



STAs and Related Projects Update



Quarterly Meeting of the
Technical Oversight Committee

February 26, 2008

Tracey Piccone, P.E.
South Florida Water Management District

**Everglades Protection Area Tributary Basins
Long-Term Plan for Achieving Water Quality Goals**



EAA Reservoir A-1



- GMP1 - Construction is completed (\$10M under budget and savings to be applied to GMP4)
- GMP2 – Rock processing plant in production.
- GMP3 – Remainder of seepage canal 75% complete.

**Everglades Protection Area Tributary Basins
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EAA Reservoir A-1



Rock Processing GMP2



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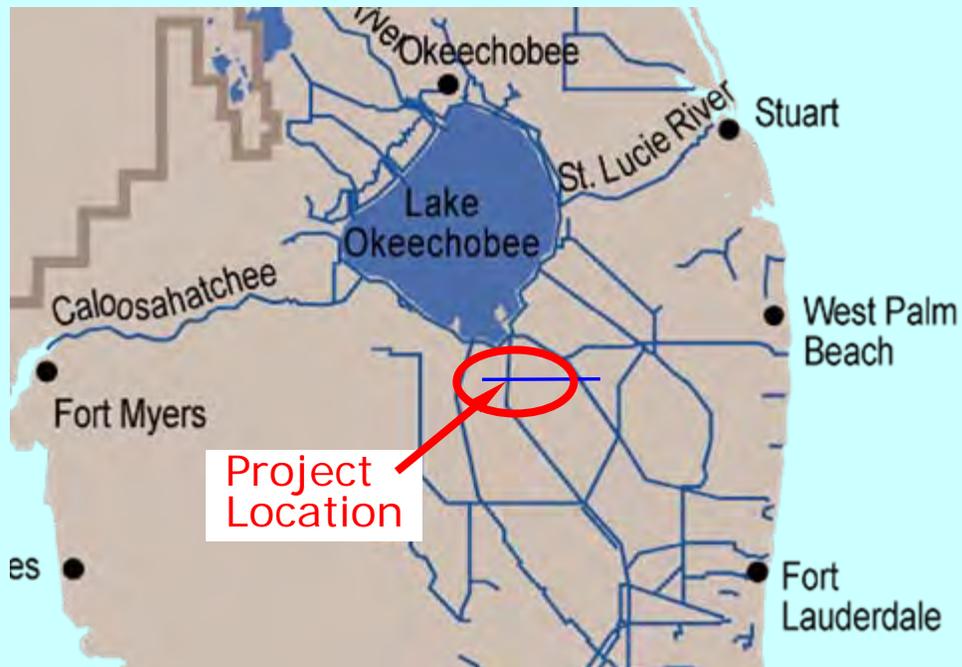
EAA Reservoir A-1



- Accomplishments to date:
 - Mobilization, and 3 miles initial seepage canal completed and addition of 1 mile of muck removal (GMP 1) .
 - Rock Mining aggregate production under way (GMP 2)
 - Remaining work on seepage canal 75% complete (GMP 3)
- What's next:
 - Issue NTP for embankment construction (GMP 4)
 - Initiate pump equipment procurement



Bolles (L-21) Canal Improvements



- Basis of Design Report complete
- Initiating Preliminary Design
- Preliminary Design scheduled for completion in December 2008.

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Compartment B – Phase 2

Compartment B Build-out



- **Accomplishments to date:**
 - **Completed Survey work (topographic & boundary)**
 - **Completed Geotechnical Data Collection**
 - **Completed Final Basis of Design Report**
 - **Completed Preliminary Design-Civil Works**
 - **Completed Preliminary Design-Pump Stations**

- **What's next:**
 - **Complete Intermediate Design-Civil Works**
 - **Complete Intermediate Design-Pump Stations**

- **Construction Completion**
 - **Civil Works 2010**
 - **Pump Stations 2011**



Compartment C STAs



Purpose: The development of additional Stormwater Treatment Area (STA) to further improve the quality of water discharging to the Everglades Protection Area (EPA) by assisting with the redistribution of flows and loads to the STA system.

