CENTRAL EVERGLADES PLANNING PROJECT

Science Coordination Group Sponsored Workshop

PRESENTED BY

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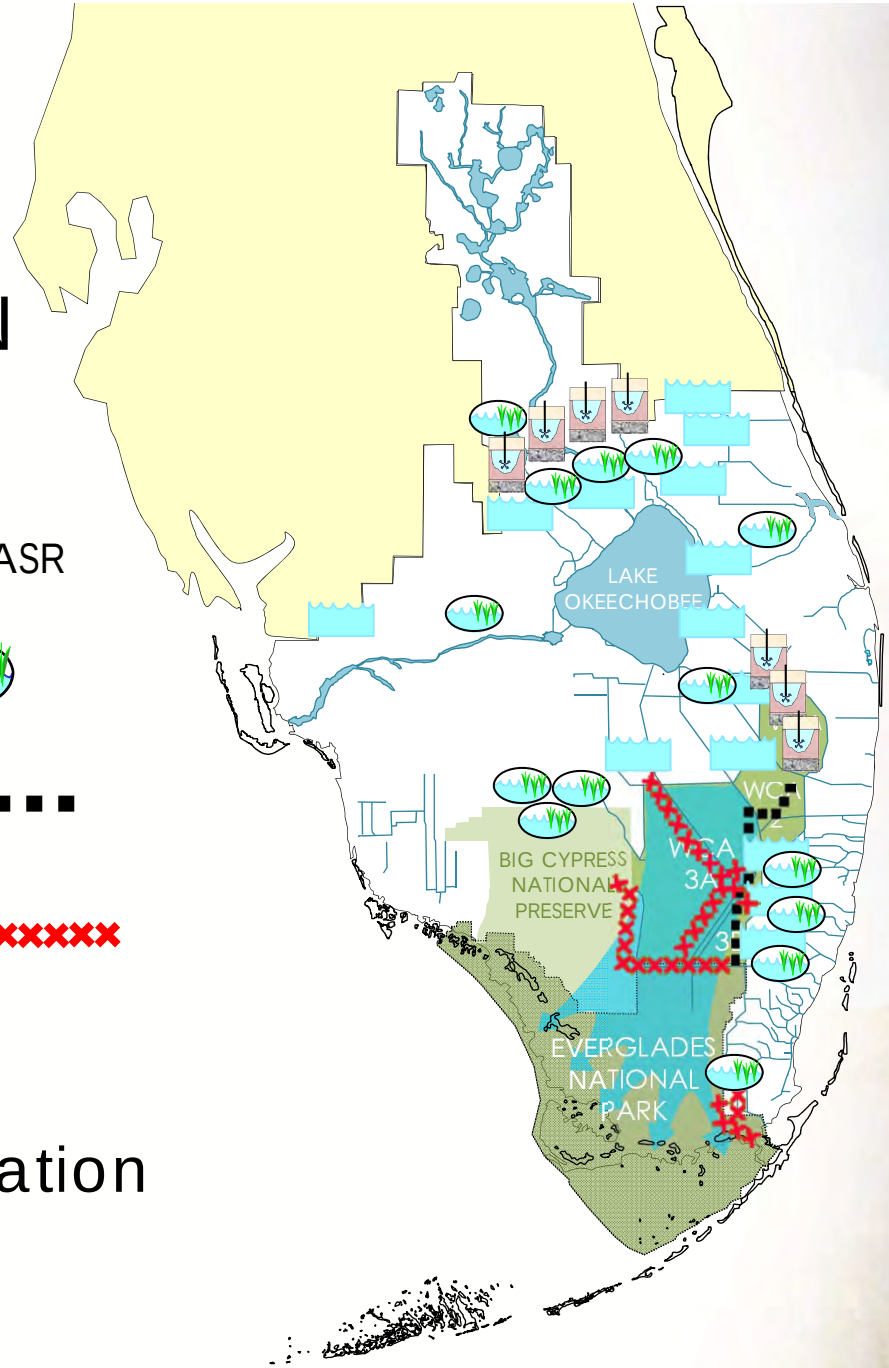
HISTORIC FLOW

