CENTRAL EVERGLADES PLANNING PROJECT

Science Coordination Group Meeting

PRESENTED BY

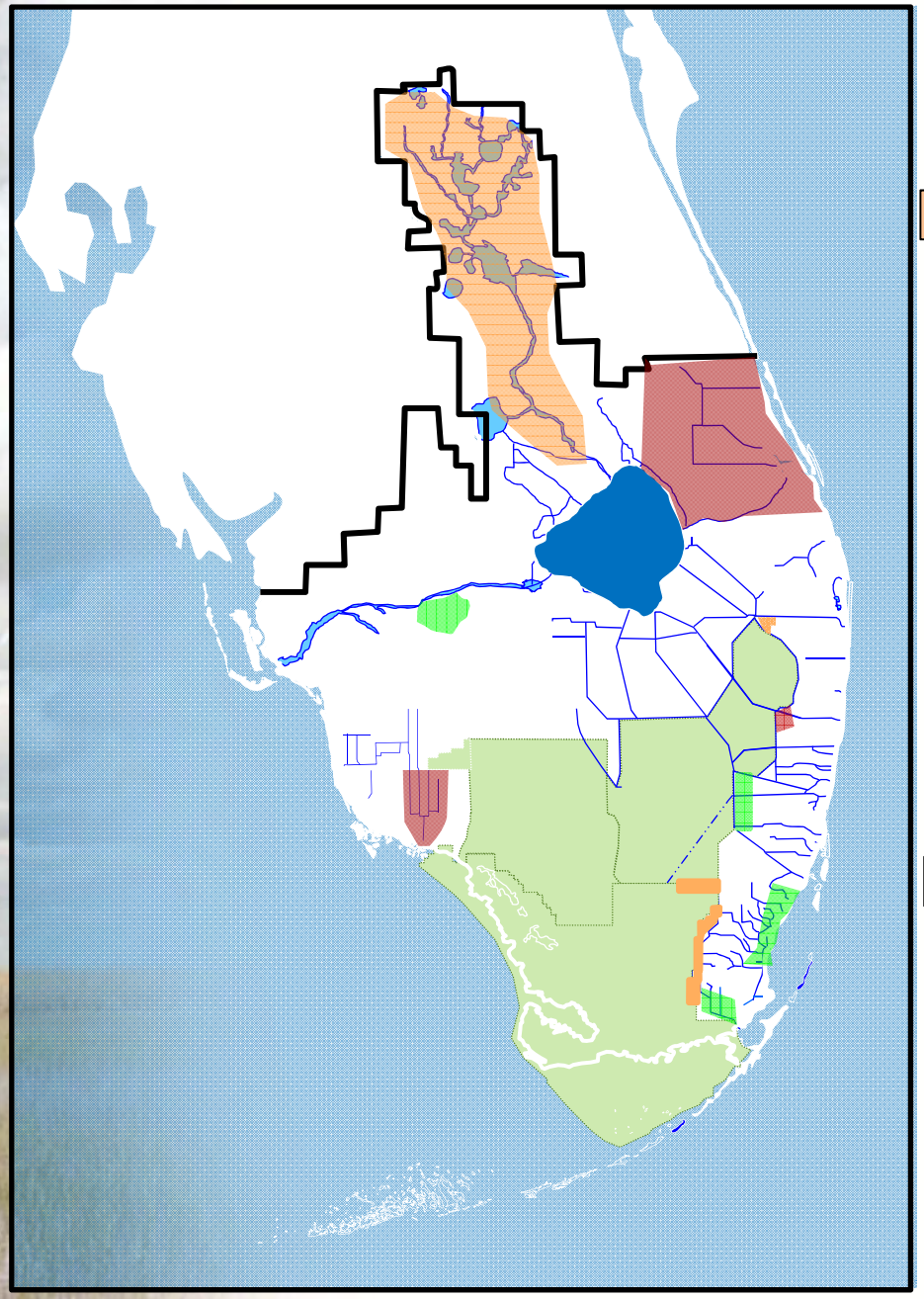
Kim Taplin, Chief
Central Everglades Division

U.S. Army Corps of Engineers
Jacksonville District

JANUARY 13, 2012

Presentation

- Status CERP Implementation
- Central Everglades Planning Project
- Schedule & Activities
- New Information



