

# **Loxahatchee River Watershed Restoration Project**

## **Rule Development Workshop #2**

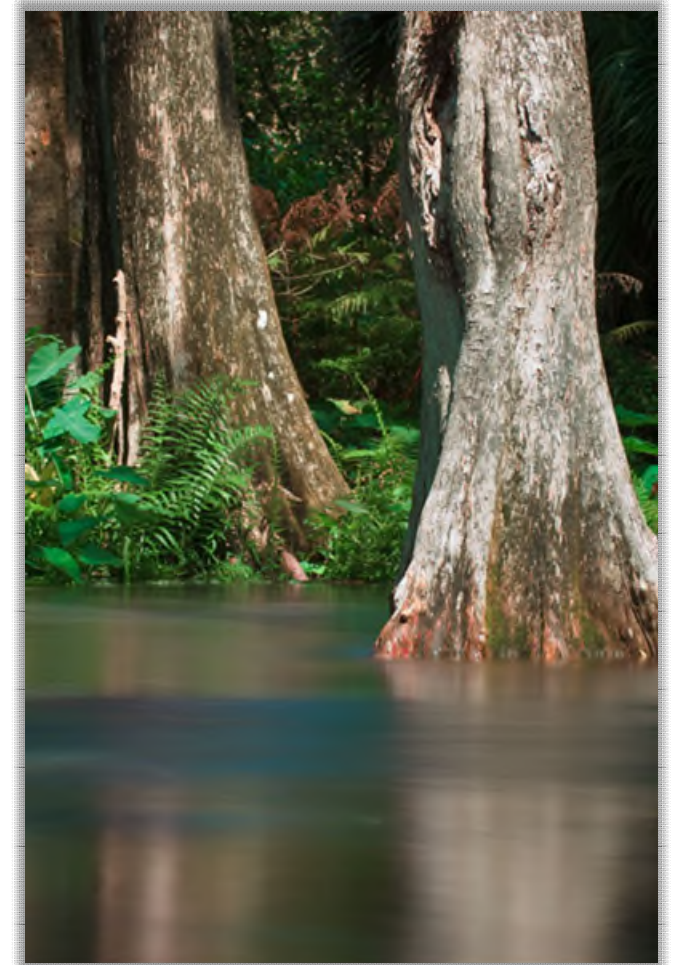
**February 22, 2022**





# Zoom Format for Public Engagement

- Workshop will be recorded
- Workshop participants will be muted during presentations
- Questions will be addressed during the “Public Comment” portion of agenda
- Please use the “Q & A” (Question and Answer) feature on the Zoom toolbar to submit a question regarding the information presented
  - Include your name, affiliation, and relevant agenda item/speaker



# Workshop Agenda

Loxahatchee River Watershed Restoration Project  
Rule Development Workshop #2  
February 22, 2022

1. Welcome and Introduction
  - a. Summary of Workshop #1
2. Water Protection Overview and Rulemaking Processes
3. Technical Document Comments and Revisions
4. Draft Rule Comments and Revisions
5. Public Comment
6. Next Steps
7. Adjourn



# Welcome





# Introduction and Summary of Workshop #1

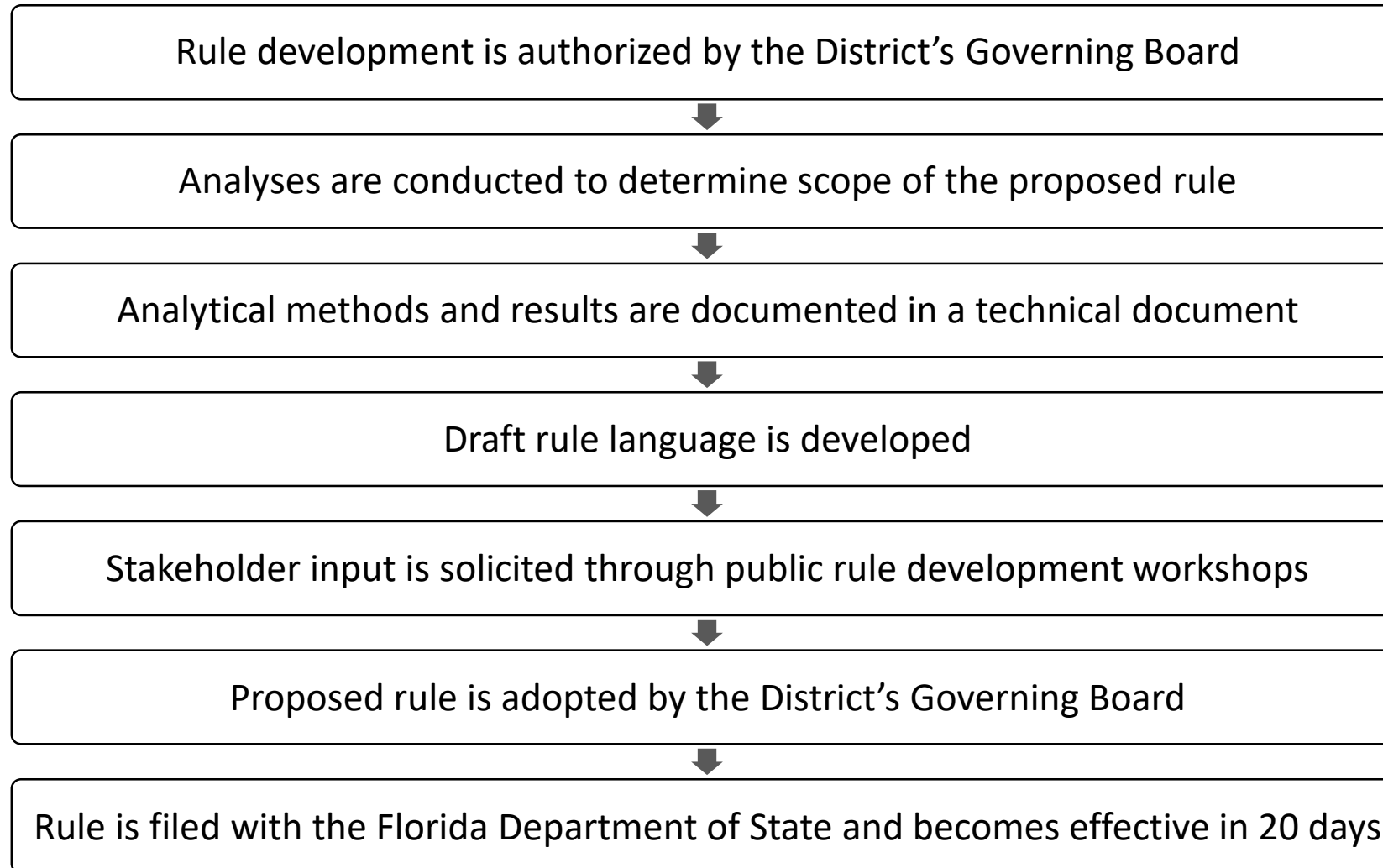


# Water Protection Overview

- Water resource protection mechanisms
  - MFLs
  - Water reservations
  - Consumptive use permitting rules
  - Water shortage
- WRDA 2000 & Section 373.470, F.S., authorize use of reservation or CUP rules