CURRENT FLOW

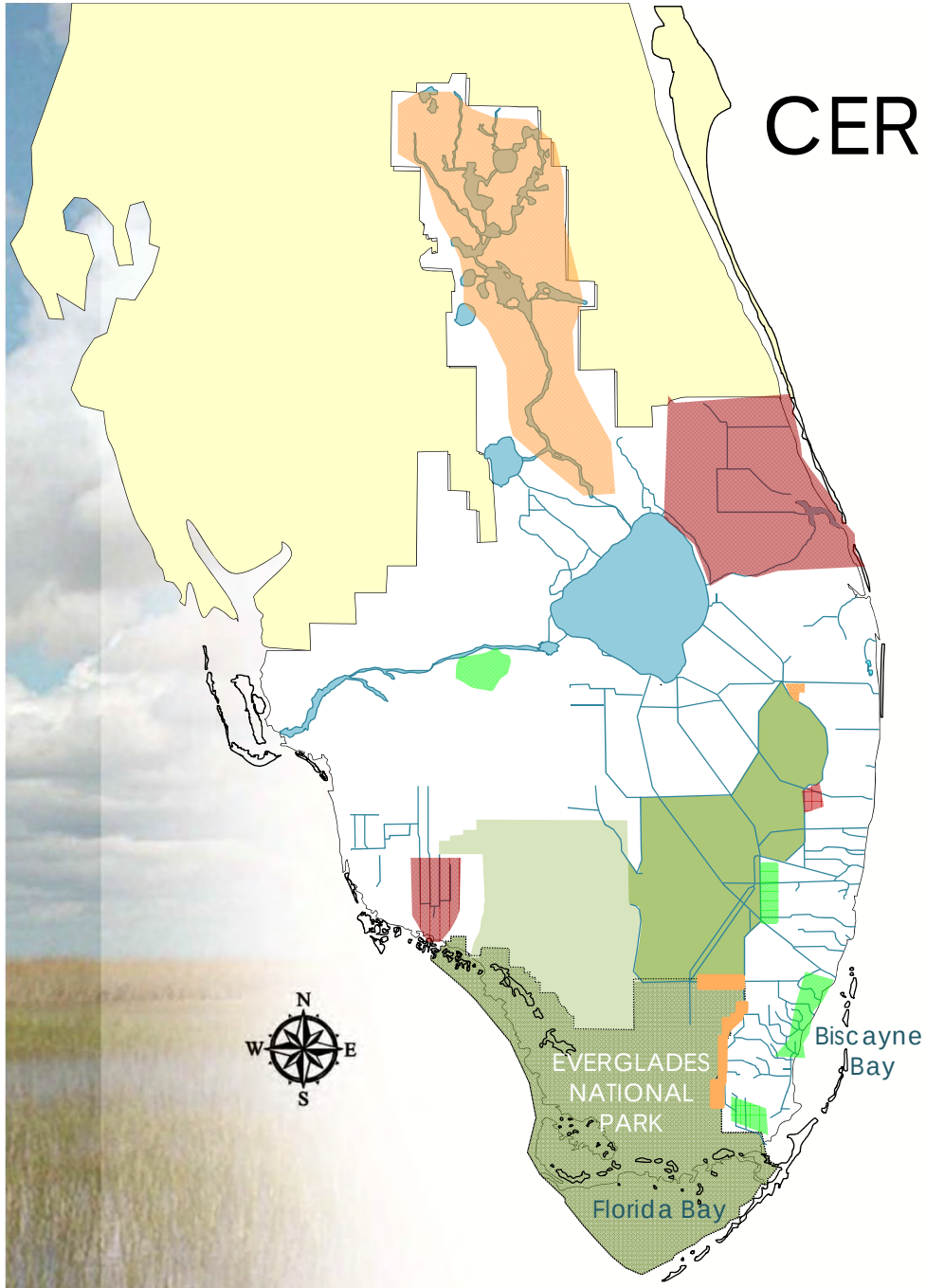
RESTORED FLOW

COMPREHENSIVE EVERGLADES RESTORATION PLAN

- 68 Components
  - Storage Surface ASR
  - STAs for water quality
  - Seepage management
  - Removing barriers to flow
  - Revised operations
- 30+ year implementation



