Lely Area Stormwater Improvement Plan -LASIP- Collier County, Fl.

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Presented By:

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PBSJ
LASIP Drainage Basins

Lely Canal Basin

Lely Manor Basin
Proposed Improvements

- Widen and Deepen Existing & Construct New Conveyances
- Improve Several Existing & Construct New Control Structures & Install New Flood Control Gates
- Construct Spreader Lakes & Berms at Outfalls
- Construct a Pump Station to Rehydrate Existing Wetlands
- Mitigation
  - Lely Main Canal Extension
  - Royal Wood / Whitaker Road Area Improvements
Lely Main Canal Extension & Royal Wood / Whitaker Rd. Area Projects

Royal Wood / Whitaker Road Area Project

Lely Main Canal Extension
Lely Main Extension Project

Existing Canal in 100’ R.O.W. / Easement

Do Nothing Alternative
Lely Main Extension Project

- Improvements Must Be Made to Convey Upstream Flows
- Best Alignment is Along Existing Easement
- Minimal Cost
- No Other Feasible Routes

Do Nothing Alternative
- Control Structure
- Maintenance Travel Way
- Deepen Canal
- Temporary Staging Areas
- Easements
Recommendations

Accept Project as Currently Designed and Permitted

- Utilize Existing Canal Alignment
- Add Maintenance Travel Way on South Side
- Route Maintenance Travel Way Around Existing Lakes
- Acquire Easements As Shown
Phase 1 North Completion
LASIP - Royal Wood / Whitaker Road

- General Layout Established by Conceptual SFWMD Permit
- Minimized Impact Outside of ROW
- Relocated Roadway Crossing to Avoid Frontage Impacts
- Restore Existing Private Property
- Locate Alignments Based on Public Input
- Locate Easements Along Property Lines
- Provide Vegetative Buffers (in areas of new ditches)
- Evaluated Alternate Alignments
  1) Redundancy
  2) Hydraulic Effectiveness
  3) Minimizing Impacts to Public Property
• Piped Section - Limited ROW
• Open Ditch Section–10FT Easement
  - Areas of Minimal Impact
• Box Culvert Roadway Crossing
  - Minimized Connections
• Open Ditch Section-53FT Easement
  - Along Property Line
  - Provided Landscape Buffer
  - Maintenance Access Road
• Box Culvert-24FT Easement
  - Avoided Greens
  - Negotiated Cart Path
  - Minimize Tree Removal

• Previous Alignment
  - Required Additional Length of Swale
  - Posed Frontage Issues
• Temporary Construction Easement
• 10’ Wide Drainage Easement
• 56’ Wide Drainage Easement