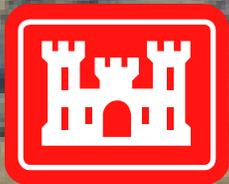


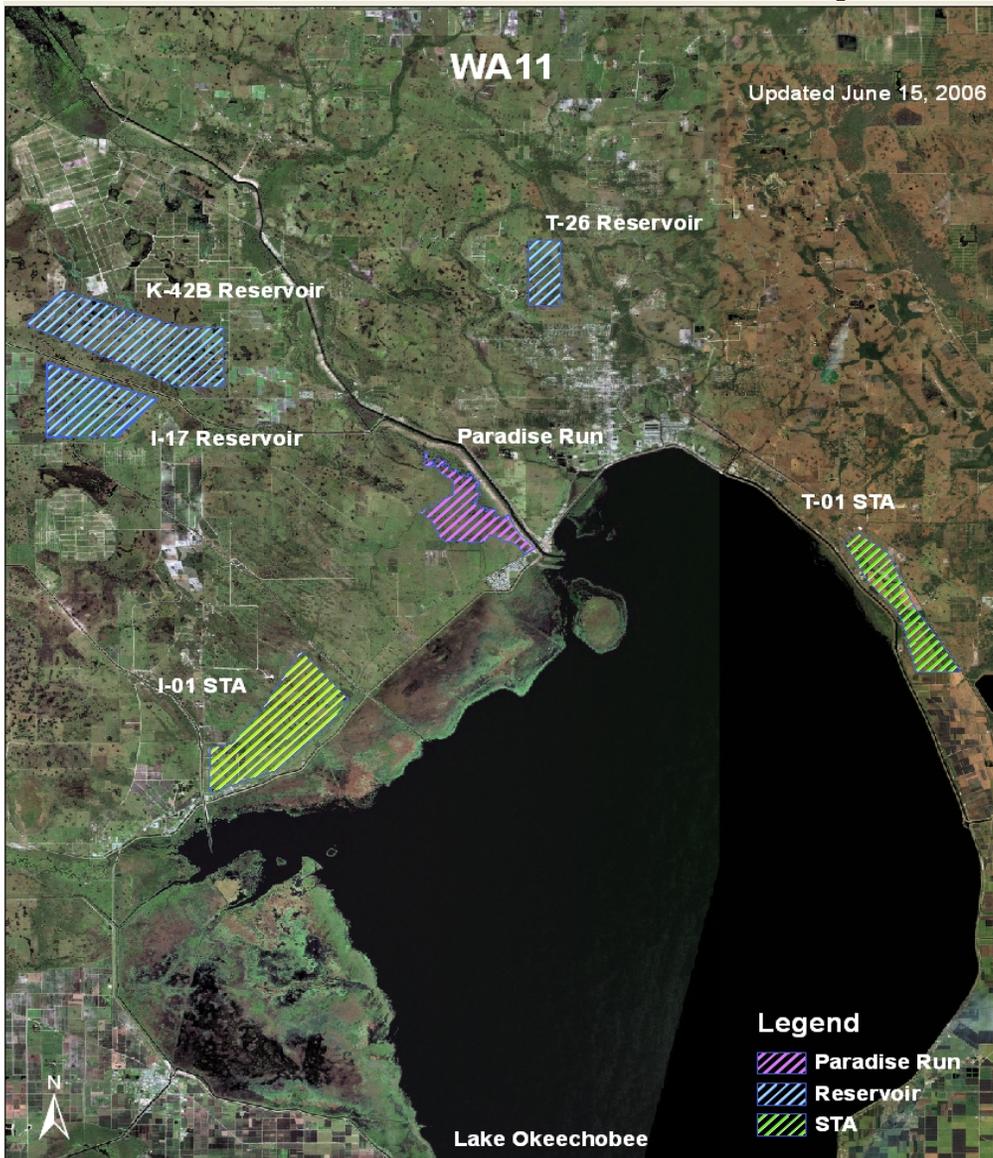
Lake Okeechobee Watershed Project

Tentatively Selected Plan Briefing

Working Group Meeting
19 – 20 October 2006

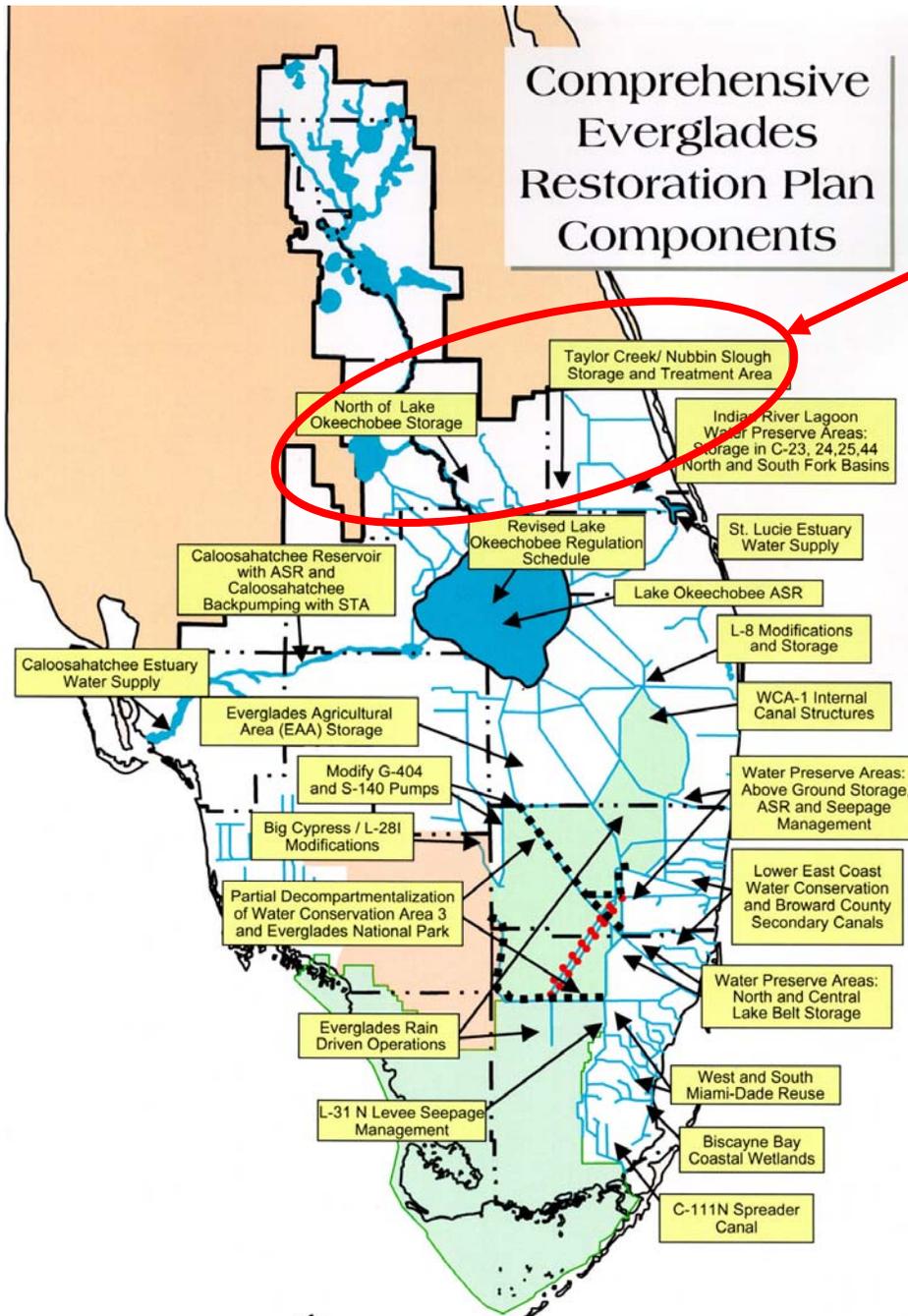


Tentatively Selected Plan



Total Cost \$1.50 billion

1. Istokpoga Regulation Schedule
2. Paradise Run Wetland Restoration
 - 3,730 acres
3. Water Storage & Treatment
 - K42 Reservoir - 161,263 ac-ft
 - I-17 Reservoir - 79,560 ac-ft
 - T-26 Reservoir - 32,000 ac-ft
 - T-01 STA - 3,975 acres
 - I-01 STA - 8,044 acres
 - Recreation Features



Lake Okeechobee Watershed Projects

CERP Projects (Yellow Book)

- Component A—North of Lake Okeechobee Storage Area (201,250 ac-ft Reservoirs; 2,500 acres STAs)
- Component W—Taylor Creek/Nubbin Slough Storage and Treatment Area (50,000 ac-ft Reservoirs 5,000 acres STAs)
- OPE—LOW Water Quality Treatment Facilities (4,375 acres RaSTAs; 3,500 acres Wetland Restoration)
- OPE—Lake Istokpoga Regulation Schedule
- OPE—Lake Okeechobee Tributary Sediment Dredging

Three Focus Areas For Plan Formulation

1. Lake Istokpoga

- To improve the ecological health of Lake Istokpoga

2. Wetlands Restoration

- To increase the spatial extent of aquatic and wildlife habitat

3. Water Storage & Treatment

- To increase aquatic and wildlife habitat
- To increase storage and
- For water quality improvement

Planning Goals & Objectives

- Lake Istokpoga Regulation Schedule to improve ecological health of Lake Istokpoga
- Wetland Restoration to rehydrate impacted wetlands
- To increase aquatic and wildlife habitat in Lake Okeechobee
 - Attenuate the extreme highs and lows in Lake Okeechobee
 - Reduce Phosphorus loading to Lake Okeechobee
- Reduce damaging releases to the estuaries from Lake Okeechobee

