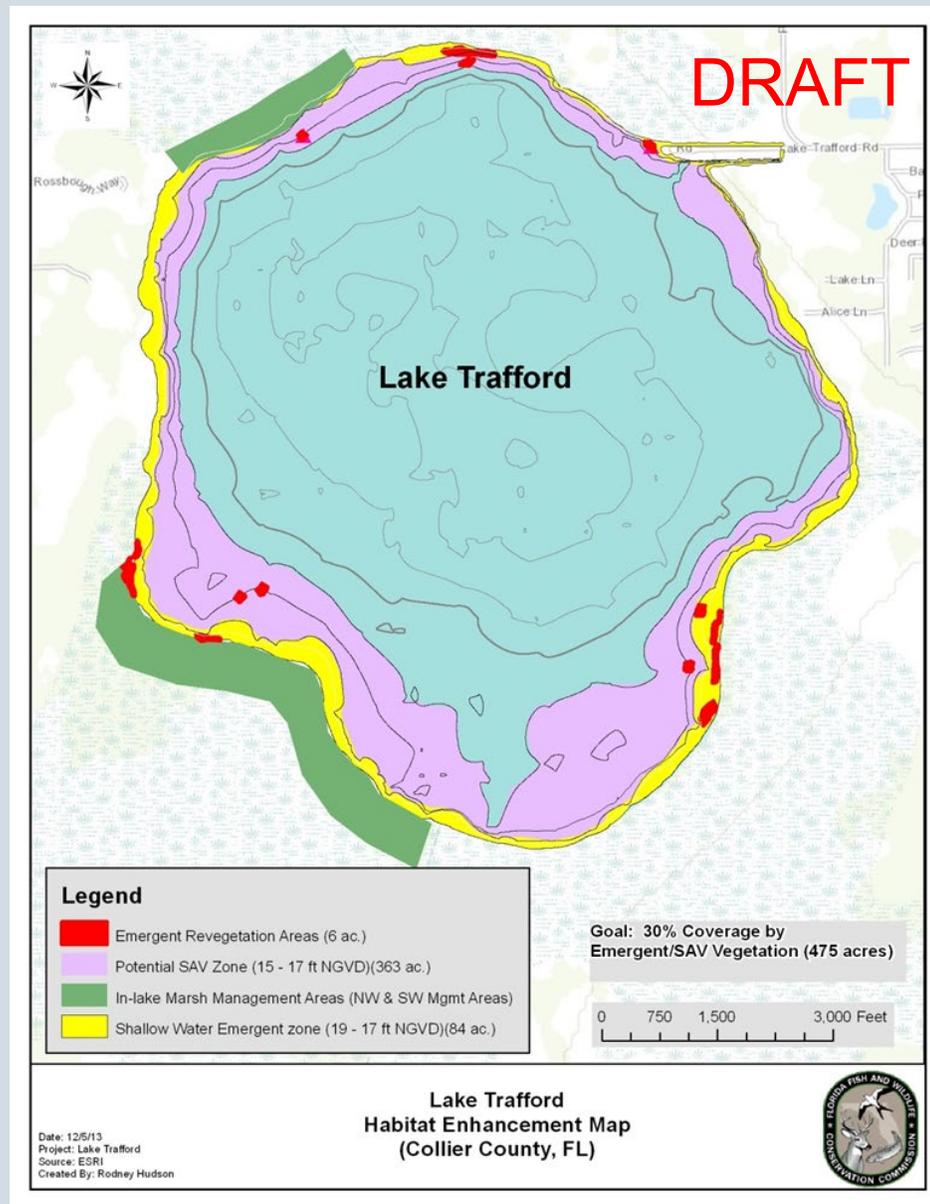
Beacham Furse

Biological Administrator II

Florida Fish and Wildlife Conservation Commission



Presenter: Beacham Furse



Lake Trafford - History

- 1,500-acre lake with historic sand bottom
- Healthy thru the 1960's
- Hydrilla introduced in 1969
- Herbicide treatments in 1970's thru 1990's AND cultural development of watershed
 - Hypereutrophic (high phosphorus and algae levels; sediment accumulation)
 - Low Dissolved Oxygen / Fish Kills



Lake Trafford Restoration **DRAFT**

- Dredged Lake 2006-2010
- Coordination with
 - South Florida Water Management District
 - Florida Fish and Wildlife Conservation Commission
 - Collier County Tourism,
- Spent \$22 million to dredge the lake,
- Removed over **6 million cubic yards** of muck, to **reduce the in-lake nutrient supply and improve water clarity.**

Equivalent to 300,000 truck-loads (lined up end-to-end, it would stretch 1,392 miles, or Immokalee to Minneapolis.



Photo: SFWMD



Photo: cavache.com



Lake Trafford Management Plan

October 2018



The goal of the Lake Trafford Management Plan is to:

- 1) improve water and sediment quality,
- 2) **restore and enhance habitat,**
- 3) control invasive vegetation, and
- 4) improve public use and outreach

to return the lake to a healthy, macrophyte-dominated ecosystem with diverse native plant and animal communities.



Presenter: Beacham Furse

FWC Restoration Goals

DRAFT

Management Plan Actions

- HR -1 Create Wind Breaks and Living Shorelines
- HR-3 Develop Aquatic Vegetation Restoration Targets and Restore Habitat
- WQ-4 Manage Sediments in Lake Trafford



Presenter: Beacham Furse

FWC Restoration Goals

DRAFT

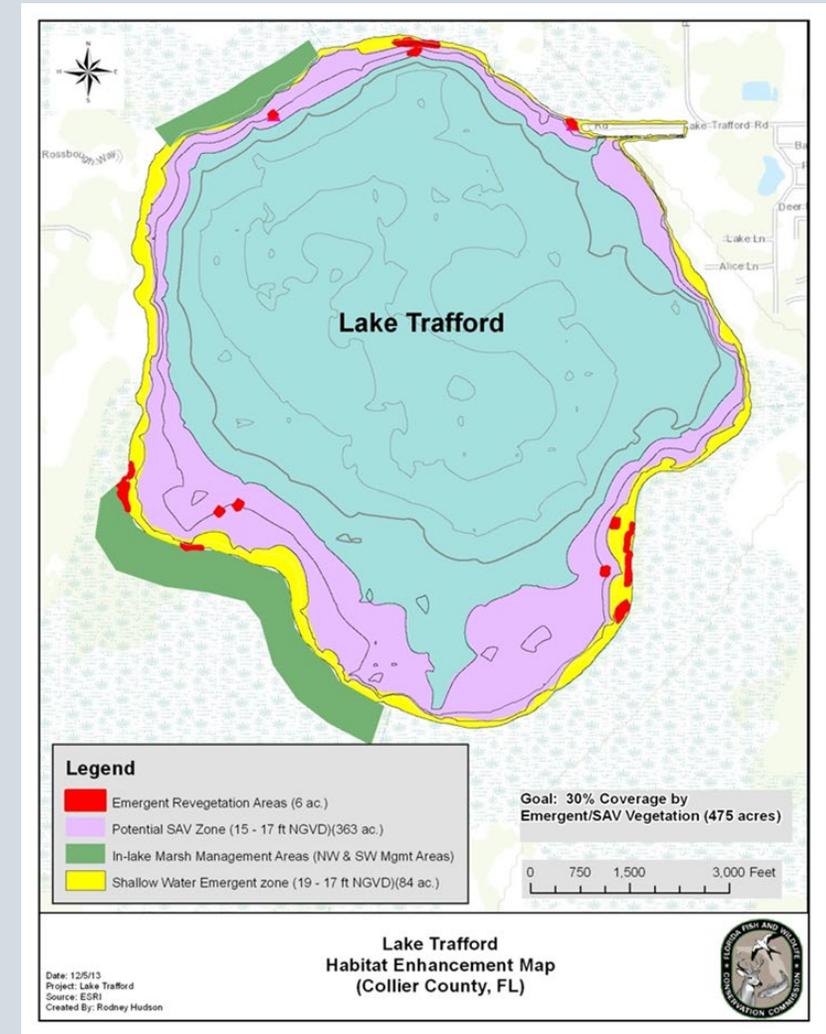
Target Vegetation Coverage = 30%
(450 acres)

Purple = Potential Submersed Vegetation
(15 – 17 ft. NGVD [bottom elevation])

Green = Marsh Management (>19 ft. NGVD)

Yellow = Potential Emergent Vegetation
(17 – 19 ft. NGVD)

Red = Initial Emergent Planting Sites
(2011-12; post-dredging)



Presenter: Beacham Furse

FWC Restoration Goals – Create Wave/Wind Breaks

DRAFT



Giant Bulrush



Presenter: Beacham Furse



Bulrush as a Wave-Break

**Eelgrass growing
behind it**

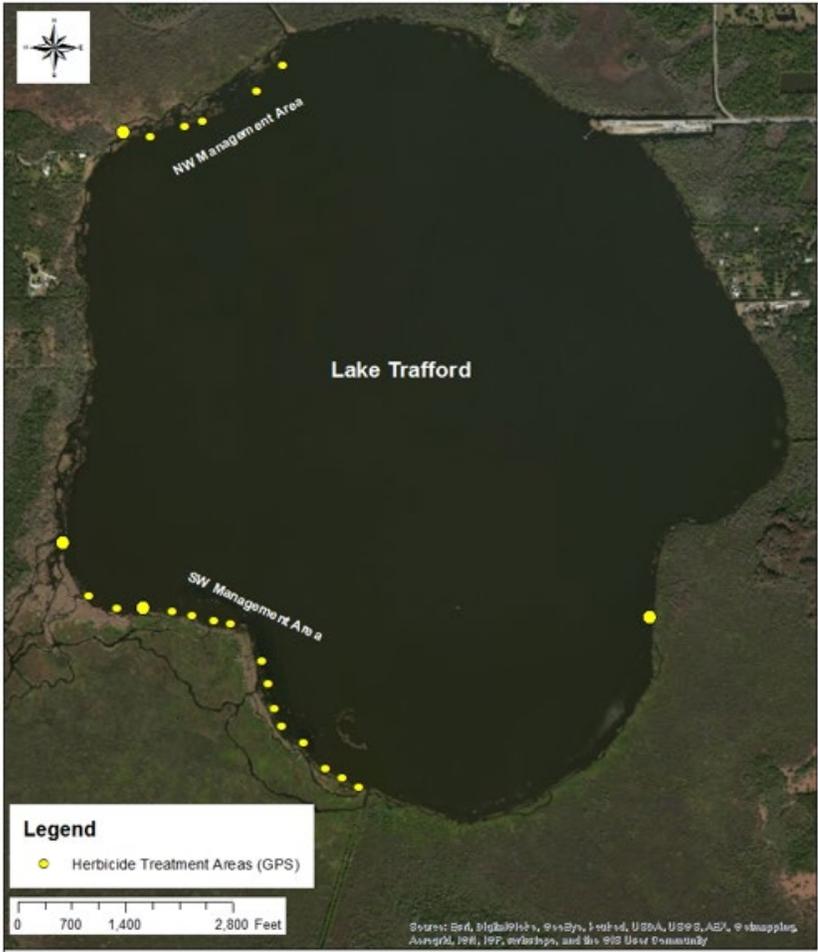


Presenter: Beacham Furse

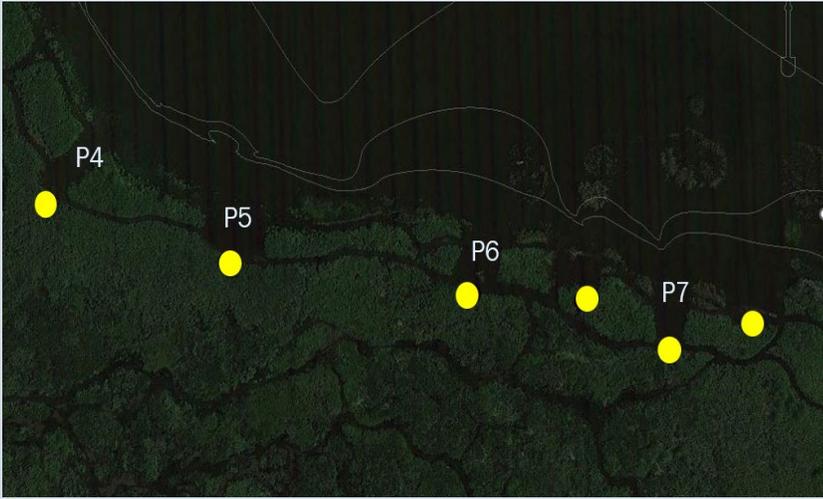
FWC Restoration Goals

Restore Aquatic Vegetation

DRAFT



Northwest Area



Southwest Area



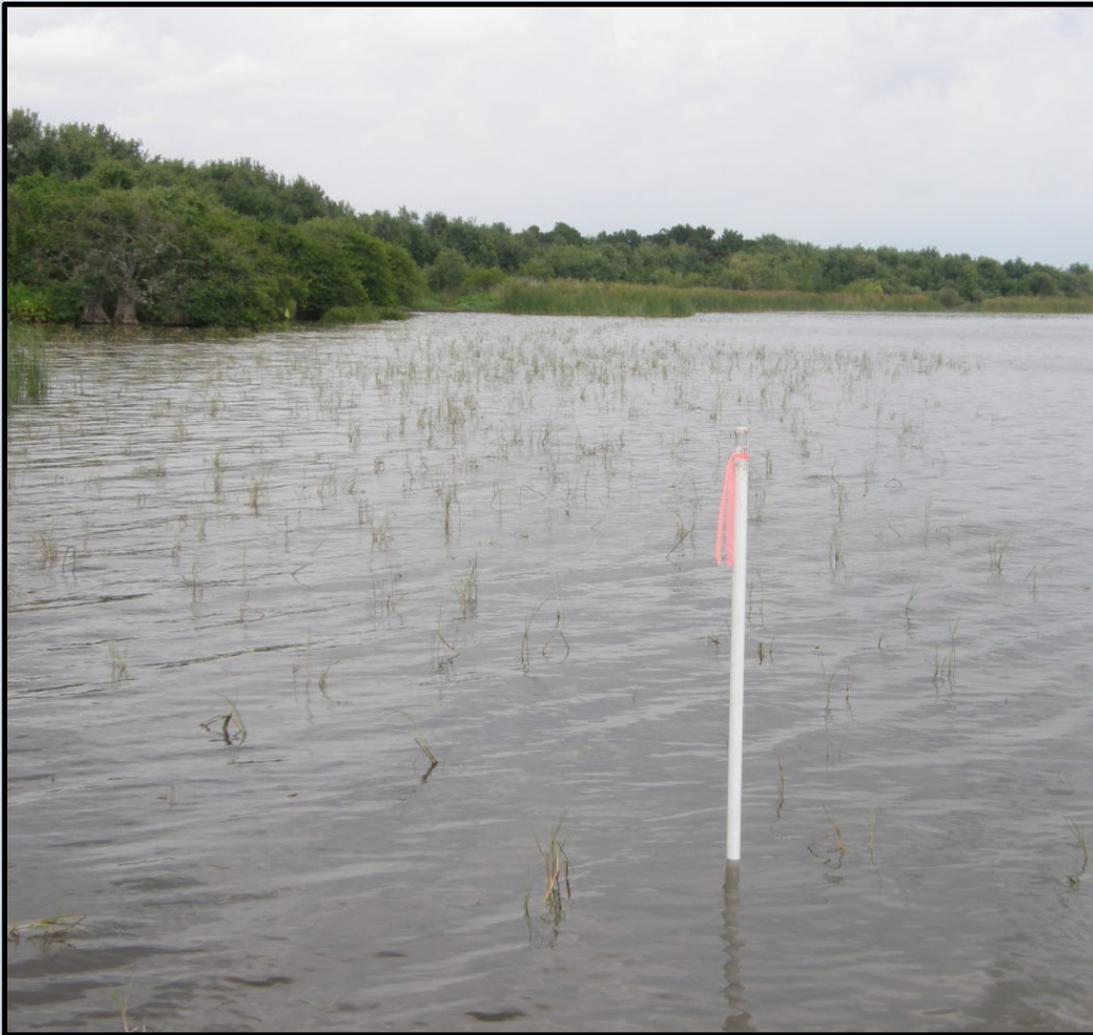
Presenter: Beacham Furse

FWC Restoration Goals

DRAFT



Presenter: Beacham Furse



Paspalidium (aka Kissimmee Grass)



Presenter: Beacham Furse

Spatterdock



DRAFT



Presenter: Beacham Furse

American lotus Historical / The Future?



**Spatterdock
Planted in spring 2022**



Photo: SFWMD



Presenter: Beacham Furse

Eelgrass



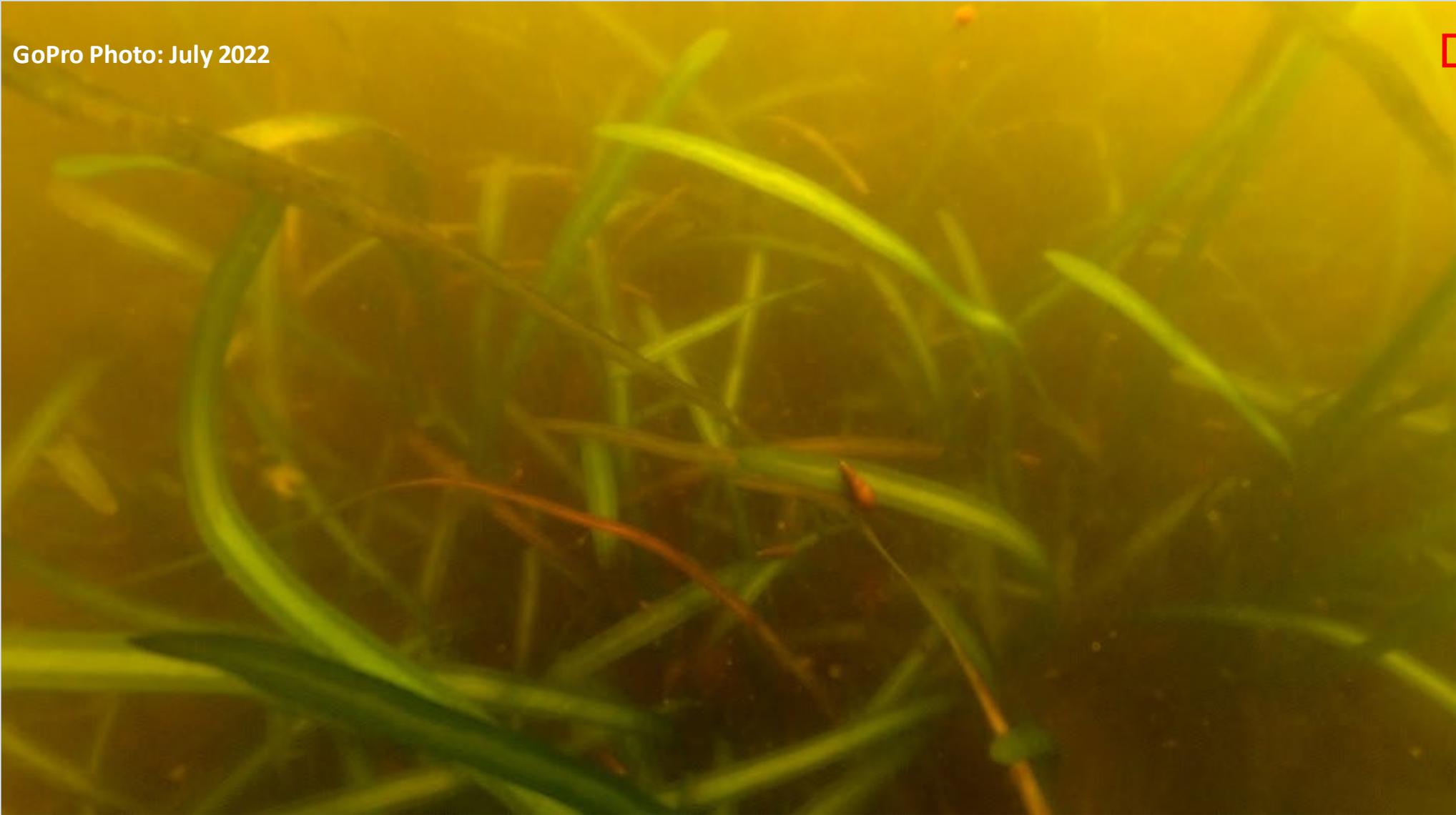
Presenter: Beacham Furse



Presenter: Beacham Furse

GoPro Photo: July 2022

DRAFT



Presenter: Beacham Furse

Restoration Challenges

SAV Restoration

DRAFT

Water Depth and Water Clarity (concentration of suspended solids) are most strongly correlated with the biomass of SAV (Havens 2003).

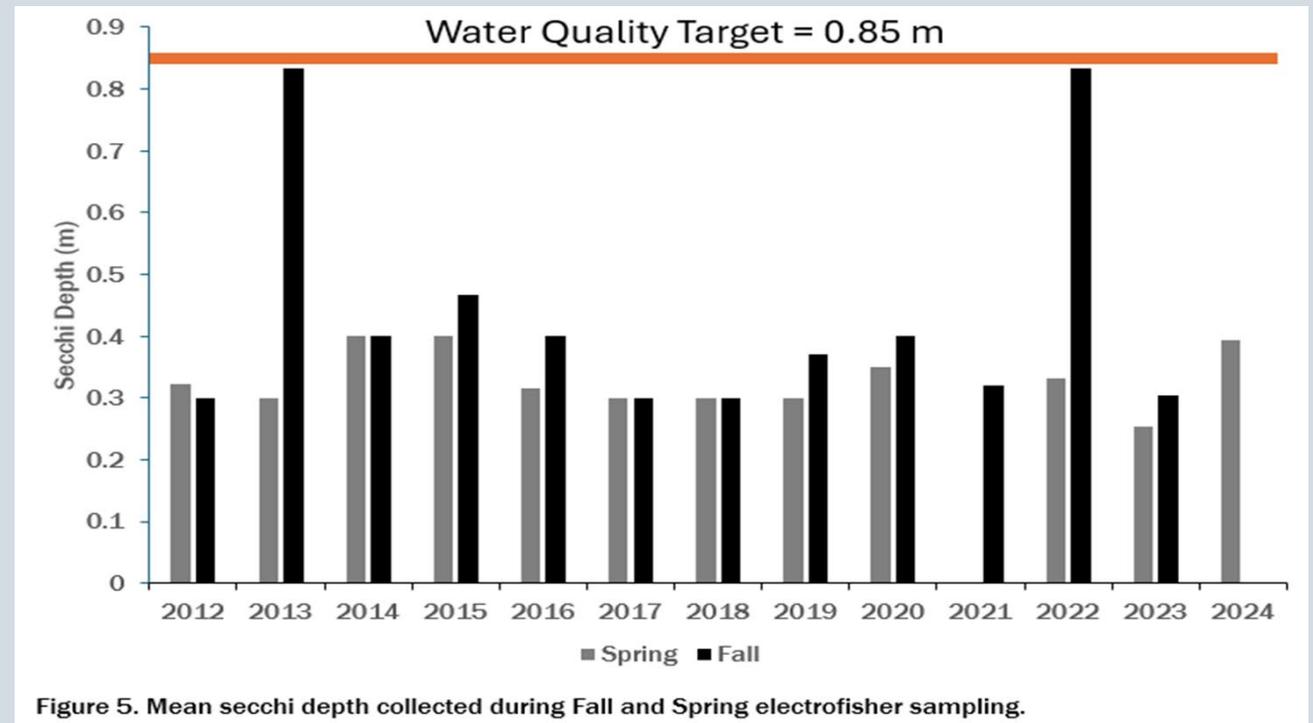
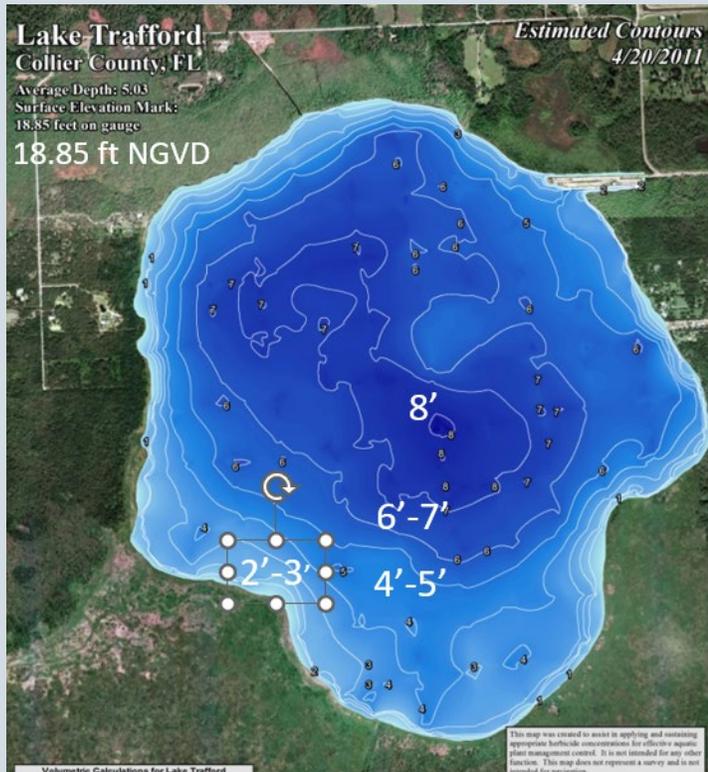


Figure 5. Mean secchi depth collected during Fall and Spring electrofisher sampling.



