

CENTRAL EVERGLADES PLANNING PROJECT



Technical Oversight Committee Meeting

PRESENTED BY

Kim Taplin,

Chief Central Everglades Branch

U.S. Army Corps of Engineers
Jacksonville District

Matt Morrison,

Everglades Policy and Coordination

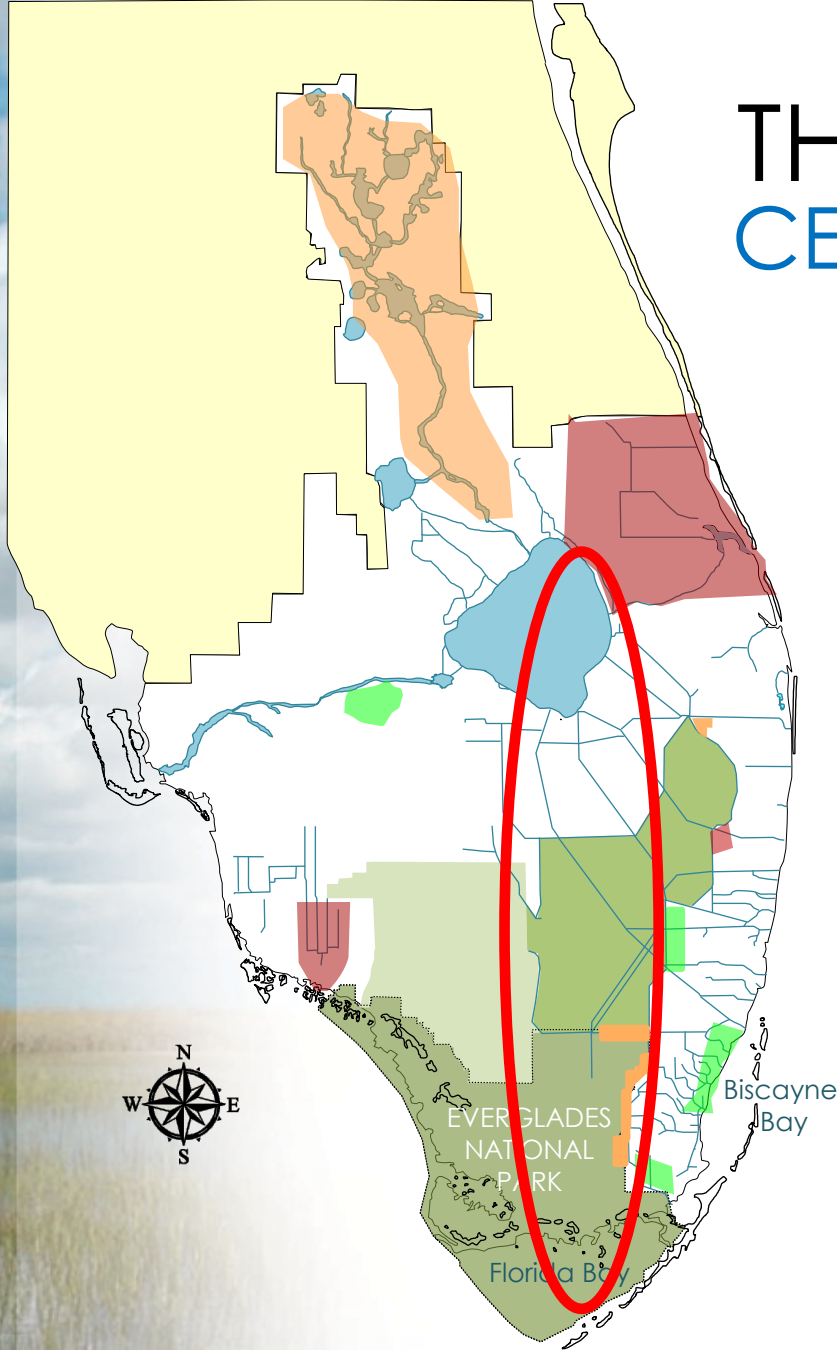
South Florida Water
Management District