	Water Resource Protection Tools	Water Resource Protection Standards	Observed Impacts
Water Levels/Flow Decreasing	Permittable Water Reservation of Water	NO HARM (1-in-10 Level of Certainty)	Normal Permitted Operations Environmental Restoration
	Phase I Water Shortage Phase II Water Shortage	HARM	Temporary loss of water resource functions taking 1 to 2 years to recover
	<b>MINIMUM FLOWS &amp; LEVELS</b>		
Drought Severity Increasing	Phase III Water Shortage	SIGNIFICANT HARM	Water resource functions require multiple years to recover (> 2 year)
	Phase IV Water Shortage	SERIOUS HARM	Permanent or irreversible loss of water resource functions

# Key Steps in the Rule Development Process



# LRWRP Rule Development Schedule

Milestone	Date
Notice of Rule Development* (Published in FAR)	December 9, 2021 (December 21, 2021)
Rule Development Workshop #1	January 25, 2022
Rule Development Workshop #2	February 22, 2022
Notice of Proposed Rule & Rule Adoption*	April 14, 2022
Effective Date of New Rules	Summer 2022



# Overview of the LRWRP

- CERP project in northern Palm Beach County & southern Martin County
- Goals to improve flows to the NW Fork of the Loxahatchee River and improve estuarine communities and wetland habitat
- Multiple components grouped into 3 flow-ways
  - C-18W Reservoir and ASR wells

## INTEGRATED DELIVERY SCHEDULE 2021 UPDATE FINAL DRAFT

SOUTH FLORIDA ECOSYSTEM RESTORATION | CENTRAL AND SOUTHERN FLORIDA COMPREHENSIVE EVERGLADES RESTORATION PLAN

PROJECT LOCATOR	YELLOW BOOK COMPONENTS	PROJECT	FISCAL YEAR   DESIGN AND CONSTRUCTION COSTS (DOLLARS IN MILLIONS) <sup>2</sup>												
			2020 W	2021	2022 W	2023	2024 W	2025	2026 W	2027	2028 W	2029	2030 W	2031	2032W
		Planning Estimates Federal Construction Cost (\$FER)++	\$ 235	\$ 250	\$ 350										
		Planning Estimates Non-Federal Construction Cost (\$FER)++	\$ 363	\$ 258	\$ 329	\$ 828	\$ 814	\$ 964	\$ 1,275	\$ 983	\$ 731	\$ 468	\$ 256	\$ 154	\$ 88
		Planning Estimates Total Construction Cost (\$FER)++	\$ 598	\$ 508	\$ 679										
CERP GENERATION 4 (AUTHORIZED IN WRDA 2020; PPA ANTICIPATED IN 2022)															
P16	K, OPE	Loxahatchee River Watershed Restoration Project			*****										
		Flow-way 1 (M-1 Canal, G160/161, Grassy Water Preserve)				*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
		Flow-way 2 (C-18 Reservoir, ASR Wells)				*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
		Flow-way 3 (Gulf Stream West, Nine Gems, Culpepper, Moonshine, Hobe Grove, Kilching Creek)				*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

Non-federal	++	Does not reflect budgetary development dollars or capability	*****	Design, PPA Execution, Real Estate Acquisition
Federal	W	Expected WRDA year	*****	Construction (Initiated by award of construction contract)
Fiscal Closeout	•XXXX•	Project Implementation Report	*****	Operational Plan
Monitoring	•XXXX•	Project Implementation Report with Exemption	*****	Operational Testing and Monitoring Period

# Public Comments

## ➤ Received comments from:

- Palm Beach County
- City of West Palm Beach
- Don Medellin, private citizen
- Richard Roberts, private citizen