CERP IMPLEMENTATION



Foundation Projects

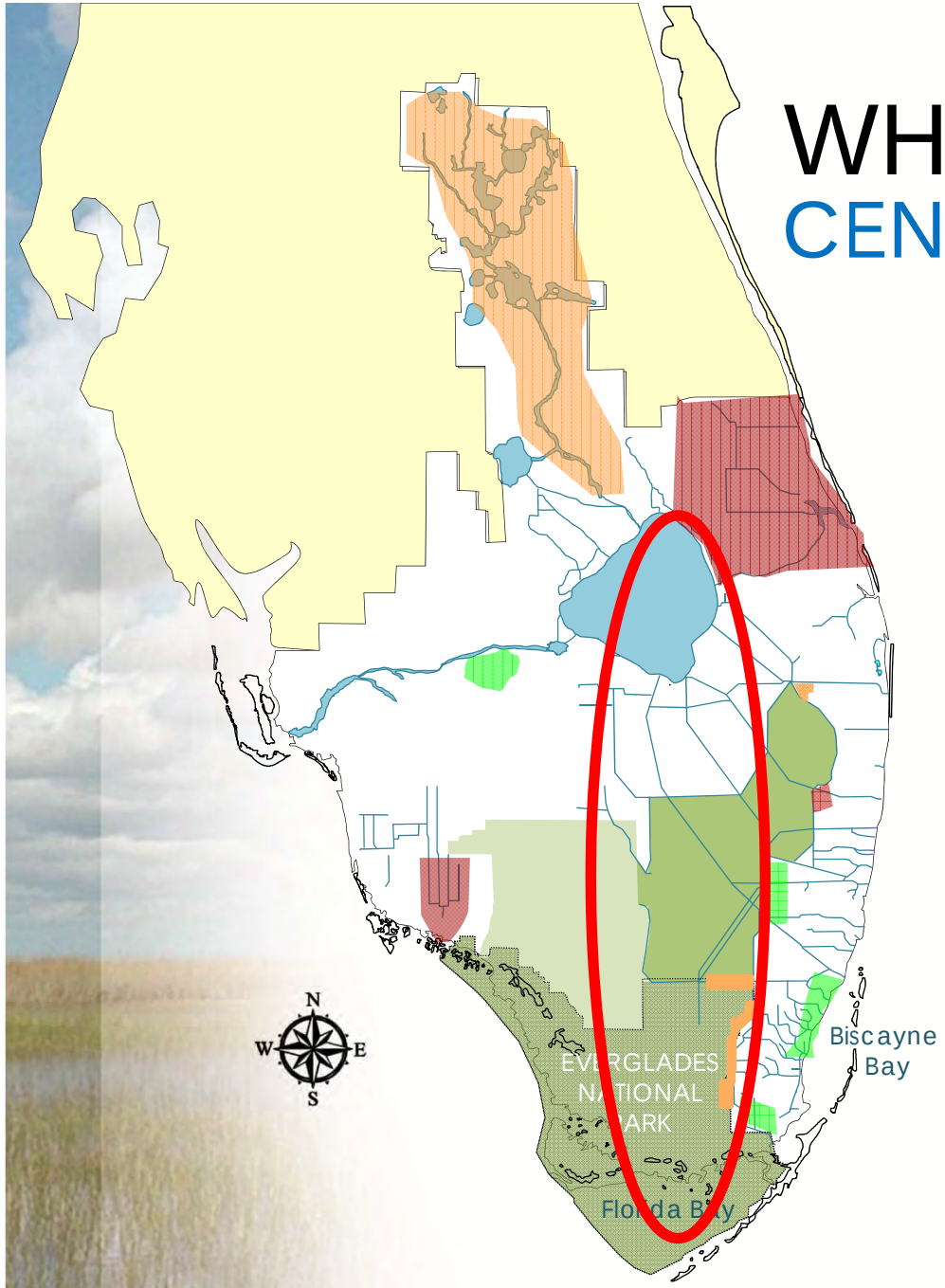
- Kissimmee River
- C-111 South Dade
- C-51/STA-1E
- Modified Water Deliveries

1st Generation CERP

- Site 1 Impoundment
- IRL-South
- Picayune Strand

2nd Generation CERP

- C-43 Reservoir
- Broward County WPA
- C-111 Spreader Canal
- Biscayne Bay Coastal Wetlands

