

CENTRAL EVERGLADES PLANNING PROJECT



*Restoring the Heart
of the Everglades*

Governing Board Update

PRESENTED BY

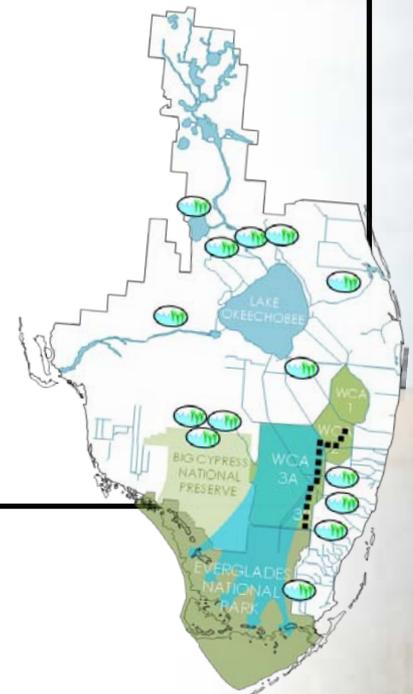
Tom Teets,
Office of
Everglades Policy and
Coordination

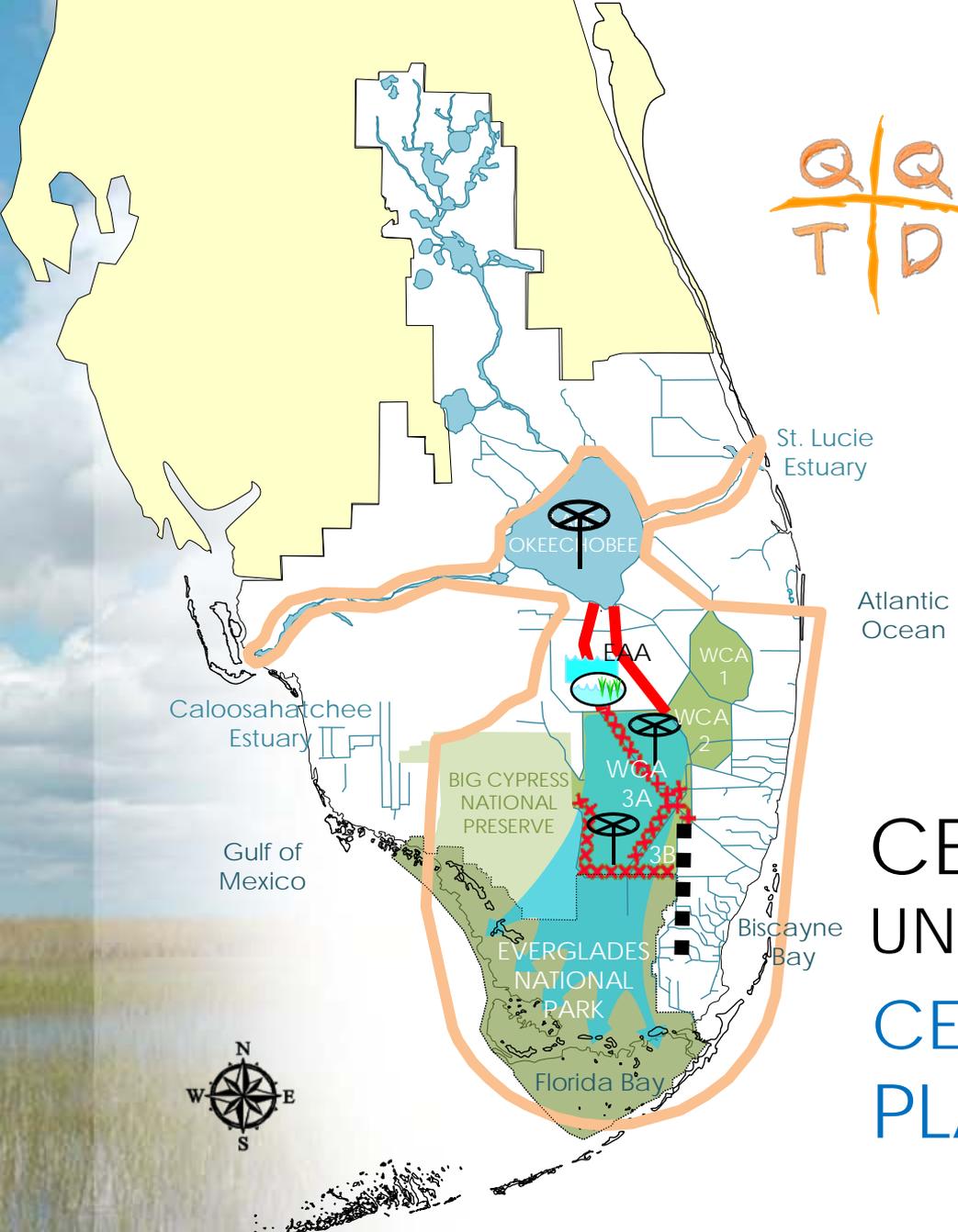
April 12, 2012

TOPICS

- Overview and Study Status
- Revised Objectives
- Plan Formulation Framework
 - Preliminary Management Measure Screening
 - Formulation of Components and Alternative Development Strategy
- Next Steps

Overview and Study Status





	Central Everglades Planning Project Study Area
	Storage, Treatment, and Conveyance in the EAA
	Decomartmentalization and Sheetflow Enhancement
	Seepage Management
	Operational Changes

