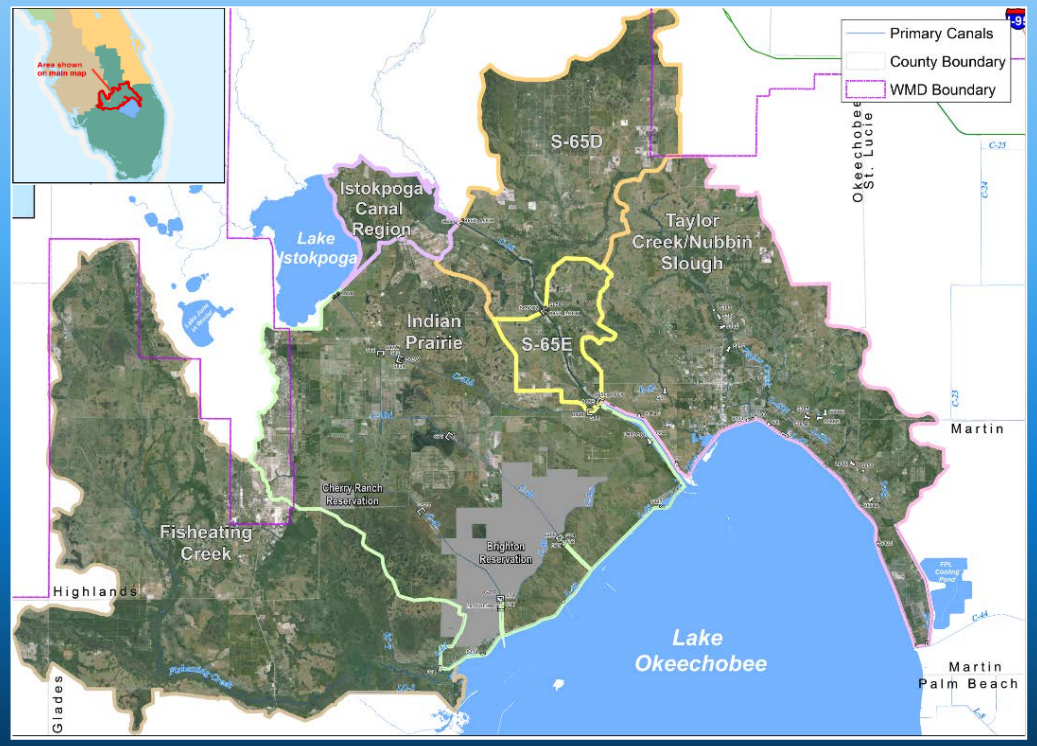
LAKE OKEECHOBEE WATERSHED RESTORATION PROJECT UPDATE

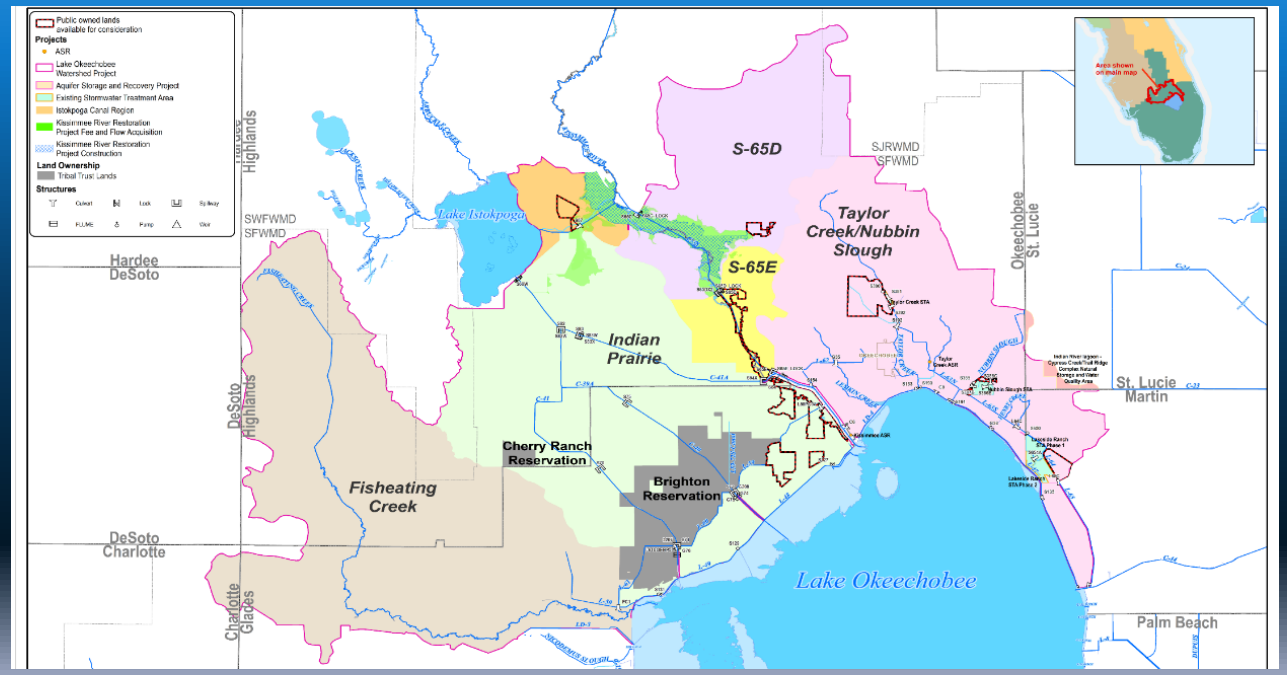
Matt Morrison, Federal Policy Chief
South Florida Water Management District
June 7, 2018
Water Resources Analysis Coalition Meeting

