

# **Overview of SFWMD's Water Supply Mission: Florida Water Law**

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**Elizabeth D. Ross and Beth C. Lewis  
SFWMD Office of Counsel**

# Presentation Overview

- **Background**
  - History of water law
  - Scope of mission
  - Variability of water
- **Program details**
  - Water Use Permit Program
  - Lake Okeechobee Supply
  - Water Shortage
  - Environmental Water Protection



# History of Water Law in the U.S.

- **Eastern United States**
  - **Plentiful resource; humid climate**
  - **Rivers / Riparian Rights**
  - **Reasonable Use doctrine evolved**
    - **One's use compared to other uses of the resource to determine if "reasonable" – free from unreasonable uses that 'harm' one's own use**
  - **Factors evolved from court decisions**
  - **Flexible system that adapts as society, technology change**



# History of Water Law in the U.S., cont.

- **Western United States**
  - Dry, arid climate - water limited
- **Prior appropriation system evolved**
  - Property right - perpetual right with no expiration
  - "First in time is first in right"
  - Users "hoarded" more water than needed
  - Secondary users got what was left, if anything
- **Eventually, beneficial use concept developed**
  - Efficient uses required for property right



# Florida Water Law

- **Historically, Florida was a common law, riparian state**
  - Reasonable use standard
  - Courts made case by case decisions
- **Severe Drought in 1970 – 1971**
  - Fires in Everglades
- **A Model Water Code**
  - Proposed statutory system for regional water management
  - Selected best attributes of common law systems
- **1972 – Florida’s Legislature passed “The Water Resources Act” - Chapter 373, Florida Statutes**
  - Statewide permit system for water rights and additional authorities for water supply mission



# Florida Water Law, cont.

- **Water Supply Mission - "Sustainability"** (s. 373.016, F.S.)
- **Areas of authority:**
  - **Water use permitting**
    - "Harm" (s. 373.219, F.S.)
  - **Minimum flows and levels**
    - "Significant harm" (s. 373.042, F.S.)
  - **Water shortage declarations**
    - "Serious harm" (s. 373.246, F.S.)
  - **Reservations of water (CERP)**
    - "Protect fish and wildlife" (s. 373.223(4), F.S.)
  - **C & SF Project local sponsor**
  - **Regional water supply plans**
  - **Alternative water supply and conservation grants**



# Overall Legislative Policy

- **Sustainability concept:**
  - Statutory authorities address variation in water resource
  - Statutory authorities well suited to achieve a “balance” between humans and environment
- **Examples of “Balance” in authorizations:**
  - Protect existing water rights, but not if detrimental to water resource
  - Set minimum flows / levels, but look at hydrologic alteration and feasibility issues
  - CERP - restore the environment, but assure existing legal user rights
- **Board has opportunity to assess current circumstances and respond**