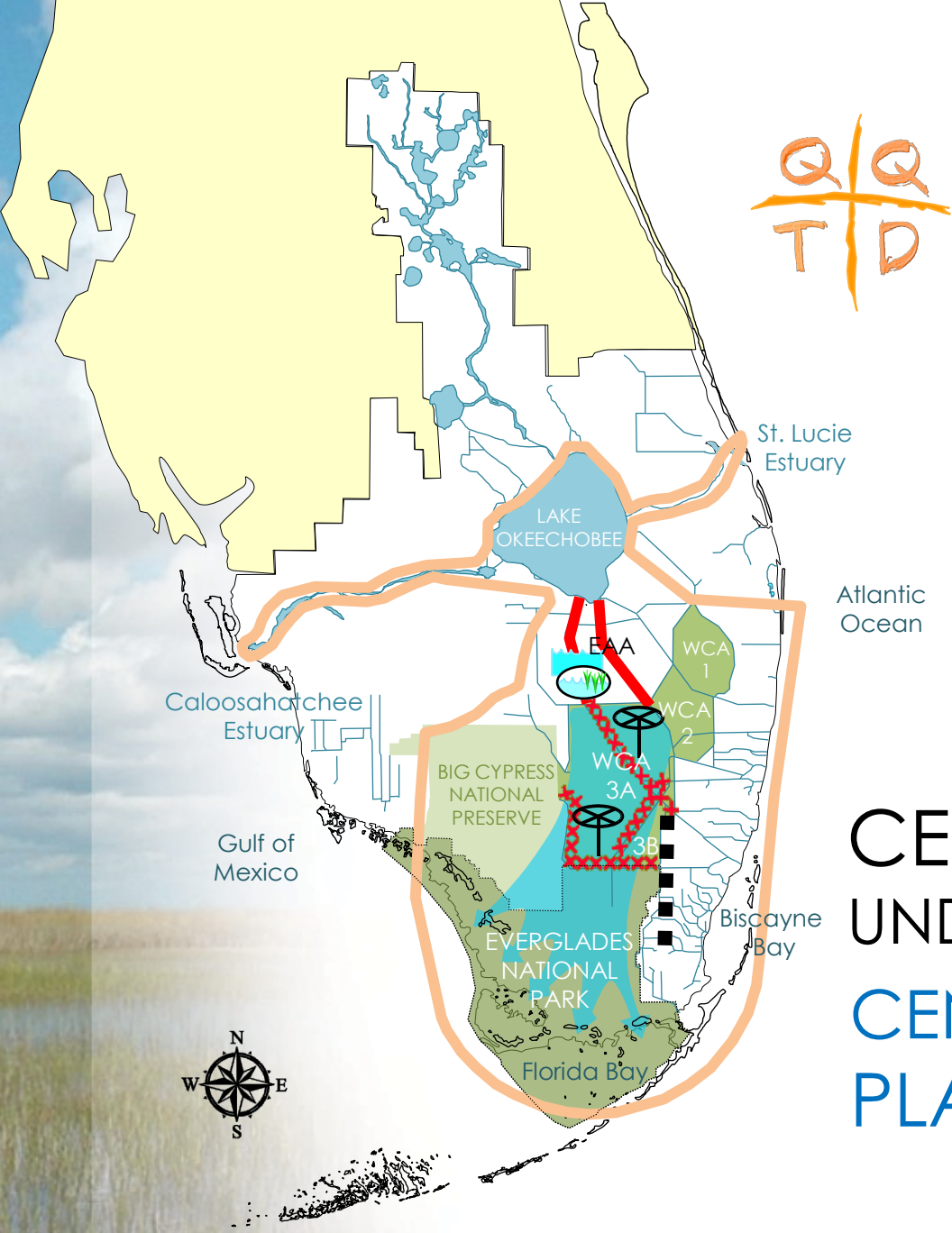
March 26, 2013






THE PLAN

CENTRAL EVERGLADES

- Reduce undesirable discharges to east and west coast estuaries
- Deliver “new” sources of clean water to the Central Everglades and Everglades National Park
- To restore habitat in the Central Everglades and Everglades National Park, focusing on the “River of Grass”