Lake Okeechobee Watershed Restoration Project Study Area



- ~920,000 acres
- Historically dominated by wetlands
- Current land use includes:
  - Agriculture
  - Natural/Open Land and Water
  - Urban/Infrastructure

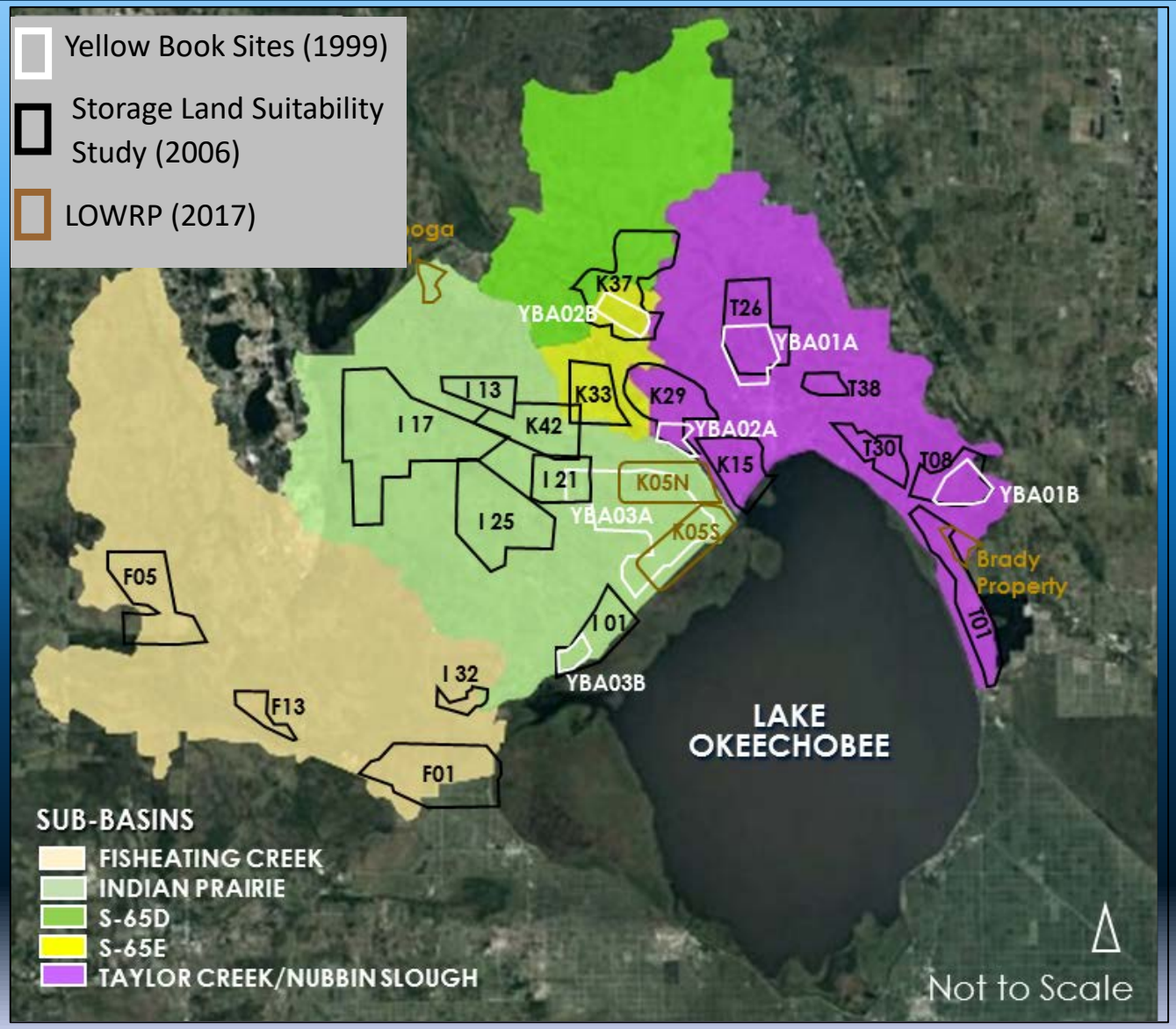
- Focus on storage features north of Lake Okeechobee



