Restoration Strategies: 
Design and Construction Update

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16th Annual Public Meeting on the Long-Term Plan 
for Achieving Water Quality Goals for Everglades 
Protection Area Tributary Basins 
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A-1 Flow Equalization Basin

- **Purpose**
  - Attenuate high flows to STA-3/4 and STA-2
- **Cost** $63M
- **Features**
  - 15,000 acres of effective treatment
  - 60,000 acre-ft storage capacity
- **Inflows**
  - North New River Canal – East Inflow
  - Miami Canal – West Inflow
- **Outflows**
  - STA-3/4
  - STA-2
- **Completed in 2015**
L-8 Flow Equalization Basin

- **Purpose**
  - Attenuate high flows to STA-1W and STA-1E
- **Cost** $64M
- **Features**
  - Former 950-acre rock mine
  - Geology allows below ground storage
  - 45,000 ac-ft of storage
- **Inflows**
  - S-5A & C-51 West Basins
- Completed in 2017
L-8 Flow Equalization Basin

G-539 Pump Station

G-538 Inflow Structure
S-375 Expansion (Construction of G-716)

- **Purpose**
  - Expand flow capacity of connection between STA-1E east and west distribution cells

- **Cost** $5.7M

- **Features**
  - Three-gated spillway
  - 2,600 cfs

- **Completed in 2017**
S-5AS Structure Modifications

- **Purpose**
  - Improvements for south to north flow
- **Cost** $2.4M
- **Features**
  - Two-gated Spillway
  - 3,000 cfs
- **Structure Mods**
  - Energy dissipation
  - New gauges and improve electrical
  - Dredging of discharge basin
  - Riprap basin and canal banks
- **Completed in 2016**
L-8 Divide Structure (G-541)

- **Purpose**
  - Raise southern L-8 Canal reach to allow filling into L-8 FEB
- **Cost** $4.6M
- **Features**
  - Three-gated Spillway
  - 2,000 cfs
- **Completed in 2016**
STA-1W Expansion #1

**Purpose**
- Extend length of STA-1W flow ways to improve performance

**Cost** $80M

**Features**
- 4,300 acres additional treatment area
- Inflows
  - S-5A and C-51 West Basins
- Outflows
  - Water Conservation Area 1
- Initial flooding and optimization began January 2019
STA-1W Expansion #1

Canal and Embankment Construction

G-729 Construction

West Levee and Canal Construction
STA-1W Expansion #2

- **Purpose**
  - Extend treatment flow ways for STA-1W
- **Cost** $180M
- **Features**
  - 1,600 acres of additional treatment area
- **Inflows**
  - S-5A and C-51 West Basins via STA-1W
- **Outflow**
  - Water Conservation Area 1
- **Design phase in progress**
G-341 Related Conveyance Improvements

Bolles East Canal
G-341 Related Conveyance Improvements
Bolles East Canal

- **Purpose**
  - Improve conveyance of Bolles East and add system operational flexibility
- **Segments**
  - Segments 1 and 2 - Completed
  - Segment 3 - Construction on-going (97% complete)
  - Segment 4 – Design in progress
Final Section of Segments 1 and 2

Before Construction

After Construction
Excavation of Segment 3
C-139 Flow Equalization Basin

- **Purpose**
  - Attenuate high flows into STA-5/6

- **Features**
  - 2,800 acres located south of Deer Fence Canal and west of STA-5/6 Flow way 3
  - 11,000 acre-ft shallow impoundment

- **Inflows**
  - C-139 Basin Runoff

- **Outflows**
  - STA-5/6

- **Design in progress**
Purpose
- Lower and regrade Cells 2A and 3A to achieve sustainable EAV
- Cost $19M
- Repair 1,162 acres
- Flow way 2A
  - Level to 11.9’ NAVD
- Flow way 3A
  - Level to 11.8’ NAVD
- Transport excess fill to C-139 FEB footprint
- Construction in progress
STA-5/6 Earthwork Improvements

STA-5/6 Cell 2A

STA-5/6 Cell 3A
### Purpose

- Raise and regrade ~990 acres in Cells 5 and 7 to achieve sustainable EAV
- Haul fill from near by sources
- Design in progress
Questions