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

CERP COMPONENTS UNDER CONSIDERATION

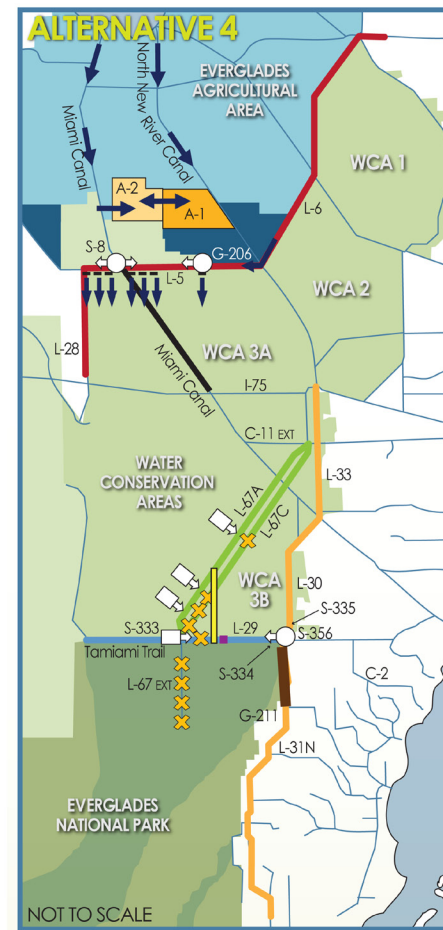
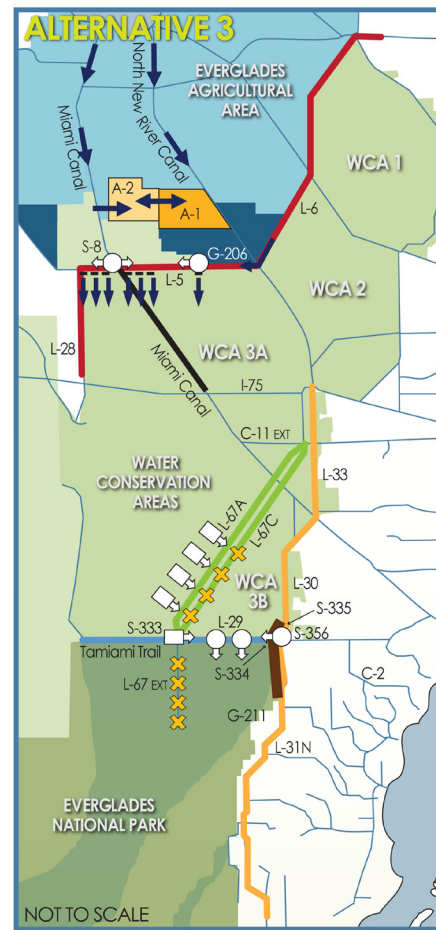
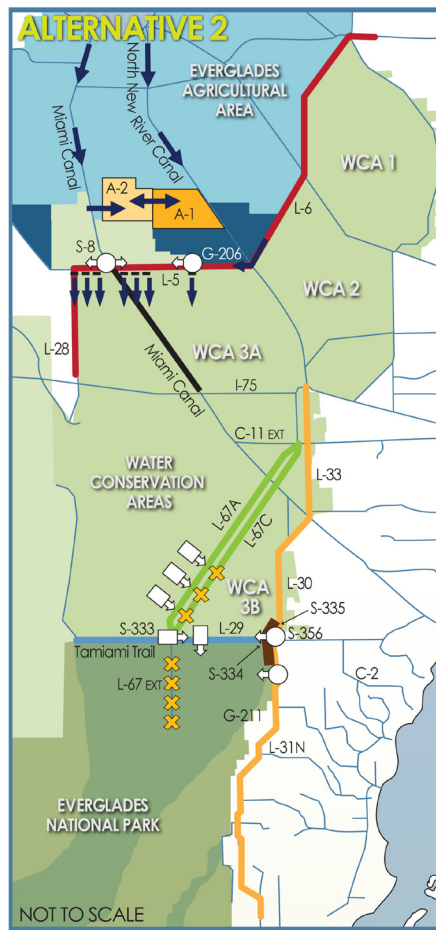
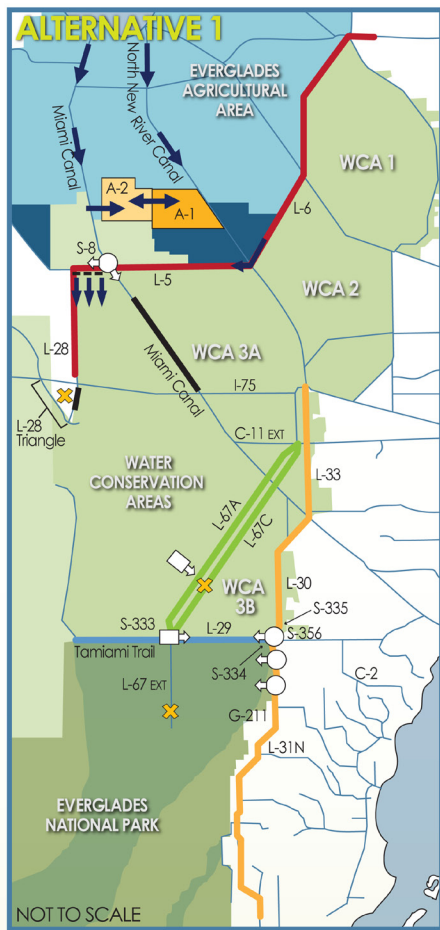
CENTRAL EVERGLADES PLANNING PROJECT



