



STAs and Related Projects Update



Quarterly Meeting of the Technical Oversight
Committee

February 27, 2007

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

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



STA Performance Data

Updated 2/20/07 - Contains Preliminary Data



- **STA-1E (9/2004 – 1/2007)**
 - Average inflow = 217 ppb
 - 26 m tons removed; average outflow = 125 ppb
- **STA-1W (8/1994 – 1/2007)**
 - Average inflow = 163 ppb
 - 337 m tons removed; average outflow = 55 ppb
- **STA-2 (7/1999 – 1/2007)**
 - Average inflow = 106 ppb
 - 183 m tons removed; average outflow = 21 ppb
- **STA-3/4 (10/2003 – 1/2007)**
 - Average inflow = 120 ppb
 - 222 m tons removed; average outflow = 19 ppb
- **STA-5 (9/1999 – 1/2007)**
 - Average inflow = 235 ppb
 - 160 m tons removed; average outflow = 106 ppb
- **STA-6 (10/1997 – 1/2007)**
 - Average inflow = 80 ppb
 - 36 m tons removed; average outflow = 20 ppb



STA-1W Enhancements



Cell 1A/1B levee 75% complete



Work Complete:

- **Cell 2A/2B levee**
- **G-255, G-307, G-249 A-H structures**
- **G-327B Pump Station**
- **G-304 Automation**
- **Cell 5 rehabilitation**

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STA-1W Enhancements



Cell 1A/1B levee:

- **G-248 A-D structures
concrete work complete**

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STA-1W Enhancements



- Cells 1A/1B & 3 drawdown ongoing
- Started Cell 1B tussock removal
- Started vegetation management activities

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STA-1W Enhancements



- **Cell 3 Flow-way cuts complete**
- **26 – 100' x 75' cuts**
 - **5 located south of the G-253 Levee**
 - **9 located along C-6 Canal**
 - **12 located east of Structure G-307**

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



EAA Reservoir A-1



Seepage Canal - Phase 1 Construction

Information source – Feb. 2007 Acceler8 Update

Contractor: Barnard-Parson JV

Consultant CM: Parsons

A8 Construction Manager: Will Wing

- **Construction Start: August 24, 2006**
- **Final Completion: Sept. 17, 2007**
- **Construction Contract: \$ 53.7 Million**
- **Change Orders: \$ 0**
Total: \$ 53.7 Million

