CENTRAL EVERGLADES PLANNING PROJECT

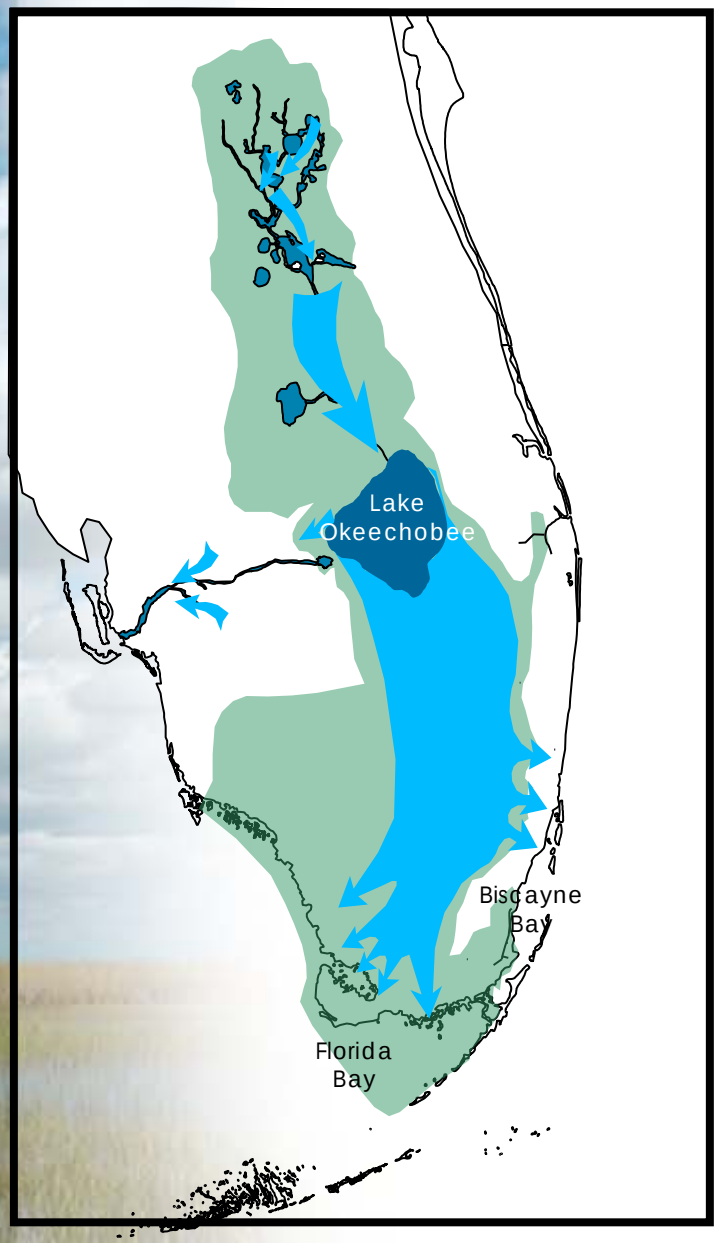
Water Resources Advisory Commission Issues Workshop

