ASR Contingency Plan Options
Comprehensive Everglades Restoration Plan

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Historical Perspective

- ASR was added into the CERP in several increments through screening and plan formulation
- Lake O ASR was identified through early screening analyses to provide additional storage for use during dry times to meet regional water supply demands and enhance flood protection
- Lake O ASR also moderated high and low lake levels, and helped reduce discharges to the estuaries
- C-51 was the first LEC basin to have ASR facilities planned, followed by L-8, the PBC Ag reserve reservoir and Site 1
- LEC ASR increased efficiency of reservoirs and allowed the capture of additional water lost to tide

ASR Contingency Plan

- Back-up plan in case the full-scale CERP ASR Program cannot be implemented
- Evaluate alternative storage options to achieve similar performance as CERP ASR
- Began November 2004
- Draft plan(s) to be prepared and presented to WRAC, Governing Board, Task Force

Benefits of CERP ASR

- Moderated high and low Lake O levels
- Long-term storage for downstream uses
- Substantially decreased damaging discharges to Caloosahatchee and St. Lucie estuaries
- Increased efficiency of reservoirs in Lower East Coast

CERP ASR Issues

- Effects on Floridan aquifer users and overlying aquifers/confining units
- Geochemical effects of underground storage (e.g., arsenic)
- Water quality and ecological effects of recovered water
- Recoverability
- Public perception
- Capital and operating costs

Toolbox – Potential Options to ASR

- Additional surface storage, e.g., Kissimmee Basin
- Forward pumps, Lake Okeechobee
- Floridan aquifer – reverse osmosis treatment
- Desalination
- Reclaimed water

Additional Surface Storage, Kissimmee Basin

- Locate along Kissimmee River / Chain of Lakes
- This storage is in addition to that already proposed in CERP
- Reduces flows to Lake Okeechobee during wet periods
- Solicit landowners to “farm” water
- Build additional deep reservoirs

Forward Pumps, Lake Okeechobee

- Restudy assumed no water deliveries when Lake O < 10.2 feet
- Allows us to operate Lake O at lower average level – ecologically desirable
- Estimated Cost -- $50 million (includes pumps, structural improvements, canal conveyance improvements, etc.)

Reverse Osmosis - Desalination

- Option of converting emergency RO facilities (e.g., FKAA) to full-time use
- Seawater source -- learn from Tampa Bay water experiences re: pretreatment, financing, etc.
- Advances in membrane technologies continue, resulting in declining capital costs
- Brackish water source from Floridan aquifer wells results in lower capital and energy costs

Reclaimed Water

- LEC has the greatest potential for reclaimed water use -- over 600 mgd of wastewater available today
- Extensively used elsewhere in Florida without the benefit of a regional canal system
- Canal Recharge Feasibility Study – currently underway w/FDEP
- Issues
  - Permitting Issues (nutrient loading)
  - Emerging pollutants of concern
  - Public Perception

Thank You

Questions?