Presenter: Beacham Furse

Aquatic Plant and Sediment Removal

DRAFT



Why are we not doing more sediment removal?

We have technology. We have permits. We have disposal.

Sovereign Submersed Lands, Cost and Cultural Resources!

- Much of the “lake marsh” (above 19 ft. bottom) is not SSL.
- Cost > \$37,500 / acre
- Entire lake is a DHR Cultural Resource site.



Presenter: Beacham Furse

Challenges – Storm Effect on Lake Habitat

DRAFT

Florida Bass in Lake Trafford
Hurricane Irma in 2017
Hurricane Ian in 2022

Sudden decline in stock-sized fish (second-year fish) following 2017 hurricane

Quality-sized bass numbers have been declining since 2017 as bass have been lost through attrition.

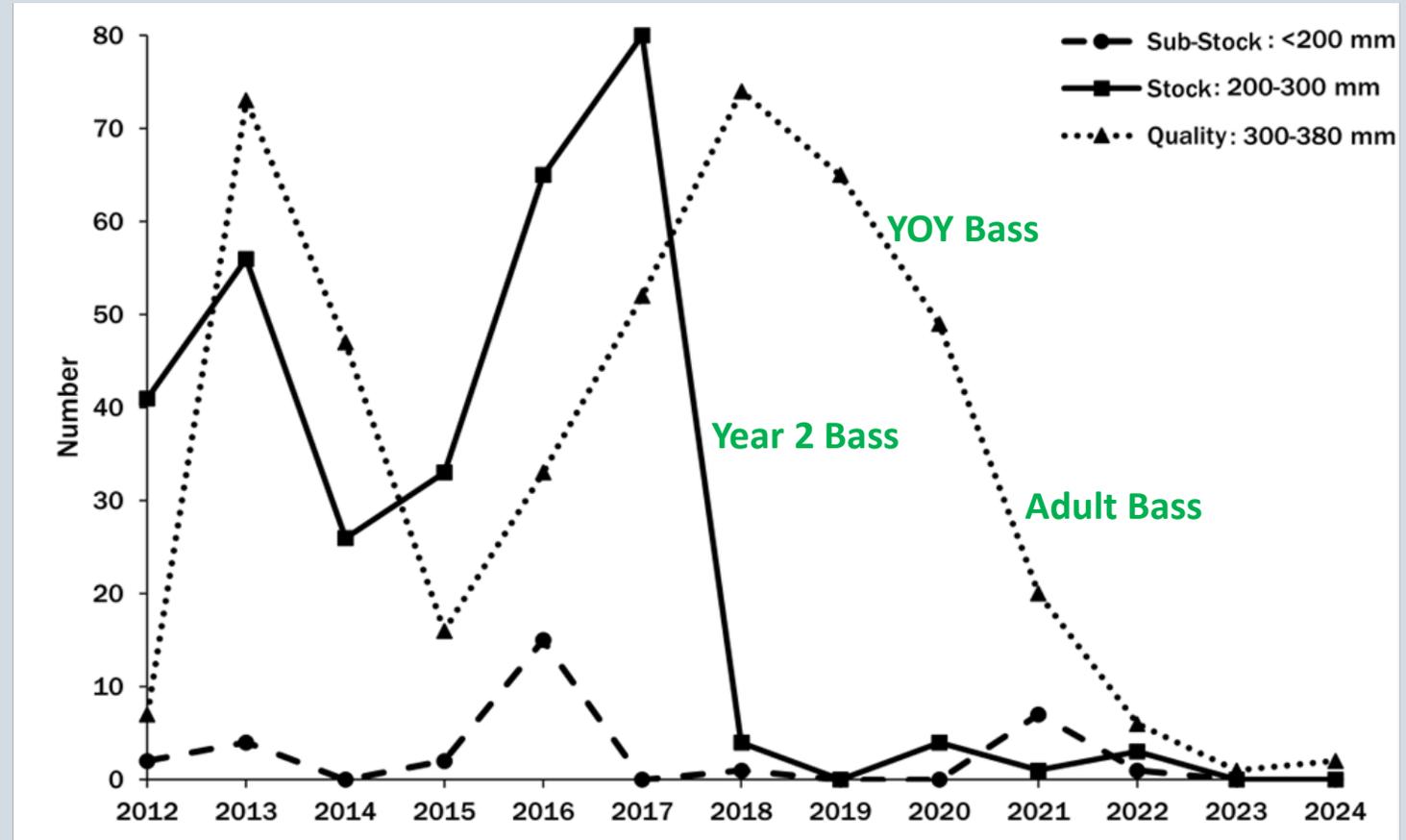


Figure 7. Number of Florida Bass collected by stock group and year from spring electrofishing at Lake Trafford 2012-2024.



Presenter: Beacham Furse

Challenges – Water Quality

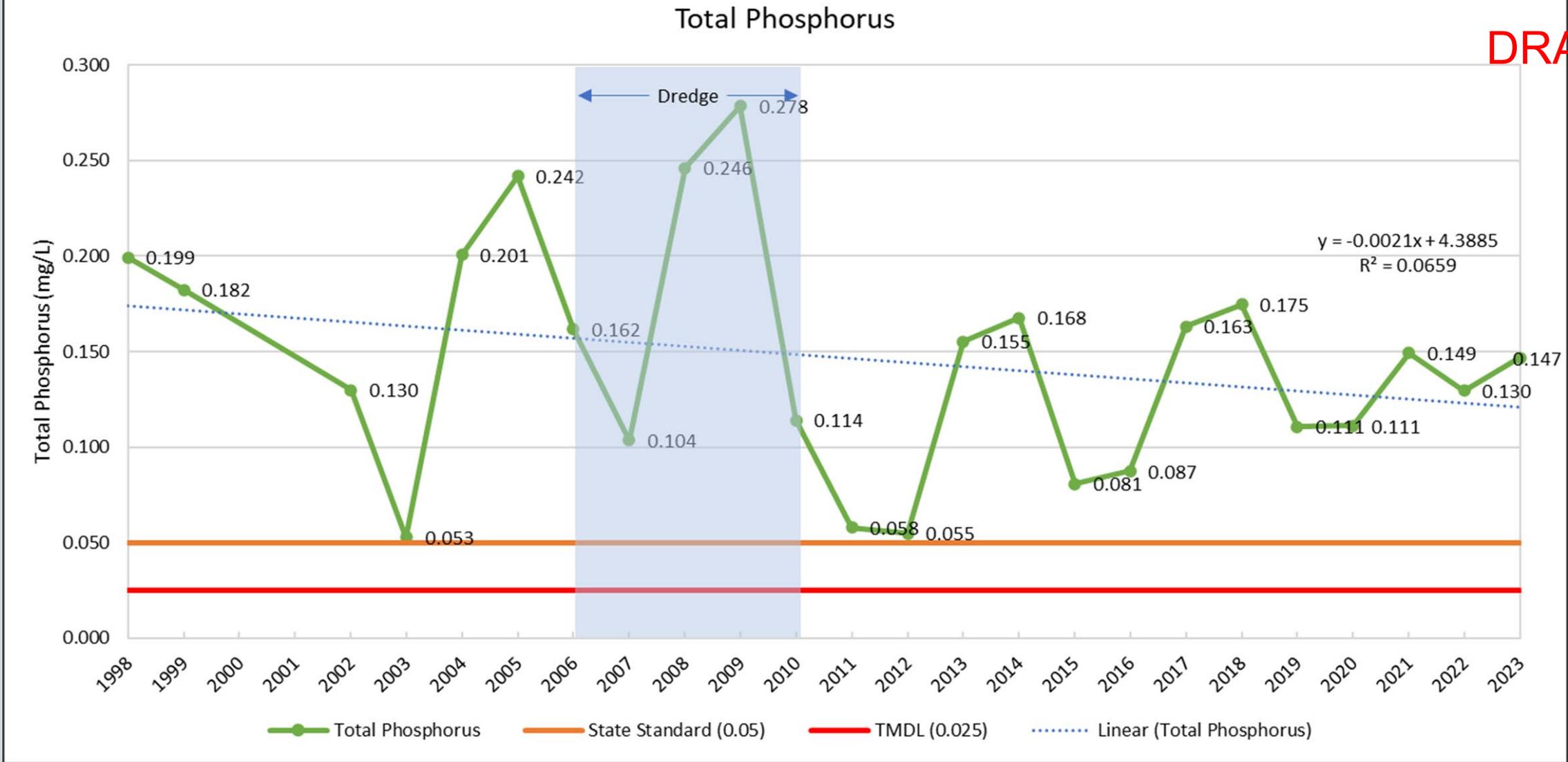
DRAFT

Table 1. Water Quality Targets for Lake Trafford

Parameter	TMDL	State Standard (FAC 62-302)	Mazzotti 2008
Chlorophyll-a ($\mu\text{g/L}$)	19.04	20	15
Total Nitrogen (mg/L)	1.09	1.27	--
Total Phosphorus (mg/L)	0.025	0.05	--
Trophic State Index	56	--	--
TN/TP ratio	44	--	--
Total Suspended Solids (mg/L)	--	--	15
Secchi Depth (m)	--	--	0.85 - 1.1



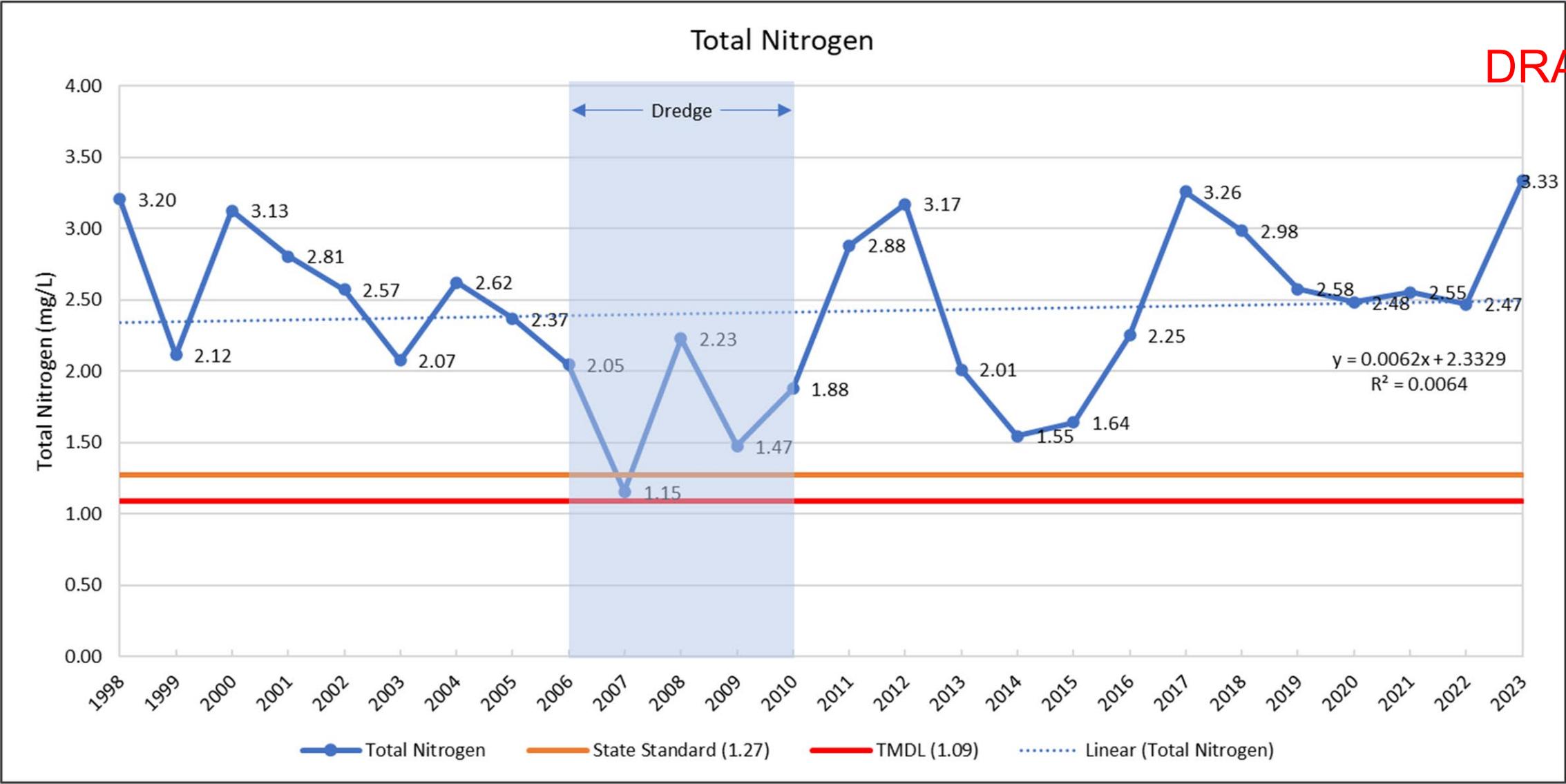
Presenter: Beacham Furse



Data Source: Collier County Pollution Control, October 2023



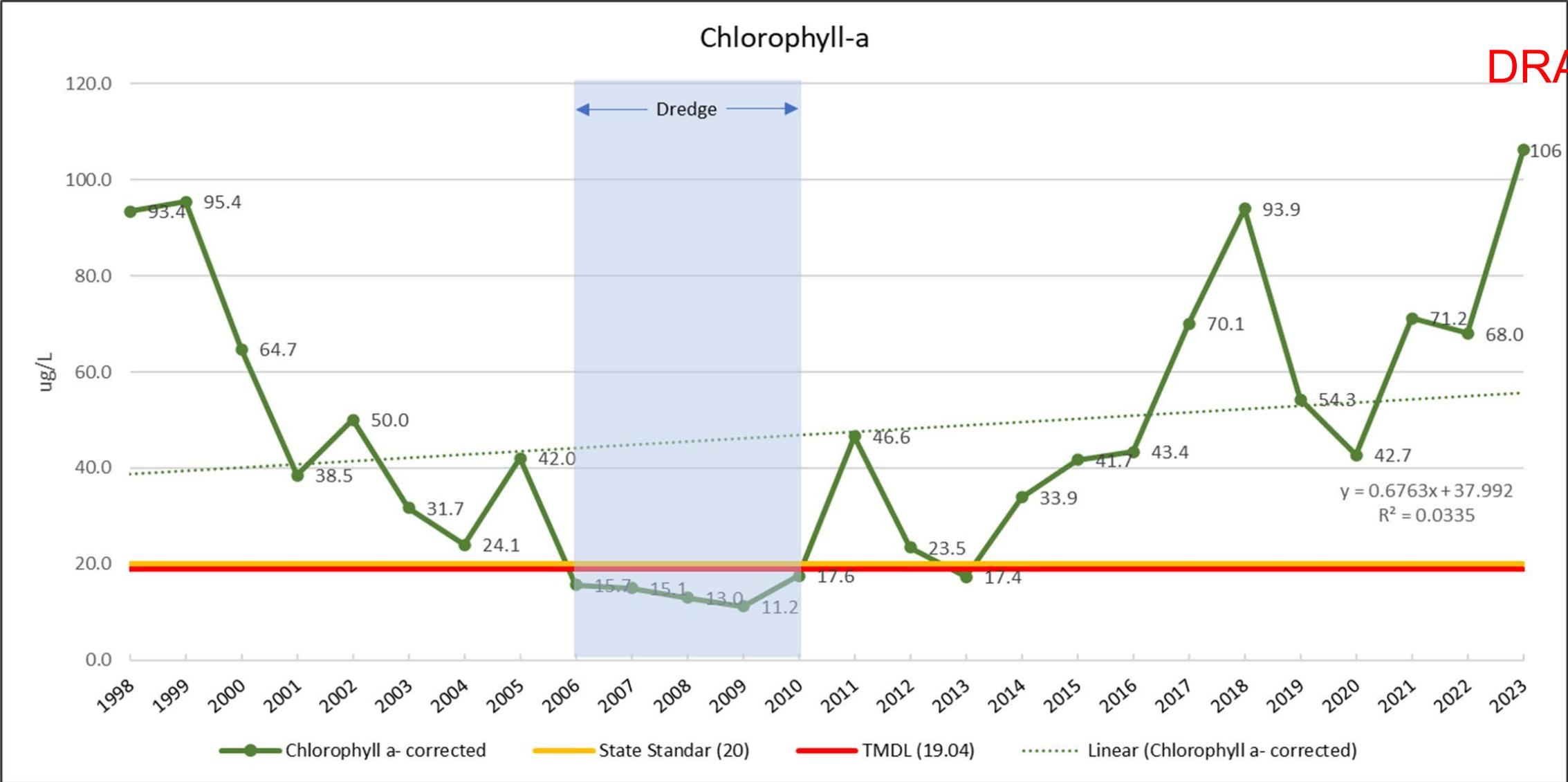
Presenter: Beacham Furse



Data Source: Collier County Pollution Control, October 2023



Presenter: Beacham Furse



Data Source: Collier County Pollution Control, October 2023



Presenter: Beacham Furse



“Total Phosphorus” Water Quality Target for Lake Trafford (State Standards) = 0.05 ppm (50 ppb)

“Total Phosphorus” for IMKWWTP discharge (collected June 25, 2024) = 3.50 ppm (3,500 ppb)
70 X higher than target

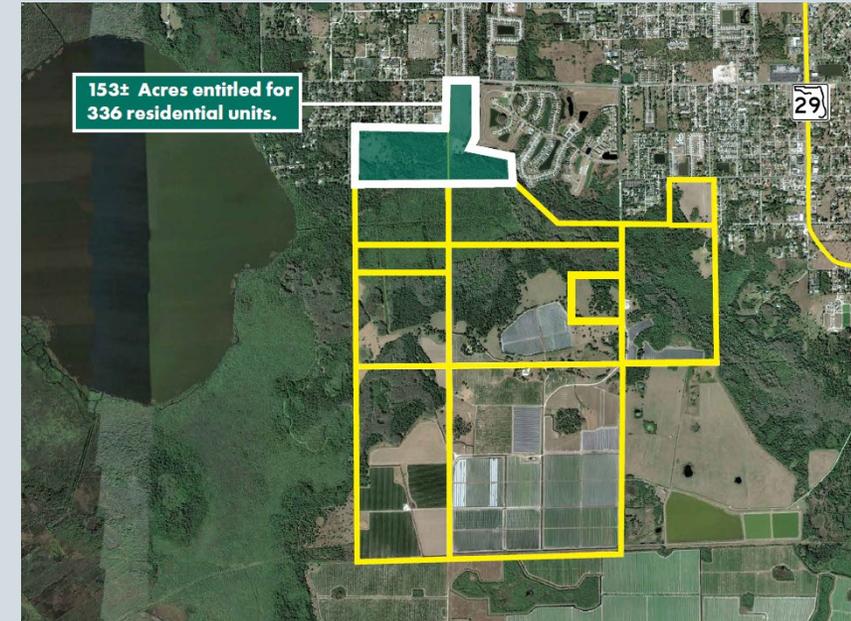


Presenter: Beacham Furse

Conclusion/Recommendations

DRAFT

- Continue to plant emergent plants as 1) wave breaks, 2) fish and wildlife habitat, and 3) in-lake “water quality” filters
- Continue to explore the “Circulating Filter Marsh” concept (HR-2)
- Nutrient Reduction Strategies for Wastewater and Septic Systems (WQ-3)
- Continue to explore options to “Manage Sediments in Lake Trafford”, (WQ-4)



Presenter: Beacham Furse

Take Home Message

“Keeping nutrients (and sediments) out of the lake is a top priority. It is more cost effective to prevent nutrients from entering the watershed (and sediments from entering the lake) than to remove them once they are present.”



Presenter: Beacham Furse

Questions?



SFWMD (2012)



Presenter: Beacham Furse

Plant Communities and Aquatic Fauna within the Picayune Strand Restoration Project

DRAFT

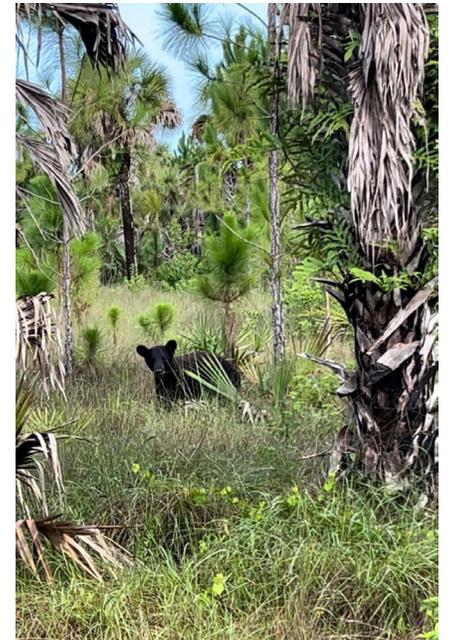
**Big Cypress Basin Board Meeting
August 23, 2024**



Cassandra Armstrong
Bureau Chief
Applied Sciences Bureau

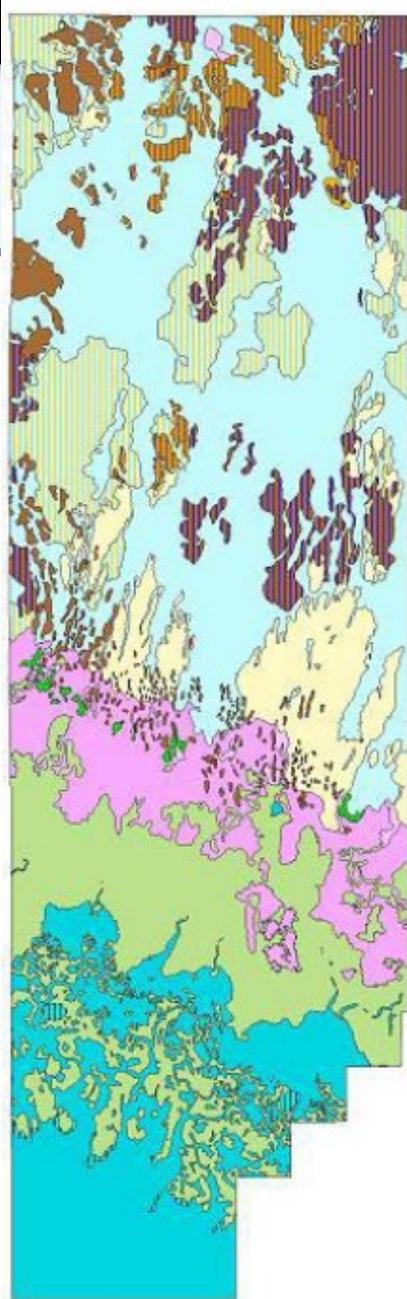
Project Overview

- 1960's construction of Golden Gates Estate subdivision
 - Canals dug to drain land; roads constructed
- Vegetation community shift to more upland and invasive species
- More frequent and intense fires
- Reduced habitat for aquatic invertebrates, amphibians, reptiles, and fish; wading birds and mammals
- Downstream impact on estuary salinity and estuarine organisms

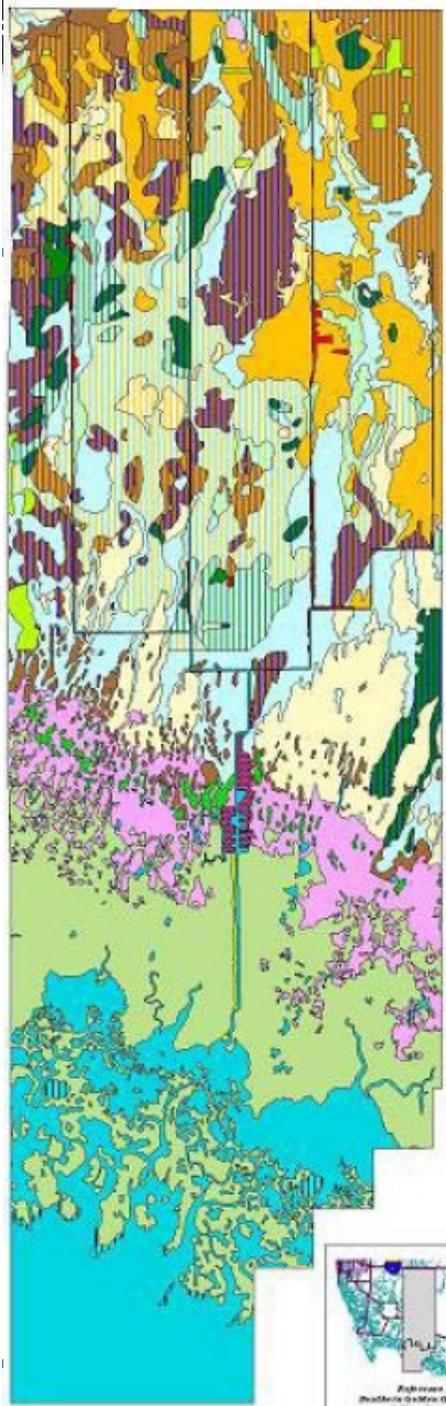
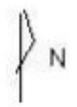


Vegetation Community

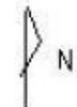
DRAFT



- Year 1940**
- CYPRESS**
- Cypress (C)
 - Cypress with palms (Cp)
- PRAIRIE**
- Wet Prairie (G)
- HAMMOCK**
- Sabal Palm Hammock (Hp)
 - Tropical Hammock (Ht)
- FLATWOODS**
- Mesic Pine Flatwoods (Pm)
 - Hydric Pine Flatwoods (Ph)
 - Pine Flatwoods with palms (Pp)
- MARSH**
- Freshwater Marsh (Mf)
 - Salt Marsh (Ms)
- OTHER**
- Mangrove Swamp (Mg)
 - Coastal Uplands (Cu)
 - Water (WAT)