PRESENTED BY

Matt Morrison,
Everglades Policy and Coordination

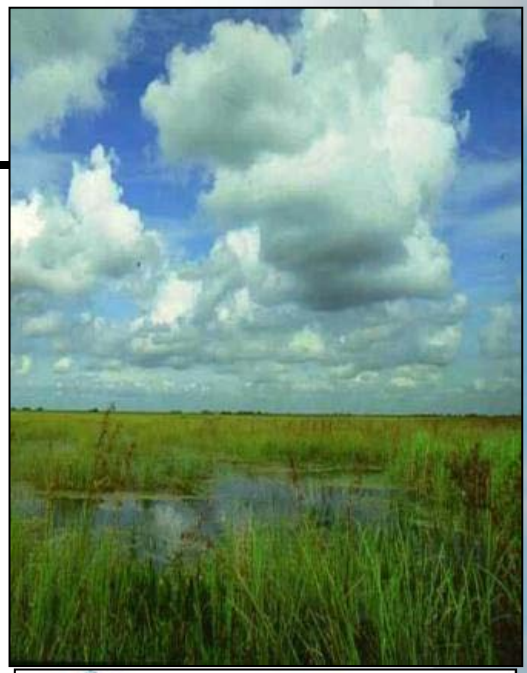
South Florida Water Management District

February 3, 2012

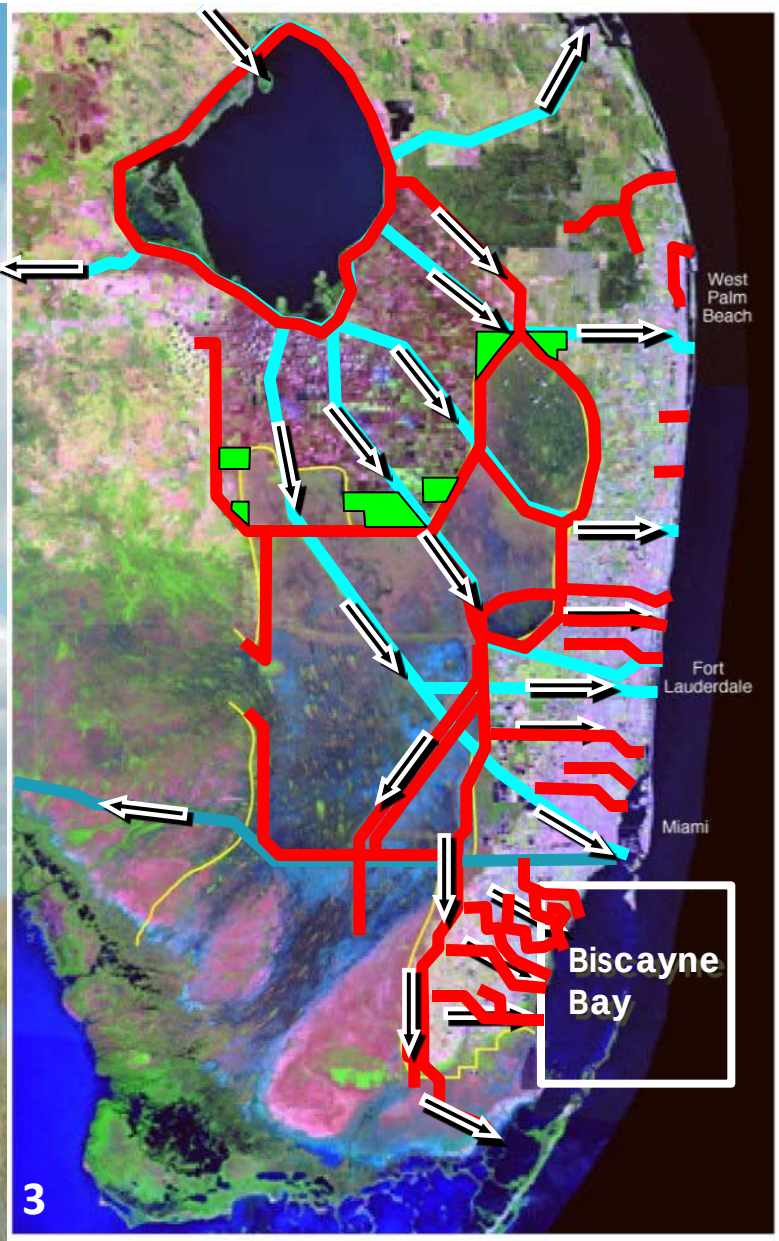


Historic Everglades - Overview

- Continuous water flow from central Florida through Lake Okeechobee and south into Florida Bay
- Natural system composed of over 9 million acres of lakes, rivers and wetlands
- Unique and diverse mosaic of habitat



Drainage of the System and Water Flow Alterations



Pre-Central & South Florida Projects

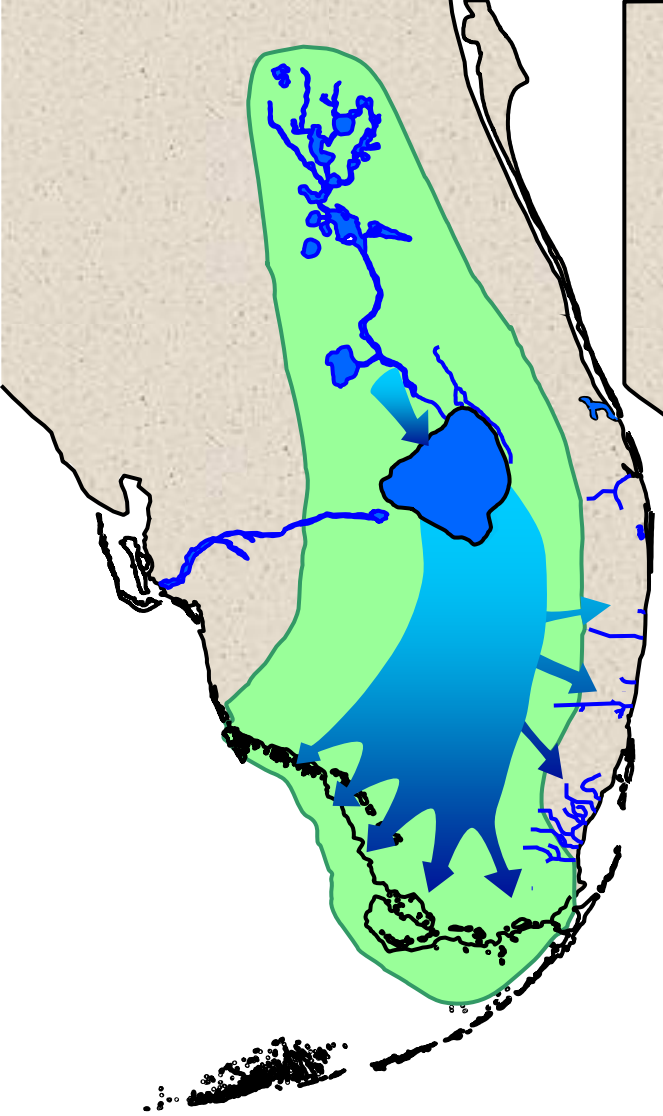
- Caloosahatchee/Kissimmee Rivers 1881-93
- East Coast Canals/St. Lucie Canal 1905-24
- Tamiami Trail 1915-28
- Lake Okeechobee HH Dike 1932-38