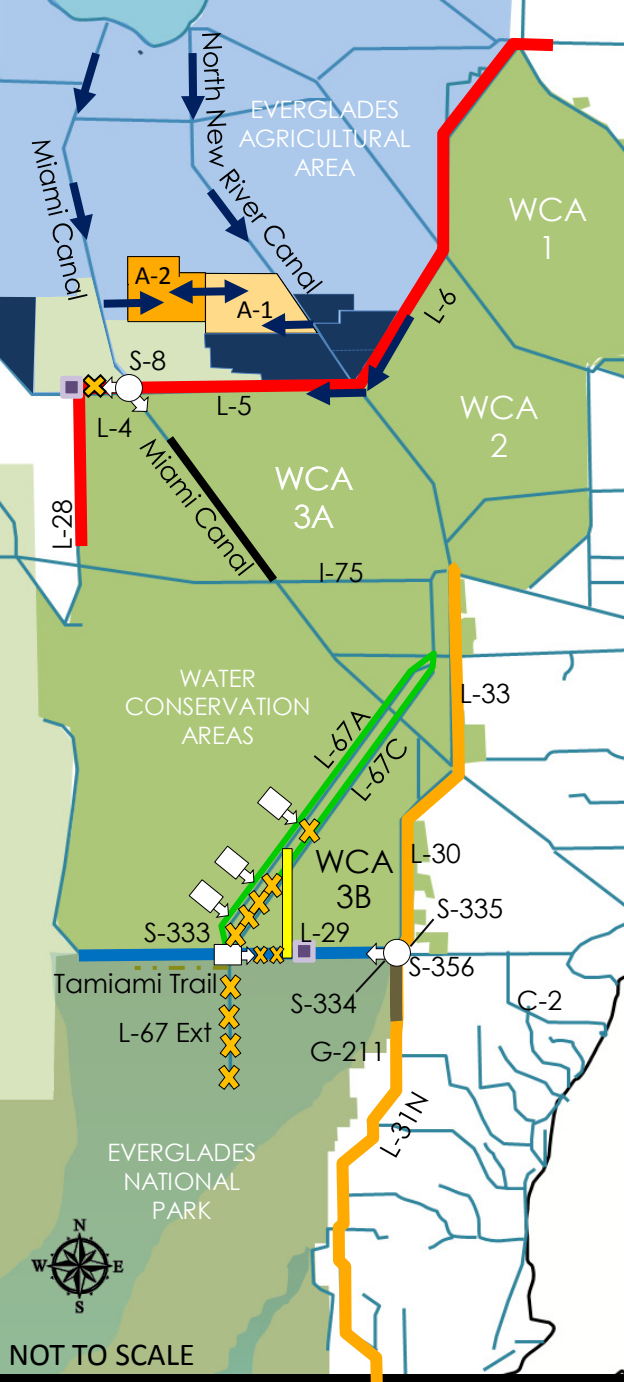
Goals and Objectives

- **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**

Central Everglades Planning Project



TENTATIVELY SELECTED PLAN



STORAGE AND TREATMENT

- Construct A-2 FEB and integrate with A-1 FEB operations
- Lake Okeechobee operation refinements within LORS