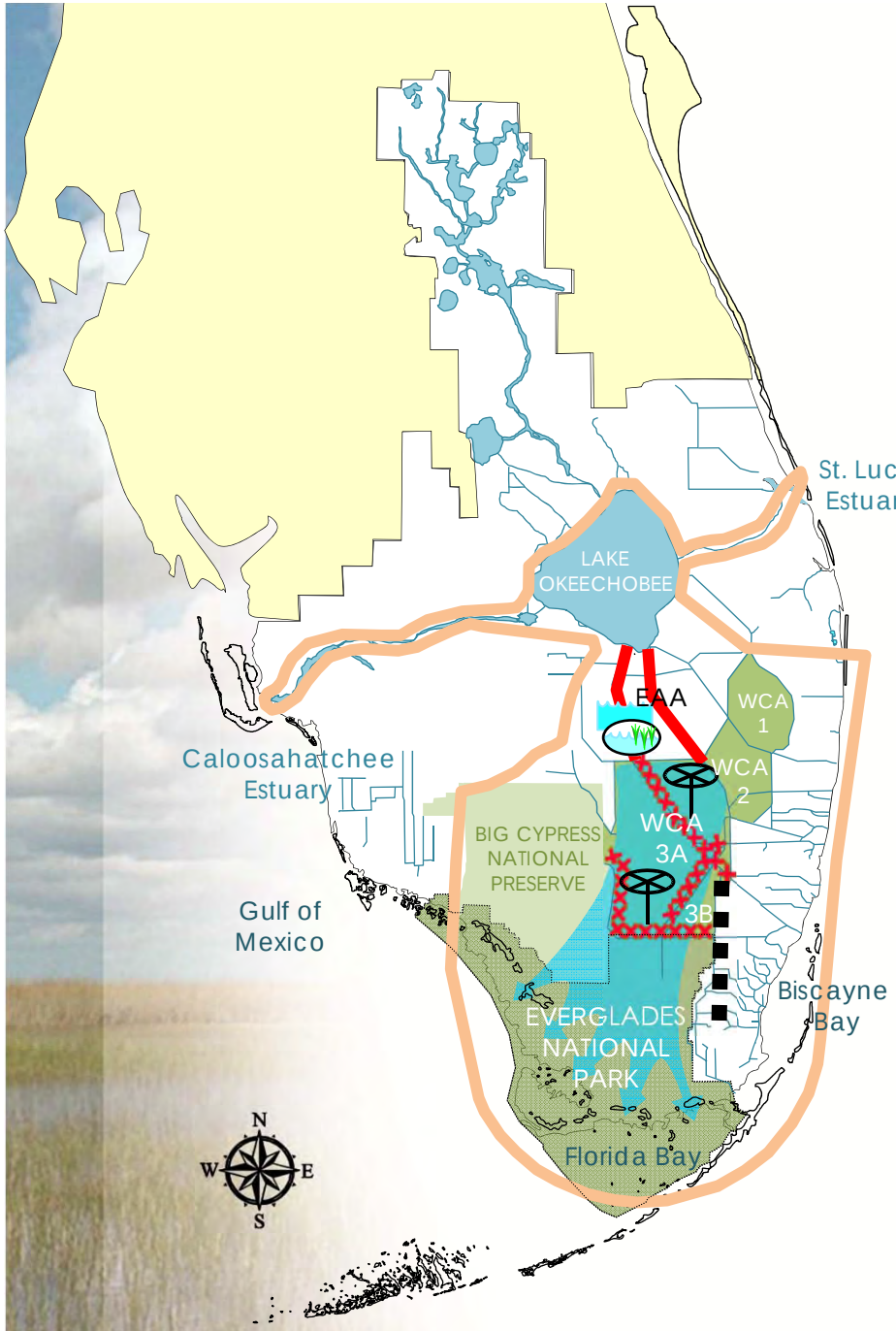


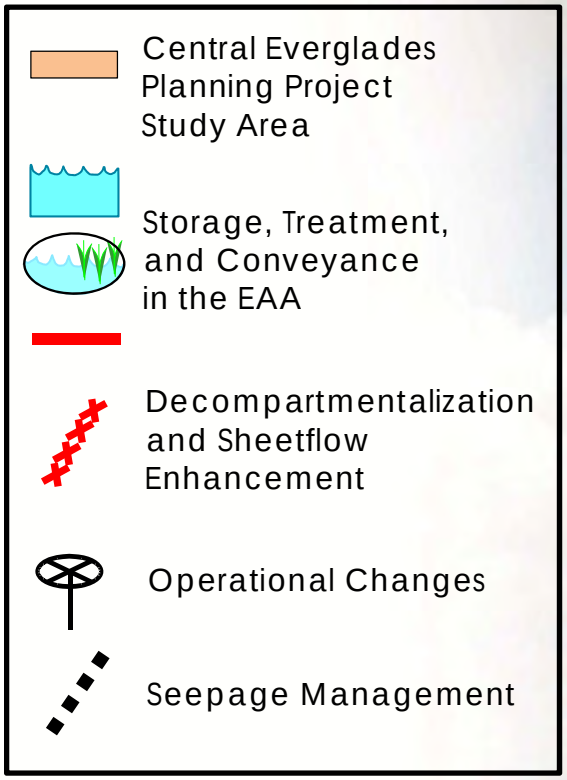
WHAT'S NEXT?
CENTRAL EVERGLADES

- Restore habitat in the central Everglades, focusing on the "River of Grass"
- Deliver "new" sources of clean water to the Central Everglades and ENP
- Reduce undesirable discharges to east and west coast estuaries

PROBLEM STATEMENTS

- High volume flood control releases from Lake Okeechobee cause extreme Salinity Fluctuations causing adverse effects on sea grass beds, oyster reefs and submerged aquatic vegetation
- Higher peak flows and seasonally abruptly declining flow rates in WCA3 cause disruptions in hydropatterns and sheetflow characteristics, leading to a fragmented, unproductive ecosystem
- The loss of essential water from the Everglades system causes harmful drydowns that disrupt natural cycles and adversely affect reproduction of native species
- Extreme drydowns and poor distribution of freshwater promote soil subsidence, peat fires, and the loss of tree islands, causing severe damage to the unique landscape and altering the structure of vegetative communities
- Poorly-timed water deliveries to the Everglades impact the natural variability in flows as wells as rising and falling of water depths, which are necessary to maintain species diversity