CERP Implementation

Foundation Projects

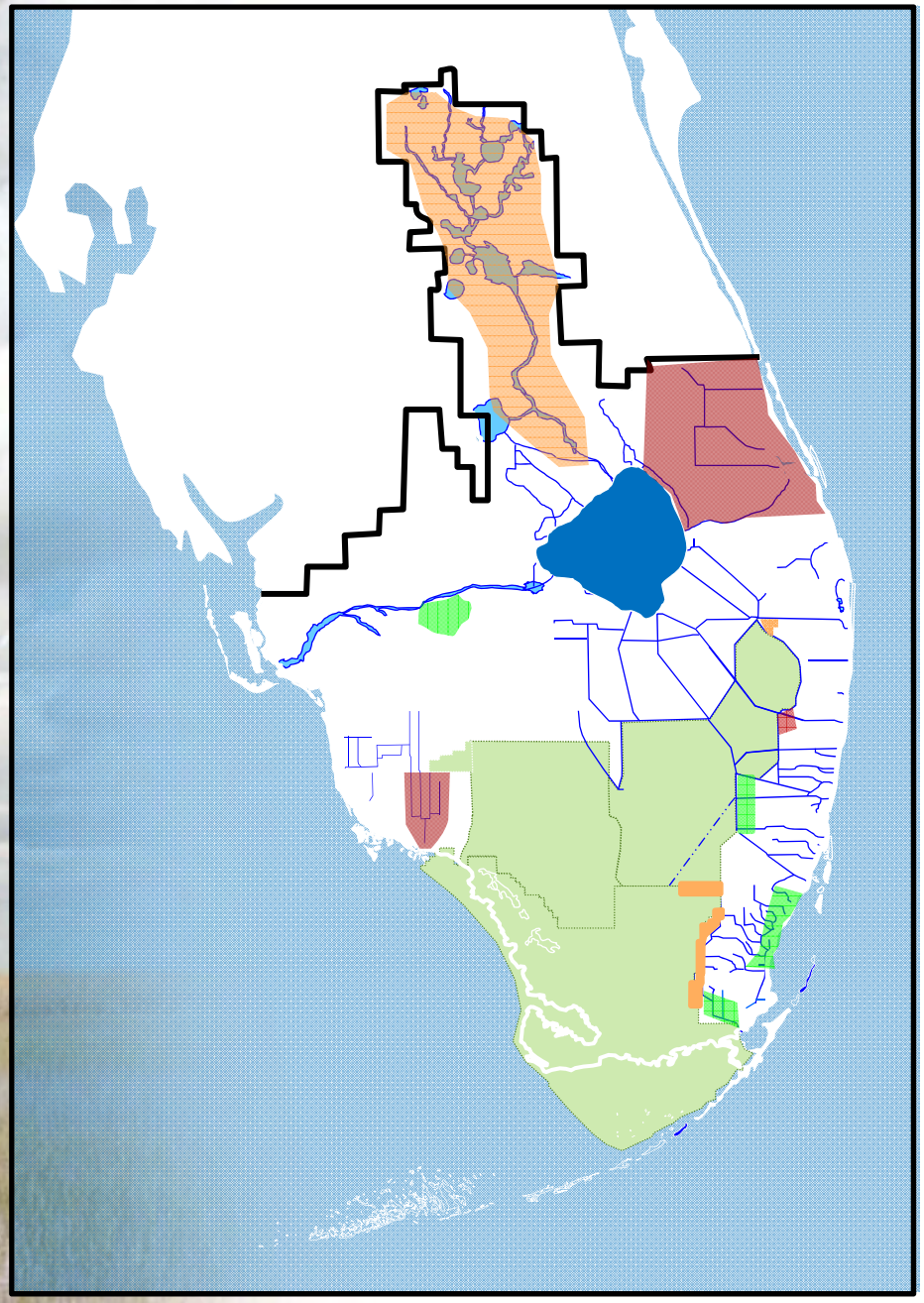
- Kissimmee River
- C-111 South Dade
- C-51/STA-1E
- Modified Water Deliveries

