

Updating the Central Everglades Planning Project Adaptive Management Plan: Application of Natural Resources Leadership Institute Techniques to a Unprecedented U.S. Army Corps of Engineers Process

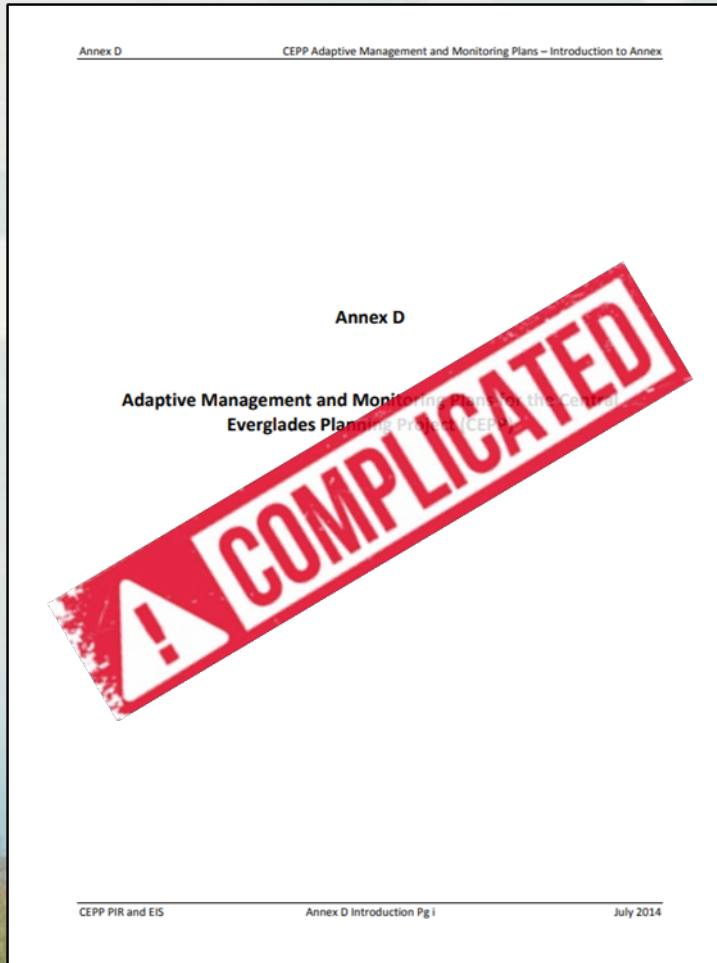
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Gainesville, FL
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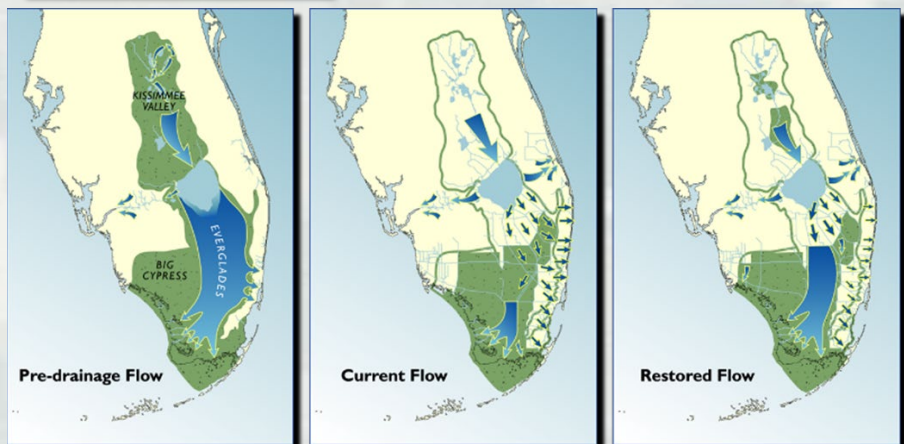
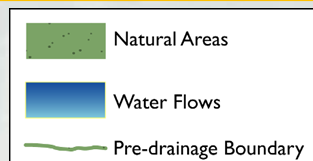
Presentation Outline



