



South Florida Water Management District

GOVERNING BOARD MONTHLY MEETING AGENDA

March 9, 2023

9:00 AM

District Headquarters - B-1 Auditorium

3301 Gun Club Road

West Palm Beach, FL 33406

FINAL

1. Call to Order - Chauncey Goss, Chairman, Governing Board
2. Pledge of Allegiance
3. Employee Recognitions
 - 2022 Employee of the Year: Anthony Betts, Principal Scientist
 - 2022 Team of the Year: Blue-Green Algae Monitoring and Response Team
 - March Employee of the Month: Jill Margolius, Public Information - Supervisor
 - March Team of the Month: Laboratory Information and Management System (LIMS) Update Team
 - 25-Year Service Award: Danielle Tharin, Scientist 4
 - 30-Year Service Award: John Brown, Heavy Equipment Operator
 - 30-Year Service Award: Fred Sklar, Section Administrator
4. Special Recognitions
 - Proclamation Recognizing March as District Procurement Month
 - Awards of Excellence to Palm Beach County Science Fair Participants
5. Agenda Revisions
6. Agenda Item Abstentions by Board Members
7. Big Cypress Basin Board Report - Charlette Roman, Chair

8. Consider Approval of the Minutes for the February 9, 2023 Meeting
9. Executive Director's Report - Drew Bartlett
10. General Public Comment
11. Board Comment
12. Move Consent Agenda Items to Discussion Agenda
13. Public Comment on Consent Agenda Items
14. Board Vote on Consent Agenda

Consent Agenda

15. License Agreement with The City of Orlando, Orange County (Staff contact, Stephen M. Collins)

Agenda Item Background:

The District desires to acquire a license agreement for maintenance and data collection from an existing well site located upon lands owned by The City of Orlando in Bill Frederick Park. This license agreement is for a five-year term with two successive renewal terms of five years each. The license agreement is being obtained at no cost to the District.

Recommended Action:

Resolution No. 2023 - 0301 Approve, for the purpose of monitoring regional water levels and quality, the acquisition of a License Agreement to maintain and access an existing well site on property owned by The City of Orlando in Orange County at no cost.

[Resolution No. 2023-0301](#)
[Resolution Exhibit A](#)

16. Release of Reservations (Staff contact, Stephen M. Collins)

Agenda Item Background:

The District has certain reserved rights to construct canal and road right of ways. Applications requesting release of these reservations are received as they constitute a defect on title which must be resolved prior to a property sale, especially when financing is involved. Applications are reviewed to determine if there is a present or future need for the reservations. If it has been determined there is no present or future need, staff recommend that the reservations are released for payment of a value equal to one percent of the appraised value of the land on the Property Appraiser's website in the County where the property is located. It has been determined that there is no present or future need for the reservations listed below.

Staff Recommendation:

Staff recommends approval of the following:

Miami-Dade County

Release District canal and road reservation for FDG Countyline, LLC, a Delaware limited liability company (File No. 18919) for 5.47 +/- acres; release value of \$40,620 is paid.

Recommended Action:

Resolution No. 2023 - 0302 Release District canal and road reservations.

[Map](#)

[Memorandum Exhibit A](#)

[Resolution 2023-0302](#)

[Resolution Exhibit A](#)

17. SFWMD 2023 Critical Wetlands List (Staff contact, Sean Cooley)

Agenda Item Background:

The Florida Legislature passed a law in 2022 requiring water management districts to identify critical wetlands within their respective boundaries for possible acquisition using funds from the State's Land Acquisition Trust Fund. To develop the list, staff reviewed existing District project footprints that have undergone a public planning process. Staff then identified which projects had privately-owned wetlands necessary for acquisition to achieve the project's goals. Pursuant to the law, District staff notified property owners on the list advising them of their right to have their property removed from the District's 2023 Critical Wetlands List. The District removed several properties from the 2023 Critical Wetlands List pursuant to the property owner's request.

Recommended Action:

Resolution No. 2023 - 0303 Adopt the SFWMD 2023 Critical Wetlands List as part of the District water management plan and incorporated into the South Florida Environmental Report - Volume II, Chapter 6A-1 Appendix.

[Resolution No. 2023-0303](#)

[Resolution Exhibit A](#)

18. Policy Update (Staff contact, Maricruz R. Fincher)

Agenda Item Background:

The South Florida Water Management District Governing Board adopts policies for the administration and operation of the agency. This agenda item provides changes to previously adopted Governing Board policy supporting efficient and effective agency operations related to delegated authority for legal proceedings.

Recommended Action:

Resolution No. 2023 - 0304 Approve changes to delegated authority for legal proceedings under District Policy.

[Resolution No. 2023-0304](#)

[Resolution Attachment A](#)

Technical Reports

19. Water Conditions Report - John P. Mitnik
20. Ecological Conditions Report - Lawrence Glenn

Discussion Agenda

21. Summary of the 2021 South Florida Wading Bird Report (Staff contact, Mark Cook, Ph.D.)

Agenda Item Background:

The annual South Florida Wading Bird Report is a multi-agency collaboration that is edited and produced by the District. It is now in its 27th year of production. It serves as a repository for wading bird nesting data from across South Florida, continues to be an essential resource for guiding Everglades restoration and weekly operational decisions, and is an effective tool for communicating restoration information to the public. Staff will update the Governing Board with data from the soon to be released 2021 annual report, which details the second largest nesting event since the 1940's; will summarize the nesting year; reveal why it was so successful; and discuss its significance in terms of Everglades restoration and water management.

Staff Reports

22. Monthly Financial Report - Candida Heater
23. General Counsel's Report - Maricruz R. Fincher, General Counsel
24. General Public Comment
25. Board Comment
26. Adjourn

Final Presentations for Agenda item 19, 20, and 21.

Agenda Item Background:

- [19 Mitnik Water Conditions Report](#)
- [20 Glenn Ecological Conditions Report](#)
- [21 Cook Wading Bird Report](#)

Public Comment Procedure

The South Florida Water Management District Governing Board encourages the public to provide comment and input to the Governing Board. Public comment is accepted at the two dedicated General Public Comment periods at the beginning and the end of the meeting. Public comment is also accepted on the Consent Agenda and each Discussion Agenda item.

MEMORANDUM

TO: Governing Board Members

FROM: Stephen M. Collins, Real Estate & Land Management

DATE: March 9, 2023

SUBJECT: License Agreement with The City of Orlando, Orange County

Agenda Item Background:

The District desires to acquire a license agreement for maintenance and data collection from an existing well site located upon lands owned by The City of Orlando in Bill Frederick Park.

This license agreement is for a five-year term with two successive renewal terms of five years each. The license agreement is being obtained at no cost to the District.

Additional Item Background:

In connection with the District's ongoing efforts to improve and document its right of access and use of monitoring sites, this license agreement will allow the District access, for the purpose of monitoring regional water levels and quality by collecting data from an existing well site on property owned by the City of Orlando ("City") inside Bill Frederick Park in Orange County, as shown on the attached Exhibit "A". The well site has been active and operated by the District for over twenty years. The District and City have agreed upon the terms and conditions of the license agreement. The five-year term of the license agreement commences immediately upon full execution of the agreement and shall be automatically extended for up to two successive renewal terms of five years each, unless otherwise terminated by either party. Pursuant to Section 140-84(c) of the District's Policies and Procedures, any right of entry/license agreement which grants the District the right to enter lands owned by others to conduct specific activities and which exceeds one year in duration, shall require Governing Board approval.

Core Mission and Strategic Priorities:

The well is part of a regional monitoring network throughout central Florida that monitors water levels, including groundwater levels, and water quality data all to evaluate and assess surface and aquifer systems for future water supply and sustainability.

Funding Source:

The license agreement is being obtained at no cost to the District.

Staff Contact and/or Presenter:

Stephen M. Collins, smcollins@sfwmd.gov, 561-682-2959

ATTACHMENTS:

[Resolution No. 2023-0301](#)

[Resolution Exhibit A](#)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Resolution No. 2023 - 03XX

A Resolution of the Governing Board of the South Florida Water Management District to approve, for the purpose of monitoring regional water levels and quality, the acquisition of a License Agreement to maintain and access an existing well site on property owned by The City of Orlando in Orange County at no cost, providing an effective date.

WHEREAS, for the purpose of monitoring regional water levels and quality, the District desires to acquire a license agreement for maintenance of and data collection from a well site for a five-year term with two successive renewal terms of five years each, commencing upon full execution of the agreement, over certain lands owned by The City of Orlando in Orange County; and

WHEREAS, the District, pursuant to Section 373.139, Florida Statutes, is authorized to acquire land, or interests or rights in land.

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

Section 1. The Governing Board of the South Florida Water Management District, for the purpose of monitoring regional water levels and quality, hereby approves the acquisition and acceptance of a license agreement, at no cost, over a portion of land owned by The City of Orlando in Orange County as shown on the attached Exhibit "A", to maintain, access and collect data from an existing well site. The five-year term with two successive renewal terms of five years each commences upon full execution of the agreement.

Section 2. The Governing Board of the South Florida Water Management District hereby authorizes the Chairman or Vice Chairman to execute the License Agreement instrument.

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

PASSED and ADOPTED this 9th day of March, 2023.

Exhibit "A"



LICENSE AGREEMENT FOR WELL BILL FREDERICK PARK CITY OF ORLANDO

MEMORANDUM

TO: Governing Board Members
FROM: Stephen M. Collins, Real Estate & Land Management
DATE: March 9, 2023
SUBJECT: Release of Reservations

Agenda Item Background:

The District has certain reserved rights to construct canal and road right of ways. Applications requesting release of these reservations are received as they constitute a defect on title which must be resolved prior to a property sale, especially when financing is involved. Applications are reviewed to determine if there is a present or future need for the reservations. If it has been determined there is no present or future need, staff recommend that the reservations are released for payment of a value equal to one percent of the appraised value of the land on the Property Appraiser's website in the County where the property is located. It has been determined that there is no present or future need for the reservations listed below.

Staff Recommendation:

Staff recommends approval of the following:

Miami-Dade County

Release District canal and road reservation for FDG Countyline, LLC, a Delaware limited liability company (File No. 18919) for 5.47 +/- acres; release value of \$40,620 is paid.

Additional Item Background:

See Memorandum Exhibit "A" and map attached hereto and made a part hereof, which contain the details and locations of the releases to be issued.

Core Mission and Strategic Priorities:

Pursuant to Section 373.096, Florida Statutes, the Governing Board of the District may release any reservation for which it has no present or apparent use under terms and conditions determined by the Board.

Staff Contact and/or Presenter:

Stephen M. Collins, smcollins@sfwmd.gov, 561-682-2959

ATTACHMENTS:

[Map](#)

[Memorandum Exhibit A](#)

[Resolution 2023-0302](#)

S 7
T 52
R 40

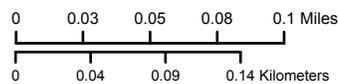
S 8
T 52
R 40

S 16
T 52
R 40

S 17
T 52
R 40



18919



South Florida Water Management District
3301 Gun Club Road, West Palm Beach, Florida 33406
561-686-8800; www.sfwmd.gov

sfwmd.gov

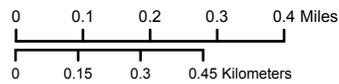
DISCLAIMER:
This map is a conceptual or planning tool only. The South Florida Water Management District does not guarantee or make any representation regarding the information contained herein. It is not self-executing or binding, and does not affect the interests of any persons or properties, including any present or future right or use of real property and is exempt from public records disclosure and confidential under Section 119.071(3)(a)(1), Florida Statute.



18919



South Florida Water Management District
 3301 Gun Club Road, West Palm Beach, Florida 33406
 561-686-8800; www.sfwmd.gov



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MEMORANDUM – EXHIBIT “A”

Miami-Dade County

File No: 18919
Applicant: FDG Countyline, LLC, a Delaware limited liability company
Reserving Deed: E-1992 (DB 2459-307, 1/2/1945)
Application Fee Paid: \$250.00
Release Value: \$40,620.00 (paid)
Action: Release District canal and road reservations
Acres: 5.47 acres, more or less
Legal Description: Portion of Tract 29, FLORIDA FRUIT LANDS COMPANY'S
SUBDIVISION NO. 1, PB 2-17, Section 17, Township 52 South,
Range 40 East
Location: Vacant land at the Northeast corner of NW 107th Avenue and NW 166th
Place, Hialeah, Miami-Dade County
Reviewed By: Field Operations Division, Water Supply Development Section, Right of
Way Section, Environmental Recourse Permitting Bureau, Ecosystem
Restoration and Capital Projects Division, Miami-Dade County DERM,
Miami-Dade County Public Works, and Florida Department of
Transportation

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Resolution No. 2023 - 03XX

A Resolution of the Governing Board of the South Florida Water Management District to release District canal and road reservations; providing an effective date.

WHEREAS, the applicants have requested that the South Florida Water Management District release certain District canal and road reservations; and

WHEREAS, the District is empowered to grant such releases pursuant to Section 373.096, Florida Statutes.

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

Section 1. The Governing Board of the South Florida Water Management District hereby approves the release of District canal and road reservations, as described in Resolution Exhibit "A" attached hereto and made a part hereof.

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

PASSED and ADOPTED this 9th day of March, 2023.

RESOLUTION – EXHIBIT “A”

Miami-Dade County

File No: 18919
Applicant: FDG Countyline, LLC, a Delaware limited liability company
Reserving Deed: E-1992 (DB 2459-307, 1/2/1945)
Release Value: \$40,620.00 (paid)
Action: Release District canal and road reservations
Acres: 5.47 acres, more or less
Legal Description: Portion of Tract 29, FLORIDA FRUIT LANDS COMPANY'S
SUBDIVISION NO. 1, PB 2-17, Section 17, Township 52 South,
Range 40 East
Location: Vacant land at the Northeast corner of NW 107th Avenue and NW
166th Place, Hialeah, Miami-Dade County

MEMORANDUM

TO: Governing Board Members

FROM: Sean Cooley, Real Estate & Land Management

DATE: March 9, 2023

SUBJECT: SFWMD 2023 Critical Wetlands List

Agenda Item Background:

The Florida Legislature passed a law in 2022 requiring water management districts to identify critical wetlands within their respective boundaries for possible acquisition using funds from the State's Land Acquisition Trust Fund. To develop the list, staff reviewed existing District project footprints that have undergone a public planning process. Staff then identified which projects had privately-owned wetlands necessary for acquisition to achieve the project's goals. Pursuant to the law, District staff notified property owners on the list advising them of their right to have their property removed from the District's 2023 Critical Wetlands List. The District removed several properties from the 2023 Critical Wetlands List pursuant to the property owner's request.

Additional Item Background:

The Florida Legislature passed a law in 2022 requiring all water management districts to annually identify critical wetlands within their respective boundaries that could be acquired using funds from the State's Land Acquisition Trust Fund. In accordance with Section 373.036(2)(e), Florida Statutes, the wetland portion of the properties identified by the District were included on the South Florida Water Management District 2023 Critical Wetlands List.

The 2023 Critical Wetlands List was compiled by reviewing existing restoration project footprints and using the U.S. Fish & Wildlife Service National Wetlands Inventory (NWI). The U.S. Fish and Wildlife Service is the principal agency tasked with providing information to the public on the extent and status of the NWI data.

The District sent letters to property owners on the list advising them of their right to request having their property removed from the District's 2023 Critical Wetlands List by submitting a written request to the District in advance of adopting the list as part of the District water management plan and incorporated into the South Florida Environmental Report – Volume II, Chapter 6A-1 Appendix.

Staff Contact and/or Presenter:

Sean Cooley, scooley@sfwmd.gov, 561-682-2019

ATTACHMENTS:

[Resolution No. 2023-0303](#)

[Resolution Exhibit A](#)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Resolution No. 2023 - 03XX

A Resolution of the Governing Board of the South Florida Water Management District adopting the SFWMD 2023 Critical Wetlands List as part of the District water management plan and incorporated into the South Florida Environmental Report - Volume II, Chapter 6A-1 Appendix; providing an effective date.

WHEREAS, the District desires to adopt Exhibit "A", the list attached hereto, as the District's 2023 Critical Wetlands List, in accordance with criteria set forth in Section 373.036, Florida Statutes; and

WHEREAS, the District's 2023 Critical Wetlands List serves to identify wetlands within District boundaries that could be acquired using funds from the State's Land Acquisition Trust Fund; and

WHEREAS, the District sent letters to property owners advising them of their right to request having their property removed from the list by submitting a written request to the District; and

WHEREAS, the District removed properties from the 2023 Critical Wetlands List when written requests were received and verified; and

WHEREAS, pursuant to Section 373.036, Florida Statutes, the District's Critical Wetlands List is included in the District water management plan and incorporated into the South Florida Environmental Report - Volume II, Chapter 6A-1 Appendix.

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

Section 1. The Governing Board of the South Florida Water Management District hereby adopts Exhibit "A", the list attached hereto, as the SFWMD 2023 Critical Wetlands List in accordance with Section 373.036, Florida Statutes, as part of the District water management plan which will be incorporated into the South Florida Environmental Report - Volume II, Chapter 6A-1 Appendix.

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

PASSED and ADOPTED this 9th day of March, 2023.

Exhibit "A"

SFWMD 2023 Critical Wetlands List

Parcel ID	County	Project	Wetland Acres
1045250000061010	Lee	Six Mile Cypress I & II	3.88
1045250000062000	Lee	Six Mile Cypress I & II	12.70
10236360A00000050000	Okeechobee	Indian River Lagoon - South / FF only	27.17
12535360A00000010000	Okeechobee	Indian River Lagoon - South / FF only	684.21
10136360A00000010000	Okeechobee	Indian River Lagoon - South / FF only	279.21
10236360A0000002B000	Okeechobee	Indian River Lagoon - South / FF only	13.58
11236360A00000020000	Okeechobee	Indian River Lagoon - South / FF only	57.92
10236360A00000040000	Okeechobee	Indian River Lagoon - South / FF only	1.17
12335360A0000001B000	Okeechobee	Indian River Lagoon - South / FF only	313.90
10236360A0000003A000	Okeechobee	Indian River Lagoon - South / FF only	0.67
12335360A000000100	Okeechobee	Indian River Lagoon - South / FF only	300.39
292417200100002	Orange	Shingle Creek	1.04
292418199700001	Orange	Shingle Creek	17.05
332528000000800000	Osceola	Reedy Creek	2.69
332528351001060010	Osceola	Reedy Creek	4.86
282528000000100000	Osceola	Reedy Creek	474.57
332528000000900000	Osceola	Reedy Creek	12.00
2526286170000F0180	Osceola	Reedy Creek	2.29
19252900U002020000	Osceola	Shingle Creek	1.23
2526286120000C0020	Osceola	Reedy Creek	0.75
2526286100000B0010	Osceola	Reedy Creek	6.96
3225284520000A0110	Osceola	Reedy Creek	0.33
2526286170000E0040	Osceola	Reedy Creek	2.22
272528000000500000	Osceola	Reedy Creek	10.15
332528000000470000	Osceola	Reedy Creek	3.85
192529000000250000	Osceola	Shingle Creek	0.16
272528000000200000	Osceola	Reedy Creek	0.00
062529411000010040	Osceola	Shingle Creek	3.26
252528000001100000	Osceola	Shingle Creek	48.76
262528000000100000	Osceola	Reedy Creek	43.31
092729000000600000	Osceola	Reedy Creek	40.41
142528000000300000	Osceola	Reedy Creek	0.47
142528000000300000	Osceola	Reedy Creek	163.34
3225284520000C0150	Osceola	Reedy Creek	0.68
332528000000700000	Osceola	Reedy Creek	1.57
312528000000200000	Osceola	Reedy Creek	0.10
2526286170000F0020	Osceola	Reedy Creek	2.37
2526286170000F0200	Osceola	Reedy Creek	2.29
3625281271000100B0	Osceola	Shingle Creek	1.08
2526286170000E0050	Osceola	Reedy Creek	2.08
2526286170000E0060	Osceola	Reedy Creek	2.23
3425280000001850000	Osceola	Reedy Creek	2.13
342528000000750000	Osceola	Reedy Creek	15.68
2526286170000G0040	Osceola	Reedy Creek	3.23

SFWMD 2023 Critical Wetlands List

Parcel ID	County	Project	Wetland Acres
03262800000200000	Osceola	Reedy Creek	31.64
2526286170000F0060	Osceola	Reedy Creek	3.19
2526286170000F0070	Osceola	Reedy Creek	2.90
2526286170000F0040	Osceola	Reedy Creek	2.58
2526286170000F0050	Osceola	Reedy Creek	2.45
362528000003000000	Osceola	Shingle Creek	0.78
362528000006000000	Osceola	Shingle Creek	0.52
362528000001650000	Osceola	Shingle Creek	3.83
332528000003400000	Osceola	Reedy Creek	0.87
342528000003400000	Osceola	Reedy Creek	5.12
3225284520000B0170	Osceola	Reedy Creek	0.19
3225284520000B0180	Osceola	Reedy Creek	4.54
3225284520000C0010	Osceola	Reedy Creek	0.80
3225284520000C0160	Osceola	Reedy Creek	0.00
33252800000032000	Osceola	Reedy Creek	0.03
332528000000300000	Osceola	Reedy Creek	0.26
332528000003300000	Osceola	Reedy Creek	2.52
2526286170000F0080	Osceola	Reedy Creek	1.85
122528000001700000	Osceola	Shingle Creek	7.23
332528000000500000	Osceola	Reedy Creek	2.40
2526286155000A0011	Osceola	Reedy Creek	200.59
2526286170000F0190	Osceola	Reedy Creek	1.94
2526286170000F0160	Osceola	Reedy Creek	2.29
332528000000200000	Osceola	Reedy Creek	1.72
332528000000280000	Osceola	Reedy Creek	2.89
2526286170000E0390	Osceola	Reedy Creek	1.89
2526286188000D0010	Osceola	Reedy Creek	10.72
2526286188000D0020	Osceola	Reedy Creek	5.22
2526286188000F0010	Osceola	Reedy Creek	4.96
2526286188000J0010	Osceola	Reedy Creek	18.01
322528360500010030	Osceola	Reedy Creek	0.46
2526286170000G0020	Osceola	Reedy Creek	2.85
2526286170000F0030	Osceola	Reedy Creek	2.28
362528000001510000	Osceola	Shingle Creek	2.13
362528000001600000	Osceola	Shingle Creek	1.43
25262861880000011	Osceola	Reedy Creek	0.46
2526286170000D0030	Osceola	Reedy Creek	2.36
332528000000400000	Osceola	Reedy Creek	4.22
072628000000200000	Osceola	Reedy Creek	9.83
322528000000300000	Osceola	Reedy Creek	71.54
362528000001500000	Osceola	Shingle Creek	16.81
332528000001400000	Osceola	Reedy Creek	4.58
2526286155000H0010	Osceola	Reedy Creek	13.31
2526286155000F0020	Osceola	Reedy Creek	0.13

SFWMD 2023 Critical Wetlands List

Parcel ID	County	Project	Wetland Acres
2526286170000F0110	Osceola	Reedy Creek	2.31
3125280000002A0000	Osceola	Reedy Creek	10.32
362628285300010080	Osceola	Reedy Creek	0.01
332528000001300000	Osceola	Reedy Creek	2.38
332528000000450000	Osceola	Reedy Creek	0.00
362528000001560000	Osceola	Shingle Creek	8.04
2526286170000C0010	Osceola	Reedy Creek	461.13
252628617000000040	Osceola	Reedy Creek	3.17
192529000002400000	Osceola	Shingle Creek	0.33
332528000001700000	Osceola	Reedy Creek	0.45
322528360500010050	Osceola	Reedy Creek	0.36
092729000000100000	Osceola	Reedy Creek	30.48
192529000002030000	Osceola	Shingle Creek	1.51
2526286170000F0010	Osceola	Reedy Creek	4.18
2526286170000D0010	Osceola	Reedy Creek	1.68
2526286170000E0010	Osceola	Reedy Creek	27.77
2526286170000F0010	Osceola	Reedy Creek	0.45
2526286170000F0010	Osceola	Reedy Creek	5.10
2526286170000F0010	Osceola	Reedy Creek	0.48
2526286170000F0010	Osceola	Reedy Creek	0.45
2526286170000F0010	Osceola	Reedy Creek	1.82
2526286170000G0010	Osceola	Reedy Creek	13.28
2526286170000H0010	Osceola	Reedy Creek	22.44
2526286170000G0010	Osceola	Reedy Creek	1.39
322528360500010040	Osceola	Reedy Creek	0.37
192529000002700000	Osceola	Shingle Creek	0.18
2526286120000C0010	Osceola	Reedy Creek	2.62
3225284520000A0100	Osceola	Reedy Creek	0.01
322528360500010010	Osceola	Reedy Creek	1.94
332528000003600000	Osceola	Reedy Creek	0.82
332528000009200000	Osceola	Reedy Creek	2.12
252628618600010010	Osceola	Reedy Creek	18.75
36252800U000150000	Osceola	Shingle Creek	5.03
2526286170000G0030	Osceola	Reedy Creek	3.03
122528000000800000	Osceola	Shingle Creek	4.81
36252800U000190000	Osceola	Shingle Creek	8.52
192529000002000000	Osceola	Shingle Creek	3.58
2526286170000E0410	Osceola	Reedy Creek	1.53
092528318100010010	Osceola	Reedy Creek	1.30
2526286170000F0170	Osceola	Reedy Creek	2.28
162729000000100000	Osceola	Reedy Creek	18.83
162729000000100000	Osceola	Reedy Creek	25.89
2526286170000E0030	Osceola	Reedy Creek	2.59
342528000002900000	Osceola	Reedy Creek	1.98

SFWMD 2023 Critical Wetlands List

Parcel ID	County	Project	Wetland Acres
2526286155000A0020	Osceola	Reedy Creek	176.58
2526286155000E0010	Osceola	Reedy Creek	2.56
182529214800010010	Osceola	Shingle Creek	1.56
062628000001350000	Osceola	Reedy Creek	0.10
082628000000200000	Osceola	Reedy Creek	1,063.52
332528000002400000	Osceola	Reedy Creek	3.27
2526286155000J0010	Osceola	Reedy Creek	1.28
3225284520000B0160	Osceola	Reedy Creek	0.01
2526286170000E0070	Osceola	Reedy Creek	3.00
3625281271000100E0	Osceola	Shingle Creek	6.44
3625281271000100M0	Osceola	Shingle Creek	65.94
2525281646TRAC00H0	Osceola	Shingle Creek	15.05
30252900U000800000	Osceola	Shingle Creek	123.86
25252800U001100000	Osceola	Shingle Creek	328.21
2525281425000100J0	Osceola	Shingle Creek	0.25
012528000000100000	Osceola	Shingle Creek	139.68
232628000000400000	Osceola	Reedy Creek	80.37
252628617000000010	Osceola	Reedy Creek	1.85
313211200010006	St. Lucie	Indian River Lagoon - South / FF only	246.97
311632300020001	St. Lucie	Indian River Lagoon - South / FF only	7.35
412011100010009	St. Lucie	Indian River Lagoon - South / FF only	479.86
311632300010004	St. Lucie	Indian River Lagoon - South / FF only	48.19
410841100010002	St. Lucie	Indian River Lagoon - South / FF only	195.54
312911100010003	St. Lucie	Indian River Lagoon - South / FF only	262.04

MEMORANDUM

TO: Governing Board Members

FROM: Maricruz R. Fincher, Office of Counsel

DATE: March 9, 2023

SUBJECT: Policy Update

Agenda Item Background:

The South Florida Water Management District Governing Board adopts policies for the administration and operation of the agency. This agenda item provides changes to previously adopted Governing Board policy supporting efficient and effective agency operations related to delegated authority for legal proceedings.

Staff Contact and/or Presenter:

Maricruz R. Fincher, mfincher@sfwmd.gov, 561-682-6457

ATTACHMENTS:

[Resolution No. 2023-0304](#)

[Resolution Attachment A](#)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Resolution No. 2023 - 03XX

A Resolution of the Governing Board of the South Florida Water Management District approving changes to delegated authority for legal proceedings under District Policy; providing an effective date.

WHEREAS, the Policies and Procedures of the South Florida Water Management District (District) are codified and published by Municode and are readily accessible at https://library.municode.com/fl/south_florida_water_management_district/codes/administrative_policies; and

WHEREAS, the Policies and Procedures provide a valuable tool in the day-to-day administration of the District's affairs; and

WHEREAS, the proposed update to District Policy is attached as Attachment A.

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

Section 1: The Governing Board of the South Florida Water Management District hereby approves the changes to delegated authority for legal proceedings under District Policy as per Attachment A.

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

PASSED and **ADOPTED** this 9th day of March, 2023.

Sec. 101-43. Claims Settlement and Litigation.

- (a) *The Governing Board delegates to the Executive Director, with written concurrence of General Counsel or designate, the following:*
- (1) Authority to approve the settlement of any claims or lawsuits, except whistle-blower or discrimination claims, in the amount of \$250,000.00 or less.
 - (2) Authority to initiate any legal proceeding or claim in the following situations-in which:
 - i. where there exists an immediate and significant threat of: harm to ~~the~~ natural resource; danger to the public health, safety and welfare; or financial loss or liability. ~~Authority to initiate;~~
 - ii. any legal proceedings for a violation of chapter 373, Florida Statutes, including violations of District permits-; and
 - iii. where there exists a significant threat of: harm to a natural resource; danger to the public health, safety and welfare; or financial loss or liability. The matter shall be submitted to the Governing Board for concurrence at its next regularly scheduled meeting.
- (b) *The Governing Board delegates to the General Counsel or designate the authority to:*
Approve the settlement of any claims or lawsuits, except whistle-blower or discrimination claims, in the amount of \$75,000.00 or less.
- (c) *The Governing Board delegates to the Executive Director the authority to:*
Adjust and pay all claims covered by the District's Self-Insurance Programs in the amount of \$250,000.00 or less.
- (d) (1) Authority to approve settlement of any pre-suit or pending eminent domain action in the amount of \$150,000.00 or less for the valuation of the property taken.
- (2) For properties with an appraised value between \$150,000.00 and \$500,000.00, the authority to approve settlement of up to 30% above the appraised value of the property (based upon the most recent appraisal prepared at the District's request).
 - (3) For properties with an appraised value above \$500,000.00, the authority to approve settlement up to \$100,000.00 over the appraised value of the property (based upon the most recent appraisal prepared at the District's request).
 - (4) Authority to agree to pay the property owner's costs and attorney's fees in connection with any pre-suit or pending eminent domain action to the extent that Florida Statutes authorize such fees and costs.

(R.M. No. 216; Res. No. 2012-306, § 1(Exh. A), 3-15-2012; Res. No. 2021-1208 , Att. A, 12-9-2021)

M E M O R A N D U M

TO: Governing Board Members

FROM: Mark Cook, Ph.D., Water Resources Division

DATE: March 9, 2023

SUBJECT: Summary of the 2021 South Florida Wading Bird Report

Agenda Item Background:

The annual South Florida Wading Bird Report is a multi-agency collaboration that is edited and produced by the District. It is now in its 27th year of production. It serves as a repository for wading bird nesting data from across South Florida, continues to be an essential resource for guiding Everglades restoration and weekly operational decisions, and is an effective tool for communicating restoration information to the public. Staff will update the Governing Board with data from the soon to be released 2021 annual report, which details the second largest nesting event since the 1940's; will summarize the nesting year; reveal why it was so successful; and discuss its significance in terms of Everglades restoration and water management.

