

Joint Public Workshop for Minimum Flows and Levels Priority Lists and Schedules for the CFWI Area



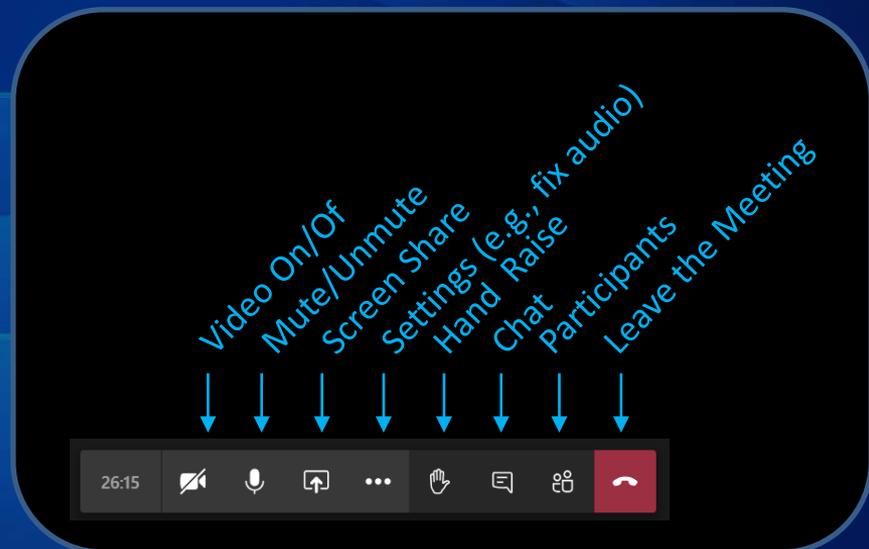
St. Johns River Water Management District (SJRWMD)
Southwest Florida Water Management District (SWFWMD)
South Florida Water Management District (SFWMD)

September 1, 2020

Teams Meeting Protocol

Please adhere to the following:

- Please turn video off
- Keep your line muted unless speaking
- Use the hand raise function to be recognized for commenting
- State your name when speaking
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- If using your phone for audio, please mute your computer microphone and speaker



Agenda

1. Introductions and Background.....Doug Leeper, SWFWMD
2. SJRWMD MFLs Priority List.....Andrew Sutherland, SJRWMD
3. SWFWMD MFLs Priority List..Doug Leeper, SWFWMD
4. SFWMD MFLs Priority List.....Don Medellin, SFWMD
5. Stakeholder comments
6. Adjourn

Statutory Directive for MFLs

Water management districts or DEP must establish MFLs that set the limit or level...

“...at which further withdrawals would be significantly harmful to the water resources or ecology of the area.”

Section 373.042(1), Florida Statutes

Statutory Directive for Reservations

Water management districts may...

“...reserve from use by permit applicants, water in such locations and quantities, and for such seasons of the year, as in its judgment may be required for the protection of fish and wildlife or the public health and safety.”

District Priority Lists and Schedules Meet Statutory and Rule Requirements

- Prioritization is based on the importance of waters to the State or region, and the existence of or potential for significant harm
- Includes waters experiencing or reasonably expected to experience adverse impacts
- MFLs the districts will voluntarily subject to independent scientific peer review are identified
- Proposed reservations are identified
- Listed water bodies that have the potential to be affected by withdrawals in an adjacent water management district are identified

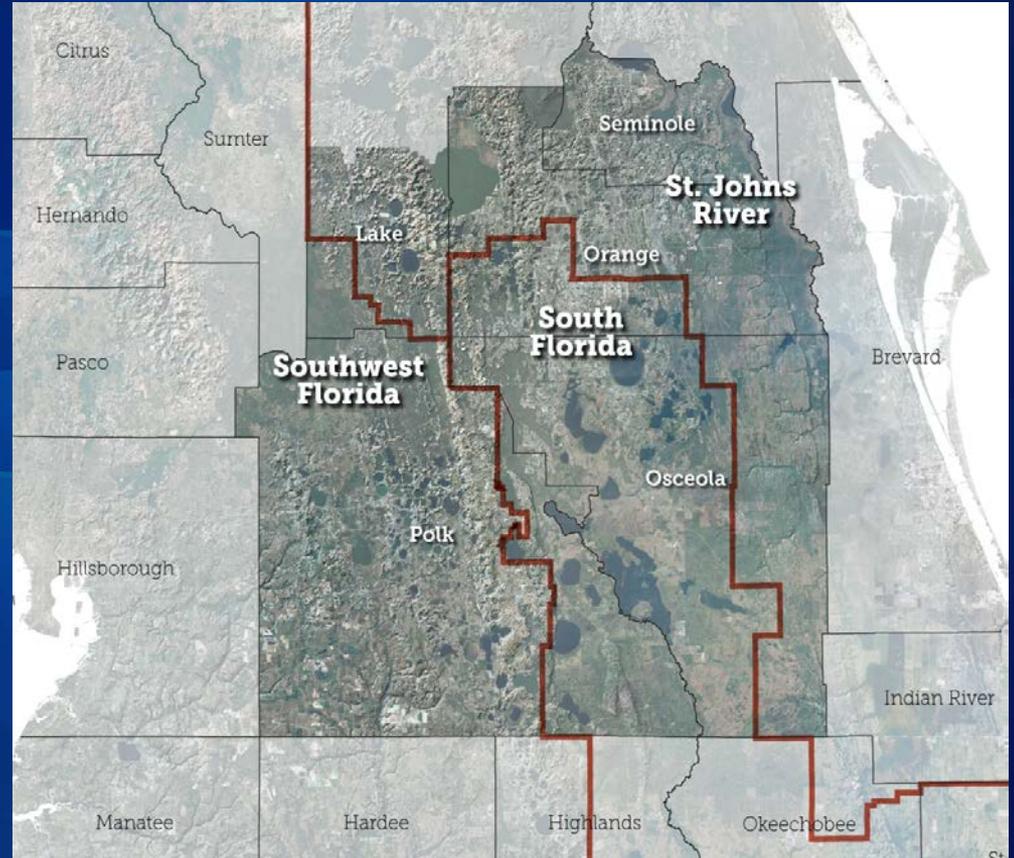
2020 Draft Priority List and Schedule

- Annual priority list and schedule required by statute for each district
- Presented to respective District Governing Boards for approval
- Submitted to DEP for review by Nov. 15th
- Districts are seeking stakeholder input
- *Written comments may be submitted to/by:*