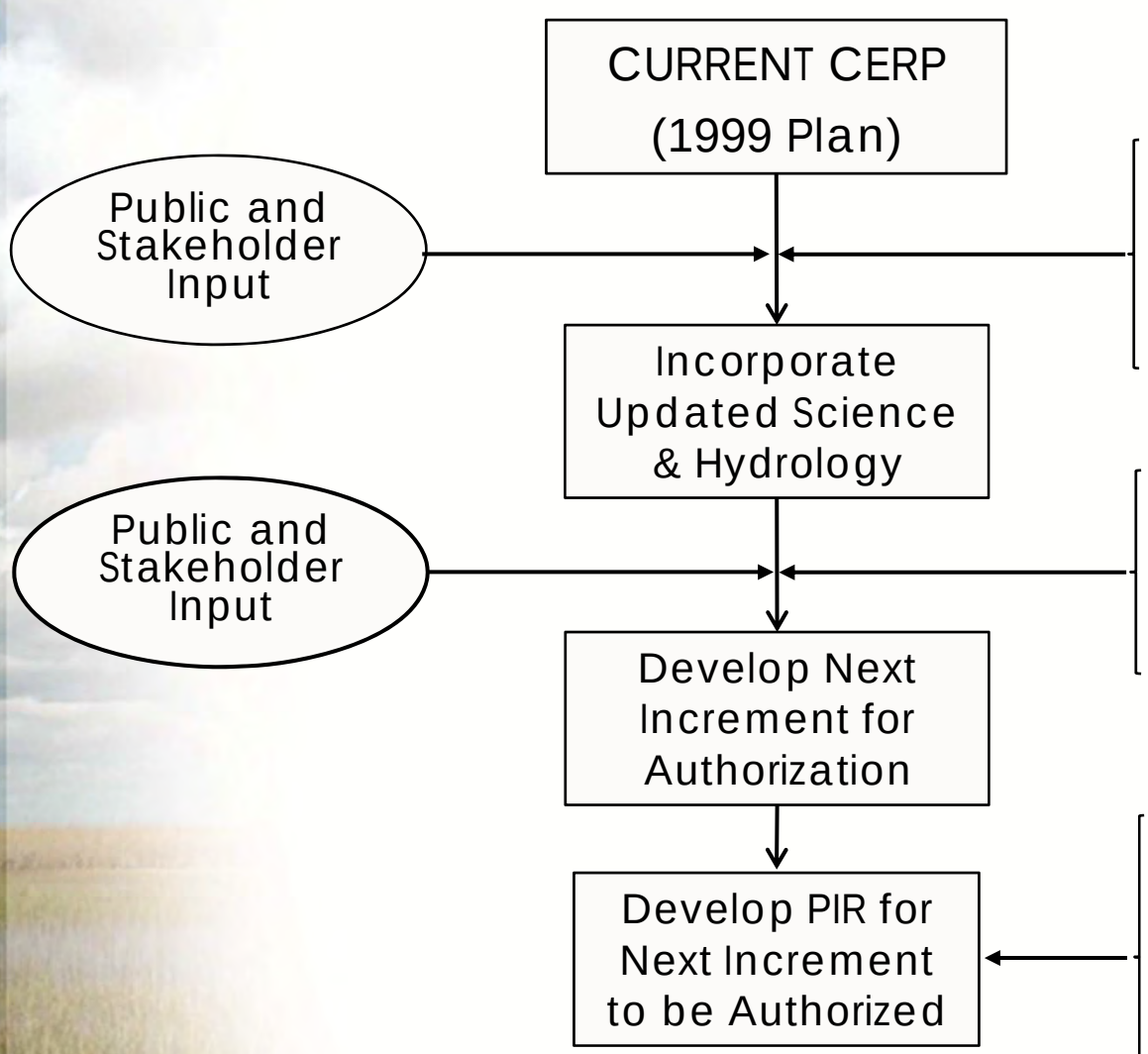




CERP COMPONENTS UNDER CONSIDERATION

CENTRAL EVERGLADES PLANNING PROJECT

PLANNING FRAMEWORK



INPUTS

- Updated Science
- Updated Information
- SFWMD Recent Efforts
- SFWMD Tools

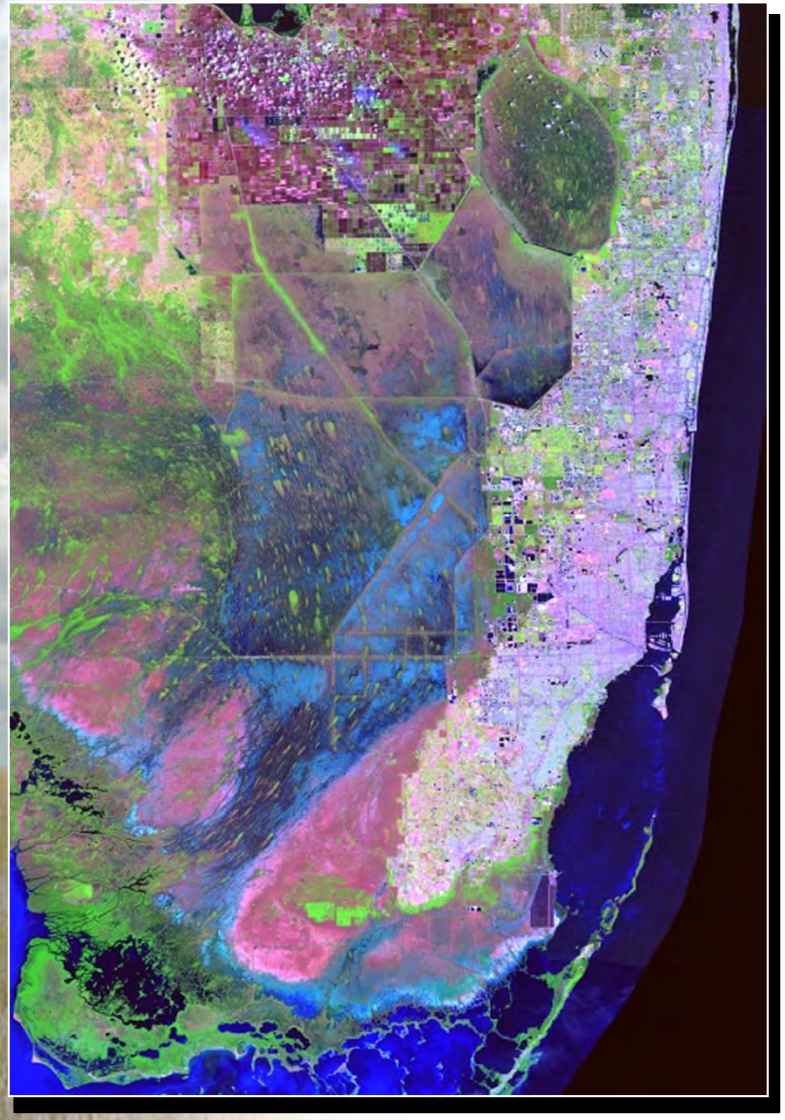
CONSIDERATIONS

- Land already purchased
- Water Quality standards
- Available program credits
- NEPA