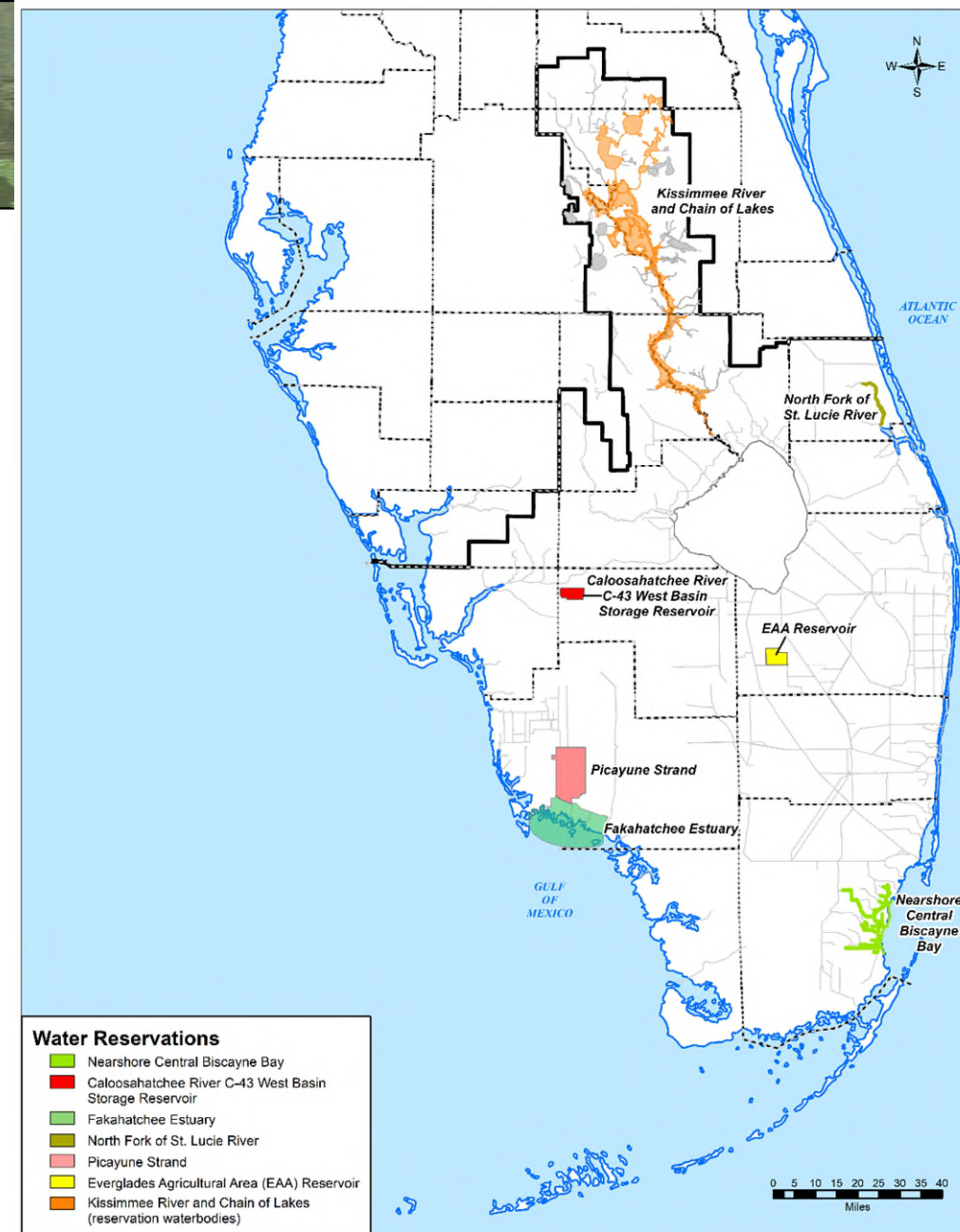
## ➤ General comments

- RAA instead of water reservation
- Use formal names for several of the protected waterbodies
- Technical basis for ASR protection



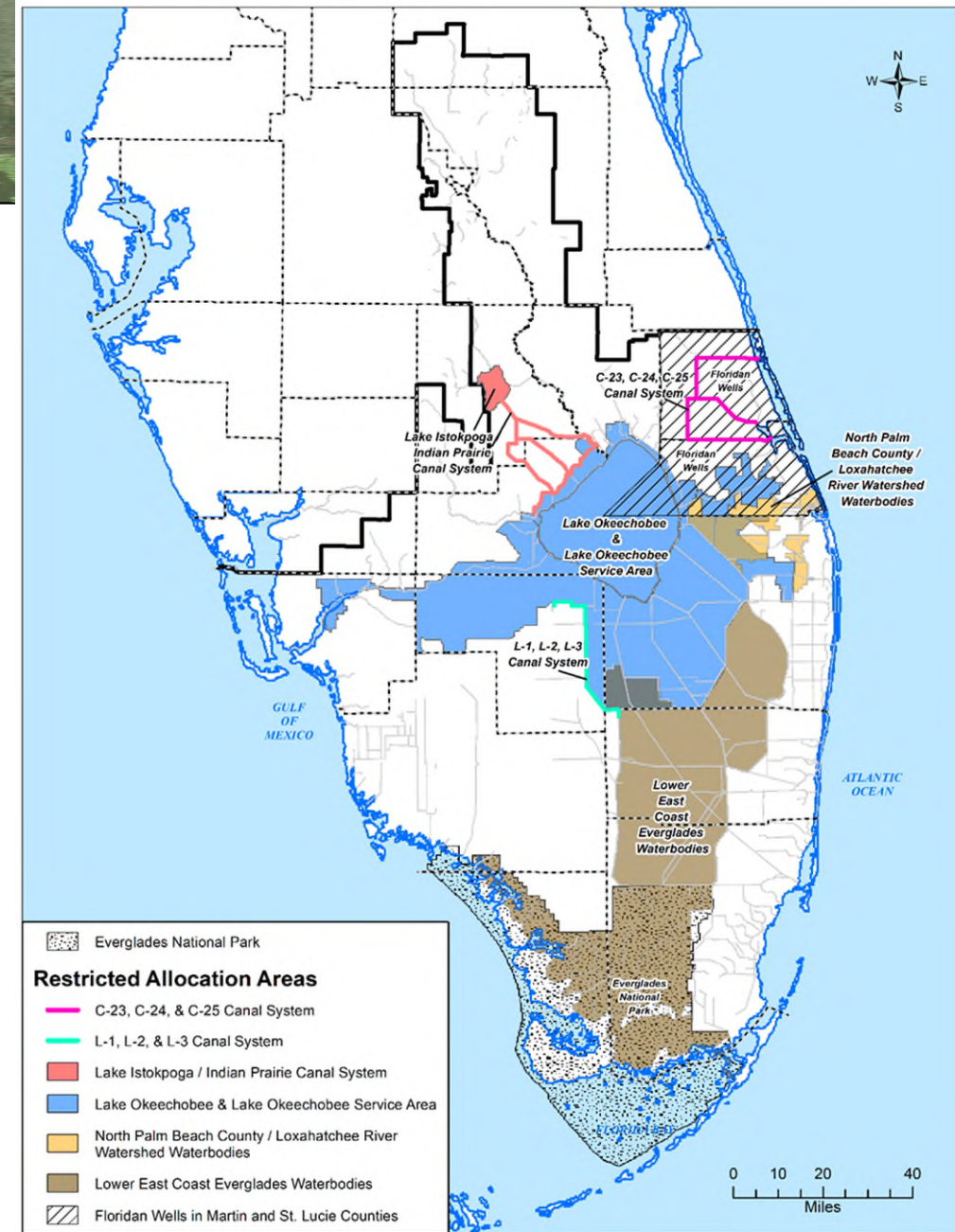
# Water Reservations

- Picayune Strand
- Fakahatchee Estuary
- North Fork of the St. Lucie River
- Nearshore Central Biscayne Bay
- Caloosahatchee River (C-43) West Basin Storage Reservoir
- Everglades Agricultural Area (EAA) Reservoir
- Kissimmee River and Chain of Lakes



# Restricted Allocation Areas

- C-23, C-24, and C-25 Canal System
- Floridan Aquifer Wells in Martin and St. Lucie Counties
- L-1, L-2, and L-3 Canal System
- Lake Istokpoga/Indian Prairie Canal System
- Lake Okeechobee Service Area
- Lower East Coast Everglades Waterbodies and Northern Palm Beach County/Loxahatchee River Watershed Waterbodies