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 Planning Project

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

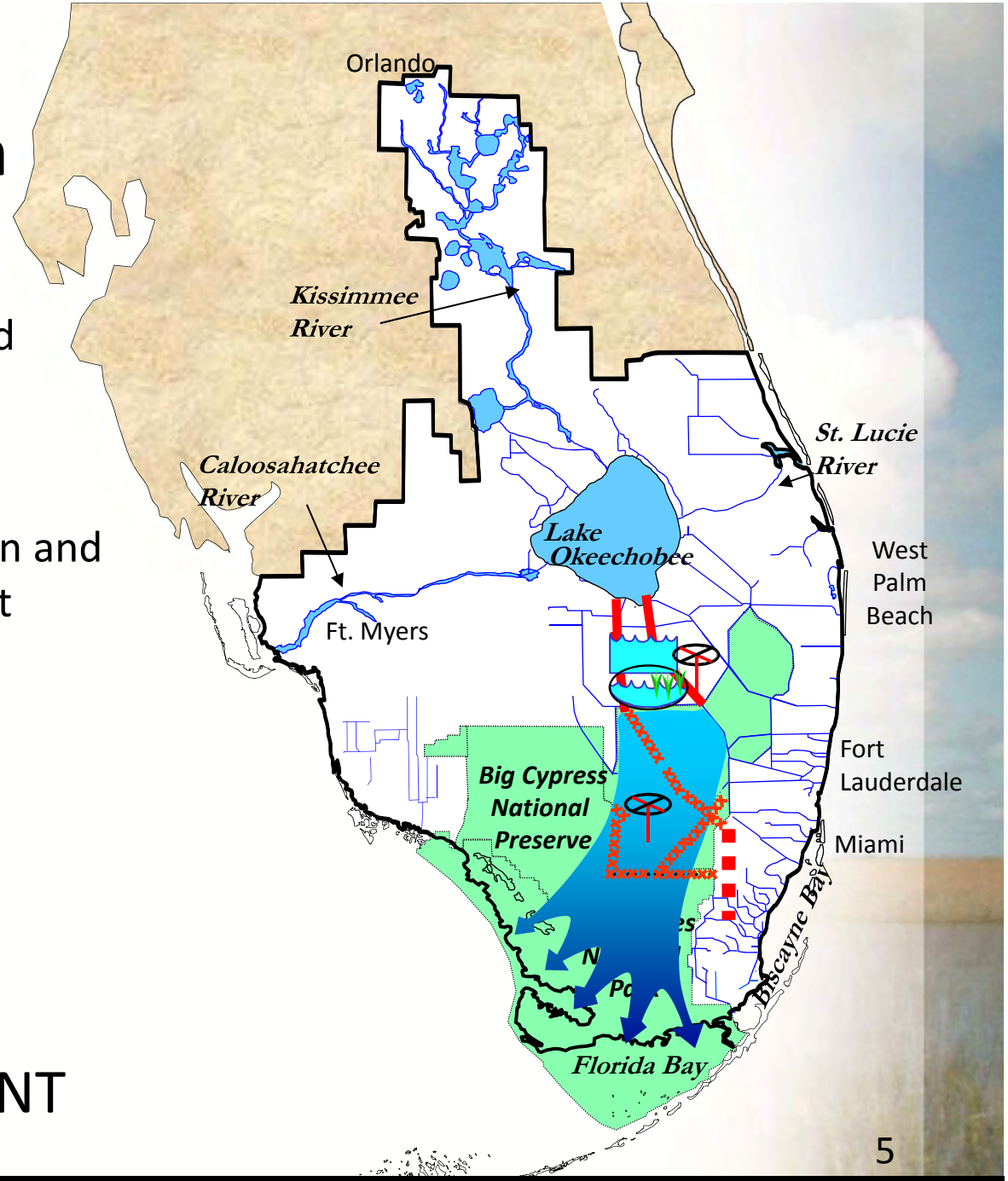
CERP Components Under Consideration

Storage , treatment and conveyance in the EAA

Decompartmentalization and sheetflow enhancement

Seepage management

Operational Changes



Feasible 1st INCREMENT

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, and decline of tree islands and decrease salt water intrusion
- Reduce water loss out of the natural system to promote appropriate dry season recession rates for wildlife utilization

Central Everglades - Objectives (continued)

- 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

Performance Measures

Performance Measure	**OBJ 1**: Restore seasonal hydroperiods and freshwater distribution that support a natural mosaic of wetland and upland habitat in the Everglades System.	**OBJ 2**: Improve sheet flow patterns and surface water depths and durations in order to reduce soil subsidence, frequency of damaging fires, and decline of tree islands.	**OBJ 3**: Reduce water loss out of the natural system to promote appropriate dry season recession rates for wildlife utilization.	**OBJ 4**: Restore more natural water level responses to rainfall predicted by project modeling that will promote plant and animal diversity and habitat function.	**OBJ 5**: Increase oyster habitat and sea grass populations in the Northern Estuaries by reducing salinity fluctuations from freshwater regulatory pulse discharges.
Lake Stage					X
Salinity Envelopes					X
Soil Oxidation	X	X	X		
Inundation Pattern	X	X	X	X	
Number and Duration of Dry Events	X	X	X	X	
Sheet flow	X	X		X	
Slough Vegetation Suitability	X	X			