CERP COMPONENTS UNDER CONSIDERATION

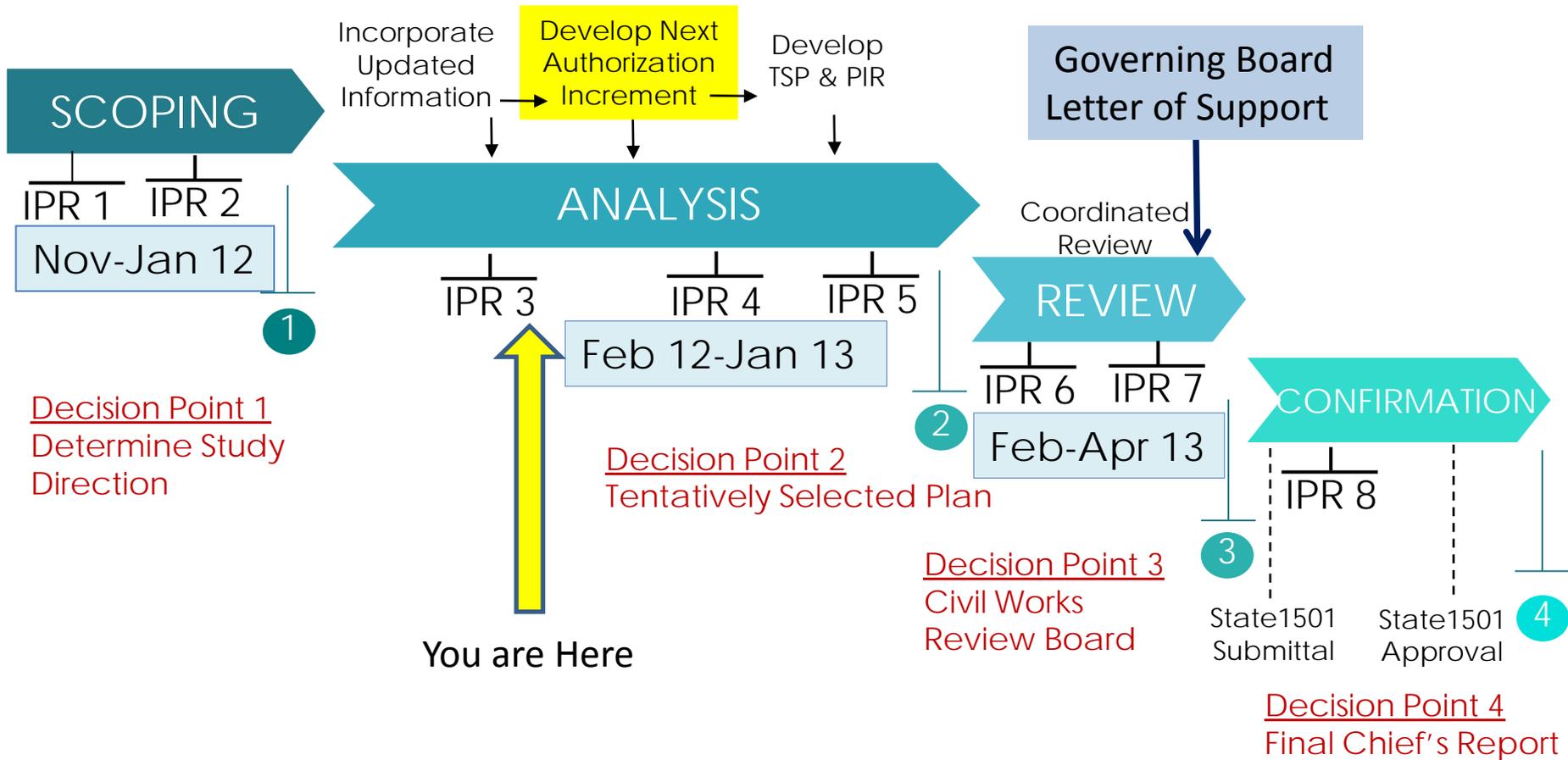
CENTRAL EVERGLADES PLANNING PROJECT

UPDATE OF CEPP ACTIVITIES

- Project Delivery Team Meeting – March 26
 - Revised Objectives
 - System Hydrologic Review of Provisional Modeling Results
 - Management Measure, Component and Alternative Development
- In-Progress Review Meeting #3 – March 29
 - USACE Headquarters