Staff Contact and/or Presenter:

Dr. Mark Cook, mcook@sfwmd.gov, 561-682-6686

ATTACHMENTS:

M E M O R A N D U M

TO: Governing Board Members
FROM: , Water Resources Division
DATE: March 9, 2023
SUBJECT: Final Presentations for Agenda item 19, 20, and 21.

Agenda Item Background:

Staff Contact and/or Presenter:

ATTACHMENTS:

[19 Mitnik Water Conditions Report](#)

[20 Glenn Ecological Conditions Report](#)

[21 Cook Wading Bird Report](#)

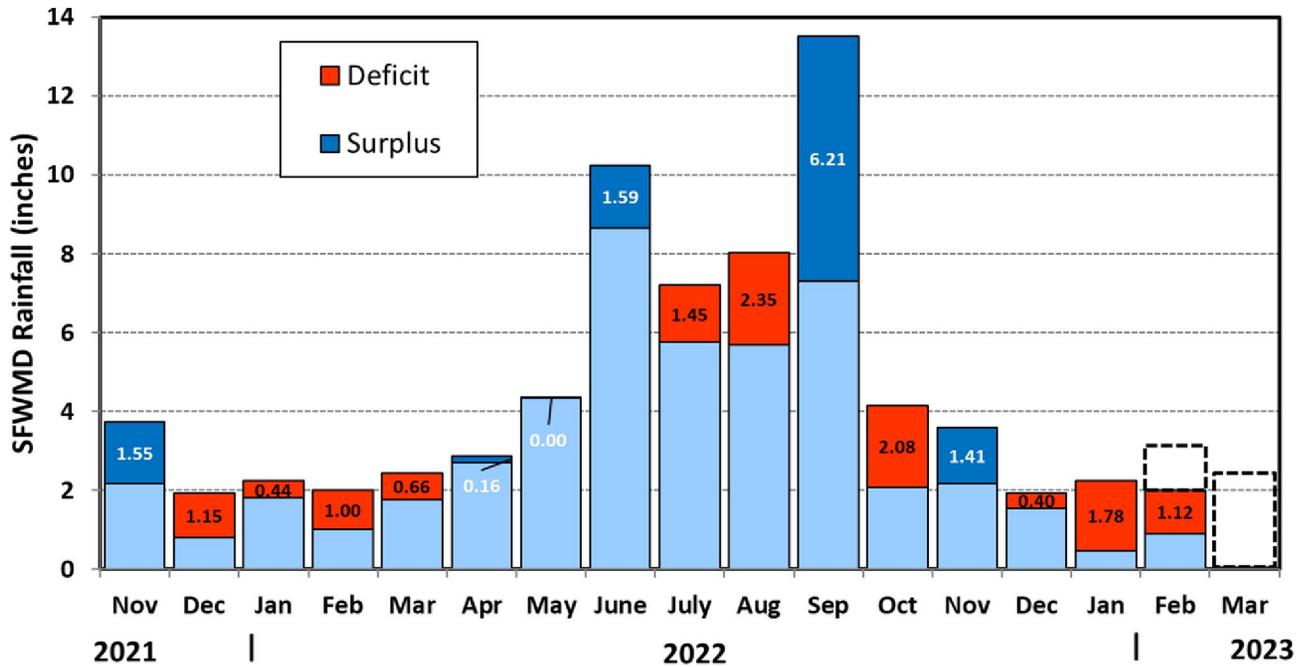
Water Conditions Summary

**South Florida Water Management District
Governing Board Meeting
March 9, 2023**



John P. Mitnik, PE
Chief District Engineer
Assistant Executive Director

SFWMD Rainfall Distribution Comparison (November 2021- February 2023)



District Wide Average Rainfall

Month	Average (inches)
Jan	2.24
Feb	2.01
Mar	2.43
Apr	2.71
May	4.37
Jun	8.65
Jul	7.20
Aug	8.03
Sep	7.31
Oct	4.15
Nov	2.18
Dec	1.94

Wet Season

2021-2022 DRY SEASON

- Started 10/18/2021 and ended 5/12/2022.
- Dec 2021 to Mar 2022 all below average.
- April ended up slightly above average (106%).
- May was about average.

2022 WET SEASON

- Started 5/13/2022 – Ended 9/28/2022
- May ~ 100%, Jun ~ 120%, Jul ~ 80%, Aug ~ 65%
- Sep 2022 total 13.52", 191% of Normal
- Sep 26-29, Hurricane Ian ~ 5.3"

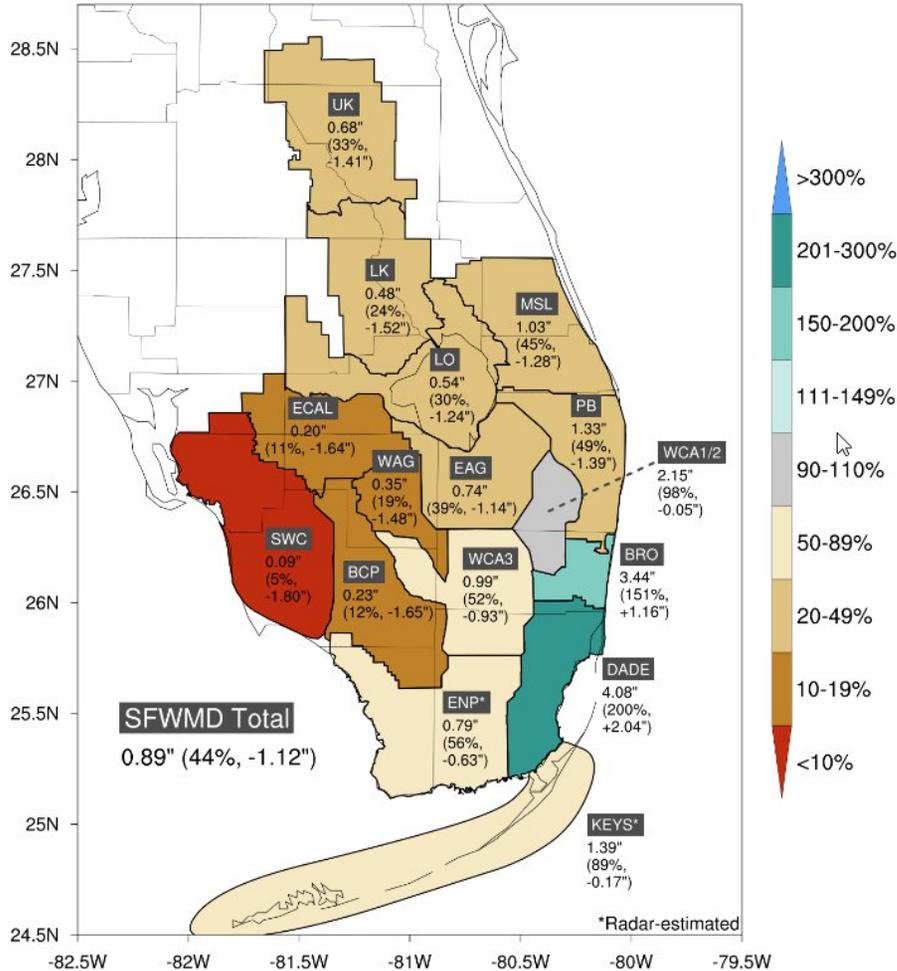
2022-2023 DRY SEASON

- Started 9/29/2022.
- October was below Normal; November above Normal; December below Normal.
- January and February were much below Normal.

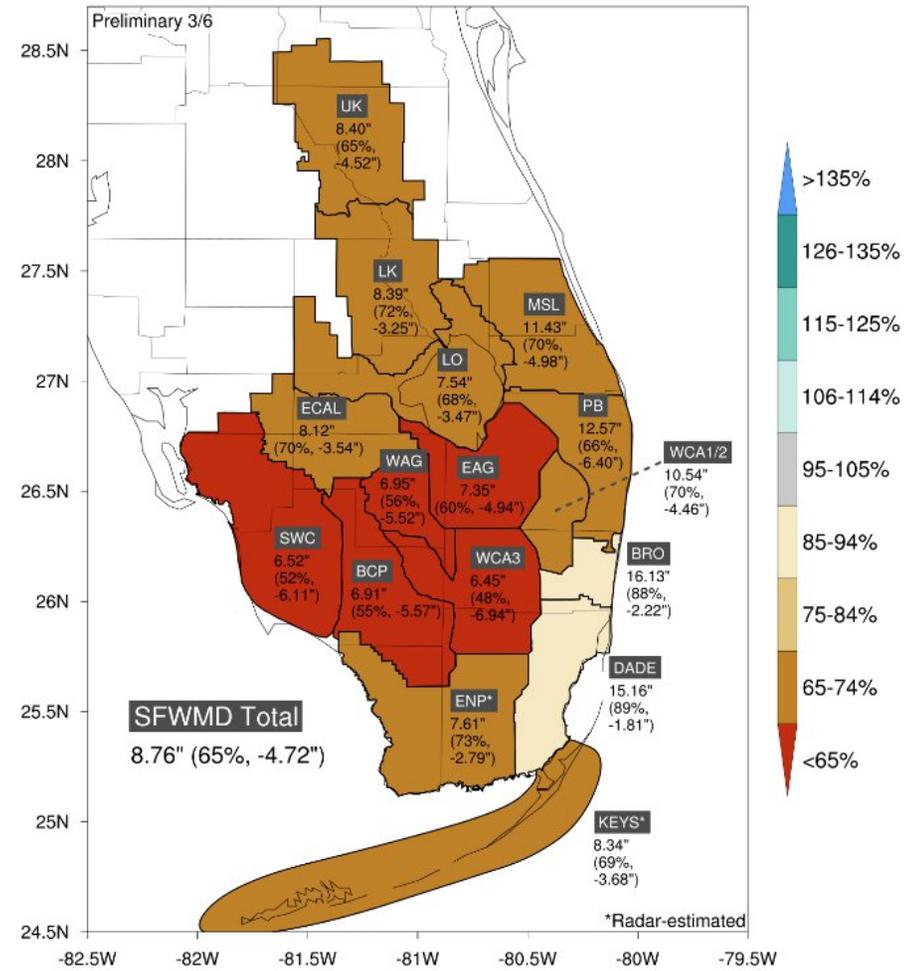
2 Presenter: John Mitnik

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

February 2023
 Rainfall, Percent of Normal, and Departures



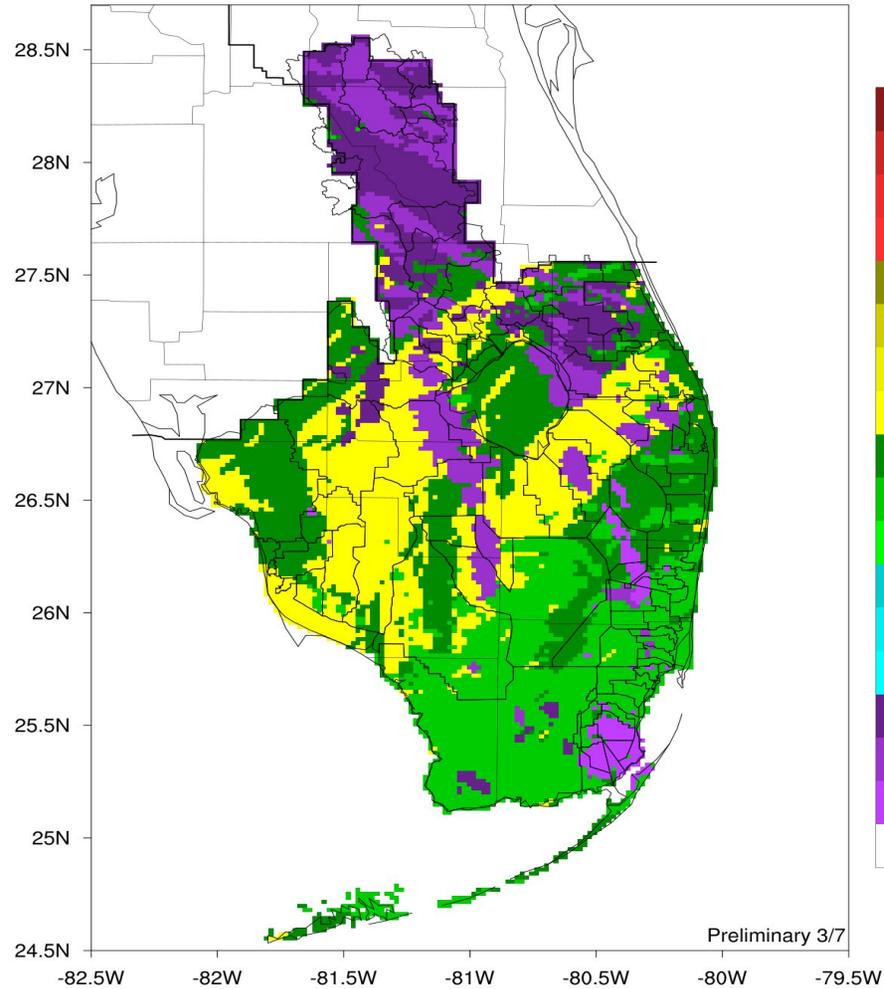
2022-2023 Dynamic Dry Season (9/29/22 to 3/6/23)
 Rainfall, Percent of Normal, and Departures



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

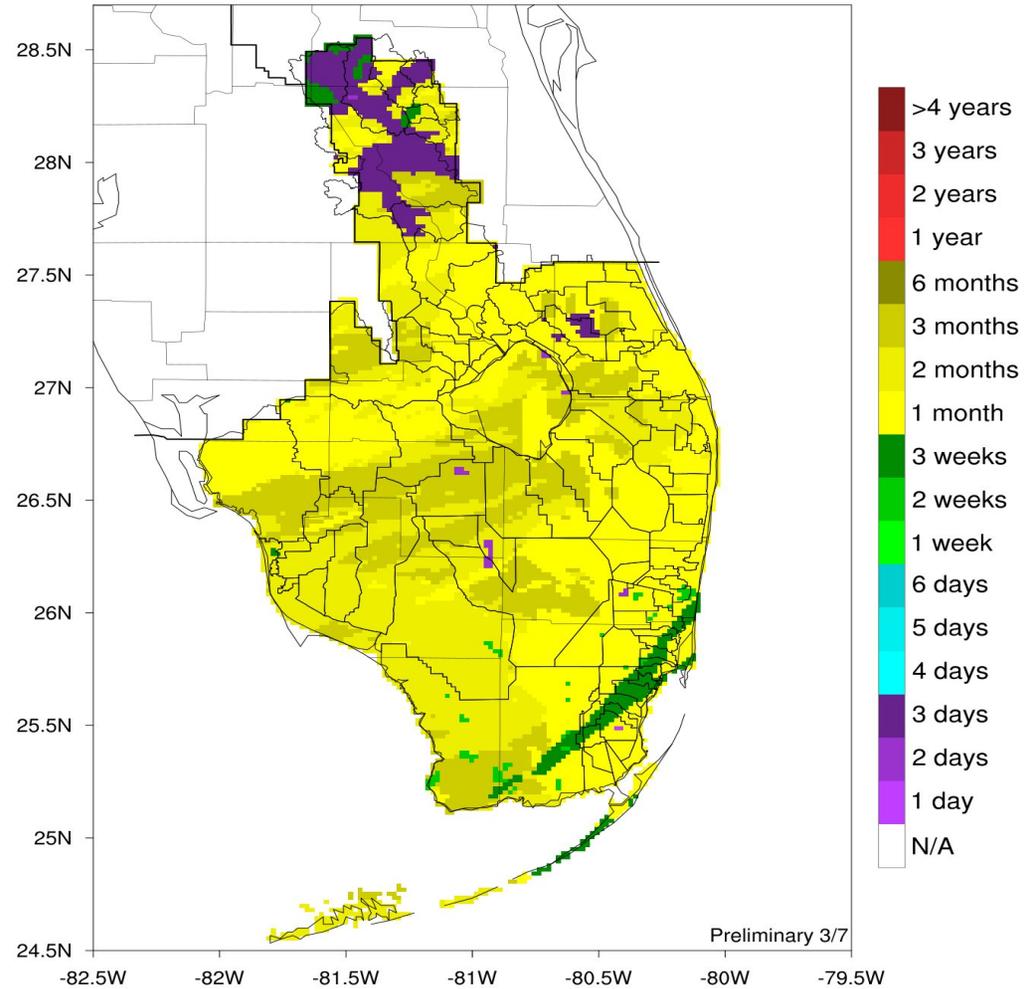
Most Recent $\geq 0.01''$ Day
Ending 7am EST 3/8/2023

SFWMD/GARR



Most Recent $\geq 0.5''$ Day
Ending 7am EST 3/8/2023

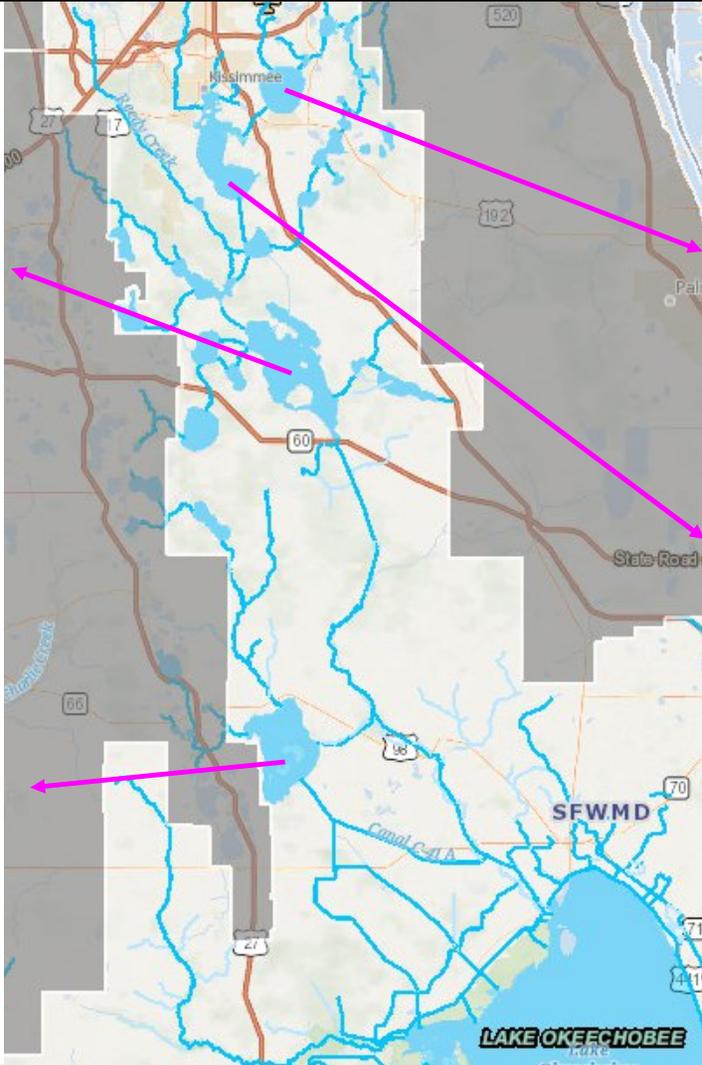
SFWMD/GARR



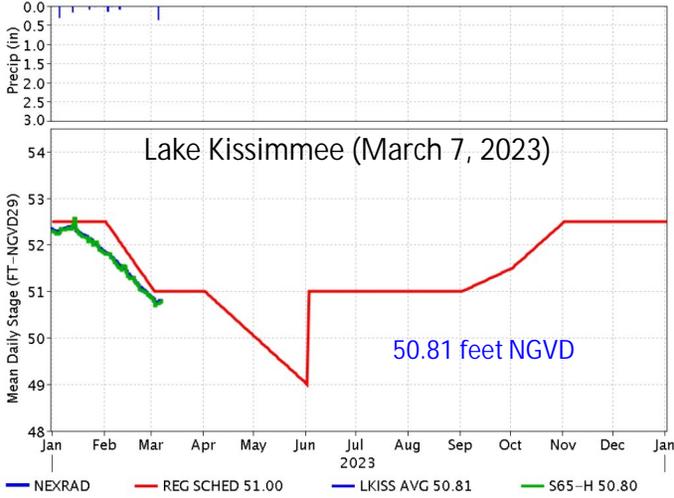
4 Presenter: John Mitnik



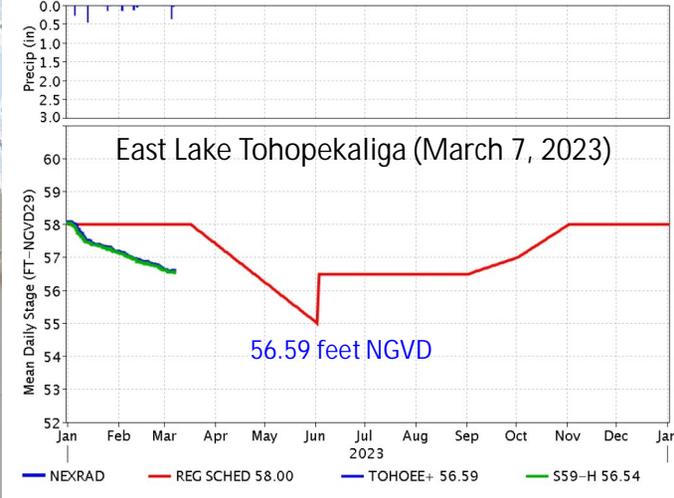
SOUTH FLORIDA WATER MANAGEMENT DISTRICT



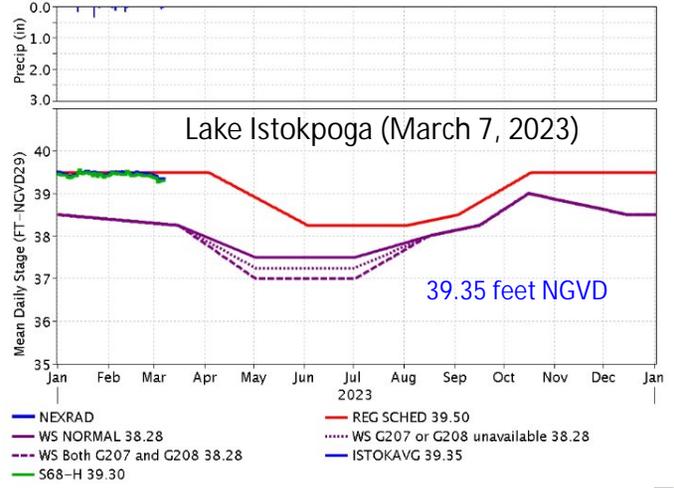
Lake Kissimmee (7 March 2023)



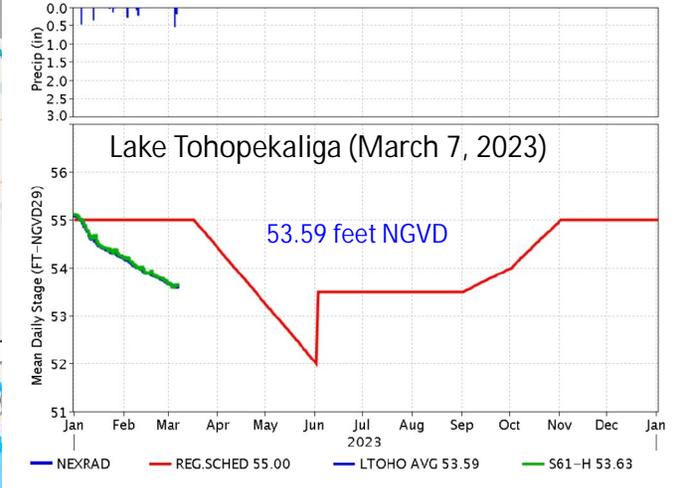
Lake East Tohopekaliga (7 March 2023)



Lake Istokpoga (7 March 2023)



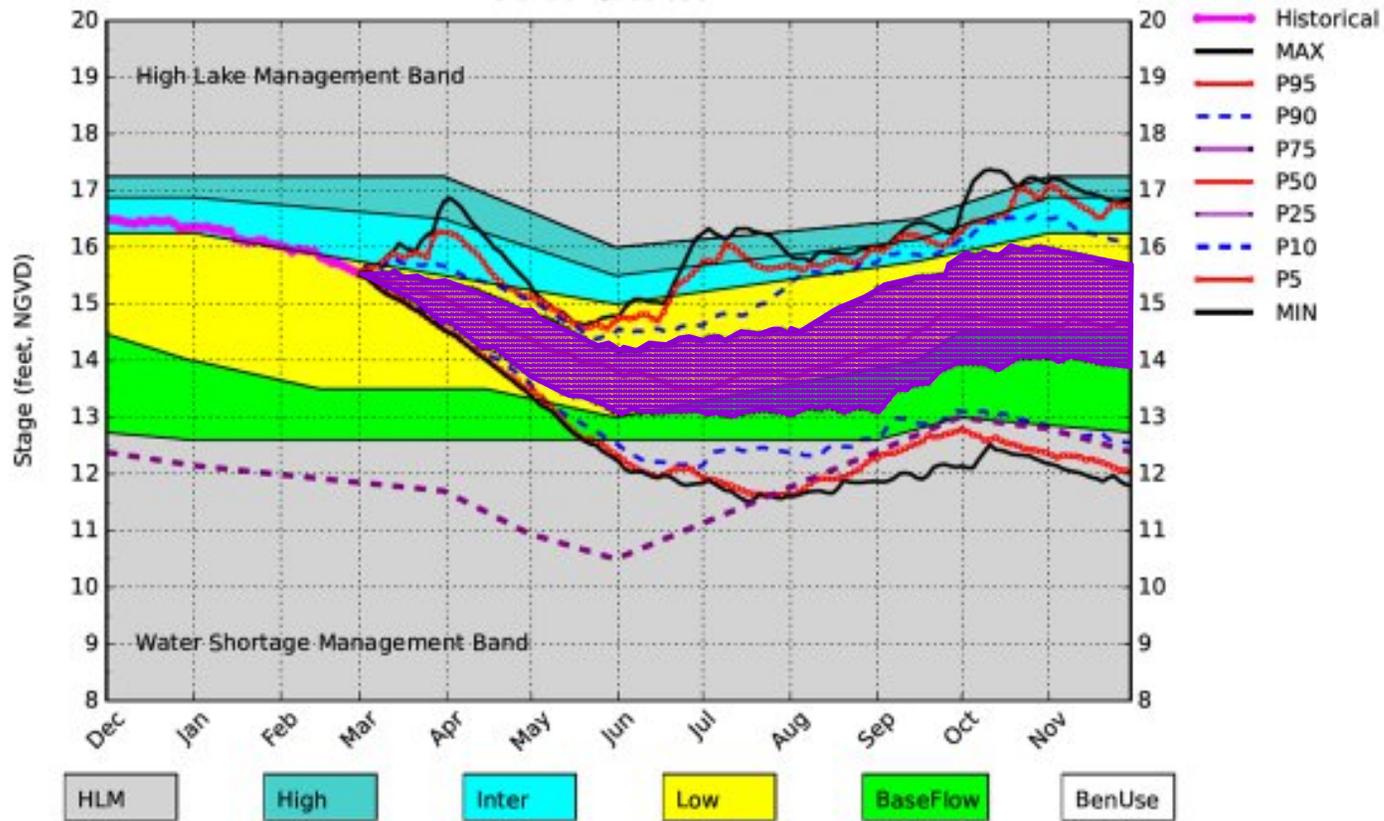
Lake Tohopekaliga (7 March 2023)



5 Presenter: John Mitnik

Lake Okeechobee SFWMM March 2023 Position Analysis

Percentiles PA



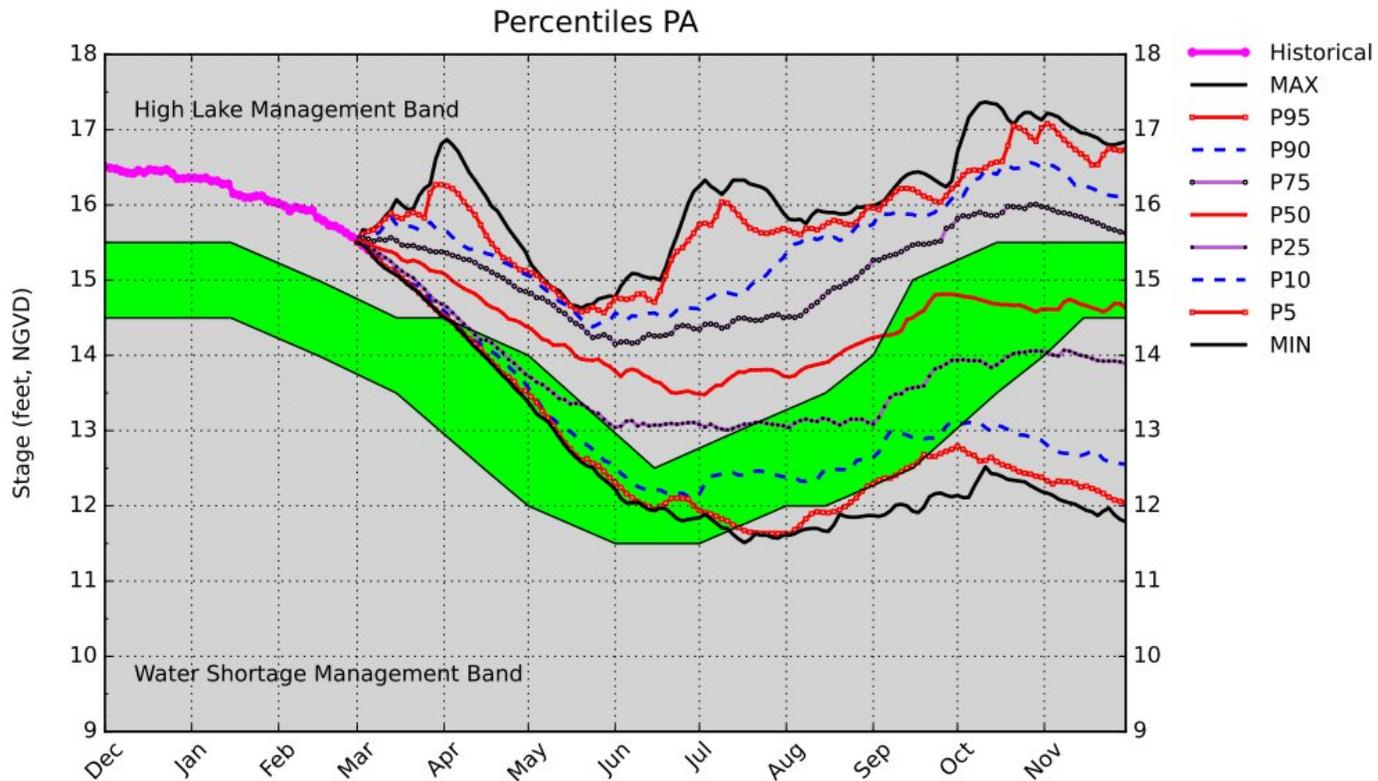
50% chance stage falls in purple-shaded region

(See assumptions on the Position Analysis Results website)