# Technical Document Comments & Revisions





## Chapters 1 & 2

- Added information about human-induced alteration to the watershed (Chapter 1)
- Added background information regarding the development of the existing Lower East Coast Regional Water Availability Rule (Sections 1.2 and 2.1)
- Clarified names of natural areas within the project boundary (Section 1.2)
- Replaced Figure 1-3 with a higher-resolution version
- Included a new figure and additional details about the components of the C-18W Reservoir (Section 1.5)
- Clarified that ASR well locations have not been finalized (Section 1.5.1)
- Added details of the wetland restoration areas for the project (Section 1.5.2)



## Chapters 3, 4, & 5

- Clarified the natural area habitats in the project area (Sections 3.1.2 & 4.2)
- Clarified habitat use by mammals in the project area (Section 3.1.3)
- Updated the map of the new RAA boundary (Figure 5-1)
- Added clarifying language for the base condition water use (Section 5.2.1)
- Revised the ASR buffer zone conceptual diagram (Figure 5-2)
- Clarified the 1-foot contour lines in Figure 5-5 are for the upper FAS only
- Restated that the SAS and FAS are hydrogeologically separated (Section 5.3.2)



# Rule Language Comments & Revisions



# Applicant's Handbook

## 1.1 Definitions

Additional definitions can be found in Chapter 373, F.S., and Chapters 40E-3, 40E-8, and 62-40, F.A.C.

**North Palm Beach County-/Loxahatchee River Watershed Waterbodies** - as used in Subsection 3.2.1.E, is defined as the surface water and groundwater from the City of West Palm Beach Water Catchment Area and Grassy Waters Preserve, Pal-Mar, and J.W. Corbett Wildlife Management Area, Loxahatchee Slough Natural Area, Loxahatchee River, Riverbend Park, Dupuis Reserve, Jonathan Dickinson State Park, Kitching Creek, Moonshine Creek, Cypress Creek, and Hobe Grove Ditch, Hungryland Slough Natural Area, Pine Glades Natural Area, Cypress Creek Natural Area, and the C-18W Reservoir, as depicted in Figure 3-2.

# Applicant's Handbook

## 1.5.2 Special Duration Factors

**B. \* Sources of Limited Availability.** For purposes of the Section, the following are Sources of Limited Availability:

1. Upper East Coast Regional Water Supply Planning Area: Surficial Aquifer System throughout the planning area and surface water in the Interior Martin County and Northwest Loxahatchee River Water Use Basins (see Chapter 40E-21, F.A.C., and Figures 3-1 and 3-2, below) to the extent that withdrawals induce seepage from the North Palm Beach County/Loxahatchee River Watershed Waterbodies.
2. Lower East Coast Regional Water Supply Planning Area: Biscayne/Surficial Aquifer System to the extent that withdrawals result in induced seepage from the Central and Southern Florida Project and North Palm Beach County/Loxahatchee River Watershed Waterbodies, except when stormwater discharge or wet season discharge occurs; Lake Okeechobee; Central and Southern Florida Project; the Caloosahatchee River/Canal; and the Saint Lucie River/Canal.
3. No change.



# Applicant's Handbook

## 3.2 Source Specific Criteria

### 3.2.1 Restricted Allocation Areas

#### E. \* Lower East Coast Regional Water Availability

In addition to all other applicable consumptive use statutory and rule provisions, the following restrictions shall apply when allocating surface water and Surficial Aquifer System water by permit for water use withdrawals within the Northern Palm Beach County Service Area and Lower East Coast Service Areas 1, 2, and or 3, and the Interior Martin County and Northwest Loxahatchee River Water Use Basins, as depicted in Figure 3-1 and 3-2.

Subsection 3.2.1.E is a component of recovery strategies for MFLs for the Everglades and the Northwest Fork of the Loxahatchee River, as set forth in Chapter 40E-8, F.A.C., and assists in implementing the objective of the District to ensure that water necessary for Everglades restoration and restoration of the Loxahatchee River Watershed is not allocated for consumptive use upon permit renewal or modification under this rule.

1. - 2. No Change.

The evaluation of water withdrawn from Waterbodies under this section shall address the impacts of the proposed use on surface water and groundwater from: a) integrated conveyance systems that are hydraulically connected to the subject Waterbodies and are tributary to or receive water from such Waterbodies; and b) the Waterbodies. Integrated conveyance systems that are hydraulically connected to the subject Waterbodies include primary canals used for water supply including, but not limited to, the Central and Southern Florida Project Canals, and secondary and tertiary canals that derive water from primary canals.