REQUIREMENTS

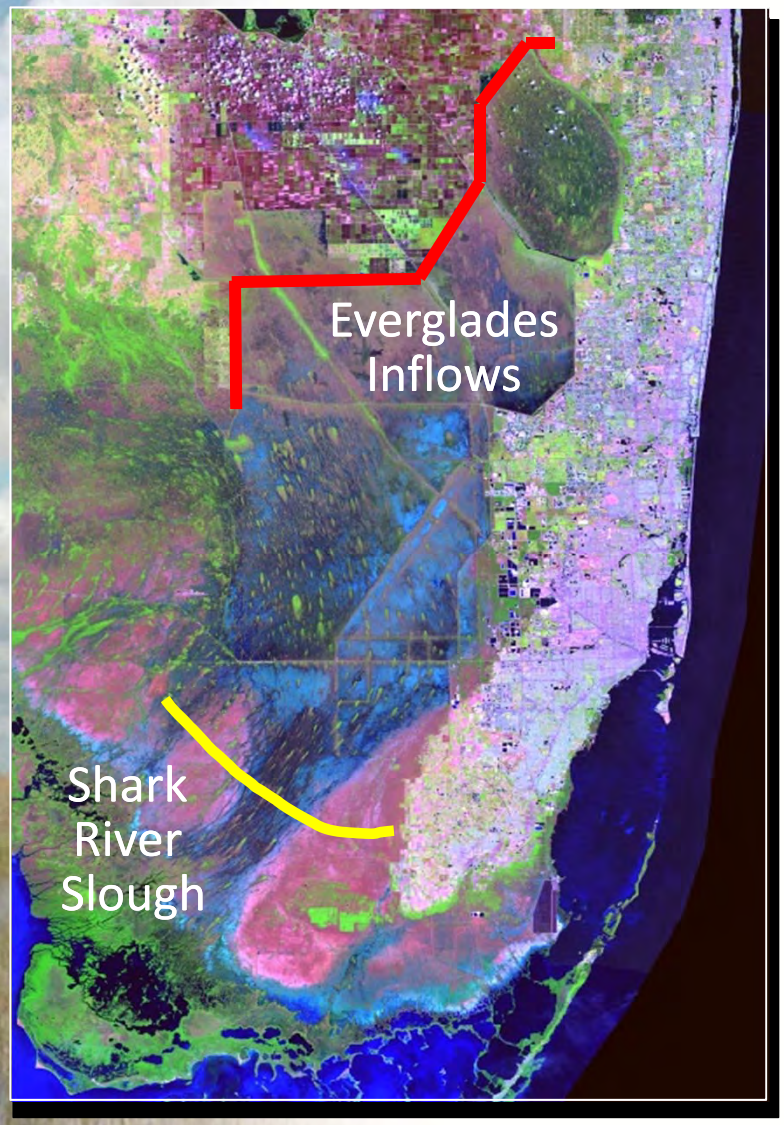
- Assurances (WRDA 2000)
- ATR
- IEPR
- Policy Review
- NEPA