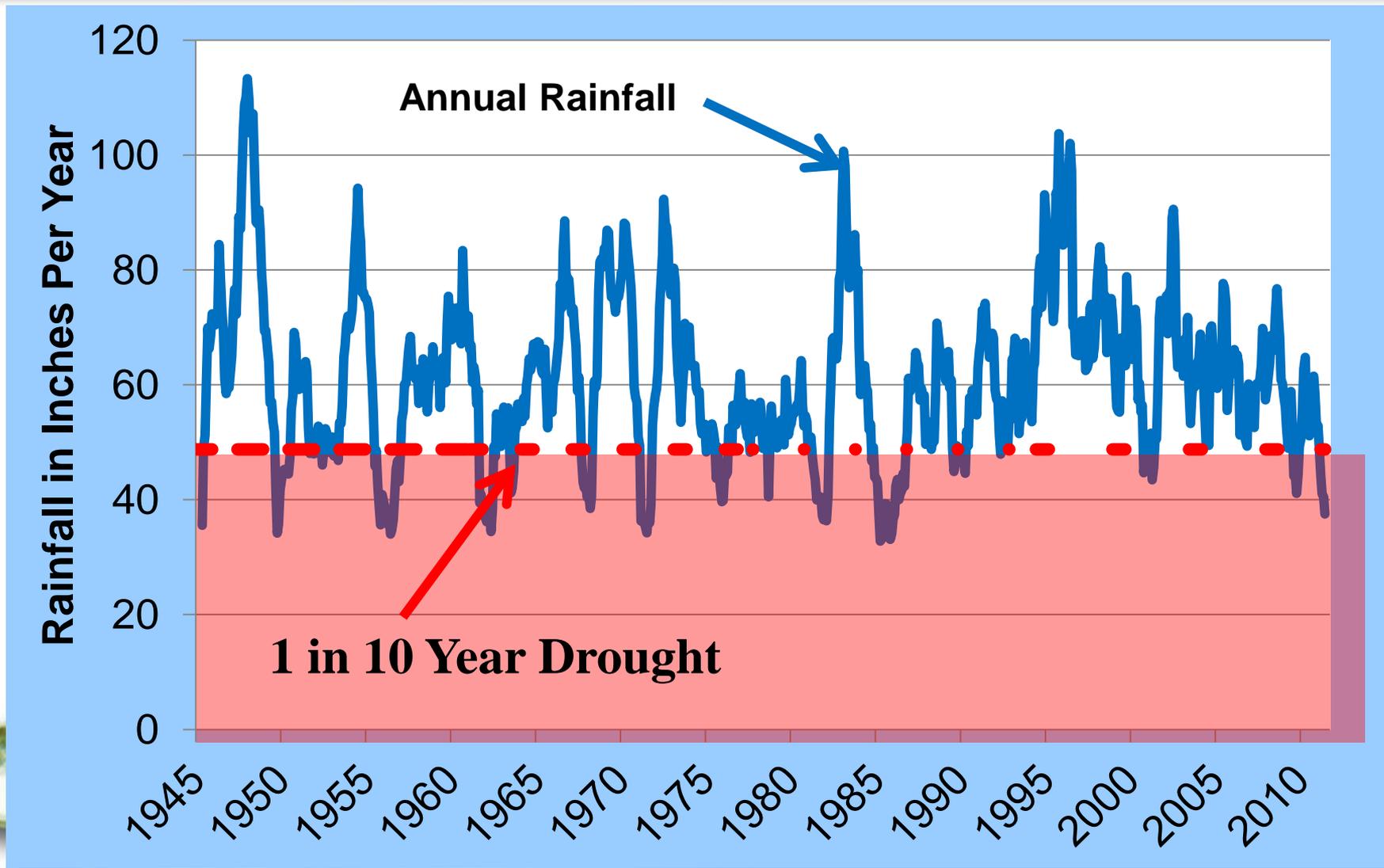


# What makes water unique?

- **Water is vital to life and economic growth (people, plants, animals)**
- **Water is unpredictable**
  - Surface sources - rainfall driven & linked to Project operations
  - Groundwater sources - data & models
- **Florida's environment**
  - Droughts
  - Rains - Floods (Flat topography)
  - Tidal discharge, inadequate storage
  - Environmental needs
  - Tropical Climate - High evapotranspiration (ET)
- **Manage and allocate transitory resource**