- Everglades Restoration Brief
- Adaptive Management Brief
- Meeting Orientation
- NRLI Techniques
- Outcome
- Lessons Learned



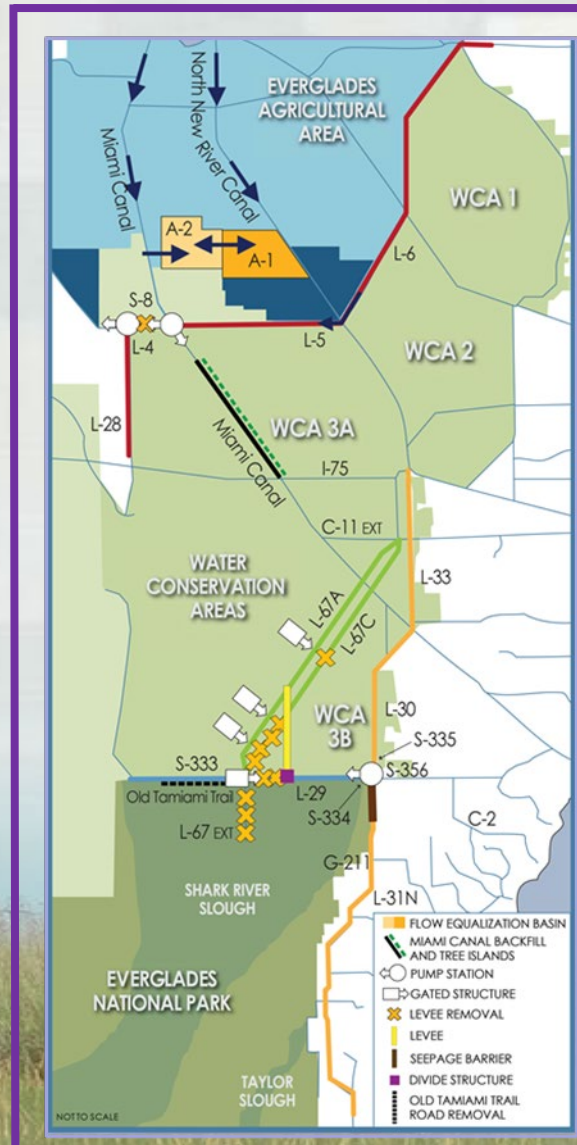
Restoring the Everglades



CERP Goals and Objectives

- 1** Enhance ecological values.
 - A** Increase the total spatial extent of natural areas.
 - B** Improve habitat and functional quality.
 - C** Improve native plant and animal species diversity.
- 2** Enhance economic values and social well-being.
 - A** Increase availability of fresh water (agricultural/municipal and industrial).
 - B** Reduce flood damages (agricultural/urban).
 - C** Provide recreational opportunities.
 - D** Protect cultural and archaeological resources and values.

CERP



CEPP Goals and Objectives

- 1** Enhance ecological values.
 - B** Restore seasonal hydroperiods and freshwater distribution to support a natural mosaic of wetland and upland habitat in the Everglades System.
 - B** 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.
 - B** Reduce high volume discharges from Lake Okeechobee to improve the quality of oyster and SAV habitat in the Northern Estuaries.
 - C** Reduce water loss out of the natural system to promote appropriate dry season recession rates for wildlife utilization.
 - C** Restore more natural water level responses to rainfall to promote plant and animal diversity and habitat function
- 2** Enhance economic values and social well-being.
 - A** Increase availability of water supply.
 - C** Provide recreational opportunities.
 - D** Protect cultural and archaeological resources and values.