03/06/23 14:58:42

6 Presenter: John Mitnik

Lake Okeechobee SFWMM March 2023 Position Analysis



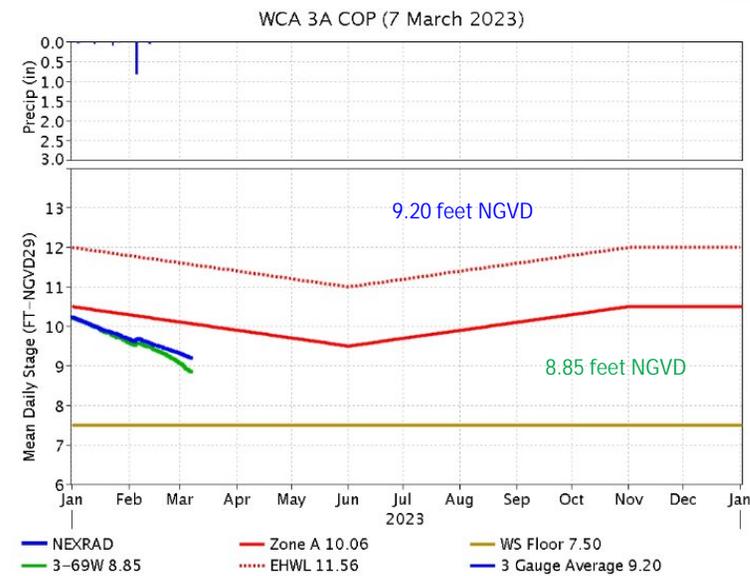
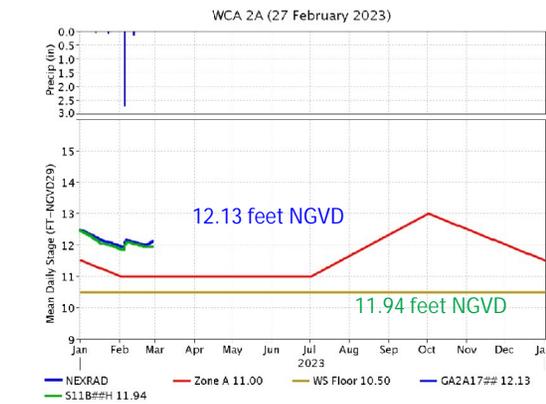
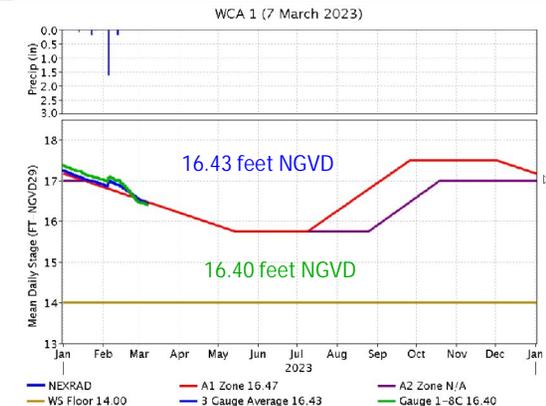
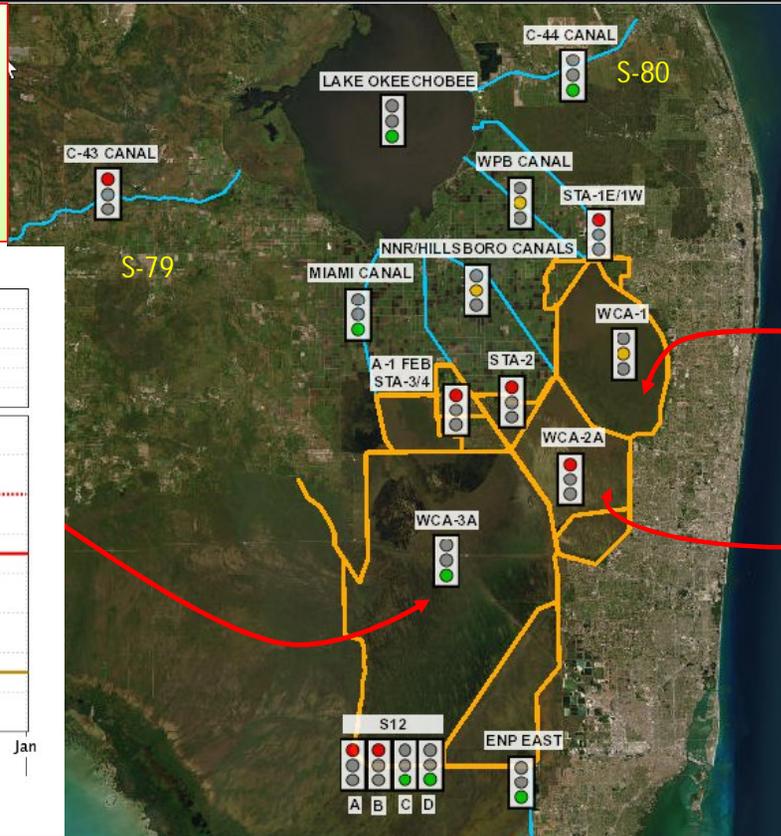
(See assumptions on the Position Analysis Results website)

03/08/23 08:29:05

7 Presenter: John Mitnik

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Lake Okeechobee stage is in the Low Sub-band of the LORS-2008 Regulation schedule. LORS release guidance suggests up to Maximum Practicable to the WCAs if desirable or with minimum Everglades impact; otherwise no releases to WCAs, and S-79 up to 3,000 cfs and S-80 up to 1,170 cfs. The USACE is currently implementing their dry-season strategy using the volume of banked water at beneficial levels.



For this week, the Tamiami Trail Flow Formula calls for 867 cfs releases from WCA-3A to NESRS. Current L-29 stage constraint is at 8.3 feet NGVD. South Dade Conveyance System is stable. S-356 is pumping to maintain canal stages in the L-31N within 5.5-5.8 ft NGVD. S-332BN, S-332C and S-332D are pumping as needed and so are S-200 and S-199. S-18C is open and S-197 is closed. S-331 was syphoning but now is pumping due to the weekend rainfall in South Miami-Dade. LPG-2 stage at 8.5 SMA went above ground during the weekend but has already receded back below ground. S-357 is pumping as needed to maintain stages 5.0 to 5.5 ft NGVD in the C-357 canal.

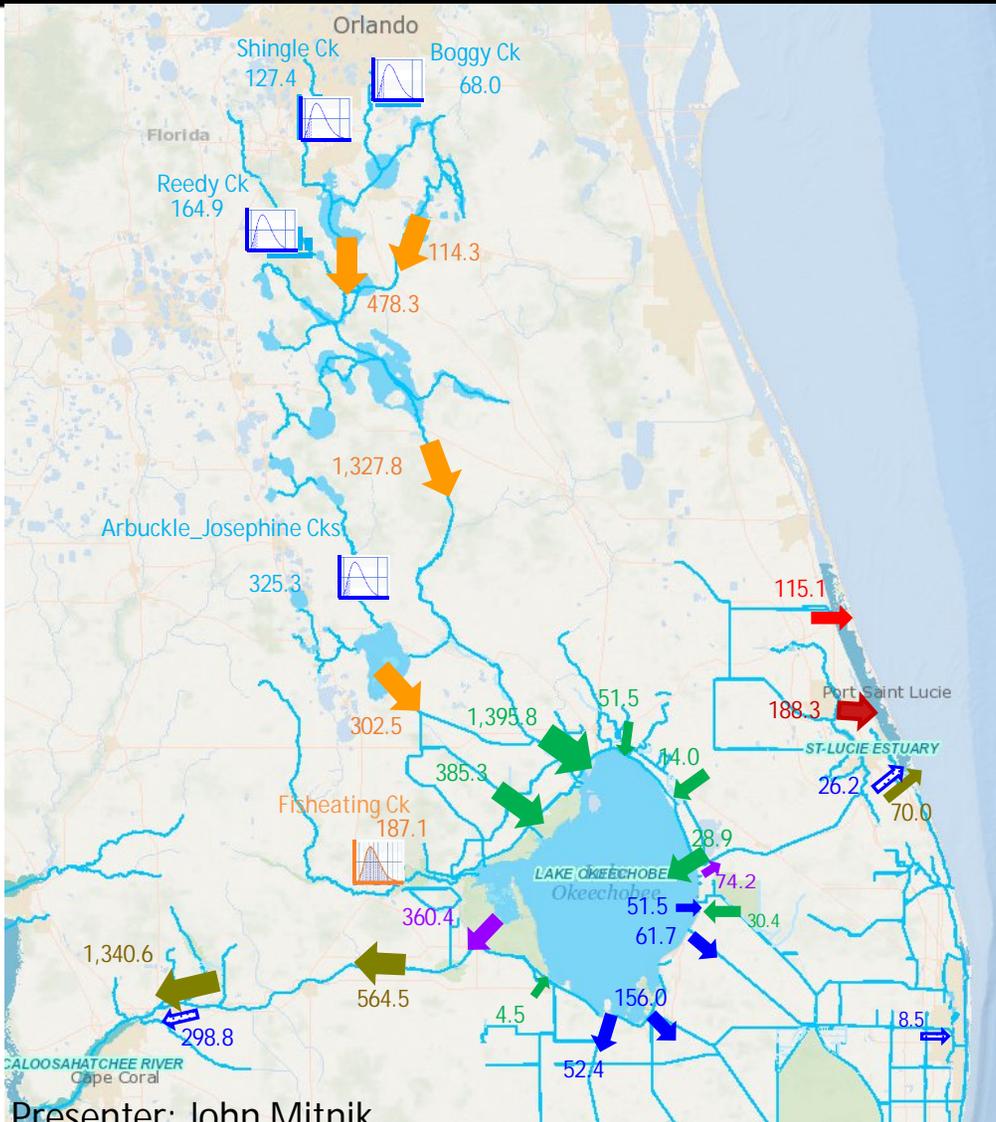
WCA-1 stage is below regulation schedule in Zone B; WCA-2A stage is above regulation schedule; WCA-3A stage is below regulation schedule in Zone B. S-10C is closed. S-11s are closed. S-12A and S-12 B are closed. S-144, S-145 and S-146 were open for about 30 days starting Dec. 20, 2022. S12 C and S-12D are open passing ~ 300 cfs. S-333 and S-333N ~ 700 cfs. S-343 A and B are closed, and so is S-344. Moving water from WCA-2A to WCA-3A via S-7 spillway (north) and then S-150 south. Water Supply to Broward County through S-38 is ~ 150 cfs.

8 Presenter: John Mitnik

System considerations for sending water south for the period 02/27/2023 to 03/05/2023



SOUTH FLORIDA WATER MANAGEMENT DISTRICT



SFWMD – Selected Release Volumes for the Period May 1, 2022 to March 7, 2023 (volumes in 1,000 acre-feet)

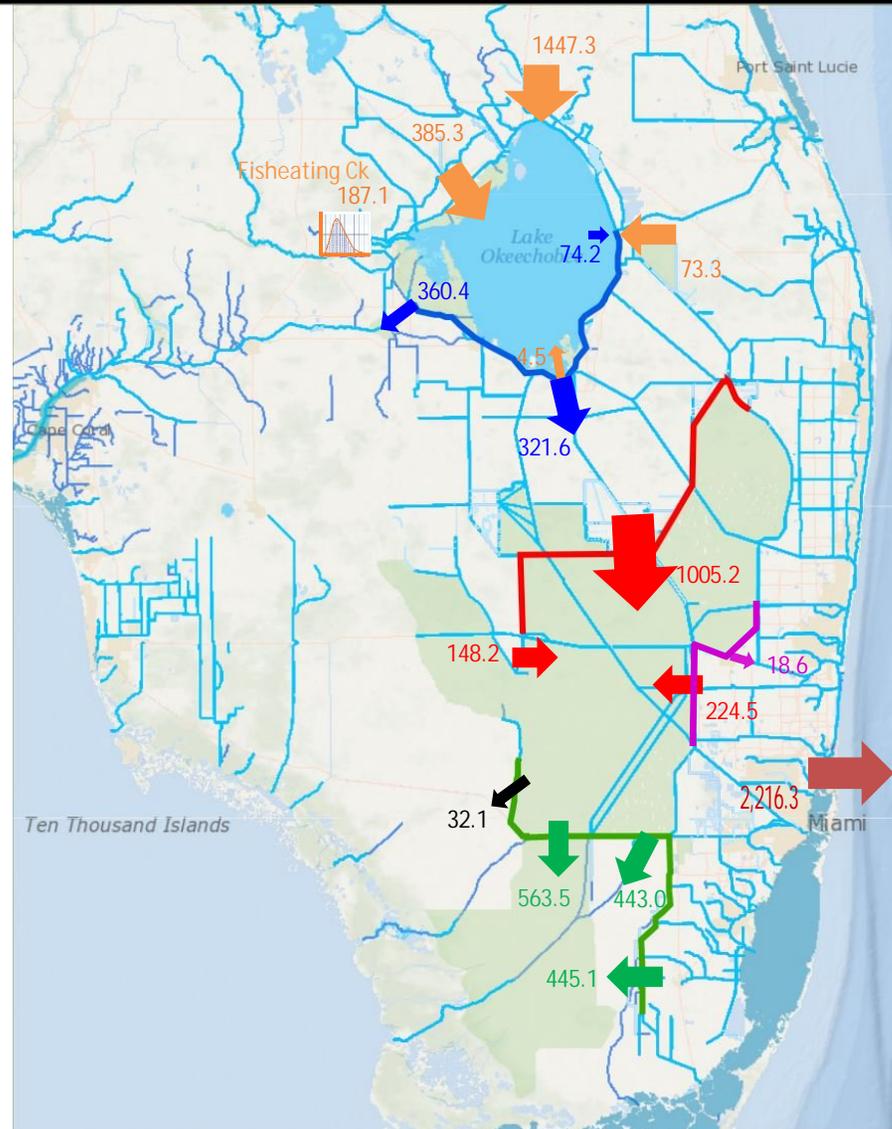
Symbol	Description	Volume (1,000 acre- feet)	
		WYR to Date	Last Month
	Upper Kissimmee to Lower Kissimmee	1,327.8	71.4
	Inflows to Lake Okeechobee (including Fisheating Creek)	2,097.5	78.8
	Lake Releases and Basin Runoff	1,410.6	140.8
	Lake Releases East and West	434.6	124.7
	Lake Flood Control to Estuaries	325.0	99.1
	Total Lake Releases South	321.6	89.4
	Releases to Indian River Lagoon	115.1	0.5
	Upper East Coast discharges to St. Lucie Estuary	188.3	0.7
	Uncontrolled flows - Creeks (does not include Fisheating Creek)	685.7	18.1

1,000 acre-feet = 325.9 Million Gallons

Presenter: John Mitnik



SFWMD –Volumes Flowing Down the System for the Period May 1, 2022 to March 7, 2023 (volumes in 1,000 acre-feet)



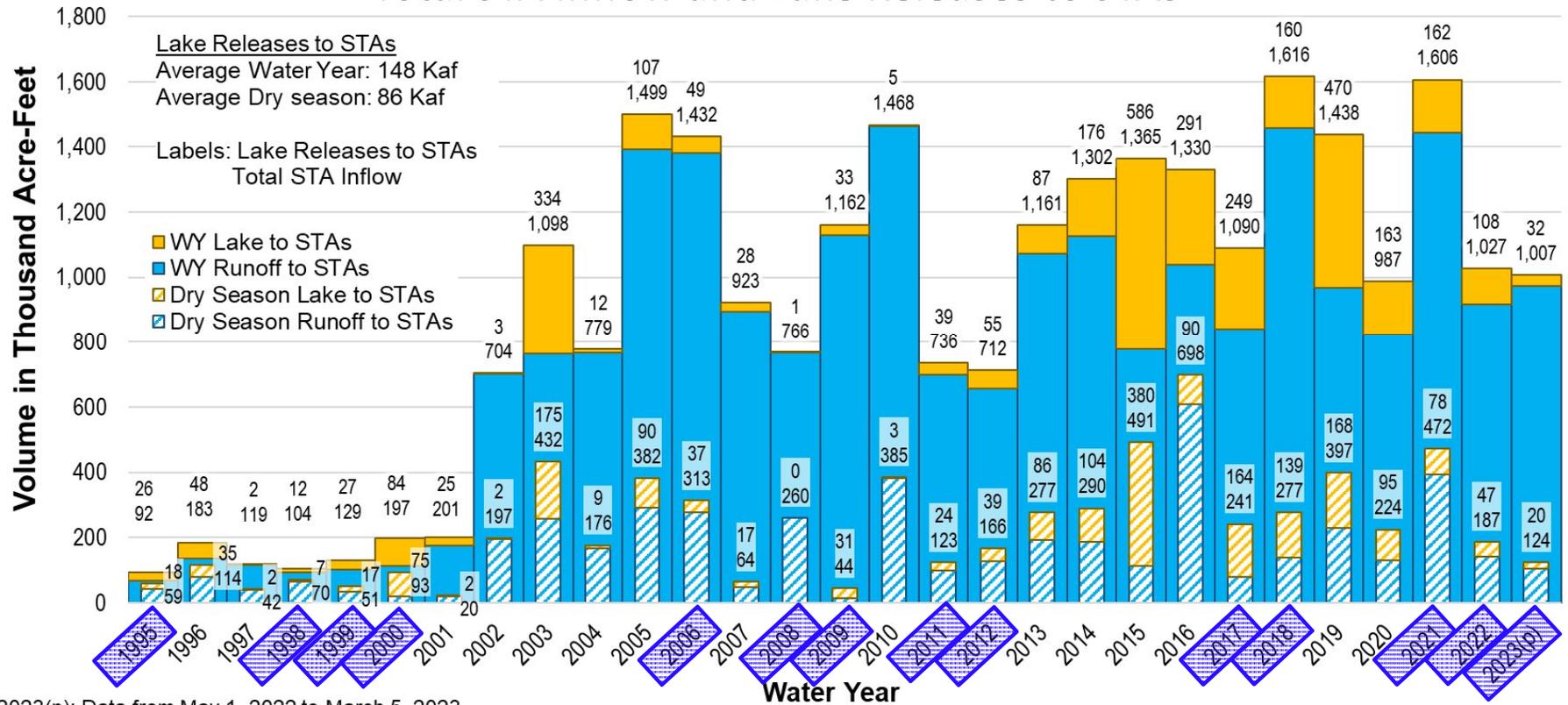
sfwmd.gov

Symbol	Description	Volume (1,000 acre- feet)	
		WYR 2022	Last Month
	Lake Okeechobee Inflows	2097.5	78.8
	Lake Okeechobee Outflows	756.2	214.1
	WCAs Inflows	1377.9	27.1
	ENP / Detention Cell Inflows	1451.6	114.0
	WCAs to East	18.6	6.8
	Flows to Intracoastal	2216.3	123.7

1,000 acre-feet = 325.9 Million Gallons

10 Presenter: John Mitnik

Total STA Inflow and Lake Releases to STAs



2023(p): Data from May 1, 2022 to March 5, 2023.

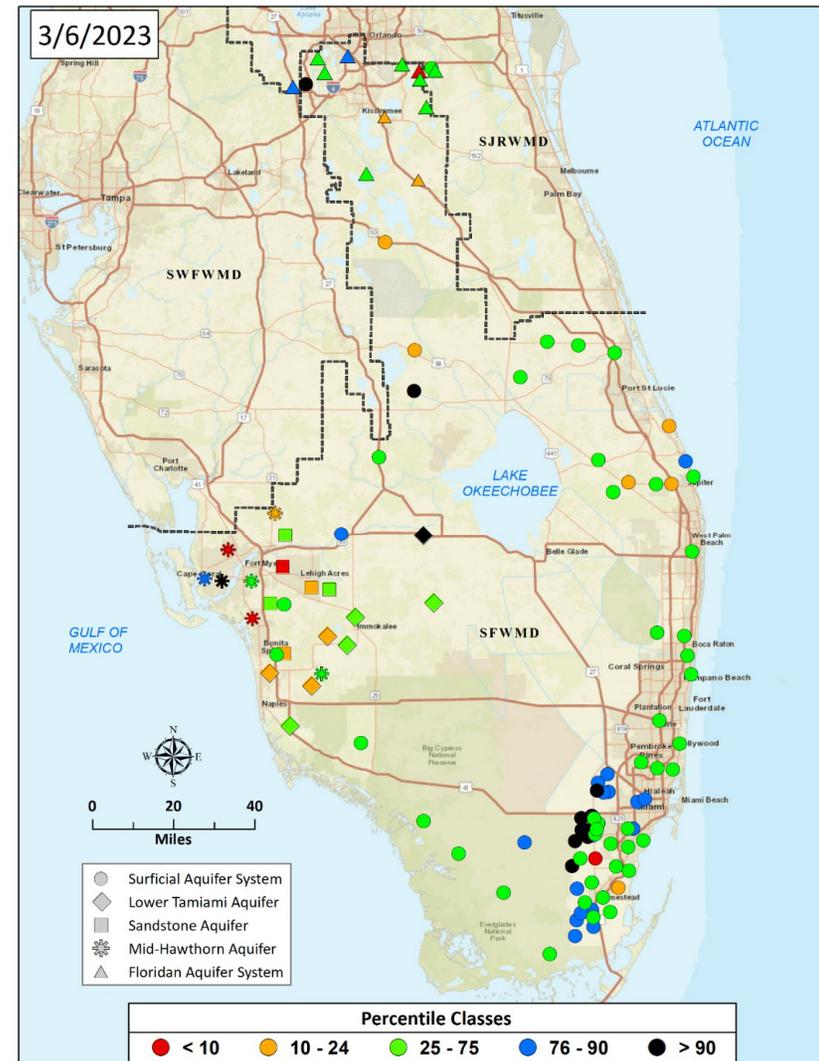
La Niña Water Years

Status of Groundwater Conditions

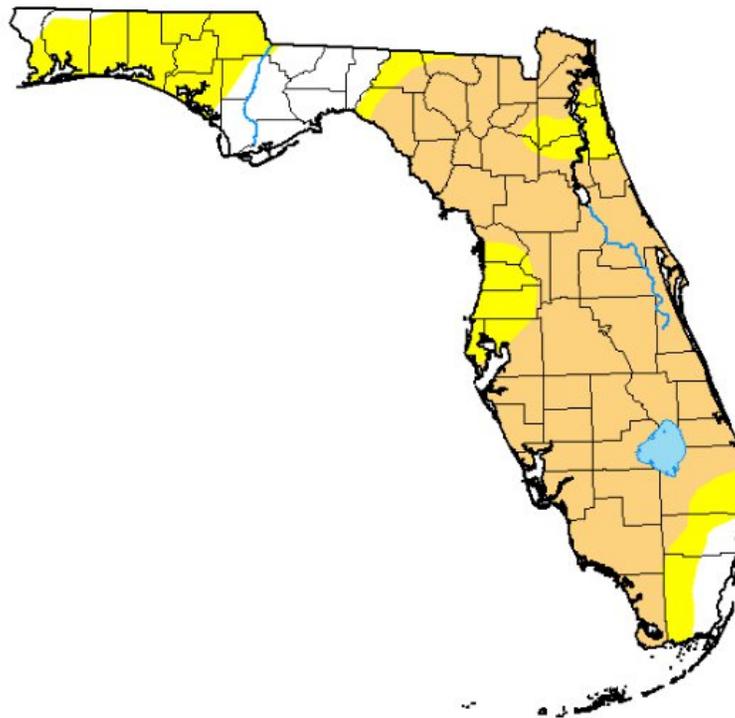
- About 75 percent of the Floridan aquifer wells in the upper Kissimmee Basin are in the median and upper percentile ranges. Two-thirds of the surficial aquifer wells in the Lower Kissimmee are in the median and upper percentile ranges for this time of year.
- Upper East Coast groundwater levels and surface water levels decreased during the last week. About 80 percent of the UEC wells are at median and higher levels for this time of year.
- About 90 percent of the surface and groundwater stations in the Lower East Coast recorded decreasing trends over the past seven days. About 80 percent of the LEC surficial aquifer system stations are in the median and upper percentile ranges for this time of year.
- Groundwater levels decreased in all the Lower West Coast (LWC) stations over the last week. All the Surficial aquifer system wells are in the median and upper percentile ranges for this time of year. About 40 percent of the Lower Tamiami aquifer wells, about 60 percent of the Sandstone aquifer wells, and about 40 percent of the Mid-Hawthorn aquifer wells are in the lower percentile ranges for this time of the year.

The map to the right shows a statistical comparison between current groundwater levels and long term monthly average groundwater levels:

- Each colored symbol represents a monitoring well that continuously records groundwater levels.
- Color coding represents a statistical comparison of current water levels to long-term monthly historical water levels for this time of the year. The percentile rankings are based on monthly long-term groundwater level averages. The red symbols represents water levels that are in the lowest 10th percentile range, orange 10th to 24th percentile range, green the median range, blue is the 76th to 90th percentile range and black shows those stations about the 90th percentile range.



U.S. Drought Monitor
Florida



February 28, 2023
(Released Thursday, Mar. 2, 2023)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	12.04	87.96	64.54	0.00	0.00	0.00
Last Week <small>02-21-2023</small>	19.72	80.28	29.51	0.00	0.00	0.00
3 Months Ago <small>11-29-2022</small>	68.17	31.83	29.86	21.82	0.00	0.00
Start of Calendar Year <small>01-03-2023</small>	56.61	43.39	30.80	19.77	0.00	0.00
Start of Water Year <small>09-27-2022</small>	91.16	8.84	0.00	0.00	0.00	0.00
One Year Ago <small>03-01-2022</small>	15.16	84.84	32.94	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

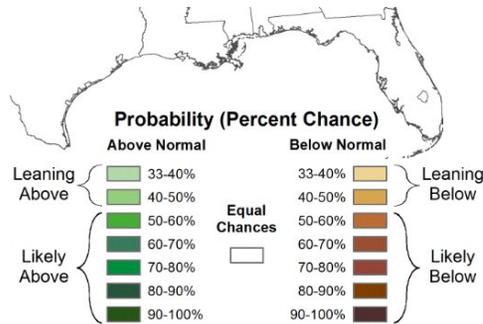
Author:

Richard Heim
NCEI/NOAA

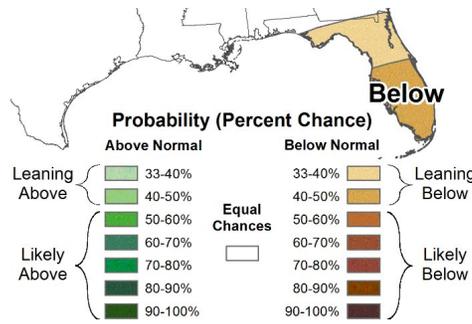


droughtmonitor.unl.edu

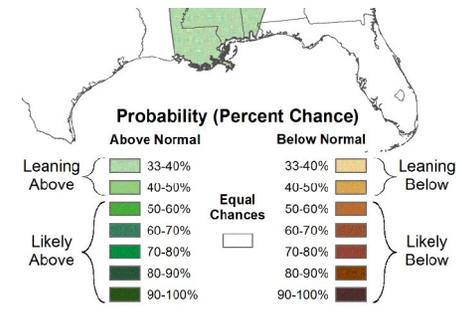
CPC Precipitation Outlook for South Florida



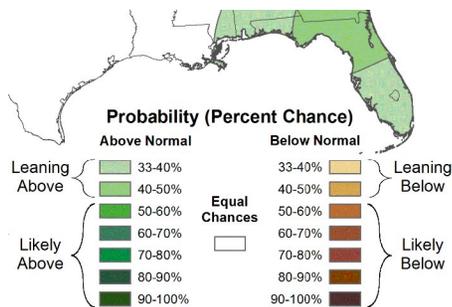
Mar 2023



Mar 2023 – May 2023



Jun 2023 – Aug 2023



Nov 2023 – Jan 2024

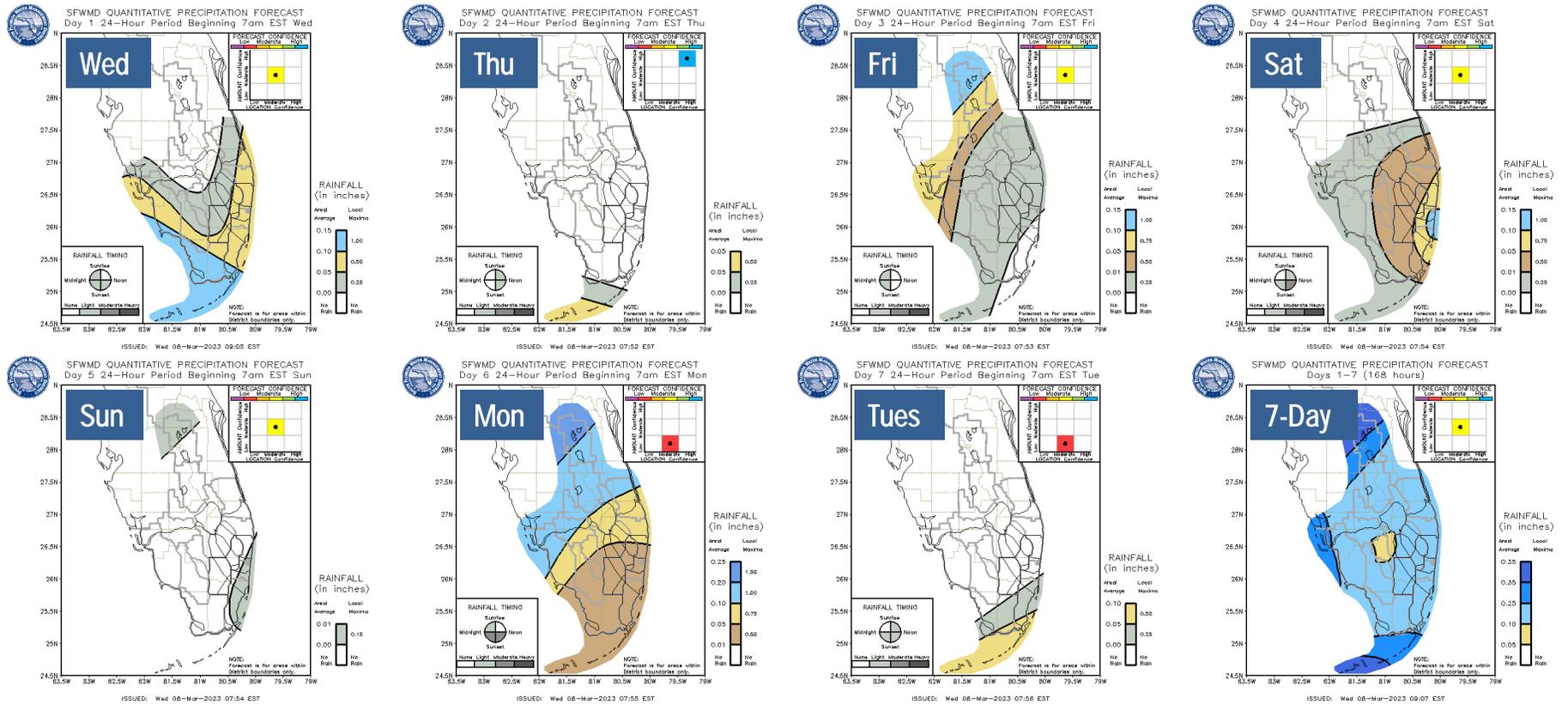
- The most recent CPC precipitation outlook for South Florida for March 2023 indicates equal chances of below, normal and above normal rainfall for Florida.
- The 3-month window of Mar – May indicates increased chances of below normal rainfall for the southern half of the Florida peninsula.
- All the 3-month windows from Mar– May to the end of 2024 Wet Season show equal chances of below, normal and above normal rainfall.
- The precipitation outlooks for the first half of the 2023-2024 Dry Season indicate slightly increased chances of above normal rainfall.