# Variable over years



# Variable within each year - Wet and Dry Seasons

January



February



March



April



May



June



July



August



September



October



November

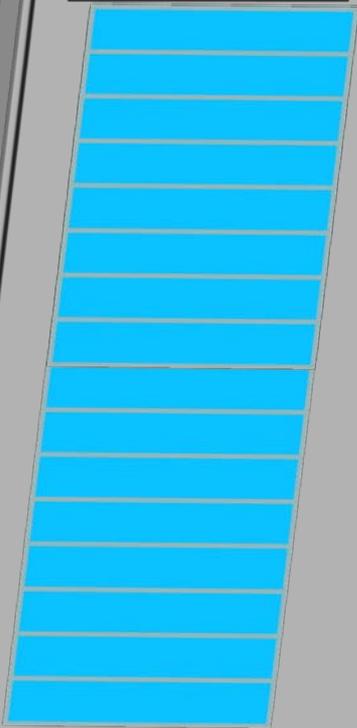


December



# WATER SUPPLY CONTROL PANEL

**SUPPLY**



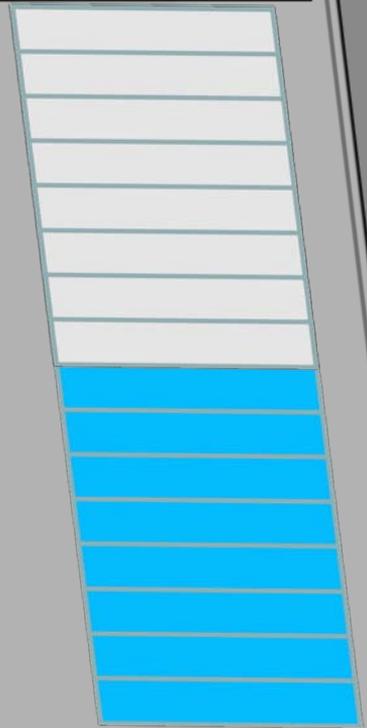
RAINFALL



EVAPO-  
TRANSPIRATION



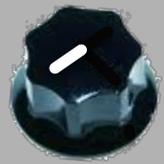
**FREQUENCY**



ALTERNATIVE  
SUPPLY



STORAGE



OPERATIONS



WITHDRAWALS



# Water Storage Vision

- **2000 Regional Water Supply Plan**
  - Demands not met over 20 year horizon
    - Environmental demands (MFLs in recovery)
    - Human demands (All use classes)
- **CERP developed**
  - Vision: Add Storage
    - Efficient use of available supply
  - Benefit environment and human use
    - Harmful discharges to be stored
    - Make deliveries in dry times
- **Issue: Delayed implementation**



# Focus on Operations and Withdrawals

- Focus on existing allocations and operations as the “dial” to turn to achieve ecological improvement
- System envisions sustainability and “balance” experiences tension instead
- Where is the tension manifested?
  - Water use permits
  - Water shortage declarations
  - C & SF Operations
  - Minimum flow and level
    - Recovery strategy implementation
    - Regional water supply plan development
  - Reservations
  - Policy development – Legislation and rulemaking



# Introduction to Florida Water Law

- **Water Use Permit Program – “Water Rights”**
  - ALL users, except domestic indoor, must have a permit to use water
    - No property right to water; public resource
  - Permitted water right
    - Use, divert water for a period of time
    - Various use classes
  - Exclusive WMD authority “pre-empted”
    - Not local governments
    - Not judicial system
  - Why?
    - Water is a public resource
    - Expertise
    - Agency with broad and regional perspective and statewide oversight (FDEP)



# Major Principles & “Tools” of Florida Water Law - **Water Use Permits**

- Chapter 373, F.S., based program on blend of eastern and western common law doctrines
- Permits balance certainty & flexibility
  - Permitted water right
    - Slice of pie with your name on it
  - Permits expire to allow for changing society values
    - Dynamic system capable of adapting is intended



# Major Principles & "Tools" of Florida Water Law - **Water Use Permits**

"The 3 Prong Test" for permit issuance

The proposed use:

1. Is a **reasonable-beneficial use** as defined in §373.019(4);
  - Reasonable - Eastern U.S.
  - Beneficial - Western U.S.
2. Will not interfere with any **presently existing legal use** of water; and
  - Prior appropriation concept
  - "First in time is first in right" - Western U.S.
3. Is consistent with the **public interest**



# Major Principles & "Tools" of Florida Water Law - **Water Use Permits**

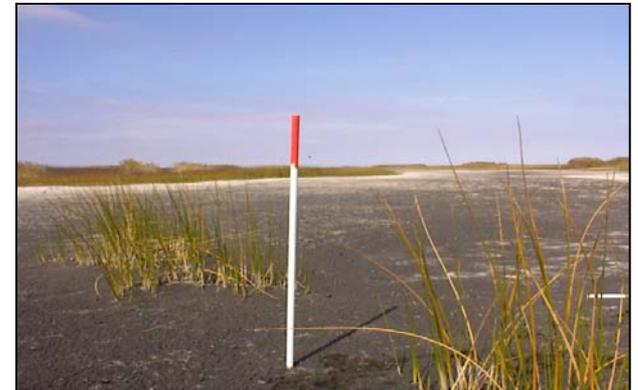
## #1: Reasonable-beneficial use - Details:

- **Demand for water**
  - Varies by use class
  - Public water supply
  - Irrigation
  - Conservation measures
- **Extent & amount of harm**
  - "Impact" criteria
  - Wetlands, lakes, aquifers
  - Salt water intrusion or upconing
  - Pollution
- **Suitability of use to source**
  - Lowest quality source



# Physical Certainty Concept

- Irrigation users need supplemental water supply allocation to meet needs in a specified rainfall deficit
- More severe drought means more supplemental water needed
  - 1 in 5 demand is less than a 1 in 10 demand
- District allocates to meet needs in 1 in 10 drought event
  - No water shortage cutbacks



