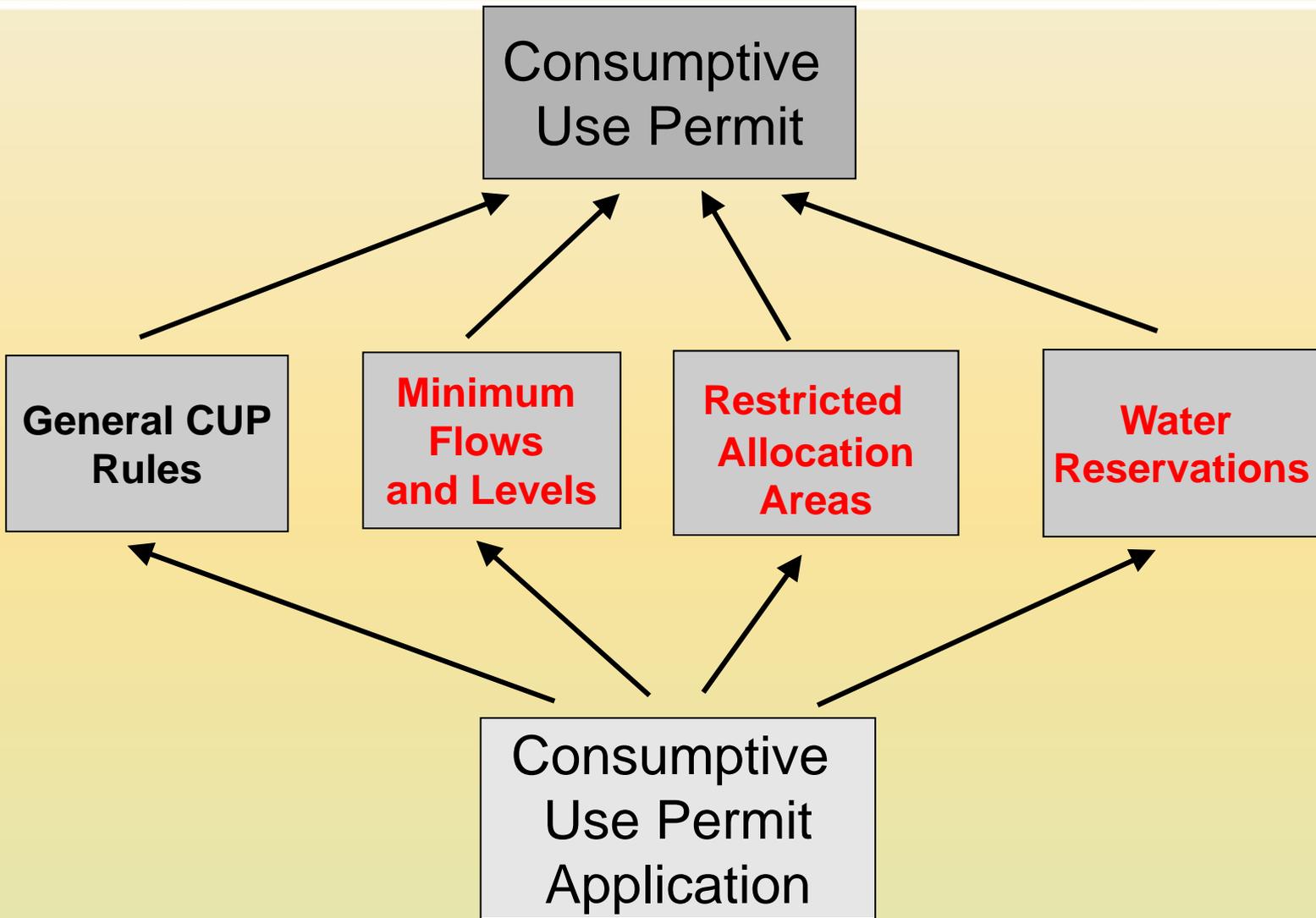


# Application of Minimum Flows and Levels, Reservations, and Restricted Allocation Area Tools to Protect Natural System Water from Consumptive Use