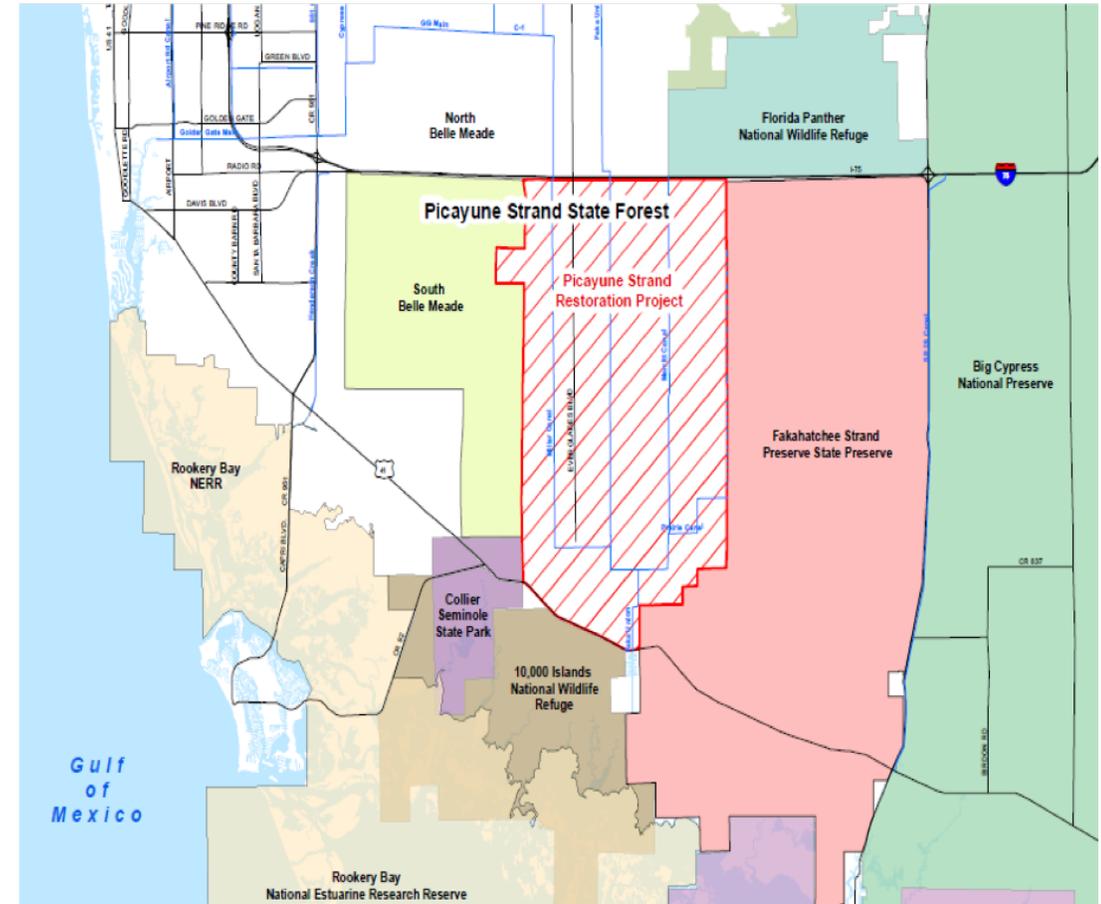
- Year 1995**
- CYPRESS**
- Cypress (C)
 - Cypress with hardwoods (Ch)
 - Cypress with palms (Cp)
 - Cypress [disturbed] (Cx)
- PRAIRIE**
- Wet Prairie (G)
 - Prairie with palms (Gp)
 - Prairie [disturbed] (Gx)
- HAMMOCK**
- Mesic Hammock (Hm)
 - Hydric Hammock (Hh)
 - Sabal Palm Hammock (Hp)
 - Tropical Hammock (Ht)
- FLATWOODS**
- Mesic Pine Flatwoods (Pm)
 - Hydric Pine Flatwoods (Ph)
 - Pine Flatwoods with palms (Pp)
 - Pine Flatwoods [disturbed] (Px)
- MARSH**
- Freshwater Marsh (Mf)
 - Marsh [Salt/Fresh] (Mfs)
- OTHER**
- Mangrove Swamp (Mg)
 - Saw Palmetto (S)
 - Brazilian Pepper (St)
 - Urban Land (URB)
 - Disturbed Land (x)
 - Coastal Uplands (Cu)
 - Water (WAT)



Vegetation Community	Change (%)
Cypress	-20
Marsh	-2
Hydric Pine Flatwoods	-1
Prairie with palms	+2
Sabal Palm Hammock	+7
Pine Flatwood with palms	+4

Project Benefits

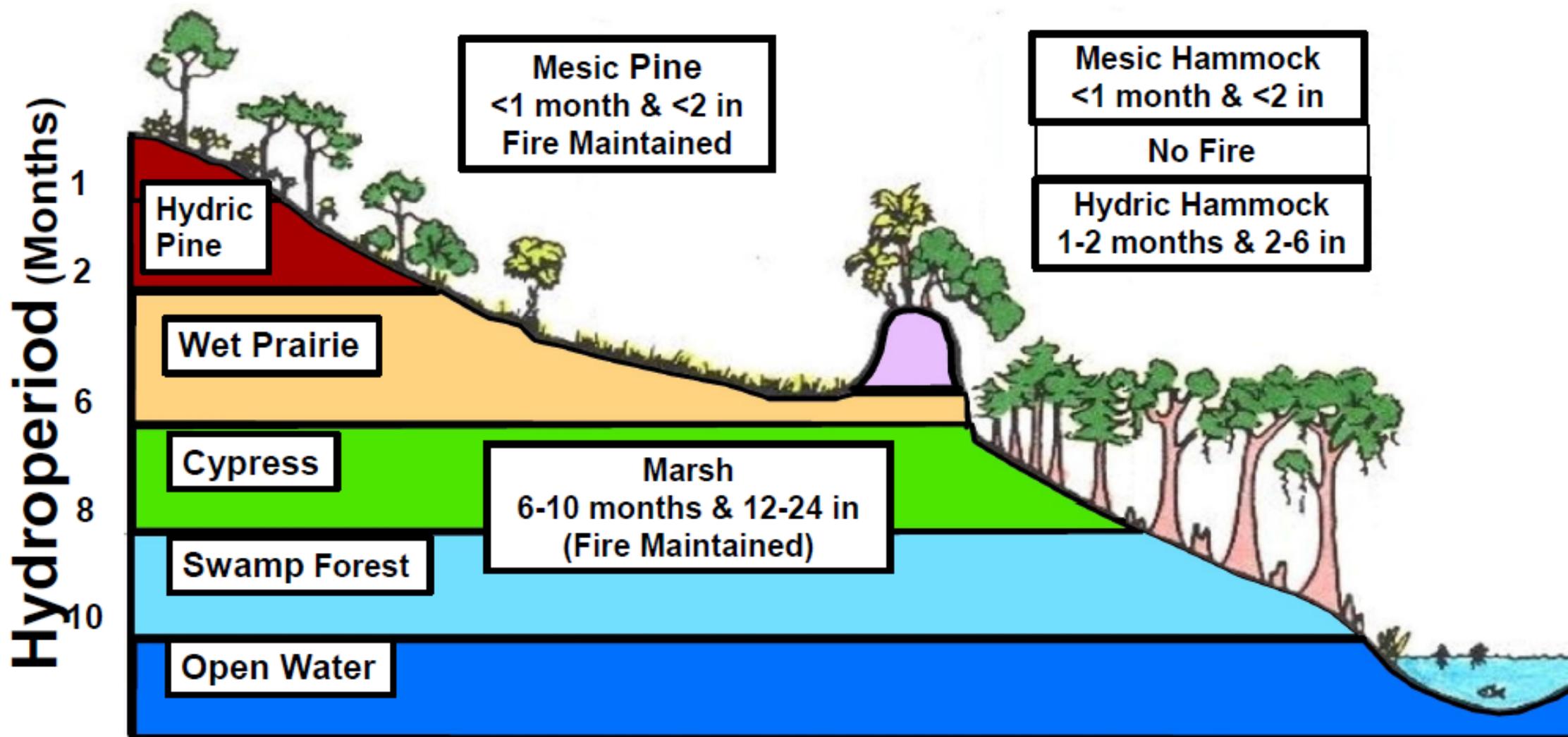
- Restored and enhanced habitat for fish and wildlife including the Florida Panther
- Reduced drainage of adjacent sensitive ecosystems
- Improved aquifer recharge to protect underground water supplies and prevent saltwater intrusions
- Reduced freshwater releases/improved health of downstream estuaries



Project Milestones

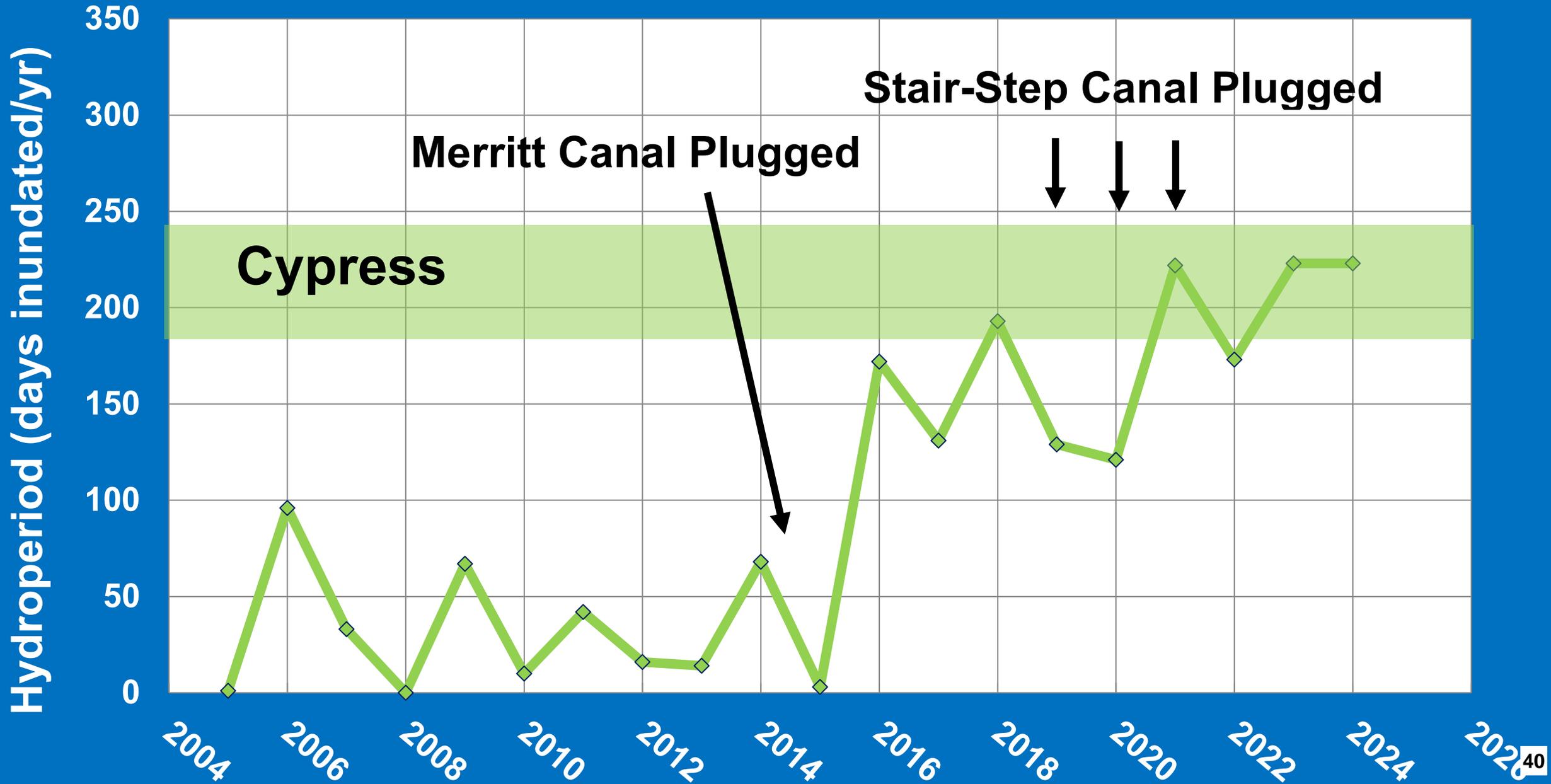
- Plugging upper 3 miles of Faka Union Canal – 2022
- Miller Tran and Road Removal – September 2023
- Plugging lower 5 miles of Faka Union Canal – May 2024
- Southwest Protection Levee – expected January 2025
- Southwest Conveyance Feature – expected November 2024
- Miller Canal Plugging – start January 2025

Natural Picayune Plant Community Hydroperiods

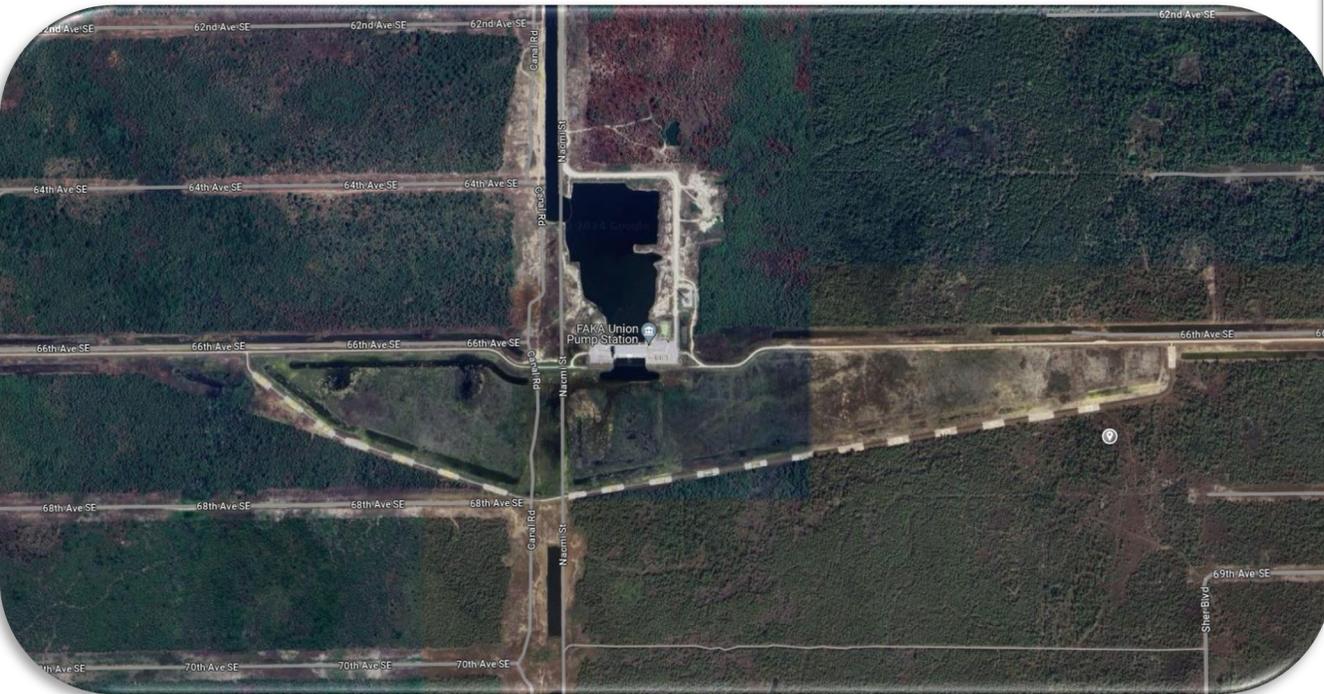


SGT4W6 Hydroperiods

DRAFT



Area Rewetting



Monitoring Sites

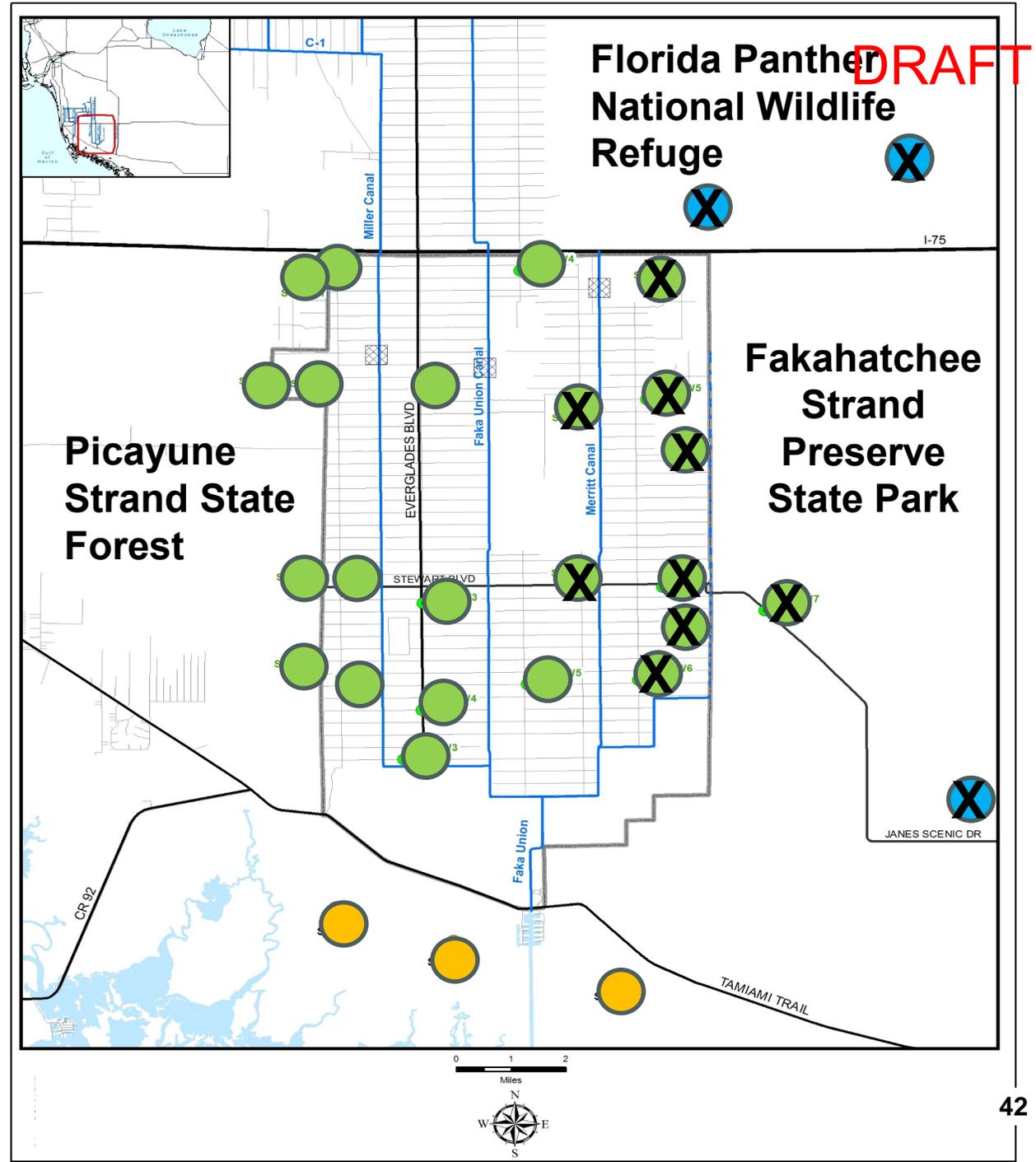
- Upland & Freshwater Wetlands
- Coastal Wetlands

Reference Monitoring Sites

- Upland & Freshwater Wetlands

Parameters Currently Being Monitored (x)

- Water Levels (Only in Picayune)
- Plant Communities
- Aquatic Fauna

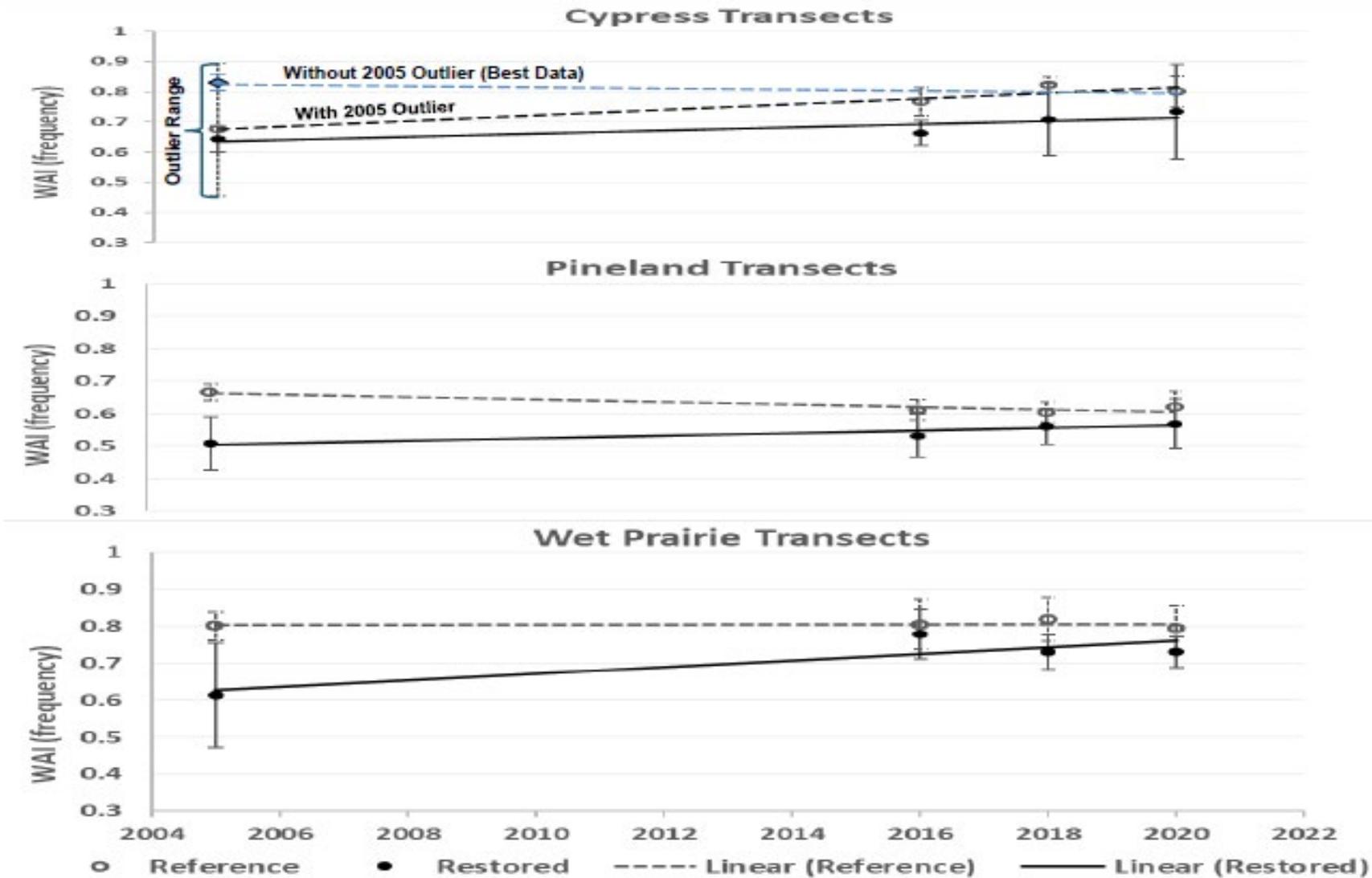


Vegetation Sampling Methods

- Permanent 50 m Transects within Uniform Plant Communities
- Sampled Four Strata
 - Canopy
 - Subcanopy
 - Shrub
 - Ground Cover
- Estimate of Recent fire History at Plots
- Photo-points



Vegetation Recovery



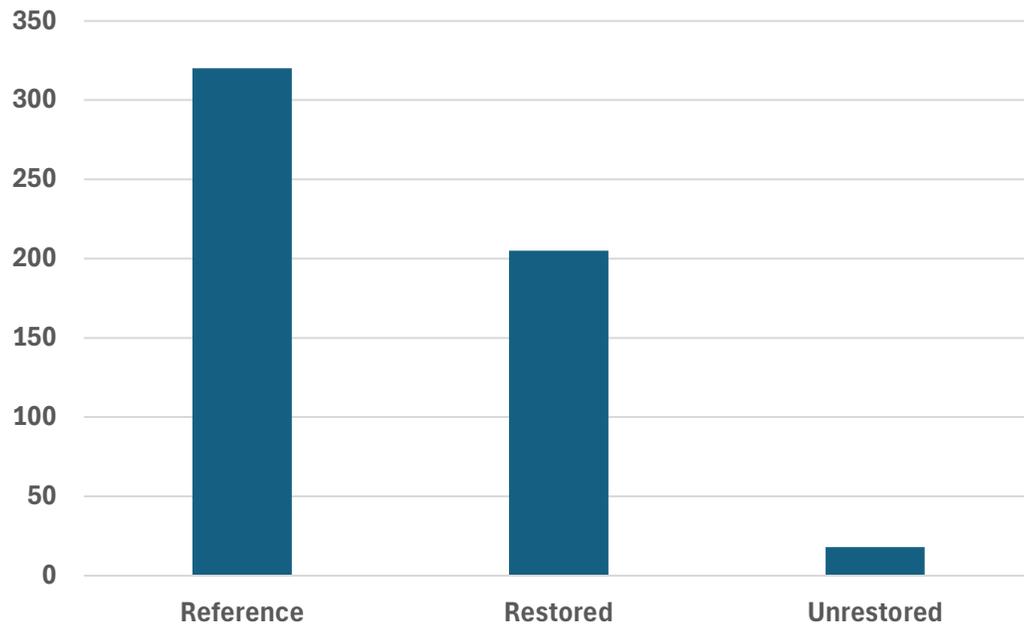
Aquatic Faunal Sampling Methods

- Collected samples 3 times a year
 - Mid-wet season
 - Late wet season
 - Mid-late dry season

