

# Post-Wilma STA Damage Assessment: Update



Hurricane Wilma  
**Category 2 Hurricane**  
Wind: 100 mph  
2:01 PM EDT

# Physical Facilities Assessment Initial Report

## ■ Levees

- Minor damage STA-1E, 1W, 3/4, 5
- Moderate damage in STA 2, 1W

## ■ Structures

- Minor damage to structures
- Power – most structures lost power during the storm and many post storm; high voltage poles estimate several weeks to replace
- Telemetry (and remote operation capability) was lost with the power outage
- Water Quality Equipment was lost and damaged

# Preliminary Vegetation Assessment Initial Report

- Emergent Vegetation
  - Minor damage in STA-1E,
  - Moderate damage in STAs 2 and 3/4
  - Severe damage in STA- 1W, Cell 3

# Preliminary Vegetation Assessment Initial Report

- Submerged Aquatic Vegetation (SAV)
  - Minor damage in STAs 1E and 5
  - Moderate damage in STAs 1W, Cell 5B and 3/4, Cell 2B,
  - Severe damage in STA-2 Cell 3

# Post-Wilma STA Recovery

## February 2006 Update

### ■ Levees

- Repairs may not occur before wet season
  - Erosion not affecting operation or function

### ■ Power

- Fully restored
- Some structures without power for weeks
- Pre and post-storm power plans being developed

# Post-Wilma STA Recovery

## February 2006 Update

### ■ STA-2 Vegetation

- Emergent vegetation has recovered

- SAV recovery expected in Cell 3

  - Much of the Hydrilla was destroyed

  - Under consideration:

    - Herbicide remaining Hydrilla, discussion ongoing

    - Inoculate northern portion of STA-2, Cell 3 with native SAV from southern area of cell

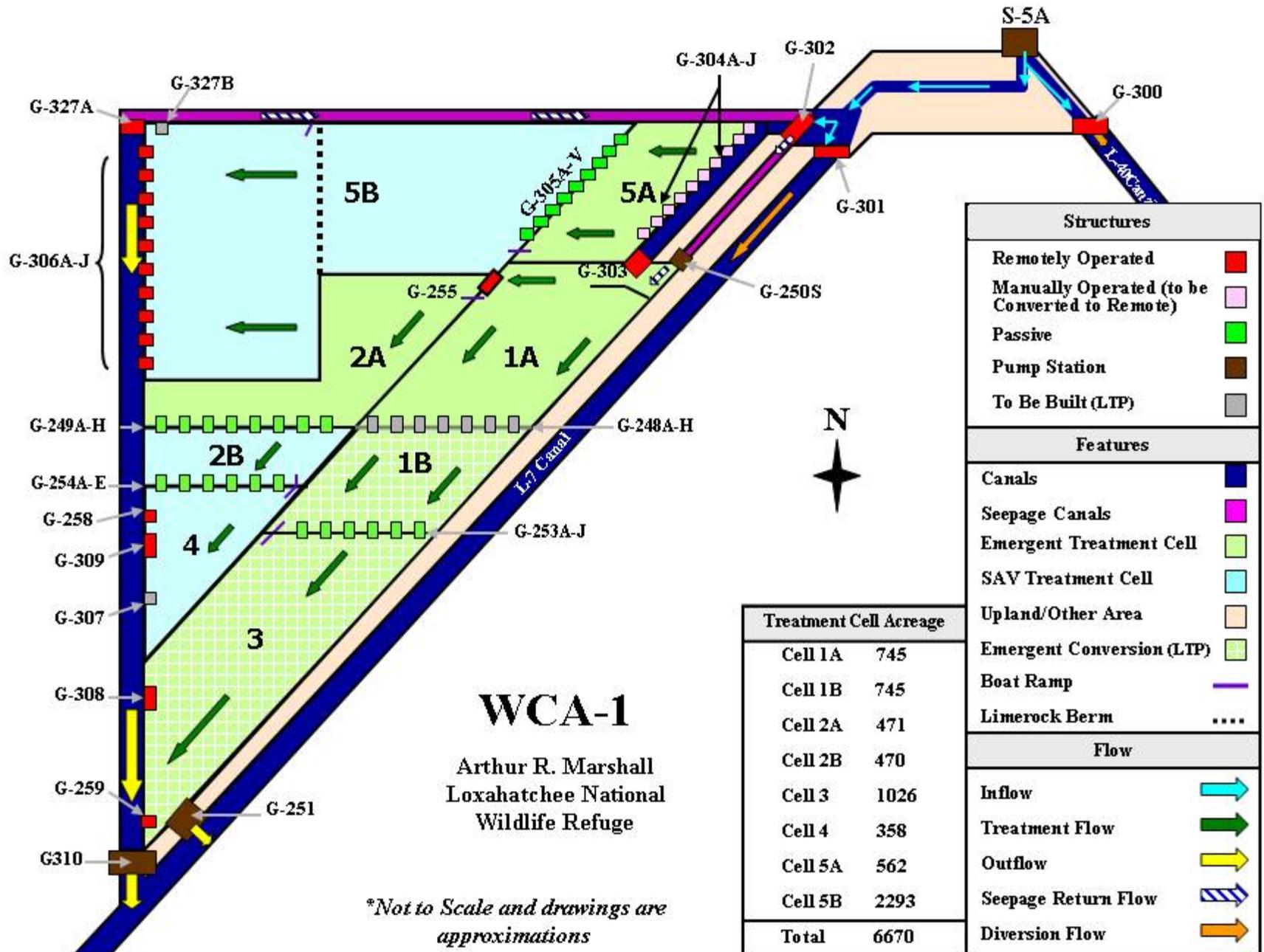
    - Encourage emergent vegetation growth at inflow of cell

# Post-Wilma STA Recovery

## February 2006 Update

- **STA-1W Vegetation**
  - **Eastern flow-way (Cells 1 and 3) currently on-line**
    - **Cattail vegetation recovering**
  - **Western flow-way (Cells 2A, 2B and 4)**
    - **Off-line for scheduled LTP enhancements**
    - **Vegetation growth in cells 2A and 2B proceeding as expected**
    - **SAV growth in Cell 4 not proceeding as expected; inoculation may be necessary**

# STA-1W Structures, Flow, & Long Term Enhancements\*



# Post-Wilma STA Recovery

## February 2006 Update

- **STA-1W Vegetation, continued**
  - **Northern flow-way (Cells 5A and 5B)**
    - **Off-line for major recovery effort**
    - **Complete draw-down to consolidate peat in attempt to reduce recurring suspension**
    - **Assessment of cell topography**
      - **Possible removal of ridge/berm in front of G306 outflow structures**
      - **2007 contract for fill if needed**

# Post-Wilma STA Recovery

## February 2006 Update

- Northern flow-way, continued
  - Installation of emergent vegetation strips perpendicular to flow to provide wind/wave protection
  - Proceed with scheduled automation of G304 structures
  - Plan to flood at beginning of 2006 wet season
    - Plant growth through summer
    - SAV inoculation being considered

## Lessons Learned

- Development of a “Lost Power” scheme
- Marsh survivability
  - Large tracts of SAV may not be resilient to hurricane force winds
  - Vegetation strips and a mixed-marsh (emergent mosaic) may provide protection
    - Wave-break
    - Reduce SAV roll up/destruction across a marsh