SJRWMD	Oct. 1, 2020	<i>Andrew Sutherland - asutherl@sjrwmd.com</i>
SWFWMD	Sept. 23, 2020	<i>Doug Leeper - doug.leeper@watermatters.org</i>
SFWMD	Sept. 24, 2020	<i>Don Medellin - dmedelli@sfwmd.gov</i>

Central Florida Water Initiative

- Collaborative process among FDEP, SJRWMD, SFWMD, SWFWMD, FDACS, regional public water supply utilities, and other stakeholders
- CFWI Planning Area includes Orange, Osceola, Polk, Seminole and southern Lake counties
- Evolved from previous Central Florida Coordination Area efforts



SJRWMD

Draft 2020 MFLs Priority List and Schedule

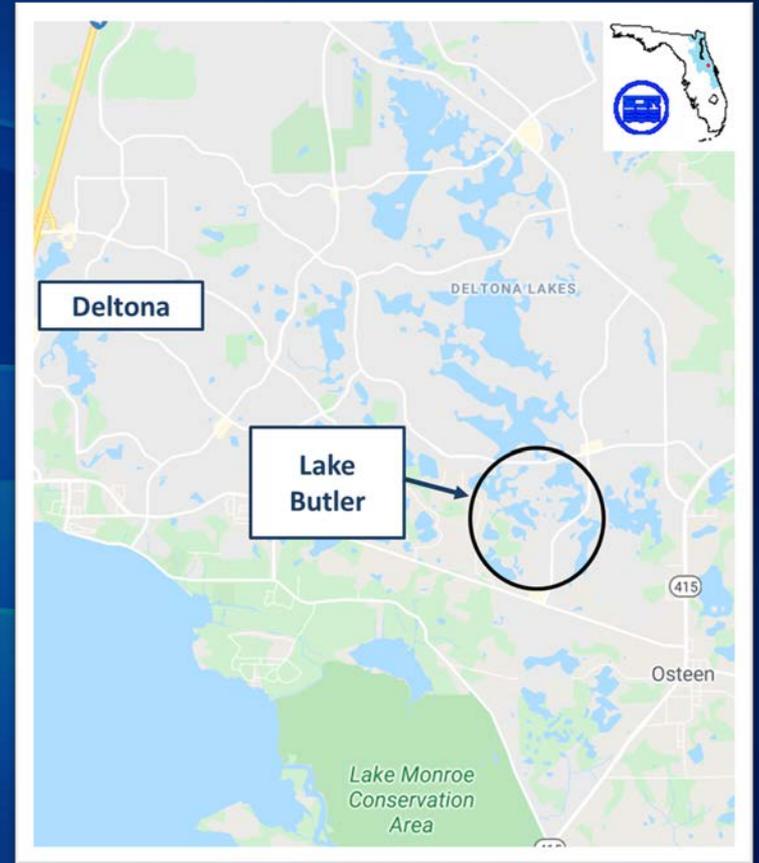
Posted on the SJRWMD web site at

<https://www.sjrwmd.com/minimumflowsandlevels/>



Lake Butler (Volusia Co.)

- *Adopted August 11, 2020*



SJRWMD Long Range Planning Effort

- MFLs are dependent on water budget and hydraulic models
- LRP will ensure that MFLs schedule aligns with:
 - Surface water model development
 - Water Supply Plan updates
 - three planning regions: NF, CSEC, CFWI
 - Groundwater model updates

SJRWMD Draft 2020 MFLs Priority List

Priority Year	New or Re-Evaluation	Water Body Name	Waterbody Type	County
2020	Re-evaluation	Brooklyn	Lake	Clay
	Re-evaluation	Geneva	Lake	Clay
2021	Re-evaluation	Sylvan*	Lake	Seminole
	Re-evaluation	Aphawa South*	Lake	Lake
	New	Little Wekiva River and associated springs*	River / Springs	Seminole/Orange
	Re-evaluation	Wekiva River at SR 46 Bridge*	River	Seminole/Lake
	Re-evaluation	Wekiwa Springs*	Springs	Seminole/Orange
	Re-evaluation	Rock Springs*	Springs	Orange
2022	New	Johns/Avalon/Apopka*	Lake	Orange/Lake
	Re-evaluation	Prevatt*	Lake	Orange
	New	Red Bug*	Lake	Seminole
	New	Griffin	Lake	Lake
	New	Burrell Basin Lakes (Beauclair, Dora, Eustis, Harris)	Lake	Lake
2023	New	East Crystal*	Lake	Seminole
2024	Re-evaluation	Weir	Lake	Marion