Percent Complete (\$): 40%

Percent Complete (days): 41%

Major Issues To Date: None



EAA Reservoir A-1



Seepage Canal – Phase 1 Construction



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



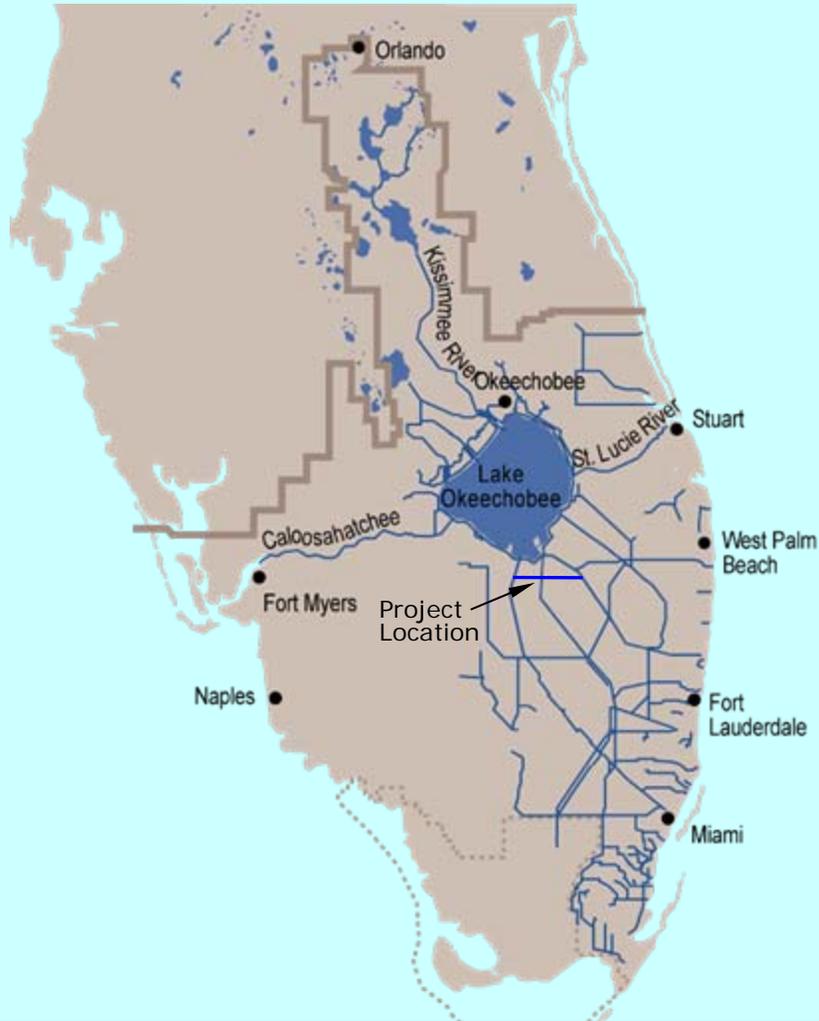
EAA Reservoir A-1



- Accomplishments to date:
 - Completed design components
 - Seepage Canal – Phase 1
 - Seepage Canal – Phase 2
 - Pump equipment specifications
 - Initiated negotiation of pump equipment
 - Initiated construction
 - Seepage Canal – Phase 1
 - Rock processing
 - Initiated design components
 - Dam
 - Pump station
 - US27 Bridge
- What's next:
 - Initiate construction of Seepage Canal – Phase 2