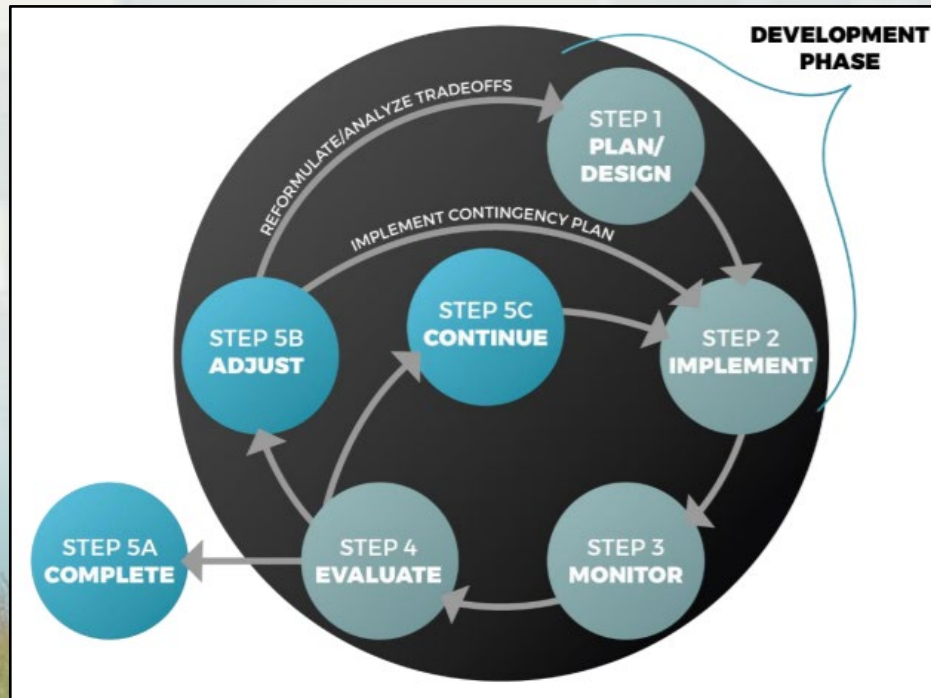
CEPP



Adaptive Management

- *A structured approach for addressing uncertainties by testing for best project designs and operations to achieve restoration goals and objectives, linking science to decision making, and adjusting implementation, as necessary, to improve the probability of restoration success*

- *A scientific process for continually improving management policies and practices by learning from their outcomes*