# **Physical Certainty** - The amount of the allocation - "Just the right size slice"

- **1 in 10 Level of Physical Certainty**
  - Legislative Direction (Section 373.705, F.S.)
  - Balancing: reasonably certain allocation, infrequent shortage cutbacks, not harmful to environment
- **District Implementation of 1 in 10**
  - Regional water supply plans
  - CUP rules
  - Linked to
    - Water Shortage rules
    - MFL's
    - Forecasted issue: C & SF Operations



# Legal Certainty - "Protecting the slice"

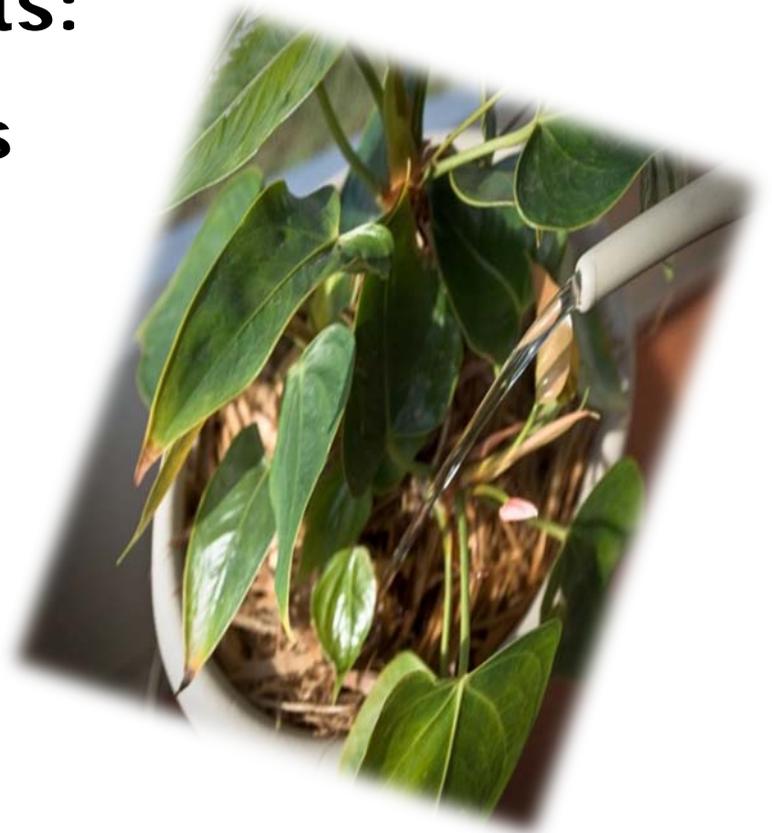
- **#2: Proposed use must not interfere with existing legal use**
  - **Western - prior appropriation concept**
    - First in time is first in right
  - **Typical permitting scenario - interference from subsequent applicant's proposal**
  - **Cumulative impact analysis performed**
    - **Impacts to presently existing legal users?**
      - Quantity and quality considerations
    - **If so, then solutions vary**



# Major Principles & "Tools" of Florida Water Law **Water Use Permits**

## # 3: Consistent with Public Interest:

- **Specific Statutory tests:**
  - Interdistrict transfers
  - Local sources first
  - Alternative water supply sources



# Tenure Certainty - "How long the slice lasts"

- Establishes the duration for which the permitted rights are protected
  - Volume allocated matches duration
  - Long-term permits for large volumes
- Users favor long term duration
  - Capital investments
  - Resource "locked up" providing ability to develop over long-term
  - Upon expiration, competition is possible



# Tenure Certainty - "How long the slice lasts"

- **Current laws:**
  - 20 years, if conditions of permit issuance are met for the duration
    - Longer durations possible (Bond retirement, renewable energy)
  - Alternative sources shall be 20 years
  - May limit duration based on source or type of use
  - Compliance reports to assure continued compliance with initial conditions of permit issuance
    - Changed from 5 to 10 year intervals
- **Trend - Increasing certainty for permittees in terms of duration**



# **Project Operations – “Size of the Pie” and Physical Certainty**

- **Project operations can impact water availability**
  - Physical certainty altered
  - Regulation schedule development
  - Real-time operational decisions
- **Example: 2008 Lake Okeechobee Regulation Schedule (2008 LORS)**



# Project Operations – “Size of the Pie” and Physical Certainty



- District's 2000 Plan identified need for "bigger pie"
- LORS 2008 shrinks the size of water supply pie
- Less physical certainty for environment and users