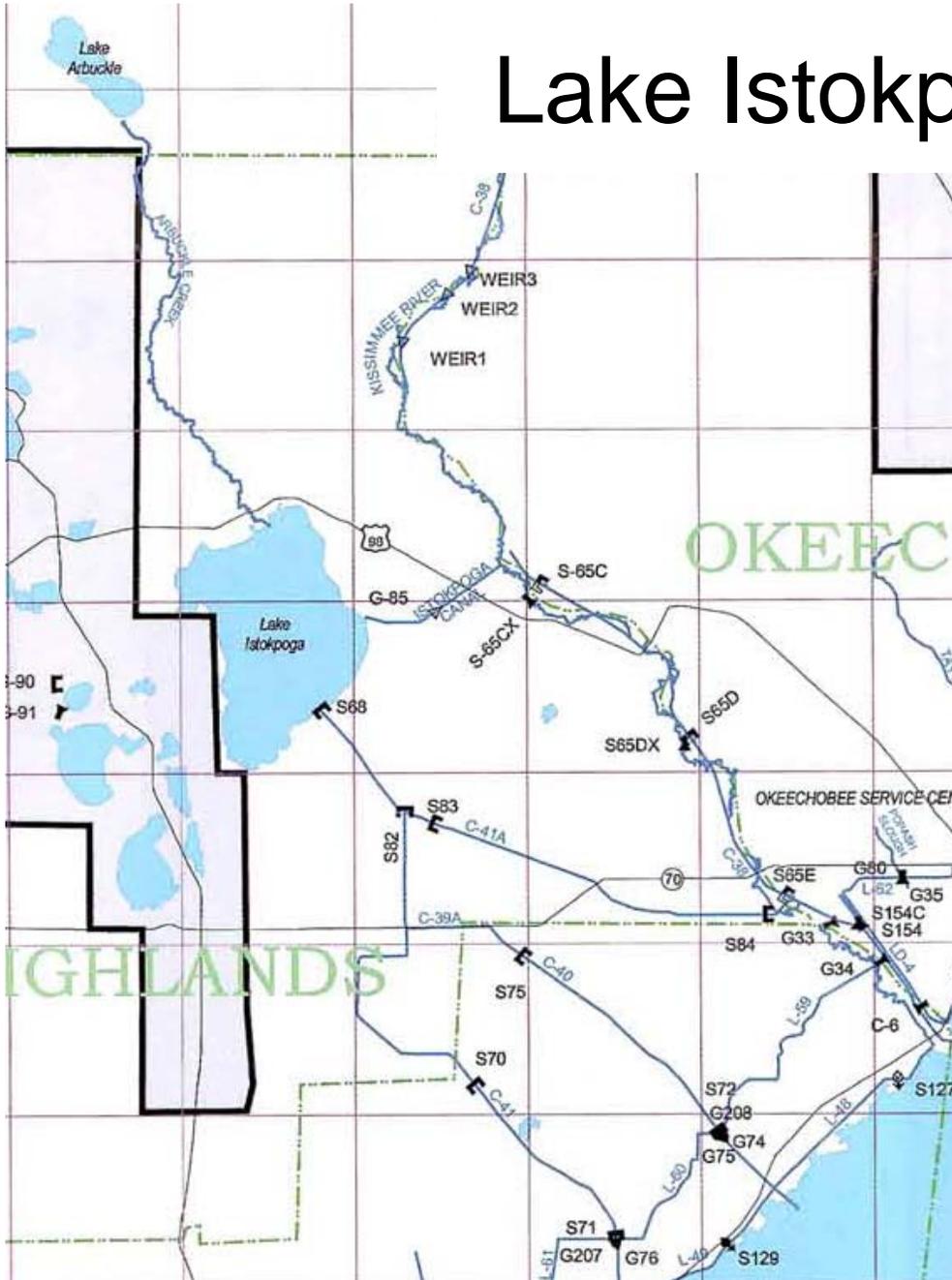
EXISTING CONDITIONS

- Damage to Lake Okeechobee Ecosystem
 - High Lake Levels / Low Lake Levels
 - High Nutrient Concentration (Phosphorus)
- Damage to Estuaries
 - High Volume Freshwater Discharges to the Estuaries / Low Volume Freshwater Flow
 - High Nutrient Load from Lake Okeechobee

Future Without Project Conditions

- Decrease in aquatic and wildlife habitat
 - Land Use tending to go from Agriculture to Urban
 - Increase in Water Supply Demand
 - Decrease in Wildlife Habitat
 - Continued nutrient impacts to Lake Okeechobee

