SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Engineering and Maintenance Solutions for Addressing the Elevated Total Phosphorus Concentrations at S-333

Jodie Hutchins, P.E.
South Florida Water Management District

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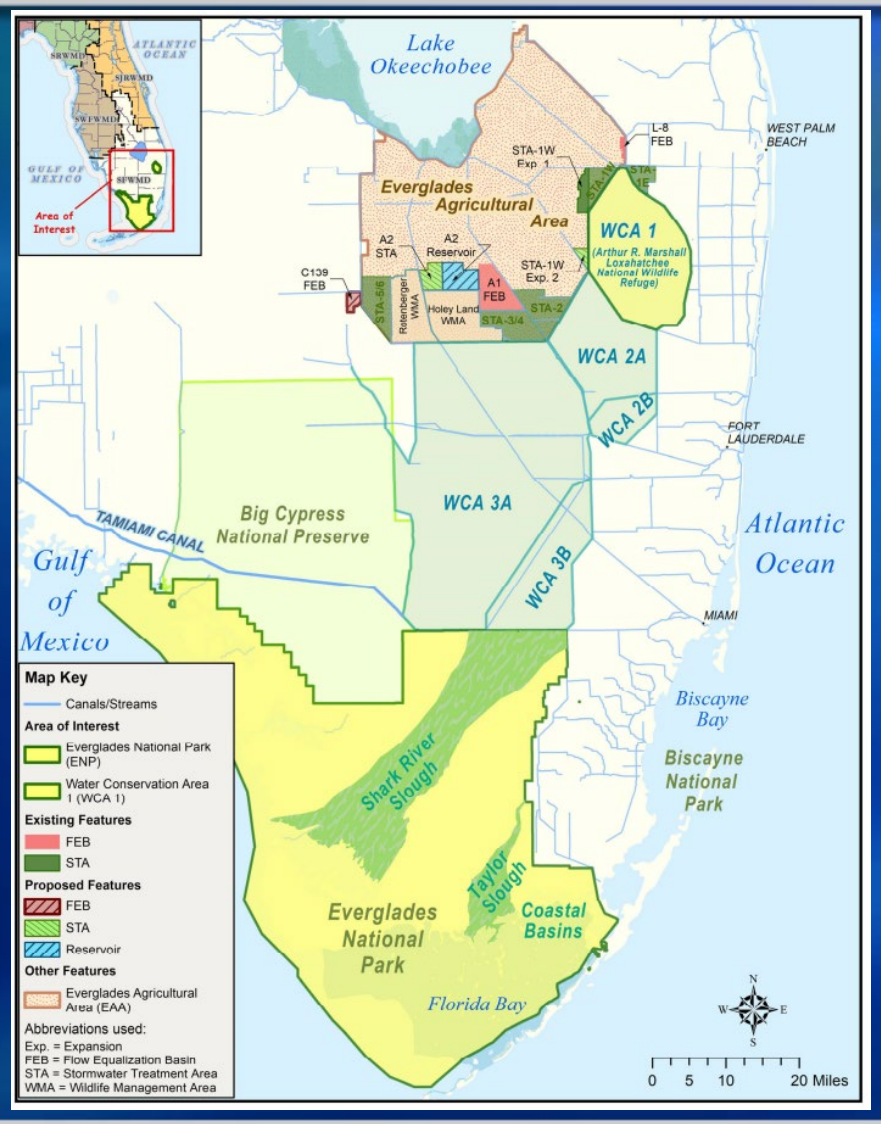
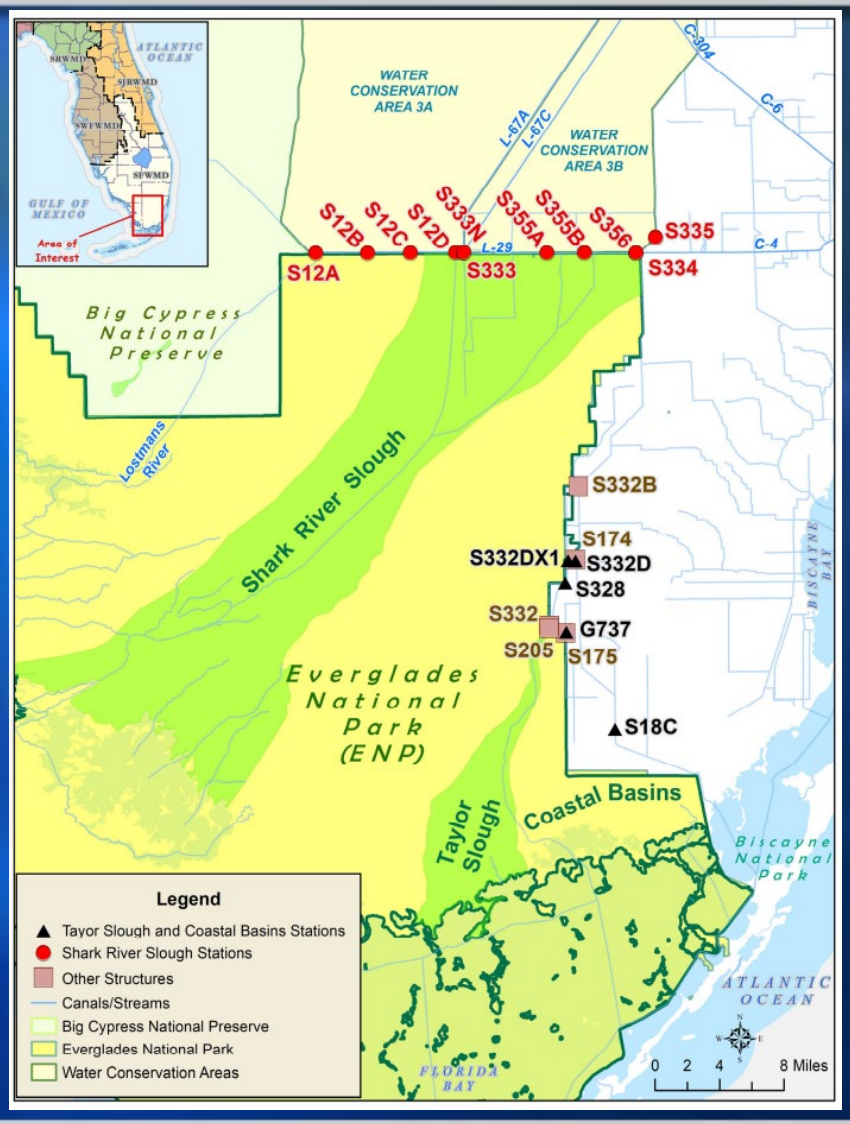
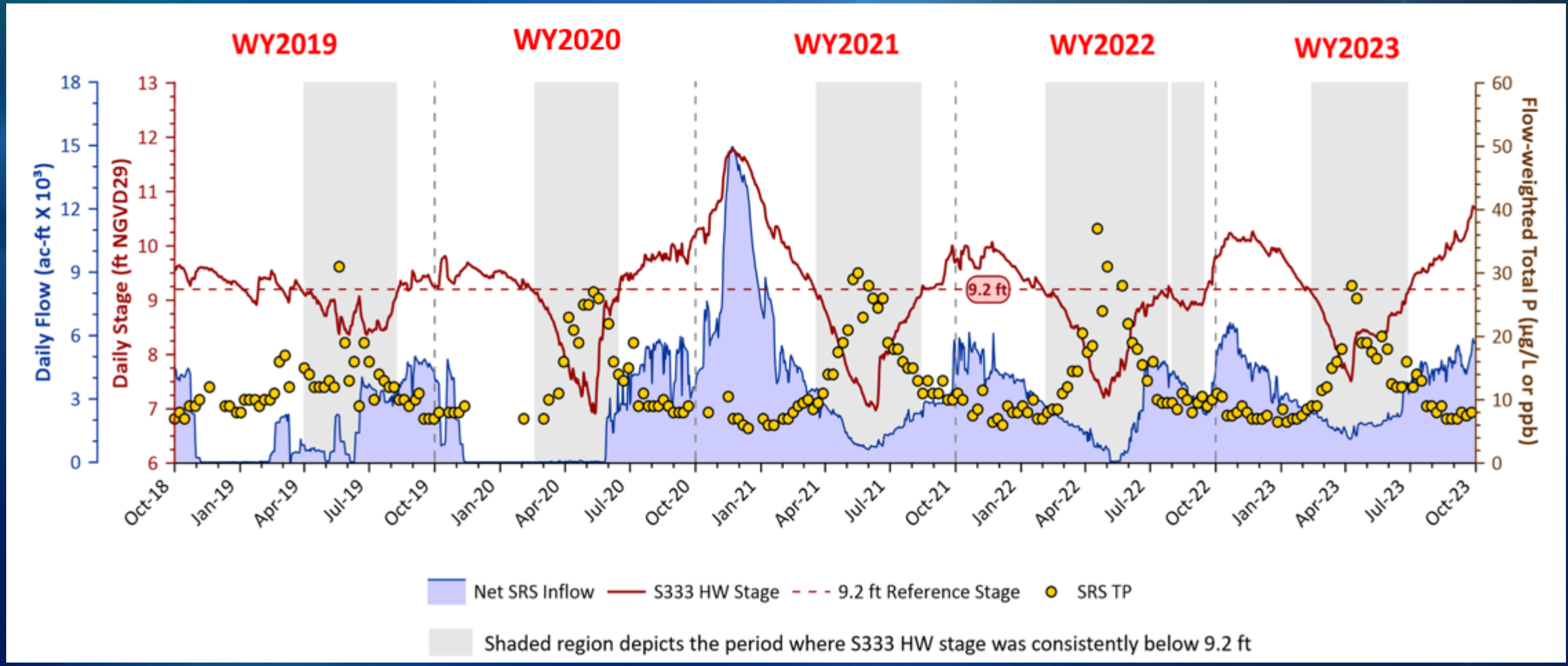
S-333 Inflows to Everglades National Park