Completed

- Phase 1 – Initial Expansion
- STA-5 Flow-way 3 (1,985 Acres of Treatment Area)
- STA-6 Section 2 (1,387 Acres of Treatment Area)

Under Design

- Phase 2 - Build-out
- Compartment C Build-Out (6,200 Acres of Project Area)

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Compartment C – Phase 2

Compartment C Build-out



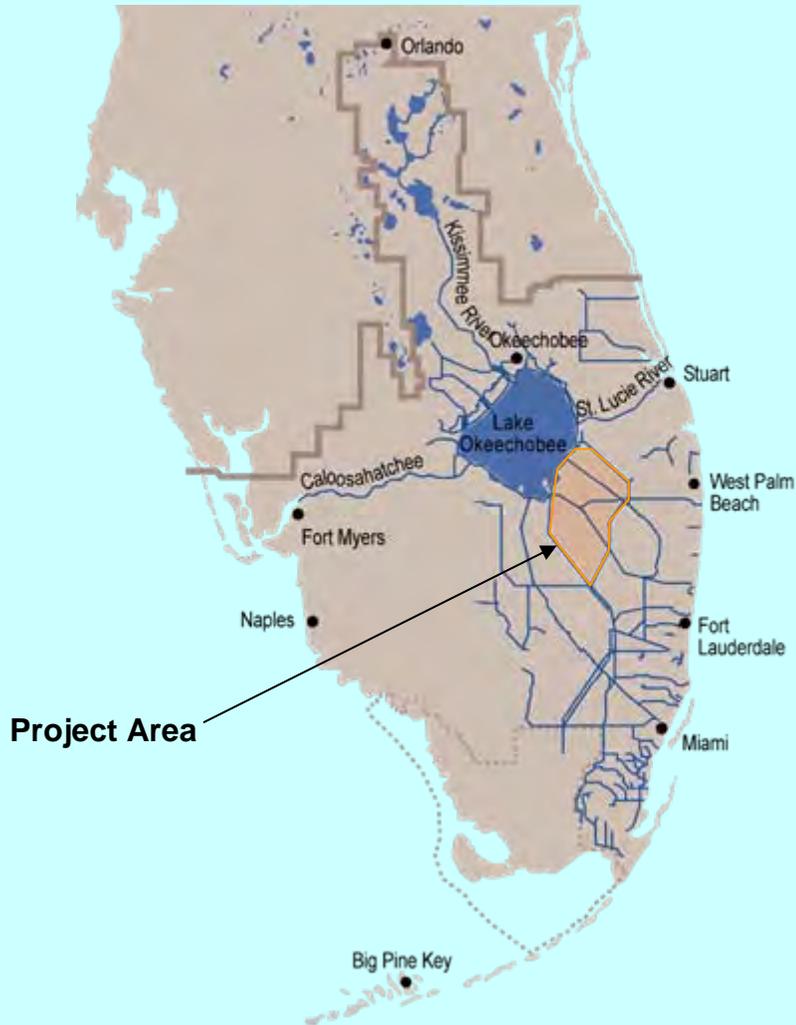
- **Accomplishments to Date:**
 - **Completed Preliminary Survey Work (topographic & boundary)**
 - **Completed Preliminary Geotechnical Data Collection**
 - **Completed Compartment C Watershed Hydraulic Study**
 - **Completed Final Basis of Design Report**
 - **Completed Preliminary Design-Civil Works**

- **What's Next:**
 - **Complete Intermediate Design-Civil Works**
 - **Complete Preliminary Design-Pump Station**

- **Construction Completion**
 - **Civil Works 2010**
 - **Pump Station 2011**



EAA Conveyance and Regional Treatment (ECART) Project



Project Purpose:

Redistribution of flows and loads to optimize the performance of the existing and expanded STAs to improve water quality in the EPA.