CENTRAL EVERGLADES PROCESS

TARGET - 18 MONTHS



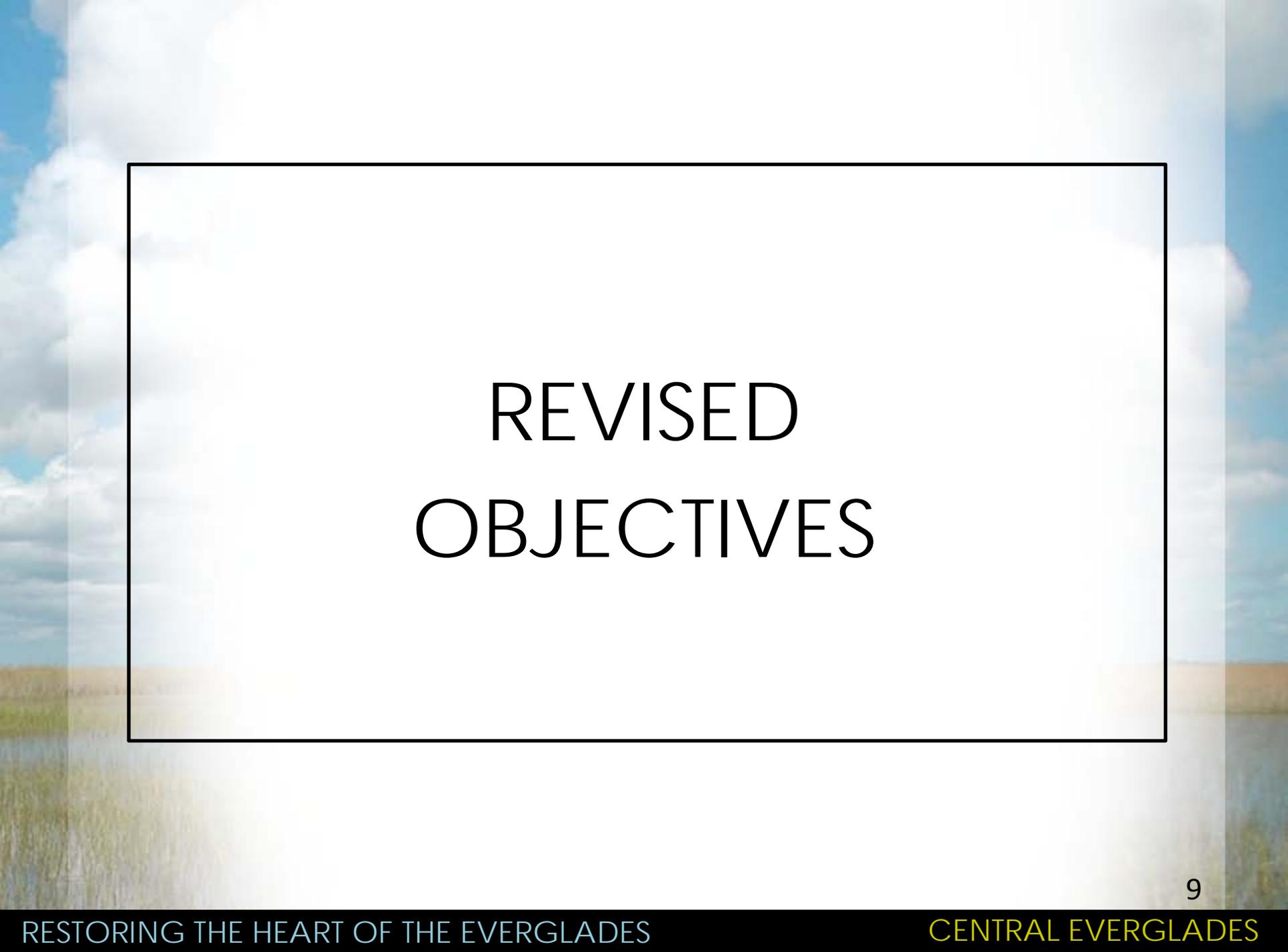
IPR: In-Progress Review with Corps Leadership

ANALYSIS PHASE ACTIVITIES TO DATE

- **Project Delivery Team (PDT)**
 - Draft Project Management Plan (Scope & Schedule Document)
 - Refined Plan Formulation Strategy
 - Preliminary Screening of Management Measures
 - Initial Screening of Lands in Everglades Agricultural Area (EAA) for Siting Features
 - Modeling Assumptions for Existing and Future Without Project Condition
 - Review of provisional modeling results for Existing Condition Baseline and Future Without Project condition
 - Input on screening criteria north of the Redline (EAA components)

ANALYSIS PHASE WORKING GROUP SPONSORED WORKSHOPS

- **Task Force Recommendations**
 - Task Force staff preparing letter from Task Force chair to Corps transmitting workshop records, highlighting what they've heard during workshops
 - Henceforth, staff is authorized to transmit the public record of WG/SCG sponsored workshops to Corps on continuous basis as they occur given expedited schedule



REVISED OBJECTIVES

GOALS AND OBJECTIVES

- **GOAL: Enhance Ecological Values**
- **Increase the total spatial extent of natural areas**
- **Improve habitat and functional quality**
 - 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, the frequency of damaging peat fires, the decline of tree islands, and salt water intrusion
 - Reduce high volume discharges from Lake Okeechobee to improve the quality of oyster and SAV habitat in the northern estuaries
- **Improve native plant and animal species abundance and diversity**
 - 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
- **GOAL: Enhance Economic Values and Social Well Being**
- **Increase availability of fresh water (agriculture/municipal/industrial)**
- **Reduce flood damages (agricultural/urban)**
- **Provide recreational and navigation opportunities**
- **Protect cultural and archeological resources and values**

GOAL: Enhance Economic Values and Social Well Being Increase availability of fresh water (agriculture/municipal/industrial)

- Consistent with WRDA 2000, the Comprehensive Everglades Restoration Plan included goals for enhancing economic values and social well being with specific objectives towards improving other project purposes of the C&SF project, including agricultural, municipal and industrial water supply
- Per Section 601(f) of WRDA 2000, regarding project justification in CERP, *“no further economic justification is required if the project is cost-effective”, unless a separable element is “intended to produce benefits that are predominantly unrelated to the restoration, preservation, and protection of the natural system.”*
- Section 601(h) of WRDA 2000 states *“the overarching objective of the Plan is the restoration, preservation, and protection of the South Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection”*

GOAL: Enhance Ecological Values

Increase the total spatial extent of natural areas

The increase in natural areas associated with project components will be considered in plan formulation and evaluation

GOAL: Enhance Economic Values and Social Well Being

Reduce flood damages (agricultural/urban)

Opportunity to further reduce the extent of damages from flooding through operational and structural changes to the C&SF Project