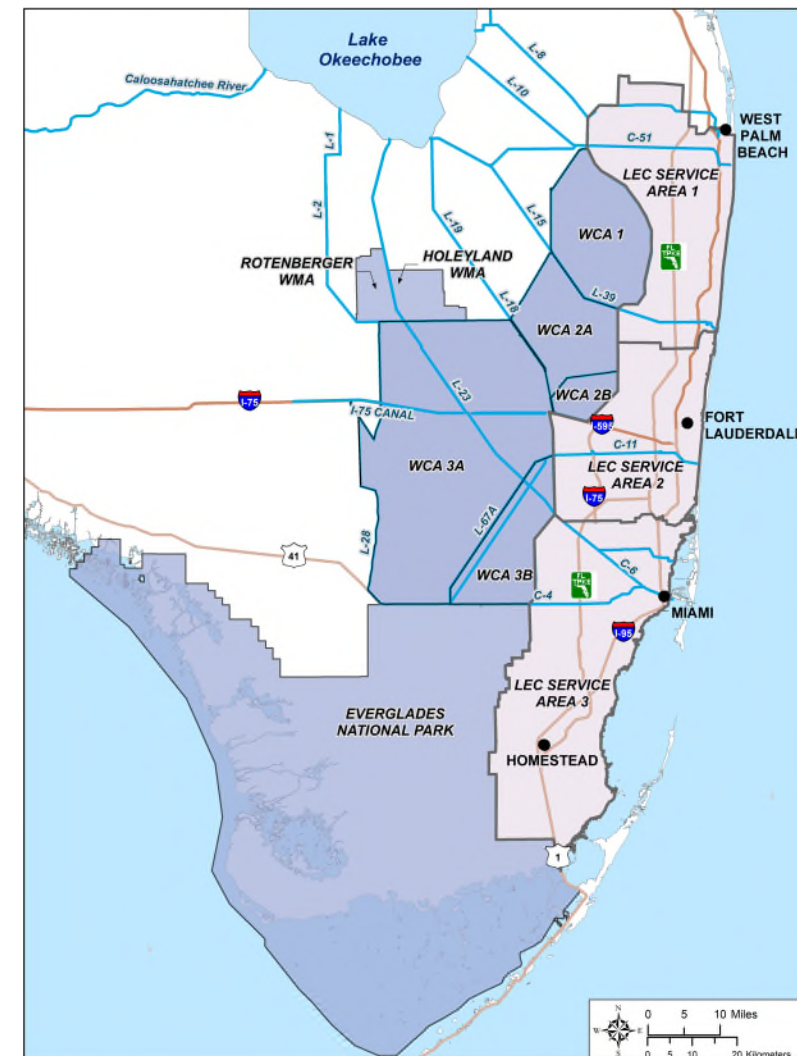
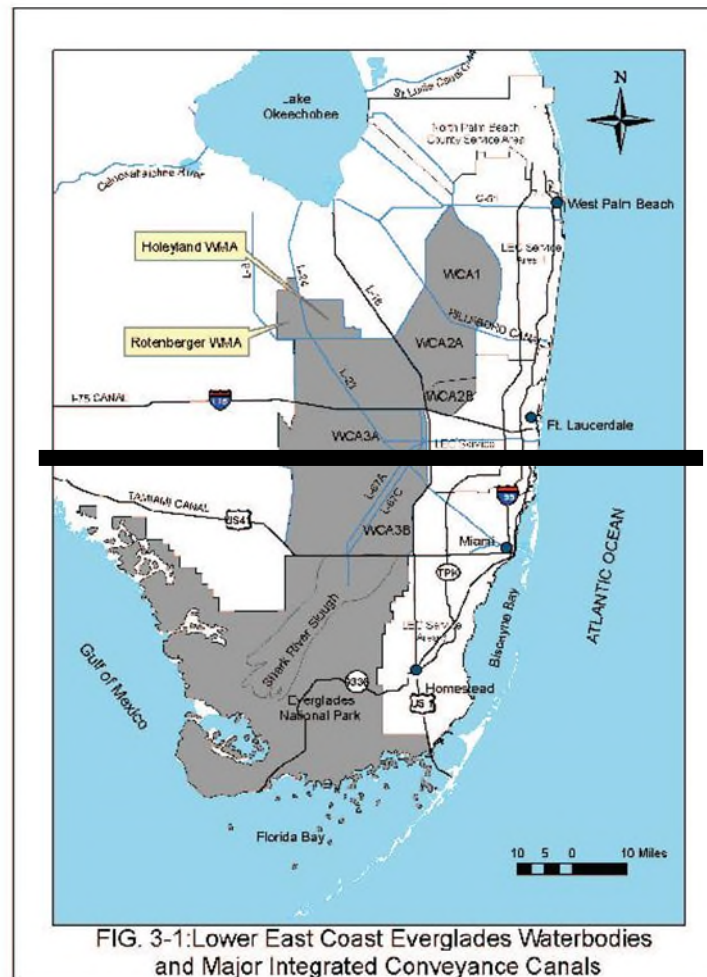
3. - 7. No Change.

# Applicant's Handbook

## 3.2.1 Restricted Allocation Areas

### E. Lower East Coast Regional Water Availability

Figure 3-1. Lower East Coast Everglades Waterbodies and Major Integrated Conveyance Canals.

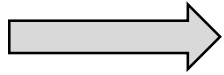




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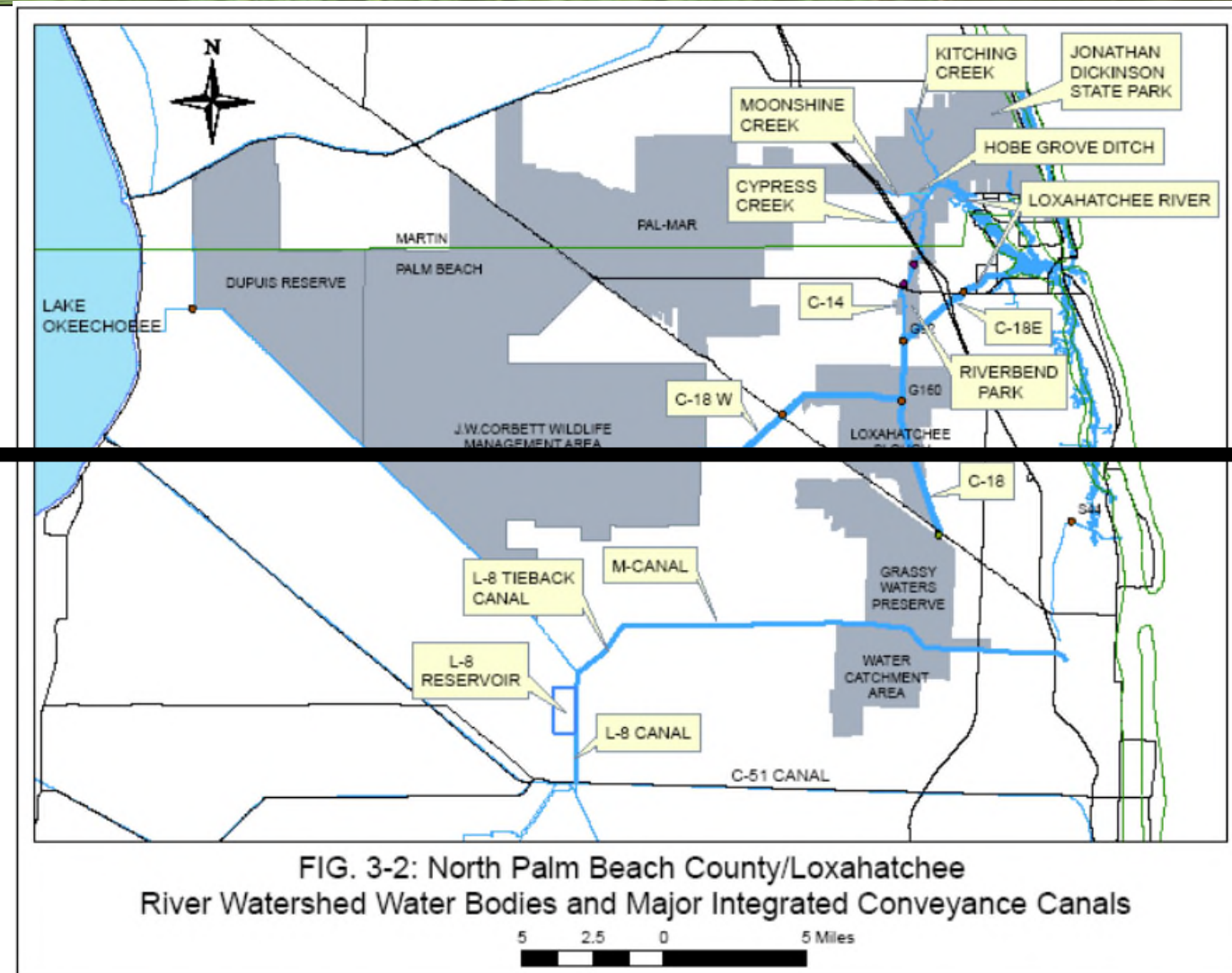
## 3.2.1 Restricted Allocation Areas