* *water bodies in the CFWI*

SJRWMD MFLs Priority List – Next Steps

MFLs Network Optimization

Scientifically sound method for efficient MFL network and assessment

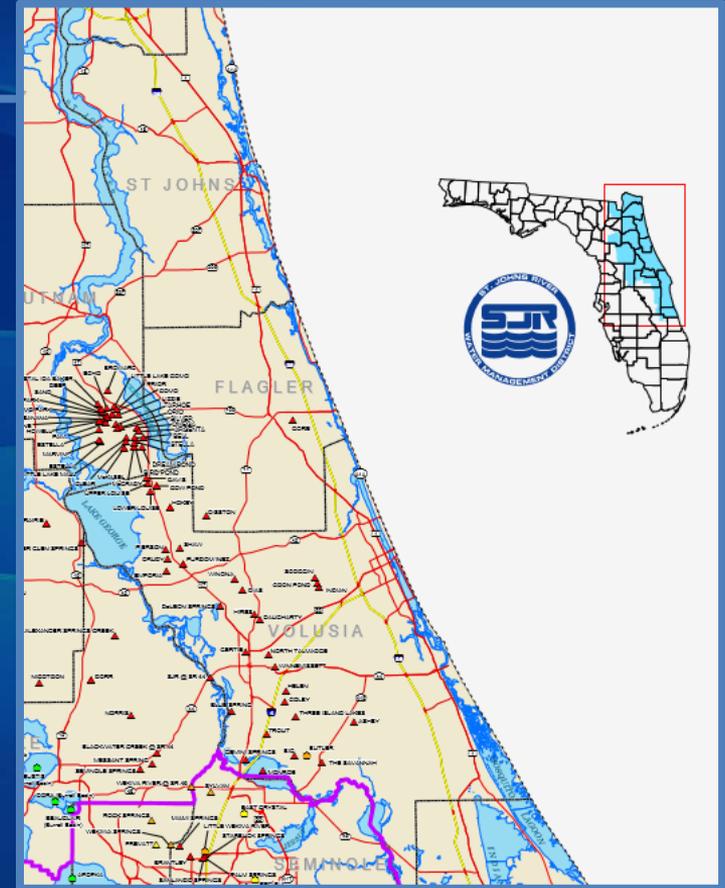
- 1) **Redundancy analysis:** to ensure efficient resource use by identifying and assessing sentinel systems; and
- 2) **Gap analysis:** to ensure an efficient MFL network distributed to protect water resources from current and future pumping impacts

Redundancy Analysis: Spatial Distribution

- Determine if there are redundant adopted MFLs
- Identify sentinel system(s) that are most appropriate to update or assess in areas with redundant systems
- Efficient use of resources
- Prioritize for model updates, assessment and MFLs re-evaluation
- Based on correlation and location of lakes within each planning zone

Gap Analysis

- Ensure efficient, effective MFL network
- MFLs distribution, sufficient to protect regional water resources from significant harm due to current and future pumping



Summary

A new method is under development to ensure:

- A scientifically sound and efficient MFL network and MFL assessment within the SJRWMD
- Efficient resource use by identifying and assessing sentinel systems
- MFLs are distributed across the district to protect water resources from significant harm due to current and future pumping

This involves:

- A redundancy analysis to prioritize adopted MFLs
- A gap analysis to identify areas where MFLs are needed

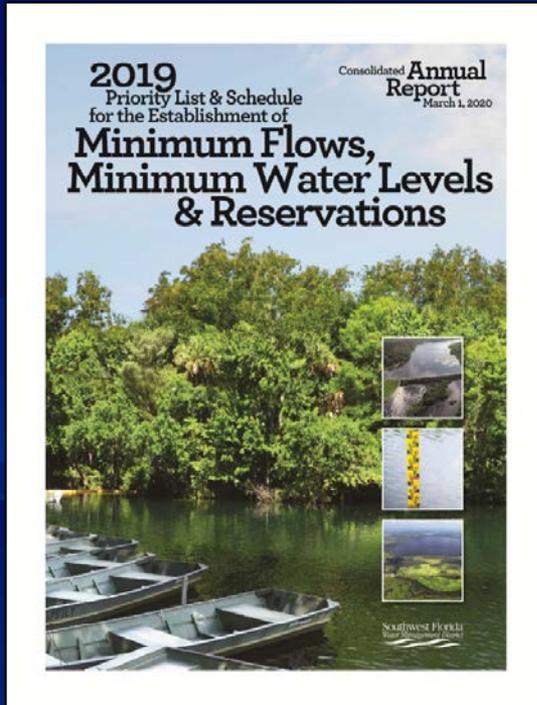
MFLs Priority List and Schedule may change in coming years based on Network Optimization effort

SWFWMD
Draft 2020 Priority List and Schedule

SWFWMD Priority List and Schedule

Current: 2019

Proposed: 2020



SOUTHWEST FLORIDA WATER MANAGEMENT 2020 PRIORITY LIST AND SCHEDULE

Overview

Pursuant to Sections 373.03(7) and 373.04(3), Florida Statutes (F.S.), the Southwest Florida Water Management District is required to annually update its priority list and schedule for the establishment of minimum flows and minimum water levels, submit the updated list and schedule to the Florida Department of Environmental Protection (DEP) by November 15 for approval, and include the approved list and schedule in the District's Consolidated Annual Report by March 1. Minimum flows and minimum water levels are rules established by the state water management districts or DEP that define the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area. In addition to prioritized minimum flows and water levels, the priority list and schedule must include reservations proposed for establishment. Reservations are rules that reserve water from use by permit applications, as necessary for the protection of fish and wildlife or public health and safety.

The District prepared this 2020 priority list and schedule to address all relevant statutory directives, and guidance concerning minimum flow, minimum water level and water reservations prioritization included in Rules 62-40.473, and 62-40.474 within the State Water Resource Implementation Rule (Chapter 62-40, Florida Administrative Code (F.A.C.)).

