System-wide Planning for Comprehensive Everglades Restoration Plan

Lessons Learned from the Band 1 Model Run Evaluation

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Andrew LoSchiavo, Everglades Partners Joint Venture (Contractor/Presenter)
Jim Vearil, U.S. Army Corps of Engineers (Planning Team Chair)
Agnes McLean, Everglades National Park (Planning Team Chair)
Lisa Cannon, South Florida Water Management District (Planning Team Chair)
Overview

• Background of CERP System-wide Planning
• Incorporating System-wide Planning for CERP
• CERP System-wide Planning efforts
• Band 1 Example
• Lessons Learned
• Potential Band 1 Implications
• Conclusions
Background

- CERP Developed Through System-wide Plan Formulation
- Uncertainties Identified for the Large Scale Ecosystem Restoration Planning and implementation
- Adaptive Management Incorporated Into CERP
- System-wide Planning Incorporates New Information To Improve CERP
Incorporating System-wide Planning for CERP

• Comprehensive Planning to:
  – Address ecosystem restoration and learning benefits
  – Managed system constraints
  – Policy/management constraints

• System-wide Planning Activities Include:
  – Periodic system-wide modeling updates
  – Integration of new information into plan
  – Periodic review of comprehensive plan performance
  – CERP updates
Current System-wide Planning Efforts

• Initial CERP Update
• Master Implementation Sequence Plan
• Band 1
• CERP A Refinement
Band 1 Task Background

- South Florida Ecosystem Restoration Working Group (SFER) request
- Model Master Implementation Sequence Plan (MISP) Band 1 projects
- Integrated Delivery Schedule (IDS) (July 2007) updated the schedule to around 2015
Band 1 Projects
Band 1 Model Runs Compared

- **ECB EAA: Existing Conditions Base**
- **2015 BS: 2015 Future Without CERP Projects**
- **2015 Band 1: Includes First CERP Projects Using Rain Driven Operations (RDO)**
Example System-Level Performance Constraints/ Assumptions

- Rain Driven Operations
- Some Targets are Inconsistent with Natural Systems Model
- Hydrologic Conditions for Cape Sable Seaside Sparrow
- Limited Stormwater Treatment Area (STA) flows South
Lessons Learned

• Clear Goals and Objectives

• Clear Statement of Model and Planning Assumptions:
  – Collectively agree on what planning documents should be used
  – Set cut-off dates for model assumption changes
  – Coordinate closely with project managers
  – Different assumptions will lead to different results

• Provide Continuous Feedback to CERP Managers
Preliminary Band 1 Model Evaluation

Implications

- Regional Groupings of Projects Provide Measurable Results
- Need Total System PMs and Regional Prioritization Methods
- Preliminary Band 1 Results Demonstrate Need to:
  - Store more water,
  - Address water quality, and
  - Correctly determine timing of sending water South
Conclusions

• **System-wide Planning:**
  - Important role in CERP implementation
  - Important component of CERP’s AM Strategy

• **Future system-wide planning efforts:**
  - Sea-Level Rise Sensitivity analysis (Climate Change)
  - System Operating Manual
  - Regional “Watershed Plan Formulation” planning efforts
  - Comprehensive Plan Modification Report, if ever necessary