**Water Resources Advisory Commission**  
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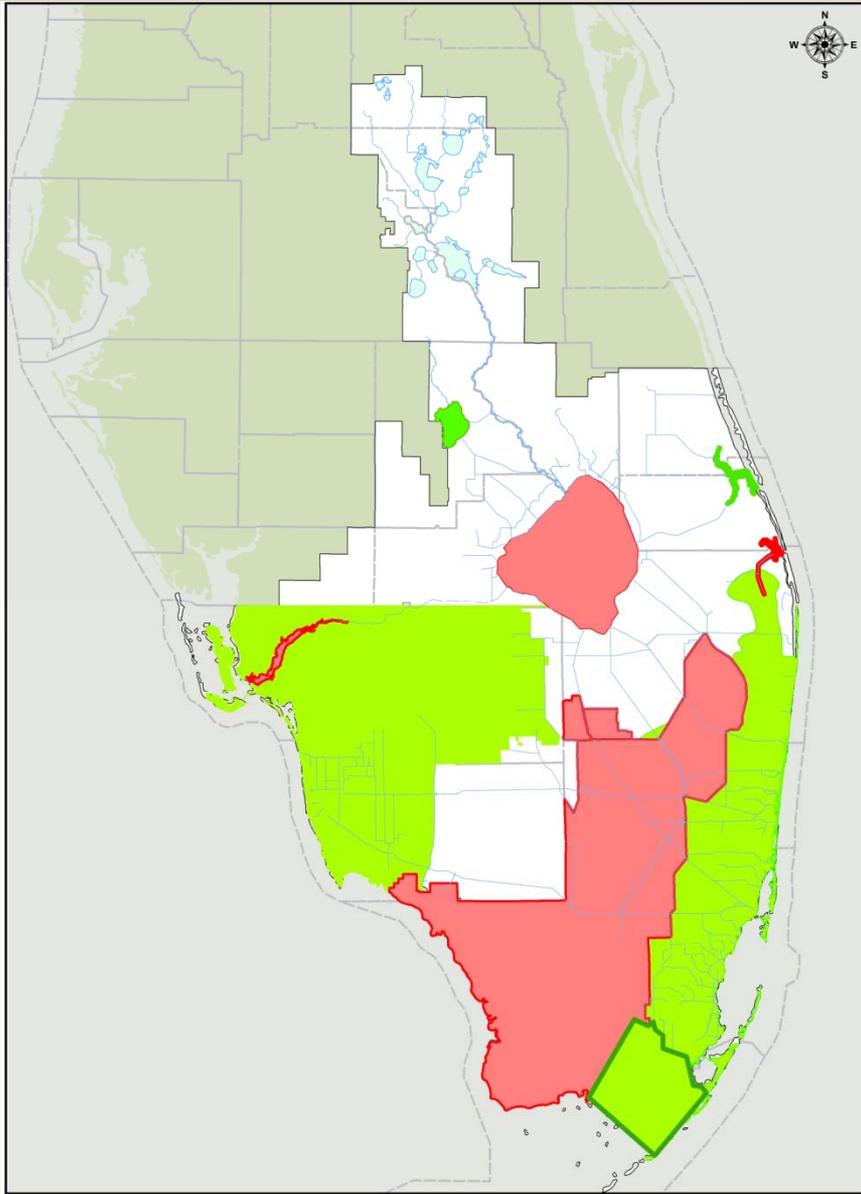
# Factors Considered in Permit Evaluation



# Minimum Flows and Levels Rules

- Authority - 373.042 and 373.0421, F.S.
- Identify point at which further withdrawals will cause “significant harm” to the water resources of the area
- Develop prevention / recovery plan
  - Prevention - water resource area above MFL
  - Recovery - water resource area is below MFL
  - Recovery Plan can include both structural and operational system changes

# Minimum Flows and Levels Waterbodies



## ■ 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

# Caloosahatchee River: Minimum Flows and Levels

- Minimum monthly flow of 300 cfs at S-79
- Exceedance occurs, if at Ft. Myers salinity station
  - 30-day average salinity > 10 ppt
  - a single salinity >20 ppt
- MFL exceedance, if either occurs for two consecutive years
- Recovery Plans
  - CERP, Lake Okeechobee Water Availability Rule
  - During interim, Lake Okeechobee deliveries as per Adaptive Protocols

# Why Choose Minimum Flows and Levels?

- Identified in a District water supply plan due to consumptive use pressure or other changes to water resource
- Requires plan for the development of water resource/water supply projects to achieve MFL compliance
- Well-established linkage between water resources and ecological response
- Ability to present sound scientific arguments to peer review