### E. Lower East Coast Regional Water Availability



~~Figure 3-2. North Palm Beach County/Loxahatchee River Watershed Water Bodies and Major Integrated Conveyance Canals.~~

*Note: This is the existing figure to be deleted*

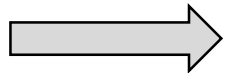


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## 3.2.1 Restricted Allocation Areas

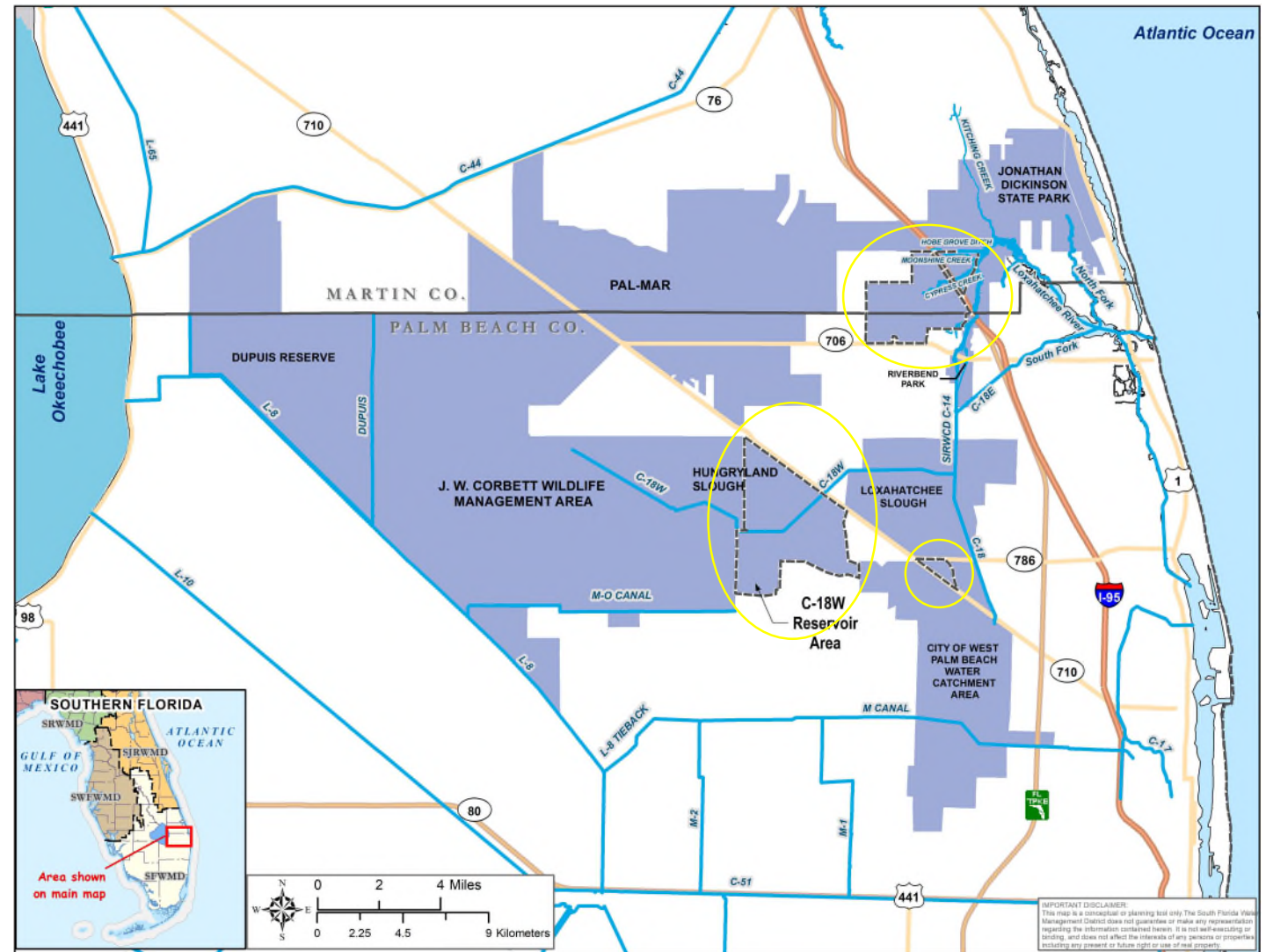
### E. Lower East Coast Regional Water Availability

Figure 3-2. North Palm Beach County/Loxahatchee River Watershed Water Bodies and Major Integrated Conveyance Canals.



*Note: Dashed outlines of new areas for illustration purposes only.*

[sfwmd.gov](http://sfwmd.gov)