Elevated Total Phosphorus Linked with Low Canal Stage at S-333



SRS – Shark River Slough

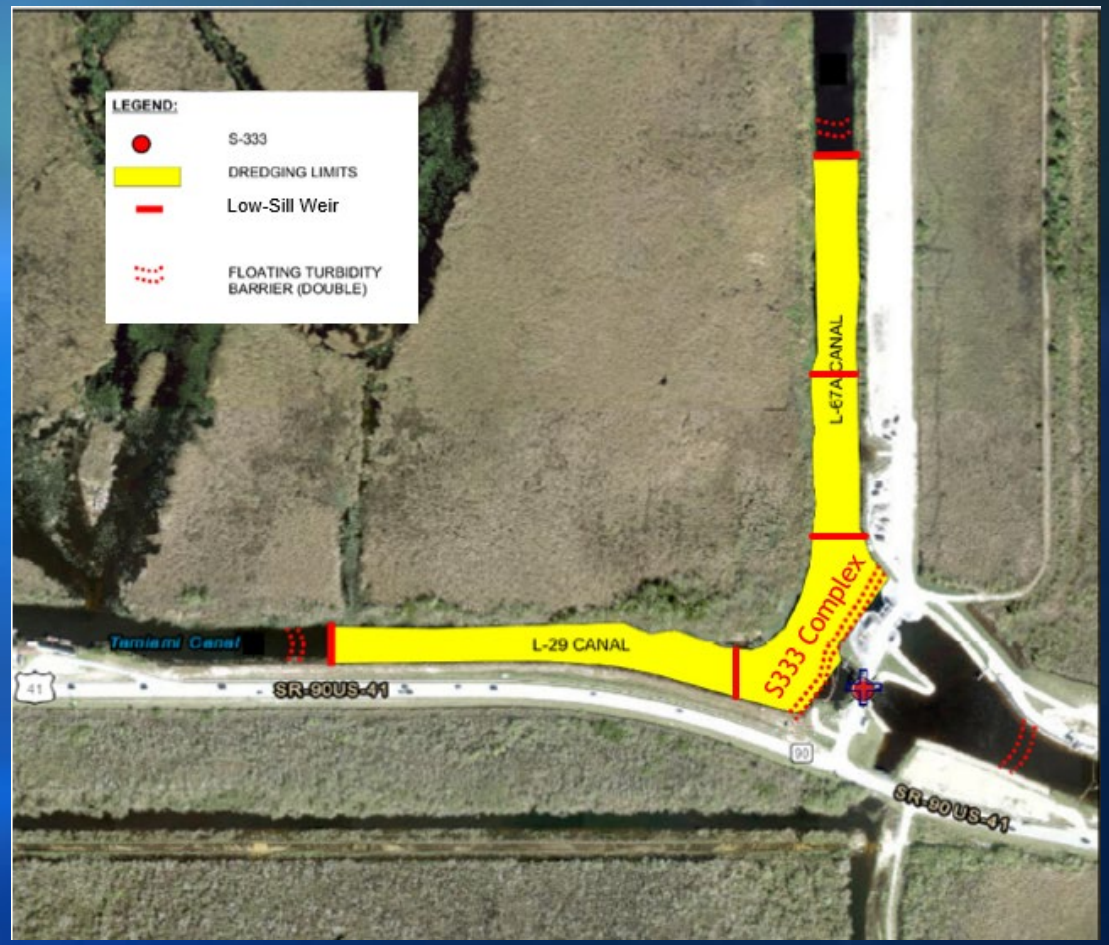
Formation of the S-333 Working Group

- Purpose
  - Study the characteristics of phosphorus transport and sources passing through the S-333 structure
  - Propose potential engineering, maintenance, and/or operational solutions
- Consensus Strategy – Phased Approach
  - Phase I – Local Study
    - Sediment characterization study at S-333 complex/canals
    - Modeling of flow scenarios (CFD) and the potential effect on sediment entrainment
  - Phase II - Comprehensive Study (Not yet Authorized)
    - Expanded study domain to include contributing canals and WCA-3A