Planning Constraints

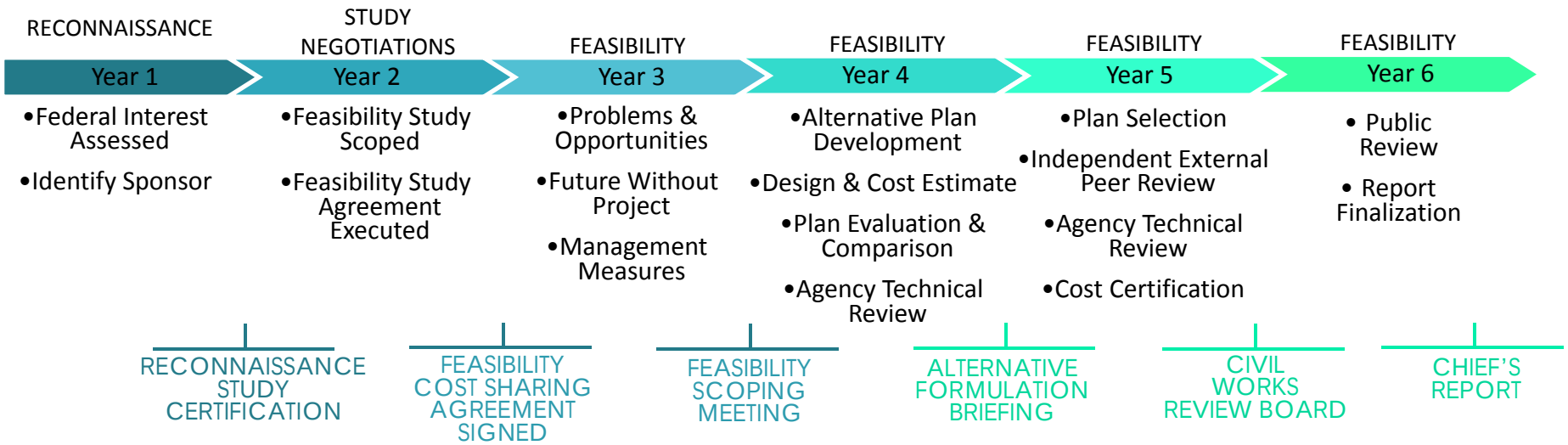
- In accordance with Section 601(h)(5) of WRDA 2000 and Chapter 373.1501(4)(d), F.S.
  - Avoid any reduction in level of service for flood protection existing as of December 2000 caused by Plan implementation
  - Provide replacement sources of water of comparable quantity and quality for existing legal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