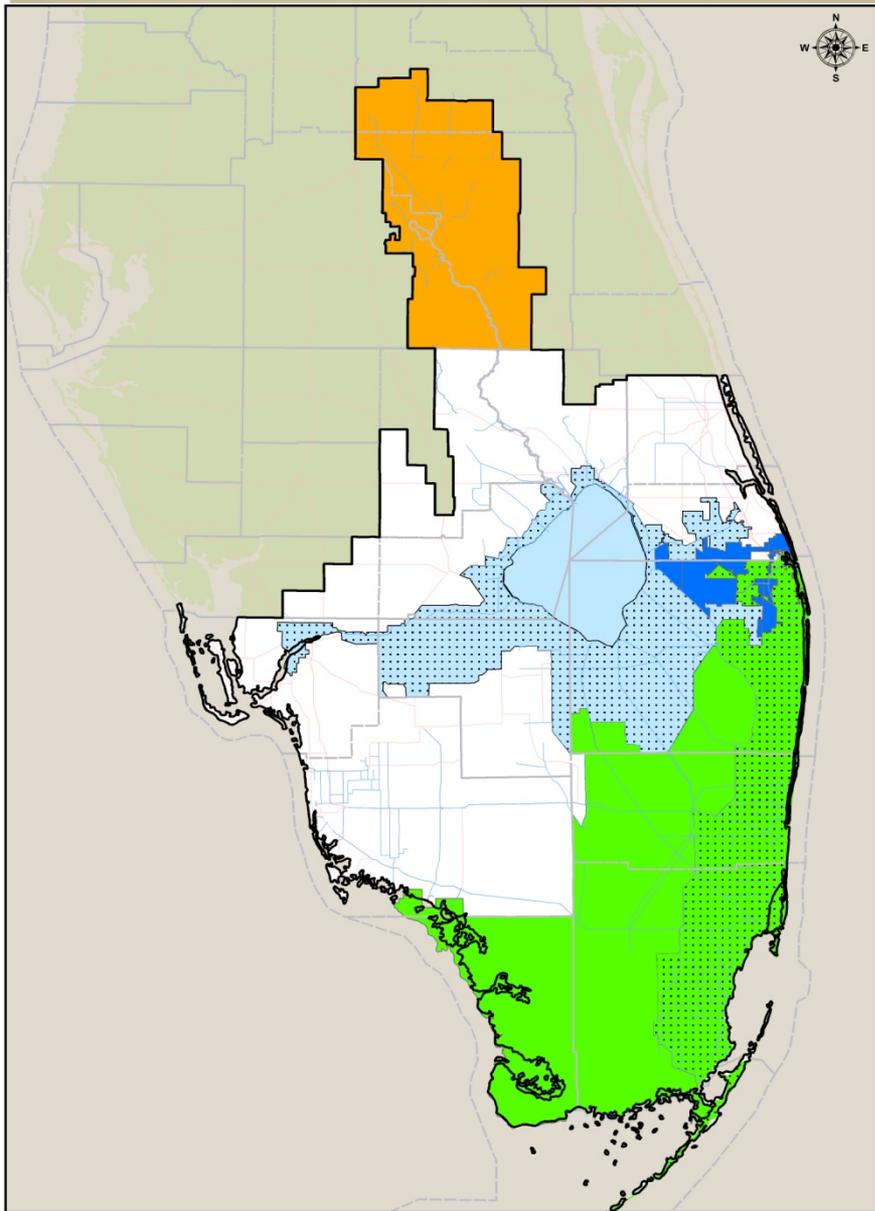
# Restricted Allocation Area Rules

- Criteria for Permit Issuance – 373.223(1), F.S.
  - Reasonable-beneficial – “economic and efficient utilization”
  - Does not interfere with presently existing legal use
  - **Consistent with the public interest**
- Identifies specific geographic areas and/or canal conveyance systems from which allocations are restricted
- Multiple situations where applicable

# Restricted Allocation Area Rules, cont

- Examples
  - Regional Water Availability Rule - effective April 23, 2007
  - Lake Okeechobee Service Area Water Availability Rule - effective October 14, 2008
  - Central Florida Coordination Area Groundwater Allocation Rule – effective February 13, 2008

# Restricted Allocation Areas



-  North Palm/Loxahatchee River Watershed
-  Everglades and Lower East Coast
-  Lake Okeechobee Service Area
-  Central Florida Coordination Area