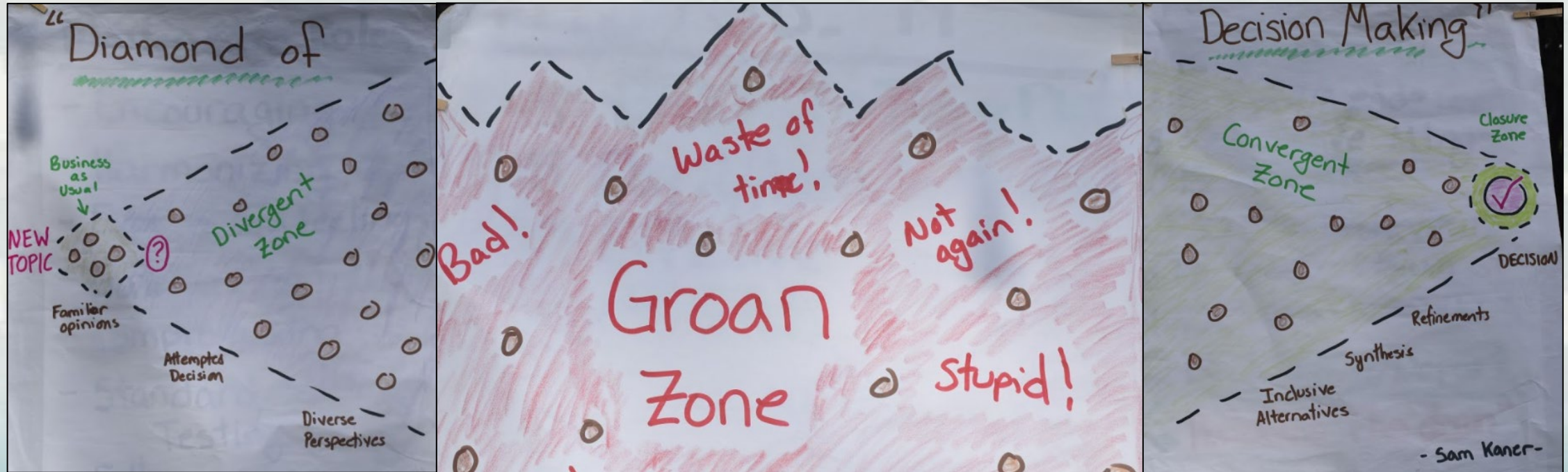


Adaptive management cycle for USACE ecosystem restoration projects

- **Two Phases**
 - Development: creation of an adaptive management plan
 - Implementation: put adaptive management plan into practice
- **Two Types**
 - Passive (adjust after project implementation)
 - Active (prior to project implementation)
- **Components**
 - Identify uncertainties
 - Develop adaptive management strategies
 - Determine monitoring parameters
 - Determine threshold
 - Identify management options for implementation



The Diamond of Decision Making



CEPP Adaptive Management (Pre-NRLI)

It all started with a memo...

MEMORANDUM

To:
Howard Gonzales Jr., (Chief, Ecosystem Branch, Programs & Project Management Division)
Andrew J LoSchiavo, (Restoration and Resources Section Chief, Planning and Policy Division),
RECOVER Executive Committee (REC):
Donna George; Gretchen Ehlinger; Laura Brandt; Agnes McLean and Phyllis Klarmann

From:
Decomp Physical Model (DPM) Leadership
Colin Saunders *CSS*; Sue Newman *SN*; Christa Zweig *CZ*; Fred Sklar *FS*

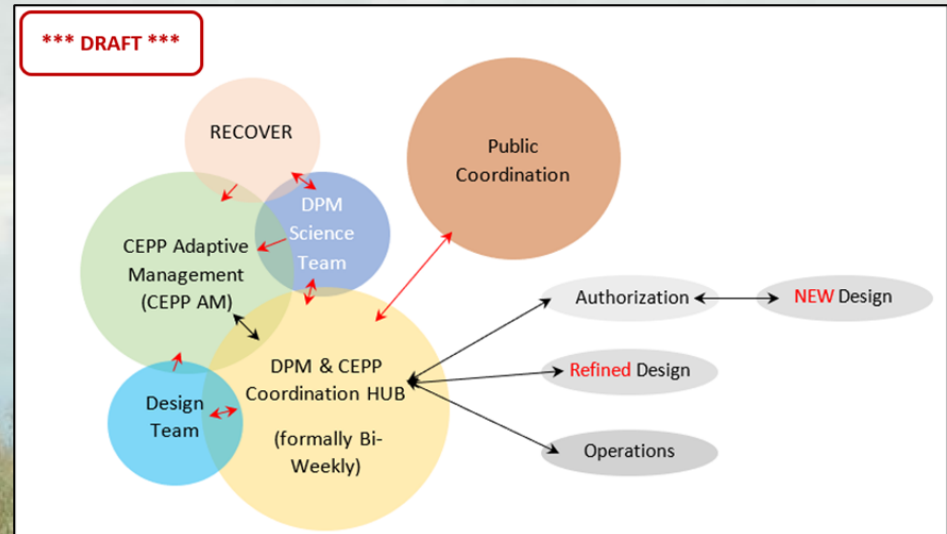
April 3, 2020

Dear Howie, Andy and the REC,



**Adaptive
Management
Lead**

CEPP PDT



Identifying and Organizing Stakeholders

Stakeholders:

- **Interagency**
 - DPM Science Team
 - CERP RECOVER Program
 - CEPP PDT
- **Governmental Agencies**
 - USACE
 - SFWMD
 - NPS
 - USFWS
 - FDEP
- **Tribal Governments**
 - Seminole Tribe of Florida
 - Miccosukee Tribe of Indians of Florida
- **Non-Governmental Organizations**
 - Florida Atlantic University
 - Florida International University
 - University of Florida

Needs/Interests:

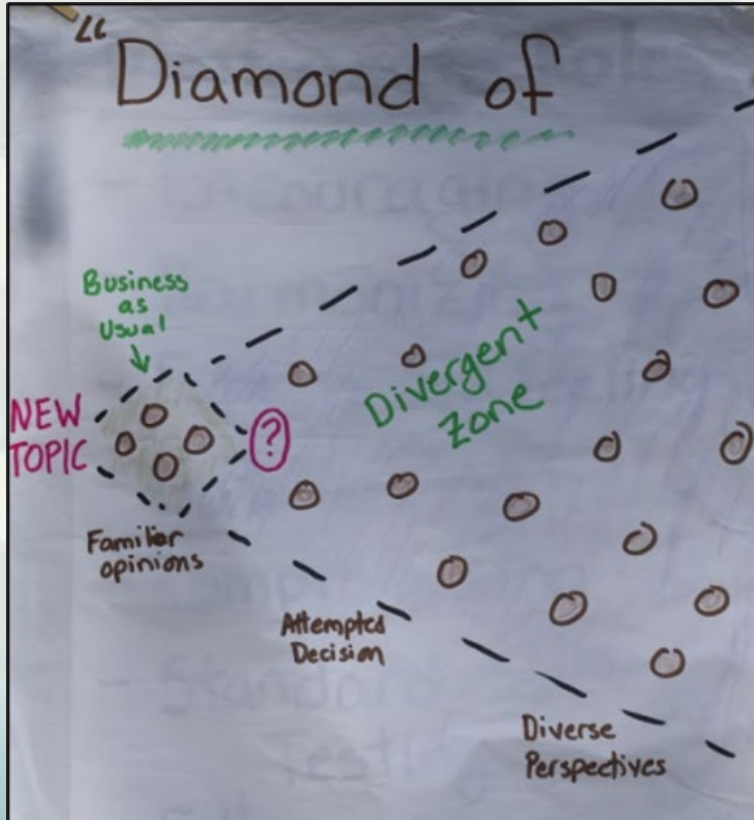
- **Ecological Benefits**
 - DPM Science Team
 - CERP RECOVER Program
 - USACE
 - SFWMD
 - USFWS
 - NPS
 - NGOs
- **Hydrological Benefits**
 - USACE
 - SFWMD
 - NPS
 - FDEP
 - Seminole Tribe of Florida
 - Miccosukee Tribe of Indians of Florida
- **Project Implementation**
 - CEPP PDT
 - USACE
 - SFWMD
 - Miccosukee Tribe of Indians of Florida

Power and Influence:

- **Decision-Making**
 - USACE
 - SFWMD
 - CERP RECOVER Program
 - CEPP PDT
- **Data/Recommendations**
 - DPM Science Team
 - USACE
 - SFWMD
 - NPS
 - NGOs
- **Land Owners**
 - NPS
 - Seminole Tribe of Florida
 - Miccosukee Tribe of Indians of Florida
- **Regulations**
 - USFWS
 - FDEP



