Quarterly Meeting of the Technical Oversight Committee

August 28, 2007

Tracey Piccone, P.E.
South Florida Water Management District
STA Performance Data
Updated 8/24/07 - Contains Preliminary Data

  - Average inflow = 203 ppb
  - 27 m tons removed; average outflow = 115 ppb
  - Average inflow = 163 ppb
  - 339 m tons removed; average outflow = 55 ppb
  - Average inflow = 105 ppb
  - 184 m tons removed; average outflow = 21 ppb
  - Average inflow = 118 ppb
  - 226 m tons removed; average outflow = 20 ppb
  - Average inflow = 235 ppb
  - 161 m tons removed; average outflow = 106 ppb
  - Average inflow = 80 ppb
  - 36 m tons removed; average outflow = 20 ppb
SAV Inoculation

- Completed between July 30 and August 1, 2007
- Total 59,470 pounds of SAV material
- Transported from STA-2 Cell 3 to STA-1W Cell 2B and Cell 3, STA-2 Cell 4 and STA-3/4 Cell 1B
  - Southern Naiad, Chara and Illinois Pondweed
- Total cost: $50,000 (helicopter, harvester, Gradall)
  - District staff costs not included
EAA Reservoir A-1

GMP1 - Construction is completed ($10M under budget)
GMP2 – Rock processing plant installation ongoing
GMP3 – Remainder of seepage canal 25% complete.
EAA Reservoir A-1

Accomplishments to date:
- Mobilization and 3 miles initial seepage canal completed (GMP 1)
- Rock Mining in preparation of aggregate production (GMP 2)
- Remaining work on seepage canal 25% complete (GMP 3)
- Initiated procurement process of pump equipment

What’s next:
- Preparation for negotiations for embankment construction (GMP 4)
- Pre-purchase pumping equipment-initiated proposal to be advertised next quarter

Challenges
- Wet Season
- Rain Impacts
- Final Permitting
Everglades Protection Area Tributary Basins
Long-Term Plan for Achieving Water Quality Goals

- Finalizing the Basis of Design Report for L-21
- Finalized Summary of Preliminary Evaluation for L-16
- L-16 will be accomplished as part of the Everglades Agricultural Area Conveyance and Regional Treatment (ECART) Project
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-2 Cell 4 (1,902 Acres)

**Under Design**
- Phase 2 - Build-out
- Compartment B Build-Out (6,722 Acres)
Compartment B
STA-2 Cell 4

• Design:
  • April 2005 – Oct 2005

• Construction Start:
  • Jan 2006

• Flow Capable:
  • Nov 11, 2006

• Final Completion:
  • August 2007

• Construction Contract:
  • $18.2 Million
Compartment B
STA-2 Cell 4

Everglades Protection Area Tributary Basins
Long-Term Plan for Achieving Water Quality Goals
Compartment B – Phase 2 Compartment B Build-out

- Accomplishments to date:
  - Completed preliminary survey work (topographic & boundary)
  - Completed preliminary geotechnical data collection
  - Completed Final Basis of Design Report

- What’s next:
  - Complete Preliminary Design-Civil Works
  - Complete Preliminary 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)
- STA-6 Section 2 (1,387 Acres)

Under Design
- Phase 2 - Build-out
- Compartment C Build-Out (6,200 Acres)
Compartment C – Phase 1
STA-5 Flow-way 3

- Design:
  - Feb 2005 – Oct 2005

- Construction Start:
  - Jan 2006

- Flow Capable:
  - Nov 21, 2006

- Final Completion:
  - May 2007

- Construction Contract:
  - $12.0 Million

Everglades Protection Area Tributary Basins
Long-Term Plan for Achieving Water Quality Goals
Compartment C – Phase 1
STA-5 Flow-way 3

Everglades Protection Area Tributary Basins
Long-Term Plan for Achieving Water Quality Goals
STA-6 Section 2

Design:
• Jan 2005 – Dec 2005

• Construction Start:
  • Feb 2006

• Flow Capable:
  • Dec 11, 2006

• Final Completion:
  • August 2007

• Construction Contract:
  • $22.4 Million
Everglades Protection Area Tributary Basins
Long-Term Plan for Achieving Water Quality Goals
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 Draft Basis of Design Report

What’s next:
- Finalize Basis of Design Report
- Preliminary Design-Civil Works
- Preliminary Design-Pump Station

Construction Completion
- Civil Works 2010
- Pump Station 2011
Project Purpose:
Redistribution of flows and loads to optimize the performance of the existing and expanded STAs to improve water quality in the EPA.
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
Accomplishments to date:

- Completed Initial Design
  - Feasibility Analysis of Alternatives 1C & 1D
- Initiated Preliminary Survey
- Initiated Environmental Sampling Scope of Work Development.
- Initiated Preliminary Geotechnical

What’s next:

- Initiate Basis of Design Report
Challenges:

- Movement of water 40 miles with a 4 foot change in elevation
  - Hydraulic Modeling
  - Sizing of the canals
- Existing infrastructure (Bridges, roads, utilities, etc…)
- Complete an Environmental Assessment and Obtain Permits
  - Historical canals
  - Cultural Resources
- Purchase of land for canal expansions
- Efficient Design is based on knowing answers above
Questions?