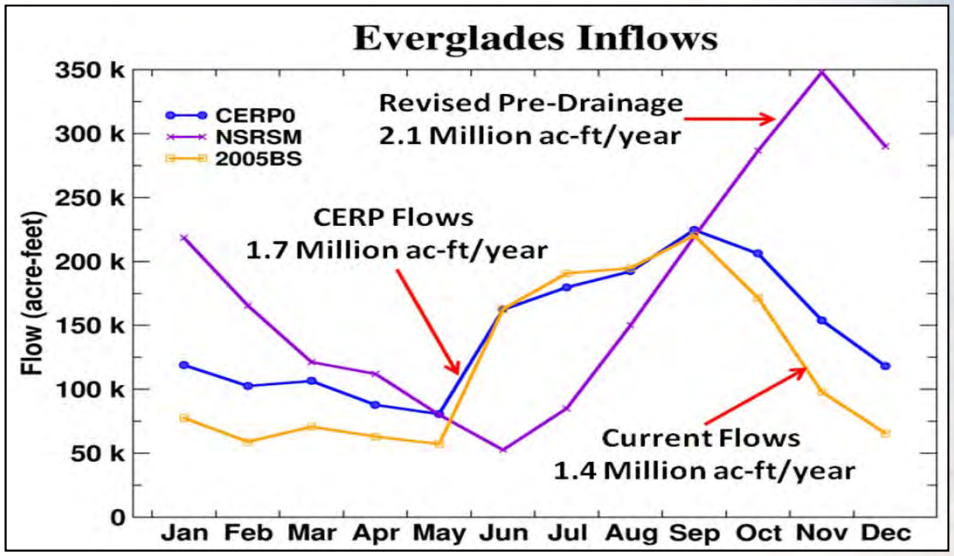
REFINING OUR UNDERSTANDING OF THE PRE-DRAINAGE EVERGLADES

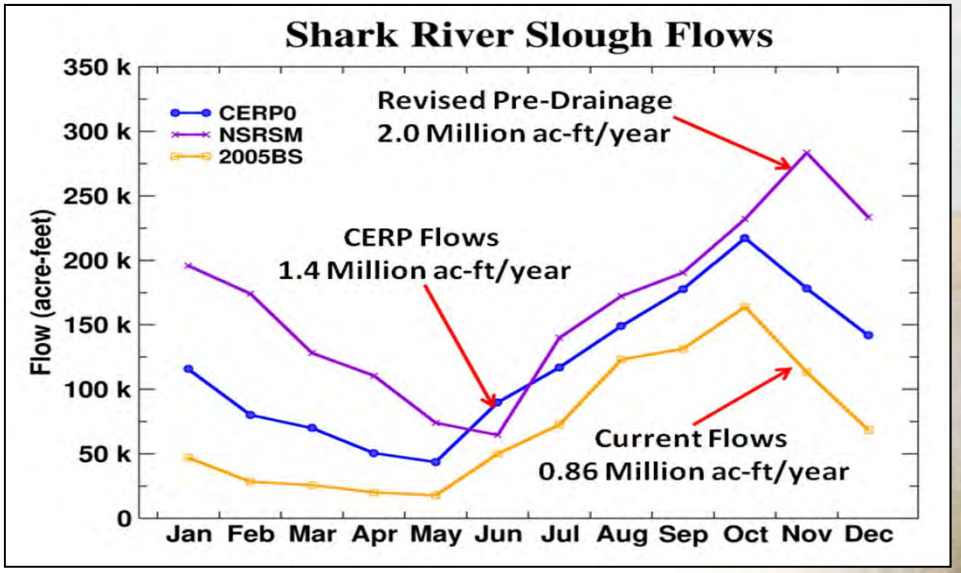


- Extensive information from paleo-ecological indicators and pre/post-drainage information that describes the evolution of the Everglades ecosystem
- A growing consensus of a wetter Everglades ecosystem (20th century), and how this influences restoration targets (Natural System Modeling)
- The importance of Lake Okeechobee in driving Everglades hydrology and salinities in the downstream estuaries

UPDATING WATER FLOW IN THE EVERGLADES







CEPP PLAN FORMULATION FRAMEWORK

TREATMENT /STORAGE

CONVEYANCE/DISTRIBUTION/SEEPAGE

INITIAL SCREENING

RANGE OF SIZES

↓

SCREEN AND OPTIMIZE
(RESOPS, Eco-criteria, Cost)

↓

Option A | Option B

WATER BUDGET

COMBINE OPTION A AND OPTION B WITH CONVEYANCE, DISTRIBUTION AND SEEPAGE MEASURES

NOTE: Potentially large number of combinations

SCREEN AND OPTIMIZE
(RSM, Parametric Costs, Eco-Criteria)