GOAL: Enhance Economic Values and Social Well Being

Provide recreational and navigation opportunities

Impacts on recreation and navigation will be assessed during plan formulation and evaluation. Consistent with other CERP projects, a recreation plan will be developed for the TSP

GOAL: Enhance Economic Values and Social Well Being

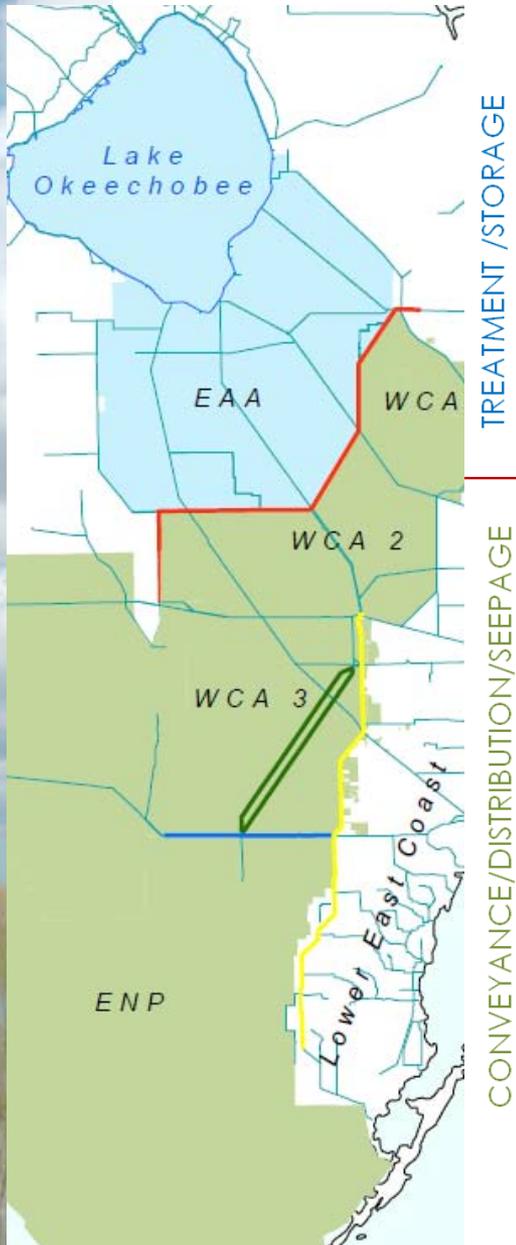
Protect cultural and archeological resources and values

Cultural resource surveys to identify sites and eligibility will be conducted. Determination of potential effects will be considered during plan formulation and evaluation to the extent possible.