# **Project Operations –** **“Size of the Pie” and Physical Certainty**

- **Dike stability concerns led to 2008 LORS**
- **Water supply impacts of 2008 LORS**
  - **Lake Okeechobee MFL violation**
  - **“CAPPED” all allocations**
  - **Certainty of users’ rights decline to 1 in 6**
  - **Difficulty delivering water south**
  - **Releases improve Caloosahatchee performance**
- **“Real-time” Federal operational decisions**
  - **Adaptive Protocols Document**
  - **Water shortage band**



# **Project Operations –** **“Size of the Pie” and Physical Certainty**

- **Delayed CERP projects and 2008 LORS**
- **Forecasted Issues:**
  - Environmental stakeholders have requested ecological improvements via increased water deliveries
  - Without new storage infrastructure, only 2 “dials” available operations and permitted users
  - Adaptive protocols recommendations to Corps
  - Timing and severity of water shortage restrictions
  - Lake Okeechobee minimum level violated, as projected
  - STA Deliveries and all users in 2012 dry season



# Water Shortage - Temporary Reductions in Allocations

- Authorized to declare a water shortage exists for a source(s) when insufficient water is or will be available to meet:
  - Present and anticipated requirements of the users or
  - To protect water resources from **serious harm**
- Phases I - IV (15% to 60% cutbacks)
- Sharing of available supplies between users and environment
  - Balancing multiple objectives



# **Water Shortage** - Temporary Reductions in Allocations

- District's program provides notice to users as to when and what level restrictions will impact users of each class by supply source and is linked to MFL's
- Forecasted issue: When and what phase restriction should the Board place on users?
  - Stakeholders advocate more restrictions sooner to retain water supply for environment



# Types of Natural System Waterbodies

- **Isolated wetlands**
  - Public or private ownership
- **Sub-regional systems**
  - Public ownership (local government/state)
    - Grassy Waters Preserve, Pal- Mar
- **Regional systems of statewide concern**
  - Public ownership (state/federal)
  - Diverse/competing water needs
    - Kissimmee River, Everglades



# Regulatory Tools for Protecting Water for the Natural System

- Protect wetlands/surface waters from harm
- **Minimum Flows and Levels**
- **Water Reservations**
- **Restricted Allocation Areas**



# Major Principles & "Tools" of Florida Water Law **Minimum Flows and Levels**

- Subsistence level of protection
- Establishes point where withdrawals are "significantly harmful" to the water resources or ecology of an area (s. 373.042 and 373.0421, F.S.)
- Requirement to consider structural alterations to watershed when establishing MFL
- Recovery/Prevention strategy required
- MFLs established for significant ecological systems within District
- Priority list submission to FDEP required



# Minimum Flows and Levels - Implementation

- **MFLs are required to be identified in Regional Water Supply Plans**
  - Recovery/prevention strategies developed in water supply plan for 20 year planning period
  - Recovery/prevention strategies are implemented in phases with consideration of other District missions
  - Recovery strategies for major natural system water bodies such as the Everglades and Lake Okeechobee are dependent on increased regional storage



# Limitations of Tools

- **Minimum Flows and Levels do not**
  - Enhance or restore natural systems
  - Restrict existing or future consumptive use that is consistent with the recovery or prevention strategy
  - Meet Federal requirements for protecting CERP project water