# Restricted Allocation Area Rules Applicable to West Coast

- Lake Okeechobee Service Area Water Availability Rule
  - Authority – 373.223 (1) and 373.042, F.S.
  - Component of recovery strategy for minimum flows and levels for Lake Okeechobee
  - Address lower lake management levels per USACE interim regulation schedule
  - Ensure water for Everglades restoration is not allocated away



# Why Identify Restricted Allocation Areas?

- Florida Statutes and Federal law require District to reserve or **allocate** water for natural system identified in CERP project implementation report
- Applies to large spatial area covering multiple ecosystems
- Protect existing water and future restoration project water
- Timing – rules already effective
- Pressure from consumptive use activities

# Water Reservation Rules



- Authority - 373.223(4) FS
- Set aside water for *protection of fish and wildlife or for public health and safety*
- No harm standard
- Existing legal uses protected, unless contrary to the public interest

# What Does a Reservation Do?



- Prevents new uses from accessing reserved water
- Existing legal uses that are not contrary to the public interest are protected

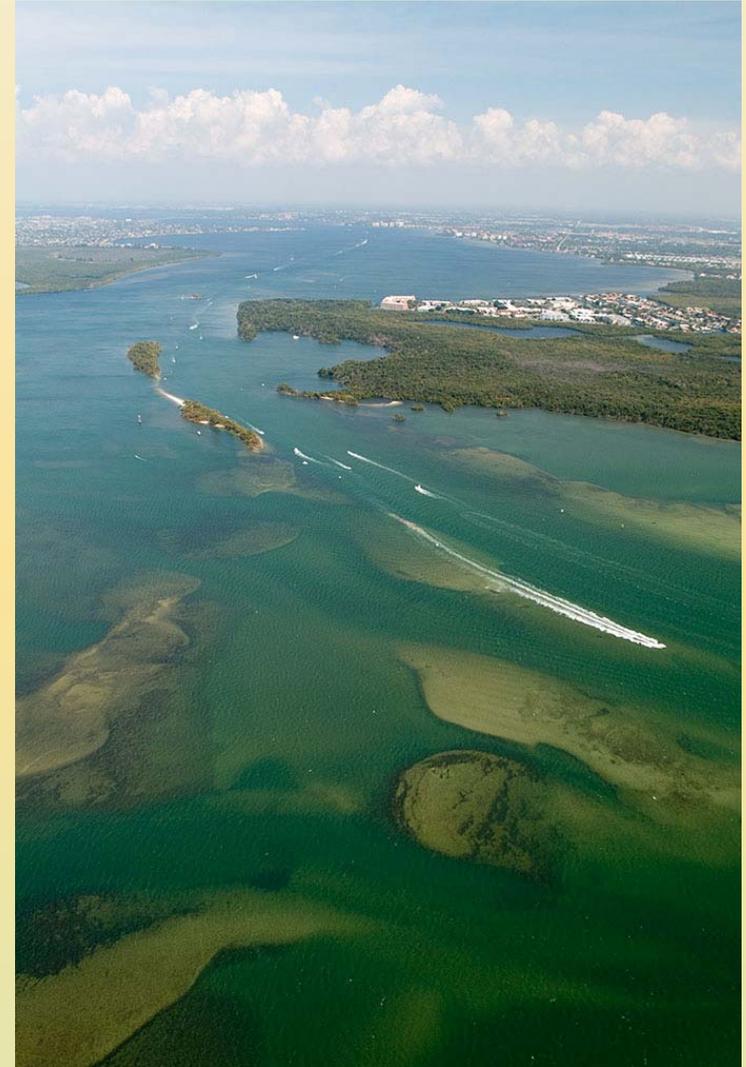
# What a Reservation Doesn't Do

- Establish an operating regime by rule
- Drought proof the natural system
- Ensure the fish and wildlife goals are achieved



# Caloosahatchee Estuary Reservation Rule

- Reservation associated with Caloosahatchee River (C-43) Reservoir is necessary for federal funding (WRDA 2000)
- Reservation will be based on water identified in the PIR
- Operations will be consistent with reservation as required by CERP Programmatic Regulations
- Caloosahatchee River (C-43) Reservoir part of recovery plan for Caloosahatchee River MFL