PLAN FORMULATION FRAMEWORK



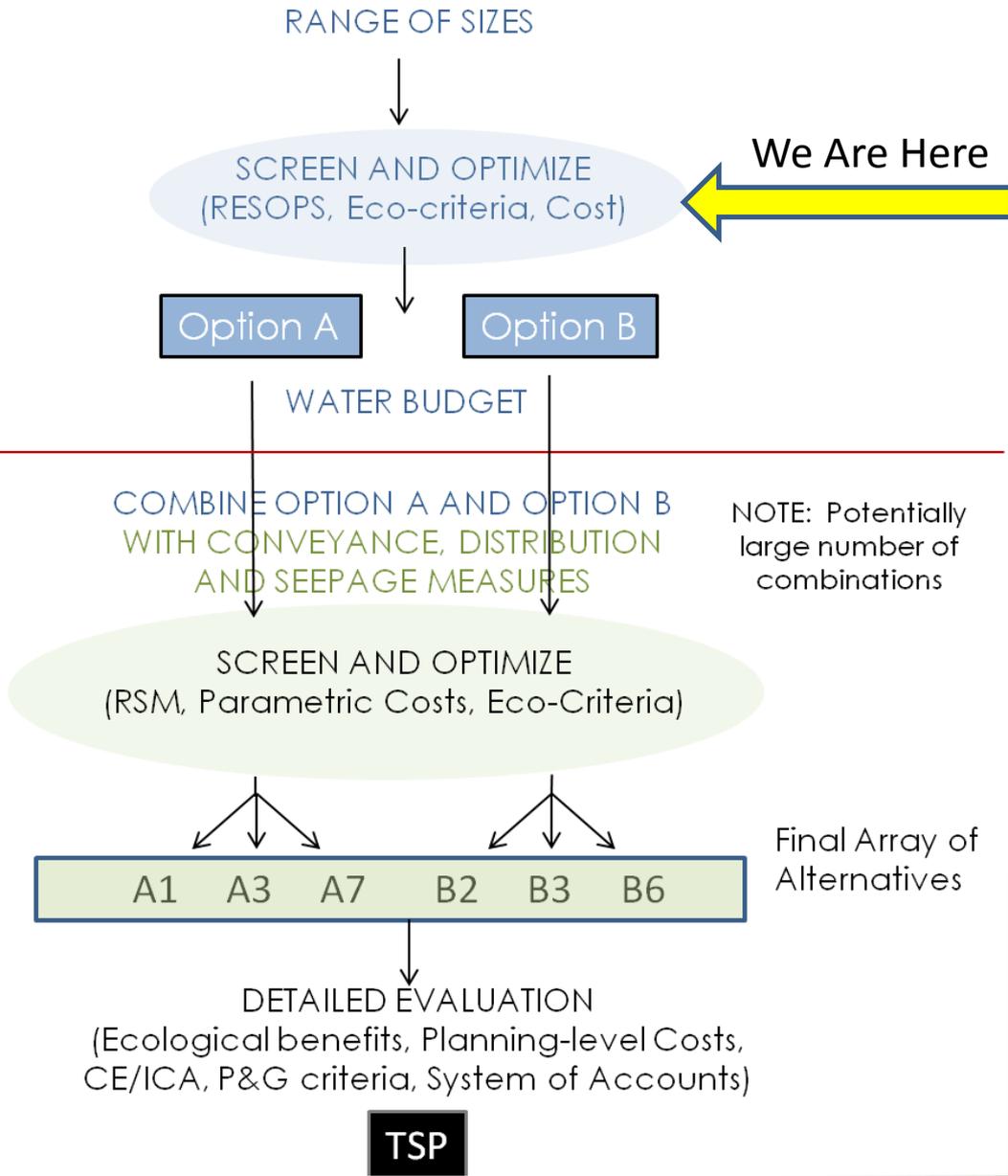
CEPP PLAN FORMULATION FRAMEWORK



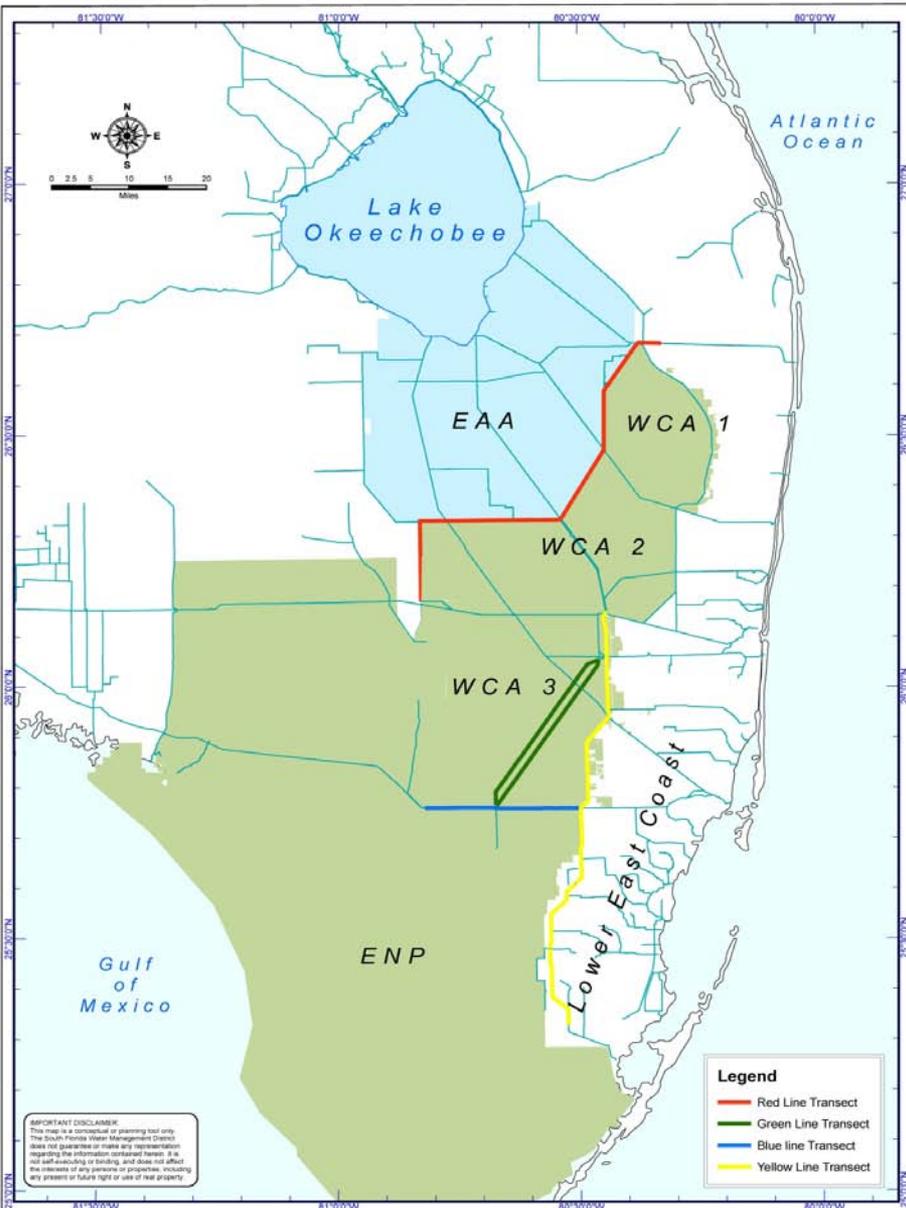
TREATMENT / STORAGE

CONVEYANCE/DISTRIBUTION/SEEPAGE

INITIAL SCREENING



SPATIAL PERSPECTIVE



REDLINE –Everglades Agricultural Area (EAA) and the WCA 3A (L-4, L-5 and L-6 levees and canals)

GREENLINE – WCA 3A and WCA 3B (L-67A and C levees and associated canals)

BLUELINE - WCA 3A/3B and Everglades National Park (ENP) (Tamiami Trail roadway and L-29)

YELLOWLINE –WCA 3A/3B and ENP to the lower east coast (east coast protective levee system, the L-30 and L-31N)