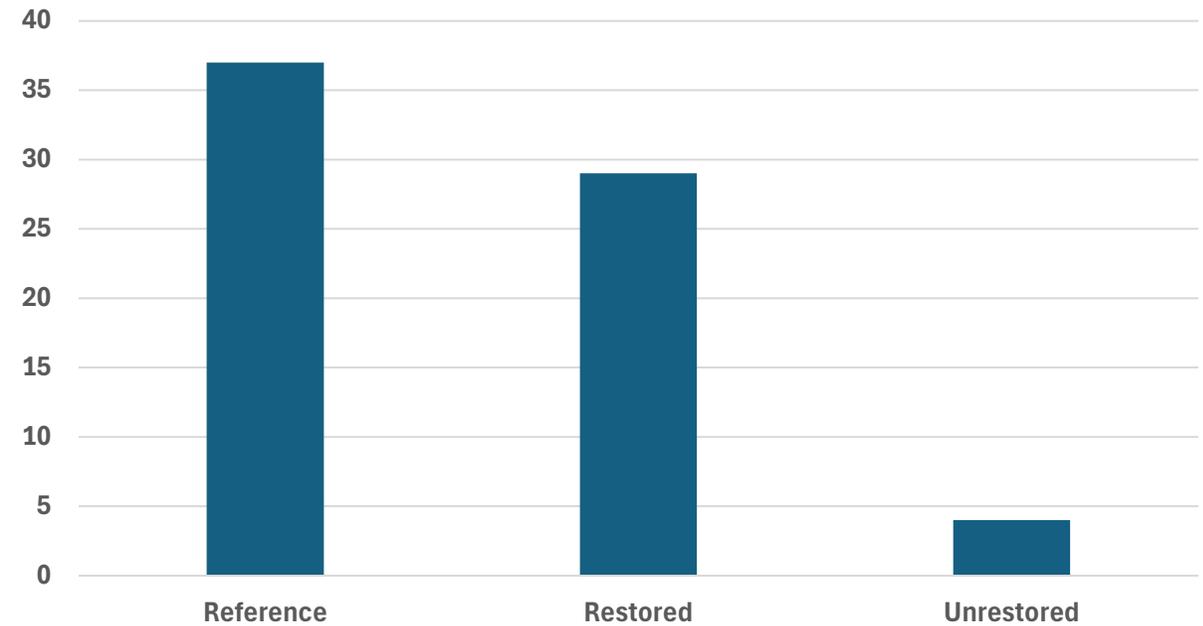


Aquatic Faunal Restoration

Average Number of Individuals



Aquatic Macroinvertebrate Species Richness



Recovery in Restored Areas

- Slow recovery of cypress
 - Trees take time to grow
 - Lack of seed bank
- Rapid recovery of aquatic fauna
 - Better adapted to seasonal changes
 - Can migrate to new habitat



DRAFT



DRAFT
Questions



Native Buttonbush plant



Basin Board Meeting

Bird Rookery Swamp Boardwalk Replacement

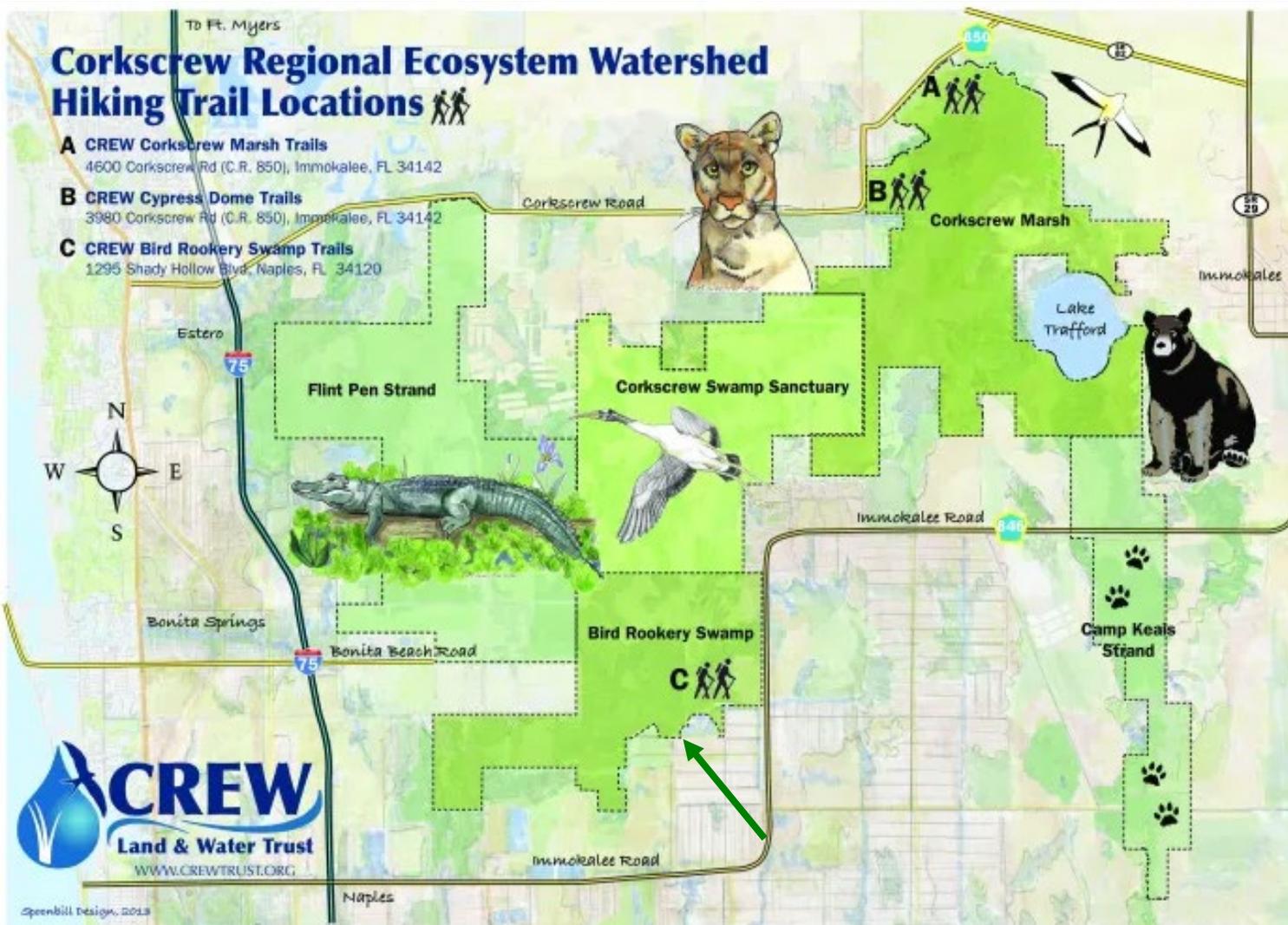
August 23, 2024



Kathleen Collins, P.E.
Assistant Bureau Chief
Engineering & Construction Bureau
South Florida Water Management District

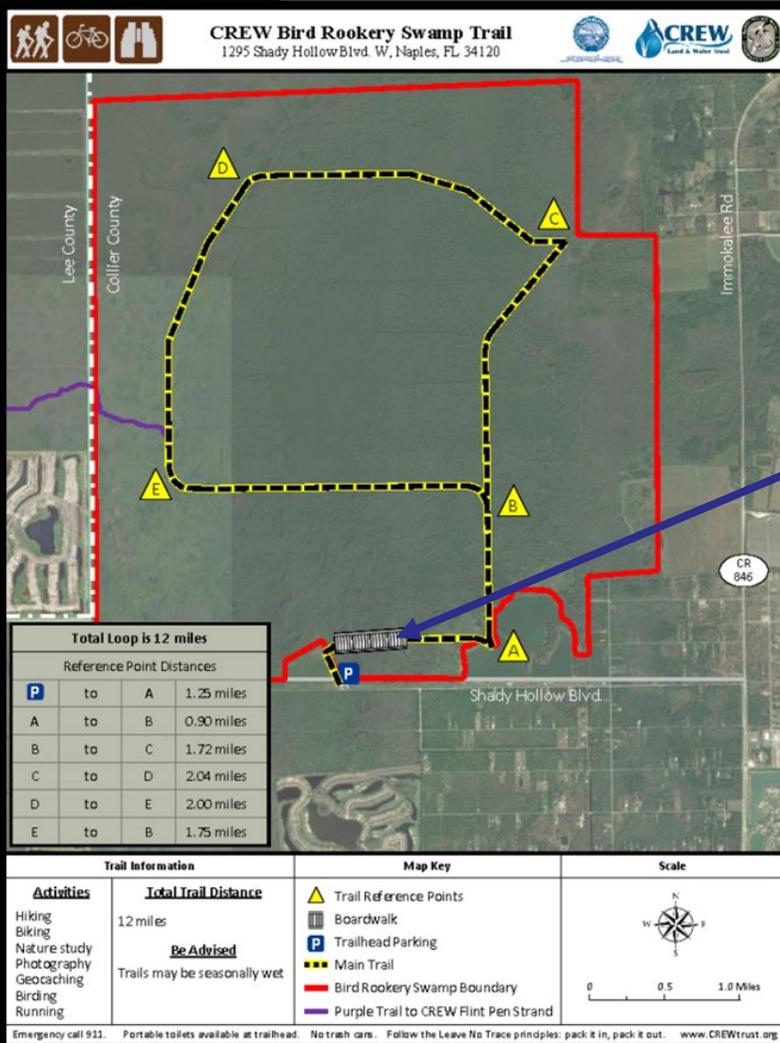
Introduction Corkscrew Regional Ecosystem Watershed

DRAFT

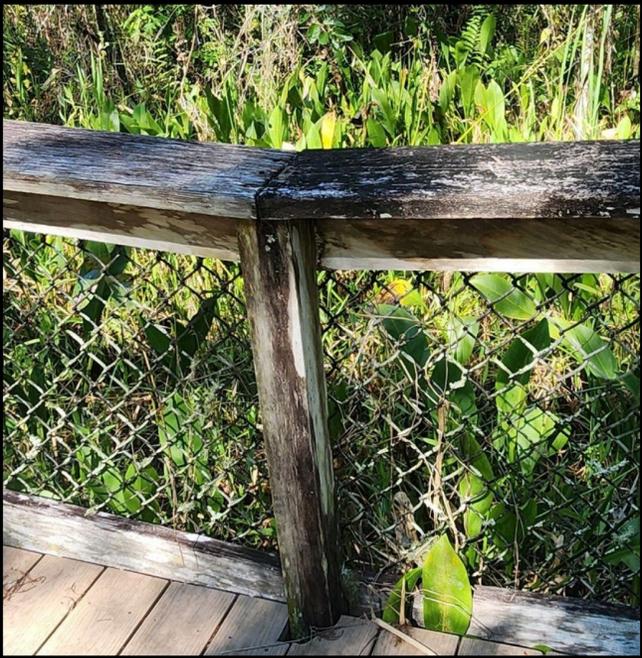


Introduction Bird Rookery Swamp Boardwalk

DRAFT



Condition Bird Rookery Swamp Boardwalk



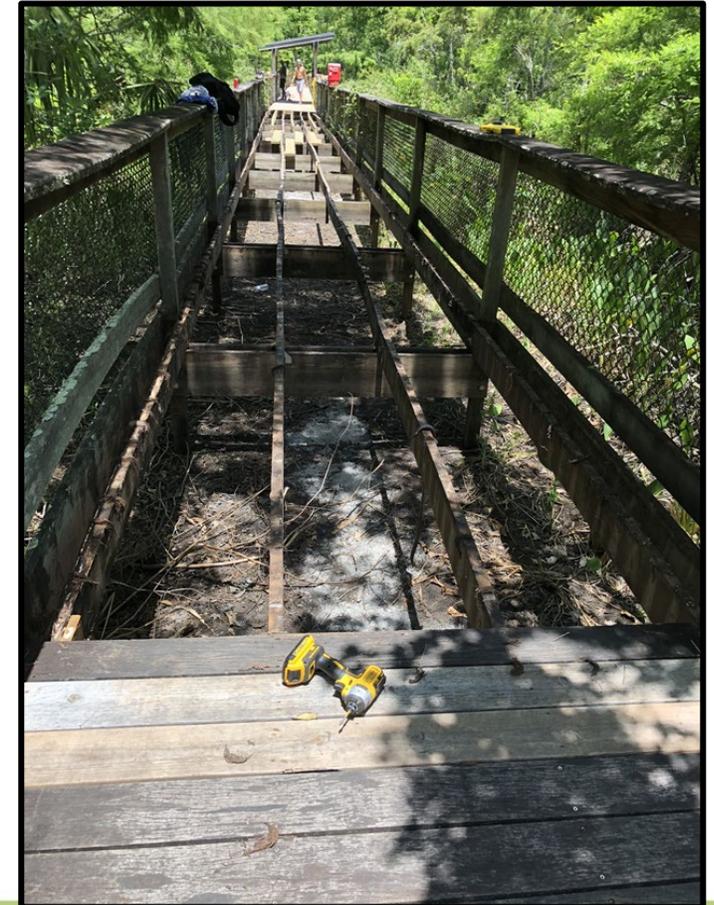
Railing deteriorating



Sub-structure deteriorating



Temporary repairs of deck



Implementation Bird Rookery Swamp Boardwalk

DRAFT

➤ Site Conditions

- Helical pile for supports



➤ Durability of Material

- Composite material
- 25-year material warranty

➤ Staging Area

- Coordination with Collier County to use east side of parking area



Implementation Bird Rookery Swamp Boardwalk

DRAFT



- Water Elevation Change
 - Corkscrew Watershed Initiative



- Minimize closure to public
 - Busiest time is fall & winter
 - 30,000 visitors a year

Schedule and Cost Bird Rookery Swamp Boardwalk

DRAFT



© Jay Mahoney

- Solicitation July 2024
 - Request for Proposal
- Governing Board November 2024
 - Award design contract
- Design completed March 2025
- Governing Board April 2025
 - Award construction contract
- Construction completed October 2025

Project estimate: \$2 million

Questions?



Any Questions



DRAFT



Big Cypress Basin Field Station



Henderson Creek Structure 2



Faka Union Pump Station



Golden Gate Structure 3 (GG3)

Fiscal Year 2024-2025 Budget Presentation

Final Millage and Budget Approval



Candida Heater
Administrative Services Division Director
August 23, 2024

Today's Presentation

- Fiscal Year 2024-25 Big Cypress Basin Millage Rate
- Fiscal Year 2024-25 Budget Revenues & Expenses Overview
- Fiscal Year 2024-25 Budget Highlights
- Motions to Approve a Request to the District Governing Board:
 - Fiscal Year 2024-25 Millage Rate
 - Fiscal Year 2024-25 Budget



Cypress 1

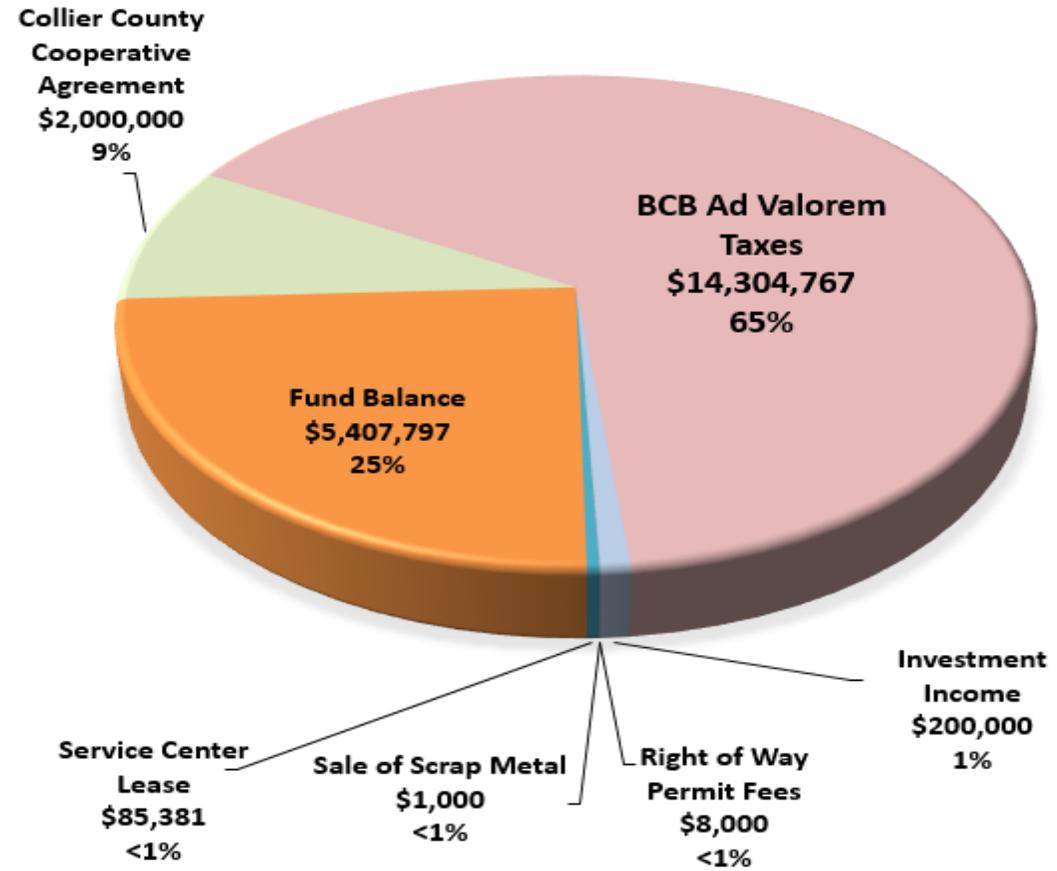
Fiscal Year 2024-25 Proposed Millage Rate

- **FY2024-25 Proposed Millage Rate is 0.0978 mills**
- **\$9.78 per \$100,000 of Taxable Value**
- **A Homeowner in Collier County with an Average Home Valued at \$500,000 Would Pay an Estimated \$48.90 for the Year.**
- **Examples of Services Received for the \$48.90 Per Year:**
 - **Flood Control Protection**
 - **Capital Infrastructure Improvements in Support of Flood Control**
 - **Canal Maintenance and Vegetation Removal**
 - **Future Water Supply**
 - **Land Management Activities**
 - **Ecosystem Restoration**
 - **Modeling for Ecosystem Restoration**

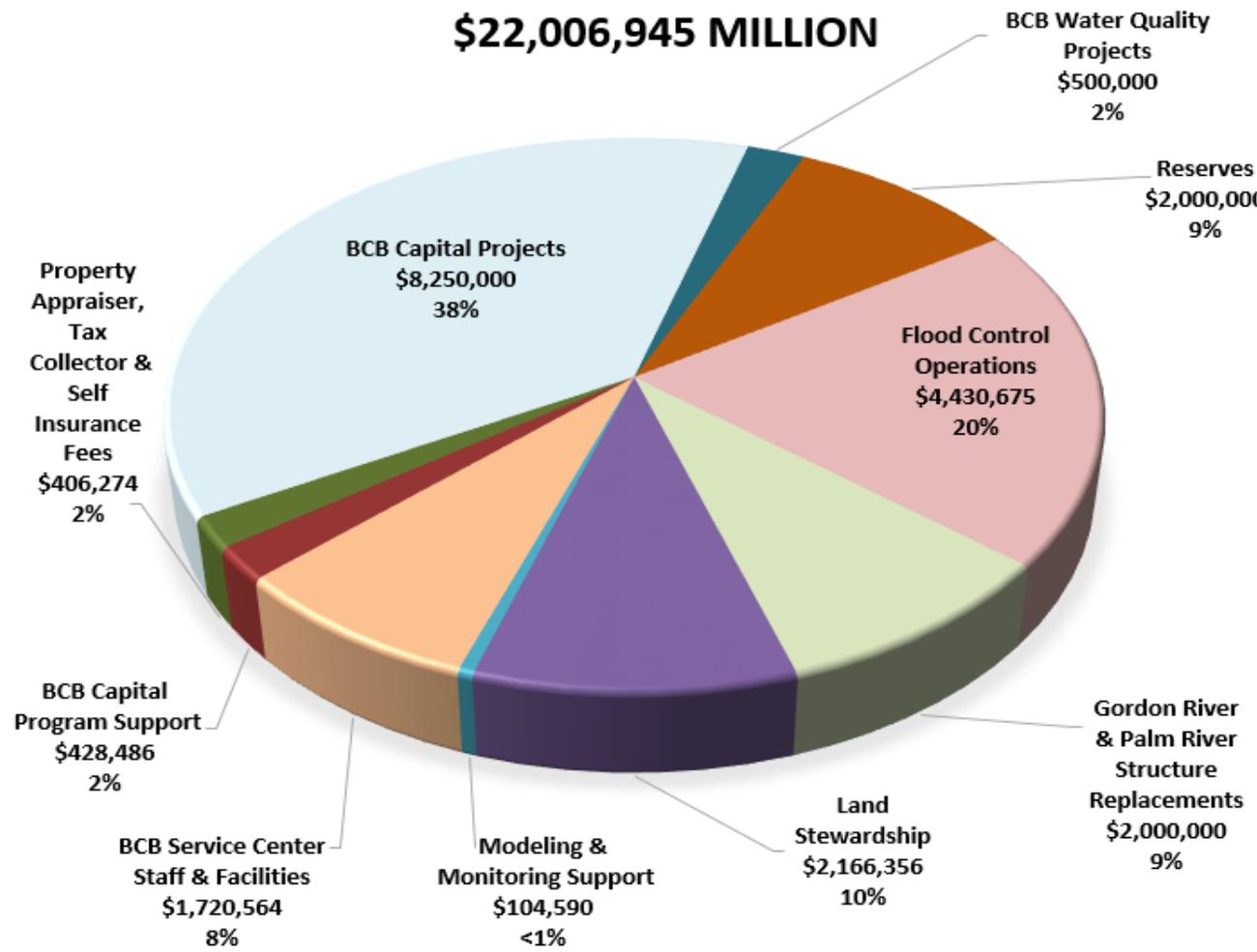
The Millage Rate is applied to the Taxable Value of the Property as Determined by the Property Appraiser Annually (Assessed Value – Exemptions = Taxable Value)

Fiscal Year 2024-25 Budget - \$22,006,945

FISCAL YEAR 2024-25 REVENUES
\$22,006,945 MILLION



FISCAL YEAR 2024-25 EXPENDITURES
\$22,006,945 MILLION



Budget Highlights of Who Accomplishes the Work

DRAFT

➤ Administrative Services & Executive Offices - \$129,101

- General Services & Facilities – Service Center maintenance
- District Headquarters Control Room Water Management Oversight

➤ Big Cypress Basin - \$2,131,102

- Water Quality Projects
- Canal Condition Assessment Program
- Outreach & Communication
- Basin Water Management Staff
- Basin Modeling Staff



Bird Rookery Boardwalk

Budget Highlights of Who Accomplishes the Work

DRAFT

➤ Engineering, Construction and Modeling Division- \$11,257,400

- Required Capital Infrastructure Improvements of the Basin's flood protection system:
 - BCB Communications System Improvements (Lake Trafford Tower)
 - Canal Improvements based on Level-of-Service Study
 - SCADA Additions and Replacements
 - I-75 #2 Weir Replacement
 - Corkscrew Canal Headwater Improvements
 - Golden Gate #5 Replacement
 - Henderson Creek HC1 and HC1A
 - Upper Faka Union Replacement (FU#5, 6 & 7)
- Gordon River and Palm River Structure Replacement Design
- Modeling efforts to effectively manage the Basin's flood protection system
 - Streamgauging for BCB Structures and USGS Support

Budget Highlights of Who Accomplishes the Work

DRAFT

- **Field Operations & Land Management Division (BCB Field Station & Land Management) - \$5,815,004**
 - Manage the network of 134 miles of primary canals, 34 water control structures providing flood control and three water conservation pumps protecting regional water supplies and environmental resources from over-drainage during the dry season
 - Land Management activities for the Collier County portion of the CREW Lands & replacement of the Bird Rookery Boardwalk and upgrades to the parking lot and facilities
- **Information Technology - \$268,064**
 - Operating the SCADA System and Telemetry Base Stations which includes security monitoring, microwave tower maintenance and inspections
 - Basin Board Meeting Support
- **Reserves/Debt/Fees/Charges - \$2,406,274**
 - Hurricane/Emergency Reserves
 - Property Appraiser & Tax Collector Fees
 - Self-Insurance Programs such as Workers Compensation, General Liability, Auto Liability

Governing Board Next Steps

DRAFT

➤ September

- **September 12 at District Headquarters in West Palm Beach, FL and a Virtual Meeting via Zoom. Link will be provided at <https://www.sfwmd.gov/news-events/meetings>**
 - Governing Board Regular Meeting Fiscal Year 2024-25 Tentative Budget Update.
 - 5:15 PM Public hearing to consider Fiscal Year 2024-25 Tentative Millage Rates, Agricultural Privilege Tax Roll, and Budget.