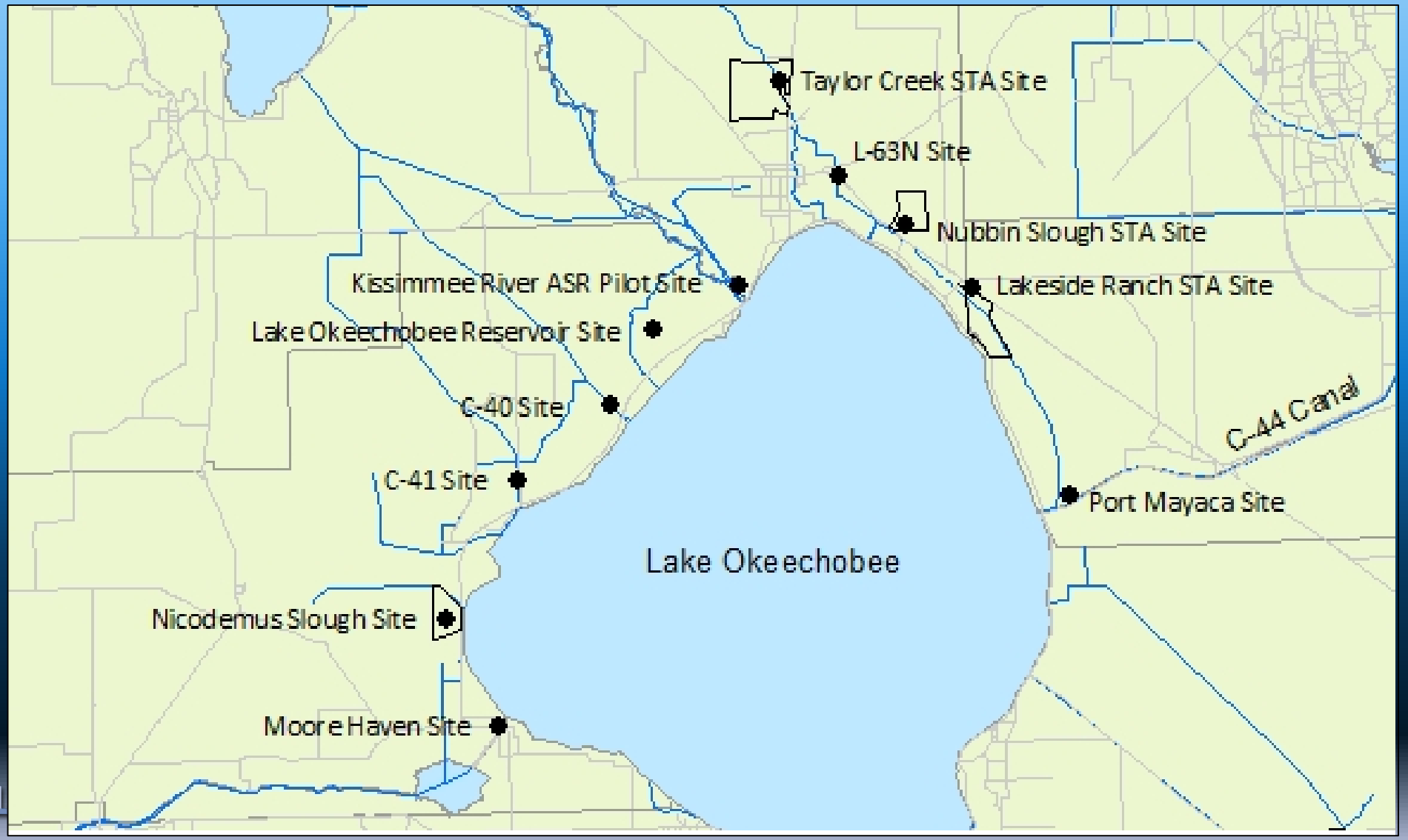
Goals and Objectives

- Improve the quantity, timing, and distribution of flows into Lake Okeechobee to maintain ecologically desired lake stage ranges more often
- Improve estuary discharges from Lake Okeechobee to improve the salinity regime and the quality of oyster, submerged aquatic vegetation, and other estuarine community habitats in the Northern Estuaries
- Increase the spatial extent and functionality of aquatic and wildlife habitat within Lake Okeechobee and the surrounding watershed
- Increase availability of the water supply to the existing legal water users of Lake Okeechobee