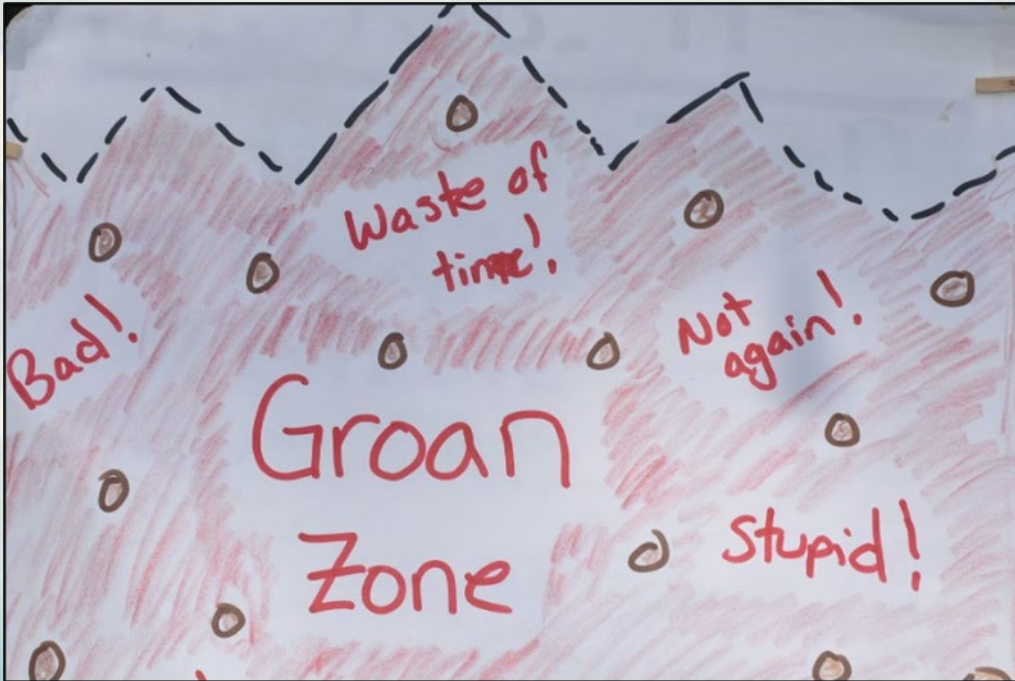
Guiding the Decision Making Process



- **Active Listening**
 - Numerous meetings provided the opportunity to listen to each stakeholder in order to ascertain their need and interest
- **Building Relationships and Understanding**
 - Team building through introductions
 - Outlining who the different stakeholders are and their role in Everglades restoration
- **Level the Playing Field**
 - Presentations on Adaptive Management
 - Review of the approved CEPP AM Plan
 - Review of “The Memo”



Guiding the Decision Making Process



Facilitation

- Organized the task of updating the CEPP AM Plan into working groups
 - Development of new AM recommendations for update
 - Created an overall CEPP AM update and check in meeting series
 - Created an CEPP AM update “drafting” team
- Process not content
 - Developed a process to identify steps for determining what AM recommendations to include and the levels of decision making to occur
 - Developed a draft schedule for the CEPP AM update based on different possibilities for submission