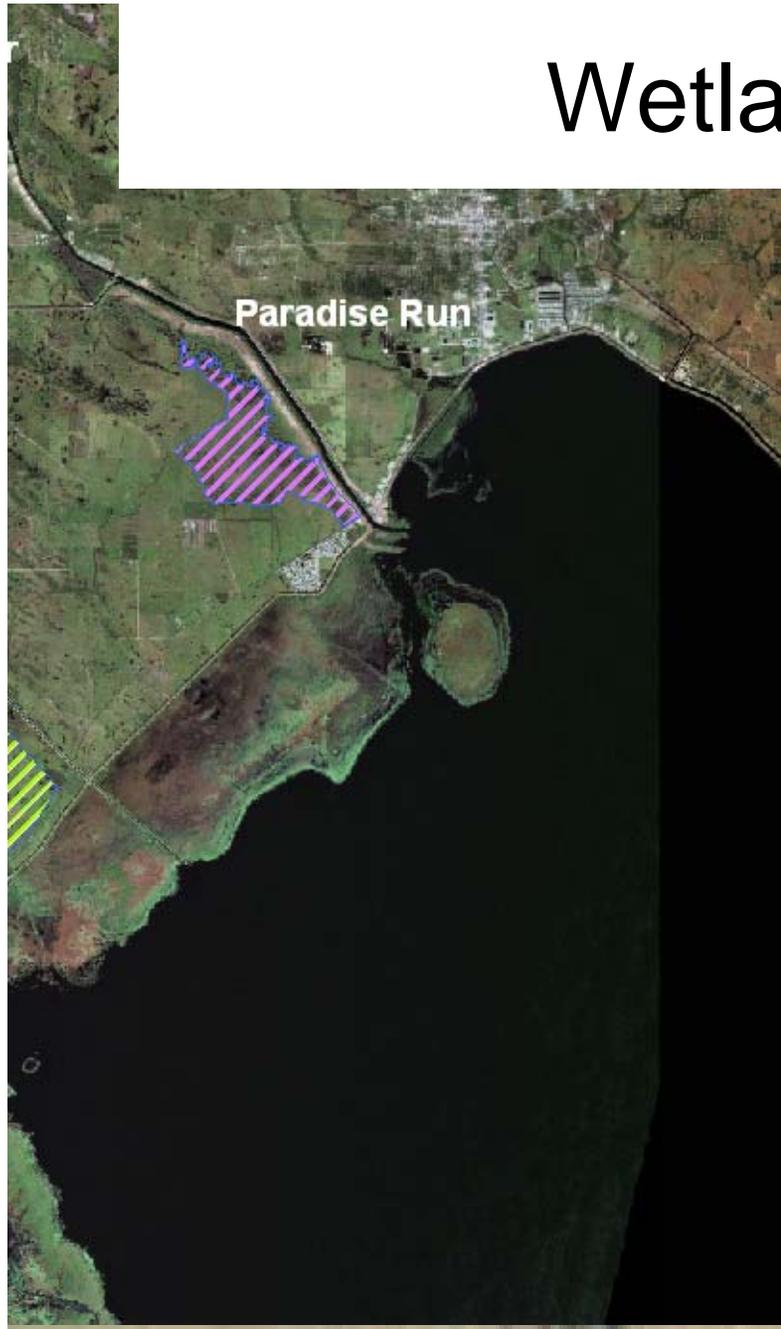
Lake Istokpoga



Lake Istokpoga Regulation Schedule

- 3 Regulation Schedule Types were analyzed to enhance fish and wildlife benefits and long term comprehensive management plan for Lake I
- Selected the one with most benefit to the health of Lake I ecosystem
- Dependent on a water storage feature in the Lake Istokpoga Basin
- Achieves the best habitat restoration

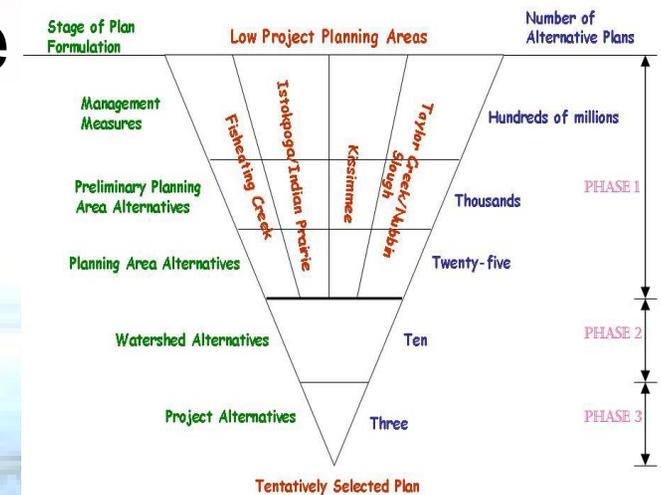
Wetland Restoration



- a) Looked at 26 sites ranging from 150 to 4,000 acres
- b) Identified 4 alternatives that best addressed the Yellow Book goal of restoration of 3,500 acres
- c) Reaffirmed 3,500 acres as optimal area.
- d) The Selected Plan for the Wetlands Restoration Component is Paradise Run. It is the rehydration of a former Kissimmee River wetland area
- e) Can be implemented as a separable element

Water Storage & Treatment Final Array of Alternatives

- The Team evaluated a large array of management measures
- Determined the best-10 alternative combinations
- Reservoir & STAs were selected for further analysis, based on cost effectiveness