DISTRIBUTION/CONVEYANCE

- Diversion of L-6 flows, Infrastructure and L-5 canal improvements
- Remove western ~2.9 miles of L-4 levee (west of S-8 3,000 cfs capacity)
- Divide structure at western terminus of L-4 levee removal
- Backfill Miami Canal and Spoil Mound Removal ~1.5 miles south of S-8 to I-75

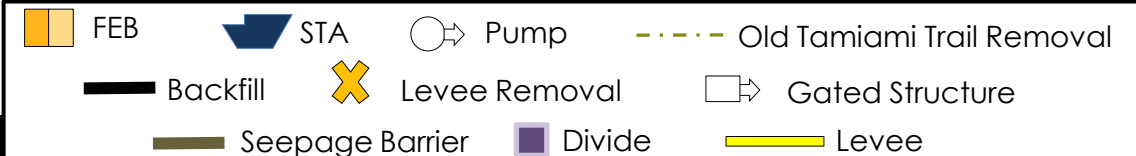
DISTRIBUTION/CONVEYANCE

- Increase S-333 capacity to 2,500 cfs
- Two 500 cfs gated structures in L-67A, 0.5 mile spoil removal west of L-67A canal north and south of structures
- Construct ~8.5 mile levee in WCA 3B, connecting L-67A to L-29
- Remove ~8 miles of L-67C levee in Blue Shanty flow way (no canal back fill)
- One 500 cfs gated structure north of Blue Shanty levee and 6,000-ft gap in L-67C levee
- Remove ~4.3 miles of L-29 levee in Blue Shanty flow way, divide structure east of Blue Shanty levee at terminus of western bridge
- Tamiami Trail western 2.6 mile bridge and L-29 canal max stage at 9.7 ft (FUTURE WORK BY OTHERS)
- Remove entire 5.5 miles L-67 Extension levee, backfill L-67 Extension canal
- Remove ~6 mile Old Tamiami Trail road (from L-67 Ext to Tram Rd)

SEEPAGE MANAGEMENT

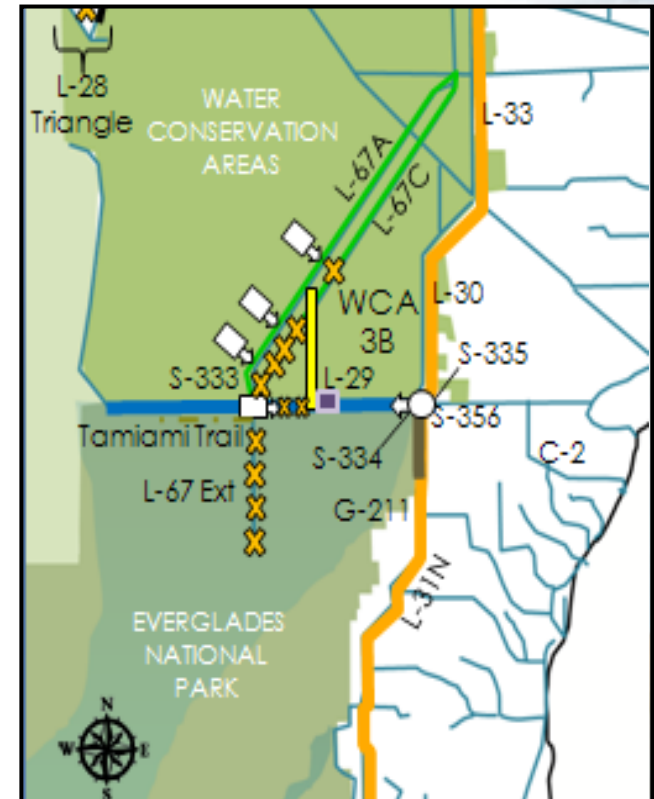
- Increase S-356 pump station to ~1,000 cfs
- Partial depth seepage barrier south of Tamiami Trail (along L-31N)
- G-211 operational refinements; use coastal canals to convey seepage

Note: System wide operational changes and adaptive management considerations will be included in project