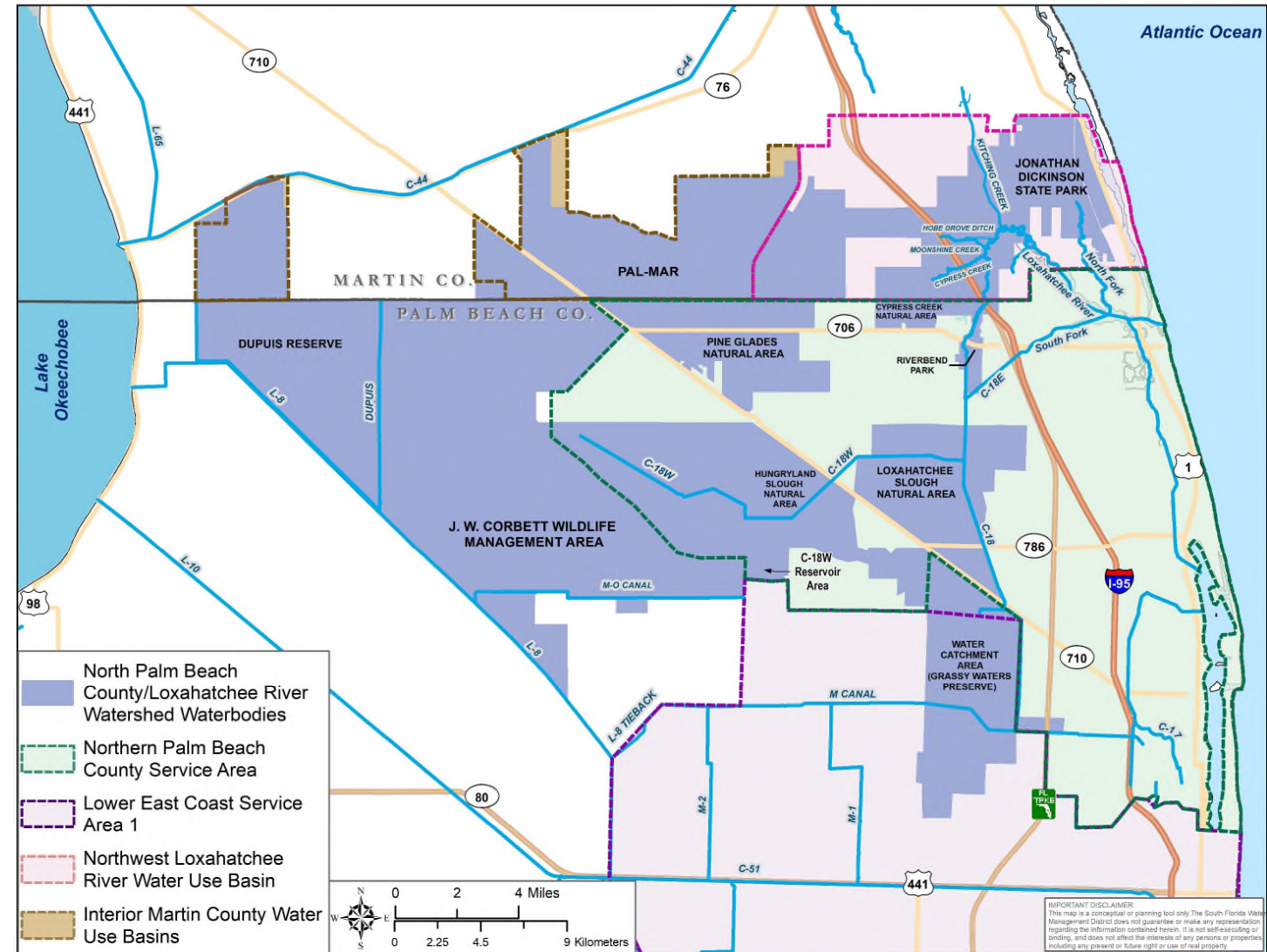
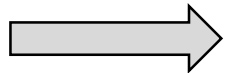


# Applicant's Handbook

## 3.2.1 Restricted Allocation Areas

### E. Lower East Coast Regional Water Availability

Figure 3-2. North Palm Beach County/Loxahatchee River Watershed Water Bodies and Major Integrated Conveyance Canals.



# Applicant's Handbook

## **G. Utilization of the Upper Floridan Aquifer System Near the C-18W Reservoir**

The following restrictions shall apply when allocating groundwater stored in the upper Floridan aquifer system (upper FAS) beneath the C-18W Reservoir, as depicted in Figure 3-4. This subsection assists in implementing the District's objective of ensuring that water necessary for the restoration of the Loxahatchee River Watershed is not allocated to consumptive use upon permit issuance, renewal, or modification under these criteria.

The applicant shall provide reasonable assurance that the requested allocation will not **adversely impact** ~~withdraw from~~ the portion of the upper FAS underlying the C-18W Reservoir and associated buffer zone delineated in Figure 3-4. This demonstration is provided when the following criteria, pursuant to the impact evaluation provisions in Subsection 3.1.2, are met:

1. The requested allocation will **meet the requirements of not interfere with the C-18 W Reservoir ASR wells as described in** Section 3.7, below; or,
2. The **cone of depression for the requested allocation, individually and cumulatively, will not intersect** ~~result in 1-foot or more of drawdown to the portion of the upper FAS that underlies the C-18W Reservoir~~ groundwater buffer zone delineated in Figure 3-4.

For existing legal users of the upper FAS as of [rule effective date] whose cone of depression intersects the zone delineated in Figure 3-4, the use may be renewed. However, no additional allocations that increase the withdrawal's impact beyond that of the previously permitted use as of [rule effective date] will be authorized.