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

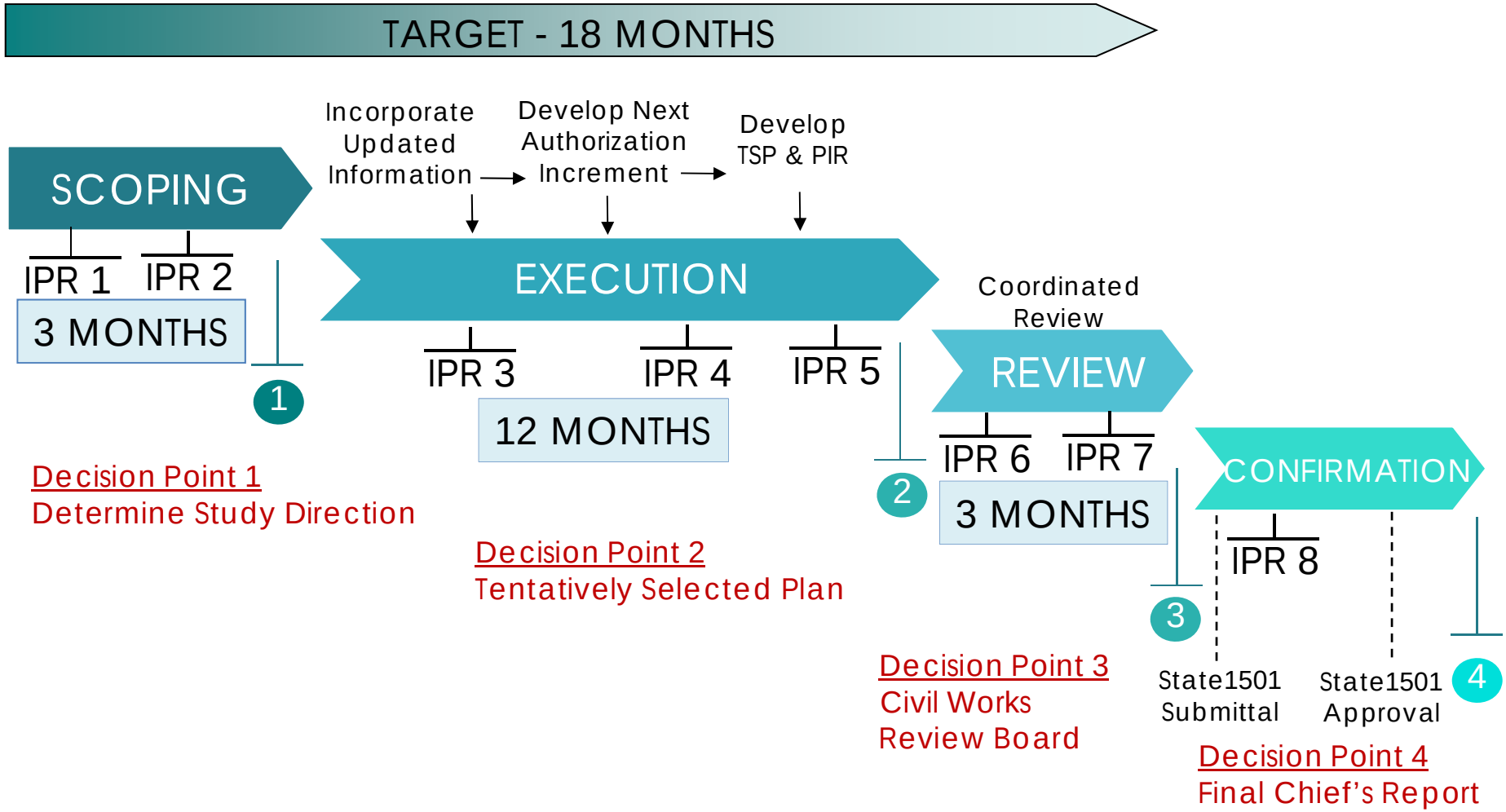
Corps Planning Process Transformation

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

Central Everglades Process



IPR: In-Progress Review with Corps Leadership

Scoping Activities Nov-Jan 2012

- Establish PDT and conduct scoping
- Develop scope of study
- Define problems, objectives, constraints, planning assumptions
- Develop plan formulation and modeling strategy
- Identify preliminary performance measures and evaluation methods
- Gather relevant information
- Refine tools (extend POR in models, testing of PMs, begin set-up of base conditions, etc..)

Execution Activities Feb - Apr 2012

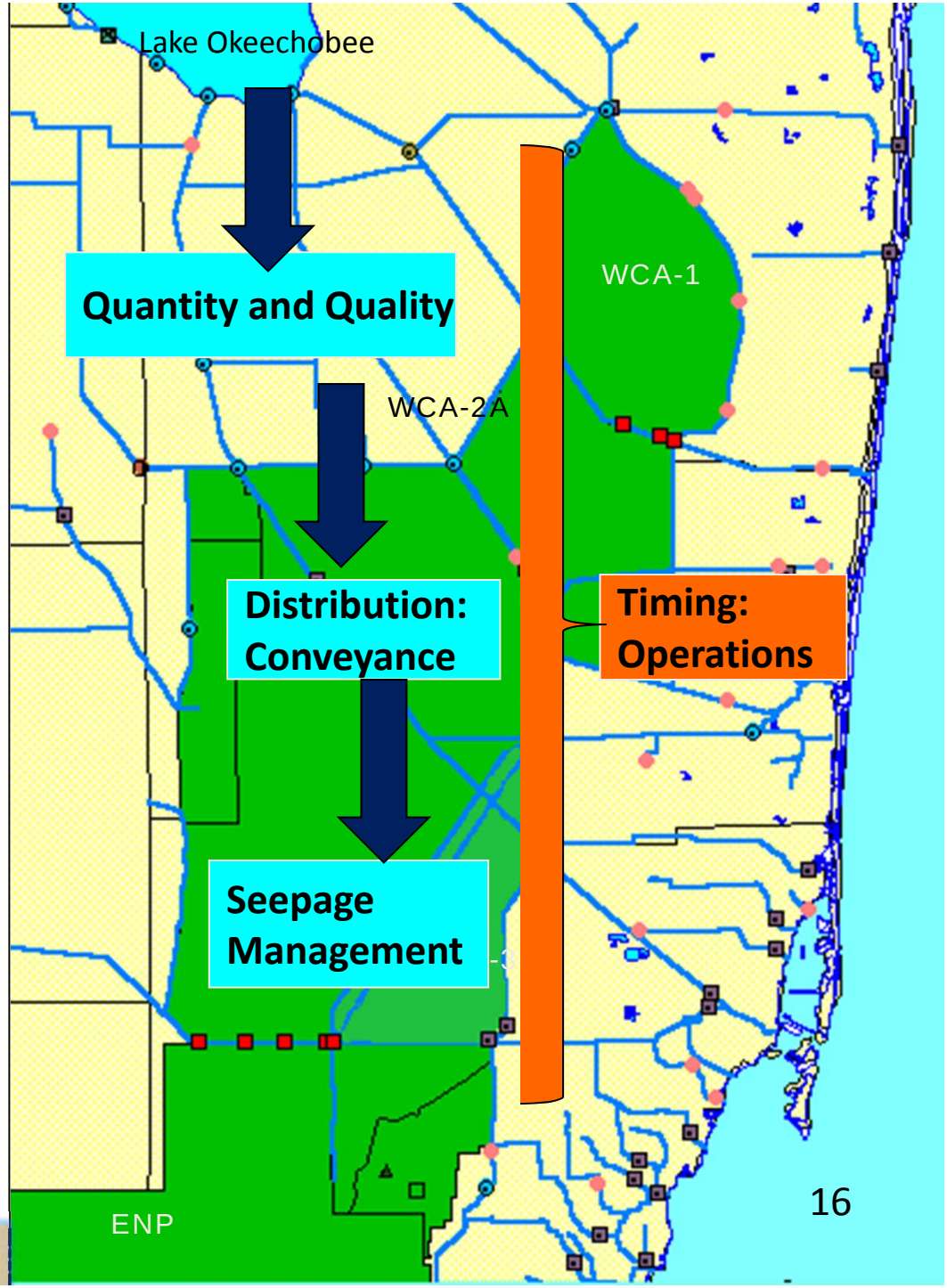
- Integrate updated science and other information
- Identify management measures (list of potential solutions)
- Initial screening management measures
- Testing of performance measures & evaluation methods
- Modeling of existing and future without project conditions
- Evaluation of existing and future without project condition