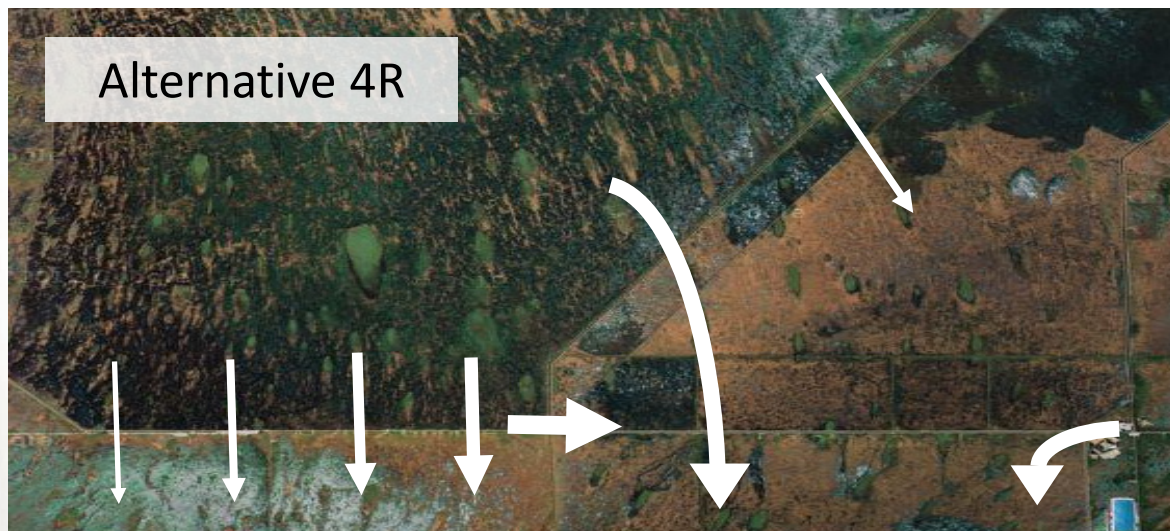
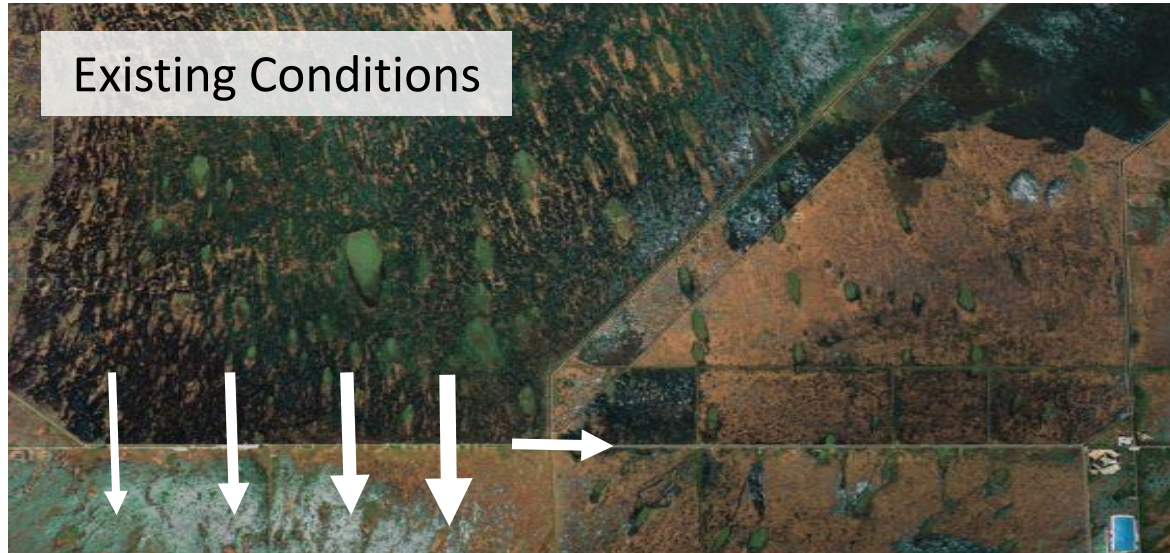


Evaluation of the Tentatively Selected Plan (TSP)