Central & Southern Florida Project

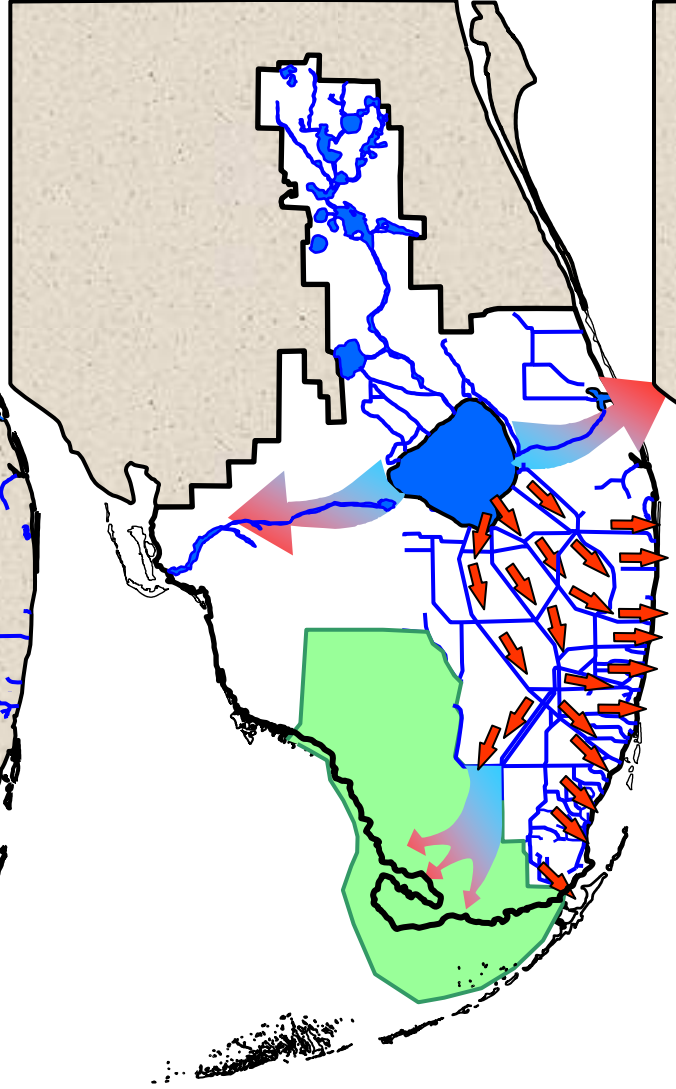
- Eastern Protective Levee System 1952-54
- Everglades Agricultural Area 1954-59
- Water Conservation Area Levees 1960-63
- Lower East Coast Canals 1954-65
- Lake Okeechobee Levees 1960-64
- Kissimmee River Channelization 1962-71
- South Dade System 1965-83

Everglades Construction Project

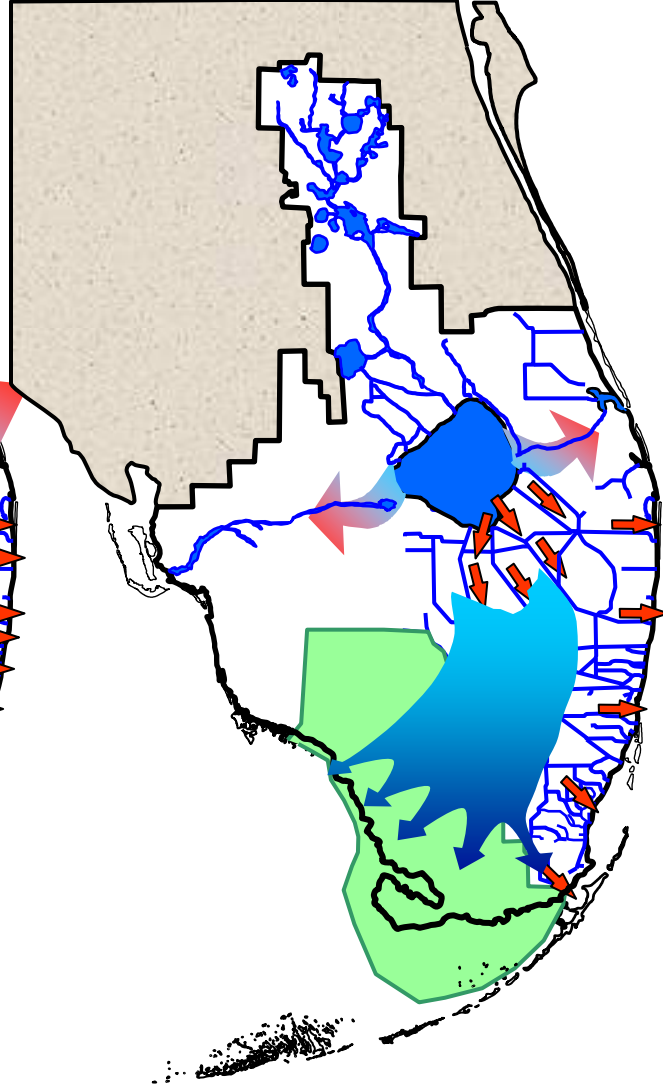
- Stormwater Treatment Areas 1994-2003



Historic Flow

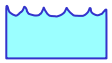
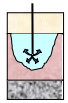
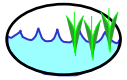