District rules include minimum flows or minimum water levels for 205 water bodies (Chapter 40D-8, F.A.C.) and reservations for 2 water bodies (Chapter 40D-9, F.A.C.). As listed in this draft 2020 priority list and schedule, minimum flows or water levels have been established for 127 lakes, 36 wetlands, 23 freshwater and estuarine river segments, 10 springs or spring groups (including all first magnitude springs and all second magnitude springs within the District that occur within state or federal lands purchased for conservation purposes), 7 Upper Florida aquifer (UFA) sites in the northern Tampa Bay area, an UFA site in the Dover Plant City area, and the UFA in the Most Impacted Area of the Southern Water Use Control Area. Ninety of these established minimum flows and level have been reevaluated and revised, as necessary. As also noted in this draft 2020 priority list and schedule, reservations have been established for Lake Hancock/Lower Shedd Creek and Morris Bridge Sluic) to support minimum flow recovery in 2 rivers.

Minimum flows, minimum water levels and reservations proposed for establishment and reevaluation through 2023 are provided in tabular form in this 2020 priority list and schedule. Designation of water body type (aquifer, estuary, lake, river, river-estuary, spring and as appropriate, spring magnitude, which is associated with the rate of spring discharge) are provided along with location information. Water bodies that are part of a larger system, e.g., a spring group associated with a river, are listed by water body name and system.

The District's intent regarding completion of voluntary, independent, scientific peer review is also identified for each prioritized water body. Voluntary scientific peer review is proposed for all prioritized spring and river segments identified for minimum flow establishment based on the expected level of complexity of the minimum flows, and the anticipated degree of public concern regarding their development. None of the prioritized lake minimum levels are expected to be subjected to voluntary scientific peer review, based on anticipated use of previously peer-reviewed methodologies for development of the minimum water levels.

Prioritized water bodies that may be affected by withdrawals occurring in other water management districts, i.e., are potentially subject to cross-boundary impacts, are identified to support coordination of regulatory activities among the districts and DEP. Development of minimum flow or water levels by the DEP for these water bodies is not, however, currently considered necessary or appropriate.

Finally, the status of rulemaking for each prioritized water body is also provided.

SWFWMD Draft Priority List Update – “Completions”

- **2019/2020 MFLs**
 - 5 of 6 Northern Tampa Bay lake (Calm, Charles, Church, Echo, Sapphire) reevaluations
 - 40 of 41 Northern Tampa Bay wetland reevaluations
 - 14 unchanged, 19 revised and 7 repealed; plus 2 new adopted
 - Chassahowitzka River/Chassahowitzka Spring Group/Blind Spring reevaluation
 - Homosassa River/Homosassa Spring Group reevaluation
 - Rainbow River/Rainbow Spring Group emergency rule replacement
- **2020 Reservation**
 - Lake Hancock/Lower Saddle Creek

SWFWMD Draft Priority List Update – “Changes”

- **3-year list to be submitted to DEP**
 - MFLs scheduled for 2021, 2022, 2023, with some 2020 “hold-overs”
 - Will maintain an extended list of MFLs/reservations for internal use
- **Rescheduled MFLs**
 - Lake Linda (Northern Tampa Bay) reevaluation moved from 2019 to 2020
 - Shell Creek (lower segment) moved from 2020 to 2021
 - Braden River (lower segment) moved from 2021 to 2023
 - Manatee River (lower segment) moved from 2021 to 2023

SWFWMD Draft Priority List Update – “Changes” *(continued)*

- **Deleted MFLs**

- 5 Northern Tampa Bay lake (Barbara, Crenshaw, Ellen, Helen, Mound) reevaluations previously scheduled for 2021

- **Added MFLs**

- 1 lake (Marion) reevaluation in 2020
- 3 SWUCA lake (North Lake Wales, Verona, Tulane) reevaluations in 2022

SWFWMD Proposed Priority Water Bodies

- **2020 MFLs**

- 6 Northern Tampa Bay lake (Cypress, Garden, Halfmoon, Jackson, Linda (moved from 2019), Strawberry) reevaluations*
- 1 Levy County lake (Marion) reevaluation*
- 1 Northern Tampa Bay wetland reevaluation*
- Peace River (lower segment) reevaluation*

** Rulemaking may be initiated/completed in 2020*

- **2021 MFLs**

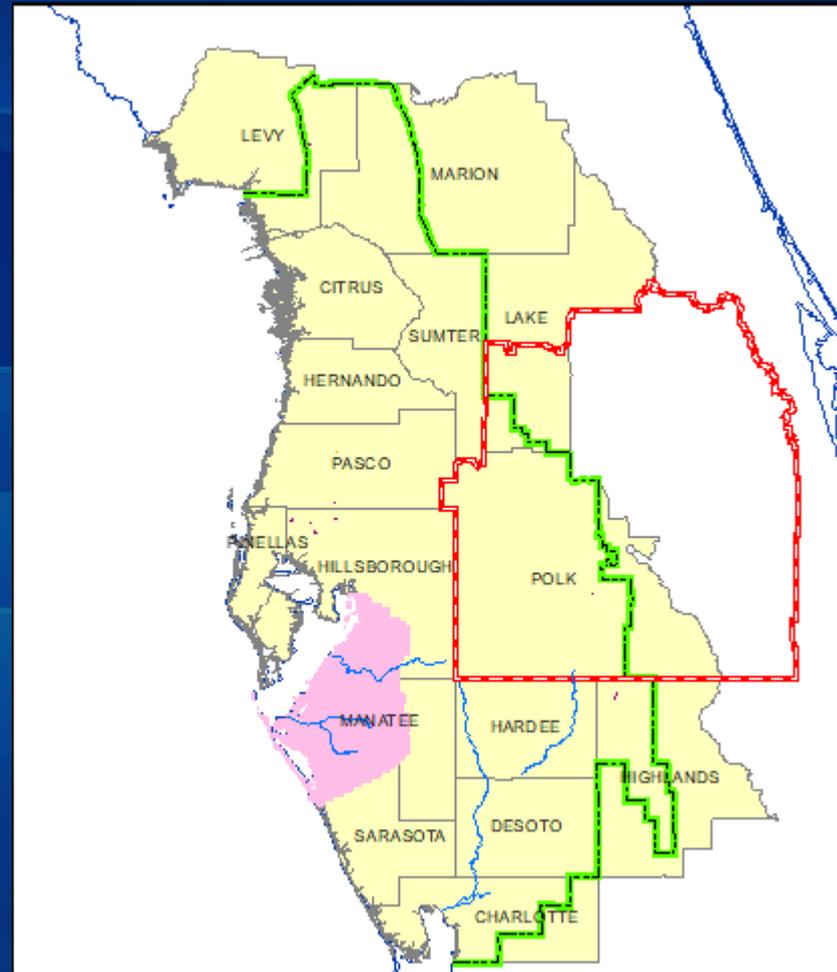
- Shell Creek (lower segment) moved from 2020