 - Pre-purchase pumping equipment



Bolles and Cross Canal Improvements



Project Objective: The enlargement and improvements to the canals will provide an increase in flood protection and the inter-basin transfer of water. Through the increased conveyance of water in the system, the operation of the STAs and EAA Reservoirs will be optimized.

**Everglades Protection Area Tributary Basins
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Bolles and Cross Canal Improvements



Accomplishments to date:

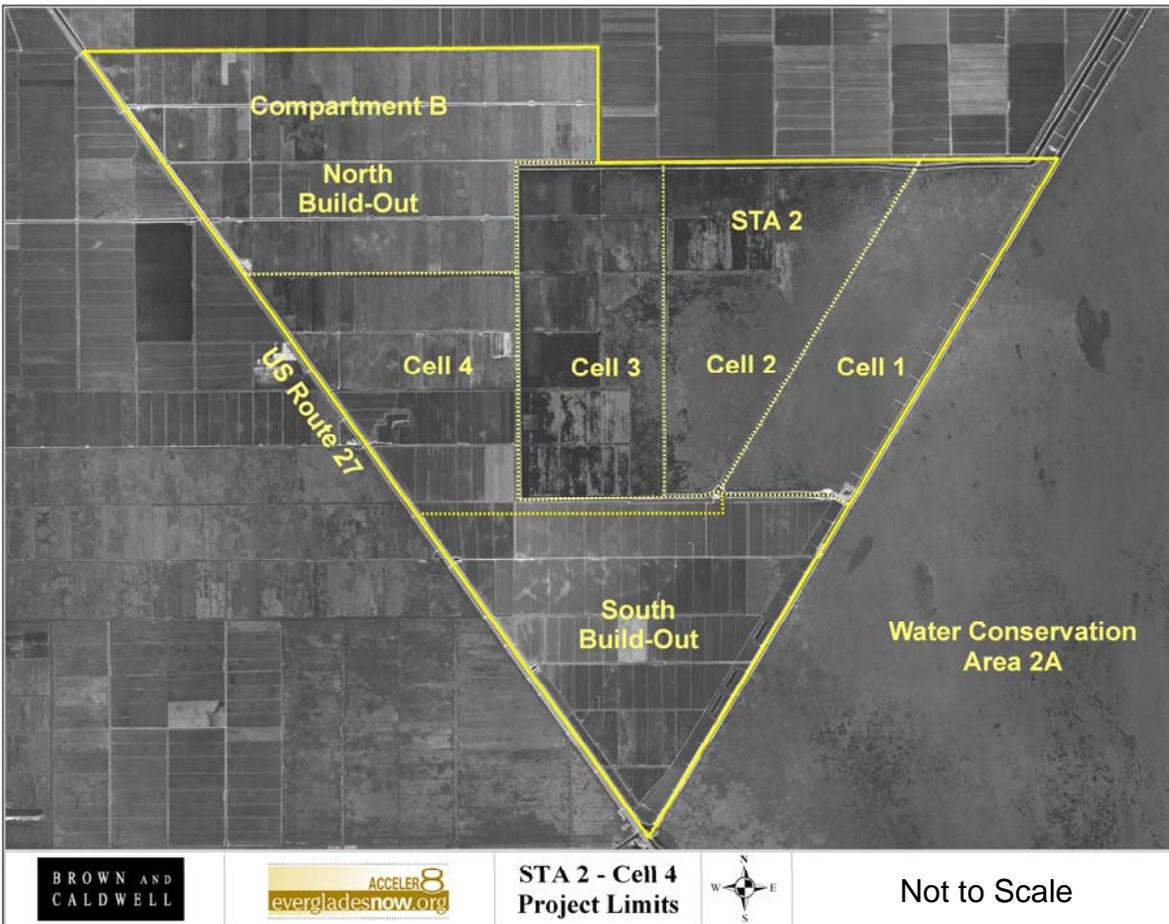
- Completed preliminary survey
- Completed Draft Basis of Design Report (BODR)
- Initiated Draft BODR Technical Review