Execution Activities May- Sep 2012

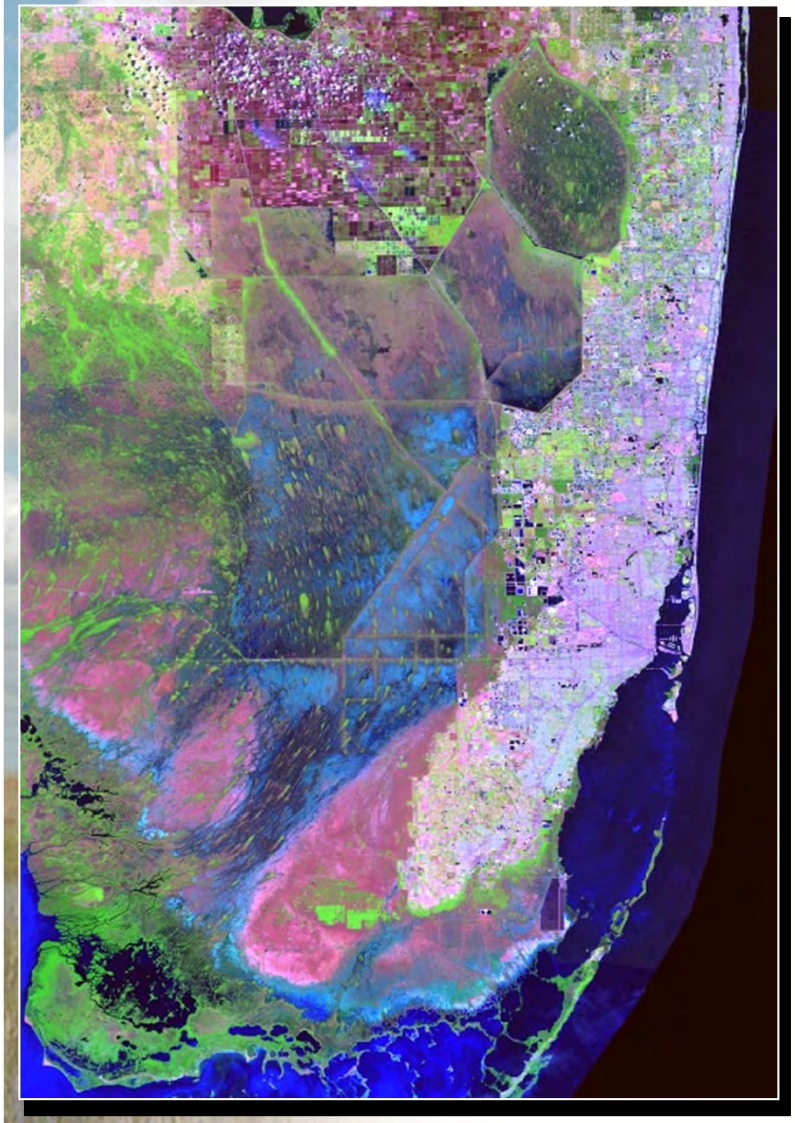
- Identify alternatives
- Evaluate alternatives
- Identify Tentatively Selected Plan