SWFWMD Proposed Priority Water Bodies

- **2022 MFLs**
 - 3 lake (N Lake Wales, Verona, Tulane) reevaluations
 - Little Manatee River (lower segment)
 - Little Manatee River (upper segment)
- **2023 MFLs**
 - Charlie Creek
 - Horse Creek
 - SWUCA Saltwater Intrusion Minimum Aquifer Level reevaluation
 - Braden River (lower segment) (rescheduled from 2021)
 - Manatee River (lower segment) (rescheduled from 2021)

SWFWMD Proposed Priority Water Bodies

- Minimum Lake Level Site
- Minimum Wetland Level Site
- Minimum Flow River Segment
- Minimum Aquifer Level Area
- SWFWMD Boundary
- CFWI Planning Area



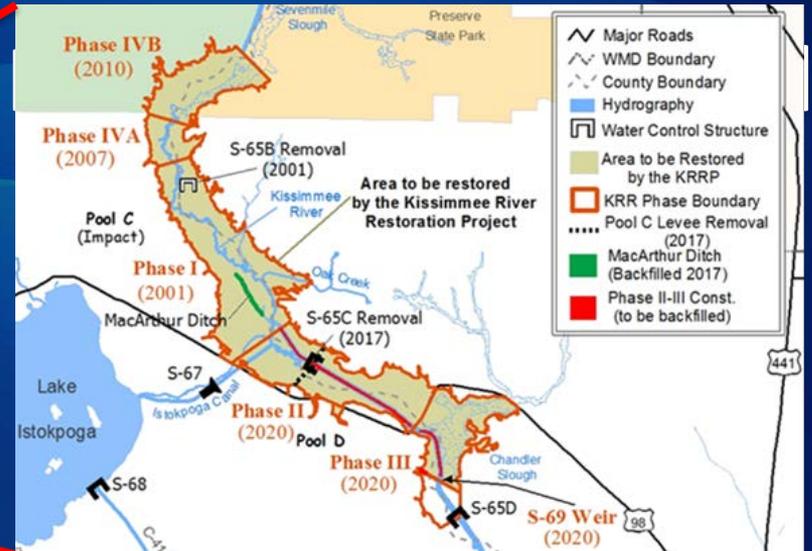
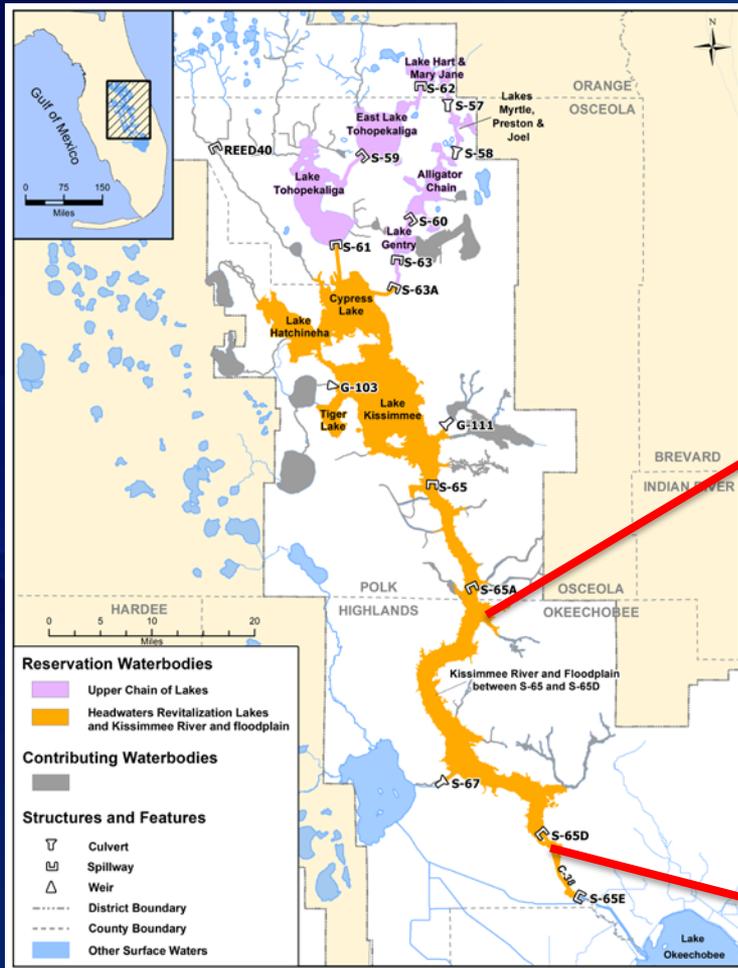
SFWMD