Updated February 28, 2023

<https://www.cpc.ncep.noaa.gov/products/predictions/30day/>



Short-, Medium-, & Extended-Range Outlooks



Weekly Summary of Total SFWMD rainfall

Week 1 (Historical Avg: 0.52"): Below to near normal
 Week 2 (Historical Avg: 0.63"): Above normal



Ecological Conditions Update

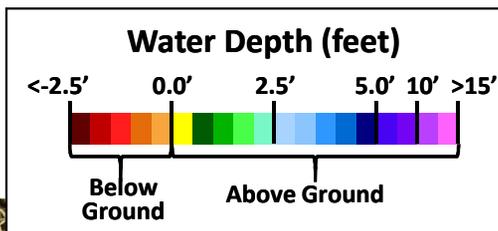
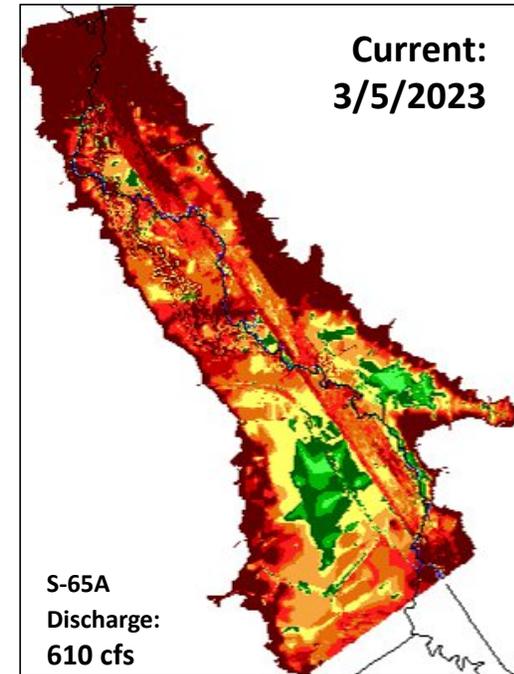
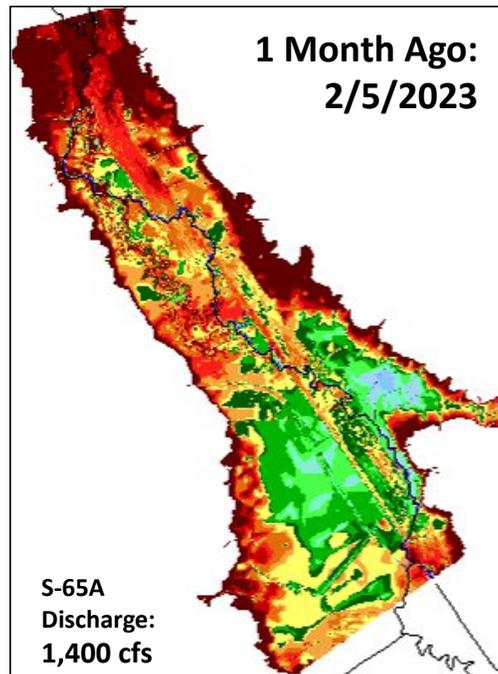
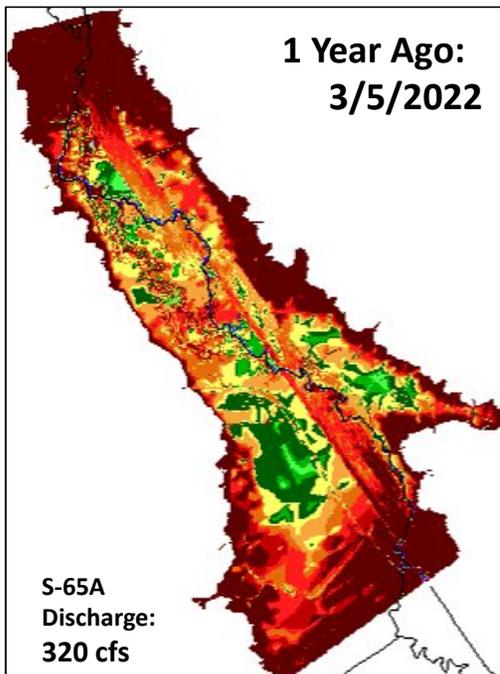
**Governing Board Meeting
March 9, 2023**



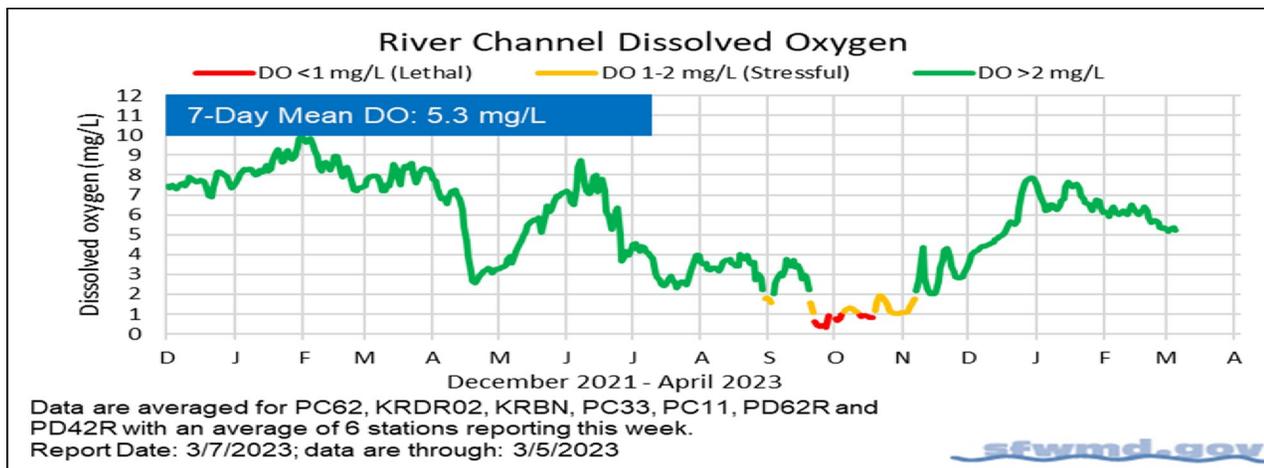
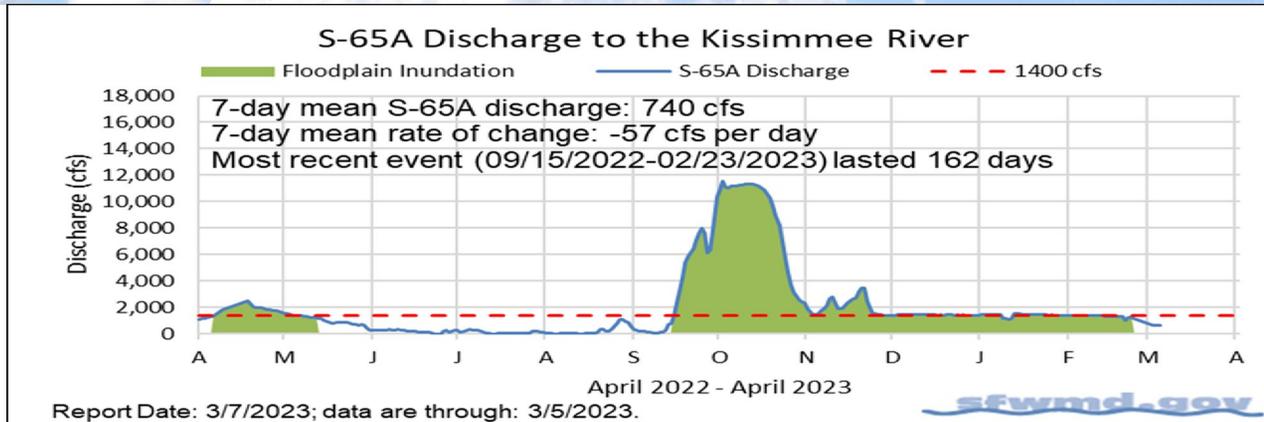
**Lawrence Glenn
Division Director
Water Resources**

Southwest shore, Lake Okeechobee
Photograph courtesy of SFWMD Staff

Kissimmee River (Phase I) Floodplain Water Depth Maps

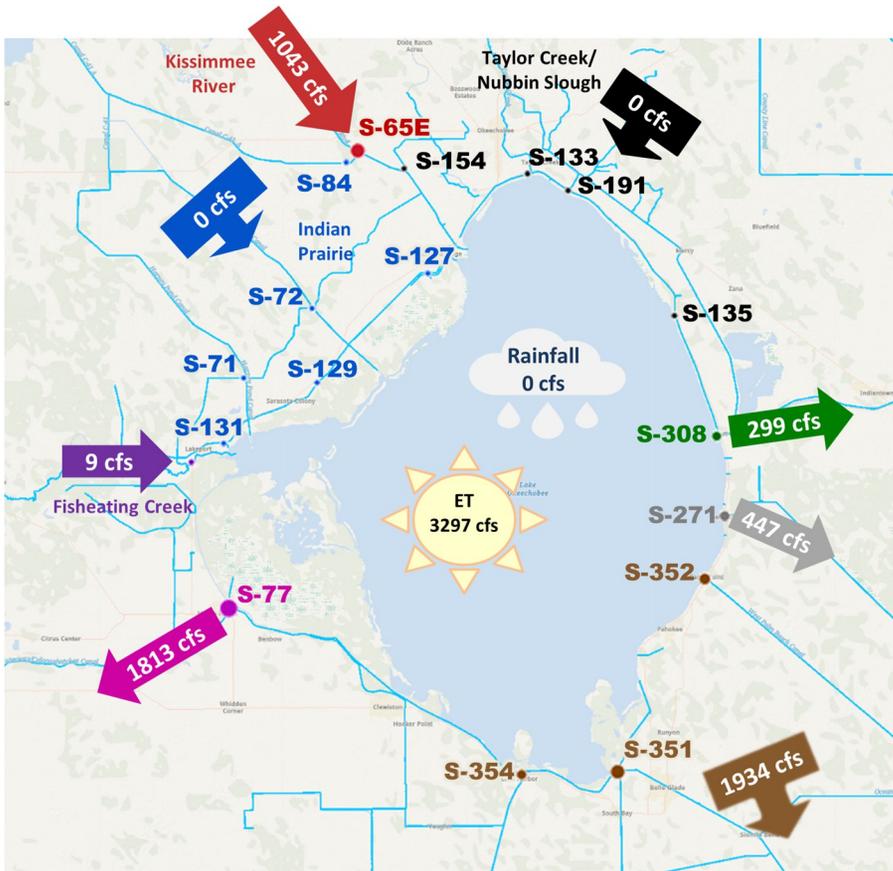


Kissimmee River Discharge and Dissolved Oxygen

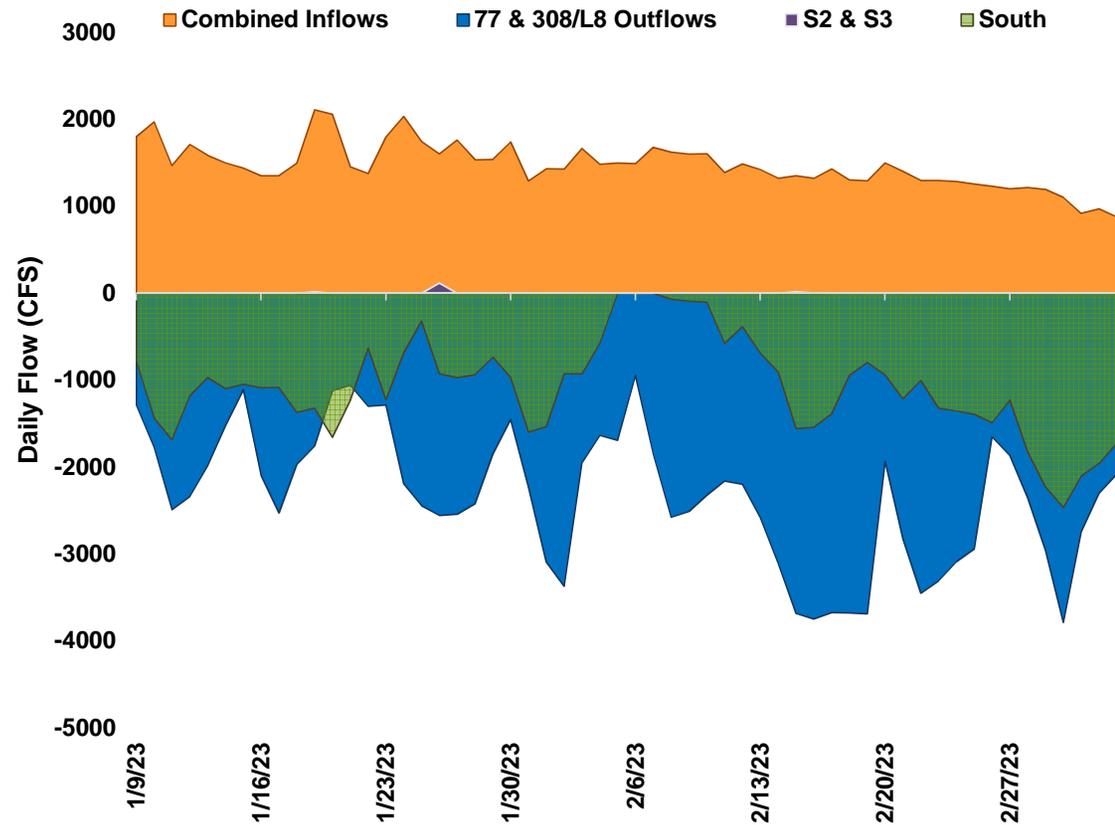


Lake Okeechobee Hydrology (Provisional Data)

Feb 27 – Mar 05, 2023 Inflows and Outflows

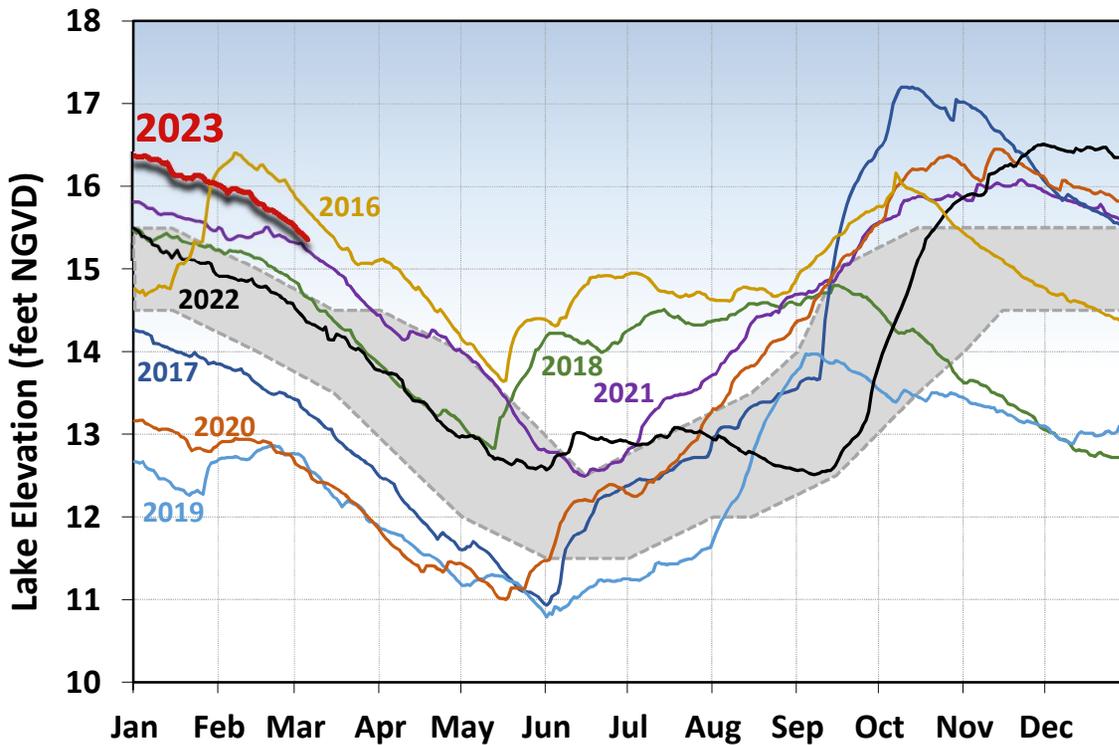


Prior 8 Weeks Inflows and Outflows

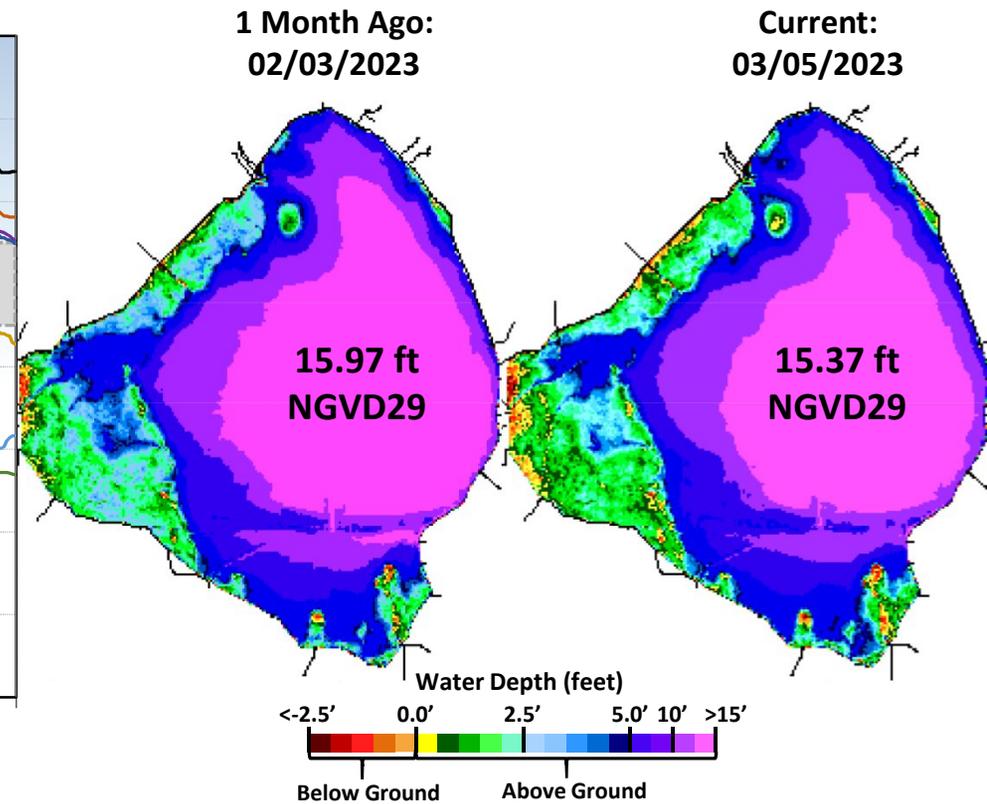


Ecological Envelope and Water Depths

Lake Okeechobee Stage vs Ecological Envelope



Changes in Water Depth



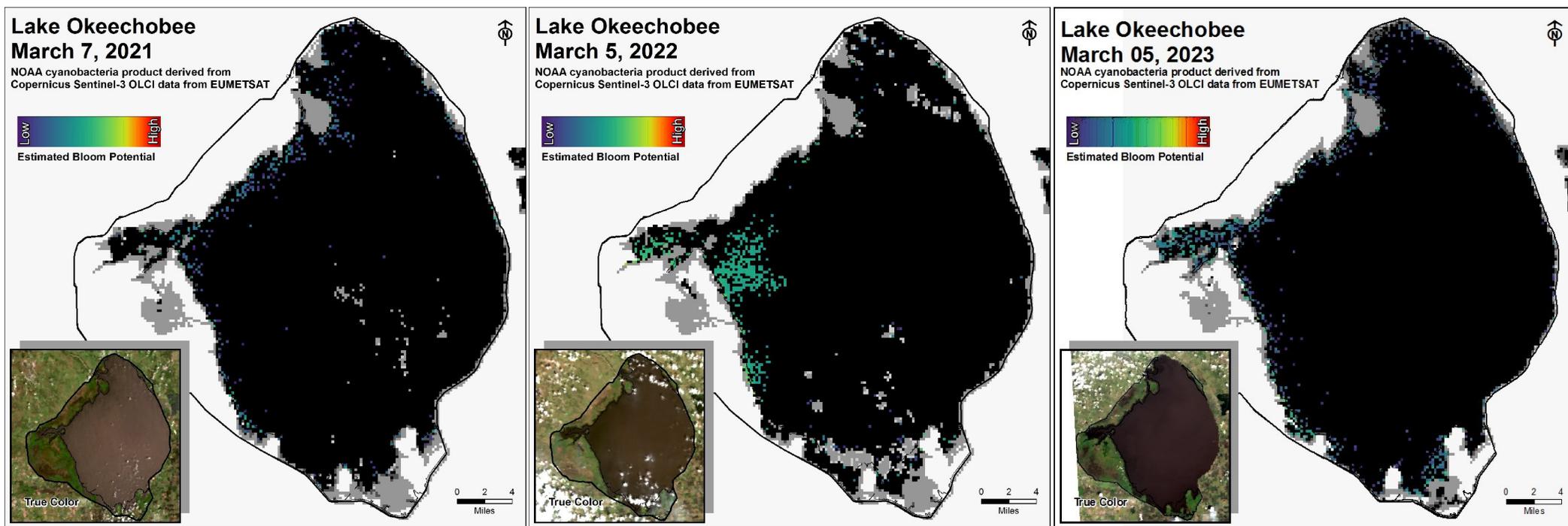
Presenter: Lawrence Glenn

Lake Okeechobee Cyanobacteria Bloom Potential

2021

2022

2023



NOAA cyanobacteria product derived from Copernicus Sentinel-3 OCLI data from EUMETSAT

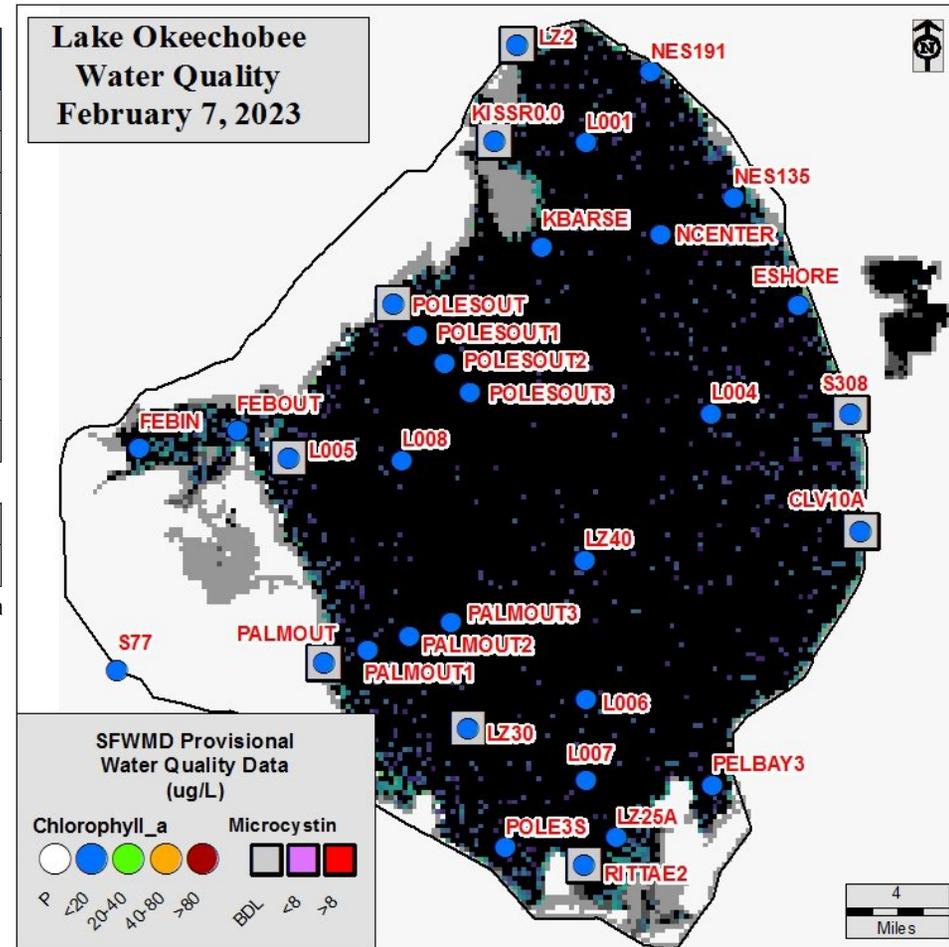
Lake Okeechobee Recent Water Quality (Provisional Data)

Collection Date: February 6-8, 2023

Station	CHLa (ug/L)	TOXIN (ug/L)	TAXA	Station	CHLa (ug/L)	TOXIN (ug/L)	TAXA
FEBIN	15.2			L001	5.2		
FEBOUT	7.8			L004	5.9		
KISSR0.0	6.4	BDL	mixed	L006	8.5		
L005	6.6	BDL	mixed	L007	6.8		
LZ2	4.6	BDL	Microcys	L008	5.7		
KBARSE	5.5			LZ30	9.4	BDL	mixed
RITTAE2	16.4	BDL	mixed	LZ40	10.8		
PELBAY3	6.0			CLV10A	7.5	BDL	mixed
POLE3S	8.4			NCENTER	5.0		
LZ25A	7.3						
PALMOUT	9.9	BDL	mixed	S308C	13.3	BDL	mixed
PALMOUT1	11.4			S77	4.4		
PALMOUT2	9.0						
PALMOUT3	12.0						
POLESOUT	10.8	BDL	Microcys				
POLESOUT1	5.7						
POLESOUT2	4.9						
POLESOUT3	7.0						
EASTSHORE	7.6						
NES135	6.3						
NES191	4.6						

- SFWMD considers >40 µg/L Chlorophyll a (Chla) an alga bloom
- BDL – Below Detectable Limit of 0.25 µg/L
- mixed – No Dominant taxa
- P – Pending
- NS – Not Sampled
- Station bold font – crew observed possible BGA
- Chlorophyll a analyzed by SFWMD
- Toxin and Taxa analyzed by FDEP:
- Microcys = Microcystis; Cylindro = Cylindrospermopsis; Planktol = Planktolonygbya; Dolicho = Dolichospermum

Presenter: Lawrence Glenn





BGA Sampling

- 1. Seasonal routine sample collection
- 2. FDEP Bloom Response



Sample Collection
*toxins, algal ID,
chlorophyll, nutrients, etc.

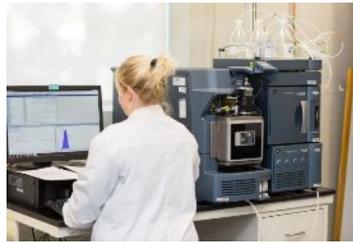
Courier to SFWMD lab next
day (arrives Day 2)
Ship to FDEP lab overnight
(arrives Day 2)



SFWMD lab chlorophyll,
nutrients, etc.
(results on days 3-14)
DBHydro/WIN database

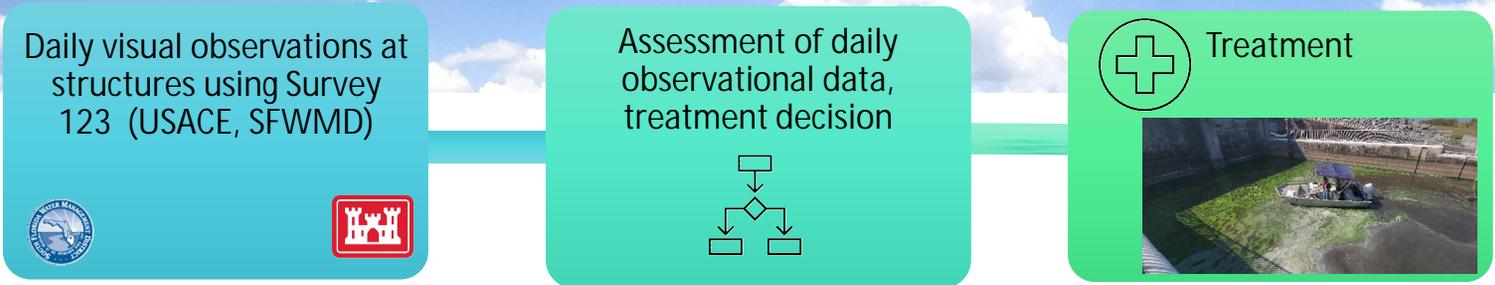
FDEP Lab LC-MS/MS
Dominant Algal ID (Day 2)
Cyanotoxins (Day 4)
FDEP Algal Bloom
Dashboard

Evaluate monitoring
results, return to routine
sample collection and
visual observations



<https://floridadep.gov/AlgalBloom>

Presenter: Lawrence Glenn



BGA Sampling

3. Treatment Response

After treatment
Sample Collection (Day1)
Toxins, algal ID,
chlorophyll, nutrients, etc.

Hand deliver samples to SFWMD lab (Day 1)
Ship samples to FDEP lab overnight (Day 2)



SFWMD lab ELISA (Day 2)
FDEP BGA Dashboard
Chlorophyll, nutrients, etc. (Days 3-14)
DBHydro/WIN Database



FDEP Lab LC-MS/MS
Dominant Algal ID (Day 2)
All Cyanotoxins (Day 4)
FDEP BGA Dashboard



Evaluate monitoring results, (re)treatment decision, return to daily observations.