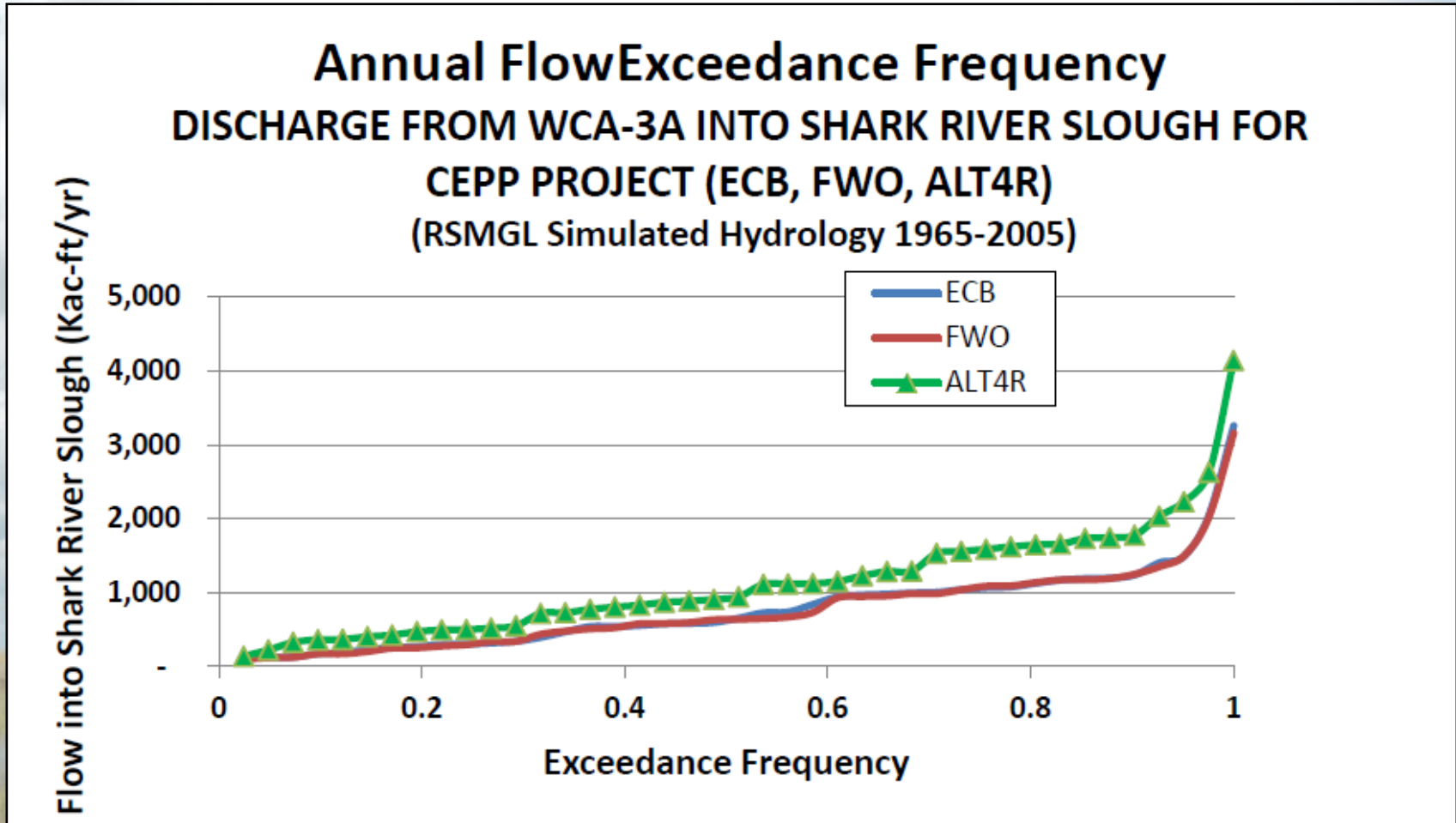
- Water quality evaluation
 - ▶ Risk of WQ exceedance
 - ▶ Appropriateness of Appendix A as a result of changed conditions
 - Relocation of existing flows
 - New additional flow
 - Structural and operational changes