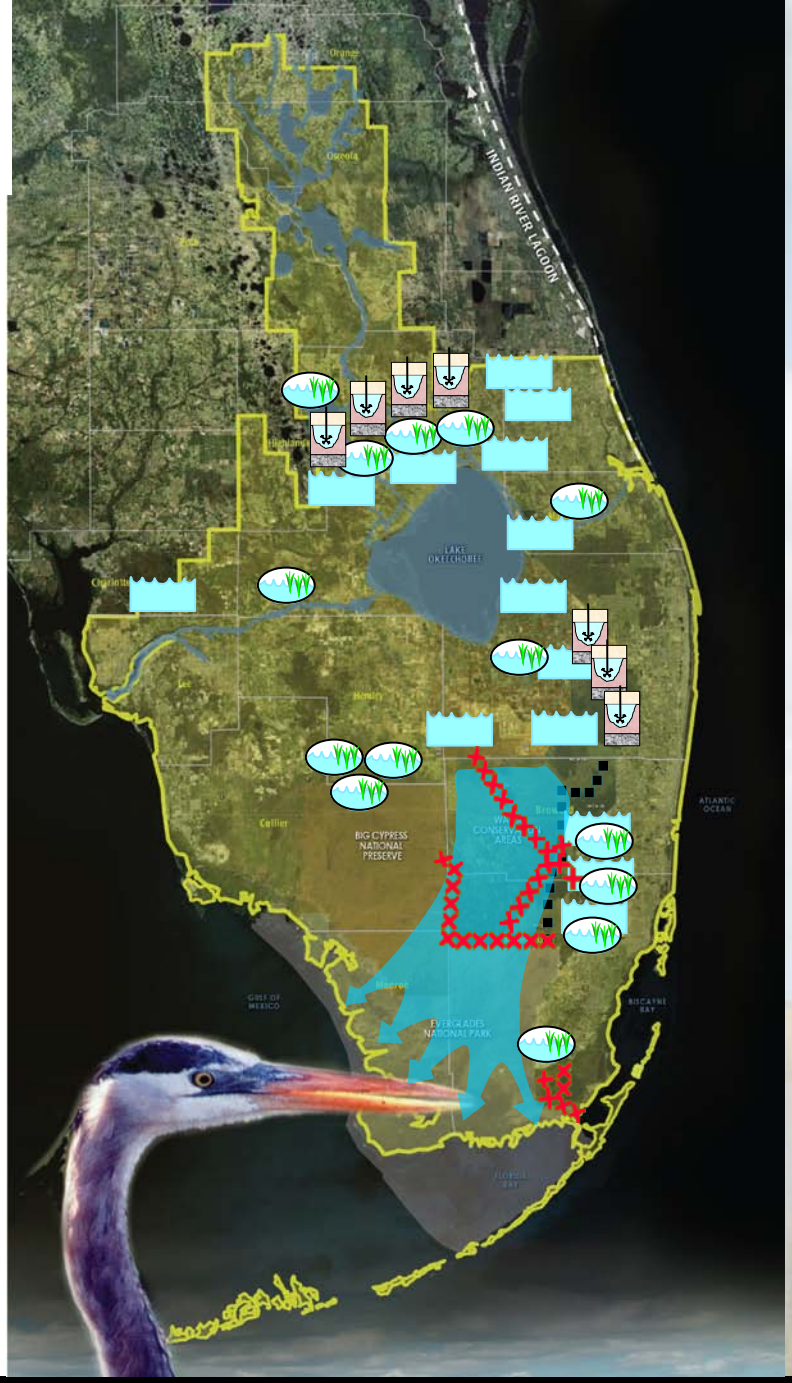
Current Flow



Future Flow

Comprehensive Everglades Restoration Plan (CERP)

- 68 Components
  - Storage  Surface  ASR
  - STAs for water quality 
  - Seepage management ▪▪▪▪
  - Removing barriers to flow ××××××
  - Revised operations
- 30+ Year Implementation



CERP IMPLEMENTATION

Foundation Projects

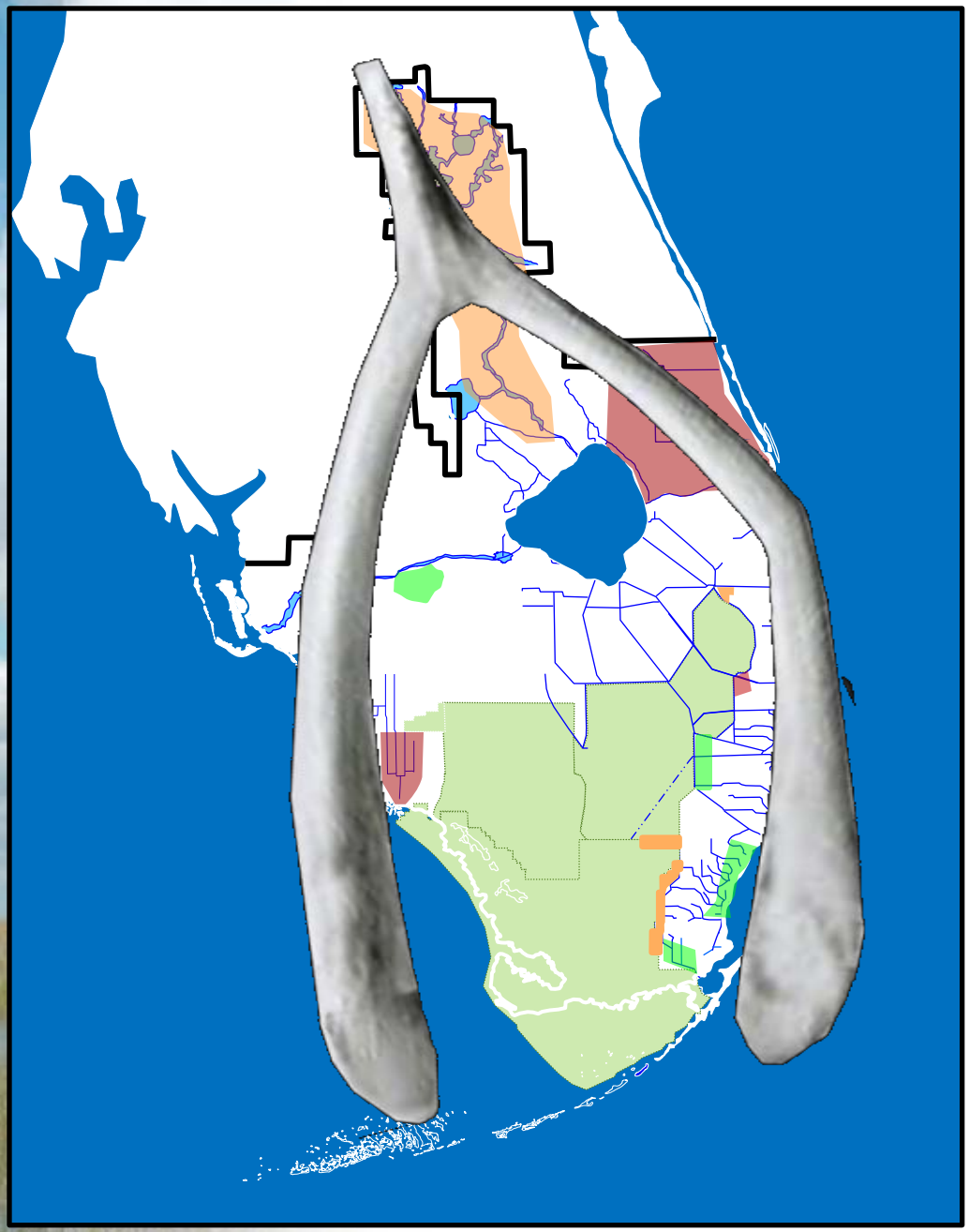
- Kissimmee River
- C-111 South Dade
- C-51/STA-1E
- Modified Water Deliveries

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?