US Army Corps of Engineers®

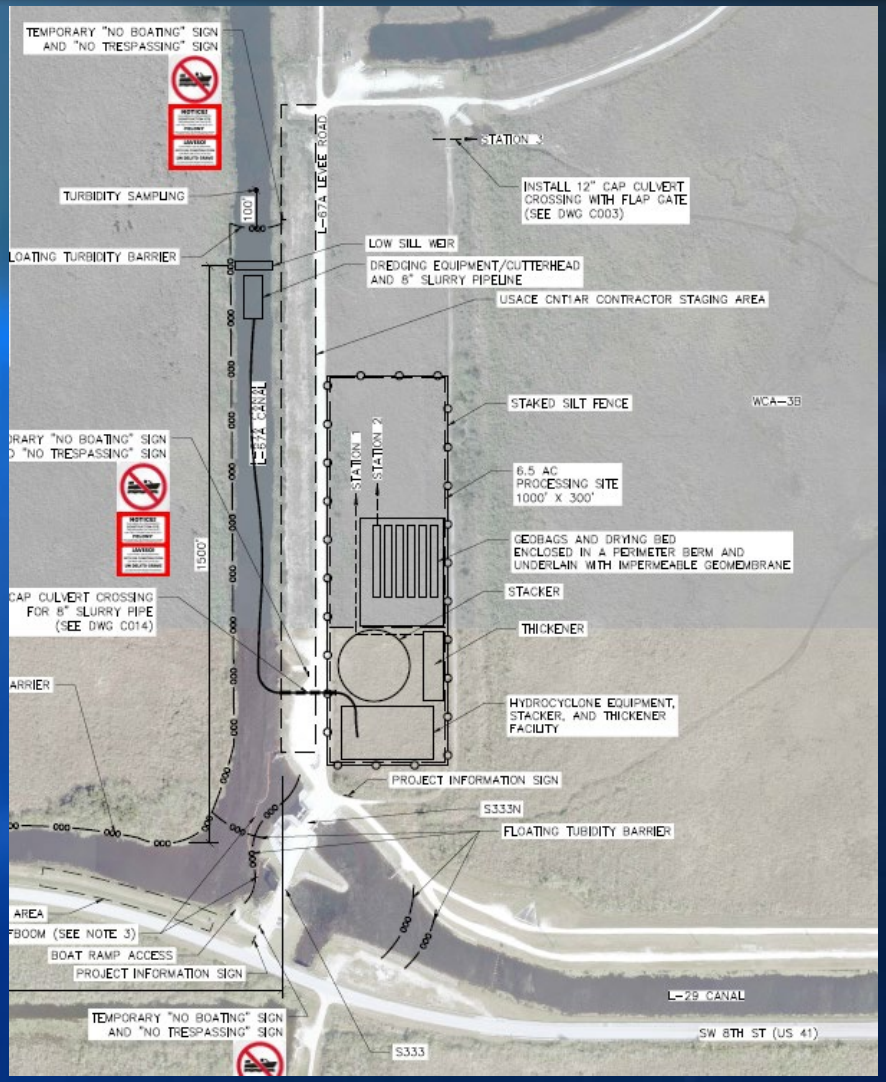
Initial Engineering and Maintenance Solution

- Task 1 - Canal Maintenance Dredging
  - 1,500 feet upstream of S-333 in the L-67A and L-29 Canal
  - S-333 intake bay
  - 2 Short-height low-sill weirs
- Task 2 - Low-Sill Weirs
  - Conceptualized locations shown in figure
  - Constructed to finished elevation