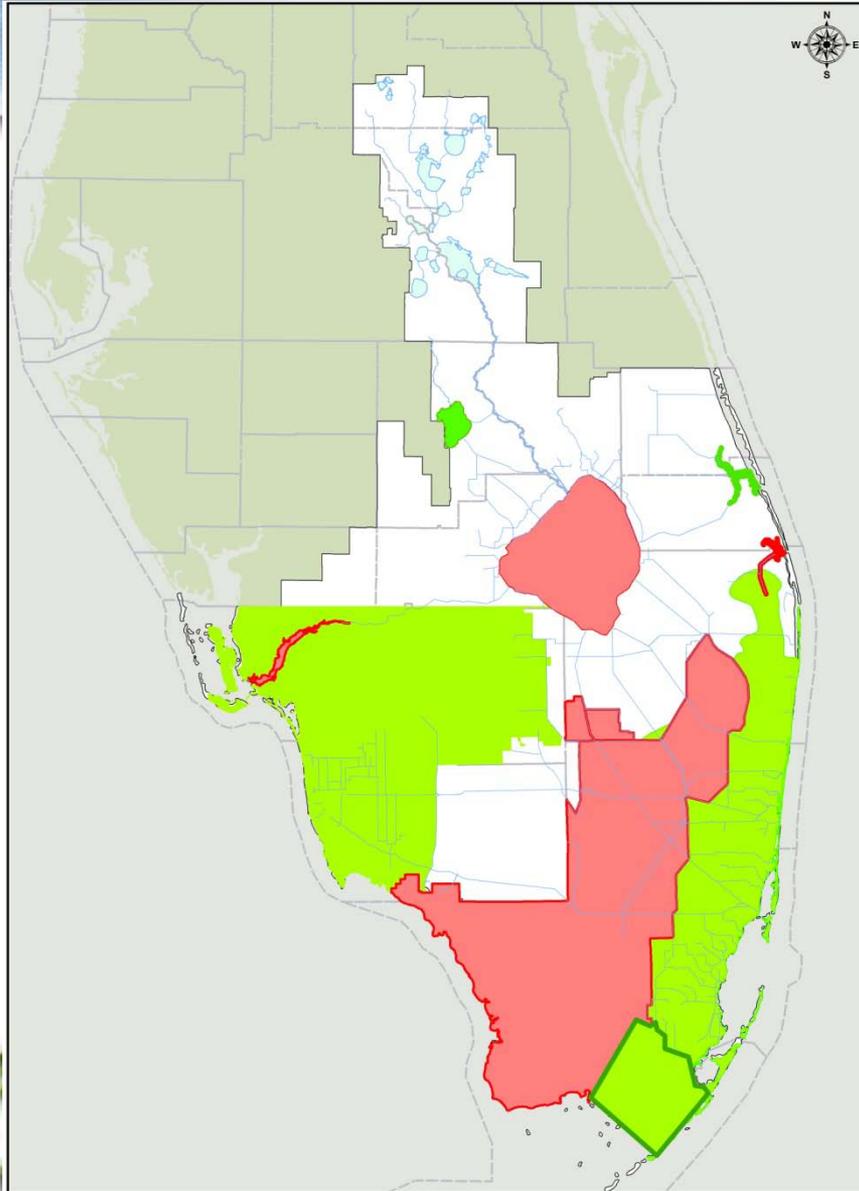
# Minimum Flows and Levels - 40E-8.441, F.A.C

## Water Shortage Implementation:

- MFL based water shortage restrictions imposed only if climatic conditions more severe than 1 in 10 drought to the extent users contribute to the exceedance
- Water shortage restrictions will not be used in place of a recovery plan component to address MFL exceedance



# Existing Minimum Flows and Levels Water Bodies



## ■ MFL Prevention Waterbodies

- Biscayne aquifer
- Lower West Coast aquifers
- St Lucie Estuary
- Lake Istokpoga
- Northeastern Florida Bay

## ■ MFL Recovery Waterbodies

- Lake Okeechobee
- Everglades
- Caloosahatchee River
- Northwest Fork of Loxahatchee River

# Major Principles and Tools of Florida Water Law - **Water Reservations**



- Authority –Conditions for CUP Permits
- Set aside water for “protection of fish and wildlife or for public health and safety”
- Existing legal uses protected, unless contrary to the public interest
- Required to be identified in Regional Water Supply Plans



# Statutory Framework - 373.223(4), F.S.

“The governing board or the department, by regulation, 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 require for the protection of fish and wildlife or the public health and safety. Such reservations shall be **subject to periodic review and revision in the light of changed conditions**. However, all presently existing legal uses of water shall be protected so long as such use is not contrary to the public interest”



# Limitations of Tools

- **Reservations do not:**
  - Establish an operating regime
  - Drought proof the natural system
  - Ensure wildlife proliferation



# Why Choose Water Reservations?

- District focused on reserving natural system water for CERP projects
- Florida statutes and federal law require the District to reserve or allocate water for natural system identified in CERP Project Implementation Reports
- Critical path milestone for obtaining federal funding to construct CERP projects
  - Reservation/Allocation rulemaking process must be complete in order for District to enter into Project Partnership Agreement



# Completed Water Reservations

- **CERP Projects**
  - **Picayune Strand Restoration Project**
    - Picayune Strand and Fakahatchee Estuary
  - **Indian River Lagoon – South Project**
    - North Fork of the St. Lucie River



# Presentation Recap

- **Living, dynamic water supply mission**
  - Effective suite of legal tools to address water supply and achieve sustainability exists
  - But challenges also exist
- **Going forward:**
  - Policy development: rules and legislation
  - C & SF Project operations
  - Water shortage
  - Plans and strategies for meeting demands with available supplies
- **Board has opportunity to assess current circumstance and respond**