Guiding the Decision Making Process



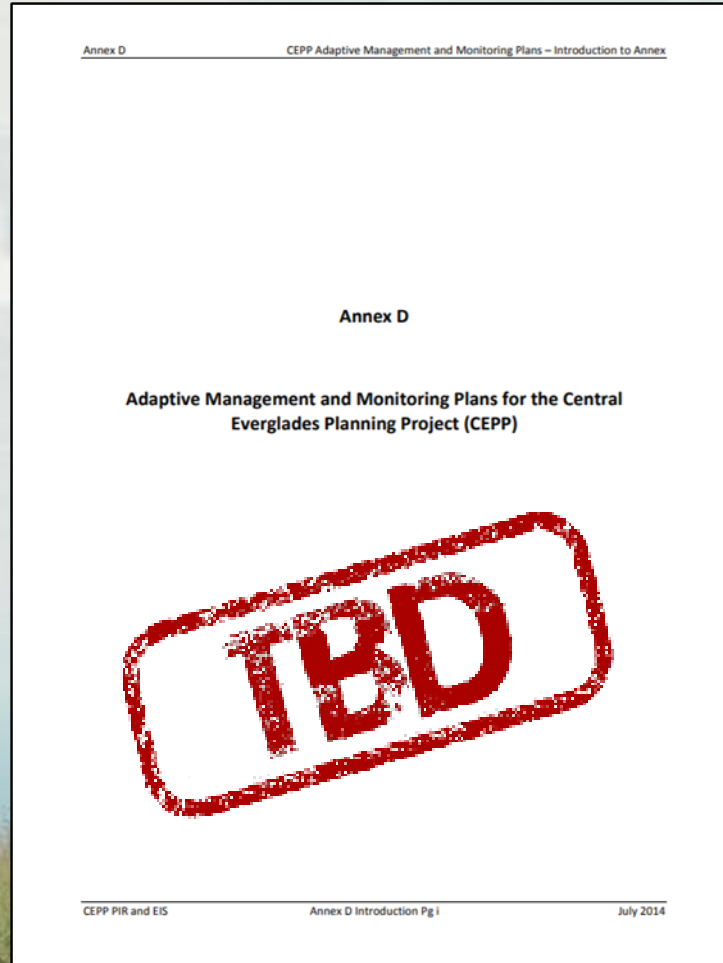
Understanding Power and the Decision Making Process

- Several types of power were present
 - Resource knowledge
 - Development of AM recommendations
 - Decision making

Integrative Negotiation

- Development of evaluation criteria
- Identifying costs
- Identifying timing and schedule
- Classifying AM recommendations
- Development of courses of action
- Identification of alternative approaches

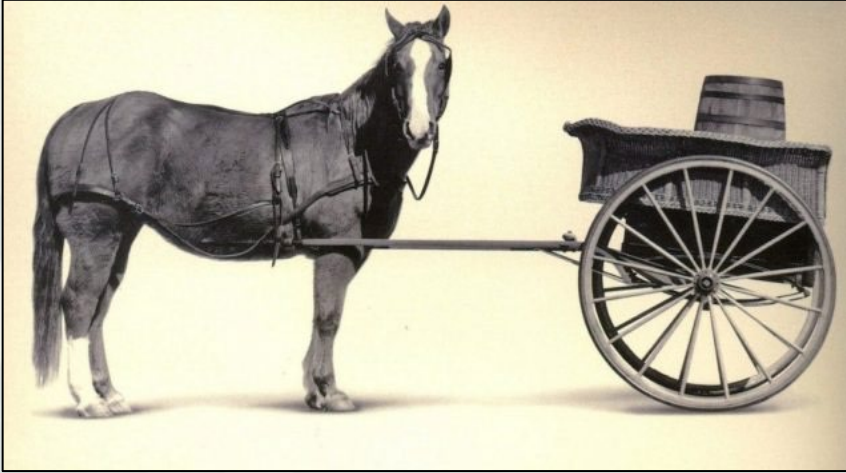
Outcome



and still



Lessons Learned



- The importance of timing
 - Process hindered by “typical” steps being out of order
- Understanding federal processes and requirements
 - Providing detail of the federal decision making process to other stakeholders
 - Stakeholder understanding of authority and final decisions
- Don’t wear so many hats
 - Most participants were representatives of multiple stakeholders
 - Hard to parse out identities, positions, and needs

- Politics are always present with government tasks
 - Holding on to information
 - EAA announcement
 - Timing: environmental conditions, prioritization
- “Aha” Moments
 - Separation of tasks/needs by smaller teams
 - Developing and presenting a process for how to make a decision on what AM recommendations to include
- What to do differently
 - Identify a process and procedure early on to provide clarity on the task ahead and how to do it
 - Prevent the cart from getting in front of the horse
 - In a normal world, work quicker with in person meetings; move task along more diligently
- Experience
 - Understanding the AM process much better
 - Development of a new federal process (updating an AM plan) – setting a precedent
 - Confidence that the skills obtained through NRLI improve communication, productivity, and relationships





Questions?

