



ASR Contingency Plan & Water Storage Optimization Study



July 2006 South Florida Ecosystem Restoration

Need for Reservoir Optimization Study

- During Restudy, Team optimized reservoirs within basins, but generally not across basins
- Concern that reservoirs may not be adequately optimized to meet overall CERP restoration goals in a cost-effective manner
- New information on basin run-off, topography, climate and water supply could impact cost and output

Need for ASR Contingency Study

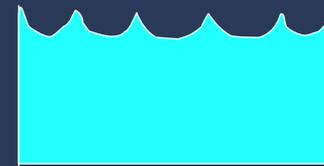
- ASR technology is an important contributor to the Plan's ability to meet CERP storage goals
- Uncertainties with ASR performance
- Identify effects to the Plan if no CERP ASR or only 50% ASR
- Identify options if ASR capacity is reduced

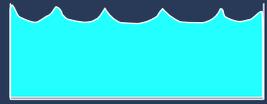
Scope of the Studies

- Phase I: Reconnaissance level efforts
 - Bottom line - determine if there is an issue that warrants more detailed study
 - No new modeling - water budget analysis only
 - No ecological benefit quantification or traditional cost or economic analysis - allocate ROM costs and volumes of water to appropriate benefit categories
 - No NEPA - not a decision document or reformulation
- Phase II: More detailed study, if necessary

Proposed Study Strategy

- Two studies carried out in staggered sequence:
 - Reservoir Optimization Report
 - Begin August 2006
 - Complete April 2007
 - ASR Contingency Report
 - Begin October 2006
 - Complete July 2007





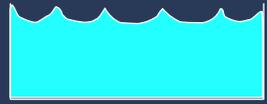
Reservoir Optimization Phase I

Goal

Verify that storage features in CERP are properly distributed (quantity and spatially) throughout the South Florida system

Answer the following questions:

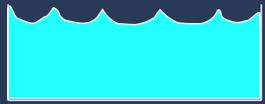
- Are CERP above ground storage reservoirs a cost-effective option to achieve the benefits of the Plan?
- Do we need to store more water in some areas and less in others?
- Do we need more total storage in the South Florida system?



Reservoir Optimization Phase I

Method:

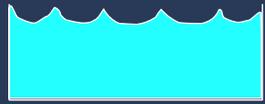
- Review new info that may affect reservoir cost-effectiveness
- Use D13R, 2050 Base and 2050B3 model runs to develop water budgets
- ID storage features & benefits provided
- Update ROM costs and cost/benefit
- Develop matrix of costs/benefits
- ID cost-effective within- basin options
- ID cost-effective inter-basin options



Reservoir Optimization Phase I

Method continued

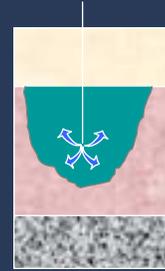
- Review updated water budgets from 2050B3
- Determine where more water may be needed
- Determine where feasible to store more water
- Determine the incremental cost of added storage



Reservoir Optimization Phase II

More detailed technical analysis, or
Comprehensive Plan Modification Report with
NEPA, depending on guidance from Corps and
SFWMD leaders

ASR Contingency Study Phase I



Goal

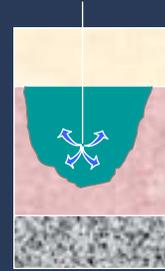
- Evaluate potential water storage and water supply options of reduced ASR capacity in the CERP

Study will answer the following:

- What new information have we gathered since the Restudy and how does it affect the ASR system?
- What are impacts to Everglades Restoration if the envisioned capacity is not available? Consider 0% and 50% ASR
- What options exist to replace capacity and function?

ASR Contingency Study

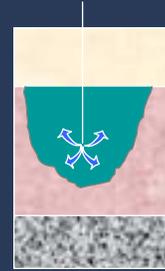
Phase I



Method:

- Review new information and determine how it may affect ASR system
- Conduct limited D13R modeling to determine how much storage volume ASR provides in D13R and how much storage would be reduced if ASR reduced to 50% and 0%
- Determine the impacts of those scenarios on plan performance
- Determine options to offset performance impacts