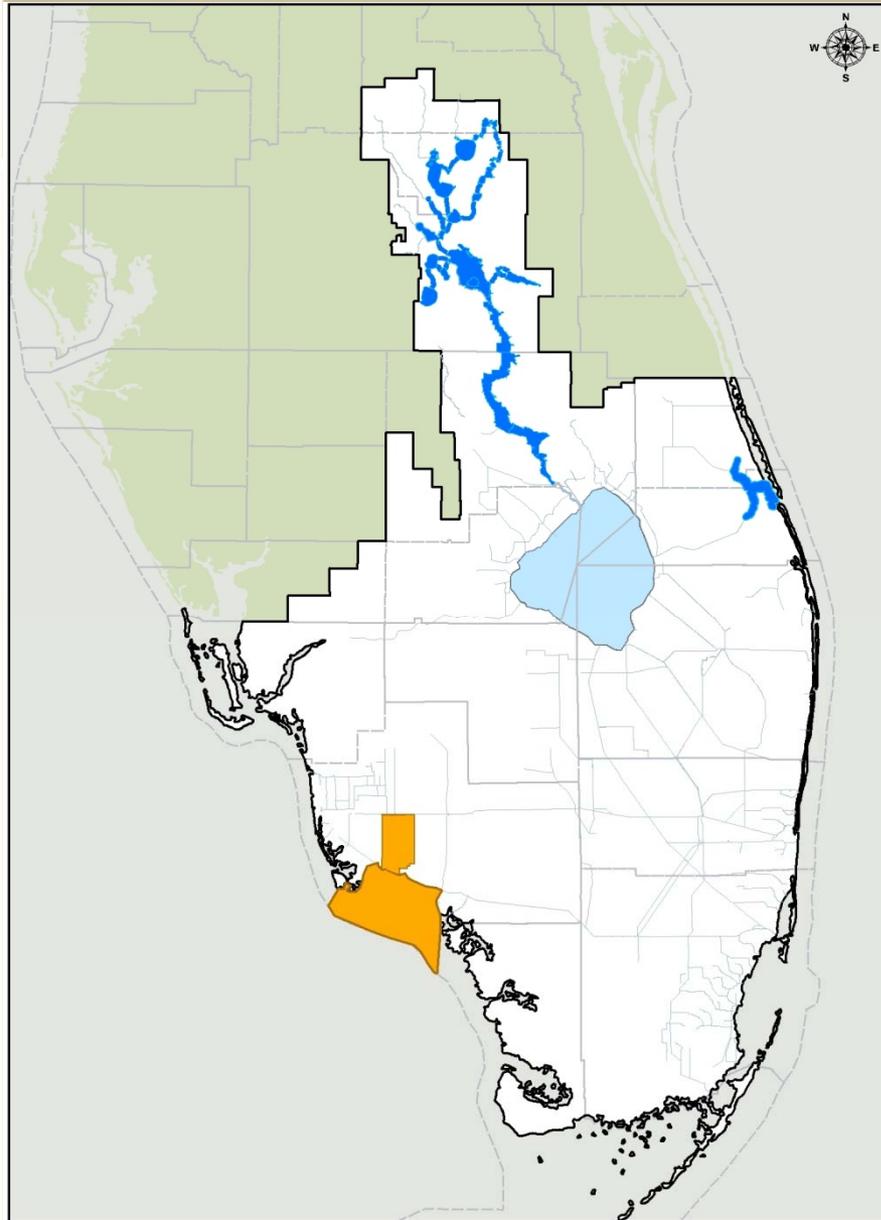
# Water Reservation Waterbodies

## ■ Rules in place

- Picayune Strand and Fakahatchee Estuary
- Effective July 2, 2009

## ■ Rules under development

- North Fork of the St. Lucie River
- Kissimmee Basin Chain of Lakes (17 lakes)
- Kissimmee River and Floodplain