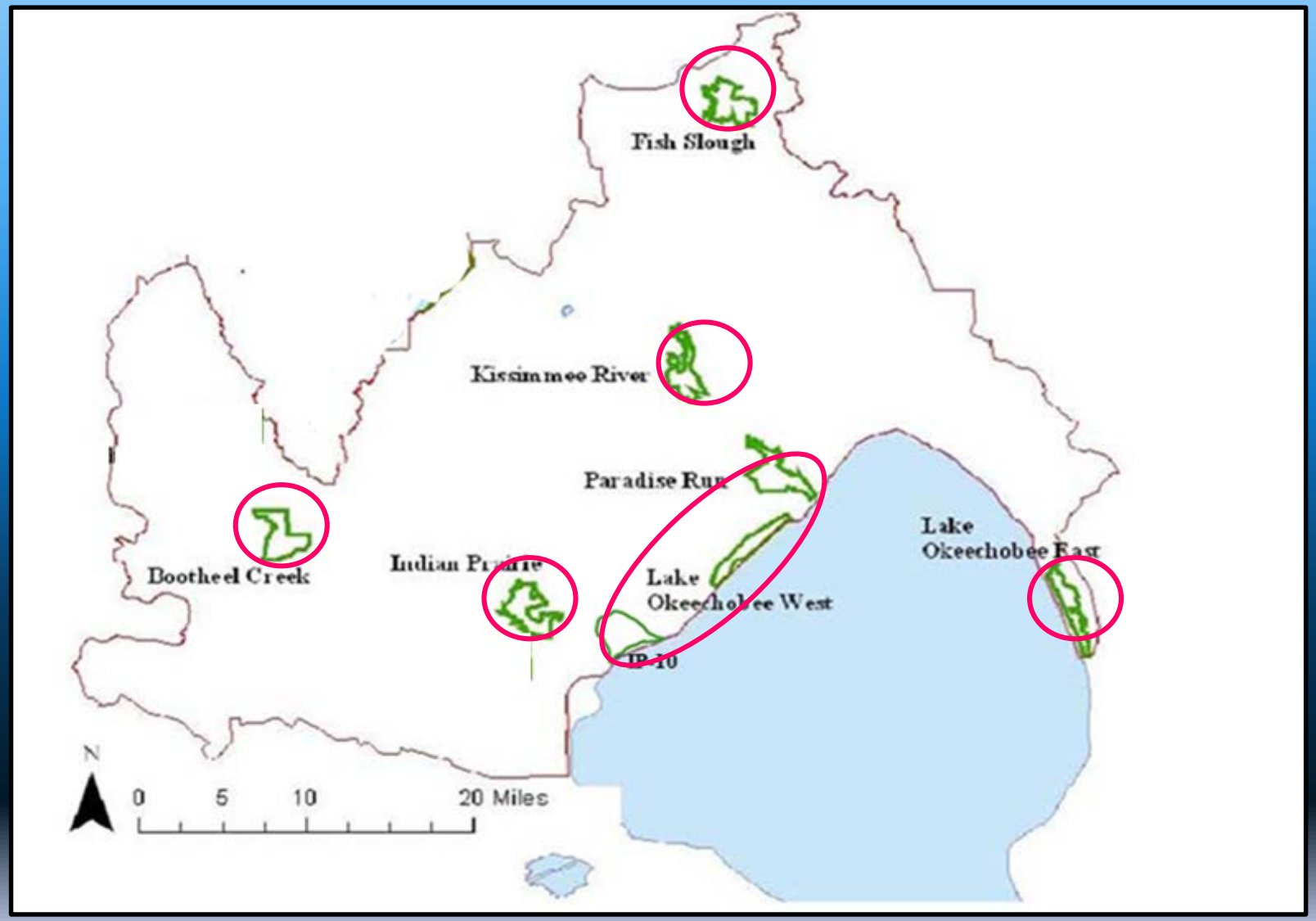
Reservoir Locations Considered



ASR Well Locations Considered



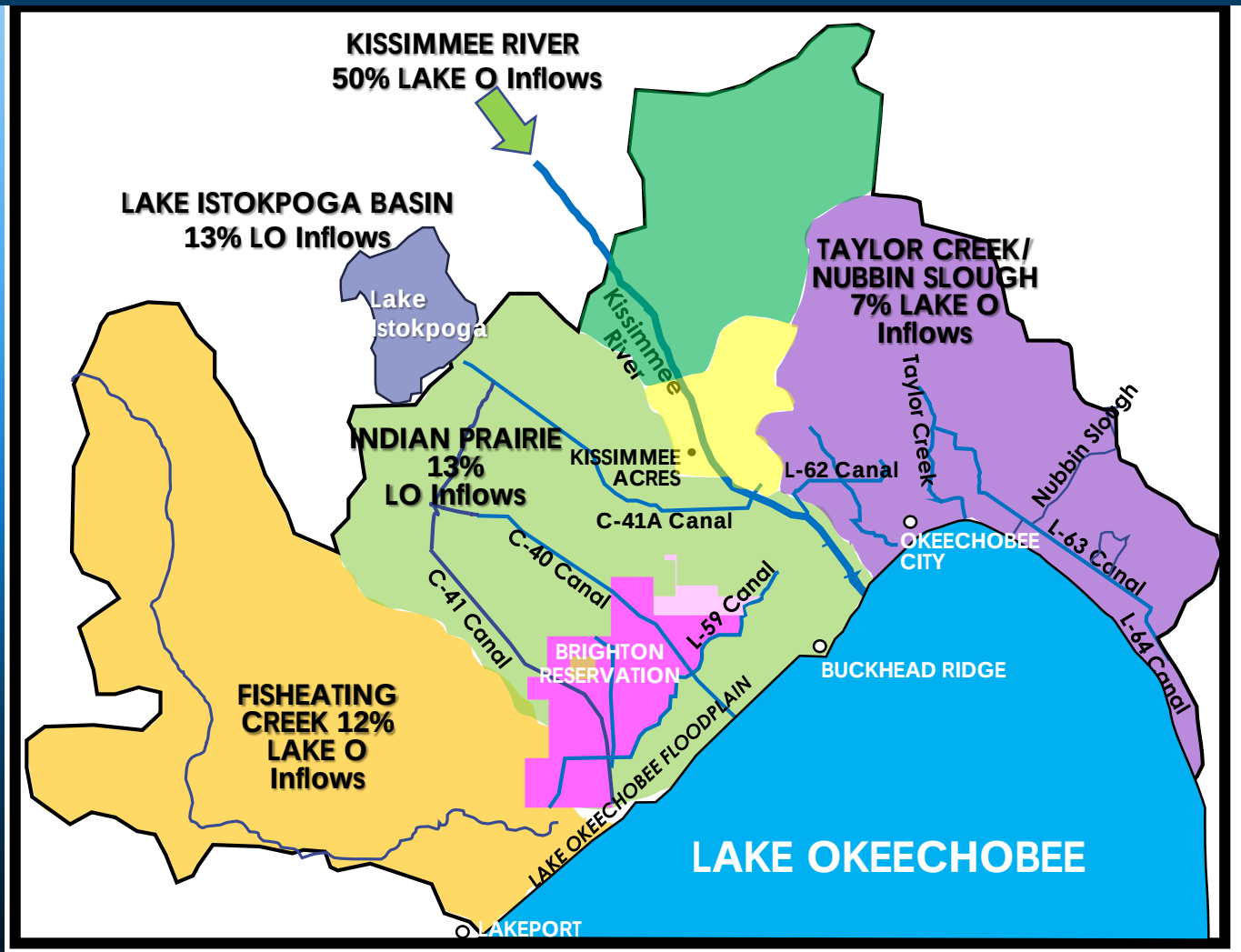
Wetland Locations Considered



Identification of Project Features – Key Considerations

Water Availability is Key to Siting Project Features

Regional Water Availability



Water Sources

- Lake O Pool
- Kissimmee River
- Indian Prairie
- Fisheating Creek and Taylor Creek/
- Nubbin Slough