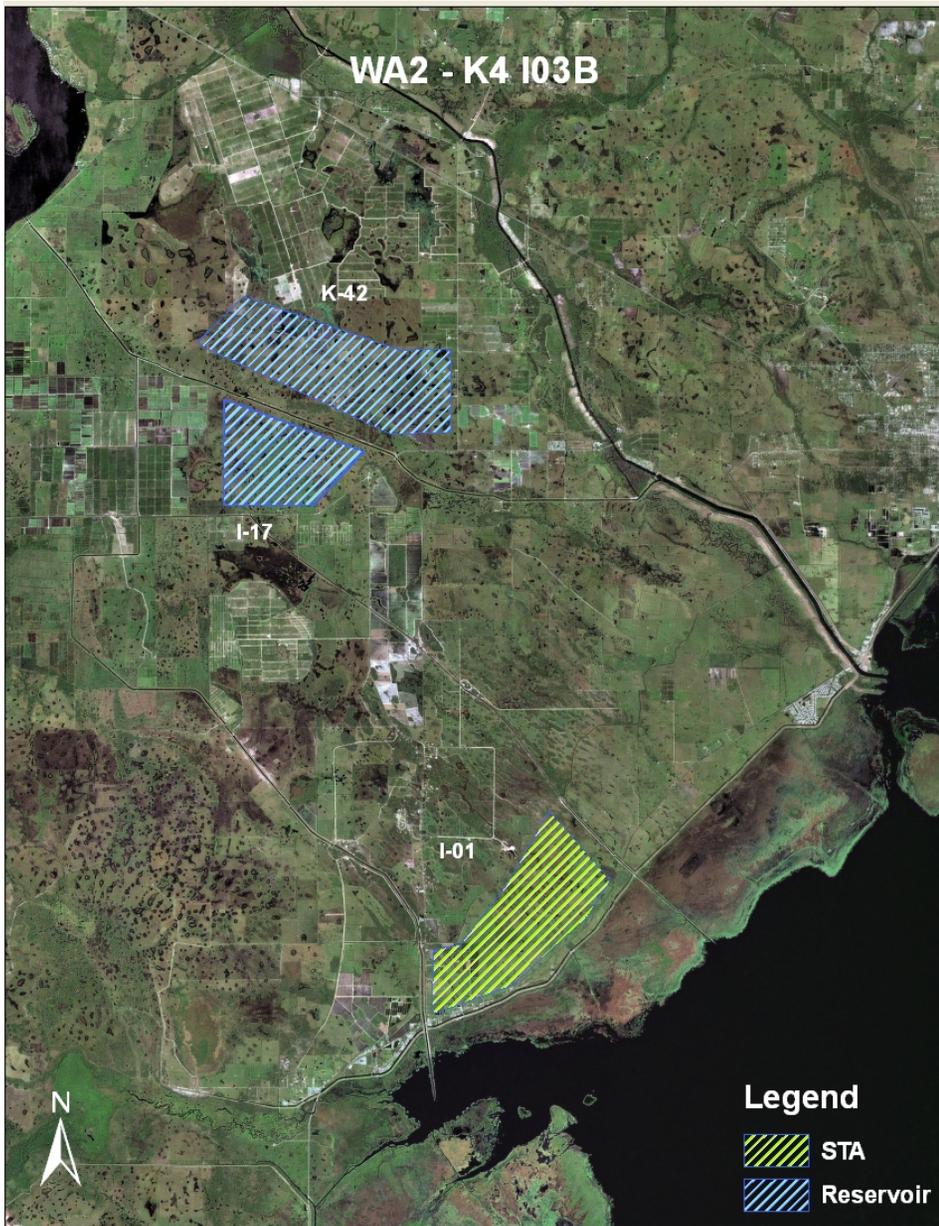


Water Storage & Treatment

Final Array of Alternatives Continued

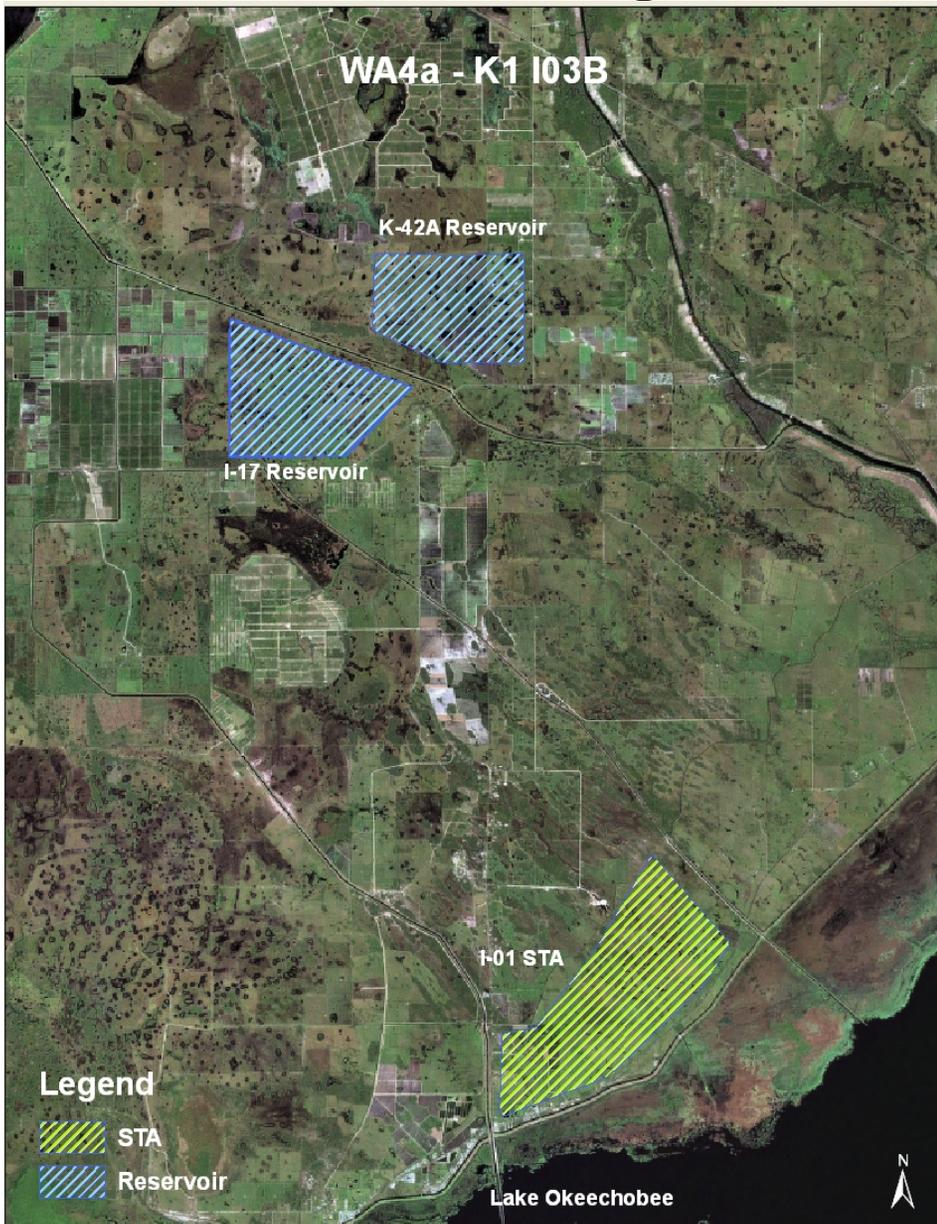
- The Top 3 alternatives were selected by identifying cost effective plan that optimized storage and reduced phosphorus loading
- Final Array of Alternatives
 - Watershed Alternative 2