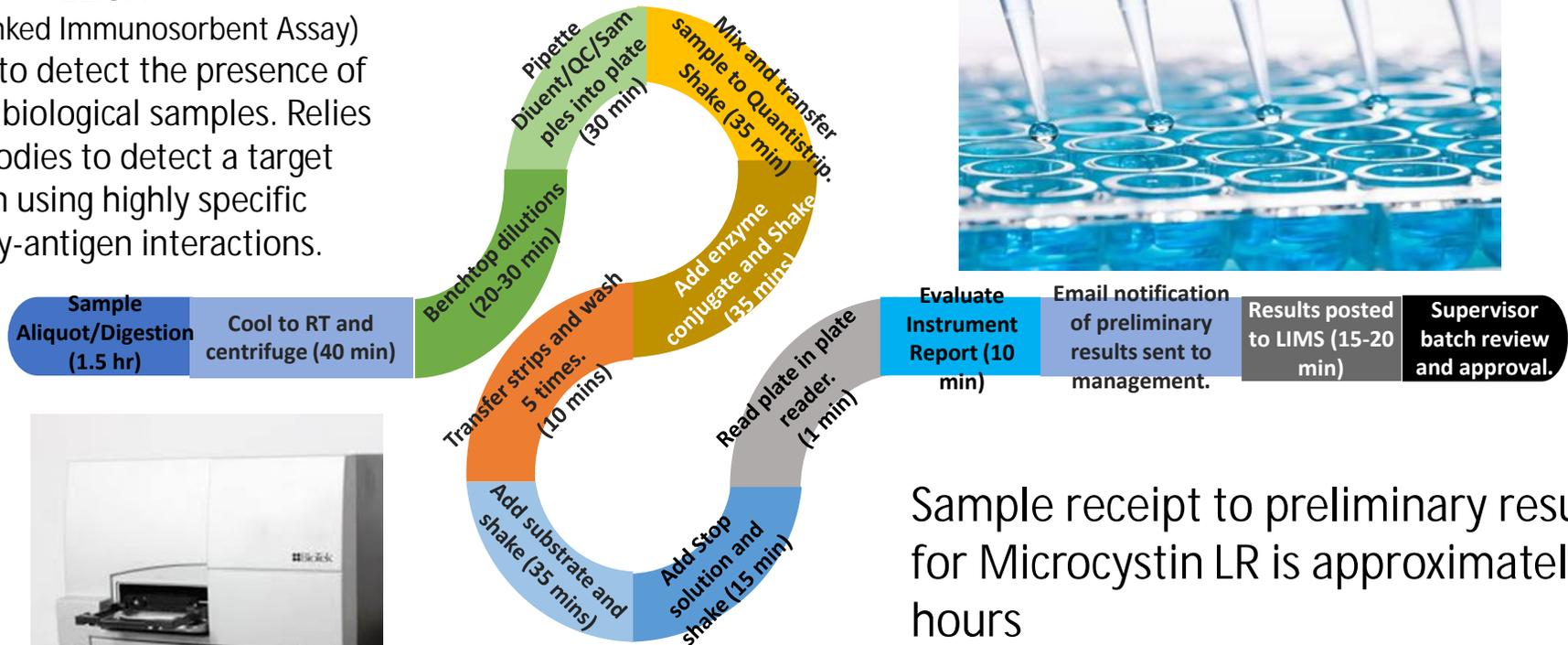
<https://floridadep.gov/AlgalBloom>

Presenter: Lawrence Glenn

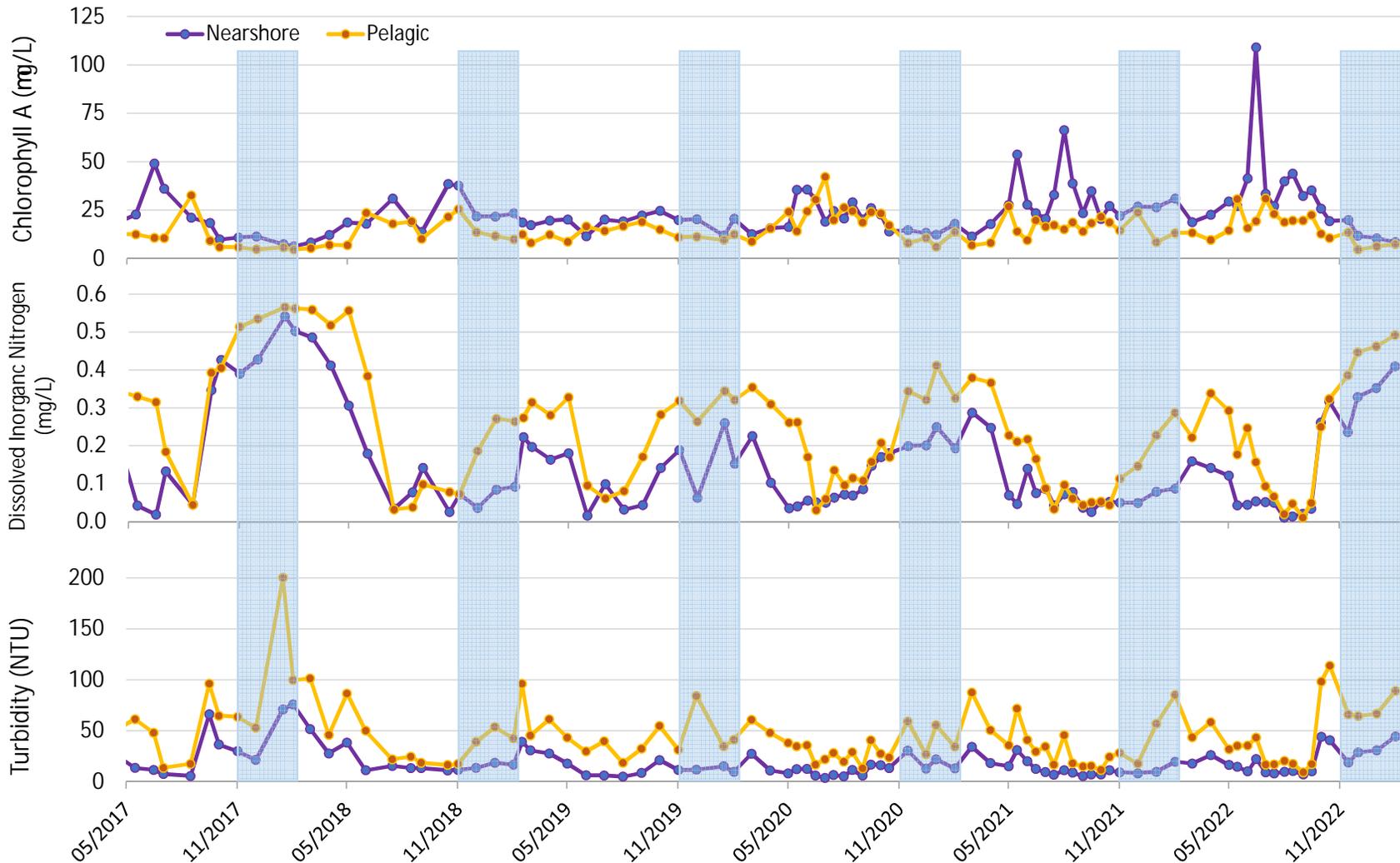
Microcystins by ELISA - Workflow Timeline

ELISA

(Enzyme-Linked Immunosorbent Assay) Technique to detect the presence of antigens in biological samples. Relies on antibodies to detect a target antigen using highly specific antibody-antigen interactions.



Sample receipt to preliminary results for Microcystin LR is approximately 6 hours

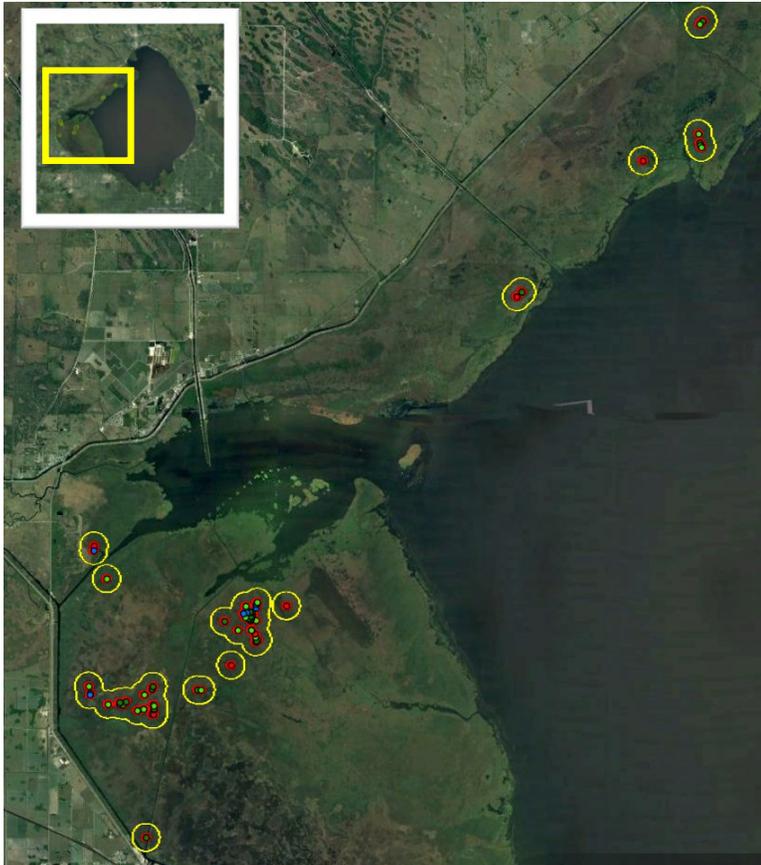


Lake Okeechobee Water Quality Time Series 2017-Present (Provisional Data)

Current time period (Nov-Feb)

Presenter: Lawrence Glenn

Lake Okeechobee Snail Kite Nesting

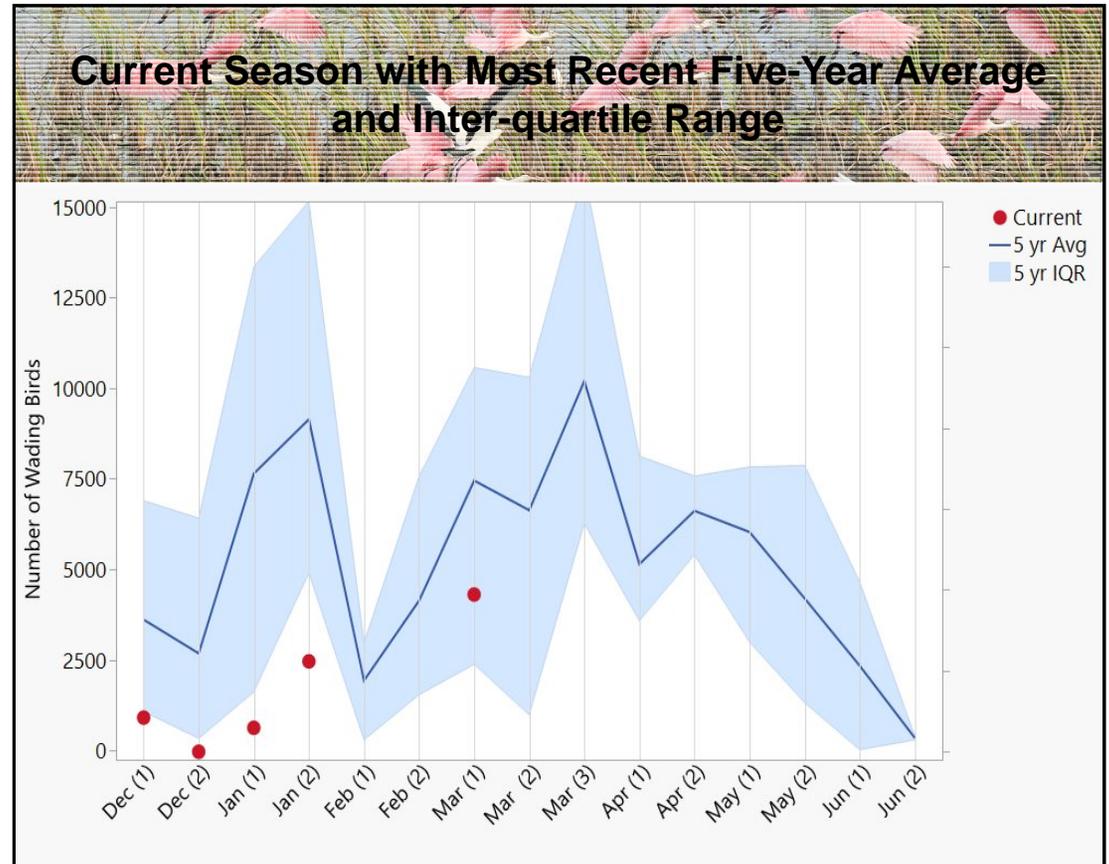
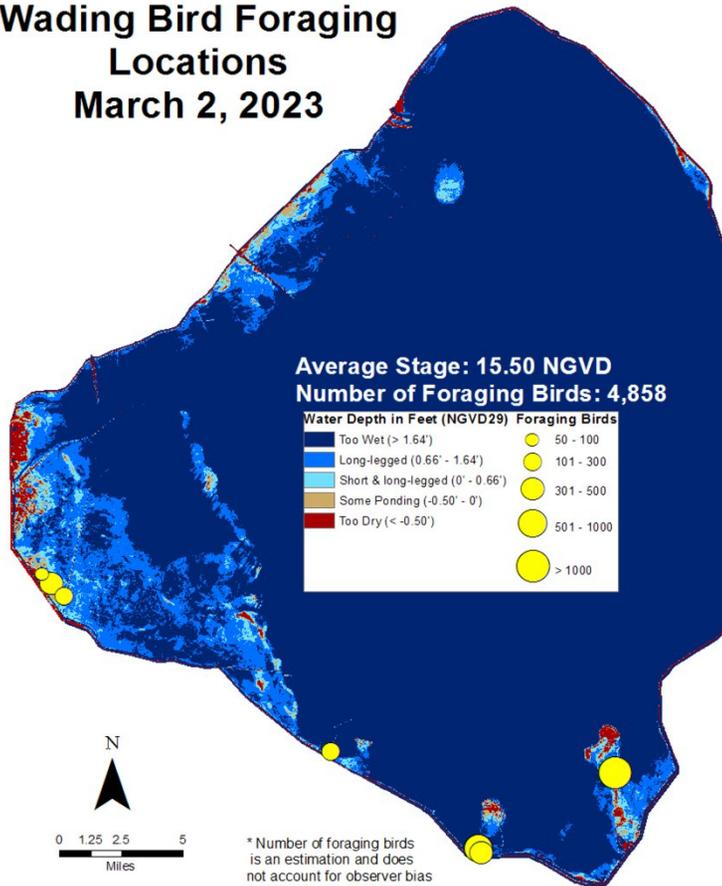


Lake Okeechobee Annual Nesting Totals
March 2023

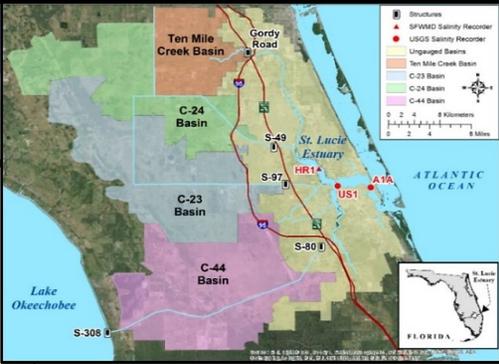


Lake Okeechobee Foraging Wading Birds

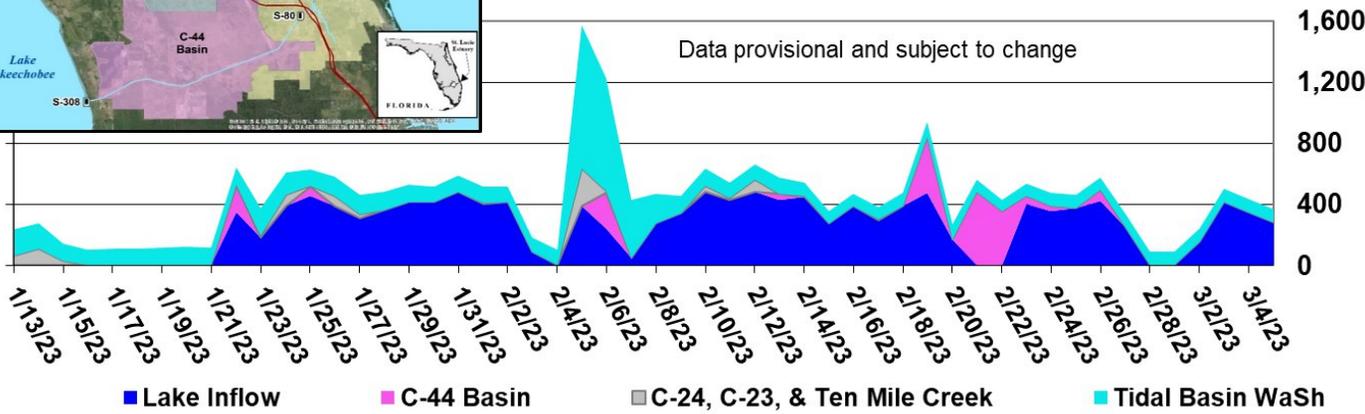
Wading Bird Foraging Locations March 2, 2023



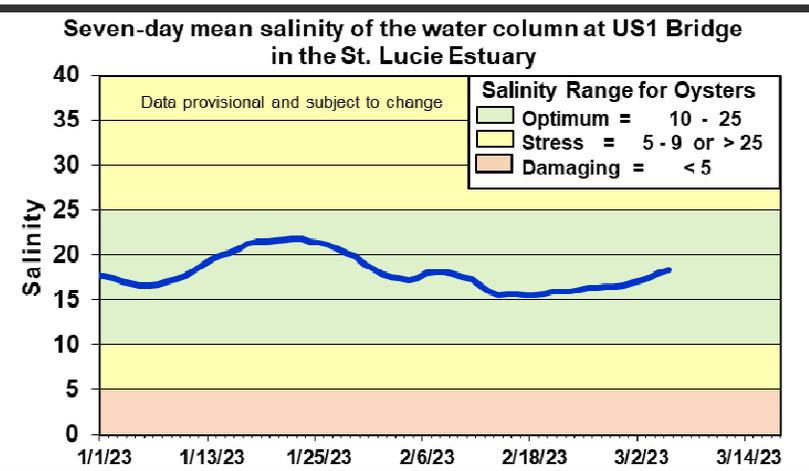
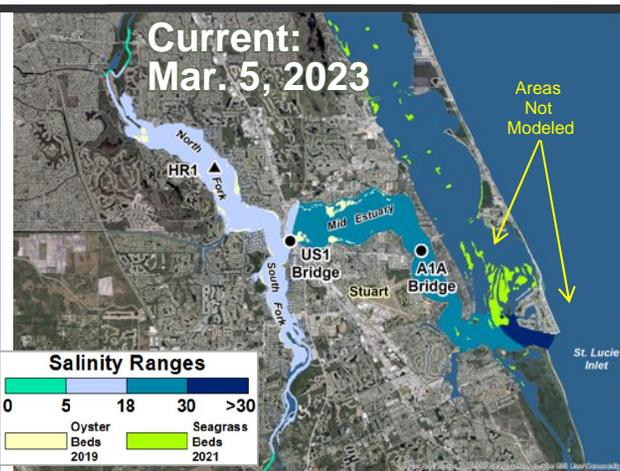
St. Lucie Inflows and Salinity Conditions



Total Daily Inflow into the St. Lucie Estuary

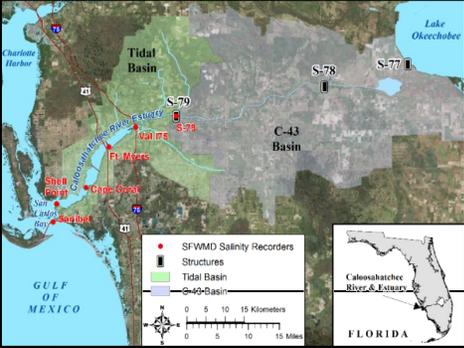


Date	S-80	S-49	S-48	Gordy_S	Tidal Basin WaSh	Total Flow
3/1/2023	0	0	0	6	72	78
3/2/2023	155	0	2	5	74	236
3/3/2023	414	0	0	5	75	495
3/4/2023	351	0	0	5	82	438
3/5/2023	284	0	0	4	82	370
3/6/2023	0	0	0	4	75	79
3/7/2023	0	0	0	4	62	66



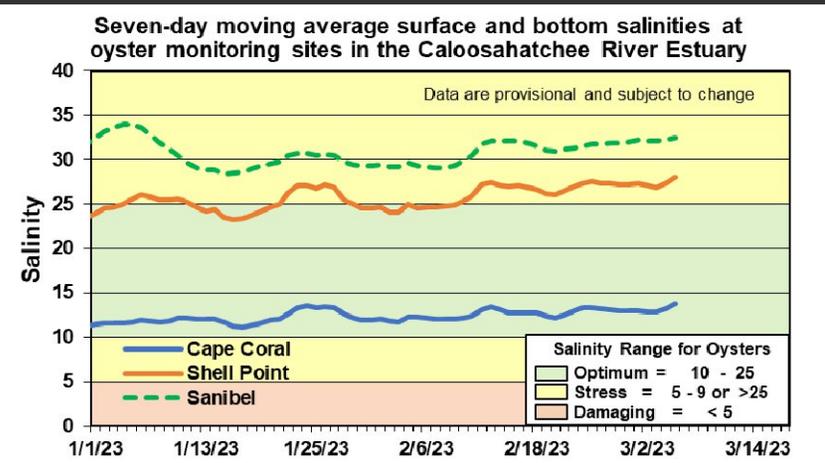
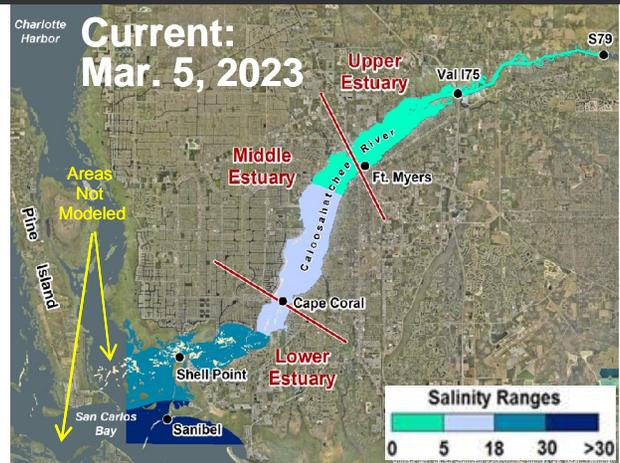
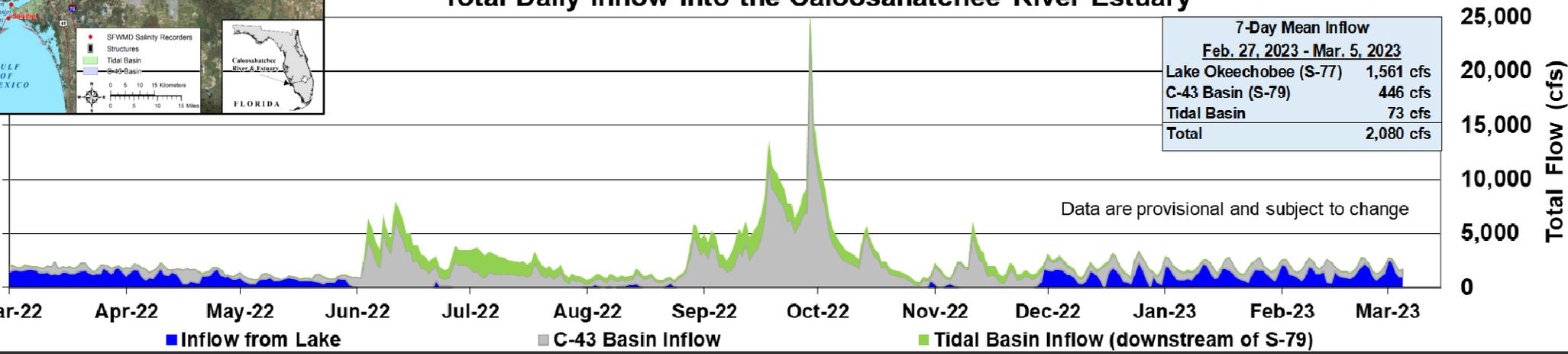
Presenter: Lawrence Glenn

Caloosahatchee Inflows and Salinity Conditions



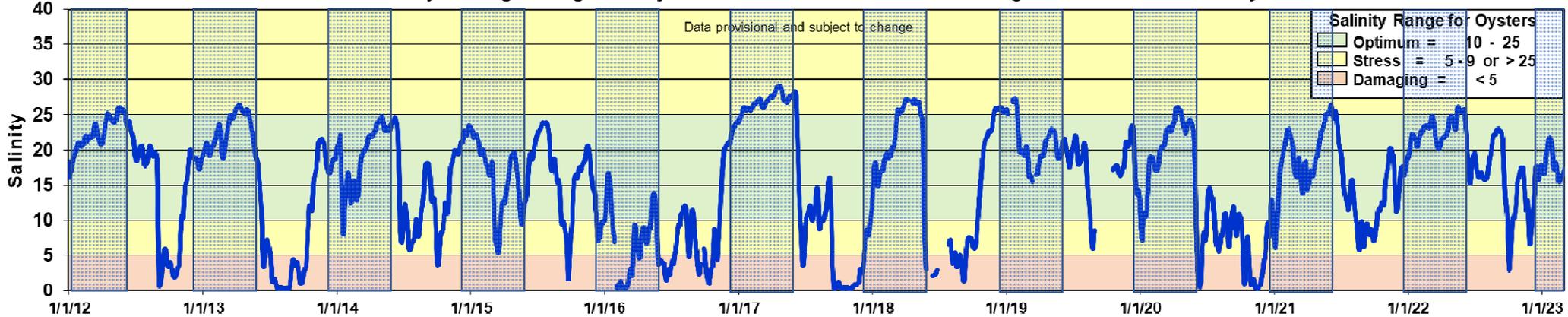
Total Daily Inflow into the Caloosahatchee River Estuary

7-Day Mean Inflow Feb. 27, 2023 - Mar. 5, 2023	
Lake Okeechobee (S-77)	1,561 cfs
C-43 Basin (S-79)	446 cfs
Tidal Basin	73 cfs
Total	2,080 cfs

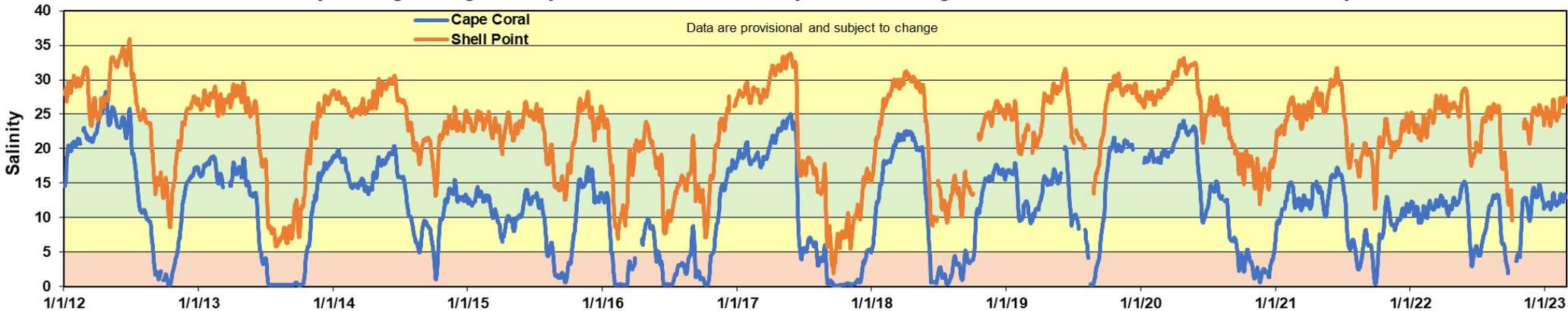


SLE and CRE Long-Term Salinity

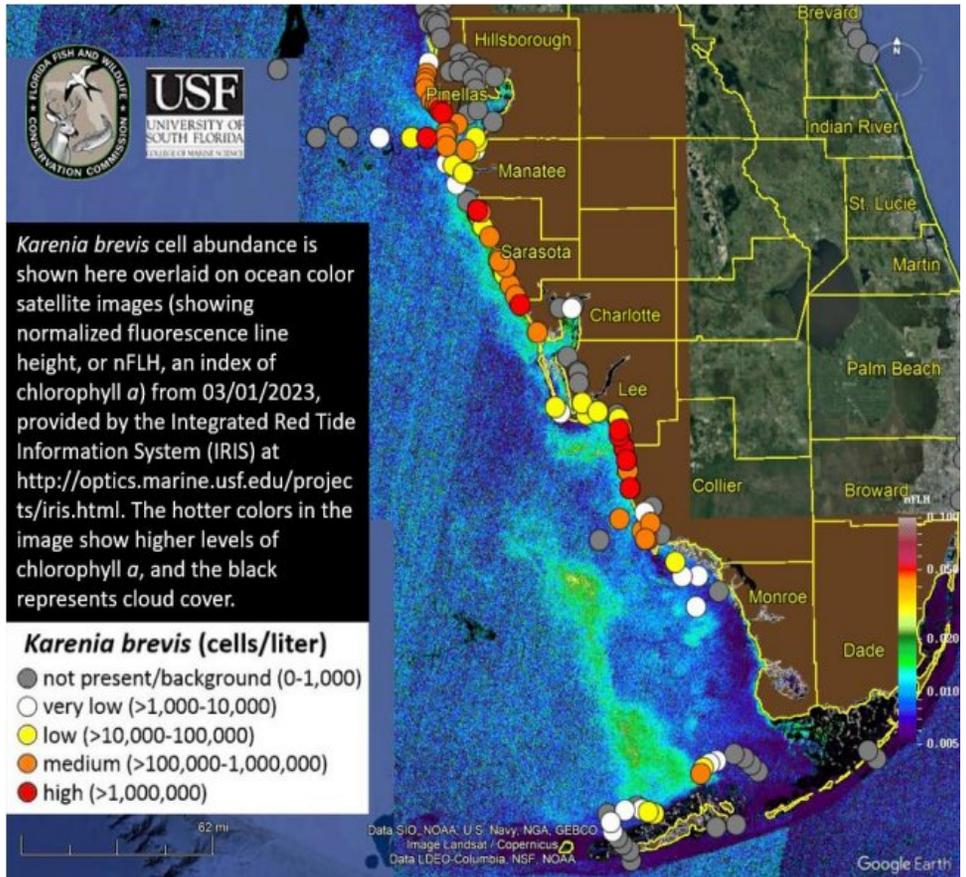
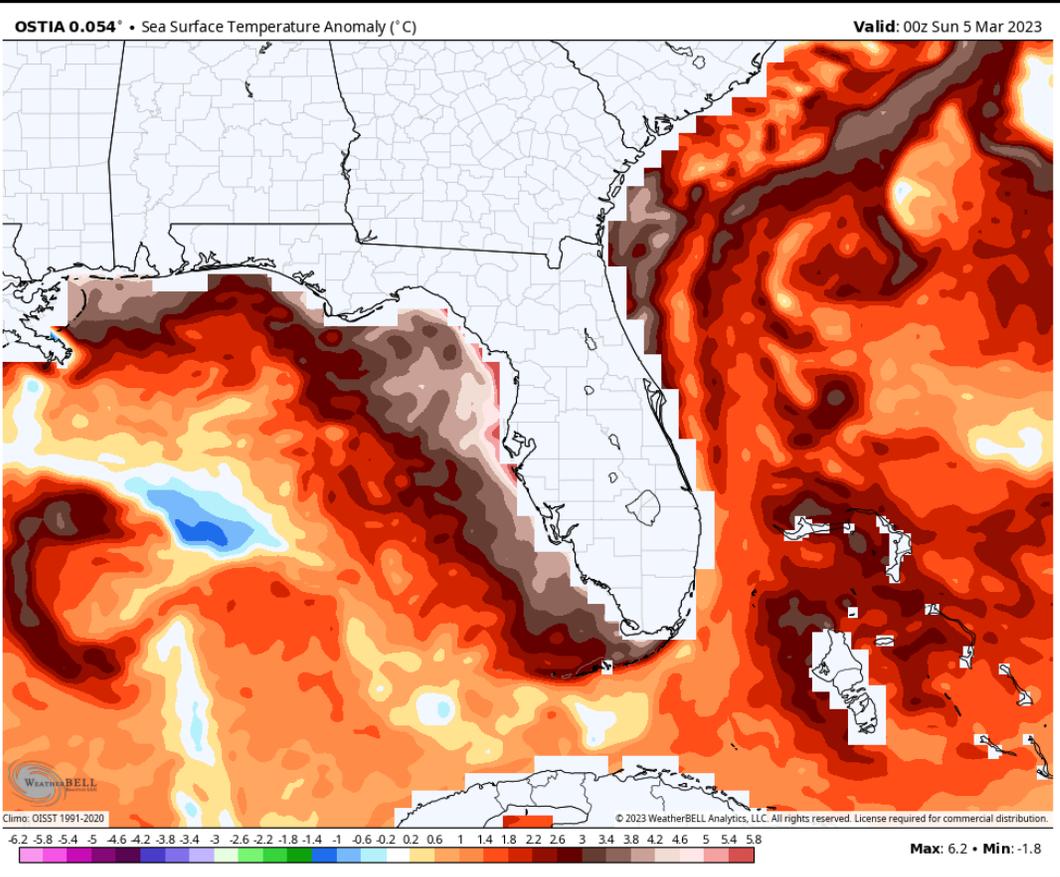
Seven-day moving average salinity of the water column at the US1 Bridge in the St. Lucie Estuary