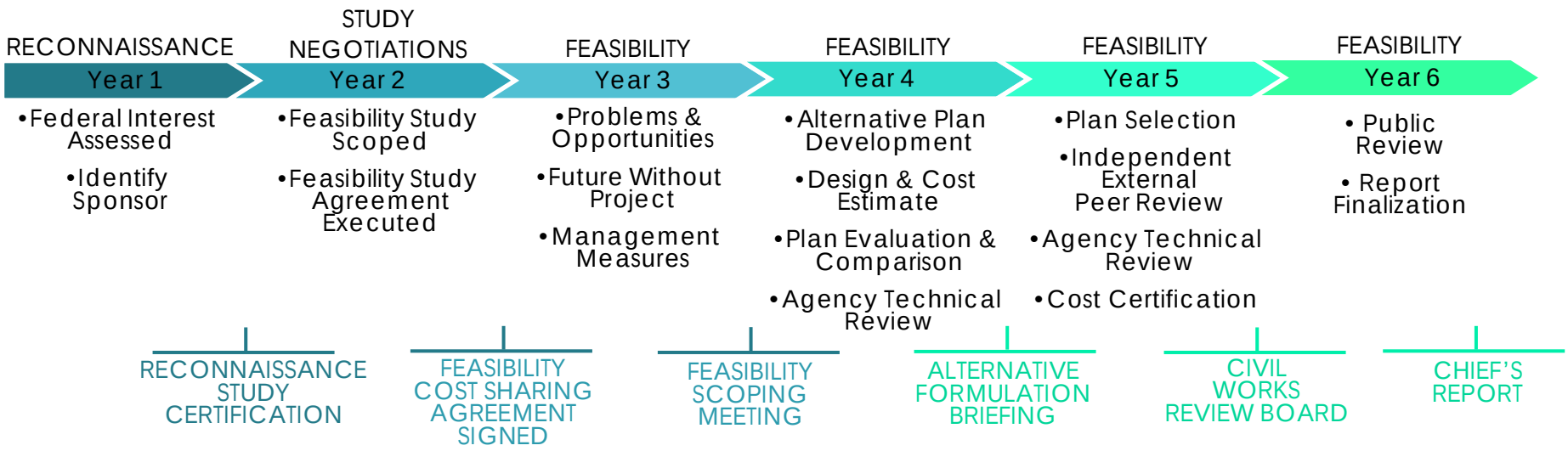
- "Central Everglades" in context of "center" of the wishbone
- Restore habitat in the Central Everglades, focusing on the "River of Grass"
- Deliver "new" sources of clean water to the Central Everglades and ENP
- Reduce undesirable discharges to east and west coast estuaries

CENTRAL EVERGLADES PLANNING PROJECT

Study Plan and Process

PLANNING PROCESS TRANSFORMATION

CURRENT PLANNING PROCESS: 6+ YEARS (approximate timeframes)