CEPP DEVELOPMENT AND EVALUATION PROGRESSION



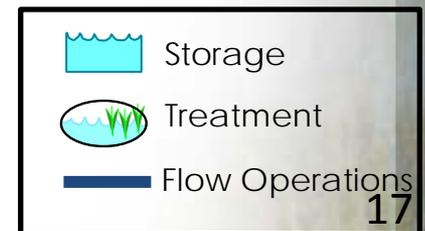
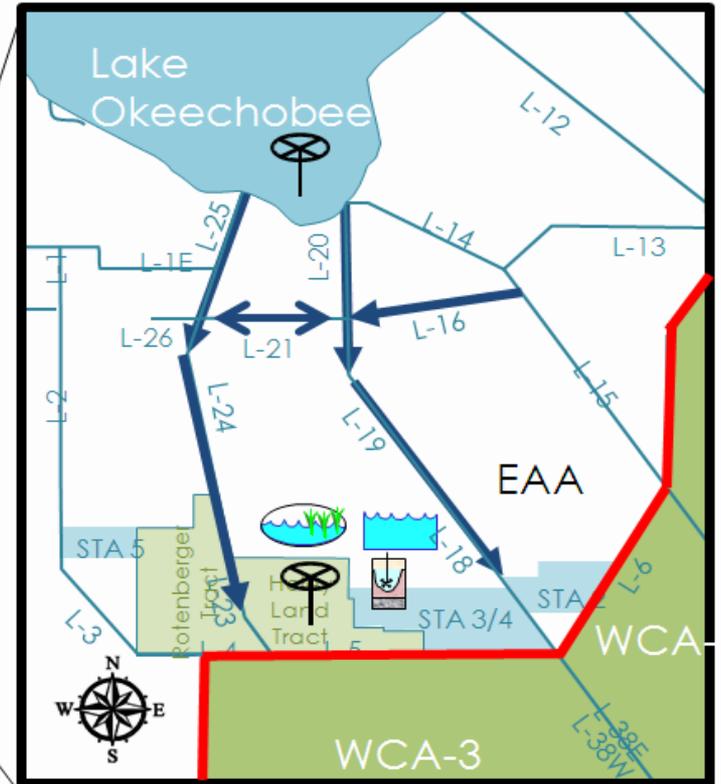
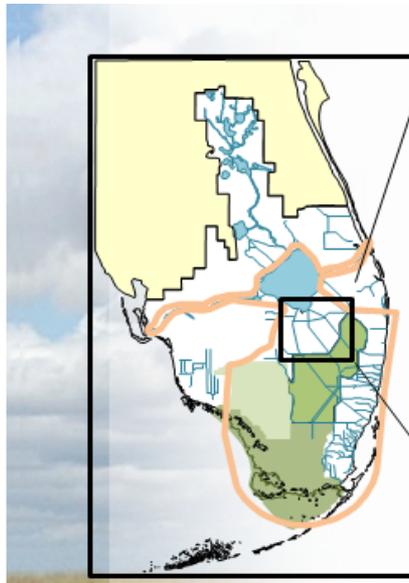
<p>Preliminary Management Measure Screening</p>	<p>Formulation of Components and Development of Alternatives</p>	<p>Evaluation of Final Array of Alternatives (<i>i.e.</i> Habitat Unit Quantification)</p>	<p>NEPA Assessment on Final Array</p>	<p>Biological Assessment on Tentatively Selected Plan (TSP)</p>
<p>Qualitative Screening Criteria</p>	<p>CEPP Alternative Development Roadmap</p>	<p>RECOVER Approved Project Performance Measures</p>	<p>Ecological Planning Tools (Vegetation and Species Specific Tools)</p>	<p>RECOVER Approved Project Performance Measures and Ecological Planning Tools (Vegetation and Species Specific Tools)</p>

PRELIMINARY MANAGEMENT MEASURE SCREENING

North of the **Redline**
LO & EAA

Evaluation Criteria

- Land Requirements
- Cost
- Acceptability
- Environmental Effects
- Operational Flexibility
- Health and Human Safety
- Effectiveness



NORTH OF THE REDLINE MANAGEMENT MEASURES RETAINED

- LO Operations
- Improved conveyance
- Shallow storage
- Deep storage
- Storm Water Treatment Areas
- Aquifer Storage and Recovery
- Holey Land Operations

CEPP DEVELOPMENT AND EVALUATION PROGRESSION



<p>Preliminary Management Measure Screening</p>	<p>Formulation of Components and Development of Alternatives</p>	<p>Evaluation of Final Array of Alternatives (<i>i.e.</i> Habitat Unit Quantification)</p>	<p>NEPA Assessment on Final Array</p>	<p>Biological Assessment on Tentatively Selected Plan (TSP)</p>
<p>Qualitative Screening Criteria</p>	<p>CEPP Alternative Development Roadmap</p>	<p>RECOVER Approved Project Performance Measures</p>	<p>Ecological Planning Tools (Vegetation and Species Specific Tools)</p>	<p>RECOVER Approved Project Performance Measures and Ecological Planning Tools (Vegetation and Species Specific Tools)</p>