- 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

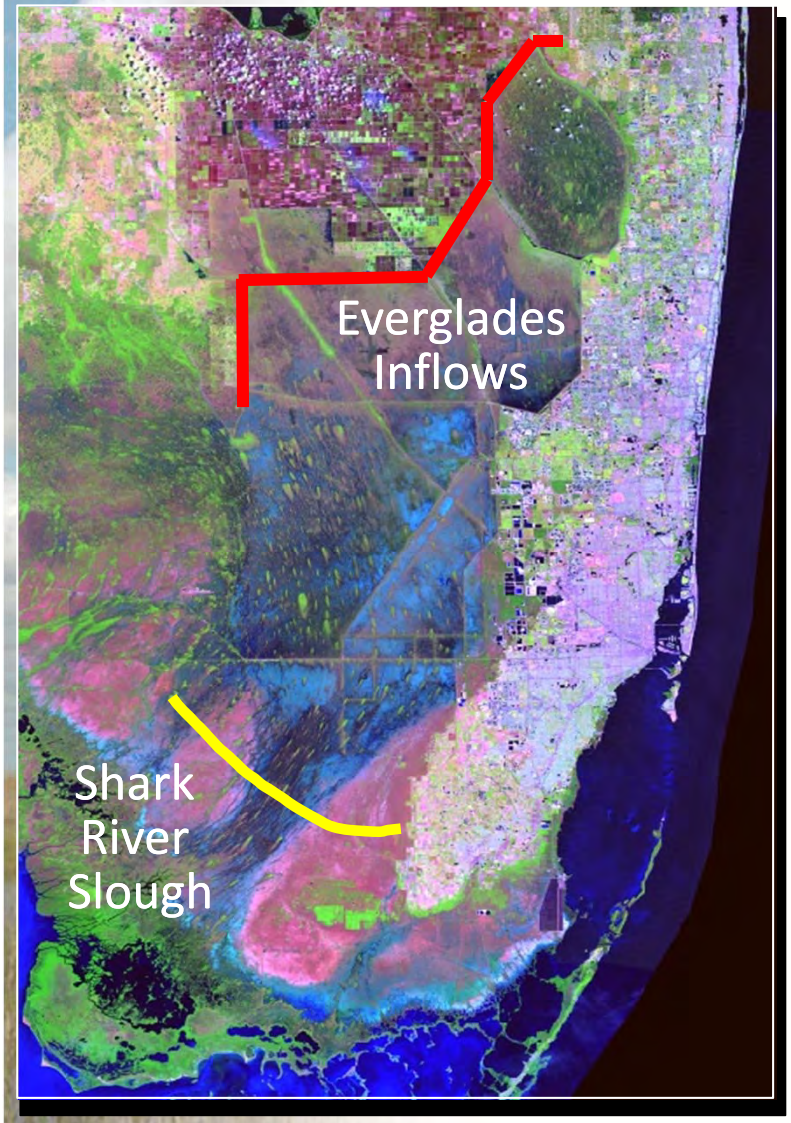


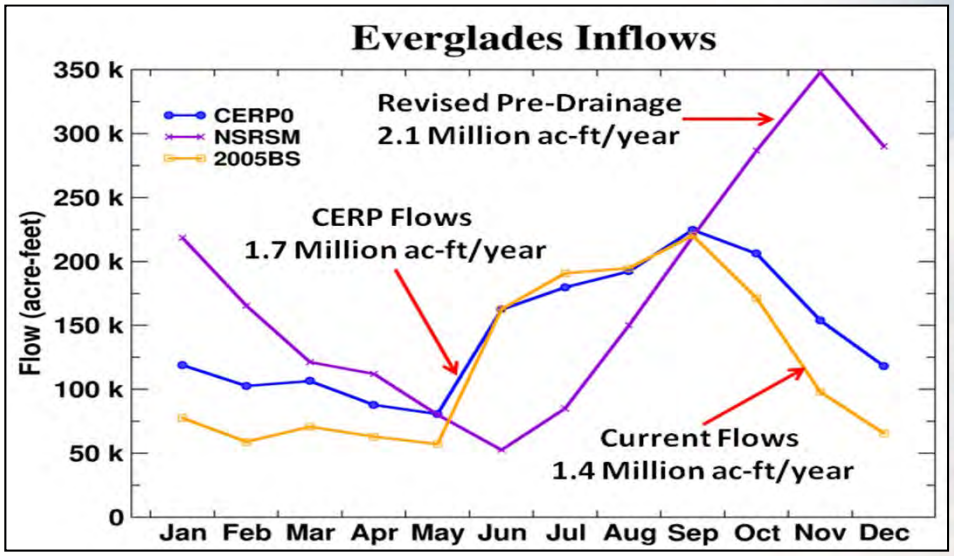
Refining Our Understanding of the Pre-Drainage Everglades