What's next:

- Finalize the BODR
- Initiate Scope Development for Preliminary Design



Compartment B STAs



Purpose: Construct 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.

Phase 1 – Initial Expansion
STA-2 Cell 4 (2,000 Acres)

Phase 2 - Build-out
Compartment B Build-Out (7,500 Acres)

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



Compartment B

STA-2 Cell 4



Contractor: Gulf Group
Consultant CM: Brown & Caldwell
A8 Construction Manager: Marty Braun

- **Design: April 28, 2005 – Oct 4, 2005**
- **Construction Start: Jan 11, 2006**
- **Flow Capable: Nov 11, 2006**
- **Final Completion: July 23, 2007**
- **Construction Contract: \$ 18.7 Million**

Percent complete (\$): 89%

Percent complete (days): 68%



INFORMATION SOURCE:

FEB 2007 ACCELER8 CONSTRUCTION UPDATE

Everglades Protection Area Tributary Basins
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Compartment B – Phase 2

Compartment B Build-out

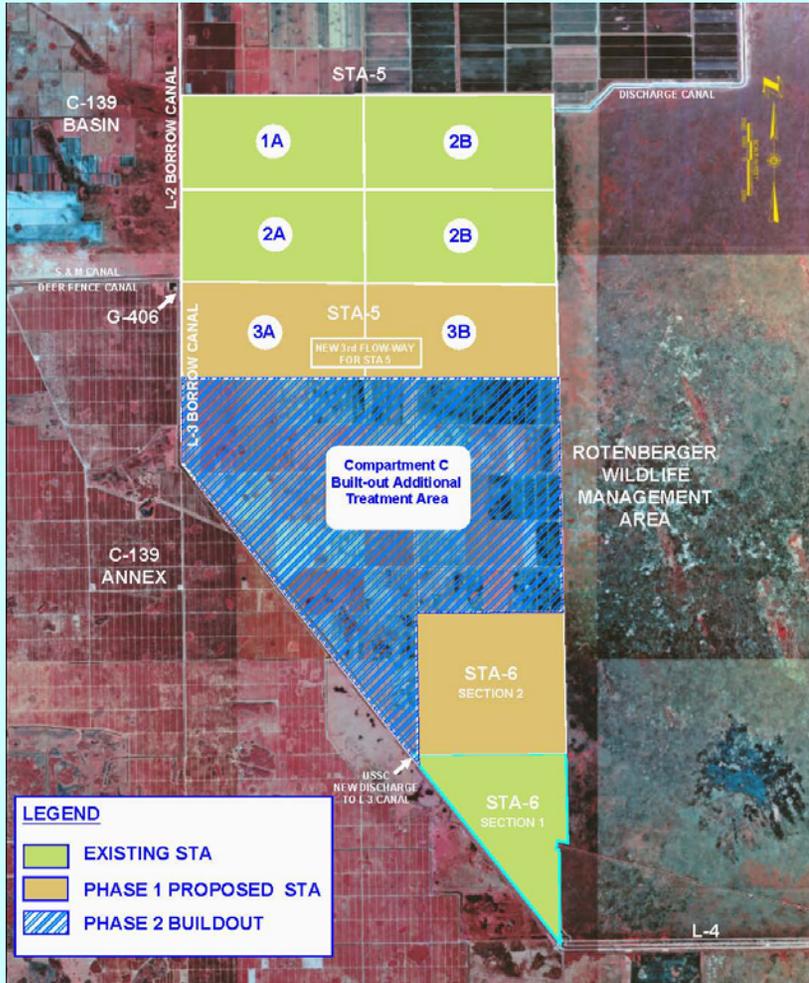


- **Accomplishments to date:**
 - **Completed preliminary survey work (topographic & boundary)**
 - **Completed preliminary geotechnical data collection**
 - **Initiated Basis of Design Report**
 - **Site investigations**
 - **Design criteria development**
 - **Hydrologic & hydraulic analysis**
 - **Project layout & evaluation of alternatives**
 - **Conceptual project features design**
 - **Conceptual level opinion of probable cost**
 - **Supporting engineering analysis**

- **What's next:**
 - **Complete Draft BODR**
 - **Initiate technical review**
 - **Initiate stakeholder involvement process**



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.

Phase 1 – Initial Expansion

STA-5 Flow-way 3 (2,400 Acres)

STA-6 Section 2 (1,400 Acres)

Phase 2 - Build-out

Compartment C Build-Out (6,400 Acres)



Compartment C – Phase 1 STA-5 Flow-way 3



Contractor: Interlaken
Consultant CM: URS
A8 Construction Manager: Miguel Cruz

- **Design: Feb 7, 2005 – Oct 28, 2005**
- **Construction Start: Jan 19, 2006**
- **Flow Capable: Nov 21, 2006**
- **Final Completion: Apr 25, 2007**
- **Construction Contract: \$ 12.9 Million**

Percent complete (\$): 96%

Percent complete (days): 81%



INFORMATION SOURCE:
FEB 2007 ACCELER8 CONSTRUCTION UPDATE

**Everglades Protection Area Tributary Basins
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STA-6 Section 2



Contractor: Harry Pepper & Assoc.
Consultant CM: URS
A8 Construction Manager: Miguel Cruz

- **Design: Jan 24, 2005 – Dec 1, 2005**
- **Construction Start: Feb 7, 2006**
- **Flow Capable: Dec 11, 2006**
- **Final Completion: May 20, 2007**
- **Construction Contract: \$ 23.4 Million**

Percent Complete (\$): 76%

Percent Complete (days): 76%



INFORMATION SOURCE:

FEB 2007 ACCELER8 CONSTRUCTION UPDATE

Everglades Protection Area Tributary Basins
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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**
 - **Initiated Compartment C Watershed Hydraulic Study**
 - **Initiated Basis of Design Report**
 - **Site investigations**
 - **Design criteria development**
 - **Hydrologic & hydraulic analysis**
 - **Project layout & evaluation of alternatives**
 - **Conceptual project features design**
 - **Conceptual level opinion of probable cost**
 - **Supporting engineering analysis**

- **What's next:**
 - **Complete Compartment C Watershed Hydraulic Study**
 - **Complete Draft BODR**
 - **Initiate technical review**
 - **Initiate stakeholder involvement process**



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

Project Location Map

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



EAA Conveyance and Regional Treatment (ECART) Project



Project Components:

- ~ 40 Mi of Canal Work (2 Mi New/38 Mi Existing)
- New diversion structure in WPB Canal (L-10/12)
- New Sam Senter Extension Canal
- Expanding the existing Sam Senter Canal
- Expanding the Ocean/Cross Canal (L-13)
- Expanding the Hillsboro Canal (L-15)
- New diversion structure in the Hillsboro Canal
- Expanding the Bolles Canal (L-16 reach)
- Expanding the North New River Canal (L-18/19)