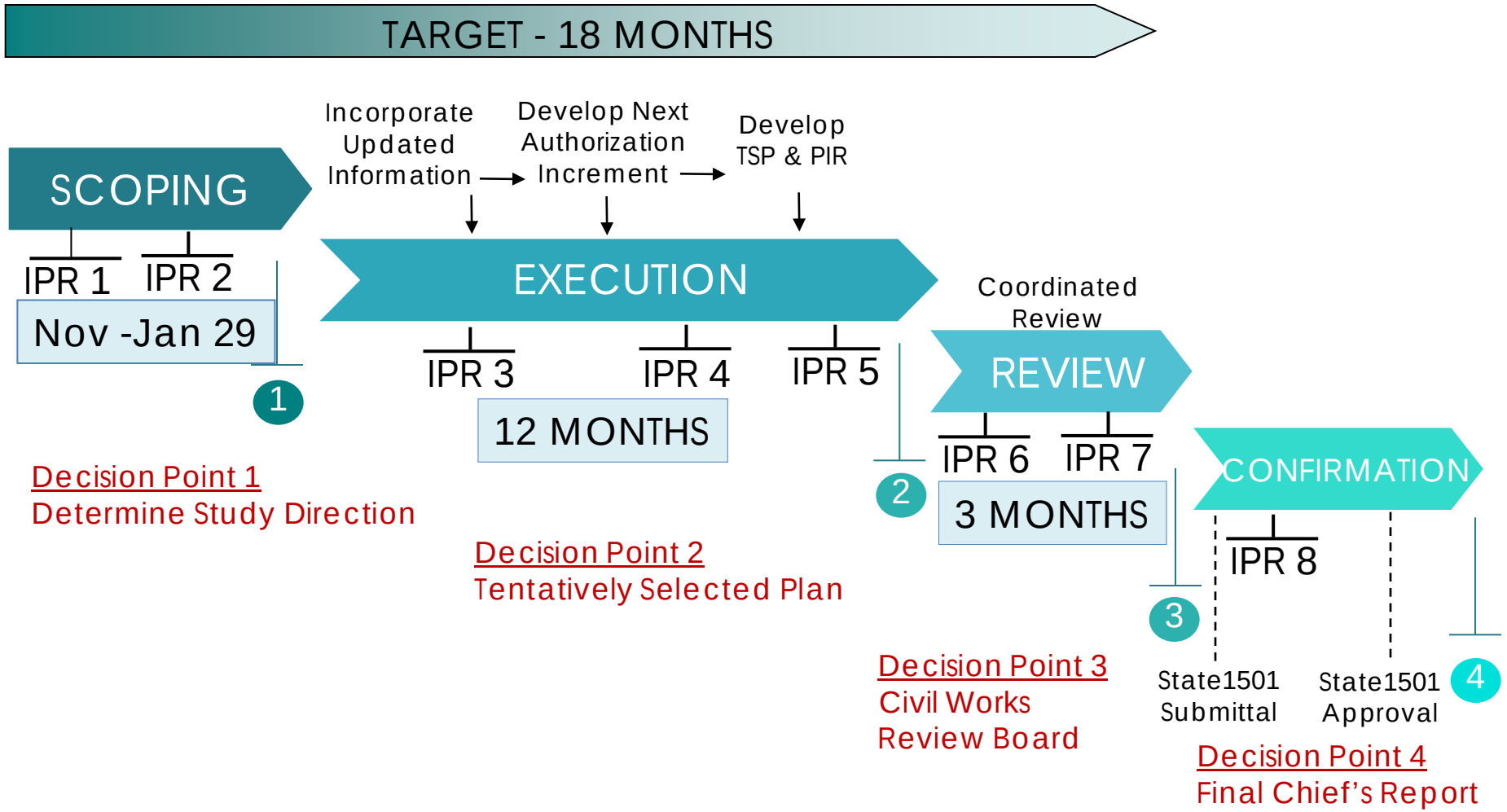


- Overly detailed, expensive, and takes a long time!
- The amount of time and data being invested in studies are not leading to a better product or decision
- Sponsors and Congress, as well as the Corps, are increasingly frustrated with the situation

PLANNING PROCESS TRANSFORMATION

- New process is about changing Corps decision making processes
  - Focuses on early decision making
  - Focuses on robust, clear scoping of analyses and decision-making criteria
  - Reduces unnecessary detail
  - Early vertical coordination
  - Designed to shave years off of the process

CENTRAL EVERGLADES PROCESS



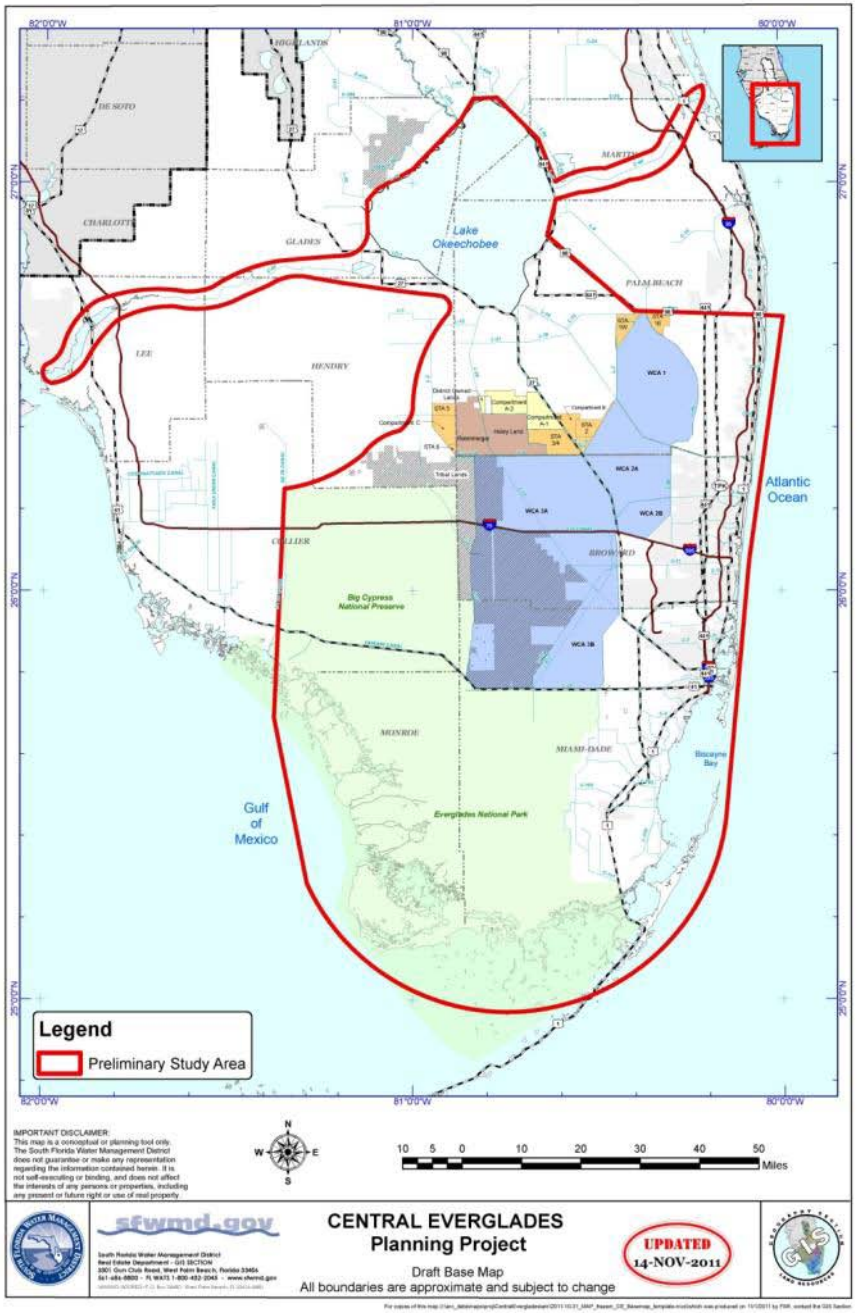
IPR: In-Progress Review with Corps Leadership

PUBLIC PARTICIPATION PROCESS

CENTRAL EVERGLADES PLANNING PROJECT

Study Area

Goals, Objectives, Constraints and Other Considerations



Study Area Map

Encompasses:

- Lake Okeechobee & Lake Okeechobee Service Area
- St. Lucie Estuary
- Caloosahatchee Estuary
- Everglades Agricultural Area
- Water Conservation Area 3
- Everglades National Park
- Florida Bay & Biscayne Bay
- Lower East Coast Service Area

Central Everglades - Goal

- To improve the quantity, quality, timing and distribution of water in the Northern Estuaries, Water Conservation Area 3, and Everglades National Park in order to restore the hydrology, habitat and functions of the natural system

Central Everglades - Objectives

- Restore seasonal hydroperiods and freshwater distribution to support a natural mosaic of wetland and upland habitat in the Everglades system

- Improve sheetflow patterns and surface water depths and durations in the Everglades system in order to reduce soil subsidence, frequency of damaging fires, decline of tree islands and decrease salt water intrusion

Central Everglades –Objectives (Continued)

- Reduce water loss out of the natural system to promote appropriate dry season recession rates for wildlife utilization
- Restore more natural water level responses to rainfall to promote plant and animal diversity and habitat function
- Reduce high volume discharges from Lake Okeechobee to improve the quality of oyster and SAV habitat in the northern estuaries

Central Everglades - Planning Constraints

- In accordance with Section 601(h)(5) of WRDA 2000 and Chapter 373.1501(4)(d), F.S.
  - Avoid any reduction in level of service for flood protection existing as of December 2000 caused by Plan implementation
  - Provide replacement sources of water of comparable quantity and quality for existing legal users caused by Plan implementation
- Meet applicable Water Quality Standards

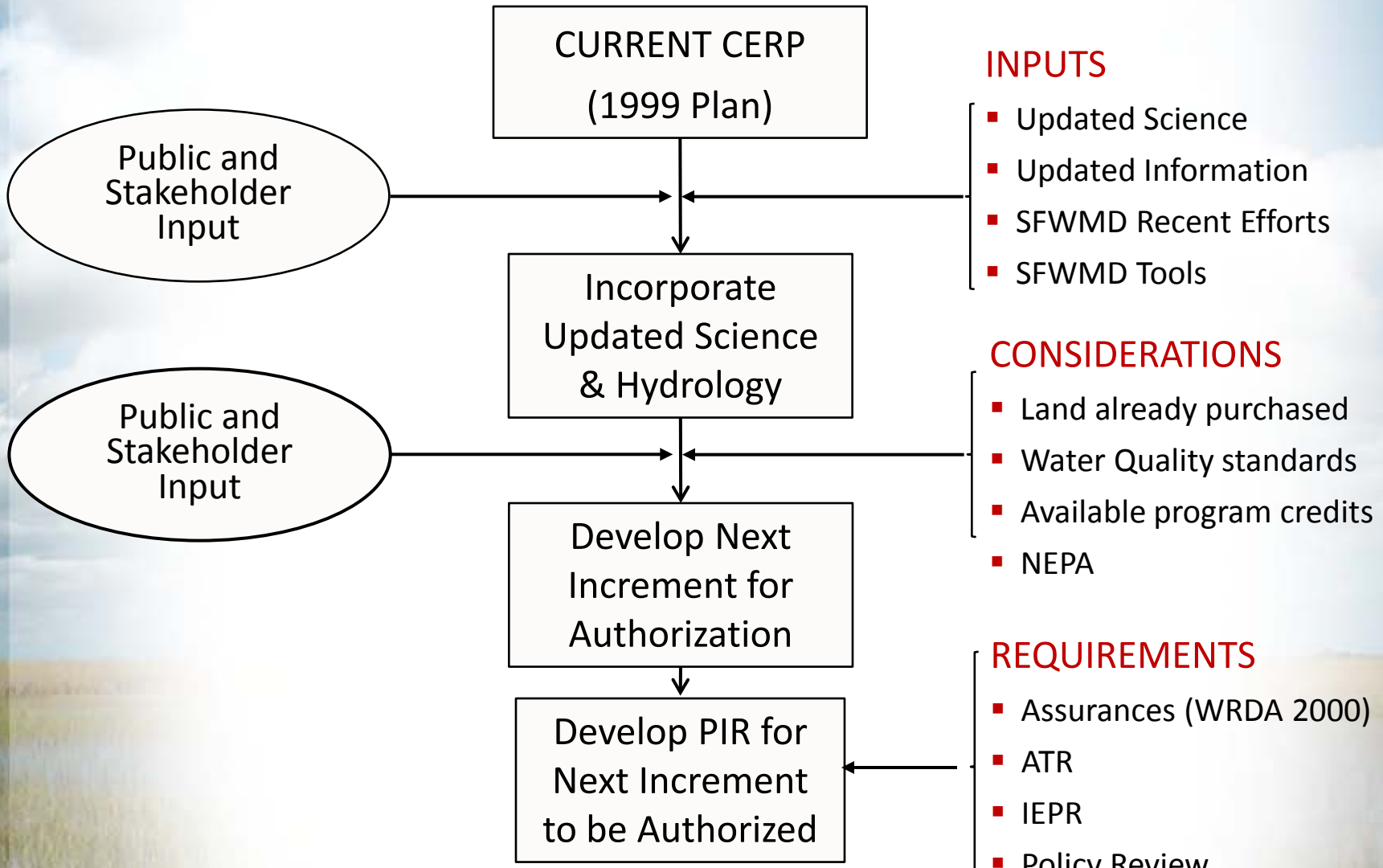
Central Everglades – Other Considerations

- Lands purchased for restoration
- Use of available CERP cost-share credits
- Minimize adverse effects to Federally and State listed species under the Endangered Species Act and Florida Statutes
- Migratory Bird Treaty Act Compliance
- Agricultural Chemical Impacted Soils
- Impacts to Cultural Resources
- Impacts to Recreation
- Impacts to Prime and Unique Farmlands
- Environmental Justice