# Applicant's Handbook

## 3.2.1 Restricted Allocation Areas

### G. Utilization of the Upper Floridan Aquifer System Near the C-18W Reservoir

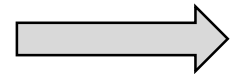
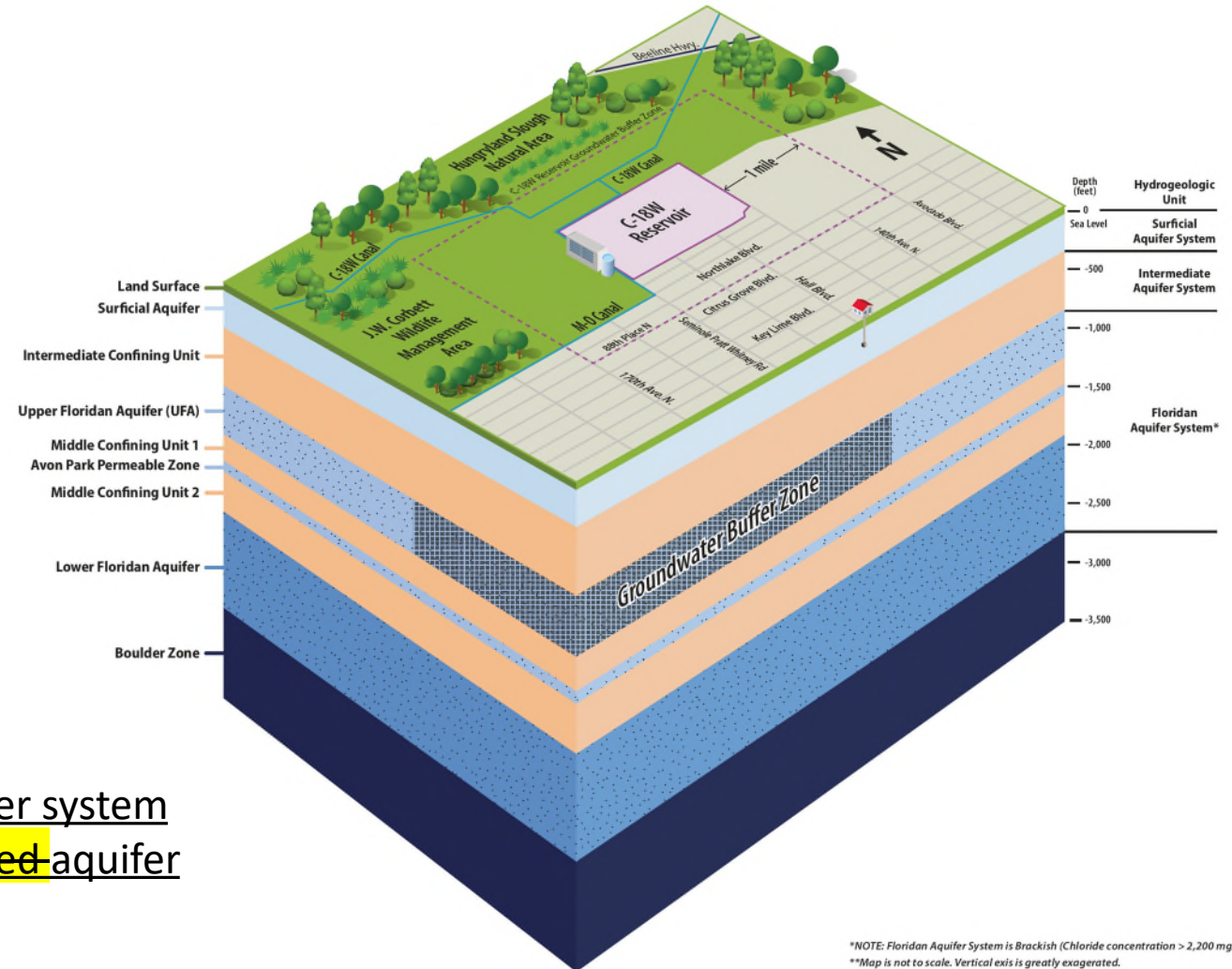


Figure 3-4. Protected area of the upper Floridan aquifer system protection related to the C-18W Reservoir and associated aquifer storage and recovery (ASR) wells.

# Applicant's Handbook

## 3.7 Interference with Existing Legal Users

To obtain a water use permit the applicant must provide reasonable assurance that it will not interfere with any existing legal use of water, pursuant to Section 373.223(1)(b), F.S. In general, an applicant must provide reasonable assurances that the proposed withdrawal of water, together with other exempt or permitted uses ~~withdrawals~~ within the cone of influence of the proposed withdrawal, will not result in interference with those existing legal uses.

### 3.7.2 Definition of Interference with an Existing Legal Use

A. - D. No Change, except moving “or” and associated punctuation.

E. If the existing legal use is an ASR system, 1) the transmittance of ASR waters away from the delineated project area of influence by changing or accelerating the flow velocity or flow direction; or 2) a change in the concentration of total dissolved solids.



# Applicant's Handbook

## 3.7.3 Mitigation Requirements for Interference with Existing Legal Uses

If the applicant cannot provide reasonable assurance that a proposed withdrawal will not interfere with existing legal uses, the applicant must submit a mitigation plan. The mitigation plan shall identify actions necessary to mitigate for interference once the impact has occurred, or is imminent. Such actions must be sufficient to provide water consistent with the authorized use and will require a permit modification if required by Rule 40E-2.331, F.A.C. As necessary to offset the interference, mitigation will include pumpage reduction, replacement of the impacted individual's equipment, relocation of wells, change in withdrawal source, or other means. If the existing legal use is an ASR system, replacement of the impacted user's equipment shall not be included in the mitigation plan.

Once the permit is issued, the permittee shall mitigate interference with existing legal uses that was caused in whole or in part by the permittee's withdrawals, consistent with the approved mitigation plan. The mitigation plan will require a permittee to mitigate immediately, or upon the actual occurrence of an interference. The determination of when mitigation is required is based upon the likelihood that the interference is projected to occur.

# Public Comment

- Please use the “Q&A” (Question & Answer) feature on the Zoom toolbar to submit a question regarding the information presented
  - Include your name, affiliation, and relevant agenda item/speaker
- If you’re participating via phone:
  - \*9 raises hand
  - \*6 mutes/unmutes
  - When called upon, unmute your device and state your name and affiliation



# Next Steps





# Next Steps

- Agendas, draft technical document, and draft rule language available at [www.sfwmd.gov/rules](http://www.sfwmd.gov/rules)
  - Today's presentation will be posted following workshop
- Written comments can be submitted to Natalie Kraft at [nkraft@sfwmd.gov](mailto:nkraft@sfwmd.gov)
  - Deadline to submit comments – **March 7, 2022**
  - Comments will be archived on the District's Web Board <https://sfwmd.websitetoolbox.com/>



# LRWRP Rule Development Schedule

Milestone	Date	
Notice of Rule Development* (Published in FAR)	December 9, 2021 (December 21, 2021)	✓
Rule Development Workshop #1	January 25, 2022	✓
Rule Development Workshop #2	February 22, 2022	✓
Notice of Proposed Rule & Rule Adoption*	April 14, 2022	
Effective Date of New Rules	Summer 2022	

# Additional Information

- Links to drafts of rulemaking documents: [www.sfwmd.gov/rules](http://www.sfwmd.gov/rules)
- USACE Loxahatchee River Watershed Restoration Project webpage: <https://www.saj.usace.army.mil/Missions/Environmental/Ecosystem-Restoration/Loxahatchee-River-Watershed-Restoration-Project/>
- SFWMD aquifer storage and recovery (ASR) webpage: [www.sfwmd.gov/asr](http://www.sfwmd.gov/asr)
- Restricted allocation areas webpage: [www.sfwmd.gov/raas](http://www.sfwmd.gov/raas)
- Stakeholder comments received are posted on the SFWMD Web Board: <https://sfwmd.websitetoolbox.com/>



# Thank You

Loxahatchee River Watershed Restoration Project  
Rule Development Workshop #2