Draft 2020 Priority List and Schedule

Don Medellin
Applied Sciences Bureau

SFWMD 2020 Priority List and Schedule

Kissimmee River Restoration Project



Kissimmee River Restoration Project





February 8 2018

Riverwoods pasture, Phase II restoration area

Feb 8, 2018

Kissimmee River and Chain of Lakes - Fish and Wildlife



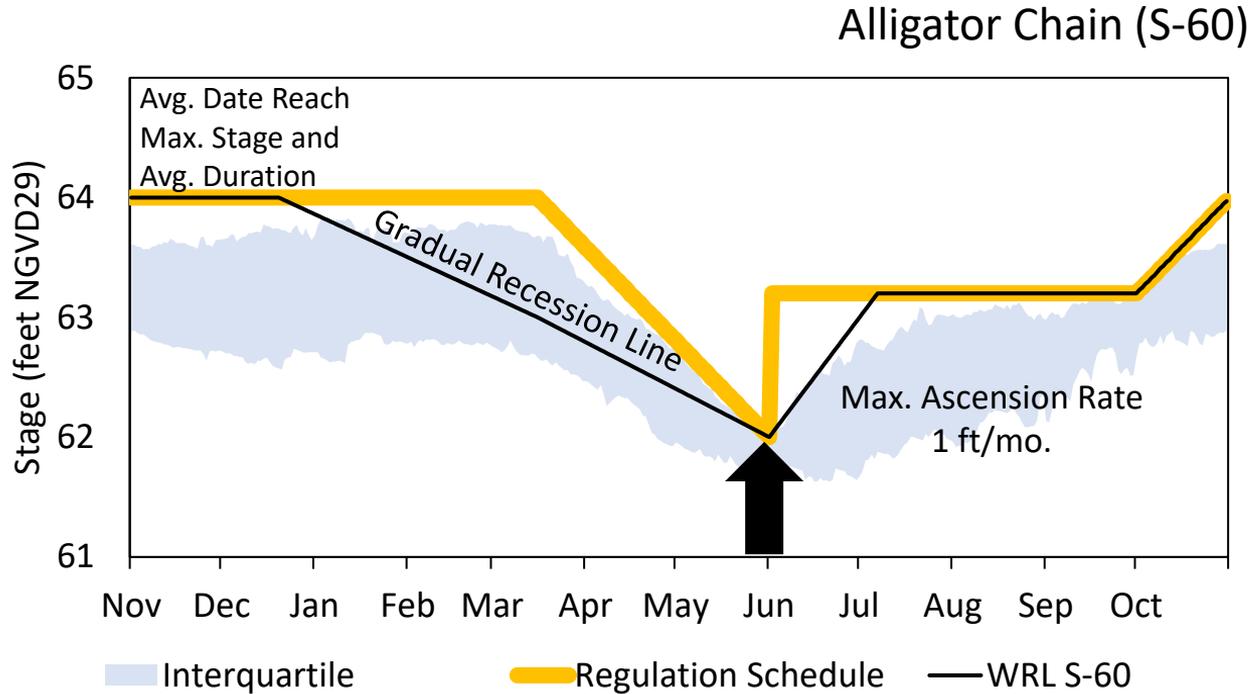
Wading Birds on Kissimmee River Floodplain



American Alligator on
Phase 1 Restoration Area

- Fish Community
 - Approximately 50+ species
- Water Birds
 - 68 species of wetland dependent birds
 - 14 species of wading birds including Federally threatened wood stork
 - 16 species of ducks
- Amphibians and Reptiles
 - 24 species
- Mammals
 - 4 species wetland dependent