 - Watershed Alternative 4a
 - Watershed Alternative 11

Water Storage & Treatment Alternative 2



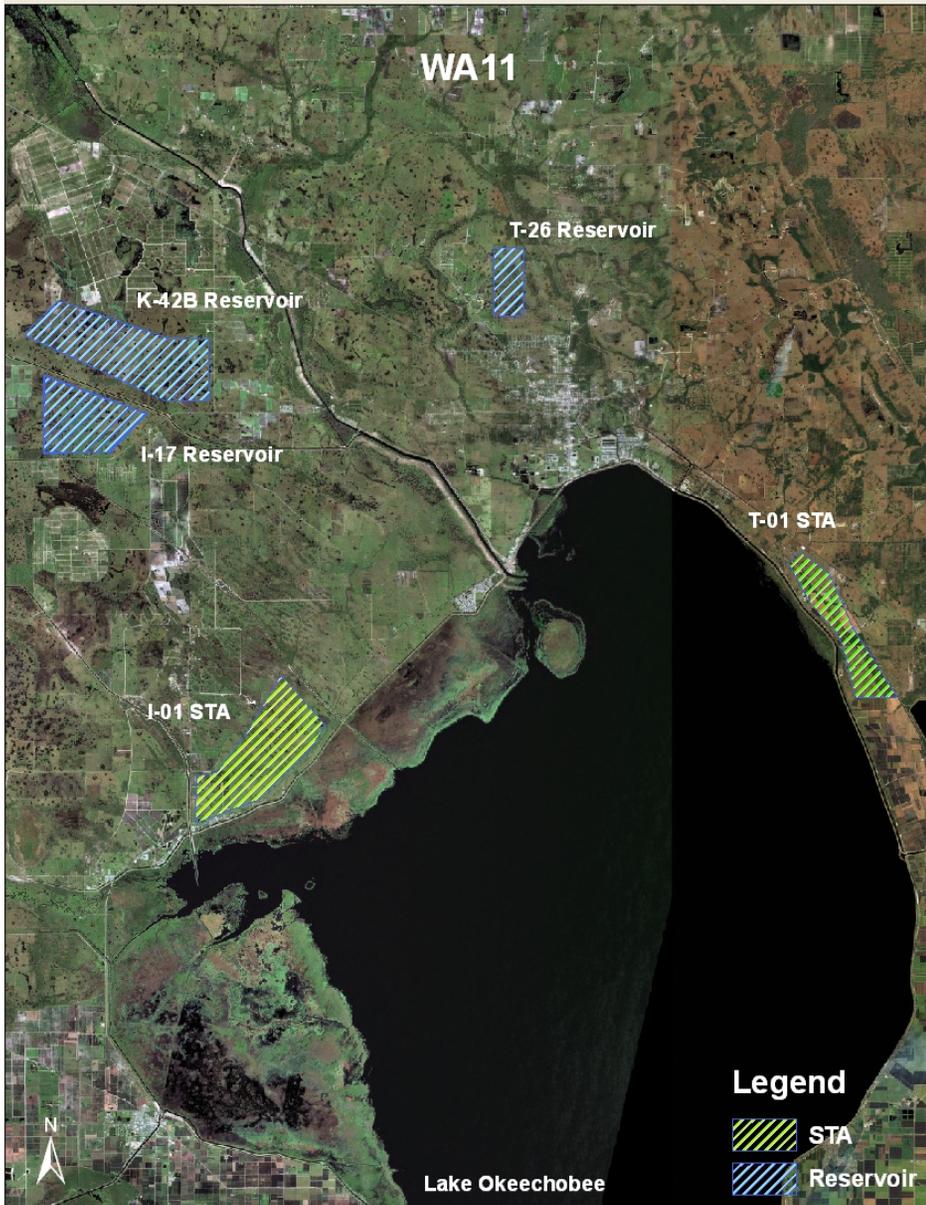
- Total Cost \$1.20 billion
- K42 Reservoir
 - 161,263 ac-ft (16 ft deep)
 - 14 ft of superiority
- I-17 Reservoir
 - 79,560 ac-ft (16 feet deep)
 - 14 ft of superiority
- I-01 STA
 - 8,044 acres