WATER AVAILABILITY

- Taylor Creek/Nubbin Slough
- Fisheating Creek
- Indian Prairie
- S-65D
- S-65E

KEY NOTE: RESERVOIR-ASSISTED ASR WELLS INCREASE RESERVOIR STORAGE CAPACITY

Identification of Project Features - Key Considerations

Tribal Consultations and Public Input

Deep Above-Ground Storage Features

Aesthetic values

Technical feasibility of deep storage on sandy soils

Seepage, flooding and safety concerns

Shallow Above-Ground Features

Set-Back from Brighton Reservation

Set-Back from planned land development opportunities along Hwy 78

Above Ground Storage Features

Maximize use of public owned lands

Loss of tax revenue and payment in lieu of taxes

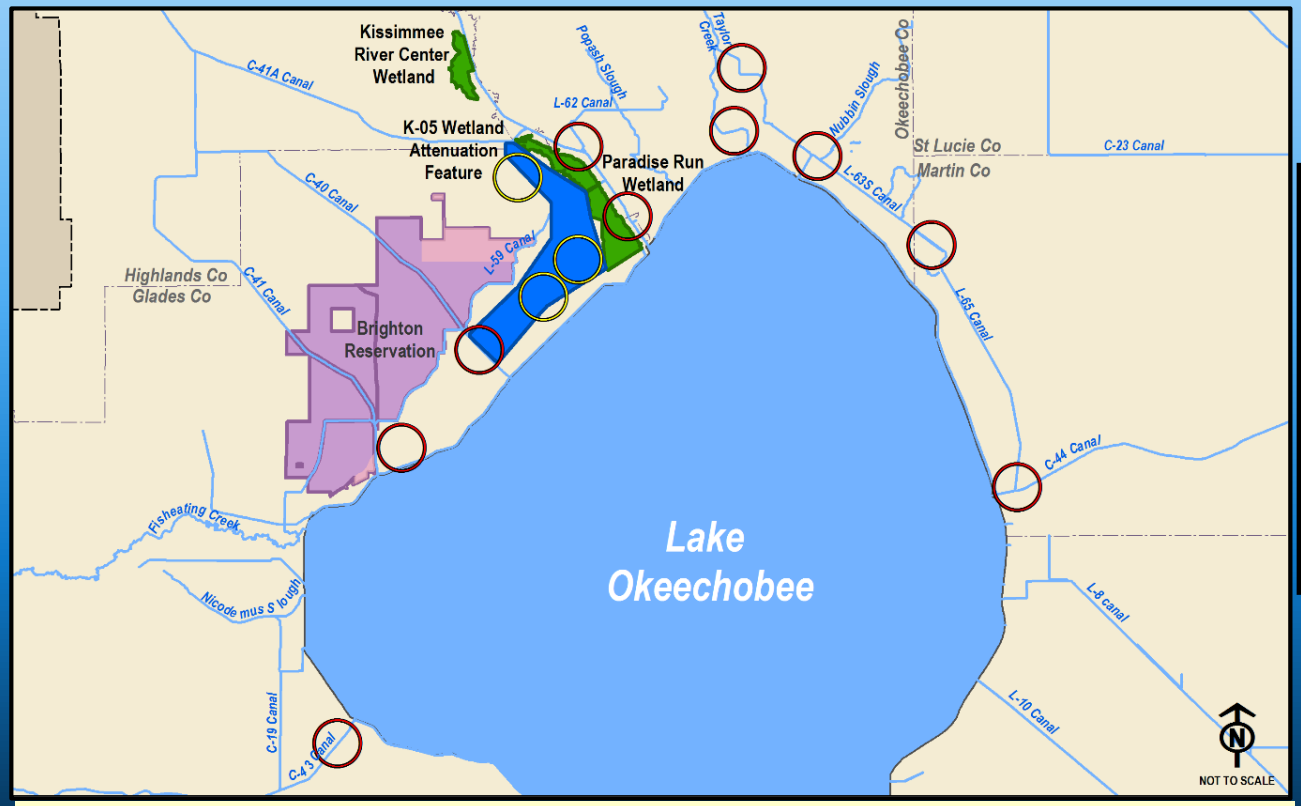
Identification of Project Features - Key Considerations

Constraints

- WRDA 2000 Sec. 601(h)(5); Sec. 373.1501, F.S.
  - Elimination or transfer of existing legal sources of water must be addressed
  - Maintain existing level of flood protection
- Maintain Lake Okeechobee navigability and within the watershed.
- Maintain rights of the Seminole Indian Tribe of Florida under the compact

Proposed Tentatively Selected Plan (TSP)

Alternative 1B Wetland Attenuation Feature (WAF): $1.4 B



LEGEND

- Wetland Attenuation Feature
- Wetland Restoration
- Tribal Trust Lands
- Tribal Owned Lands
- ASR Well Cluster
- Wetland Attenuation ASR Well Cluster