Water Reservation Lines and Historical Stages



Protecting maximum lake stages and durations

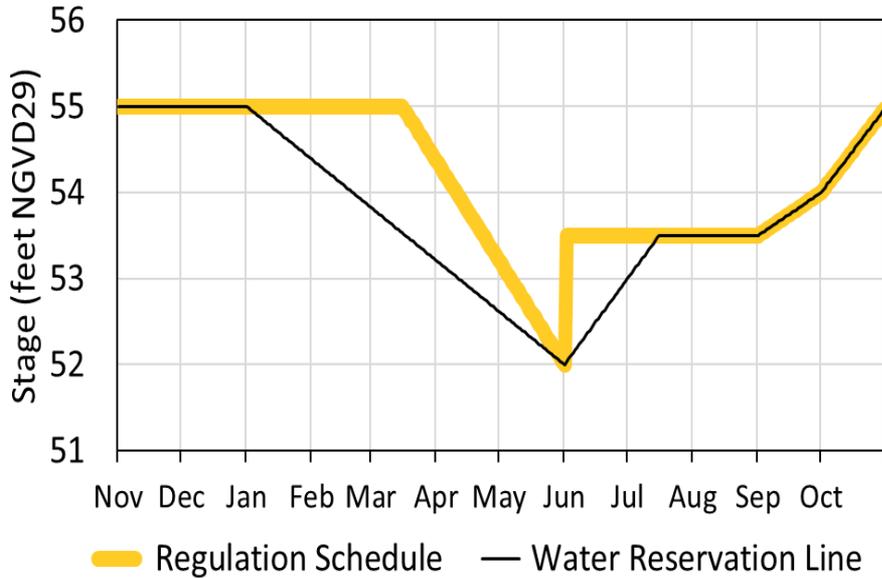
Protecting breeding season stages

Protecting minimum lake stages

Protecting transition from minimum to maximum and lake refill capacity

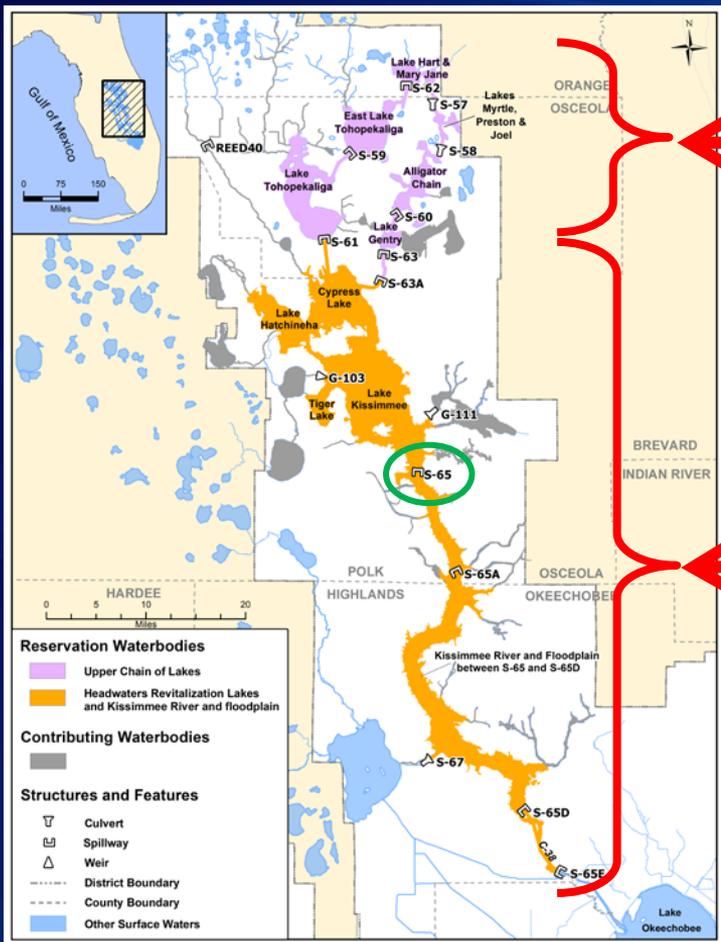
Water Reservation Line Example

Lake Tohopekaliga Waterbodies



Day	January	February	March	April	May	June	July	August	September	October	November	December
1	55.00	54.38	53.83	53.21	52.62	52.00	53.00	53.50	53.50	54.00	55.00	55.00
2	54.98	54.36	53.81	53.19	52.60	52.03	53.03	53.50	53.52	54.03	55.00	55.00
3	54.96	54.34	53.79	53.17	52.58	52.07	53.07	53.50	53.53	54.06	55.00	55.00
4	54.94	54.32	53.77	53.15	52.56	52.10	53.10	53.50	53.55	54.10	55.00	55.00
5	54.92	54.30	53.75	53.13	52.54	52.13	53.13	53.50	53.57	54.13	55.00	55.00
6	54.90	54.28	53.73	53.11	52.52	52.17	53.17	53.50	53.58	54.16	55.00	55.00
7	54.88	54.26	53.71	53.09	52.50	52.20	53.20	53.50	53.60	54.19	55.00	55.00
8	54.86	54.25	53.69	53.07	52.48	52.23	53.23	53.50	53.62	54.23	55.00	55.00
9	54.84	54.23	53.67	53.05	52.46	52.27	53.27	53.50	53.63	54.26	55.00	55.00
10	54.82	54.21	53.65	53.03	52.44	52.30	53.30	53.50	53.65	54.29	55.00	55.00
11	54.80	54.19	53.63	53.01	52.42	52.33	53.33	53.50	53.67	54.32	55.00	55.00
12	54.78	54.17	53.61	52.99	52.40	52.37	53.37	53.50	53.68	54.35	55.00	55.00
13	54.76	54.15	53.59	52.97	52.38	52.40	53.40	53.50	53.70	54.39	55.00	55.00
14	54.74	54.13	53.57	52.95	52.36	52.43	53.43	53.50	53.72	54.42	55.00	55.00
15	54.72	54.11	53.55	52.93	52.34	52.47	53.47	53.50	53.73	54.45	55.00	55.00
16	54.70	54.09	53.53	52.91	52.32	52.50	53.50	53.50	53.75	54.48	55.00	55.00
17	54.68	54.07	53.51	52.89	52.30	52.53	53.50	53.50	53.77	54.52	55.00	55.00
18	54.66	54.05	53.49	52.87	52.28	52.57	53.50	53.50	53.78	54.55	55.00	55.00
19	54.64	54.03	53.47	52.85	52.26	52.60	53.50	53.50	53.80	54.58	55.00	55.00
20	54.62	54.01	53.45	52.83	52.24	52.63	53.50	53.50	53.82	54.61	55.00	55.00
21	54.60	53.99	53.43	52.81	52.22	52.67	53.50	53.50	53.83	54.65	55.00	55.00
22	54.58	53.97	53.41	52.79	52.20	52.70	53.50	53.50	53.85	54.68	55.00	55.00
23	54.56	53.95	53.39	52.77	52.18	52.73	53.50	53.50	53.87	54.71	55.00	55.00
24	54.54	53.93	53.37	52.75	52.16	52.77	53.50	53.50	53.88	54.74	55.00	55.00
25	54.52	53.91	53.35	52.74	52.14	52.80	53.50	53.50	53.90	54.77	55.00	55.00
26	54.50	53.89	53.33	52.72	52.12	52.83	53.50	53.50	53.92	54.81	55.00	55.00
27	54.48	53.87	53.31	52.70	52.10	52.87	53.50	53.50	53.93	54.84	55.00	55.00
28	54.46	53.85	53.29	52.68	52.08	52.90	53.50	53.50	53.95	54.87	55.00	55.00
29	54.44		53.27	52.66	52.06	52.93	53.50	53.50	53.97	54.90	55.00	55.00
30	54.42		53.25	52.64	52.04	52.97	53.50	53.50	53.98	54.94	55.00	55.00