- **September 24 at District Headquarters in West Palm Beach, FL and a Virtual Meeting via Zoom. Link will be provided at <https://www.sfwmd.gov/news-events/meetings>**
 - 5:15 PM Public hearing to adopt Fiscal Year 2024-25 Final Millage Rates and Budget.

Motion to Approve

- **BCBB 2024-0801** – A Resolution of the Big Cypress Basin Board of the South Florida Water Management District approving the submittal of the millage rate (0.0978 mills) for Fiscal Year 2024-2025; requesting the Governing Board of the South Florida Water Management District to levy ad valorem taxes within the Big Cypress Basin based on that rate to finance Basin functions contained in the Fiscal Year 2024-2025 Basin budget.



Corkscrew Swamp

Motion to Approve

- **BCBB 2024-0802** – A Resolution of the Big Cypress Basin Board of the South Florida Water Management District submitting the Fiscal Year 2024-2025 Basin budget in the amount of \$22,006,945 to the Governing Board of the South Florida Water Management District for inclusion in the District budget.



Cypress Canal Structure Ribbon Cutting

DRAFT



Big Cypress Basin Field Station



Henderson Creek Structure 2



Faka Union Pump Station



Golden Gate Structure 3
(GG3)

Discussion

Big Cypress Basin Field Station Activity Report



Andrew Wolf
Superintendent BCB Field Station
August 23, 2024

Overview

- Field Station Operations
- Maintenance Activities
- Three Month Outlook



New CAT Skid Steer



Structure Inspection Repairs 85%

DRAFT



Vegetation Removal I-75 Canal

DRAFT



Miami Field Station Assistance

DRAFT



Vegetation Removal Henderson Creek

DRAFT



Preventative Main. and Gate Changes



2 Temporary Pumps Installed at GG-2

DRAFT



Temporary Pumps Installed at GG-2

DRAFT



Henderson Creek Tree Project

DRAFT



NABOR Canal Cleanup July 11

DRAFT



Python Found on Henderson Creek

DRAFT



Three Month Outlook

- Continuing SIP (Structure Inspection Program) repairs
- Continue vegetation removal and repairing washouts
- Complete the automation of 951 north structure
- Respond to wet season gate changes





MERRITT Pump Station
PS-488



FAKA Union Pump Station
PS-487



MILLER Pump Station
PS-486

Comprehensive Everglades Restoration Projects (CERP) Activity Report

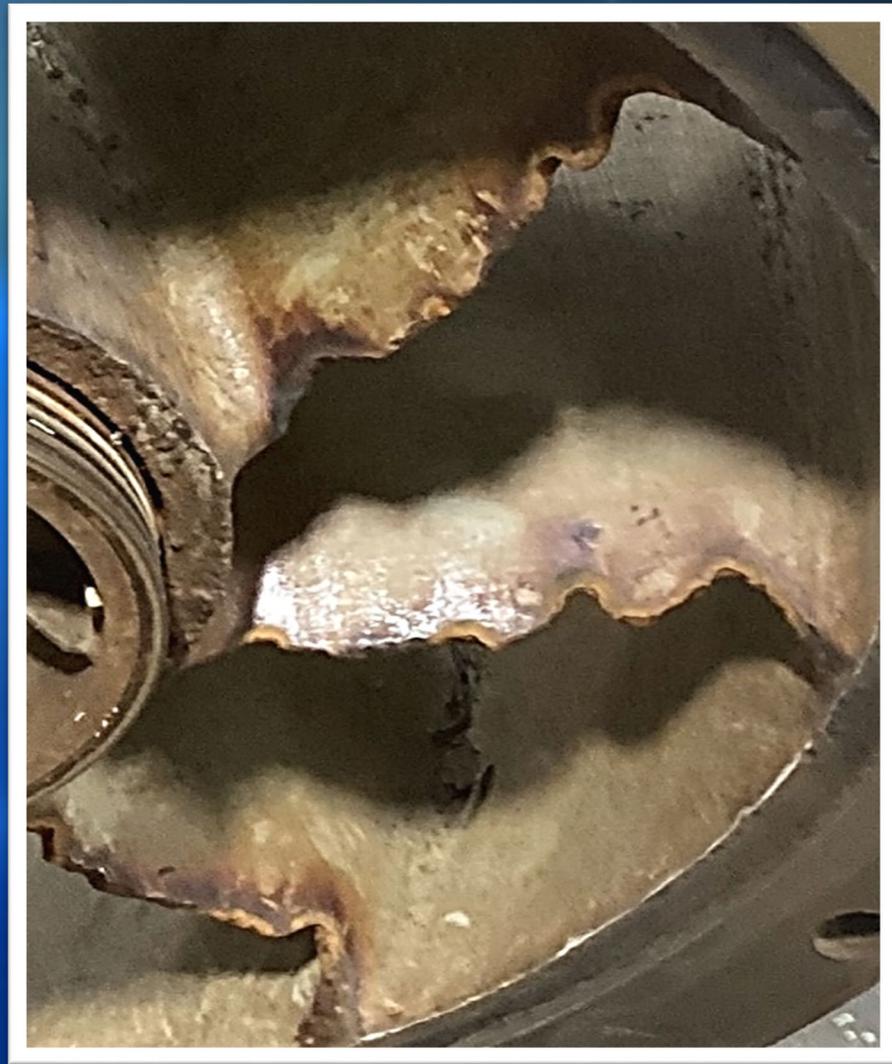
Removal of Low-flow pump at Merritt P/S

DRAFT



Merritt Low Flow Pump Repair

DRAFT



Lube Water Intake Pump at Faka Union

DRAFT



Pump Stations 24 Hour Operations

DRAFT

- Merritt P/S started June 14
- Faka Union P/S 10 Days 24/7
- Miller P/S pumped for 3 days after Tropical Storm Debbie



Mulching Contractor Clearing Powerlines

DRAFT



Three Month Outlook

- Respond to wet season pump orders and issues
- Replace broken pump shaft in low flow pump at Merritt
- Repair lube water pump at Faka Union
- Continue training new employees on pumping operations



Animal Hazards at Pump Station

DRAFT





Questions



Big Cypress Basin Water Conditions Report

Big Cypress Basin Board Meeting
August 23, 2024

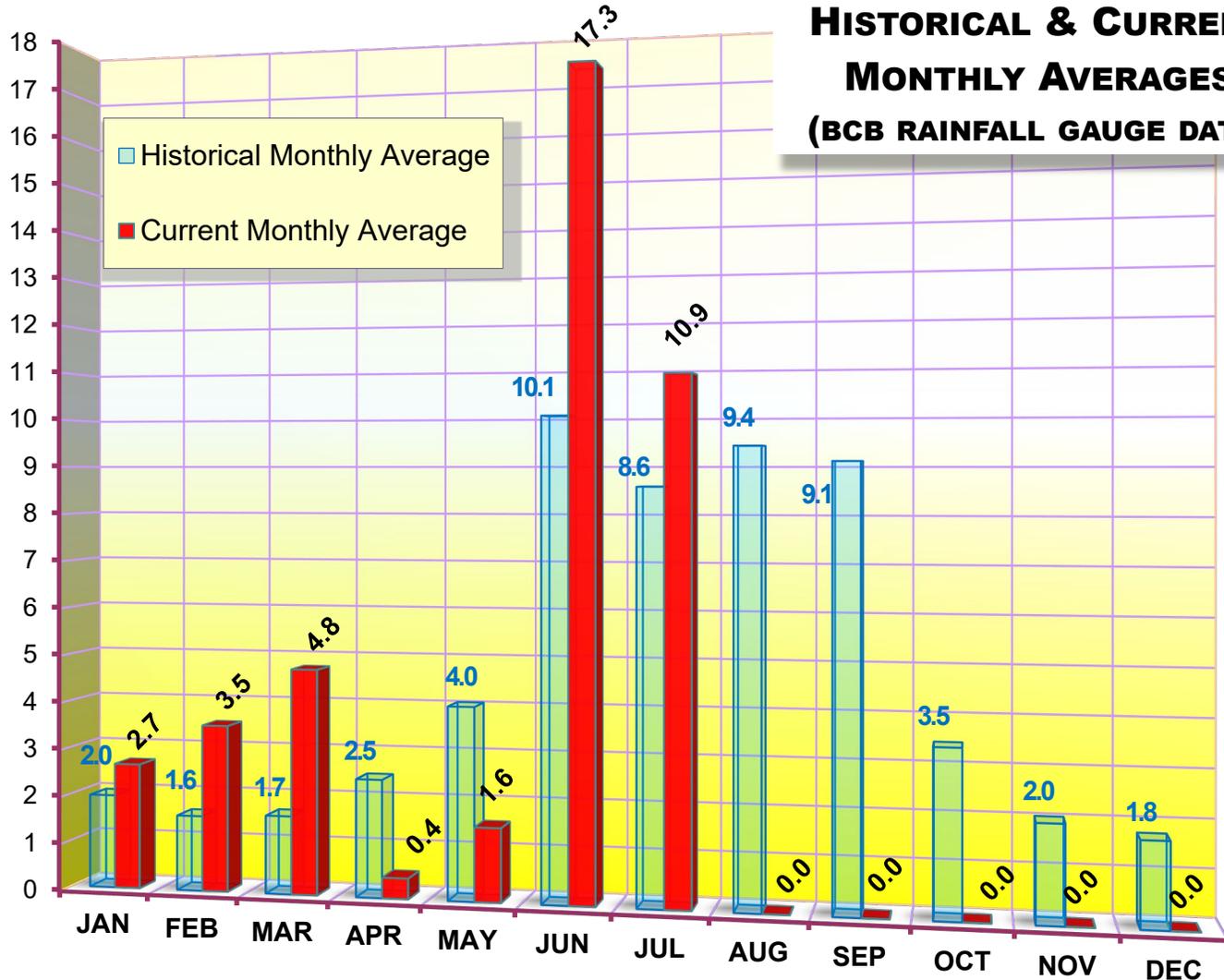
Brad J Jackson, P.E., CFM
Big Cypress Basin – Principal Engineer



2024 Rainfall Summary

**DRAFT
TO BE UPDATED**

**BCB ANNUAL RAINFALL
HISTORICAL & CURRENT
MONTHLY AVERAGES
(BCB RAINFALL GAUGE DATA)**



- 2024 YTD TOTAL = 41.1"
- HISTORICAL AVERAGE TOTAL = 30.4"
- 136% OF NORMAL RAINFALL
- 10.7-INCH SURPLUS YTD
- JUNE - INVEST 90L
- AUGUST – TS/HC DEBBY



July 2024 - Rainfall

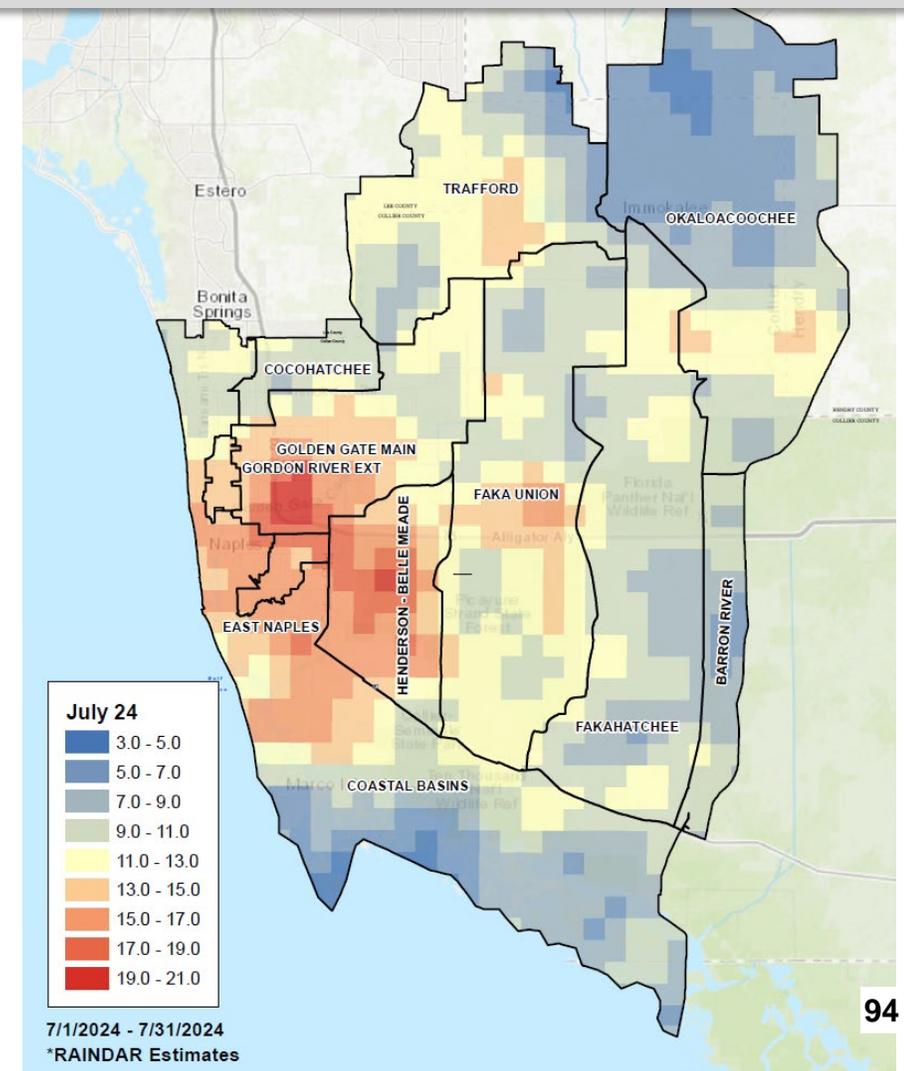
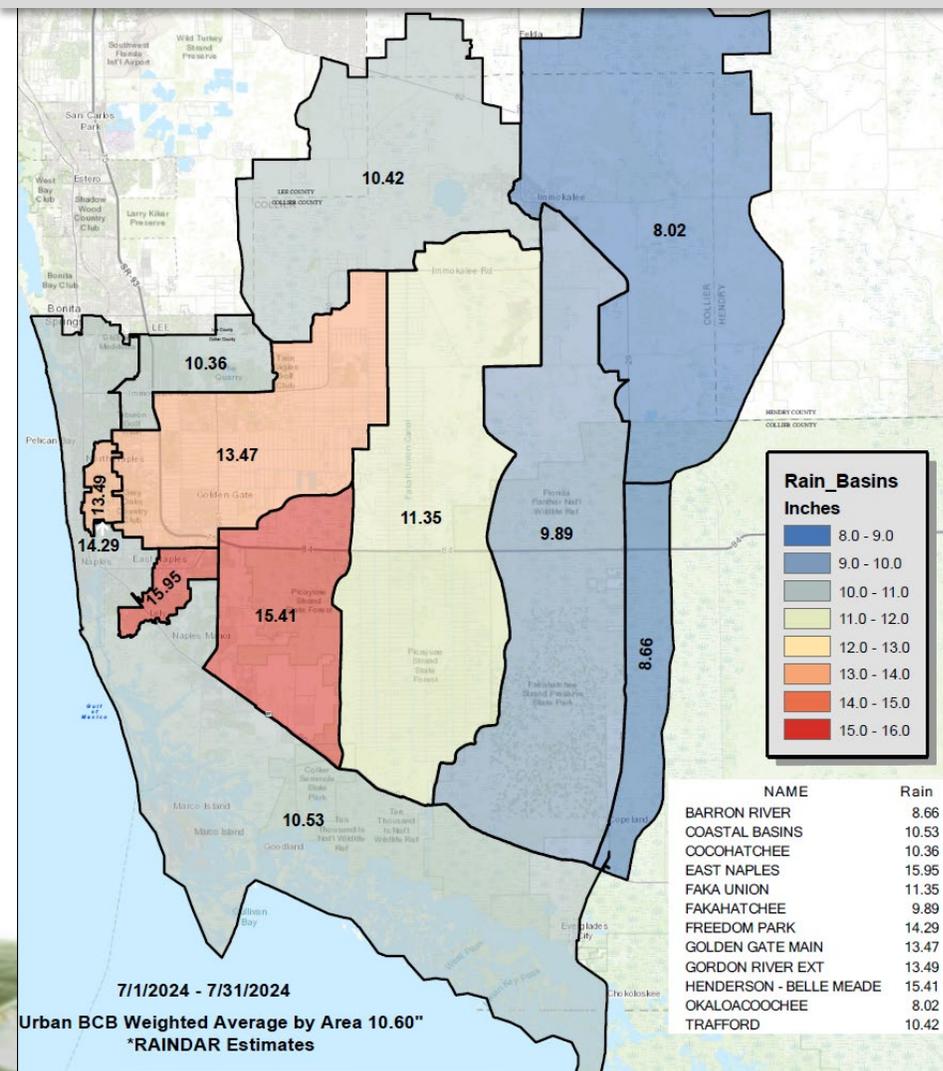
**DRAFT
TO BE UPDATED**

JULY 2024 BY BASIN

JULY 2024 RAINDAR

JULY

- 2024: 10.9" (127% OF NORMAL)
- HISTORICAL AVG: 8.6"
- HIGH: 14.6" (2001)
- LOW: 4.3" (2023)
- HIGHEST RAINFALL GOLDEN GATE MAIN, HENDERSON CREEK, EAST NAPLES



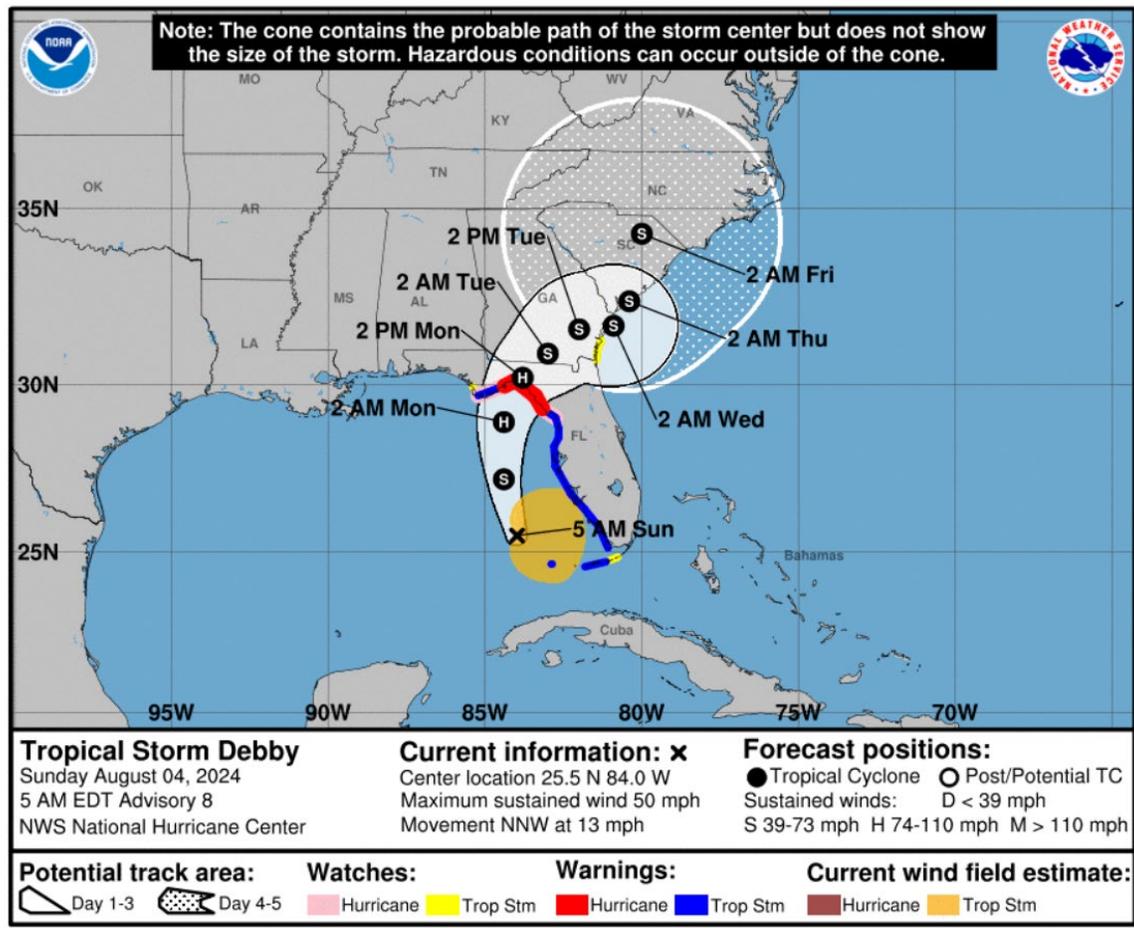
Presenter: Brad Jackson

Tropical Storm Debby

**DRAFT
TO BE UPDATED**

TS DEBBY: AUGUST 4TH

- APPROX 140 MILES WEST OF NAPLES ON 8/4/24 8-AM
- MADE LANDFALL ON 8/5/24 FLORIDA BIG BEND AS CAT-1 HURRICANE
- ALL PRIMARY CANAL STRUCTURES STRATEGICALLY LOWERED STARTING 7/30 (TUE-SAT)
- STRUCTURES PERFORMED WELL NO OPERATIONAL OR COMMUNICATION ISSUES
- FULL-SYSTEM RECOVERY 3.7 DAYS – 8/7
- RECOVERY TO NORMAL TIDAL LEVELS ~ 4-5 DAYS

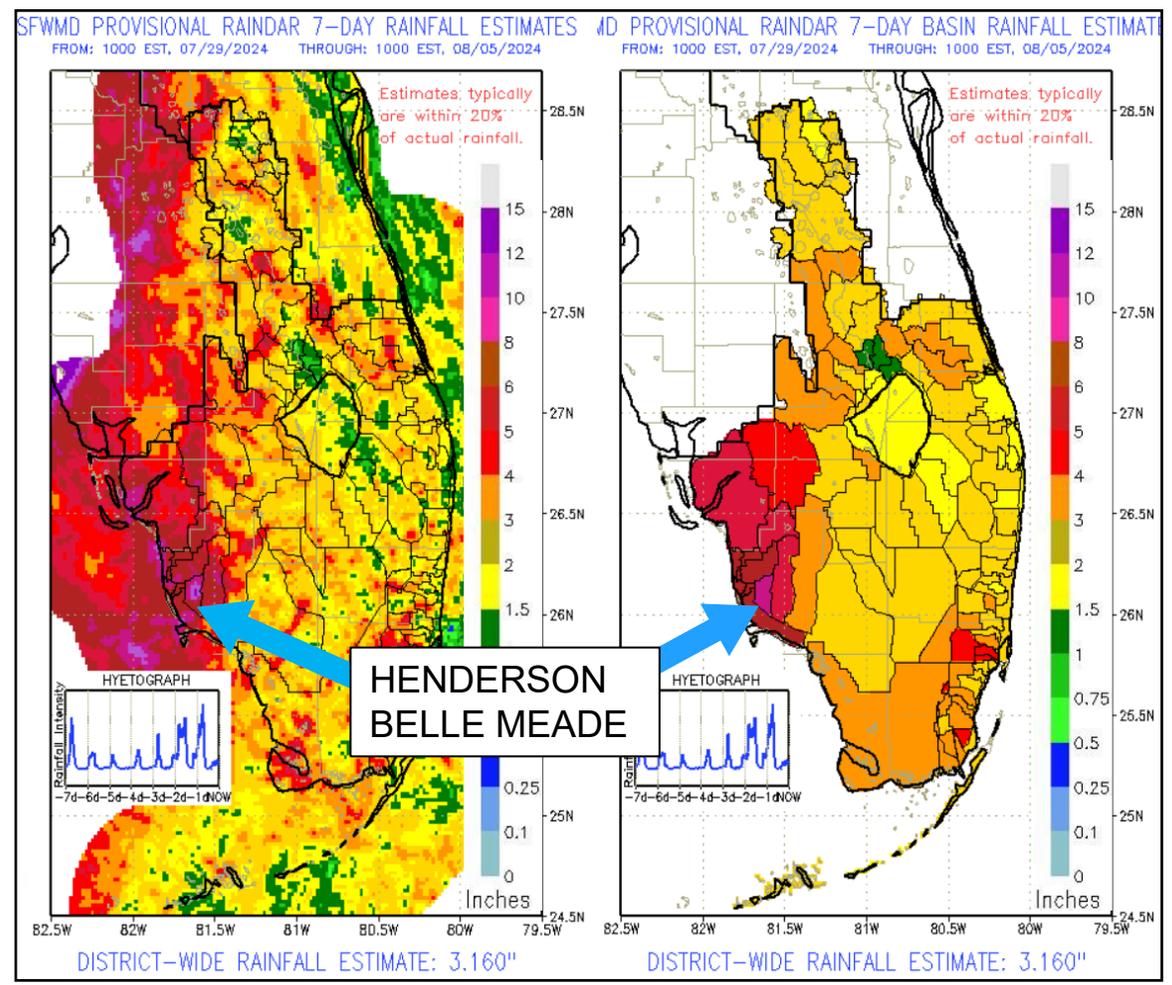


Tropical Storm Debby

**DRAFT
TO BE UPDATED**

TS DEBBY: RAINFALL 8/3/24 TO 8/5/24

- **BCB 3-DAY RAIN GAUGE AVERAGE: 4.5"**
 - **LOWEST – 1.4" AVE MARIA RAIN GAUGE**
 - **HIGHEST – 7.7" GOLDFS2 RAIN GAUGE**
- **8.23" RAINFALL MAX ACCORDING TO NWS (GGE/PWS)**
- **AVERAGE AUGUST RAIN TOTAL – 9.4"**
- **48% OF AUGUST RAINFALL RECEIVED OVER 3-DAYS**
- **THE HENDERSON BELLE-MEADE BASIN RECEIVED ALMOST 12" FROM 7/29/24 TO 8/5/2024!**