CENTRAL EVERGLADES PLANNING PROJECT

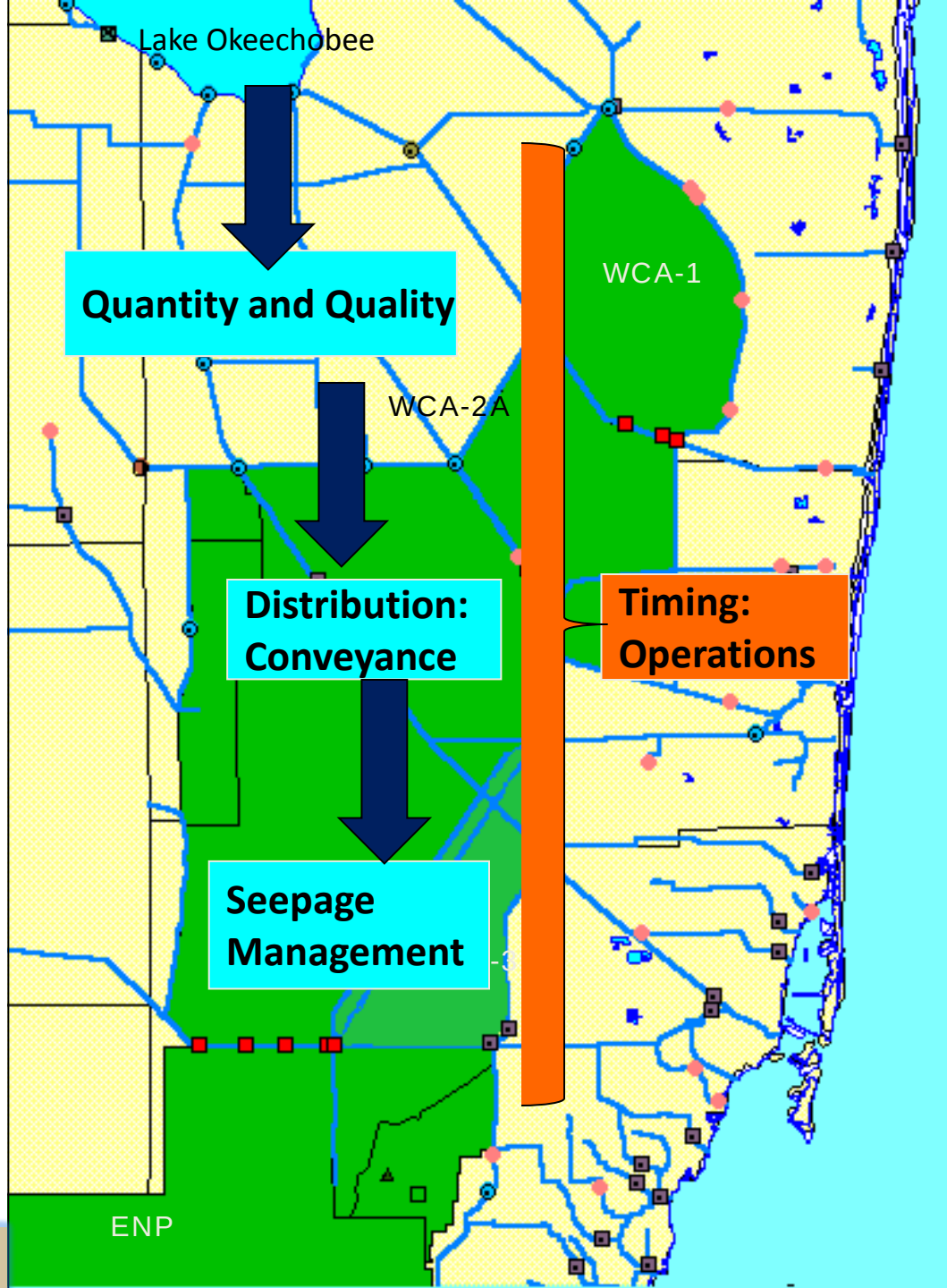
Plan Formulation Strategy for Authorization of Next Increment

Central Everglades Planning



- Plan Formulation strategy will consist of a three-part sequential process that follows the natural path of water through the Everglades system and highlights the interdependent nature of the CERP components

Water Flow



Schedule/Milestone

Deliverables

DECISION POINT 1

Approval to Begin Execution

January 27, 2012

Study Scope/Schedule

Conceptual Plan Formulation and Evaluation Strategies
Risk Register

Problems, Opportunities, Objectives and Constraints
Existing and Future Without Project Conditions

IPR-3

Present the Plan Formulation Framework

March 29, 2012

Plan Formulation Framework

Component Interdependency
Sequential North To South Flow Approach
Optimization Strategy

Management Measure Screening

Siting Analysis/Land Availability
Constructability

Modeling/Design Strategy

Batch Processing
Parametric Costs

Ecological Evaluation Screening Techniques

Everview
Thermometer Graphics

2 Months Establishing Planning Framework

IPR-4

Present the Final Array of Alternatives

August 30, 2012

Identification of the Final Array of Alternatives

Ecological Evaluation Results
Parametric Cost Results
Optimization Results

Evaluation Methodology for Final Array

Detailed Habitat Unit Approach
Modeling Approach
EcoPCX Planning Model Recommendation

5 Months Management Measure Formulation and Screening

IPR - 5

Present the Tentatively Selected Plan

October 30, 2012

Identification of The NER and Tentatively Selected Plan

Costs (Construction, Real Estate and O&M) and Benefits (Habitat Units) of Final Array
Value Engineering Analysis
Cost Effectiveness and Incremental Cost Analysis

2 Months Final Array Evaluation

DECISION POINT 2

Approval to Release Draft PIR

January 31, 2013

Approval to Release DRAFT PIR

TSP Detailed Design
Project Assurances and Reservations
ATR Documentation
TSP MCASES

3 Months TSP Details

QUESTIONS?

http://www.evergladesplan.org/pm/projects/proj_51_cepp.aspx