Seven-day moving average salinity of the water column at oyster monitoring sites in the Caloosahatchee River Estuary



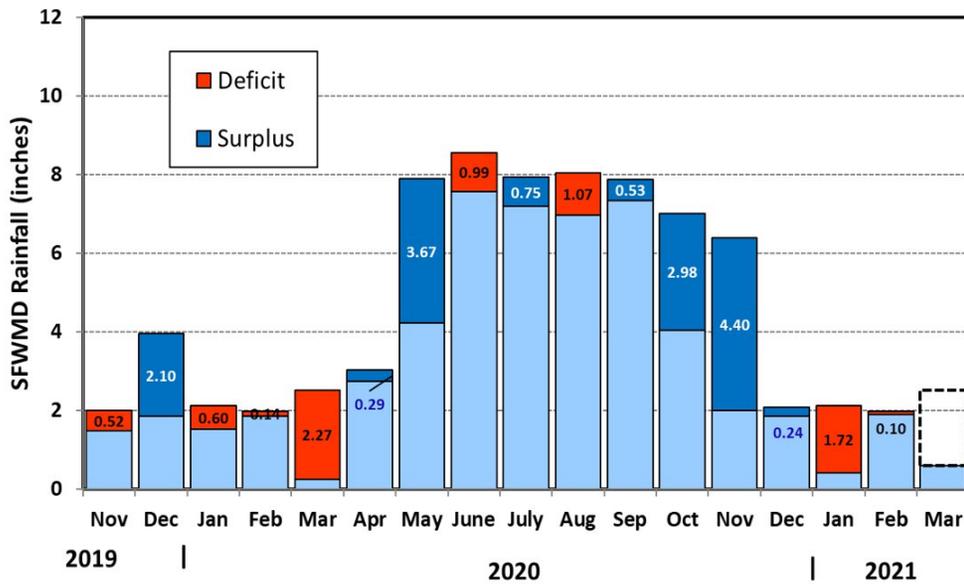
Extremely Warm Sea Surface Temperatures



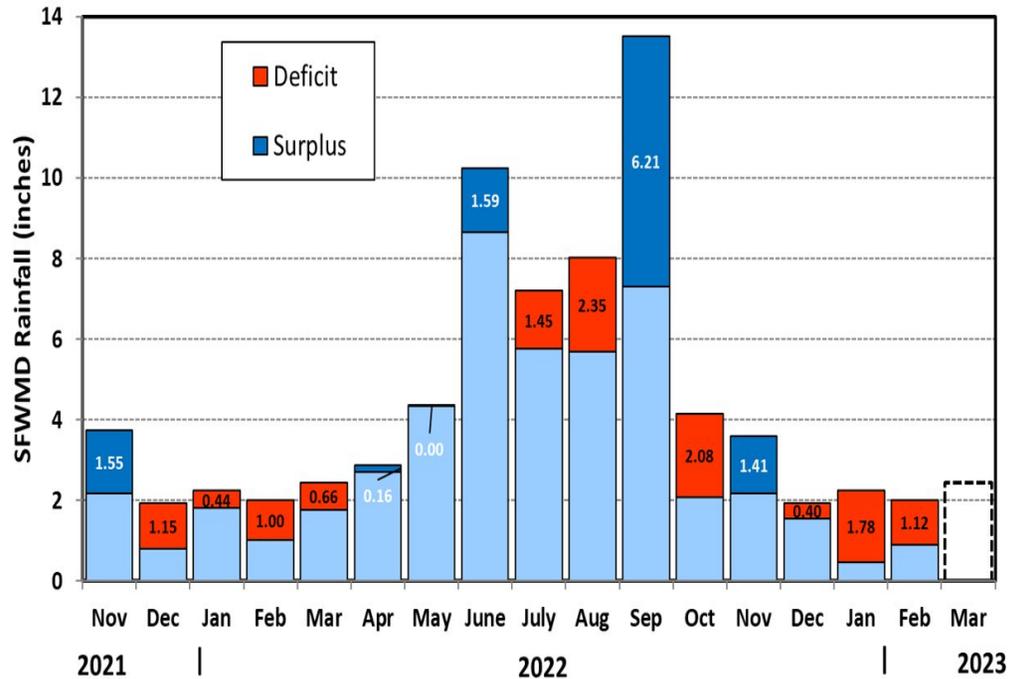
Presenter: Lawrence Glenn

Rainfall and STA Inflows

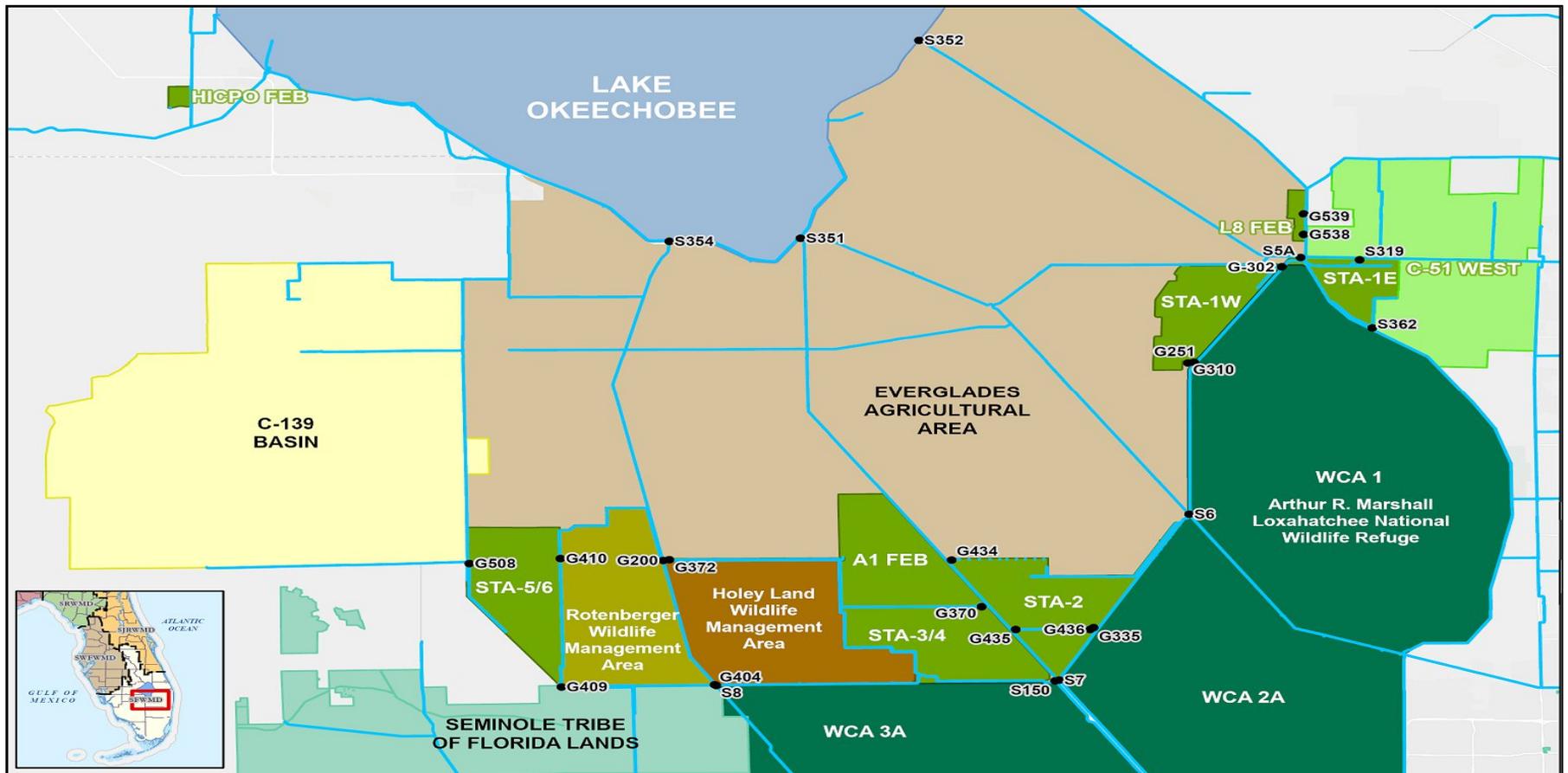
SFWMD Rainfall Distribution Comparison
(Nov 2019 - Mar 2021)



SFWMD Rainfall Distribution Comparison
(November 2021- March 2023)



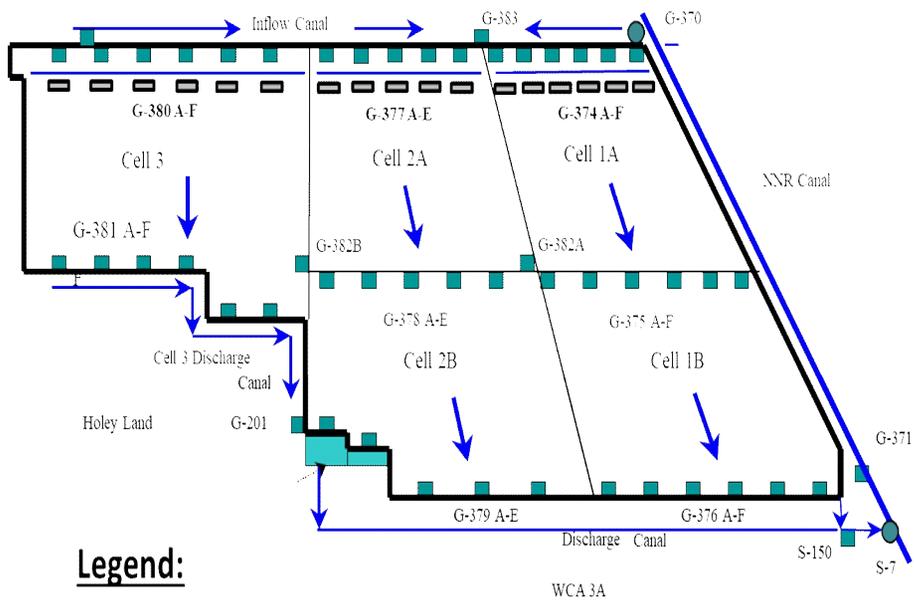
Restoration Strategies and FEBs



Presenter: Lawrence Glenn

STA 3/4 Energy Dissipators

Stormwater Treatment Area 3/4



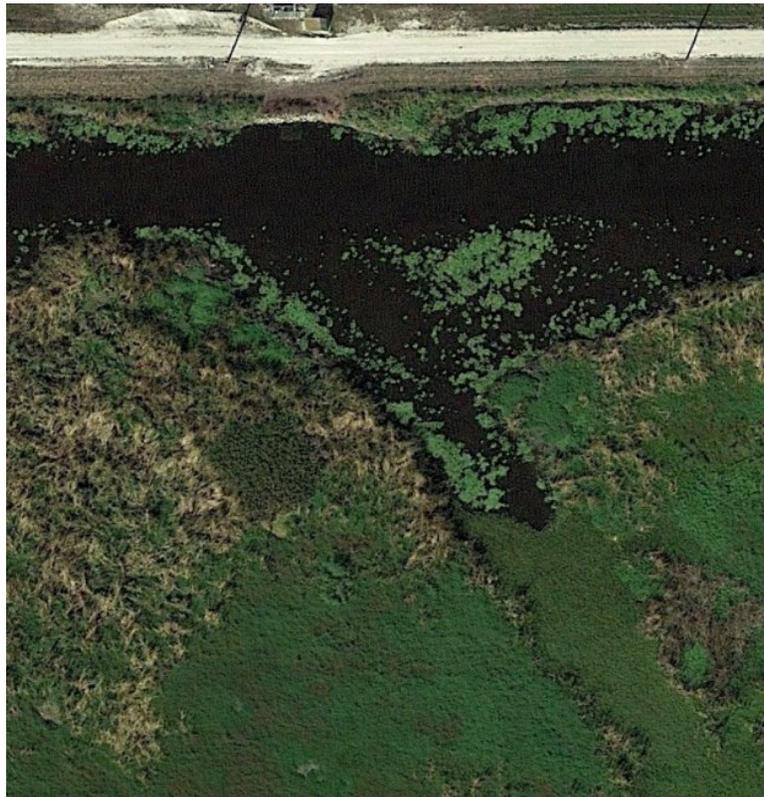
Legend:

- Box Culvert
- Energy Dissipator

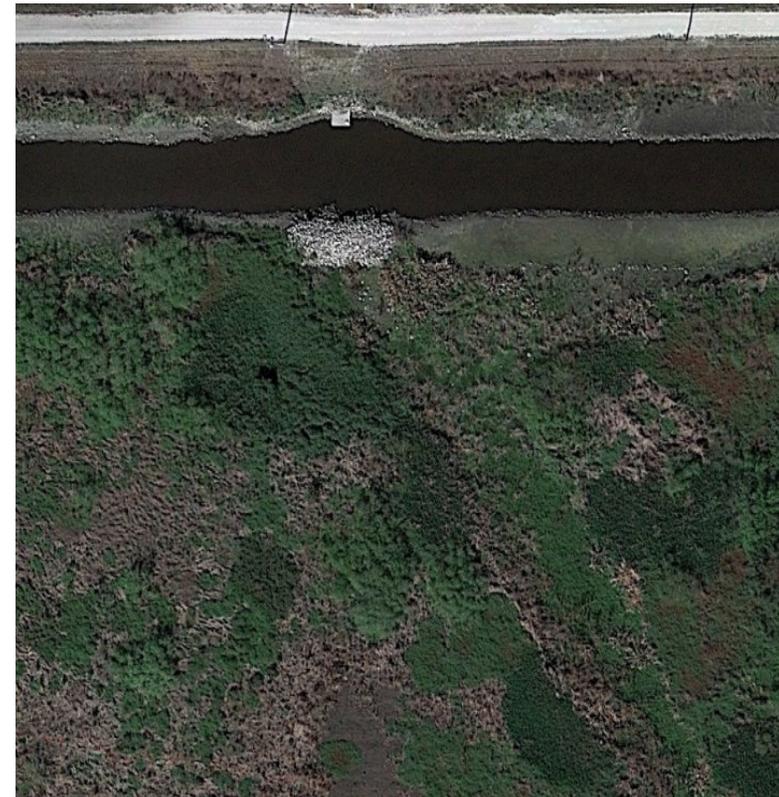


STA 3-4 Inflow Energy Dissipator

Before



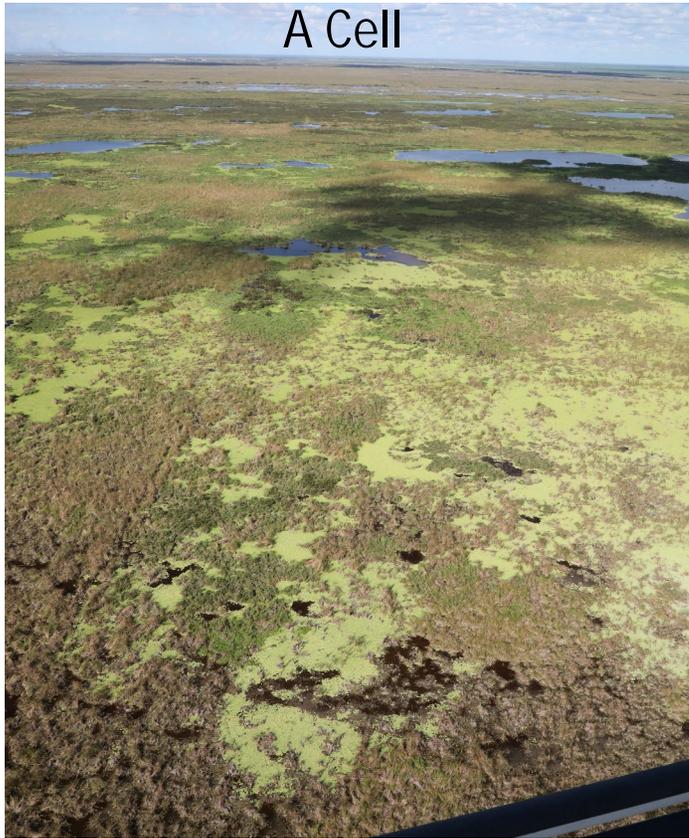
After



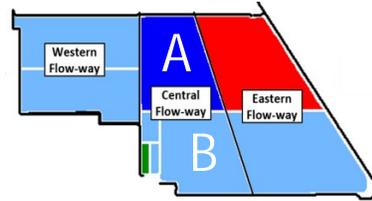
The before picture shows a harmful short circuit allowing FAV to move into the cell

The after picture shows the same location, but with emergent vegetation recolonizing the eroded area

STA-3/4 Post-Hurricane Ian



A Cell



Light green is floating aquatic vegetation in A cell
←

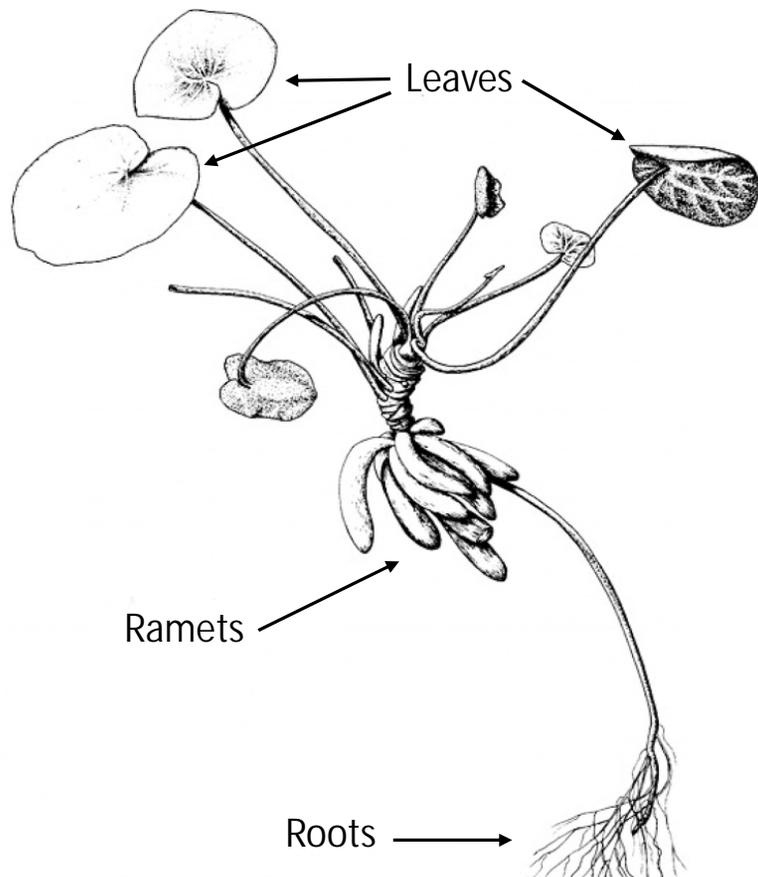


Very healthy mixed community (emergent and submergent vegetation) in B cell
→



B Cell

Crested Floating Heart

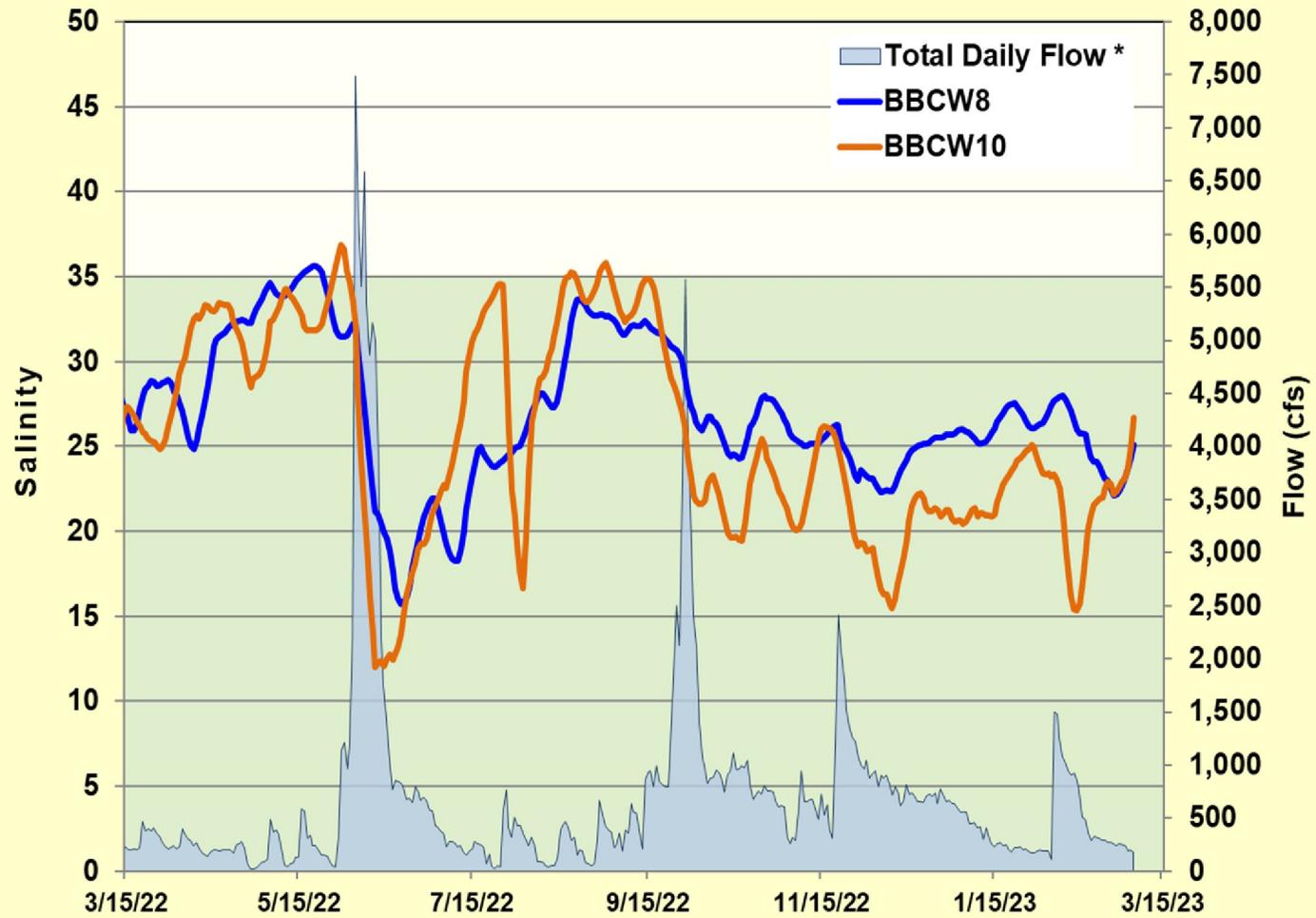


- Rooted, floating leaved plant
- Can break free of the soil and become mobile Floating Aquatic Vegetation (FAV)
- The ramets from a plant that has been partially treated can be transported by moving water
- Treating the entire water column to control the whole plant will remove all vegetation from the treatment site
- Can spread by seed, ramet translocation, and fragmentation
- Research underway to study control methods

Biscayne Bay



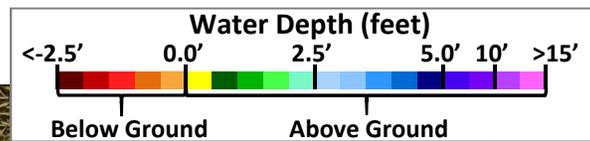
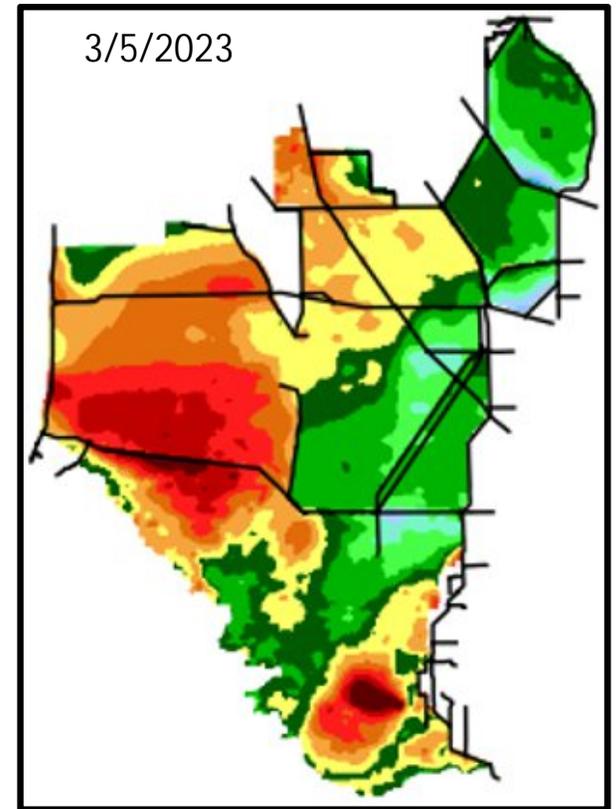
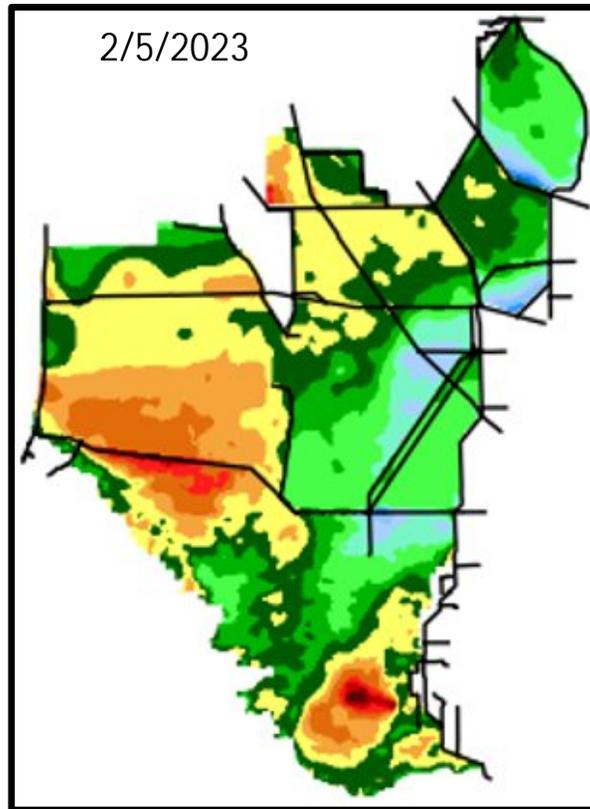
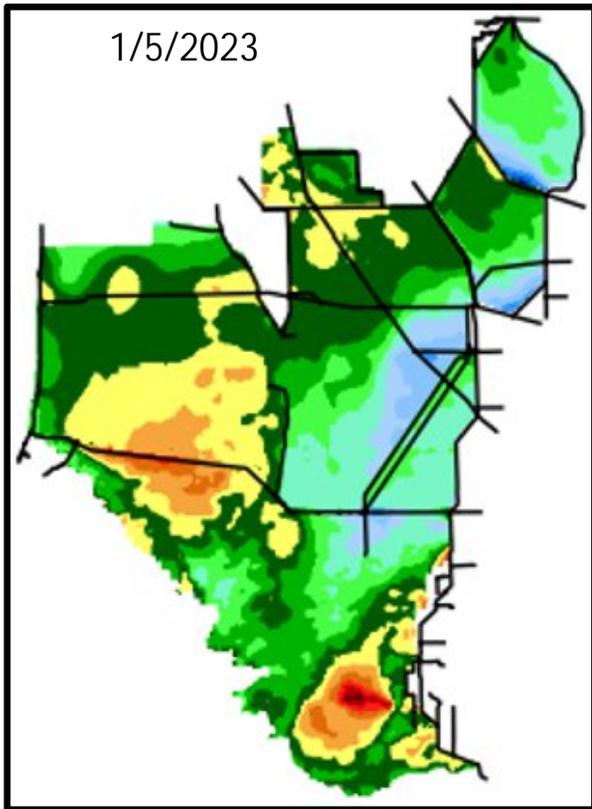
Seven-Day Mean Salinity (BBCW8 & BBCW10) & Total Daily Flow



* Total flow from S20G, S20F, S21, S21A, S123, S700P

Presenter: Lawrence Glenn

Everglades Water Depths

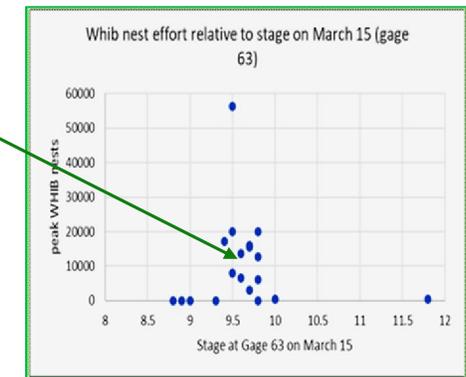
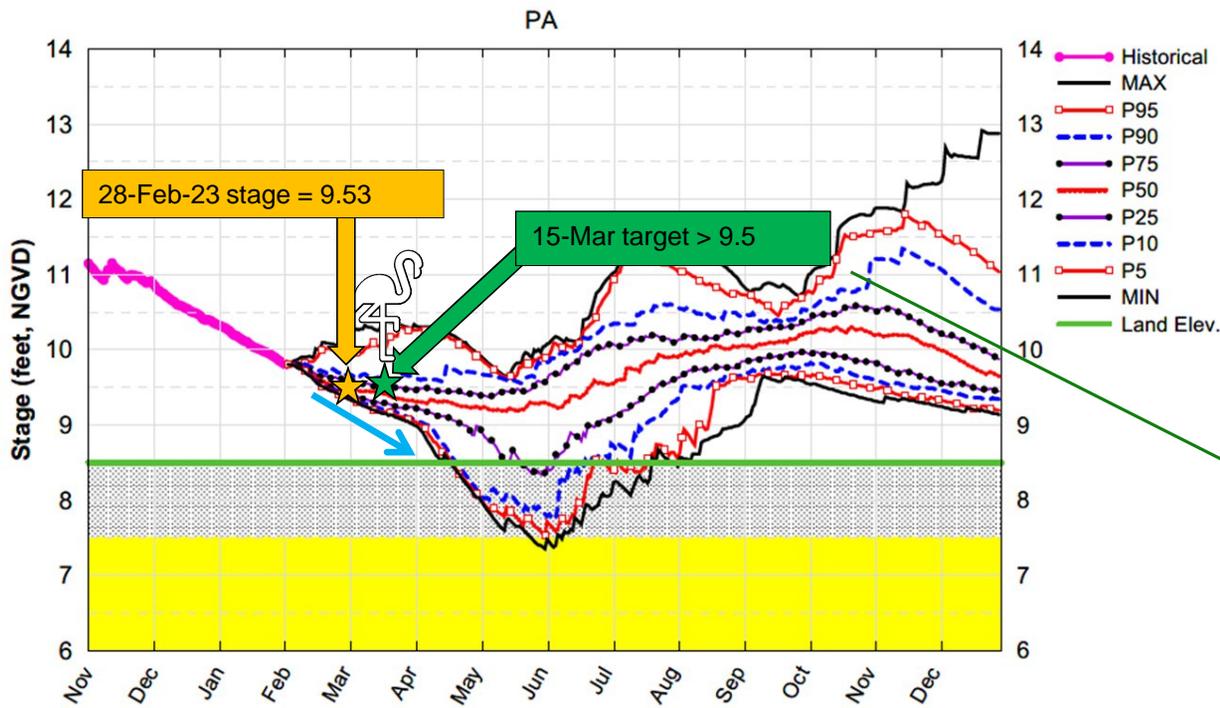