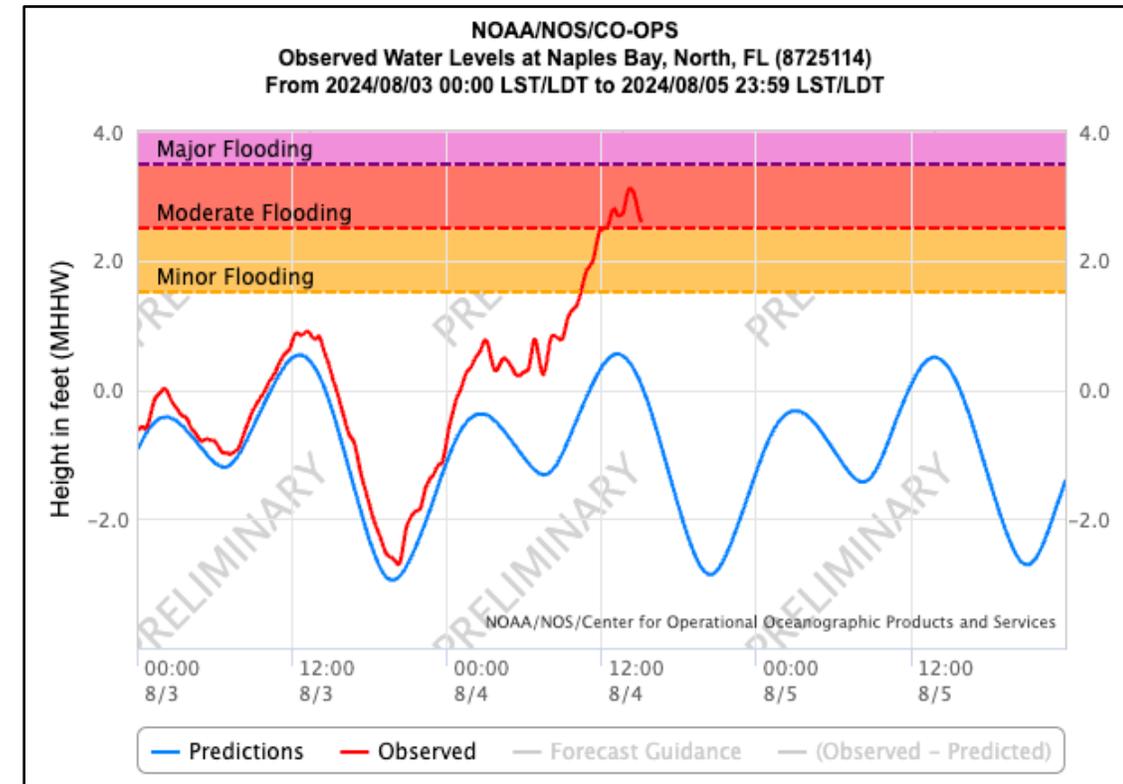


Tropical Storm Debby

**DRAFT
TO BE UPDATED**

TS DEBBY: STORM SURGE

- **3.11 FT ABOVE MHHW – “MODERATE” COASTAL FLOODING**
 - GG1 PEAK STAGE: 5.4 FT NGVD
 - COCO1 PEAK STAGE: 5.8 FT NGVD
- **DEBBY’S BROAD CIRCULATION - 60 TO 65 NAUTICAL MILES**
- **STORM CENTER REFORMATION – SHIFT IN FORECAST TRACK**
- **INTENSIFICATION**
- **HEAVY RAINS – LARGE VOLUME OF WATER**
- **EXTENDED DURATION OF ELEVATED WATER LEVELS – PATH PARALLEL TO WEST COAST**



Tropical Storm Debby

**DRAFT
TO BE UPDATED**

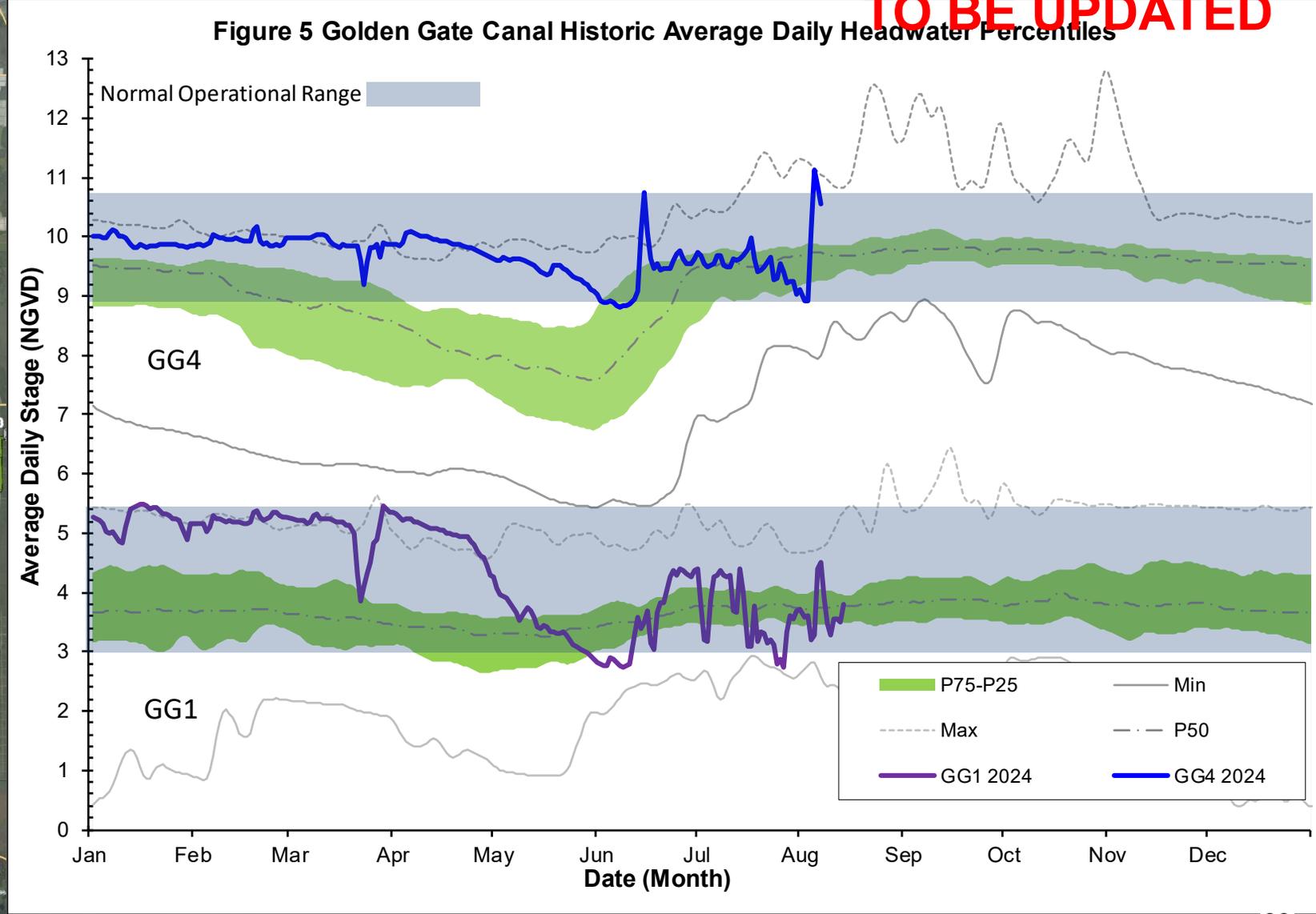
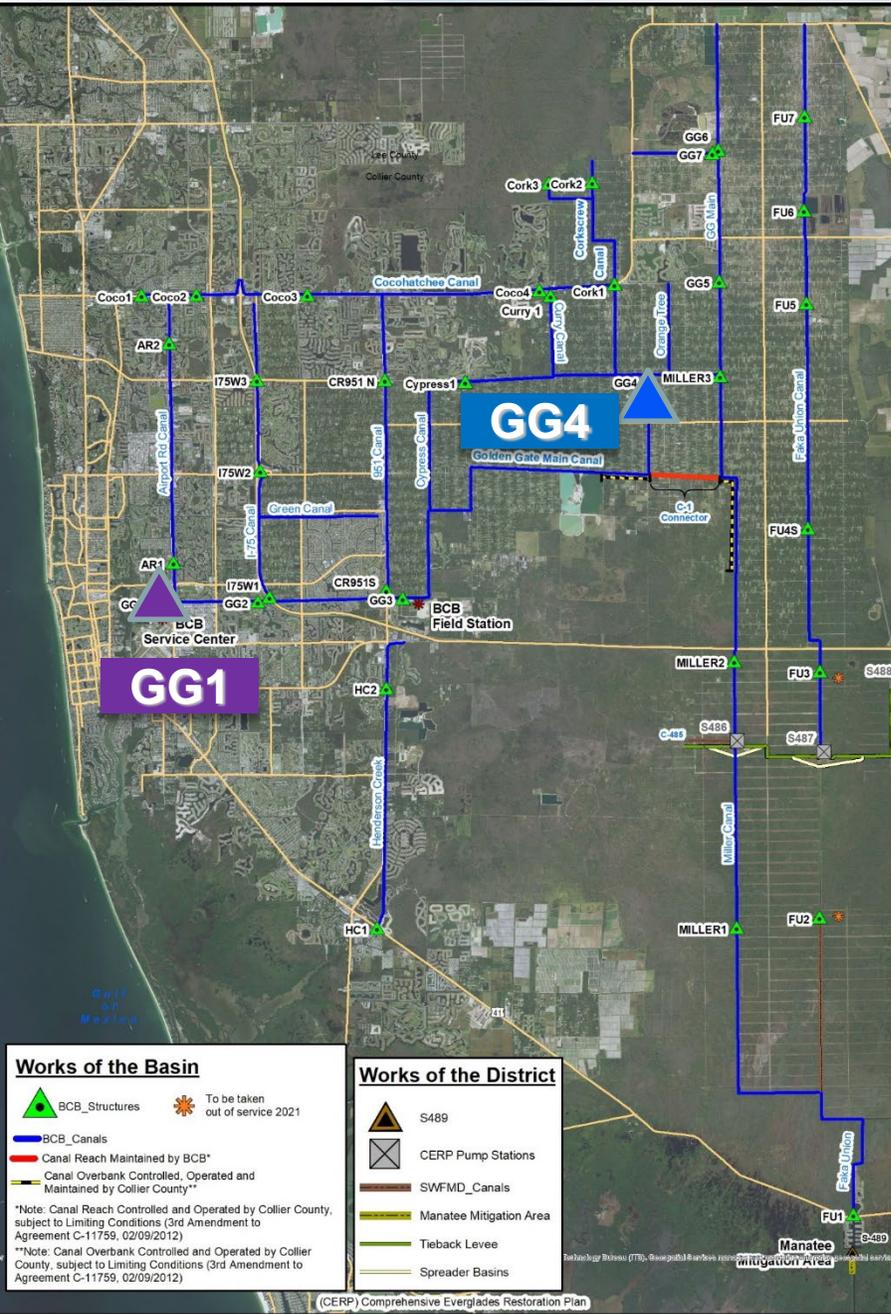
EMERGENCY PUMPING OPERATIONS

- **S486 EMERGENCY USE DEVIATION**
 - DRAW-DOWN UPPER AND MIDDLE GOLDEN GATE MAIN CANAL
- **(2) 8-INCH 5,520 GPM HOLLAND PUMPS**
 - DRAW-DOWN GG2



Presenter: Brad Jackson

BCB Golden Gate Canal **DRAFT TO BE UPDATED**



Works of the Basin

- BCB_Structures
- BCB_Canals
- Canal Reach Maintained by BCB*
- Canal Overbank Controlled, Operated and Maintained by Collier County**

Works of the District

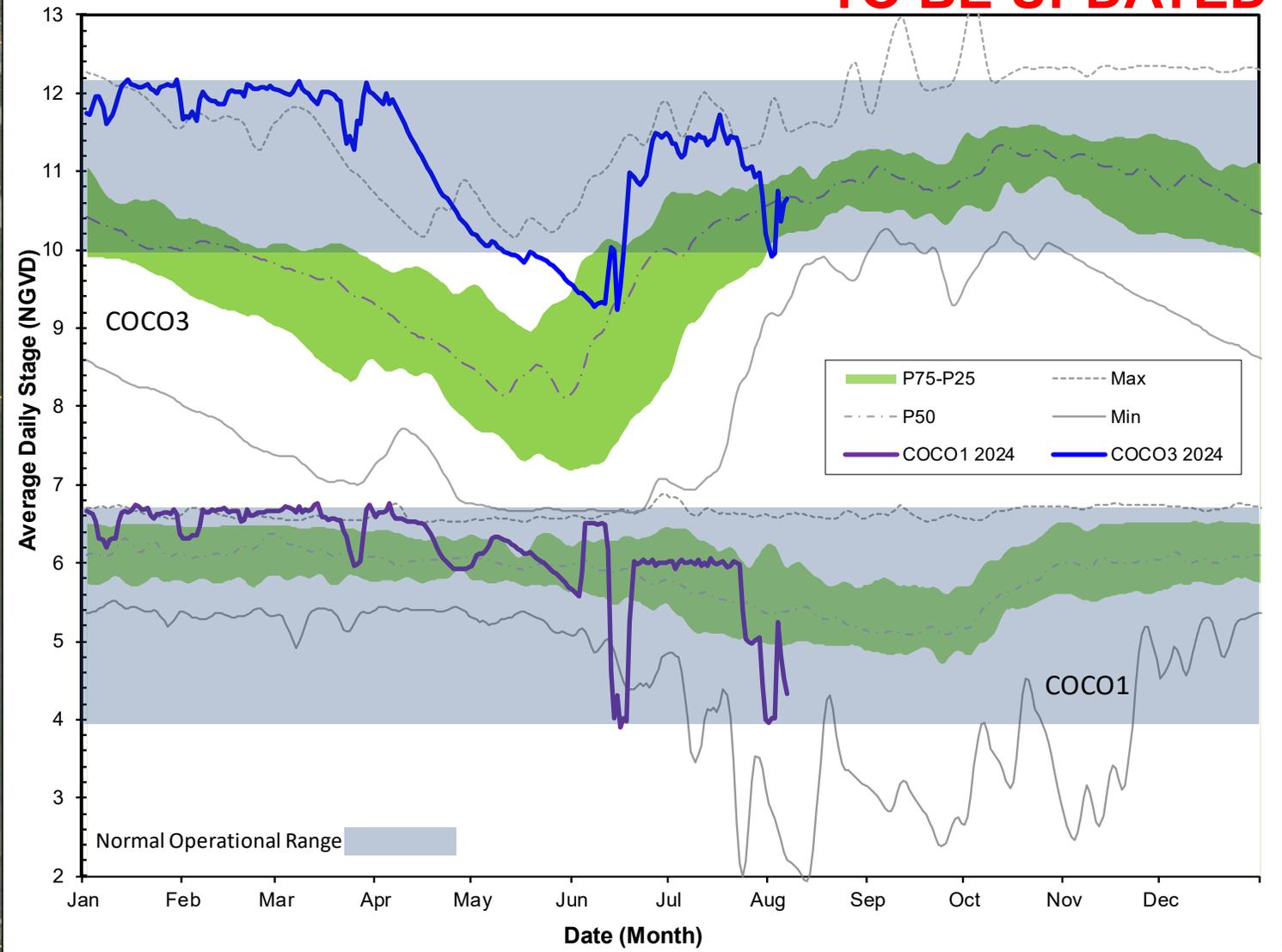
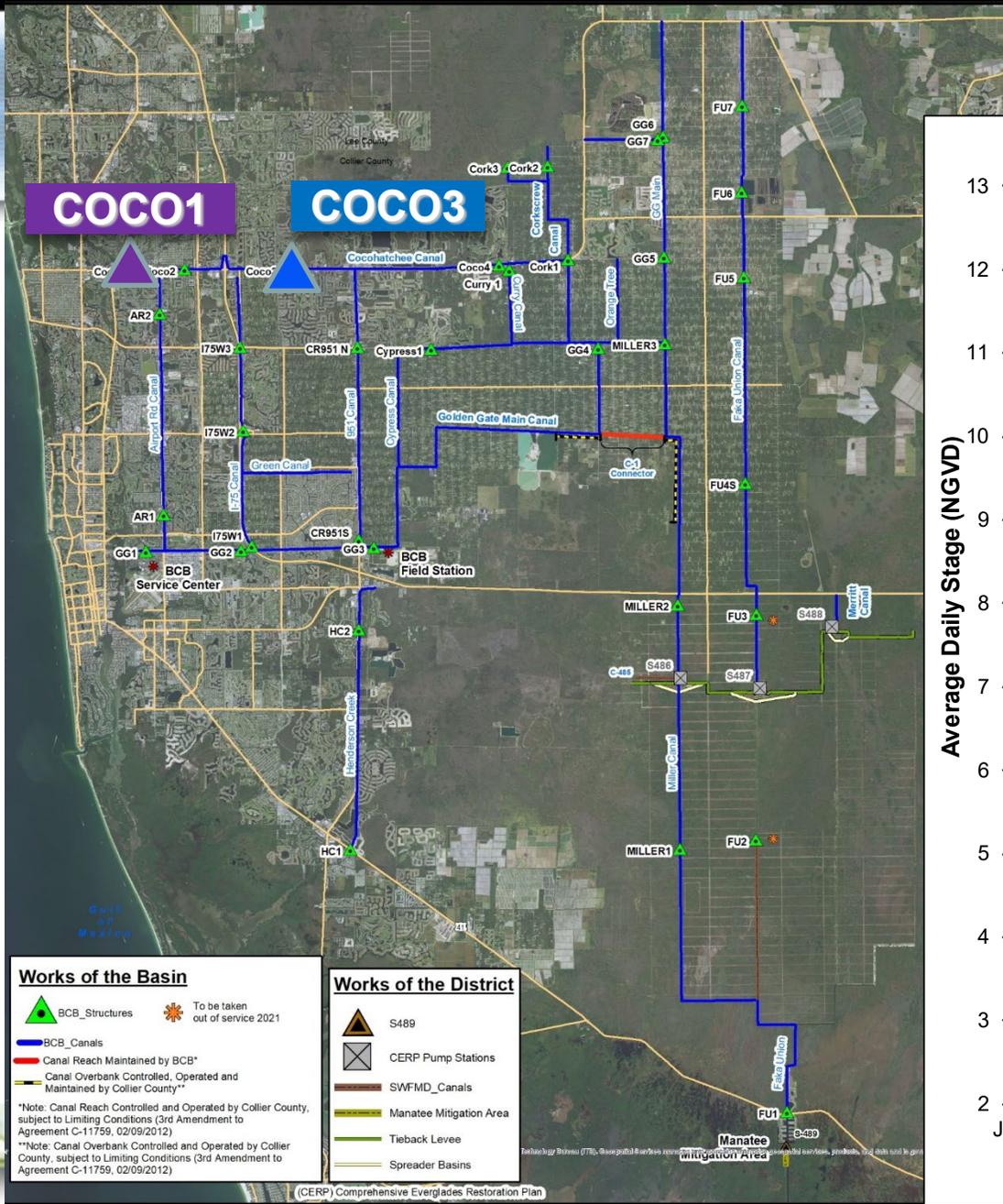
- S489
- CERP Pump Stations
- SWFMD_Canals
- Manatee Mitigation Area
- Tieback Levee
- Spreader Basins

*Note: Canal Reach Controlled and Operated by Collier County, subject to Limiting Conditions (3rd Amendment to Agreement C-11756, 02/09/2012)
**Note: Canal Overbank Controlled and Operated by Collier County, subject to Limiting Conditions (3rd Amendment to Agreement C-11759, 02/09/2012)

BCB Cocohatchee Canal DRAFT

TO BE UPDATED

Figure 6A Cocohatchee Canal Historic Average Daily Headwater Percentiles



Works of the Basin

- BCB Structures
- To be taken out of service 2021
- BCB Canals
- Canal Reach Maintained by BCB*
- Canal Overbank Controlled, Operated and Maintained by Collier County**

*Note: Canal Reach Controlled and Operated by Collier County, subject to Limiting Conditions (3rd Amendment to Agreement C-11759, 02/09/2012)
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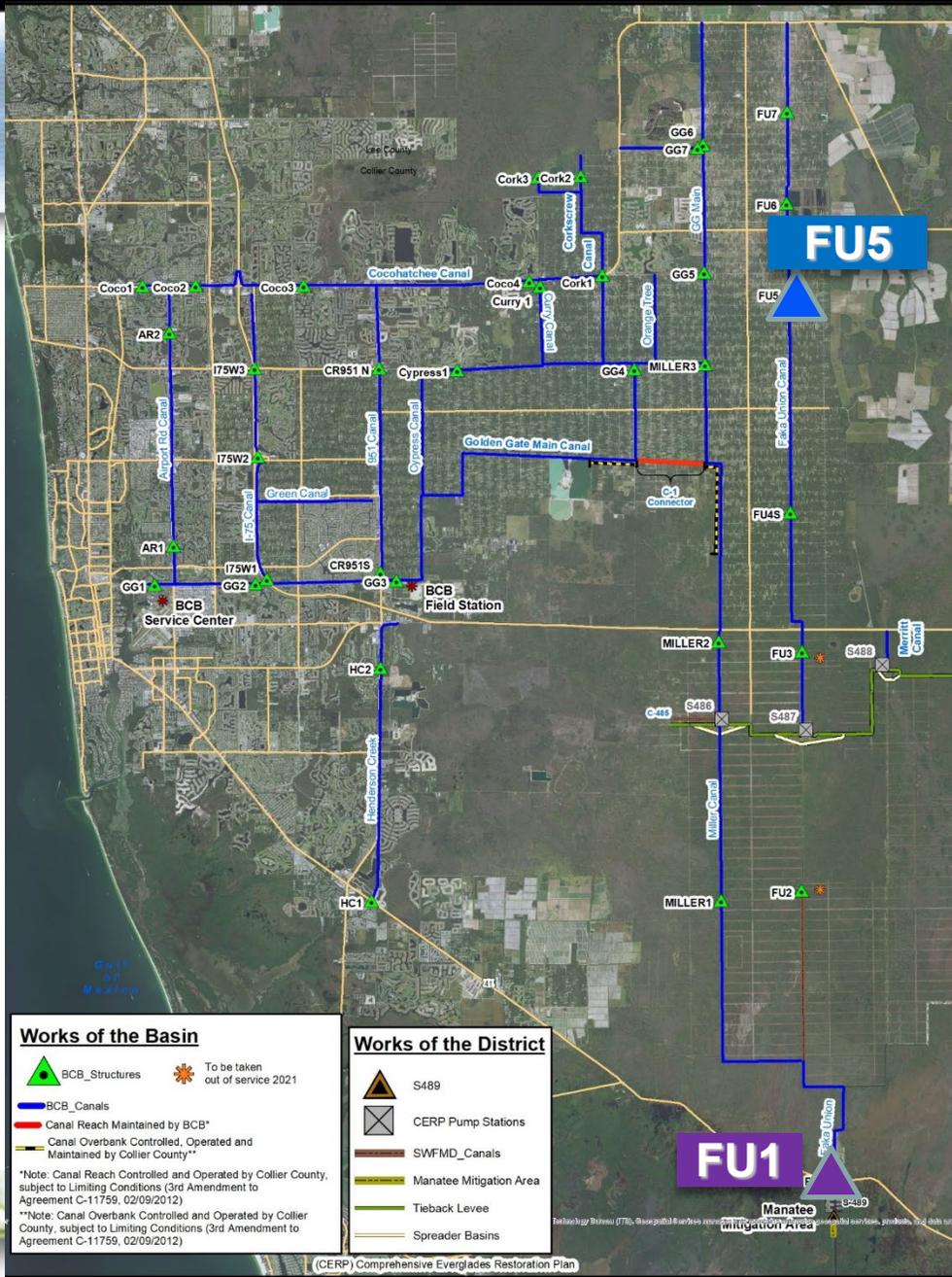
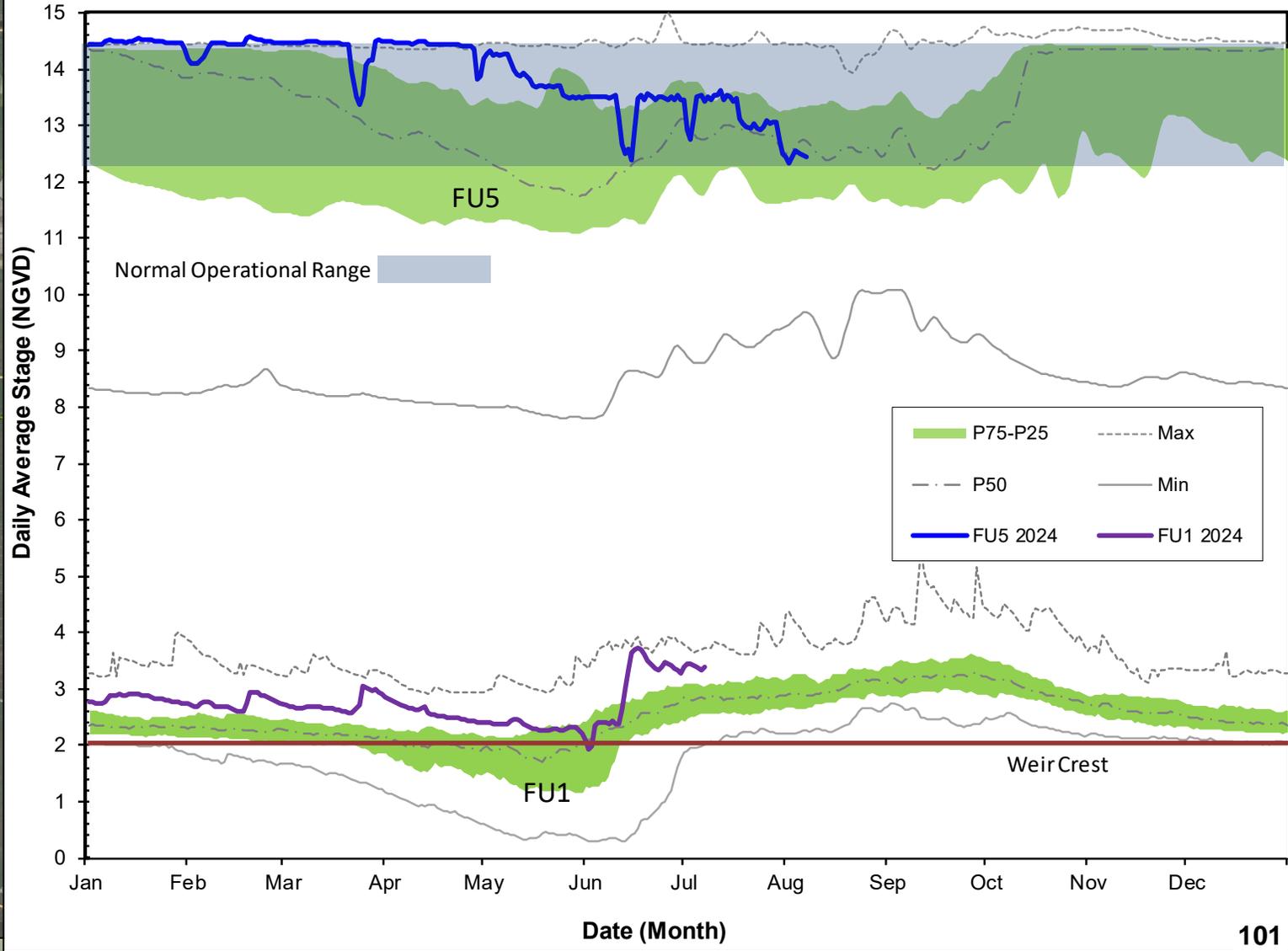
Works of the District