Water Quality Compliance Everglades National Park



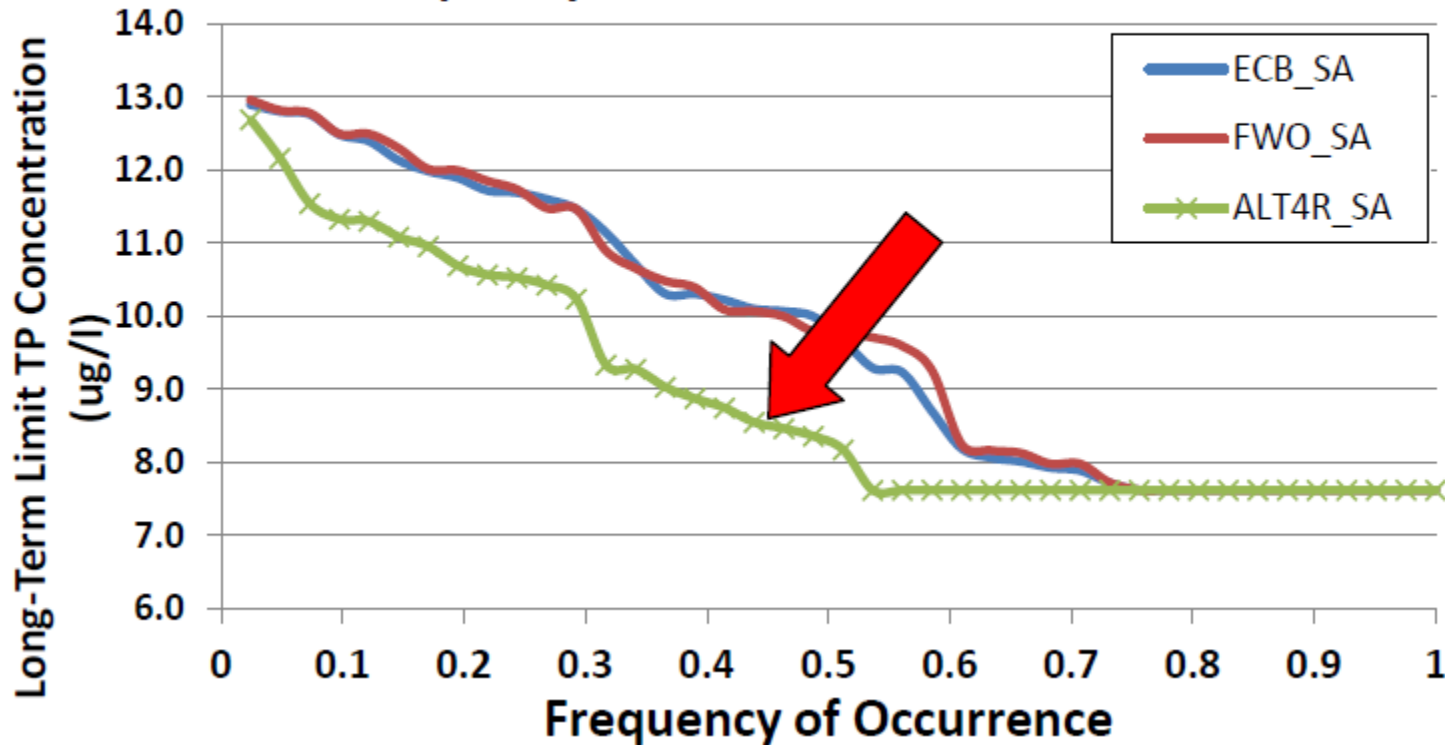
Water Quality Compliance Everglades National Park



Shark River Slough annual flow frequency exceedance curves for ECB, FWO and Alt4R

Water Quality Compliance Everglades National Park

Shark River Slough Calculated Compliance Concentration Frequency Curves for ECB, FWO, and ALT4R



Potential impact of increased CEPP flows on compliance criteria showing effect on calculated Long-Term-Limit Value which is compared to measured flow weighted mean TP concentrations annually to determine compliance

Water Quality Compliance Everglades National Park

Question

- Is Appendix A the appropriate methodology for determining water quality compliance given these future changes to water management?



THANK YOU

Visit www.evergladesplan.org for information