MODELING SCREENING TOOLS AND TECHNIQUES

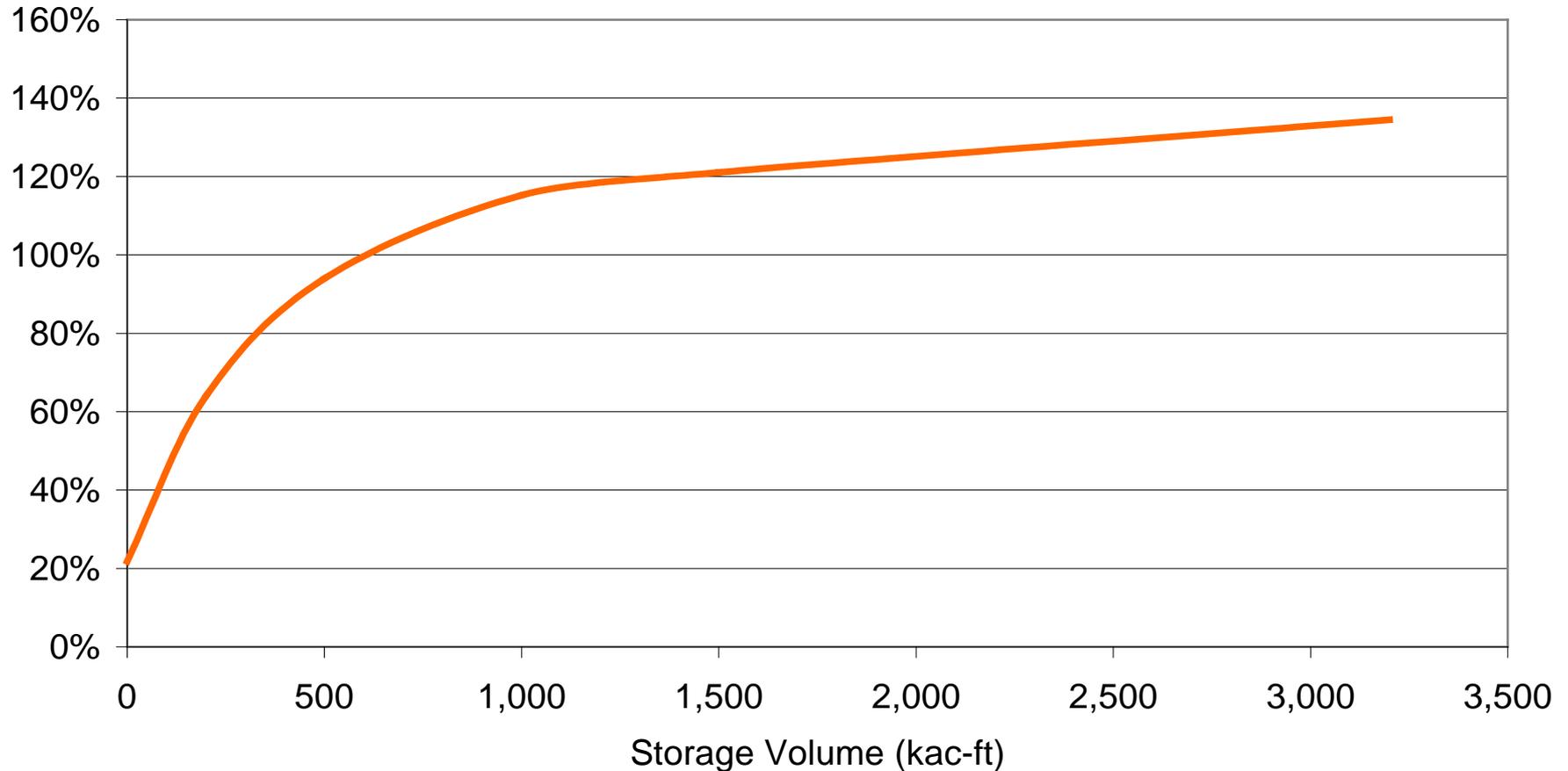
RESOPS

DMSTA

- The benefit of performing screening is to quickly test the performance of management measures and combinations of management measures
 - Comparisons help to determine the viability of management measures and feasible sizing ranges for further in-depth analysis
 - Not a replacement for the detailed regional models, but can reduce the burden on the more detailed regional models
- Techniques can be used to automatically evaluate thousands of operating rules and select the best performers – Helps to inform what objectives are most critical to design
- Over 25 Screening Products north of the Redline