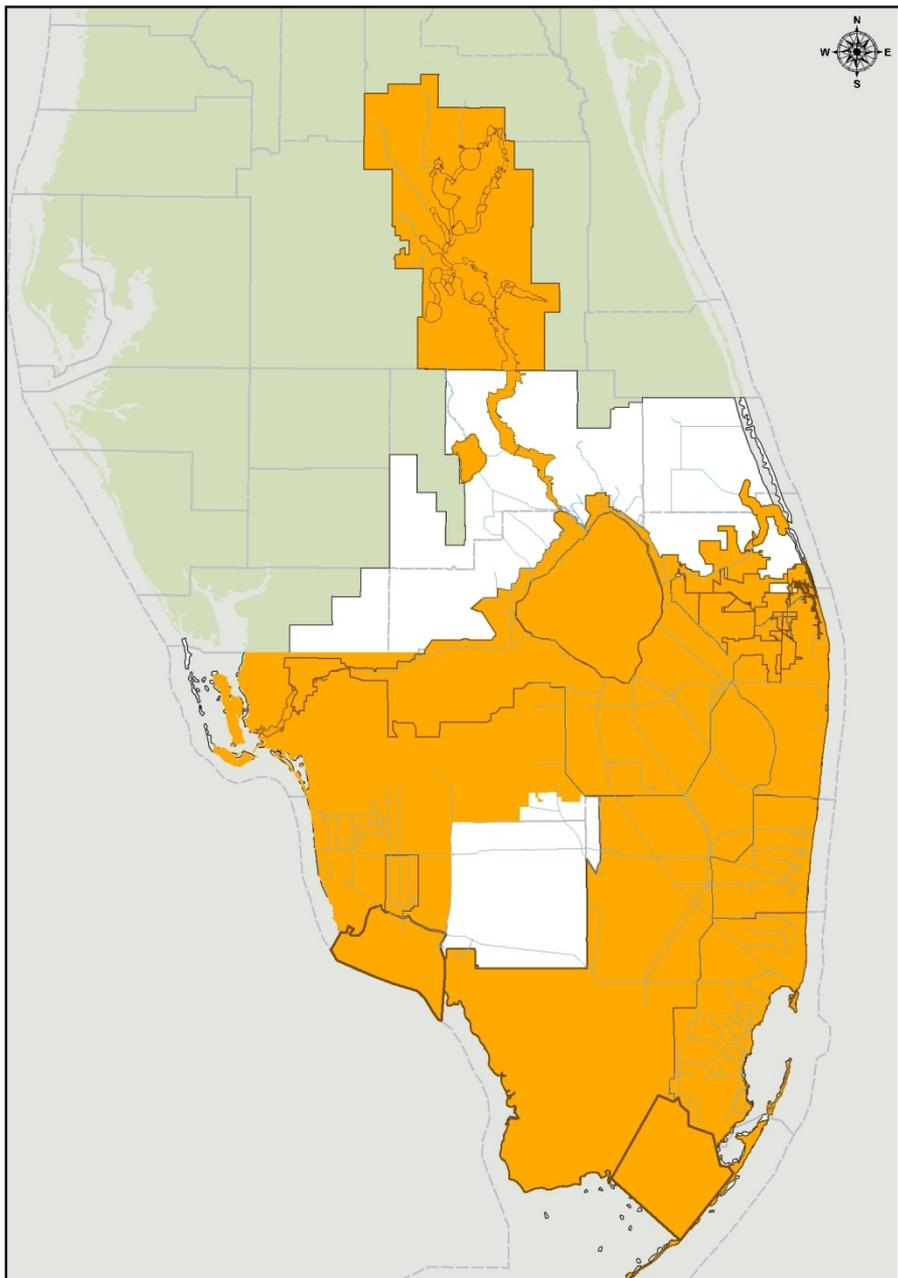


# Why Choose Water Reservations?

- Florida Statutes and Federal Law require the District to reserve or allocate water for natural system identified in CERP project implementation report
- Clear choice for valued ecosystem component that is target for protection
- Well-established linkage between hydrology and fish and wildlife response
- Availability of scientific data and information (empirical data and numerical models available)
- Ability to present sound scientific arguments to peer review

## Areas Covered by Rules Protecting Water for the Natural System from Consumptive Uses

- Minimum Flows and Levels
- Restricted Allocation Areas
- Water Reservations



# Future Application of Water Reservations and Minimum Flows and Levels

- Water Reservation - 2010
  - Caloosahatchee River (C-43)  
West Basin Reservoir
- Minimum Flows and Levels - 2011/2012
  - Estero Bay
  - Rookery Bay



# Potential Application of Restricted Allocation Area or Water Reservation Rules in 2010

- Site 1 Impoundment
- C-111 Spreader Canal – Western
- Biscayne Bay, including Biscayne Bay Coastal Wetlands Project
- Broward County Water Preserve Areas
- North Palm Beach County – Part 1





**Thank you**