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EAA Conveyance and Regional Treatment (ECART) Project



EAA RFS Alternative 1

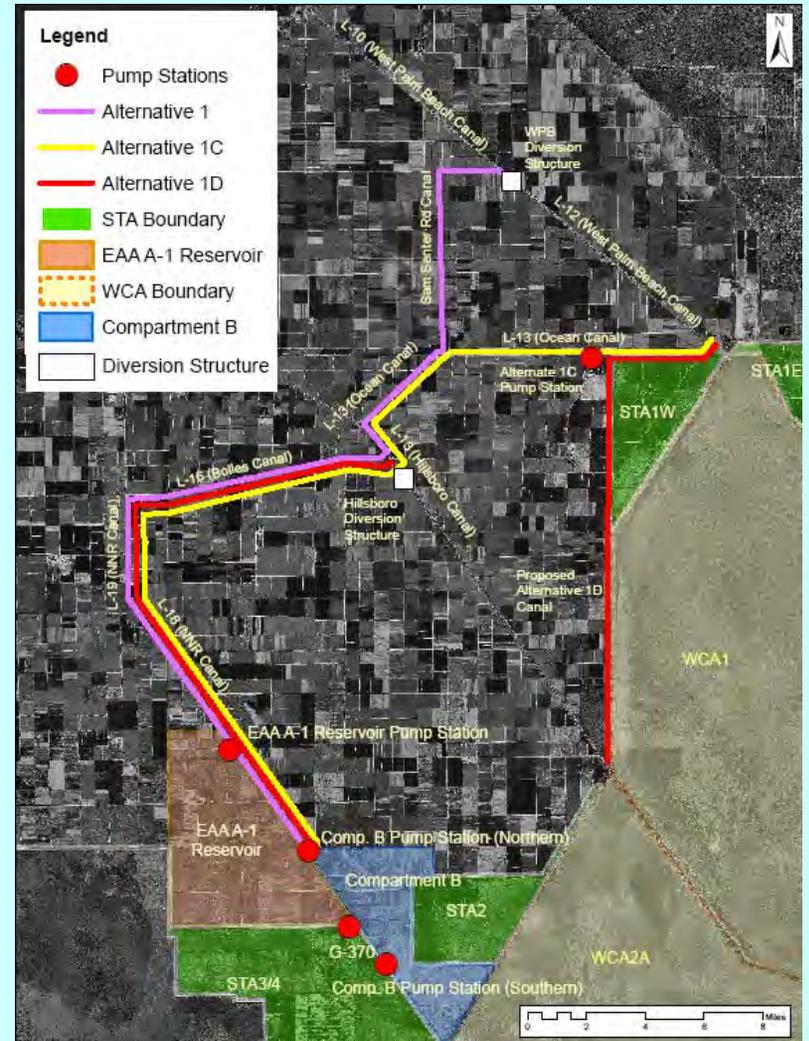
- 40 miles of canal work
- New structure at West Palm Beach Canal
- New structure at Hillsboro Canal
- 1,354 acres of land acquisition

Alternative 1C

- Delete new structure at West Palm Beach Canal
- Delete connection from West Palm Beach Canal to Sam Senter Canal
- New 800 cfs pump station on Ocean Canal
- Improvements to Ocean Canal
- 870 acres of land acquisition

Alternative 1D

- Delete new structure at West Palm Beach Canal
- Delete connection from West Palm Beach Canal to Sam Senter Canal
- No improvements to Hillsboro and Ocean Canals
- New canal from Ocean Canal to Hillsboro Canal
- 1,208 acres of land acquisition



