How Did We Get Here Again?

- 1958 Gulf American Corporation (GAC) began digging GG Canal
- 1968 Faka Union Canal dredging began
- 1976 GGE Redevelopment Study Phase I
- 1983 GG Estates Land Trust was established after the bankruptcy of GAC
- 1987 CC Natural Resources report on resource management of undeveloped land
- 1997 Golden Gate Area Master Plan
- 1998 Dames & Moore report, Big Cypress Basin Watershed Management Plan
- 2006 Belle Meade Area Stormwater Management Master Plan
- 2008 (Phase I) Horsepen Strand Conservation Area (HSCA) Feasibility Study
HSCA Feasibility Study

• Project managed by Collier Soil & Water Conservation District
• Prepared by Biological Research Associates
• Cost = $162,000 (with FDEP & the SFWMD both giving $81,000 each)
• Objective: Feasibility of reconnecting HSCA to provide stormwater treatment, flood protection, water quality treatment and habitat restoration for NGGE stormwater management function and hydration. Rehydration of historic wetlands and evaluate the potential for a local mitigation banking opportunity.
• GGE was at 35 – 40% buildout at the time of Phase I
Task 1:
HSCA Utilization as storm/surface water system

• Comparison of historic vs current wetlands
  – Loss of 2,386 acres of jurisdictional wetlands
• Water surface levels were evaluated for changes from historic to current levels
• Cross sectional evaluation showed decrease in water depths in most areas but in some locations there were increase in water depths
NGGE Phase I wetland footprint in 1940’s vs 2007

PHASE I: HORSEPEN STRAND CONSERVATION AREA (HSCA)

Areas with High loss

1940’s wetland footprint
2007 wetland footprint
Lost wetlands
2007 wetland footprint
1940’s wetland footprint
Task 2

Determine how to reconnect flowways to establish maximum, natural and unrestricted continuous flow of storm/surface waters
• East/West roads are barriers impeding flow
• Current cross drains are not sufficient and create bottleneck area

Task 3

Determine base natural conditions
• Storage in Winchester increased since 1940, due to the damming effects of I75 but still showed capacity for more water storage
Task 4

Determine how much storm/surface water could be diverted into the flowway from NGGE

- Volumes could not be determined
- Recommended water be diverted from Miller and FakaUnion Canal to regions north of 10th Ave SE

Task 5

HSCA Land Use Map
Task 6

Determine jurisdiction status of the flowway under the regulations of the USACOE and State of FL

- HSCA was comprised of 57% wetlands
  - with 11,465/12,065 acres with being federally jurisdictional

Task 7

Evaluate findings from HSCA as to benefits to the NGGE community for storm/surface water management

- Reconnection of the entire length more difficult than focusing on strategic areas
- The Strand and Winchester head could be rehydrated by redirecting flow from roadside swales and away from the canals
Summary of HSCA Phase 1

- The first clear visual of where the actual flowway was historically
- Identified areas that could hold additional water
- Wetland B (North Belle Meade) greatest opportunity to provide a regional resource
- Reported an overall loss of wetlands from 1940 to 2007 (about 11%)
- Wetlands north of 10th Ave SE showed decreased water volumes with the south region showing increasing trends
- 22 land types identified and mapped
Thank You!!