SHALLOW STORAGE

- K-05 WAF ~ 12,500 acres
- 43,000 acre-feet storage

AQUIFER, STORAGE & RECOVERY

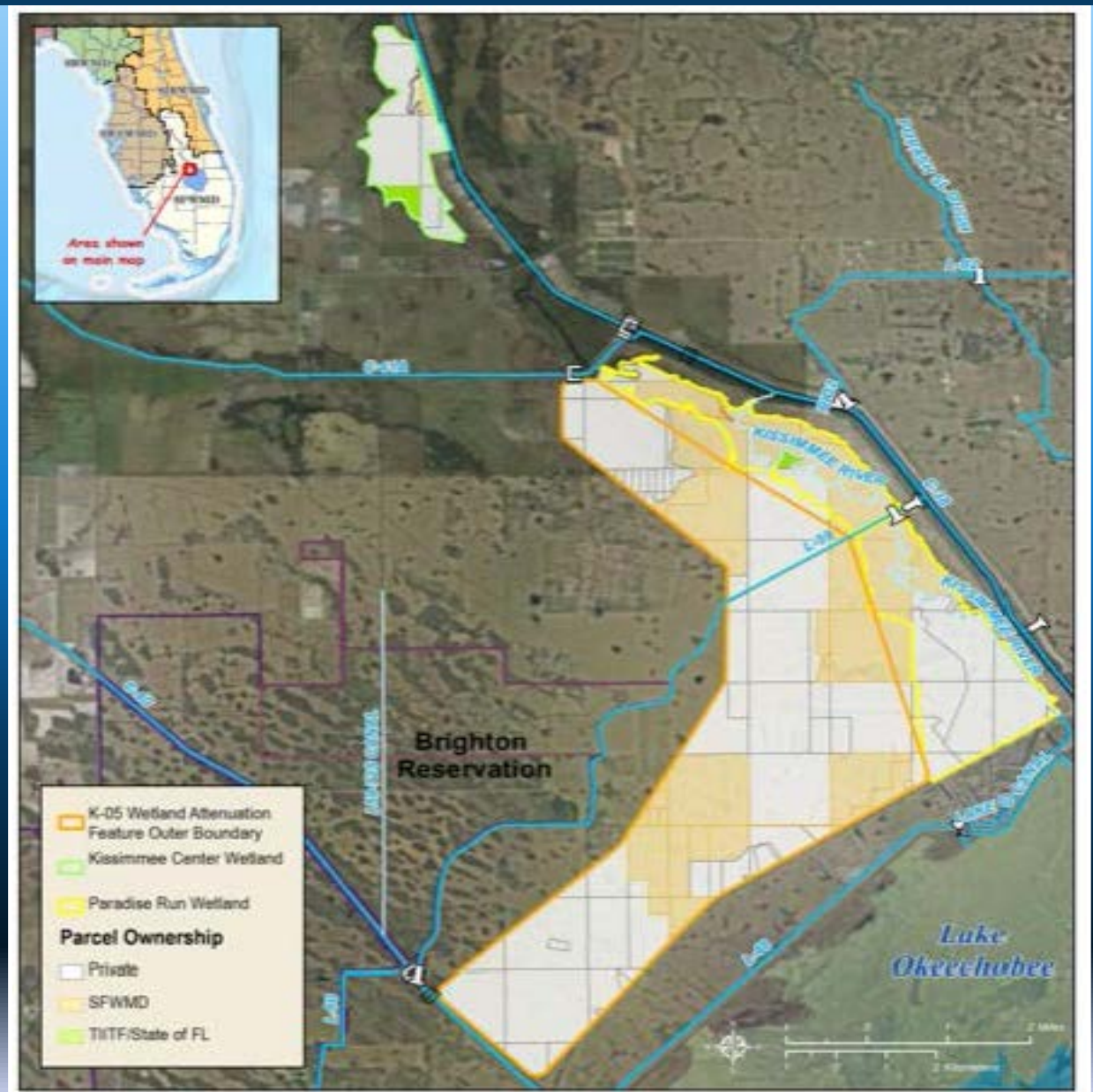
- 80 ASR wells
- 448,000 acre-feet of storage per year (400 MG/Day)

WETLAND RESTORATION

- KRC: ~1,200 acres
- PR: ~4,100 acres

- Water storage feature that provides for wetland habitat within the footprint
- Provides ~43K ac-ft of storage for both regional and local benefits
- Provides measureable benefits to Lake Okeechobee Ecology and the Northern Estuaries

Proposed Tentatively Selected Plan (TSP)
Alternative 1B



Tentatively Selected Plan – Alternative 1BW

Wetland Habitat

Increases Spatial Extent

- Kissimmee River Center and Paradise Run high quality wetlands ~5,300 acres
- Wetland attenuation emergent marsh ~10,000 acres

Example of a Wetland Restoration

Tentatively Selected Plan – Alternative 1BW

Lake Okeechobee

Promotes Sustainability

- Improves amount of time lake is in preferred ecological stage envelope
- Decreases the number of extreme low lake events
- Improves water shortage cutback performance