Task 1 - Canal Maintenance Dredging

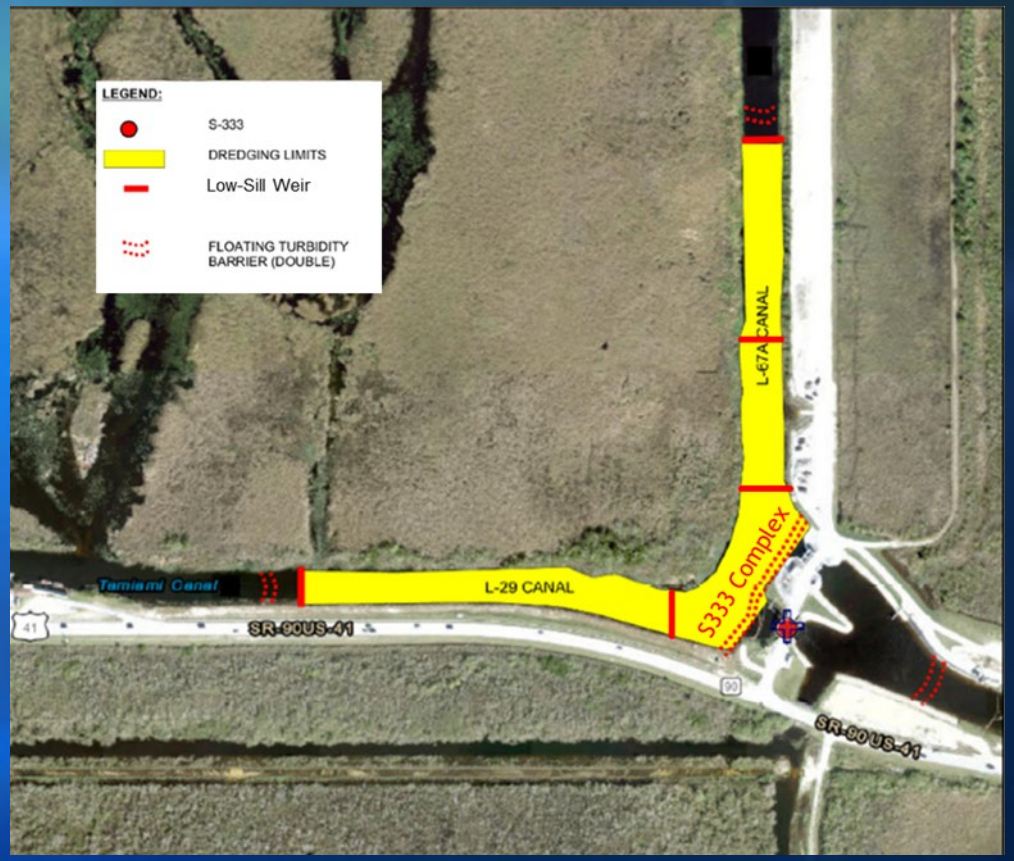
- Removing the sediments and particulate matter will mitigate the resuspension of sediments contributing to the elevated TP concentrations at S-333
- 48,000 cubic yards of sediments to be dredged
- Dredged Material Management Area (DMMA) for the temporary processing, treatment, and dewatering of dredged material
  - Isolated site used previously for dewatering
  - Dredged material will be separated, treated, consolidated, and dried onsite
  - Dried dredged material will be transported to an approved disposal site
  - Discharge monitoring for toxicity and Class III Surface Water Quality standards
  - DMMA site to be restored post-project



Dredged Material Management Area (DMMA)

Task 2 - Low-Sill Weirs

- Reduce near bed velocities, facilitate settling, and restricting movement of sediments, to prevent TP transport through S-333
- Removable Marine Mattresses filled and stacked to finished elevation
- Design of five weirs at varying elevations underway
- Performance tracked by a Monitoring and Assessment Plan (MAP) post project for optimization



Schedule

			2024												2025												2026											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Task 1	Maintenance Dredging and 2 Short-Height Low Sill Weirs	Preliminary Survey																																			
		Final Permits																																			
		Geotechnical Investigations and Final Survey																																			
		Final Project Design and Specifications																																			
		Solicitation																																			
		Contract Execution																																			
		Construction																																			
Task 2	Low Sill Weirs (Full Height)	H&H Design Modeling - Round 1																																			
		H&H Design Modeling - Round 2																																			
		Final Project Design and Specifications																																			
		Final Permits																																			
		Solicitation																																			
		Contract Execution																																			
		Construction																																			

- **Summary (as of May 2025):**
  - ✓ Final survey and geotechnical investigation complete for task 1
  - ✓ Final design and specifications complete for task 1
  - ✓ 2 out of 3 permitting authorizations complete for task 1
  - ✓ H&H design modeling complete for task 2

Questions

Thank you!

Jodie Hutchins, P.E.
South Florida Water Management District
561-682-2147; jhutchin@sfwmd.gov