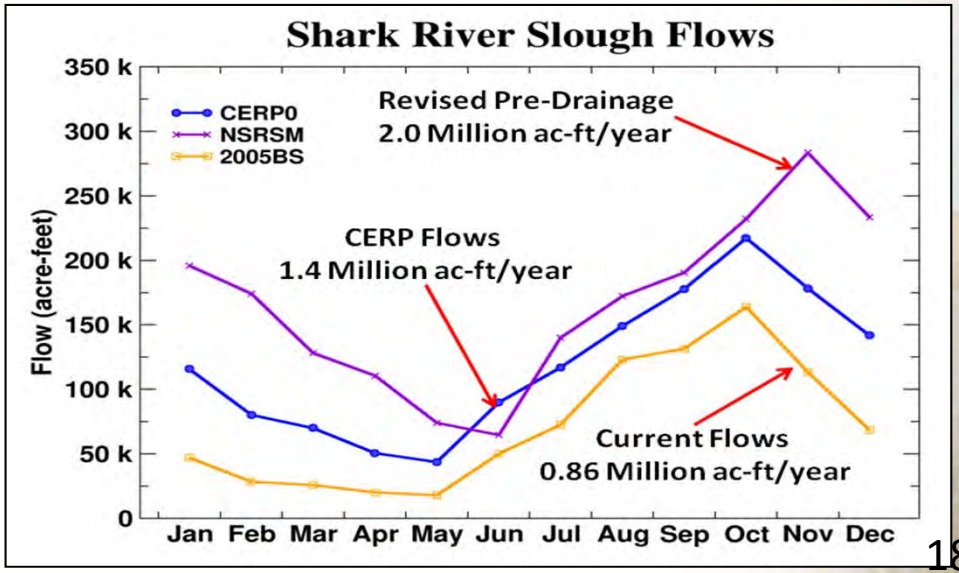


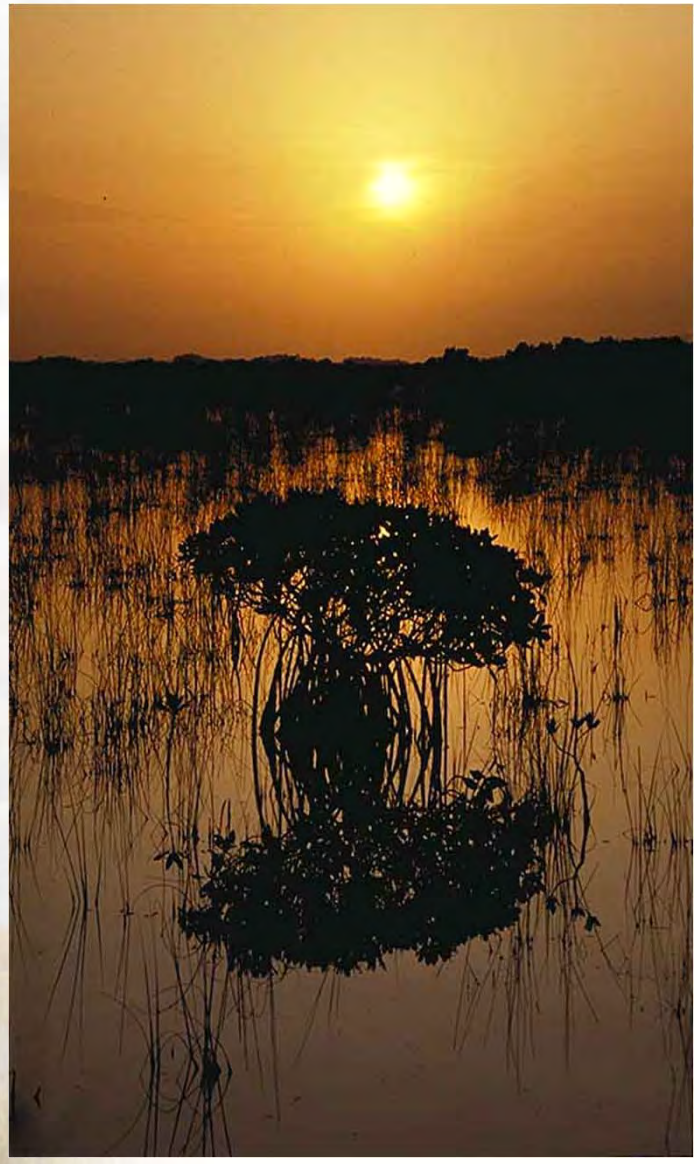
- Extensive information from paleo-ecological indicators and pre/post-drainage information that describes the evolution of the Everglades ecosystem
- A growing consensus of a wetter Everglades ecosystem (20th century), and how this influences restoration targets (Natural System Modeling)
- The importance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

Updating Water Flow in the Everglades









DISCUSSION