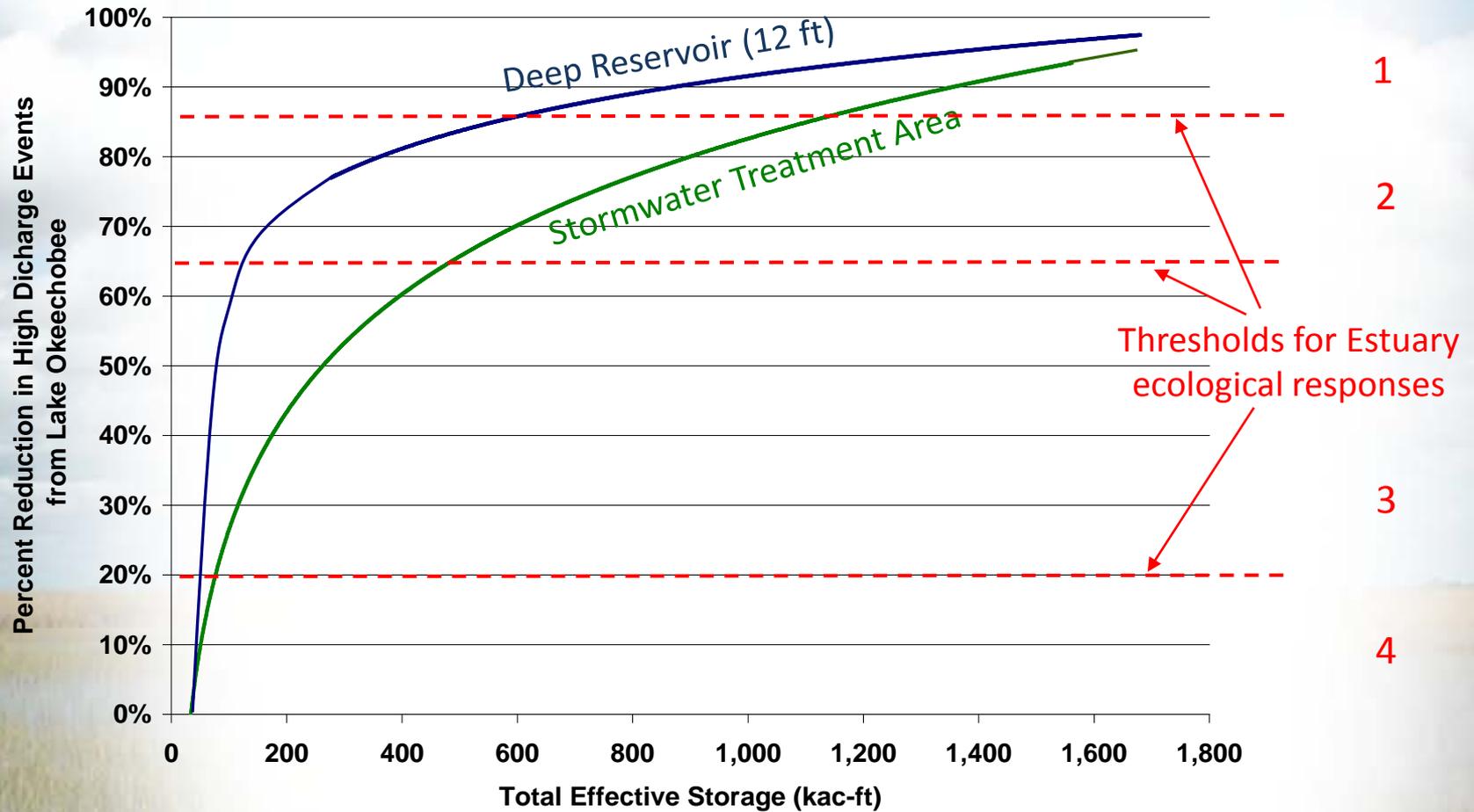
HOW A SCREENING GRAPHIC IS GENERATED

Percentage Increase in Dry Season Flows to the Everglades with the Addition of Storage South of Lake Okeechobee



Based on RESOPS Screening Analysis of November to May Deliveries During the 1965 to 2005 Period.

EXAMPLE SCREENING GRAPHIC FOR NORTHERN ESTUARY PERFORMANCE

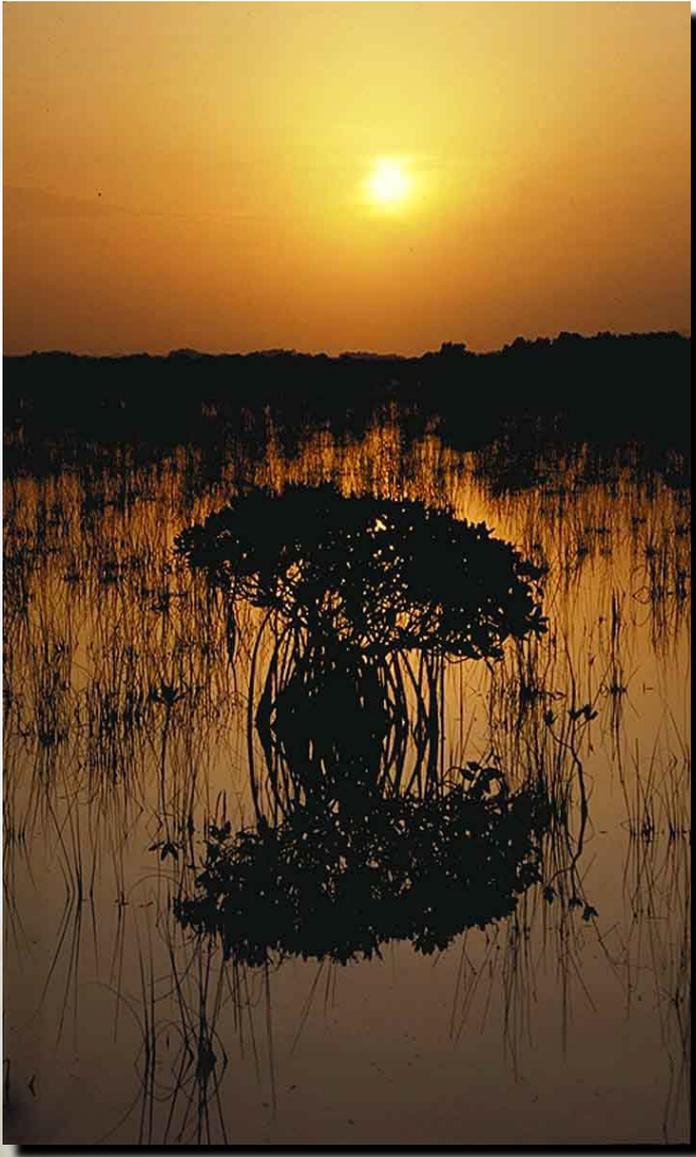


Next Steps

NEXT STEPS

- Working Group Sponsored Public Recreation Workshop April 17
 - Coral Springs Marriott
- Project Delivery Team Meeting* April 18
- WRAC May 3
- Governing Board May 10
- Working Group Sponsored Public Workshop #5 May 15
- Joint Working Group and Science Coordination Group Meeting May 16

*Screening Results north of the Redline



Questions?