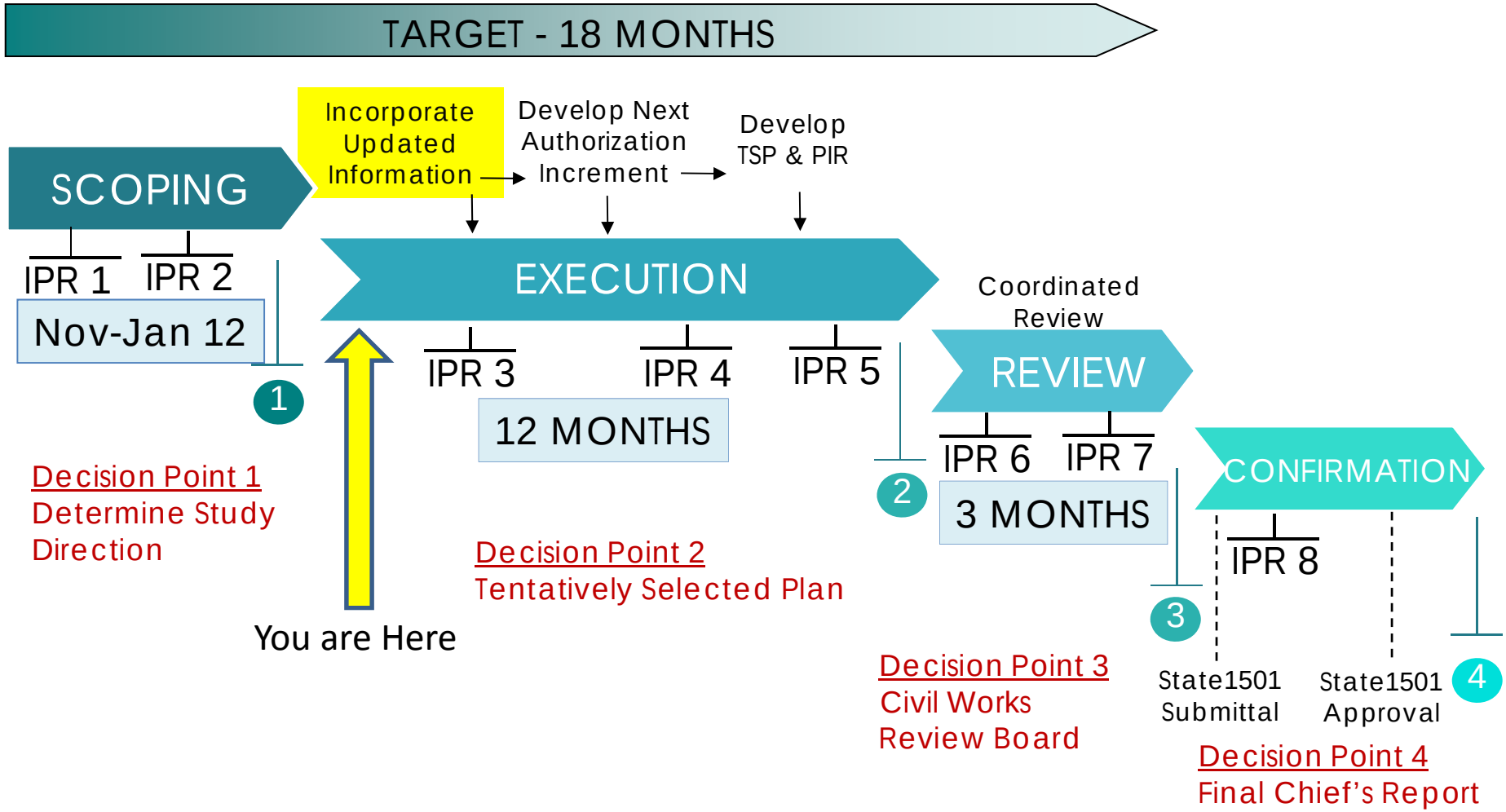
A1 A3 A7 B2 B3 B6

Final Array of Alternatives

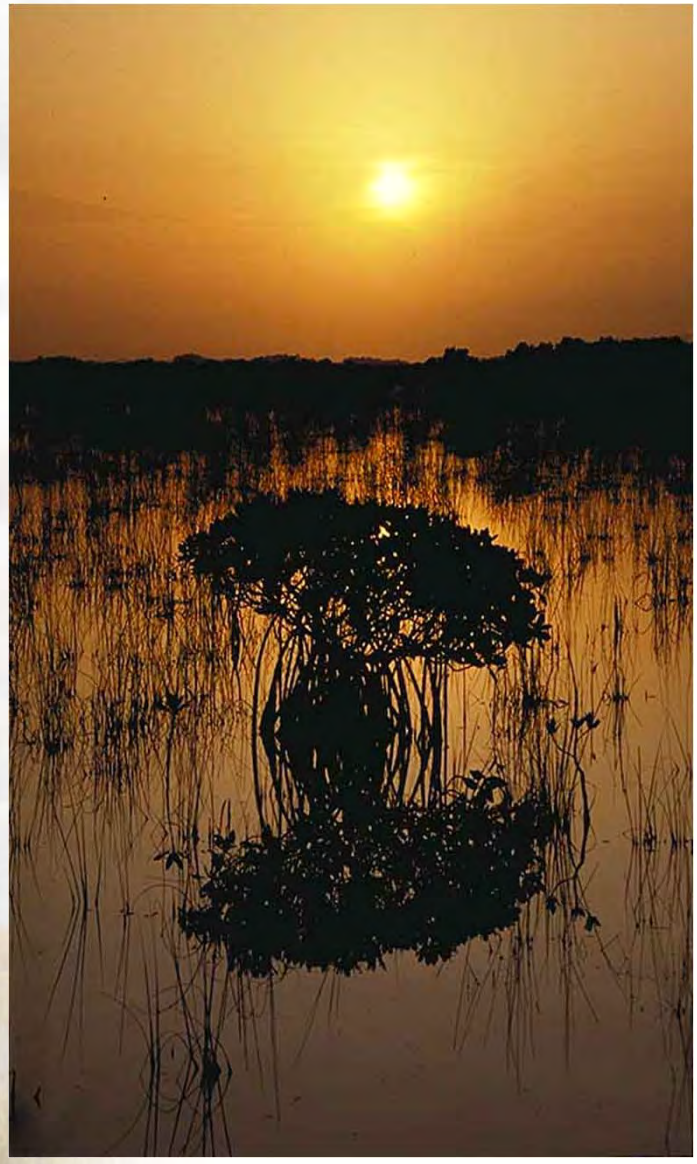
DETAILED EVALUATION
(Ecological benefits, Planning-level Costs, CE/ICA, P&G criteria, System of Accounts)

TSP

CENTRAL EVERGLADES PROCESS



IPR: In-Progress Review with Corps Leadership



QUESTIONS?