EAA Conveyance and Regional Treatment (ECART) Project

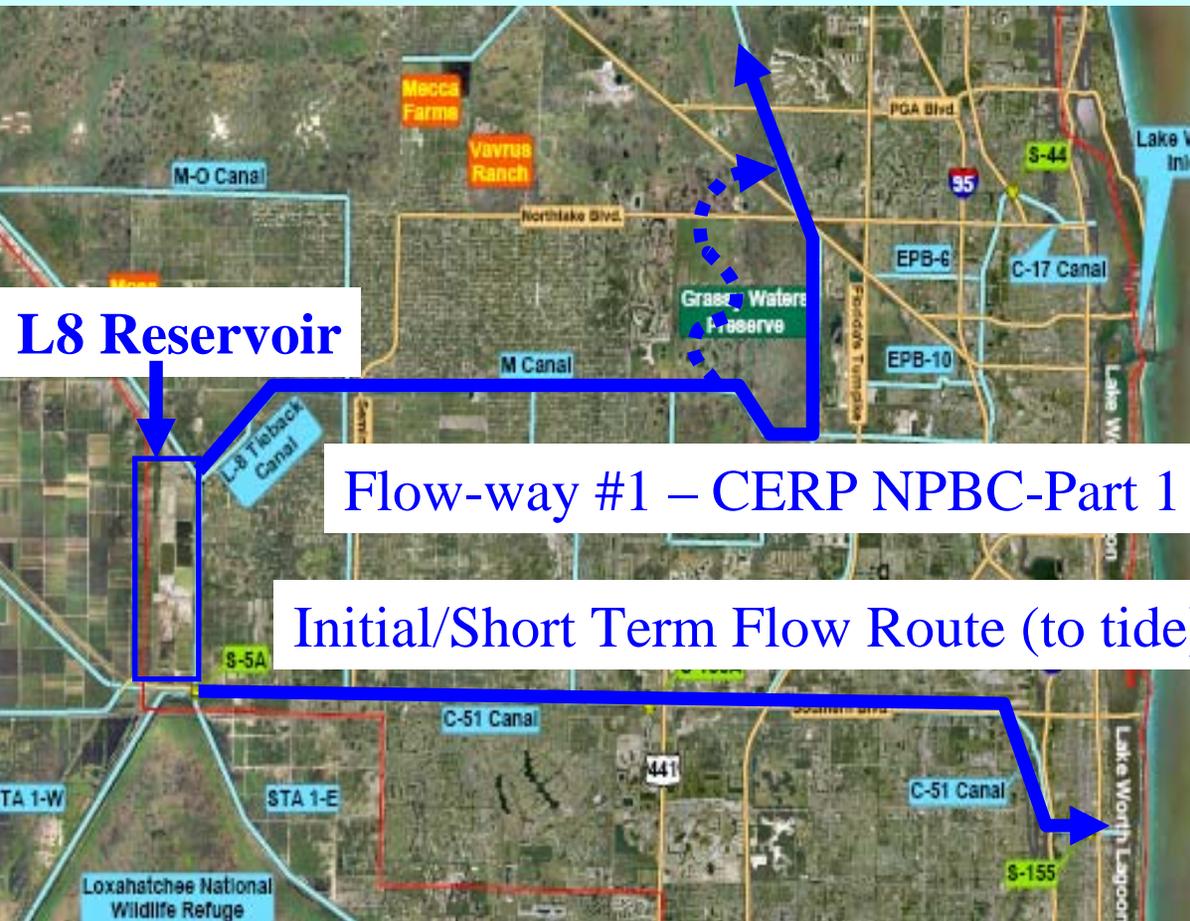


- Accomplishments to date:
 - Initiated Initial Design
 - Data Collection
 - Preliminary Evaluation Technical Memoranda
 - Completed Preliminary Survey scope development
 - Completed Preliminary Geotechnical Services scope development

- What's next:
 - Initiate preliminary survey
 - Initiate preliminary geotechnical services
 - Initiate BODR scope development



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

**Everglades Protection Area Tributary Basins
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L-8 Basin Project



- Project is currently in design phase
- Permitting discussions are underway between SFWMD and FDEP staff
- Portable Pumps scheduled to be complete by December 2007 - early 2008
- Inflow Structure scheduled to be ready for operation by early to mid 2008
- Master Pump Station to be constructed approximately by 2009 - 2010



STAs and Related Projects Update



- Next Steps
 - Present schedule updates and revisions at next quarterly TOC meeting

Questions?