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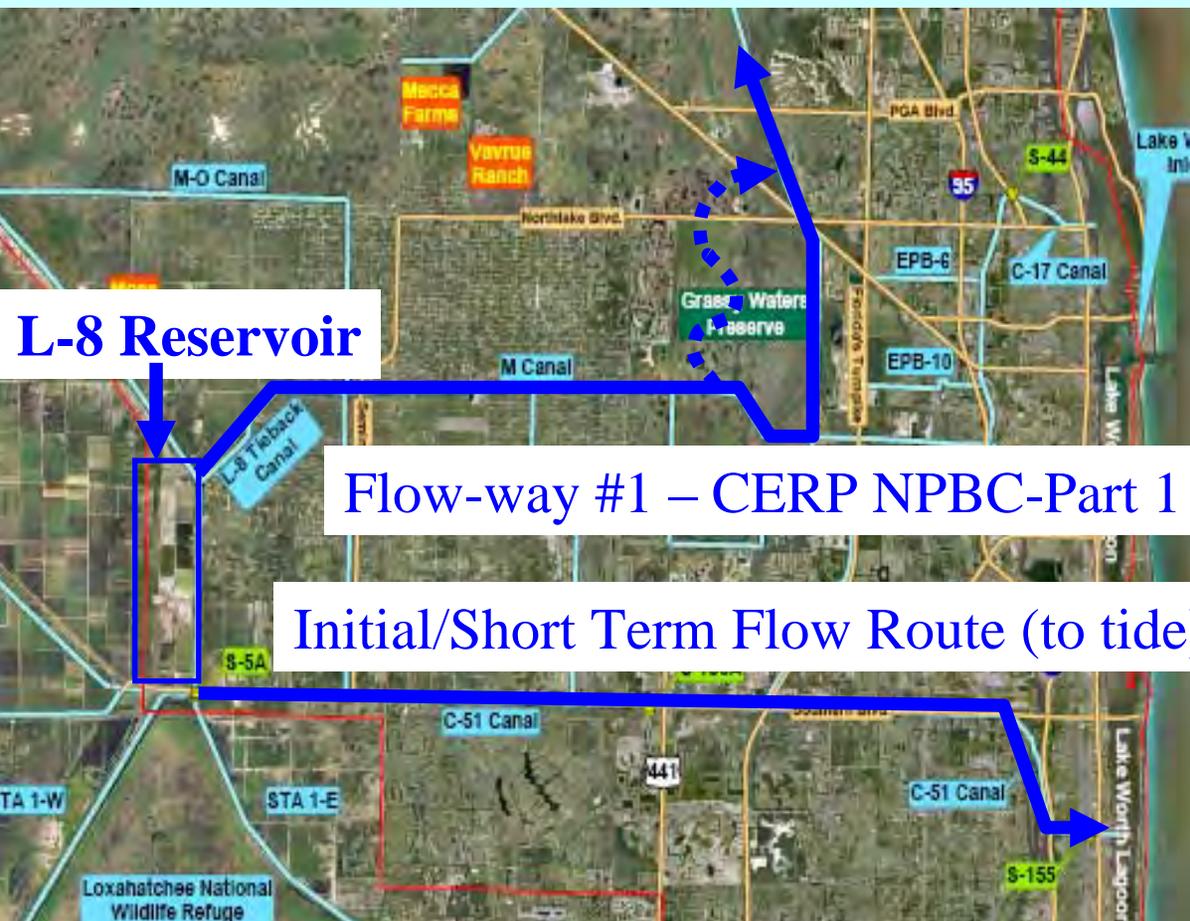
EAA Conveyance and Regional Treatment (ECART) Project



- Accomplishments to Date:
 - Completed Feasibility Analysis of Alternatives 1C & 1D
 - Initiated Preliminary Survey
 - Initiated Environmental Sampling Scope of Work Development
 - Initiated Preliminary Geotechnical
- What's Next:
 - Complete Preliminary Geotechnical
 - Complete Preliminary Survey



L-8 Basin Project



- L-8 Reservoir will be used to store peak flows from L-8 Basin during storm events
- Post-storm releases from L-8 Reservoir would primarily be routed to C-51 Canal to Lake Worth Lagoon at low rates



L-8 Reservoir Pumps Status



Permanent Outflow Pump Station

- Draft Conceptual Design Report under review
 - Discusses alternative layouts and locations
- Final Report to follow
 - Will include cost and schedule estimates for recommended plan

Temporary Outflow Pumps

- Permit obtained for 150 cfs outflow capacity
- 75 cfs pump in place now
- Request For Bids (RFB) for supply, installation, rental and operation for an additional 75 cfs pump released
- RFB closing date is 7 Mar 08
- Anticipated operational date is 30 Apr 08