Water Storage & Treatment Alternative 4a



- Total Cost \$0.93 billion
- K42A Reservoir
 - 74,216 ac-ft (16 ft deep)
 - 14 ft of superiority
- I-17 Reservoir
 - 79,560 ac-ft (16 feet deep)
 - 14 ft of superiority
- I-01 STA
 - 8,044 acres

Water Storage & Treatment Alternative 11



- Total Cost \$1.50 billion
- K42 Reservoir
 - 161,263 ac-ft (16 ft deep, 14 ft superiority)
- I-17 Reservoir
 - 79,560 ac-ft (16 feet deep , 14 ft superiority)
- T-26 Reservoir
 - 32,000 ac-ft (18 feet deep, 14 ft superiority)
- T-01 STA - \$150 million
 - 3,975 acres
- I-01 STA
 - 8,044 acres

Water Storage & Treatment Alternative Comparison System Formulation Analysis

Alternative	Total Cost (\$1,000,000,000)	Total Storage (acre-feet)	Total P load Reduction (mtons/yr)	Combined Average Annual Habitat Units	Annual Cost Per Average Annual Habitat Units	Incremental Cost Analysis CE/ICA
WA 02	\$1.20	240,823	53.1	81,648	\$1,017	\$3,131
WA 4a	\$0.93	153,776	47.2	76,338	\$870	\$870
WA 11	\$1.50	272,823	74.3	87,073	\$1,220	\$4,272

Habitat Unit (HU) – metric used for environmental benefits; quality of habitat over a geographical area

- Quantity x Quality = HU
- Quantity = Area
- Quality = Assign Quality Indices score between 0-1
 - 0 = worst, 1 = best
 - Score based on model output, best professional judgment

Water Storage & Treatment Best Buy Plans – CE/ICA Next Added Increment Analysis

- The Next Added Increment (NAI) analysis evaluates the effects or outputs of the tentatively selected plan as the next project to be added to the group of already approved CERP projects.
- The NAI helps to illuminate the amount of benefits the selected alternative plan contributes without regard to future CERP projects
- The NAI helps to ascertain whether sufficient benefits would accrue to the selected alternative plan to justify the cost if no additional CERP projects, other than those existing or authorized, were implemented.

Additional Justification Analysis

Water Storage & Treatment

- Next Added Increment (NAI) justification – NAI analysis indicates that WA11 is the best buy plan.
- Storing more volume north of the Lake helps:
 - Keeps water off of the HHD
 - Lower Lake levels will reduce higher events on the HHD, resulting in lower O&M costs
 - WA11 stores 3” of Lake volume more than WA4a
 - Keeps water in the watershed available for water supply
 - WA11 produces the most reduction in flows to the estuaries
- Reduce dependency on regional ASR wells
- WA11 has the largest reduction in phosphorous loading to the Lake, resulting in the largest gain of in-lake benefits
- Lower P loads to the Everglades, and other CERP project features helps reduce O&M costs to downstream STAs