- S489
- CERP Pump Stations
- SWFMD Canals
- Manatee Mitigation Area
- Tieback Levee
- Spreader Basins

BCB Faka Union Canal DRAFT

TO BE UPDATED

Figure 7A Faka Union Canal Historic Average Daily Headwater Percentiles



Works of the Basin

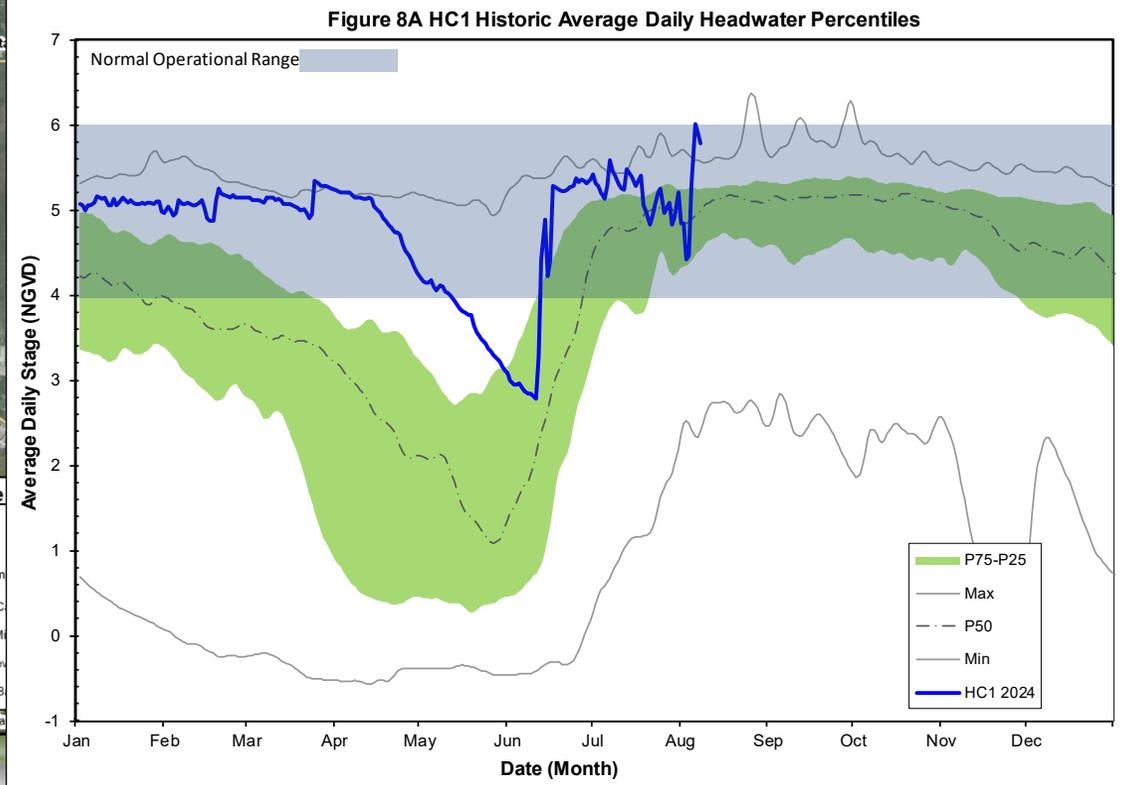
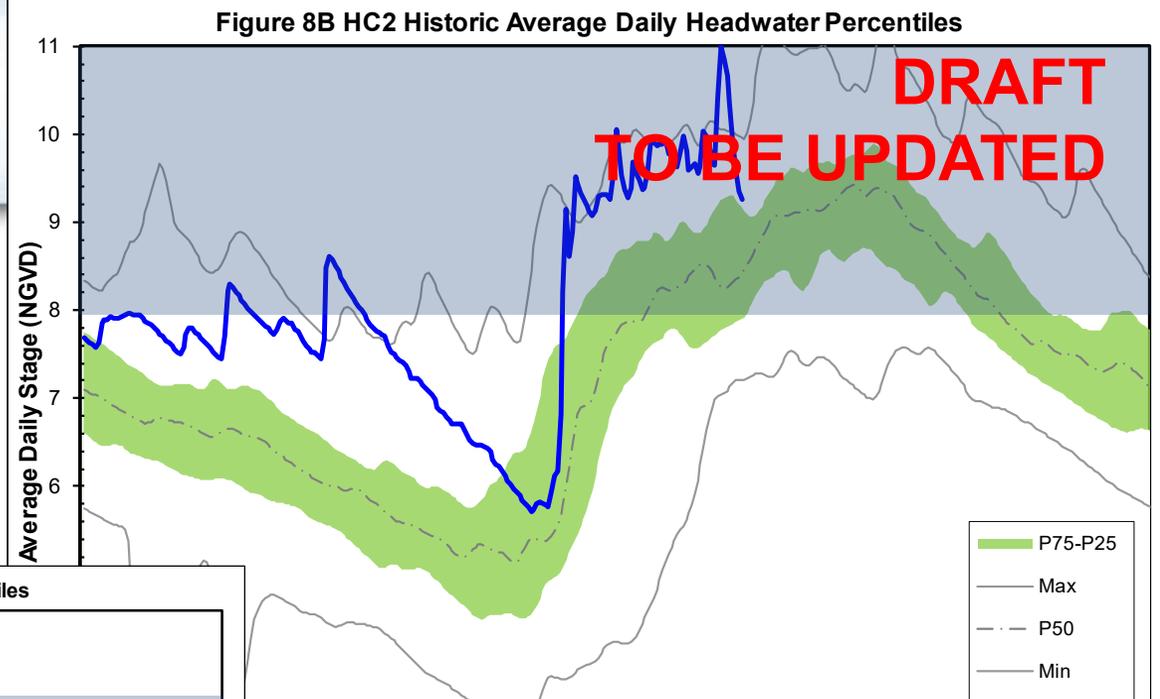
- BCB Structures
- To be taken out of service 2021
- BCB Canals
- Canal Reach Maintained by BCB*
- Canal Overbank Controlled, Operated and Maintained by Collier County**

*Note: Canal Reach Controlled and Operated by Collier County, subject to Limiting Conditions (3rd Amendment to Agreement C-11759, 02/09/2012)
**Note: Canal Overbank Controlled and Operated by Collier County, subject to Limiting Conditions (3rd Amendment to Agreement C-11759, 02/09/2012)

Works of the District

- S489
- CERP Pump Stations
- SWFMD Canals
- Manatee Mitigation Area
- Tieback Levee
- Spreader Basins

BCB Henderson Canal



Works of the Basin

- BCB Structures
- To be taken out of service 2021
- BCB Canals
- Canal Reach Maintained by BCB*
- Canal Overbank Controlled, Operated and Maintained by Collier County**

Works of the

- S489
- CERP Pump
- SWFMD_C
- Manatee M
- Tieback Lev
- Spreader B

*Note: Canal Reach Controlled and Operated by Collier County, subject to Limiting Conditions (3rd Amendment to Agreement C-11759, 02/09/2012)
 **Note: Canal Overbank Controlled and Operated by Collier County, subject to Limiting Conditions (3rd Amendment to Agreement C-11759, 02/09/2012)

(CERP) Comprehensive Everglades

Picayune Strand Restoration Project Operations

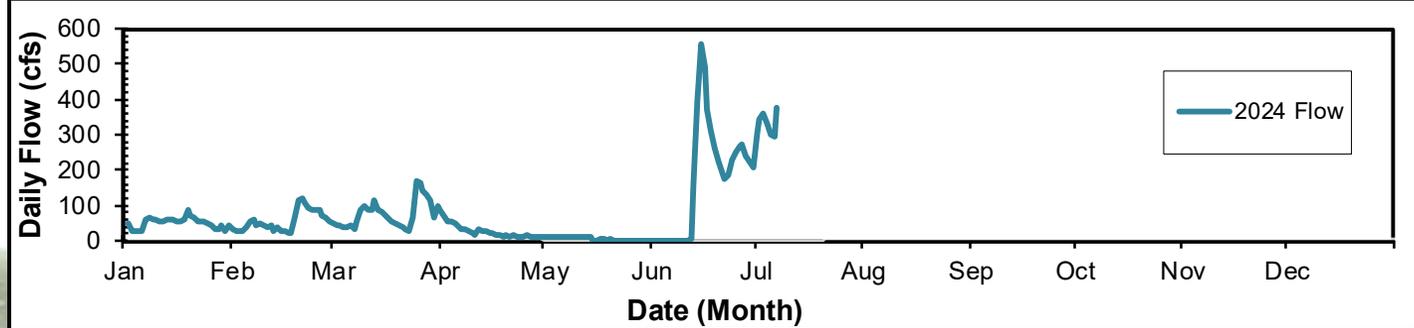
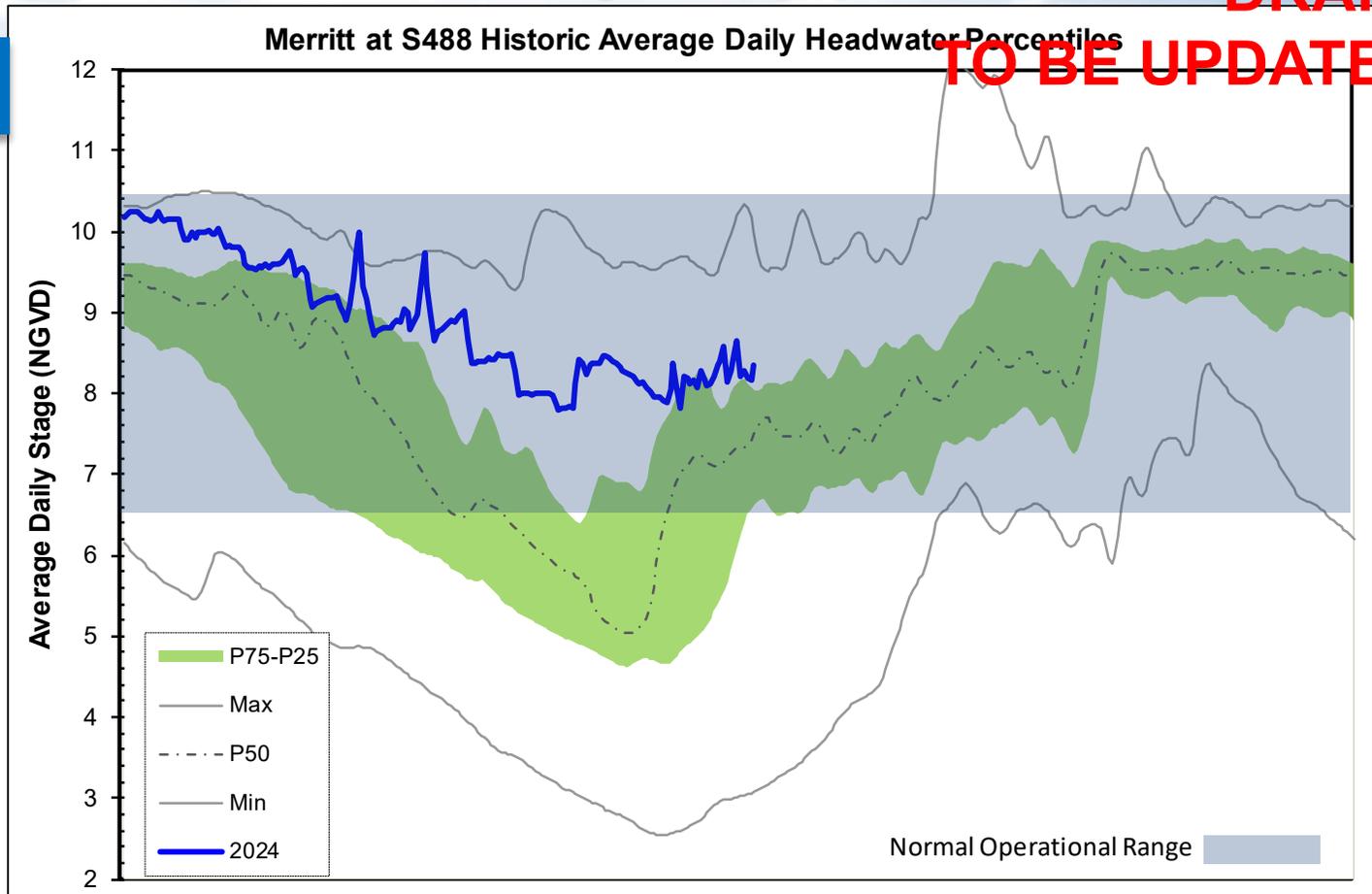
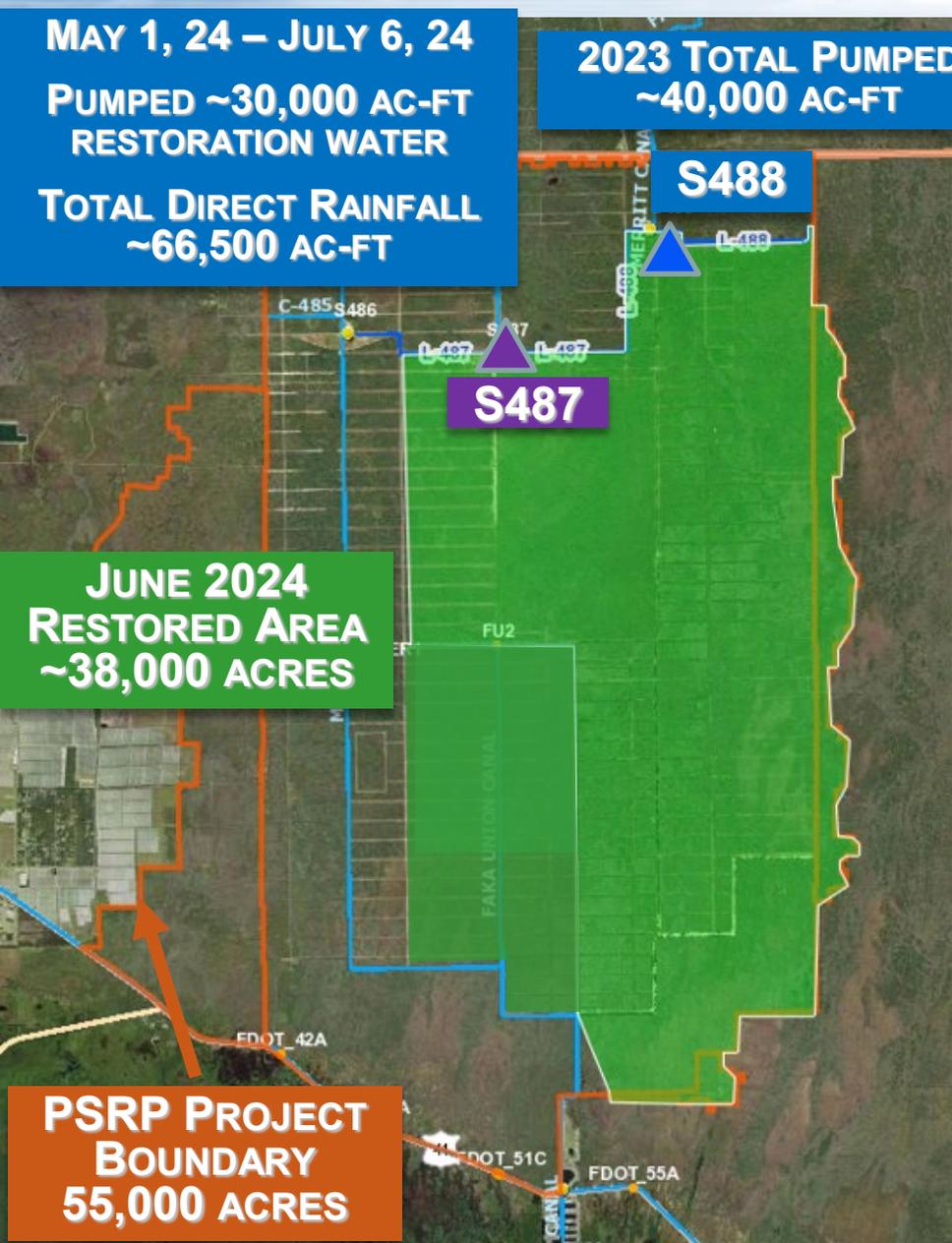
**DRAFT
TO BE UPDATED**

**MAY 1, 24 – JULY 6, 24
PUMPED ~30,000 AC-FT
RESTORATION WATER
TOTAL DIRECT RAINFALL
~66,500 AC-FT**

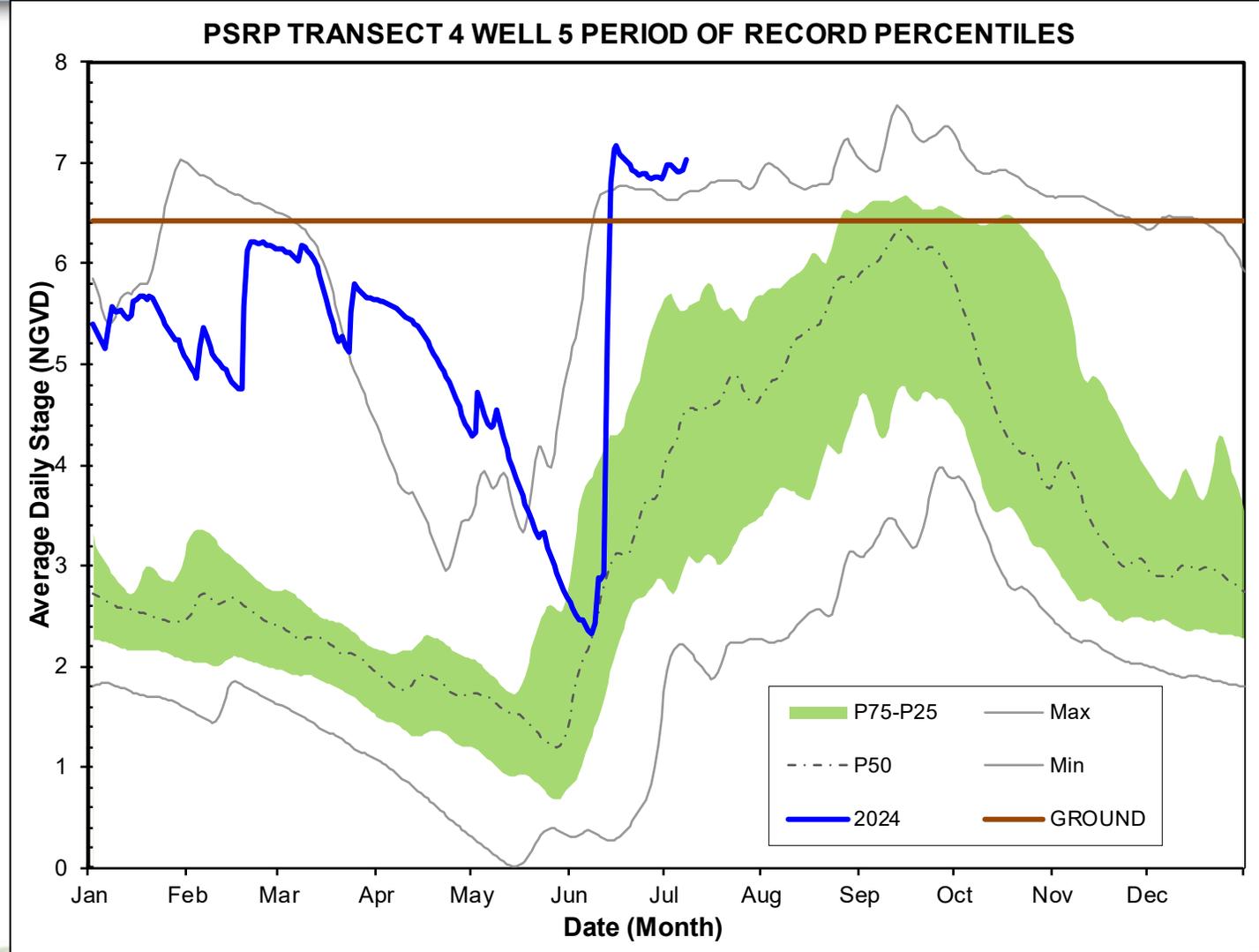
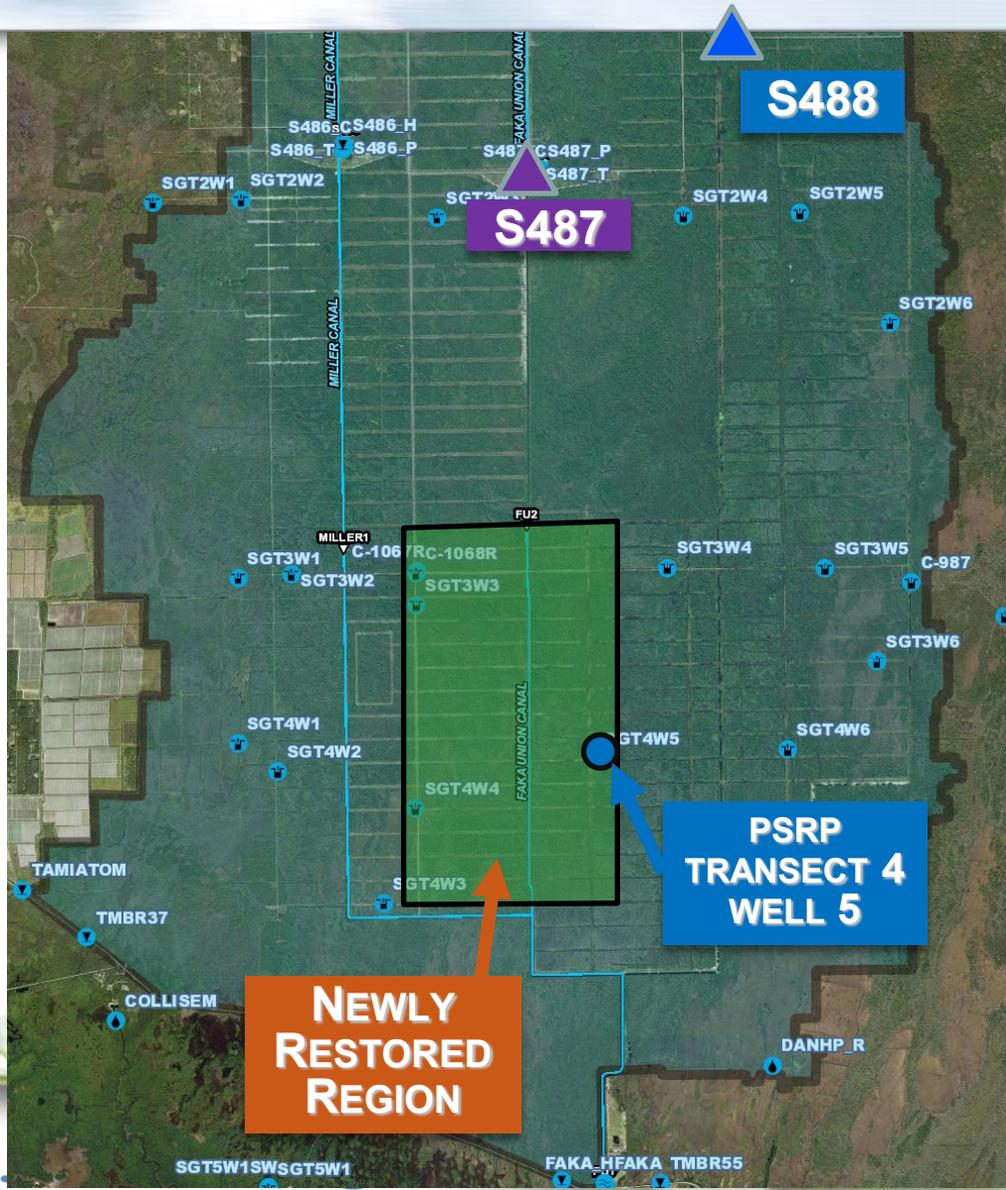
**2023 TOTAL PUMPED
~40,000 AC-FT**