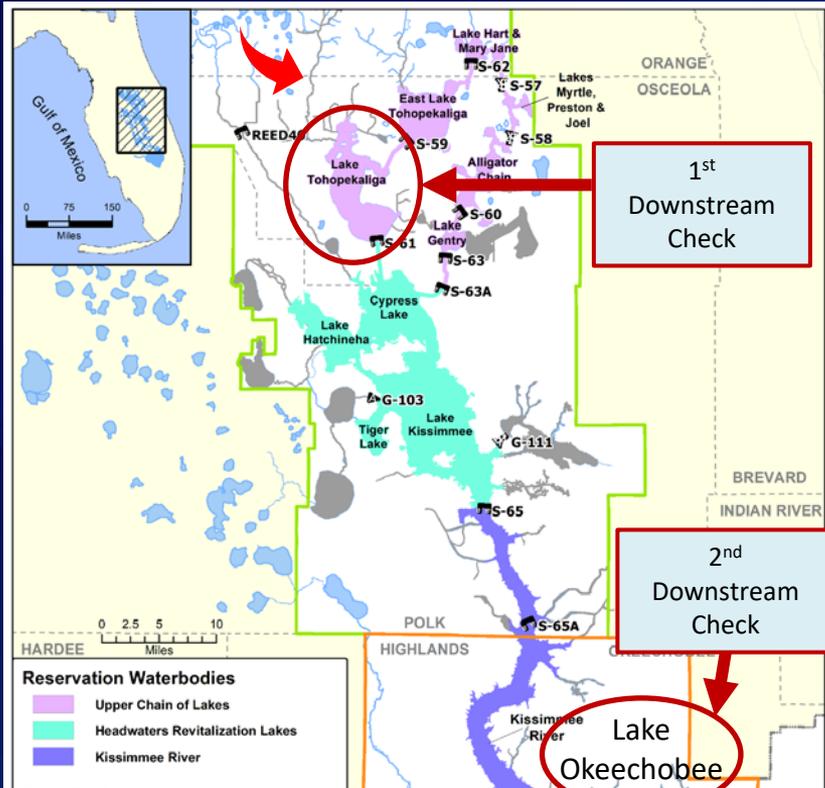
Current Draft Reservation Rule Language



Upper Chain of Lakes
Water will be reserved up to the proposed "Water Reservation Line"

Headwater Lakes & Kissimmee River
All water will be reserved

Example: Withdrawals from Shingle Creek



- Date: Sept. 1st
- Actual stage in Lake Tohopekaliga: 53.85 ft
- Water reservation stage for Lake Tohopekaliga, 53.5 ft
- Actual stage higher than water reservation line; therefore, withdrawals may be allowed, subject to the downstream checks

Project Milestones

- January 2019 - New modeling tool: Upper Kissimmee Operations Simulation Model (UK-OPS)
 - Used as a regulatory tool
 - Incorporates the revised water reservation lines
 - Evaluated different hypothetical withdrawal scenarios
- March 2020 - Updated technical document to include the best available data
- March 2020 - Revised rules (Chapter 40E-10, F.A.C., and Applicant's Handbook)
- April 17, 2020 Rule Development Workshop #3
- June 9, 2020 Rule Development Workshop #4

Kissimmee River and Chain of Lakes Water Reservation

- Currently in rule development process
- Draft rules and supporting technical documents are posted on the website:
- *<https://www.sfwmd.gov/our-work/water-reservations>*
- Regionally significant waterbodies – ~172,500 acres in size
- Reservation will protect the existing public investment of nearly \$800 Million for the Kissimmee River Restoration
- Construction Completion Spring 2021 - Kissimmee River Restoration
- Rule adoption targeted for December 2020

NEXT STEPS

Kissimmee Rule Development Schedule

Activity	Date
Public Workshop #5	September 3, 2020
Complete SERC Evaluation	September 21, 2020
Notice of Proposed Rule *	October 8, 2020
Rule Effective Date **	December 3, 2020

* Governing Board action required

** Provided no changes are made and no request for public hearing is timely received

Stakeholder Comment

Written comments may be submitted to/by:

SJRWMD	Oct. 1, 2020	<i>Andrew Sutherland - asutherl@sjrwmd.com</i>
SWFWMD	Sept. 23, 2020	<i>Doug Leeper - doug.leeper@watermatters.org</i>
SFWMD	Sept. 24, 2020	<i>Don Medellin - dmedelli@sfwmd.gov</i>

Governing Board meetings open to the public:

SJRWMD	Oct. 13, 2020	Palatka
SWFWMD	Oct. 20, 2020	Brooksville
SFWMD	Oct. 10, 2020	West Palm Beach

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EXTRA SLIDE(S)

2020 CFWI RWSP Schedule

- **February** Steering Committee approved release of draft 2020 CFWI RWSP
- **February/March** Presentation to District Governing Boards
- **March to May** Public comment period
- **April** Host four public workshops
- **May to August** Public comments/responses and update of draft
- **August/September** Management Oversight Committee review of updated draft
- **October** Steering Committee approval of final draft 2020 CFWI RWSP
- **November** Governing Board approvals of final draft 2020 CFWI RWSP