Lake Okeechobee Watershed Alternative Comparison System Formulation

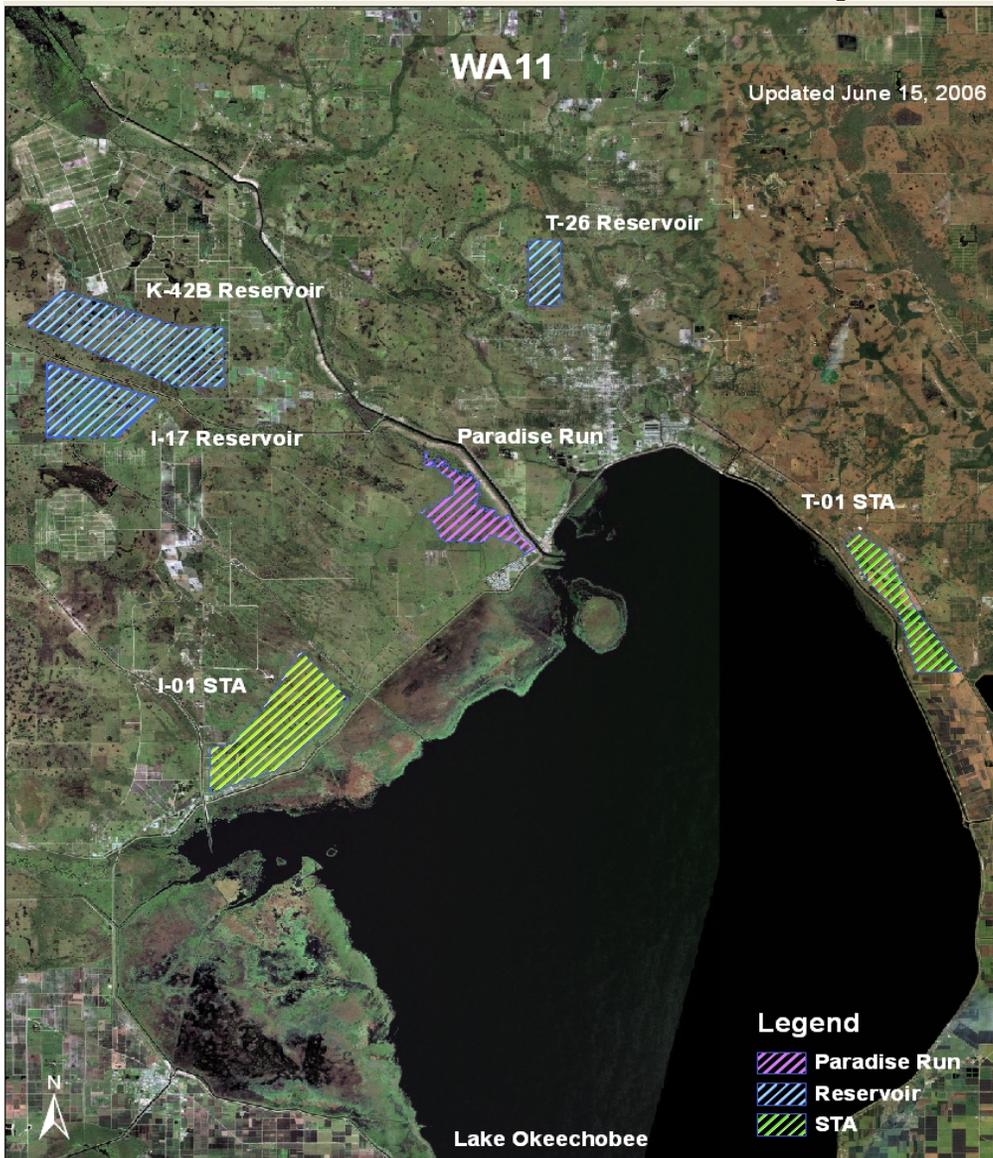
Plan Elements	Total Cost (\$1,000,000)	Combined Average Annual Habitat Units	Cost Per Average Annual Habitat Units (\$1,000,000)
1. Lake Istokpoga Regulation Schedule	\$ 0	6,780	N/A
2. Paradise Run Wetlands Restoration	\$ 64	2,364	\$1,813
3. Watershed Alternative 11	\$1,476	87,073	\$1,220
LOW TSP (Tentatively Selected Plan)	\$1,540	96,217	\$3,033

LOW TSP = 1 + 2 + 3

Recreation Features

- Cost \$12,000,000
- Hiking & Cycling Trails
- Parking
- Boat Ramps
- Stables – Equestrian Activities
- Foot Bridges
- Fishing Pier
- Board walk

Tentatively Selected Plan



Total Cost \$1.50 billion

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 - Recreation Features

Project Implementation

Tentatively Selected Plan	Oct 2006
Alternative Formulation Briefing	Dec 2006
Draft PIR in Federal Register	Dec 2008*
DE Transmittal to MSC	Sep 2009*
Civil Works Review Board (CWRB)	Nov 2009*
Chief's Report	Feb 2010*

***Schedule will be revised to reflect expedited effort directive**

Questions?