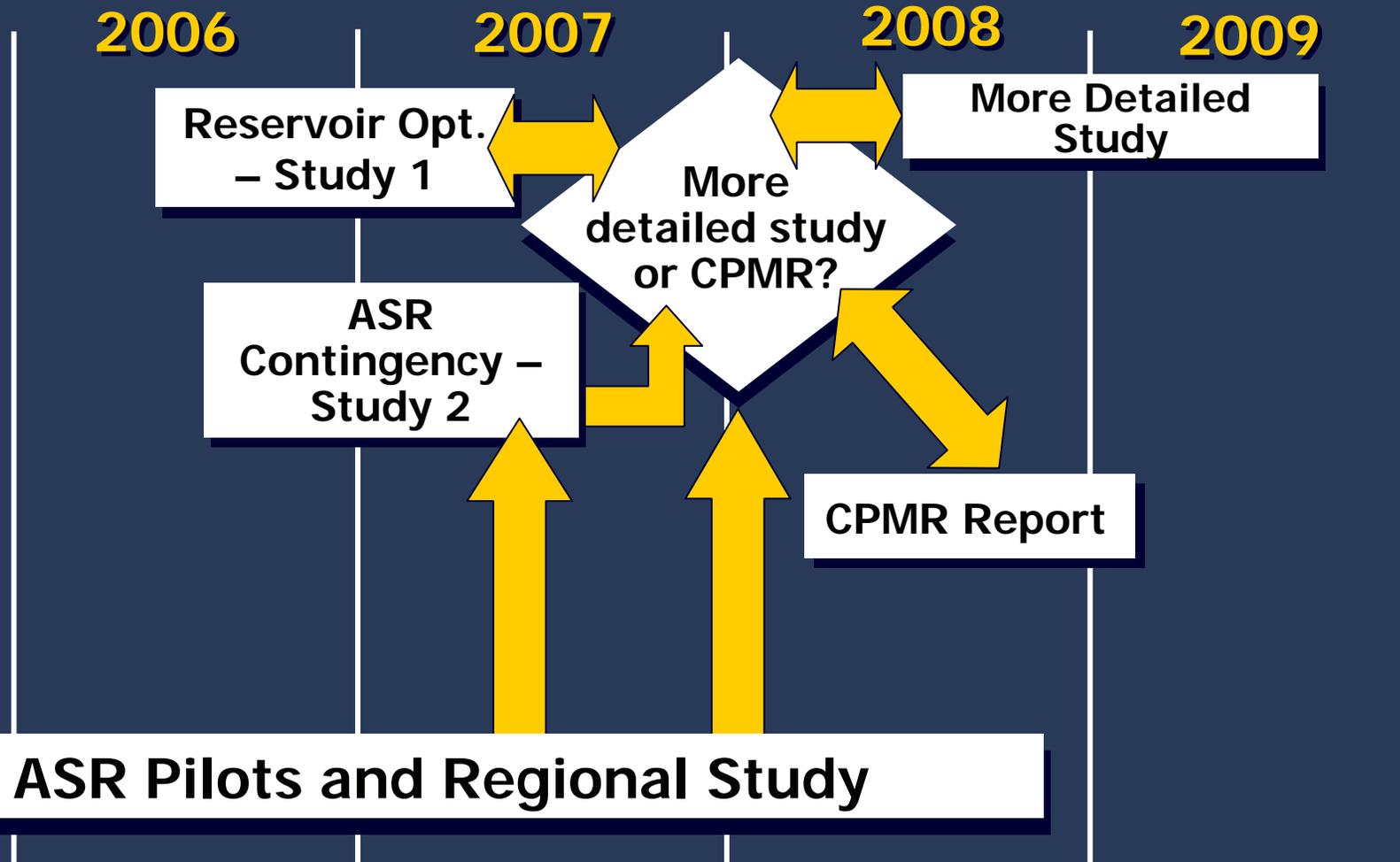
ASR Contingency Study Phase II



More detailed technical analysis or
Comprehensive Plan Modification Report
with NEPA, depending on guidance from
Corps and SFWMD leaders

General Schedule Logic

Calendar Year



Reservoir Optimization and ASR Contingency Study - Update

Draft Schedule

- White Paper/PGM draft completed and sent to Vertical Teams for review - July 06
- PMP complete - July 06
- Reservoir Optimization Study Begins - Aug 06
- ASR Contingency Study Begins - Oct 06
- Reservoir Optimization Study Complete - April 07
- ASR Contingency Study Complete - July 07
- Key Assumptions:
 - WP/PGM approved in July 06
 - PMP approved in July 06
 - No new modeling - use D13R, 2050 Base and 2050B3 model runs for Reservoir Optimization Study