Presenter: Lawrence Glenn

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WCA-3A Northeast - Alley North colony and Gauge 63

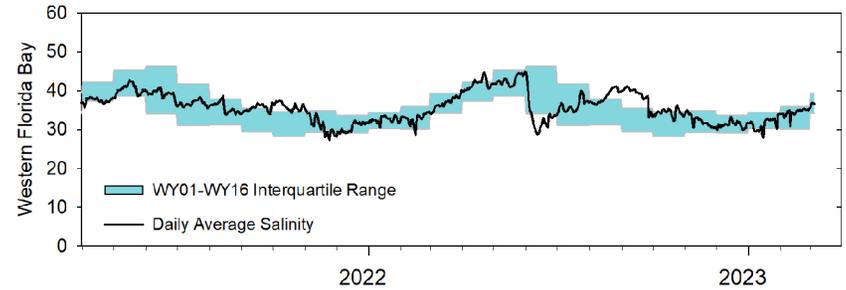
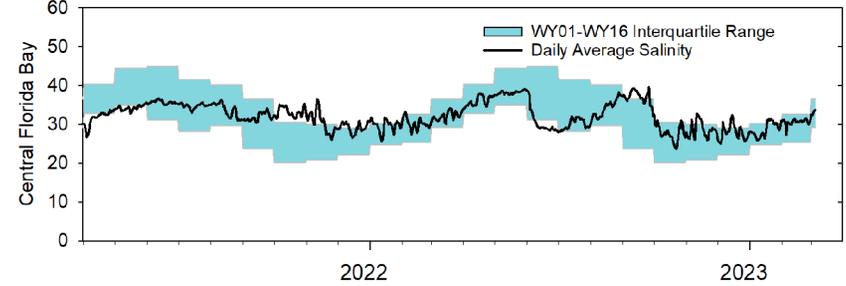
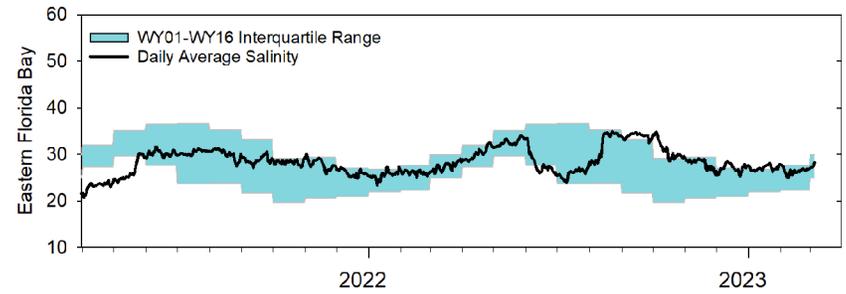
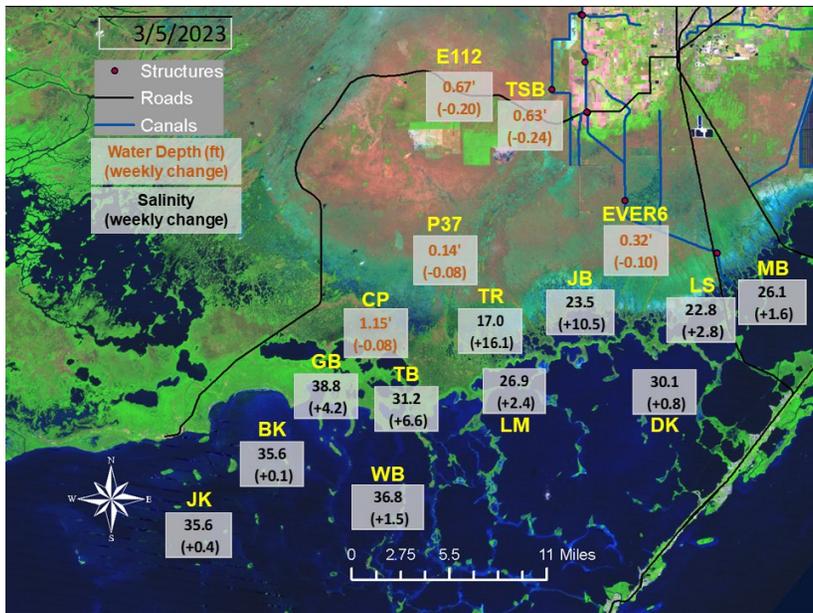
3A-3 Gage SFWMM February 2023 Position Analysis



Current Trend

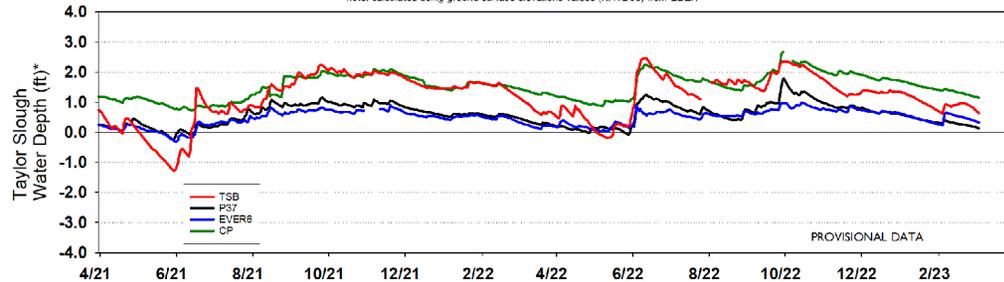
Presenter: Lawrence Glenn

Taylor Slough Stages and Florida Bay Salinity



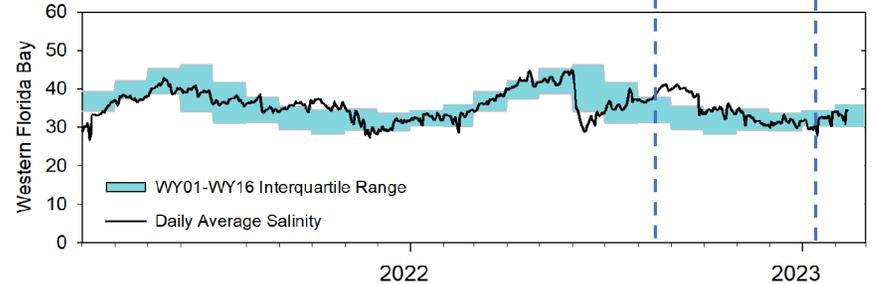
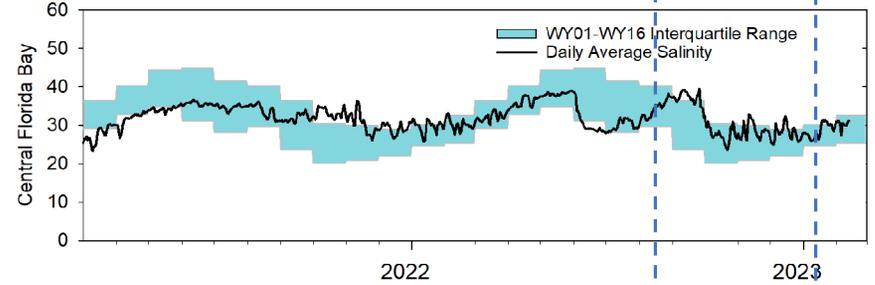
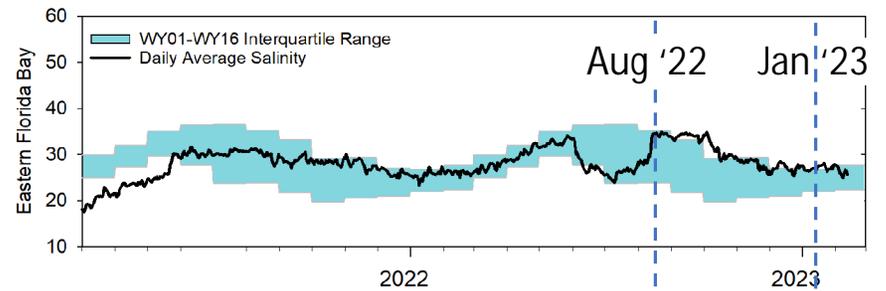
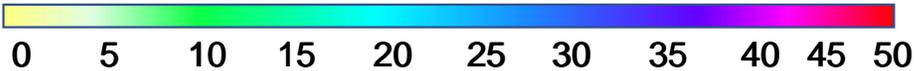
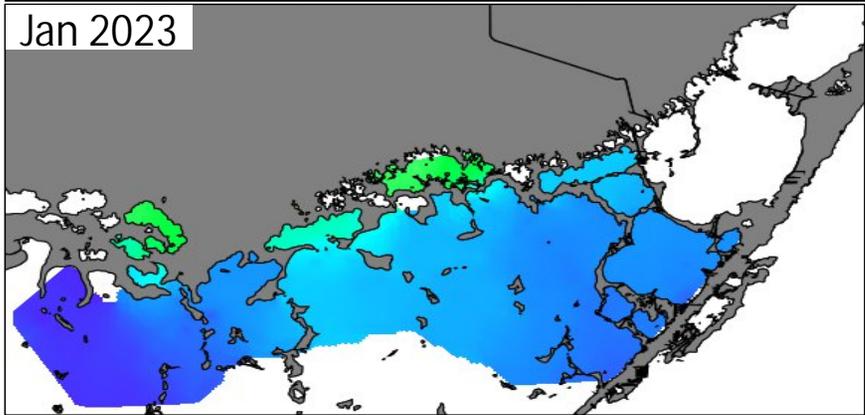
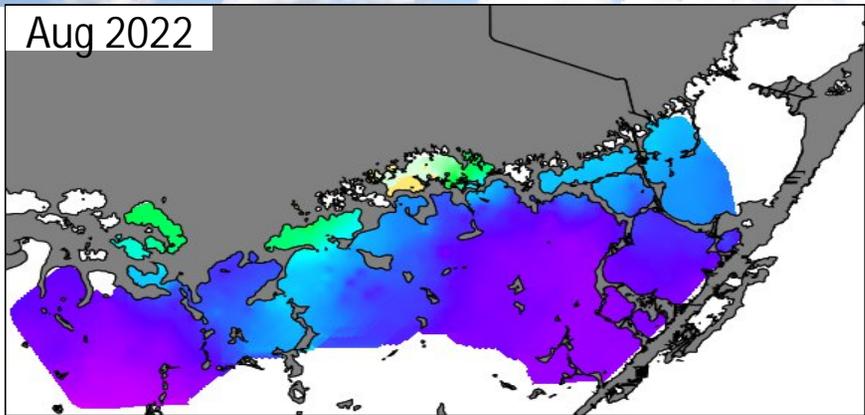
Taylor Slough Water Depths

*note: calculated using ground surface elevations values (NAVD88) from EDEN



Presenter: Lawrence Glenn

Florida Bay Salinity Patterns



Questions



Black-necked Stilt in STA 3/4 Cell 2B
Photograph courtesy of SFWMD Staff

Summary of the 2021 South Florida Wading Bird Report

When Flows Return to the Everglades

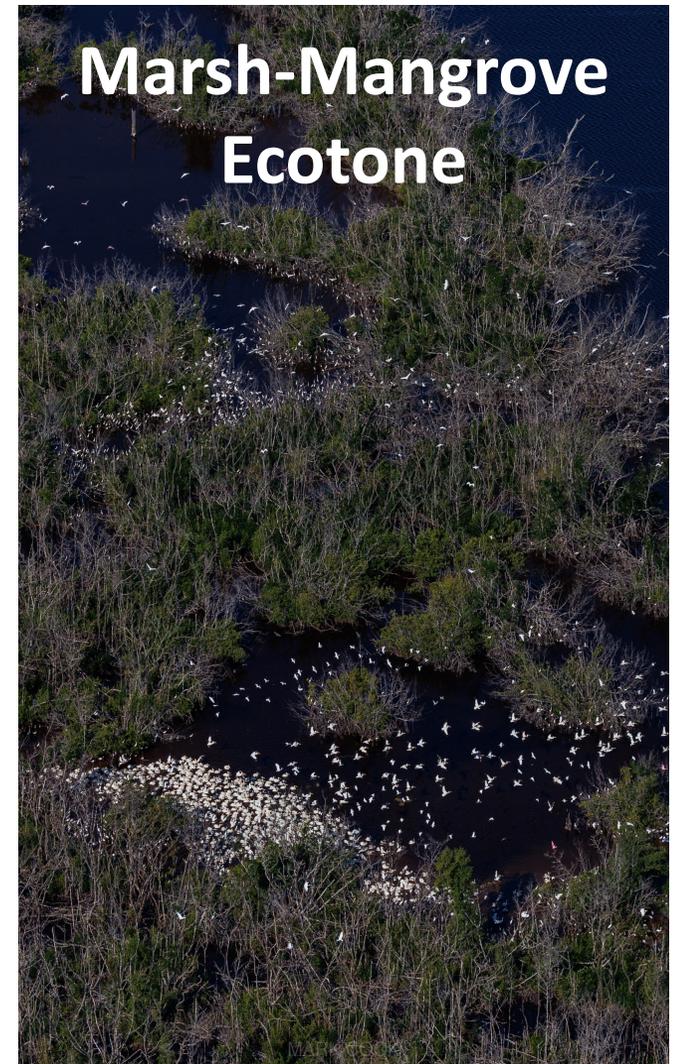
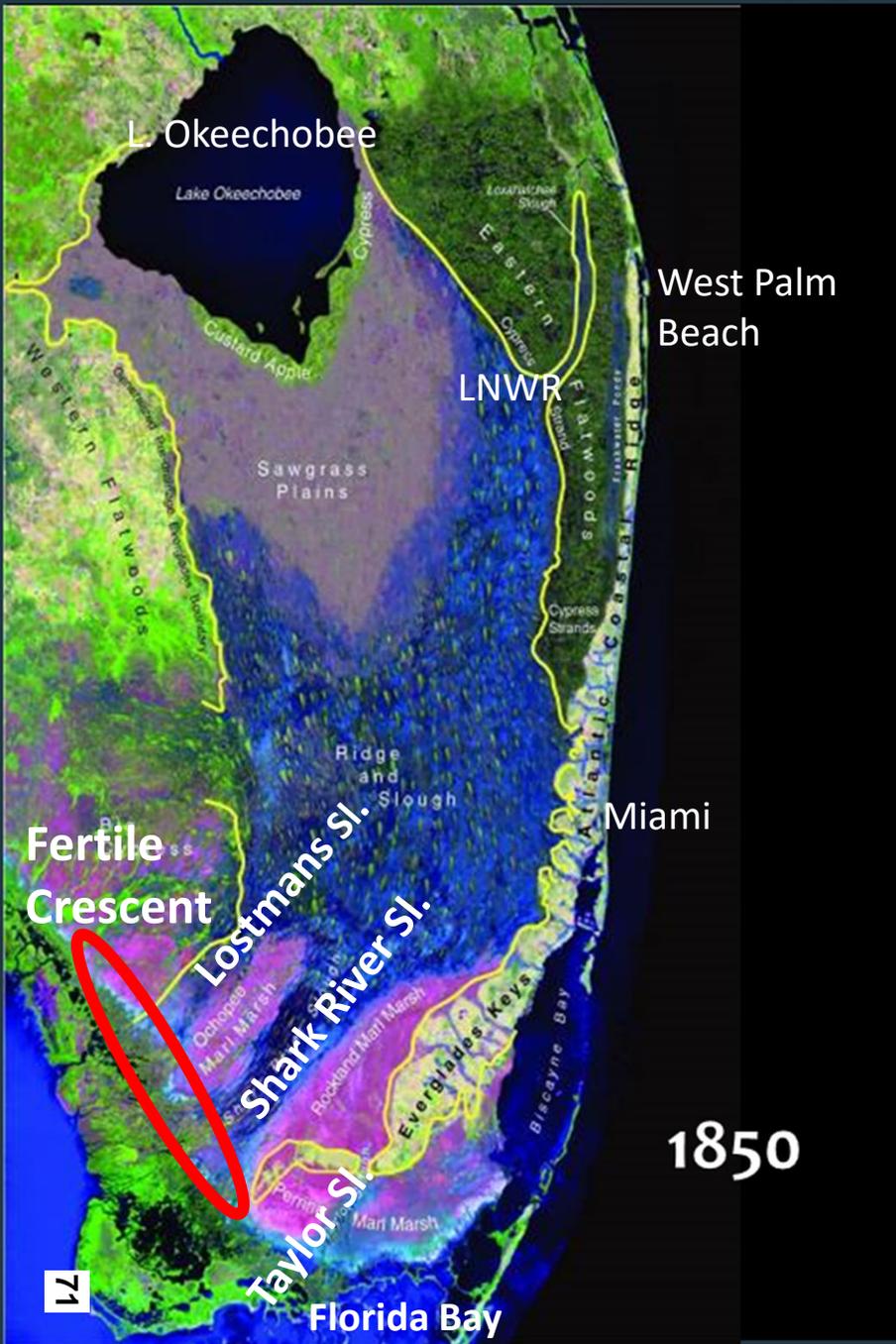
Mark I. Cook, Ph.D.
Everglades Systems Assessment
Applied Sciences Bureau
SFWMD

Governing Board Meeting
March 9, 2023

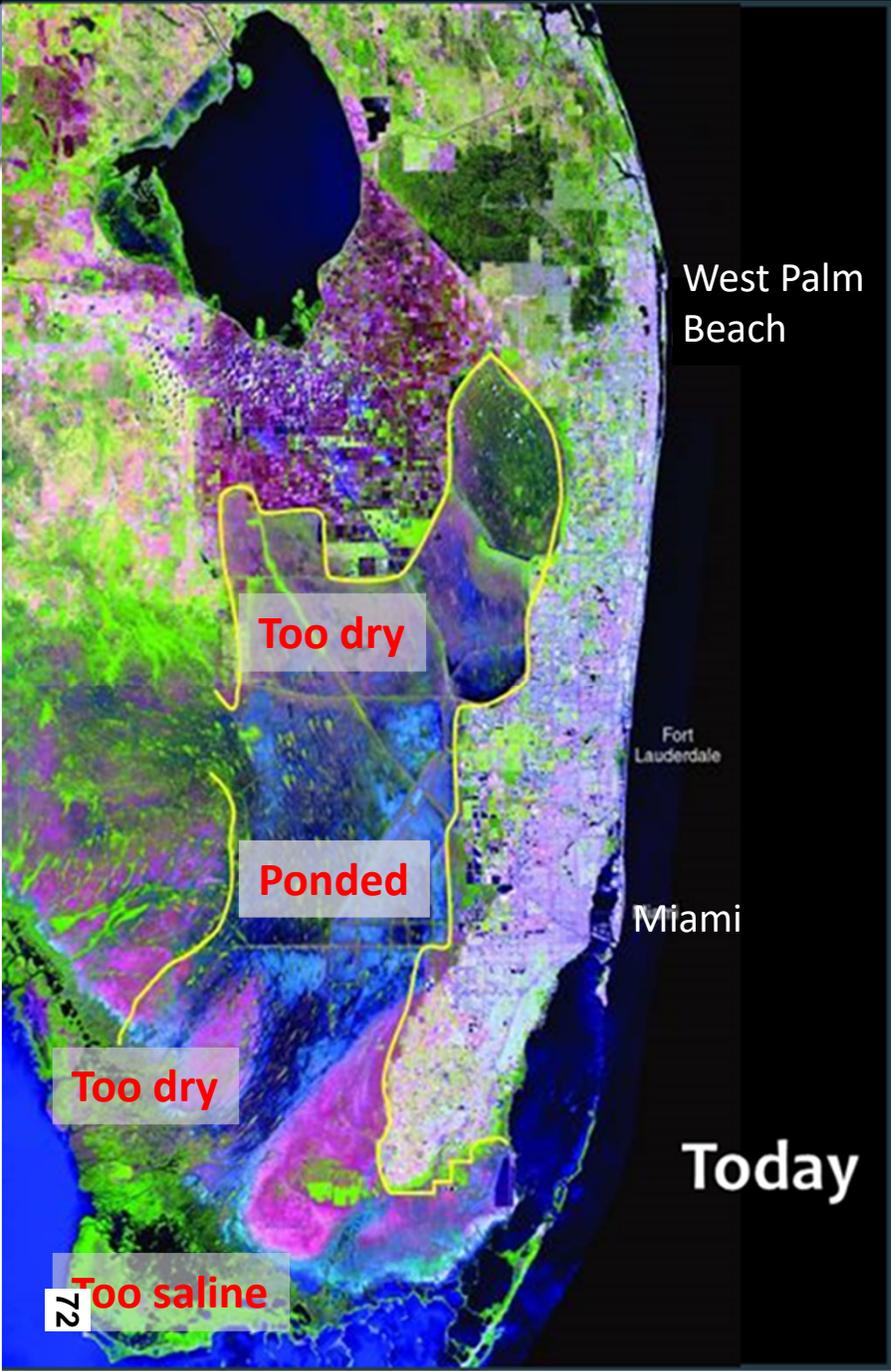


MARK COOK

Historic Everglades



Everglades Today



A very dry WCA-3A, May 2022

Drainage & wetland loss has dramatically reduced flow

Loss of Everglades wading bird nesting populations

From Crozier & Gawlik 2003



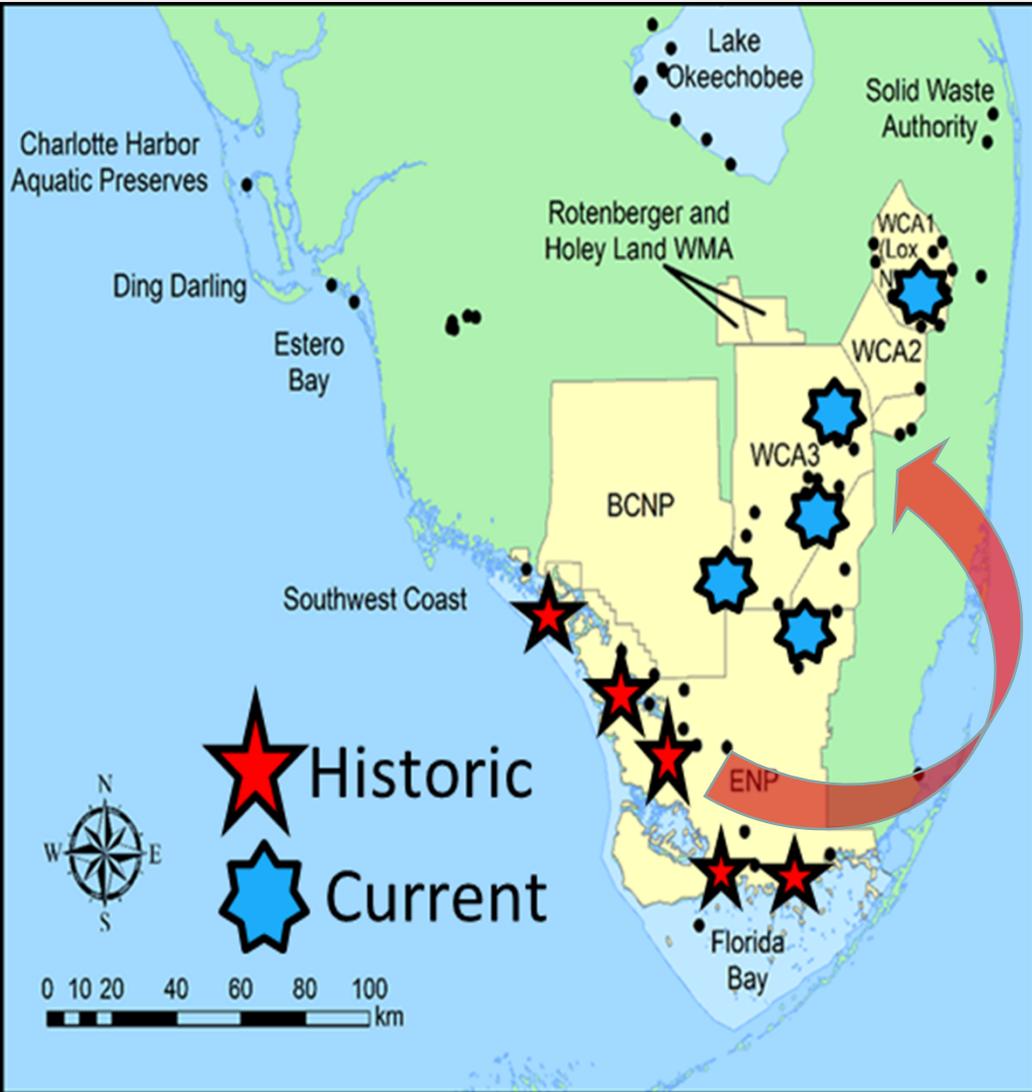
1940s

78% - 87% decline



2001

Birds moved from the coast to smaller, less successful, inland colonies

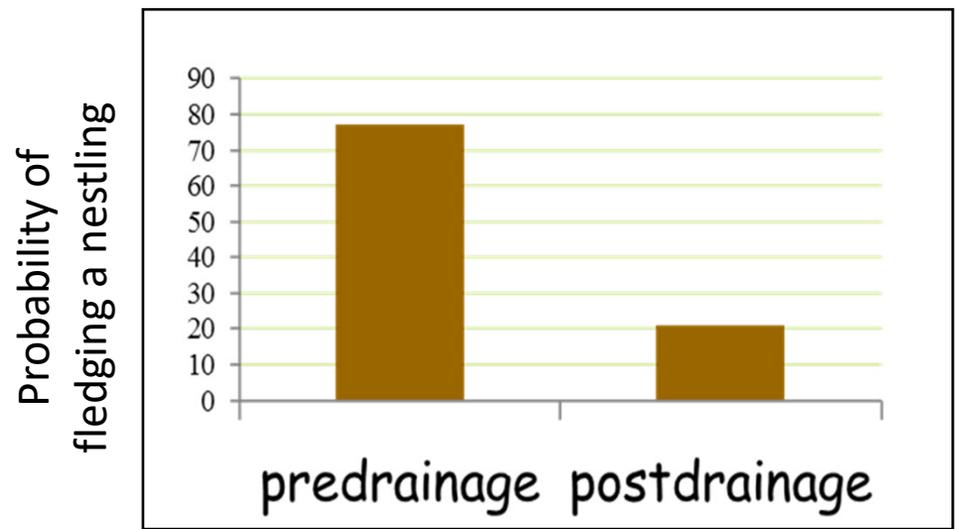
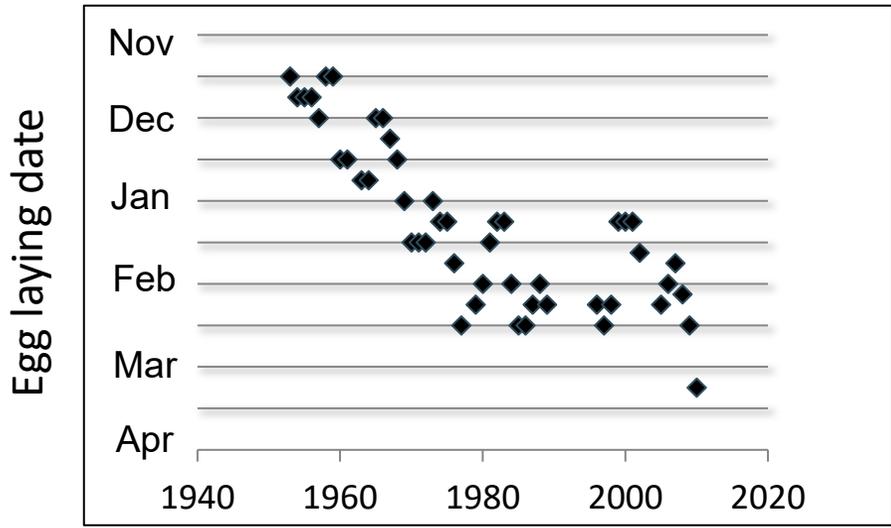