Lake Okeechobee

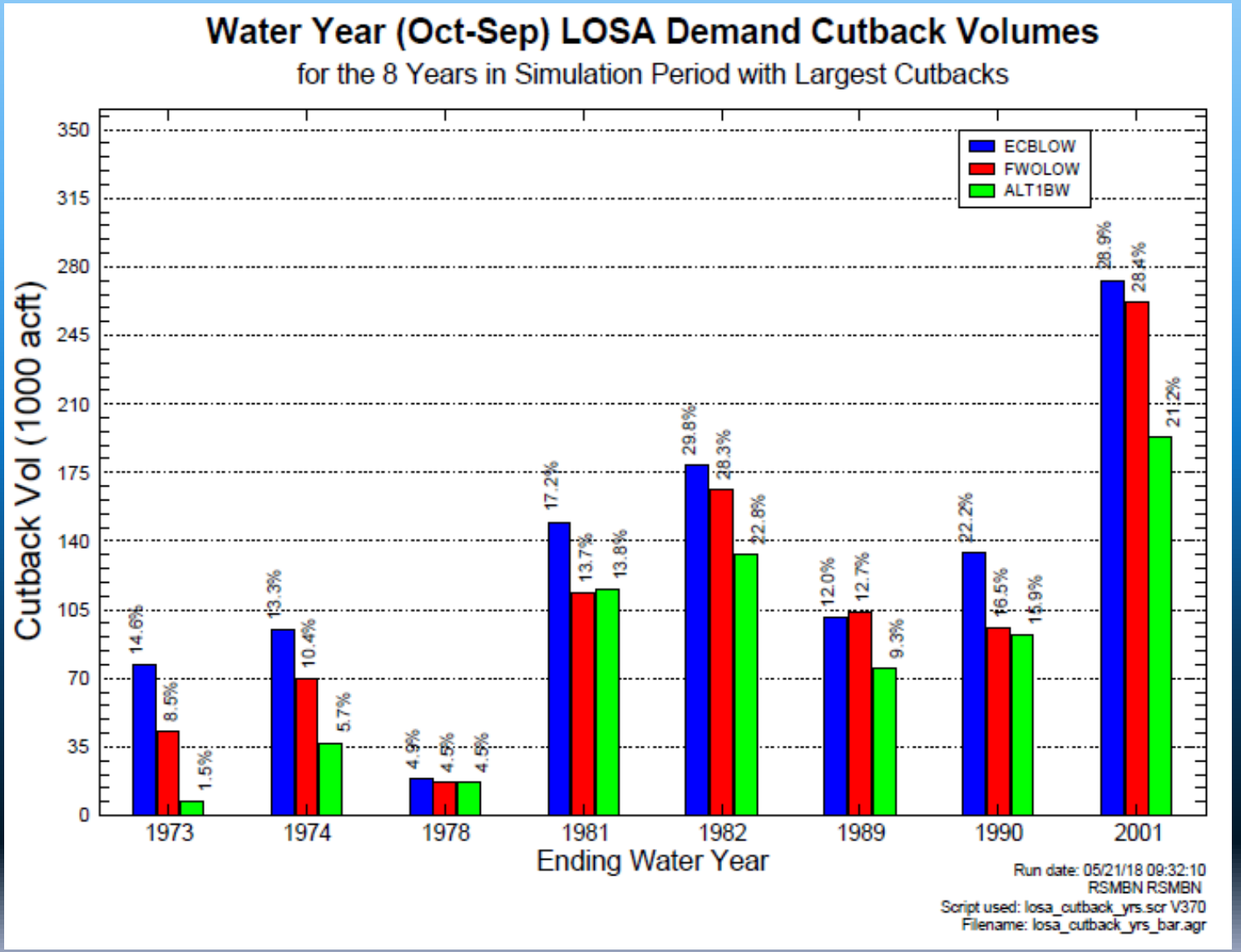
Tentatively Selected Plan – Alternative 1BW

Northern Estuaries

Promotes Resiliency

- Provides a **30%** reduction in high-flow discharge events lasting longer than 60 days in the Caloosahatchee Estuary
- Provides a **44%** reduction in high-flow discharge events lasting longer than 42 days in the St. Lucie Estuary
- Provides a **57%** reduction in discharge volumes from Lake Okeechobee to the Northern estuaries with authorized projects
- Provides a **67%** reduction in discharge events from Lake Okeechobee to the Northern estuaries with authorized projects

Tentatively Selected Plan – Alternative 1BW



Lake Okeechobee Watershed Restoration Project
Next Step

Landowners Meeting – June 18, 2018, 6:00 PM,
Indian River State College, Williamson Center, Okeechobee, FL

Release Draft Project Implementation Report for Agency & Public Review
(June 29, 2018)

LOWRP Website: www.sfwmd.gov/lowrp

Discussion

www.sfwmd.gov/lowrp