STAs and Related Projects Update



STA Drought Strategies



Background



- During 2007 drought, priorities were set for STA hydration
- Minimum stage recommendations were established to protect vegetation and improve long-term ability to treat water
- Record low Lake Okeechobee levels and drought conditions were expected to continue
- In preparation for 2008 drought, standard operating procedures, priorities, and strategies were developed for the STAs for drought conditions



General Approach



- Focus is on SAV cells
- Prioritize water among STAs
- Prioritize water needs among cells within each STA
- Identify possible scenarios for hydrating STAs
- Identify STA rehabilitation activities to take advantage of dry-out
- Identify where temporary pumps would be beneficial to keep cells hydrated



General Guidelines



- Prioritization and hydration strategies based on several factors, including:
 - Elevation differences between cells resulting in increased seepage losses
 - Current cell performance and vegetation conditions
 - Potential for infestation by exotic vegetation if cell dries out (proactive control activities)



General Guidelines



- Need to consider migratory, ground nesting birds when evaluating operational options
- If drought worsens and minimum stages in SAV cells cannot be met, recommend that agricultural allocations be ceased during withdrawals from the District's canals for hydration of the SAV cells



Summary



- Recommendations in document are general guidelines and could change as often as weekly given specific circumstances
- Requires on-going assessment of various factors including water quality, nesting birds, and the status of rehabilitation activities and opportunities
- Some STA cells may be allowed to dry out to keep others hydrated
- Increased target stages (by 6 inches) in SAV cells were implemented in September 2007 to preserve as much water as possible prior to the dry season



STA-1E and STA-1W



SAV in STA-1W Cell 4



Decomposing Biomass in STA-1W Cell 3

- All cells in both STAs are at or above target stage
- Significant SAV growth throughout all rehabilitated cells in STA-1W
- Conversion effort in STA-1W Cell 3 continues



STA-2



- Cells 1, 2, and 3 are at or above target stage
- Cell 4 at target stage
- SAV grow-in phase continues
- First discharges occurred week of February 18, 2008

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STA-3/4



Emergent Cell in STA-3/4



STA-3/4 PSTA Cells

- All Cells in STA-3/4 are at or above target stage
- PSTA Cells currently at target stage
- Outflow pumping discontinued during drought conditions

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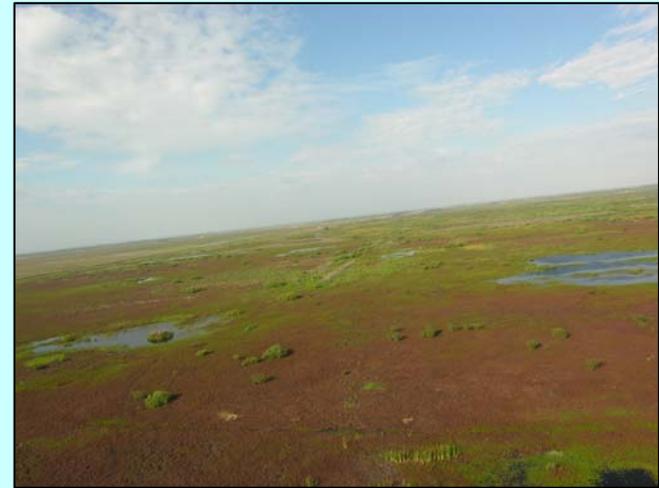
STA-5



STA-5 Emergent Cells



Cell 1A



Cell 2A

- Cell 1A is below minimum stage
- Cell 2A is at or below minimum stage
- Cell 3A is below target stage - no flow through



STA-5



STA-5 SAV Cells



Cell 1B hydrated



Exposed ground in Cell 2B

- Cell 1B is between target stage and minimum stage
- Cell 2B is at or below minimum stage
- Cell 3B is below minimum stage – no flow through



STA-6



Cell 5



Cell 3

- Cells 3 and 5 are below target stages
- Section 2 at or below target stage – no flow through



Meeting Notice



Fifth Annual Public Meeting on Implementation Progress of the Long-Term Plan

Friday February 29, 2008

South Florida Water Management District
Headquarters

Building B-1, Storch Room

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