Wood storks in Jetport South colony, WCA-3A, 2017



Broad River Coastal Colony, 1942

Wood Storks now nest later in the season with reduced nesting success



But the 2021 story is one of hope and resiliency



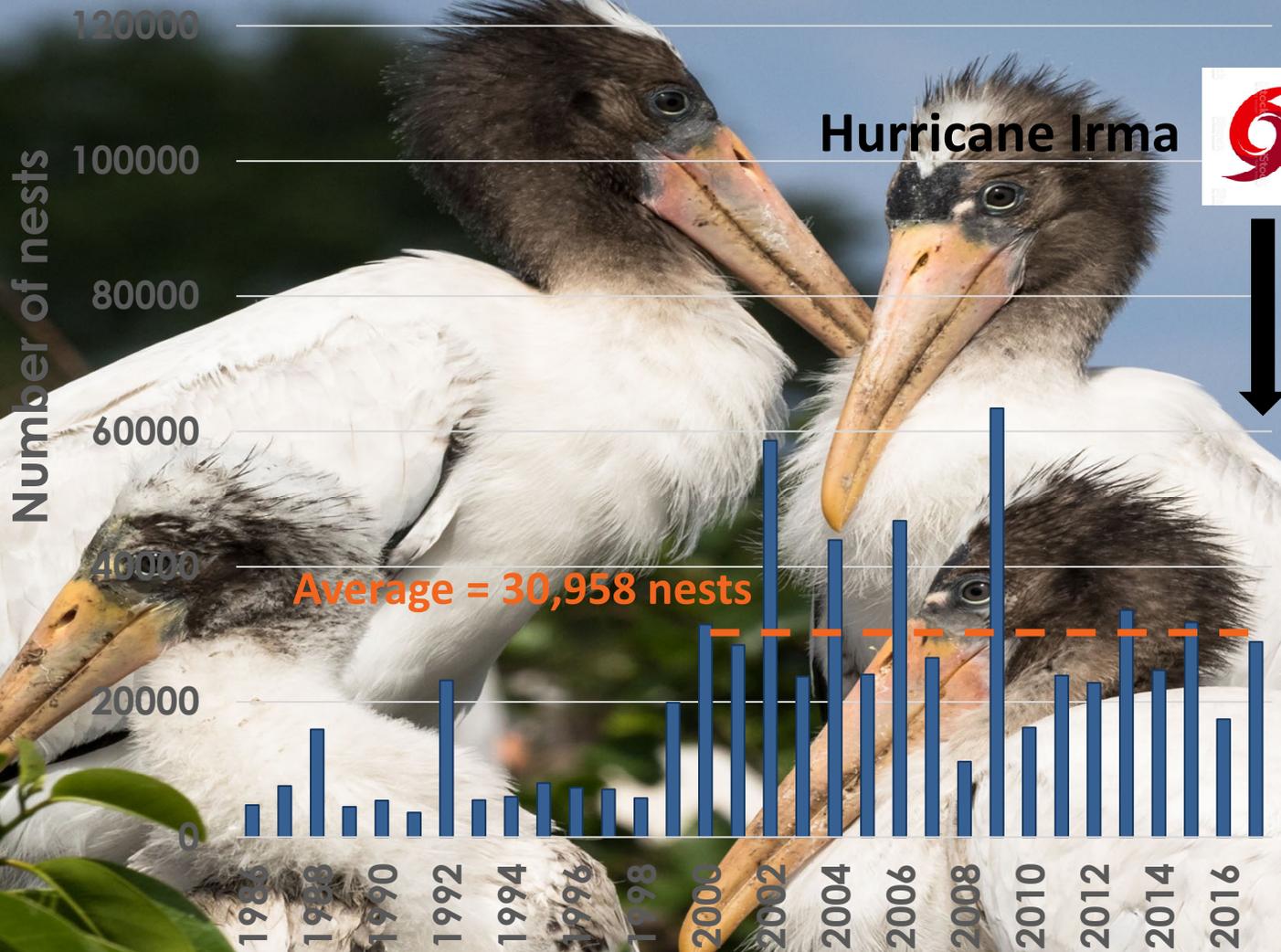
Talk Outline



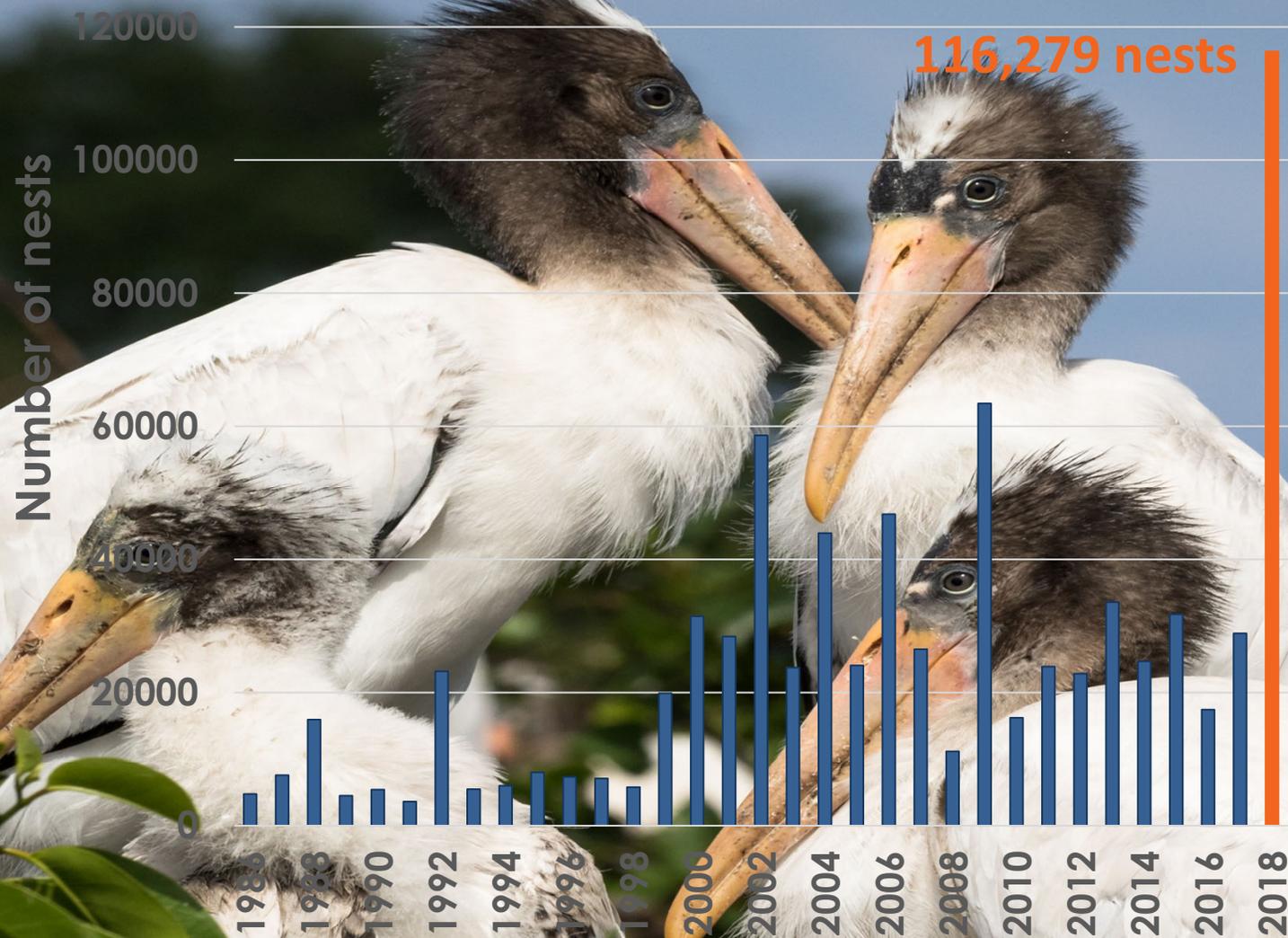
Nesting pair of great egrets

1. Nesting data during the banner nesting seasons of 2021 & 2018
2. The science behind supercolony nesting
3. Management & restoration implications

Part 1: Wading bird nesting patterns in the Everglades



Nesting in 2018 was comparable to that of the 1930's!



Nesting effort declined again because of typical dryer conditions



But nesting in 2021 also was comparable to that of the 1930's!



Nesting in 2021 was early & extremely successful



Large, healthy wood stork nestlings



Young wood storks fledging the colony

Large colonies returned to coastal Everglades N.P. in 2021

Broad River coastal colony, ENP



Cabbage Bay coastal colony, ENP



10-yr Average (2008-17)
4,375 nests

2018
39,916 nests

2021
29,375 nests

Part 2: What triggered the supercolony nesting event of 2021



Nesting is Limited by Food (Prey) Availability



Hydrologic conditions



Wading bird prey availability



Wading bird reproductive dynamics

Prey Availability Part 1: Prey Production



Flooded ridge & slough landscape

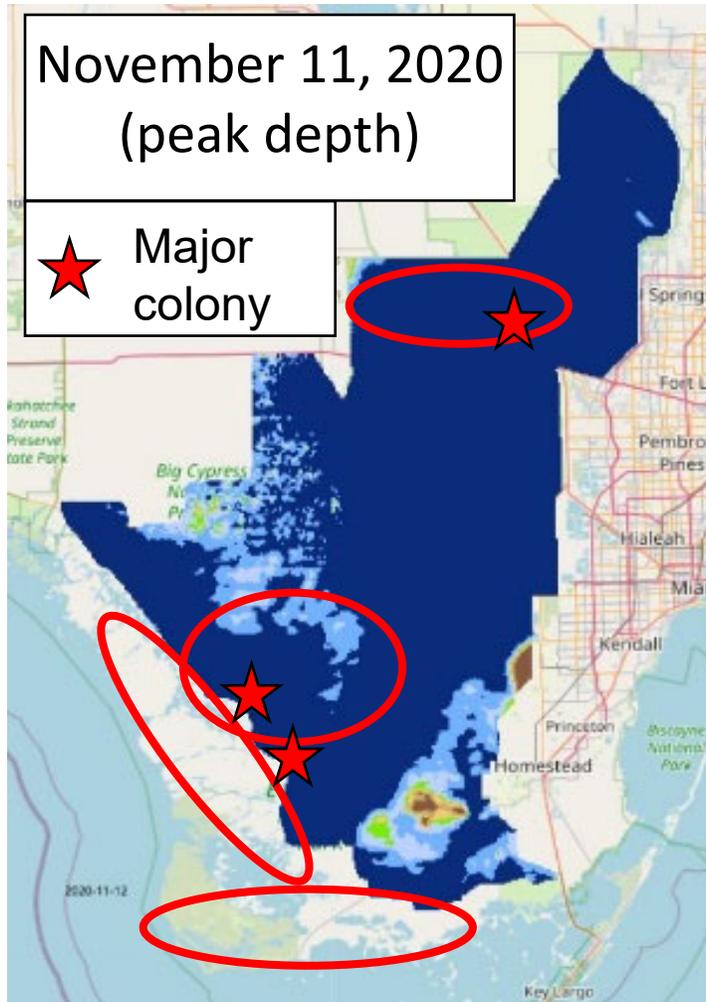
Fish & crayfish
need water!

More water in the
wet season = **more
prey** for the
following breeding
season

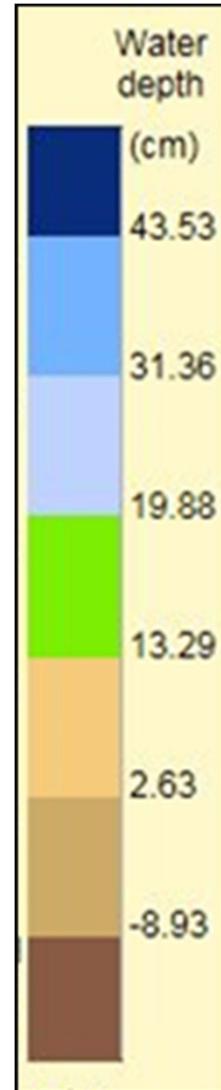


Everglades crayfish

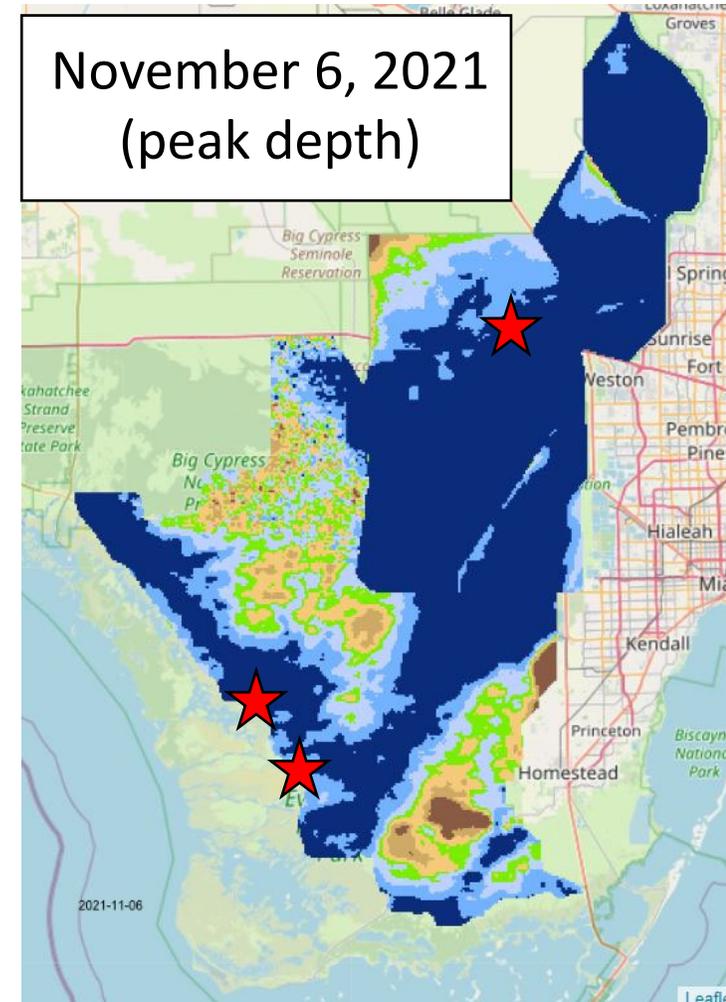
Was the Everglades 'wet' enough to produce prey leading into 2021?



2021 nesting season
Banner nesting season



Presenter: Mark Cook

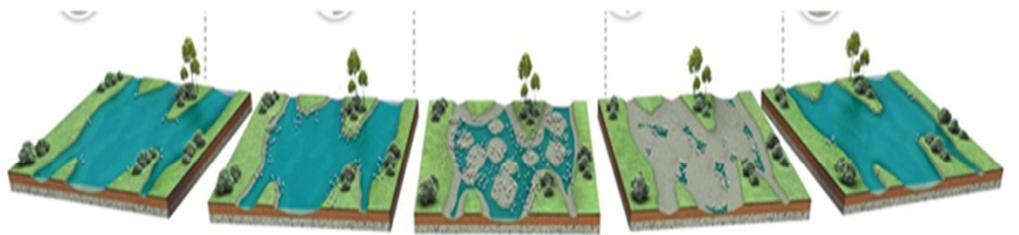


2022 nesting season
Average to poor nesting season

Prey Availability Part 2: Prey Accessibility

Ridge and Slough Fish Concentration and Bird Food

BIRD PRESENCE



Wading birds feeding on concentrated prey 19

Foraging Survey 2021-22: Where do the birds forage and when?

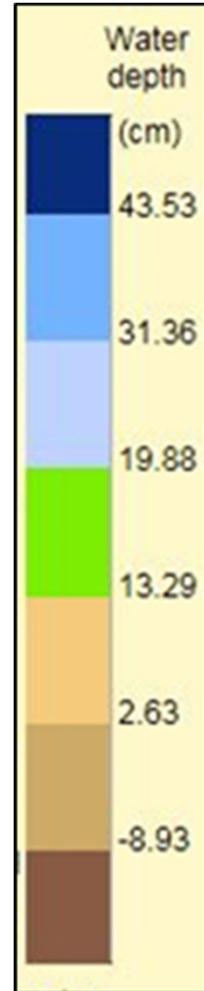
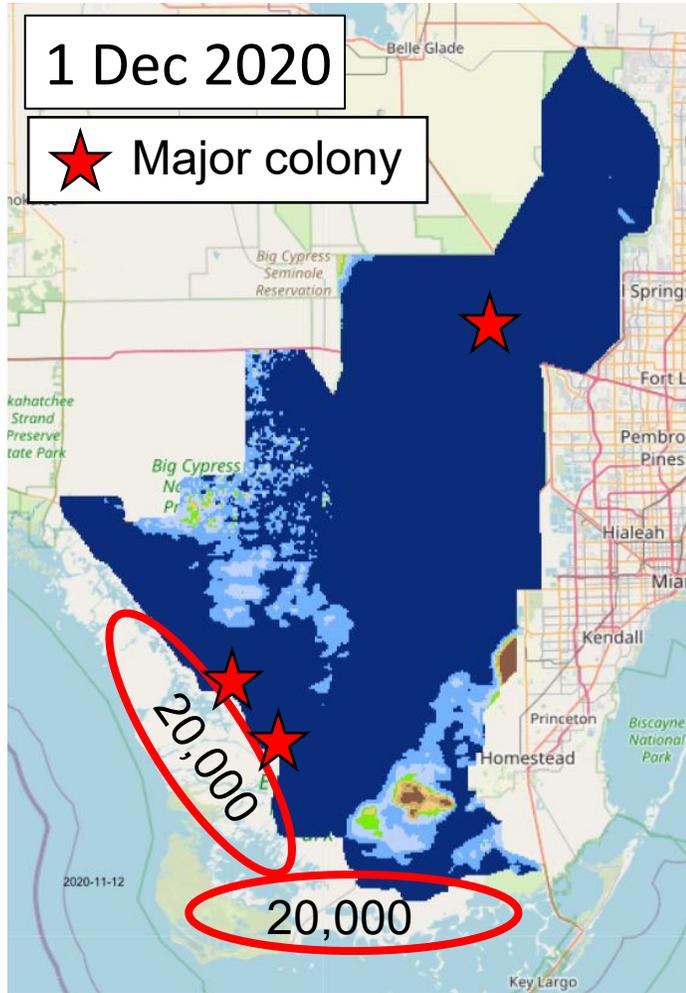
Predictions

To trigger super-colony nesting events, birds need optimal foraging conditions in:

1. The marsh-mangrove ecotone during the pre-nesting period (Dec-Feb)
2. The wet prairies during the chick rearing period (Mar-Apr)



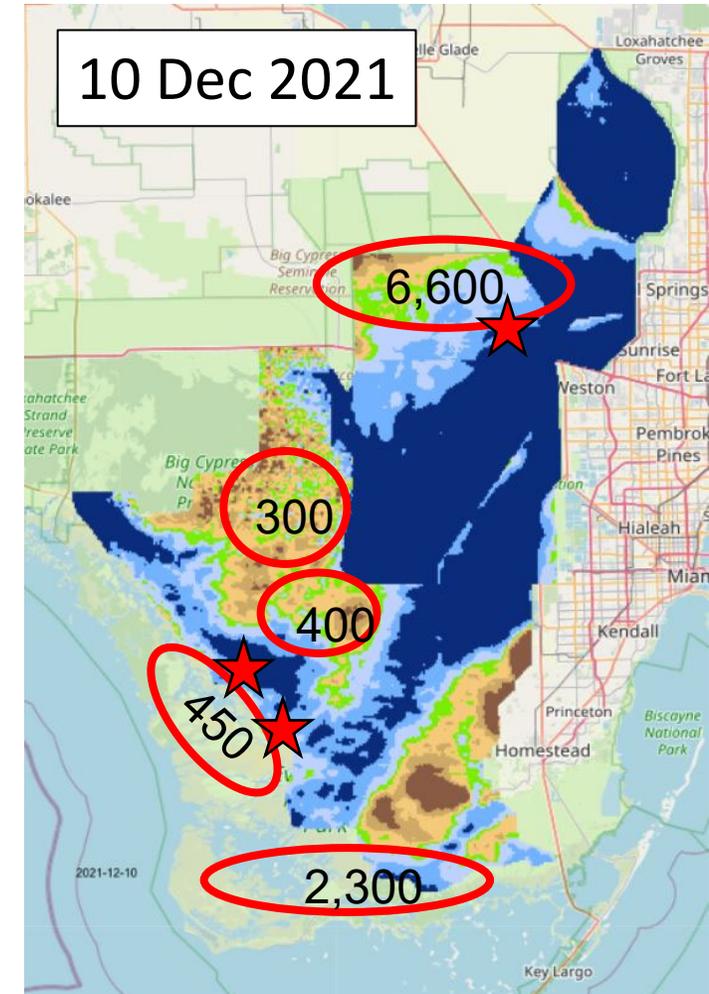
Is the marsh-mangrove ecotone important for early season foraging?



Too deep

Optimal foraging depth

Too dry



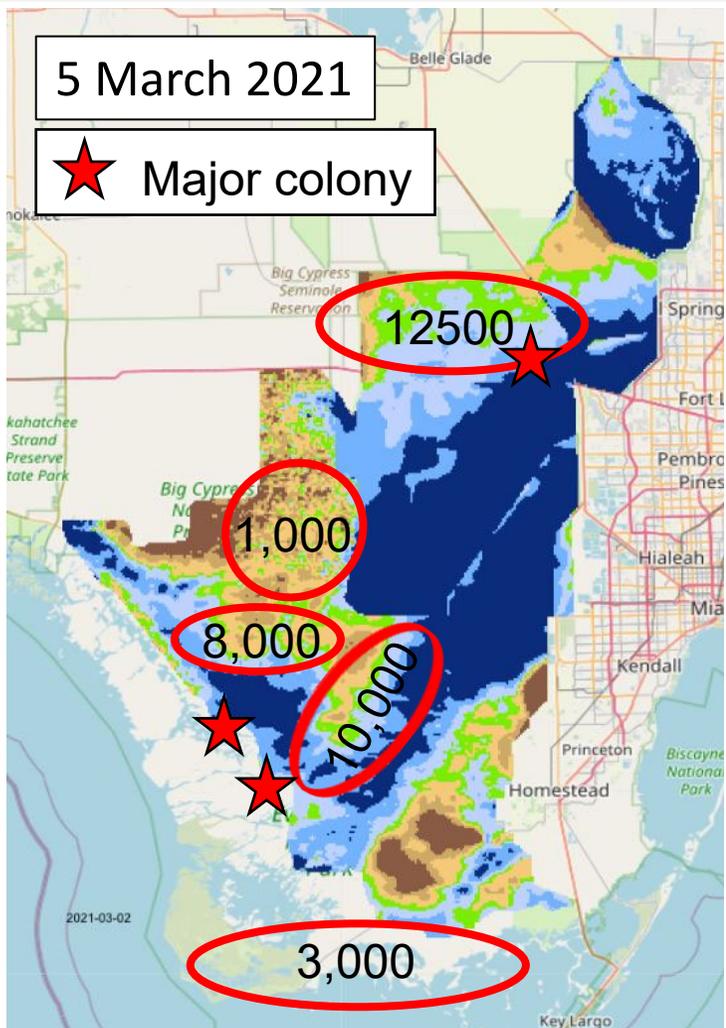
2021 nesting season

2022 nesting season

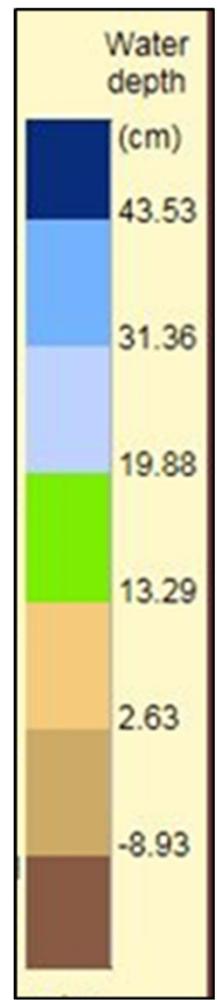
Banner nesting season

Average to poor nesting season 21

Are the wet prairie habitats important for triggering irruptive ibis nesting events?



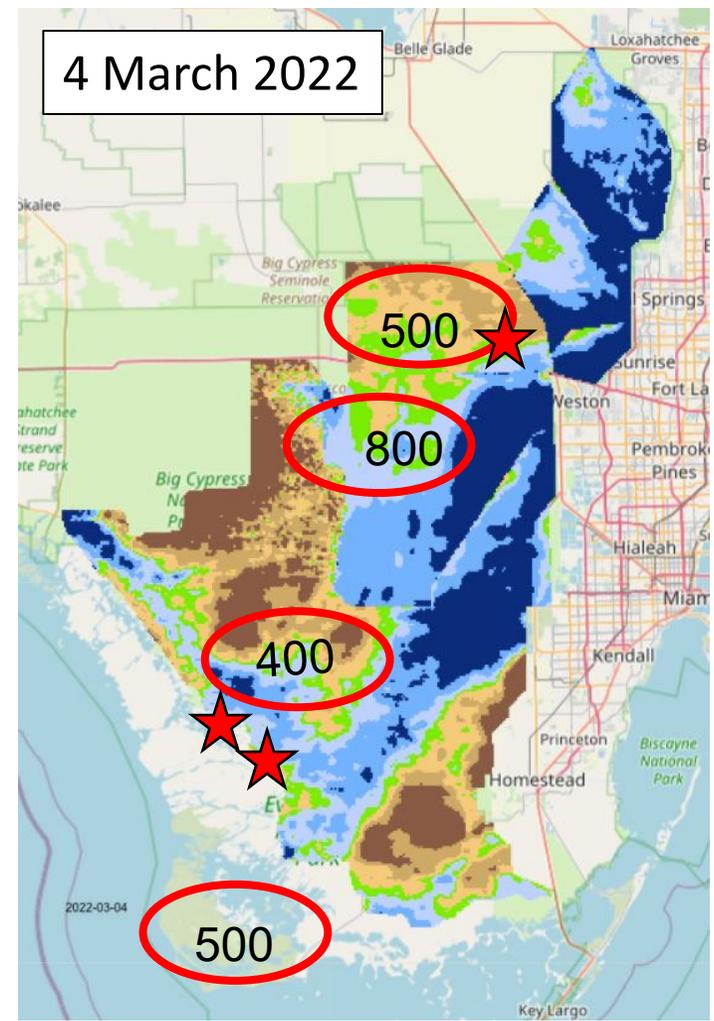
2021 nesting season
Banner nesting season



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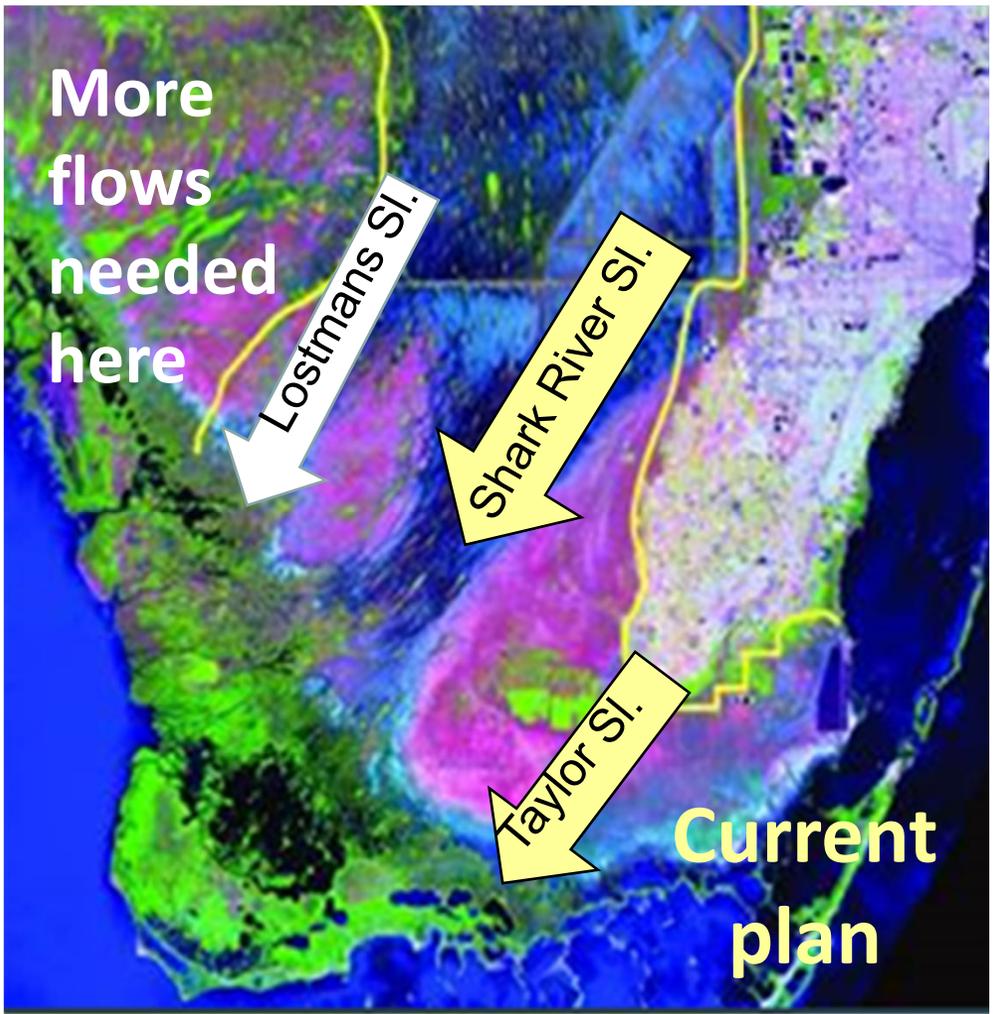
2022 nesting season
Average to poor nesting season

Summary

1. Wading birds are resilient; we can restore them with the 'right' hydrology.
2. Super-colony nesting events require increased flows that rehydrate the marl prairies & marsh-mangrove ecotone.
3. Super-colony nesting events are reflective of a healthy, functioning Everglades ecosystem: wading birds are **"umbrella species"**.
4. Wading birds play a critical ecological role.



What is needed to restore coastal super-colonies?



More water is needed in Lostmans Slough & the Western Marl Prairies!



Other ecosystem benefits from the flows

Shorebirds and flow, Florida Bay



American white pelicans



Black skimmers



Other ecosystem benefits from the flows



Bald eagle nest, Florida Bay



Alligator, Florida Bay

Acknowledgements

Contributors

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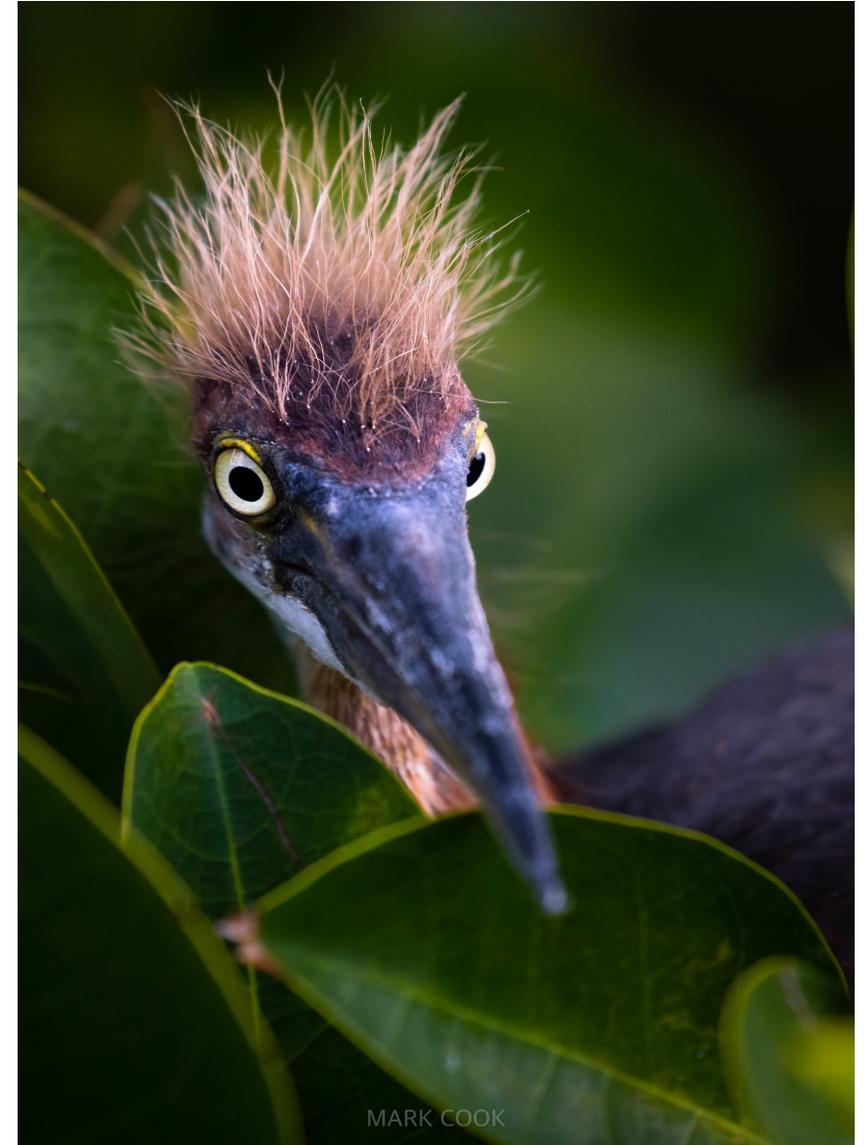
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Co-editor: Michael Baranski

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MARK COOK