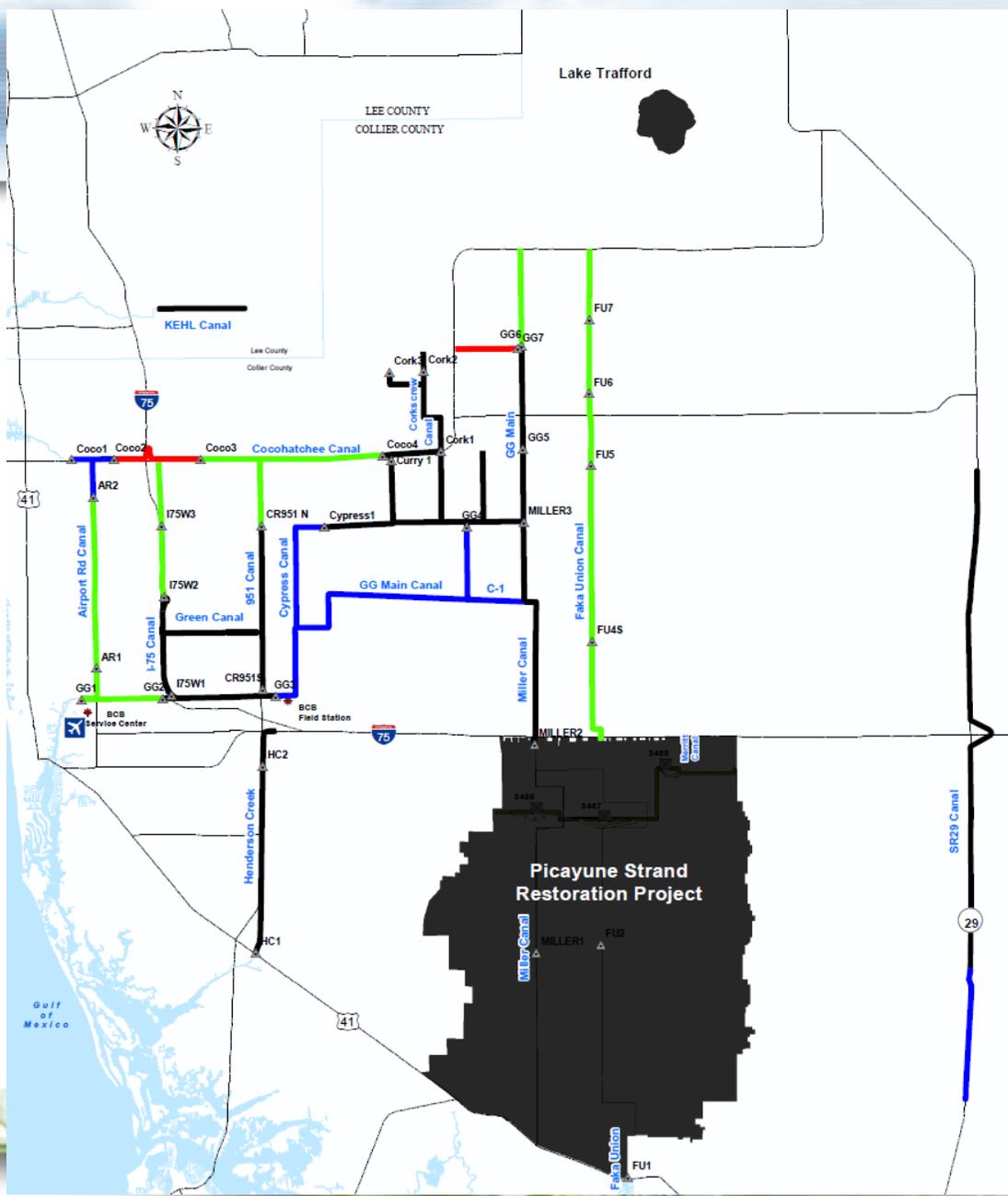
**JUNE 2024
RESTORED AREA
~38,000 ACRES**

**PSRP PROJECT
BOUNDARY
55,000 ACRES**



Picayune Strand Restoration Project Operations **DRAFT** **TO BE UPDATED**

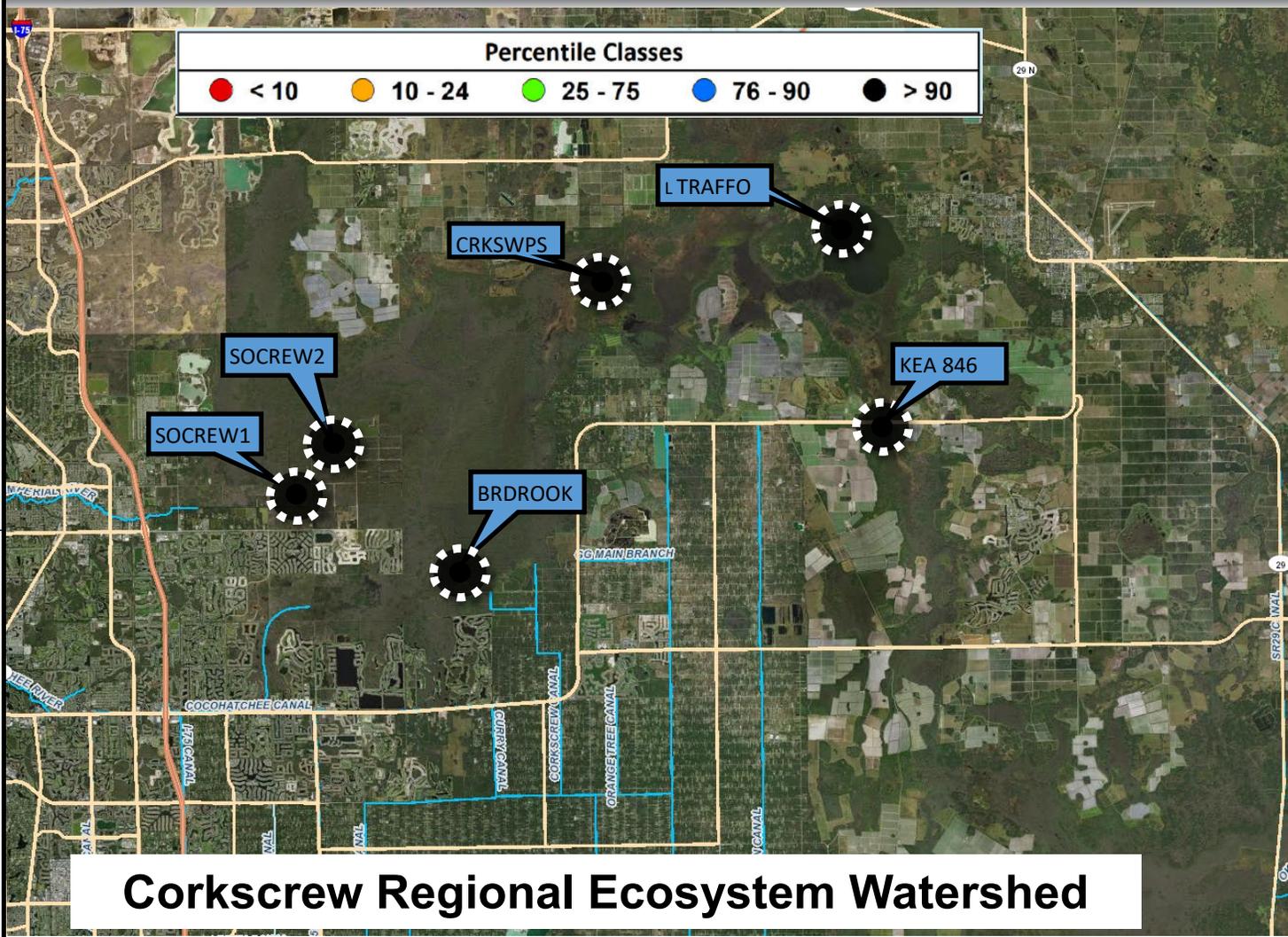




BCB Hydrologic Conditions

as of 08/07/24

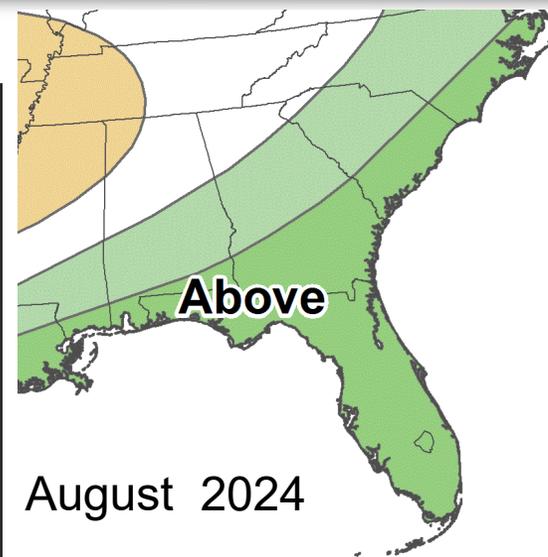
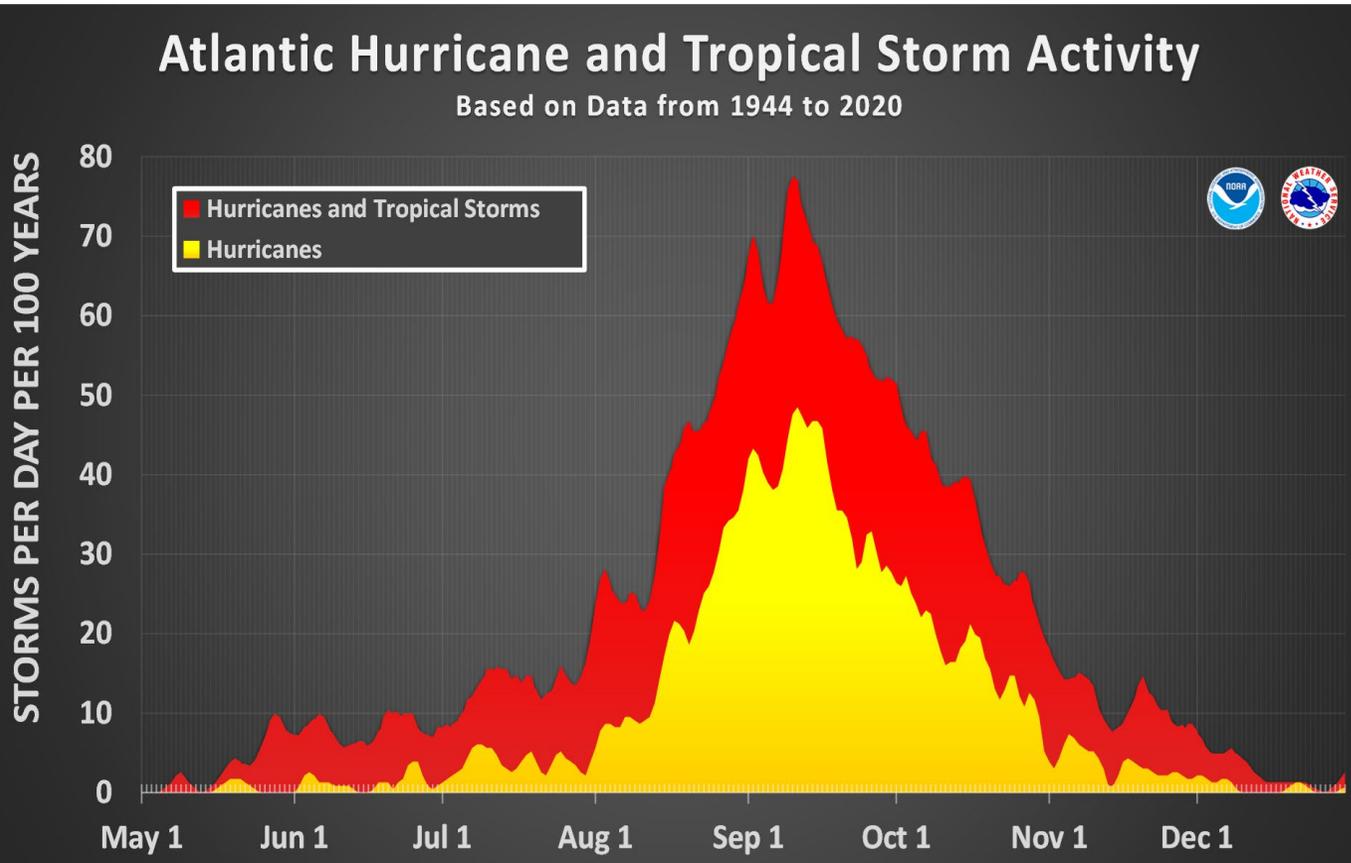
DRAFT TO BE UPDATED



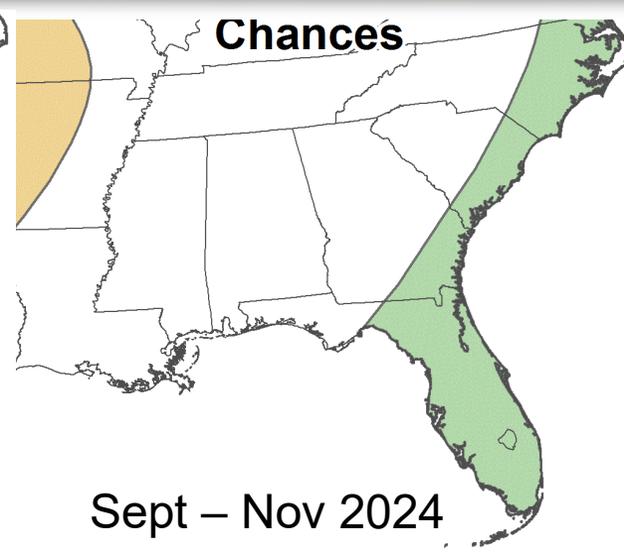
Corkscrew Regional Ecosystem Watershed

Seasonal Precipitation Outlook

**DRAFT
TO BE UPDATED**

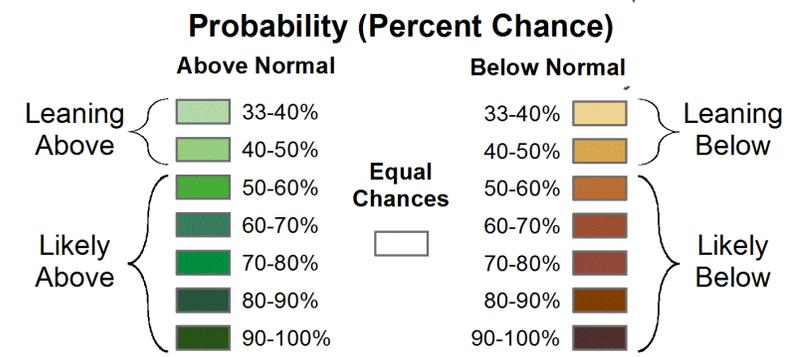


August 2024



Sept – Nov 2024

Long Range Outlook



Short Term Forecast

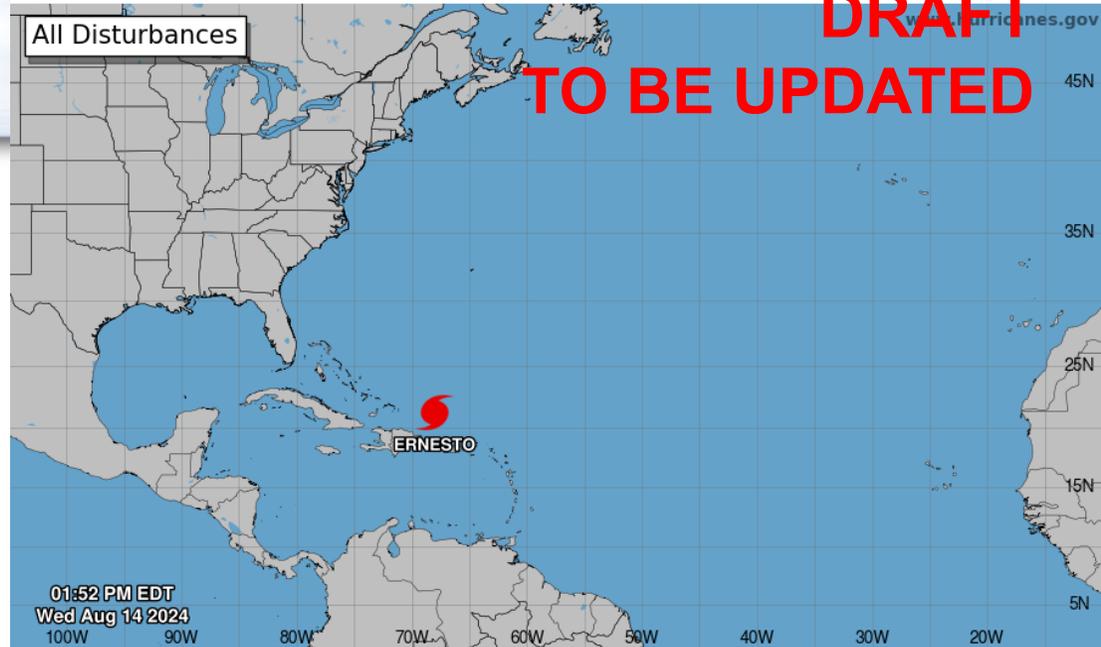


Seven-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



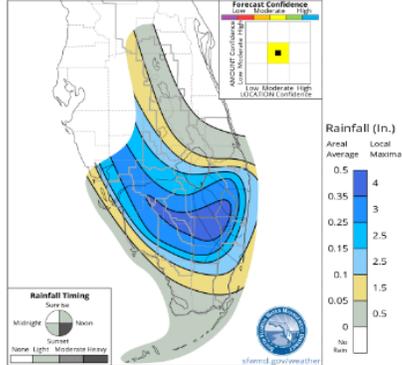
DRAFT
TO BE UPDATED



Current Disturbances and Seven-Day Cyclone Formation Chance: ✘ < 40% ✘ 40-60% ✘ > 60%
Tropical or Sub-Tropical Cyclone: ○ Depression ● Storm ● Hurricane

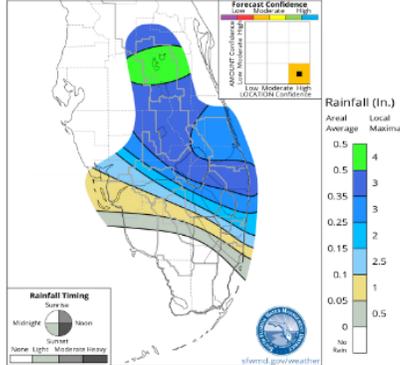
Day 1

SFWMD Quantitative Precipitation Forecast (QPF)
Day 1 24-Hour Period Beginning 8am EDT Sunday



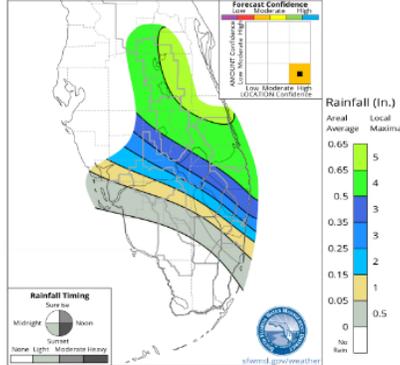
Day 2

SFWMD Quantitative Precipitation Forecast (QPF)
Day 2 24-Hour Period Beginning 8am EDT Monday



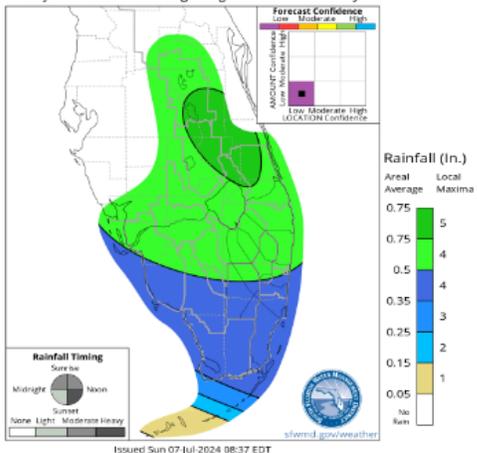
Day 3

SFWMD Quantitative Precipitation Forecast (QPF)
Day 3 24-Hour Period Beginning 8am EDT Tuesday



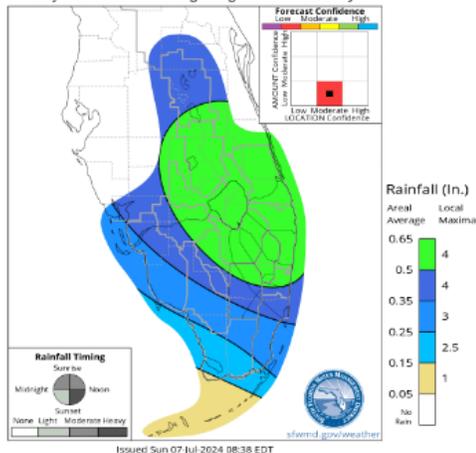
Day 4

SFWMD Quantitative Precipitation Forecast (QPF)
Day 4 24-Hour Period Beginning 8am EDT Wednesday



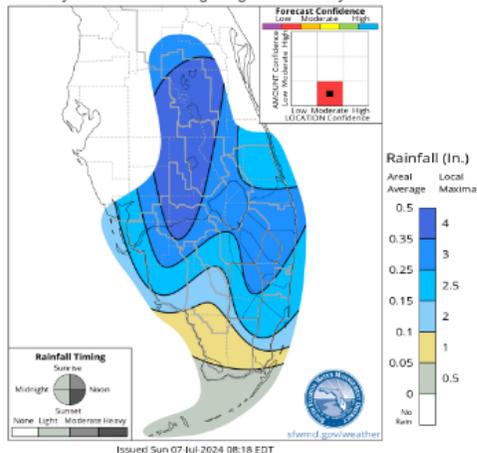
Day 5

SFWMD Quantitative Precipitation Forecast (QPF)
Day 5 24-Hour Period Beginning 8am EDT Thursday



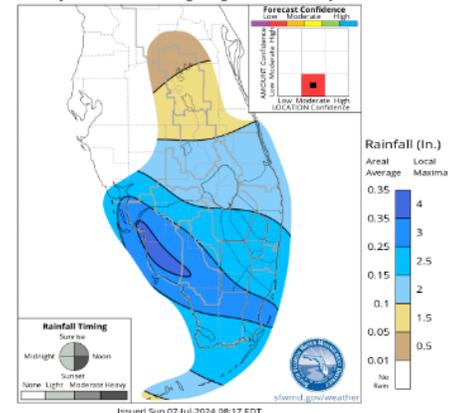
Day 6

SFWMD Quantitative Precipitation Forecast (QPF)
Day 6 24-Hour Period Beginning 8am EDT Friday



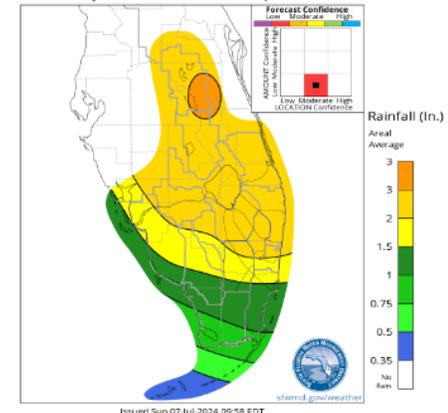
Day 7

SFWMD Quantitative Precipitation Forecast (QPF)
Day 7 24-Hour Period Beginning 8am EDT Saturday



7-Day Total

SFWMD Quantitative Precipitation Forecast (QPF)
Days 1-7 Total Accumulated Precipitation



BCB Water Conditions Report



QUESTIONS ?