



**Board of County Commissioners**

# Canal Maintenance Study

Rachel Zastrow, PE – Stantec

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August 26, 2025

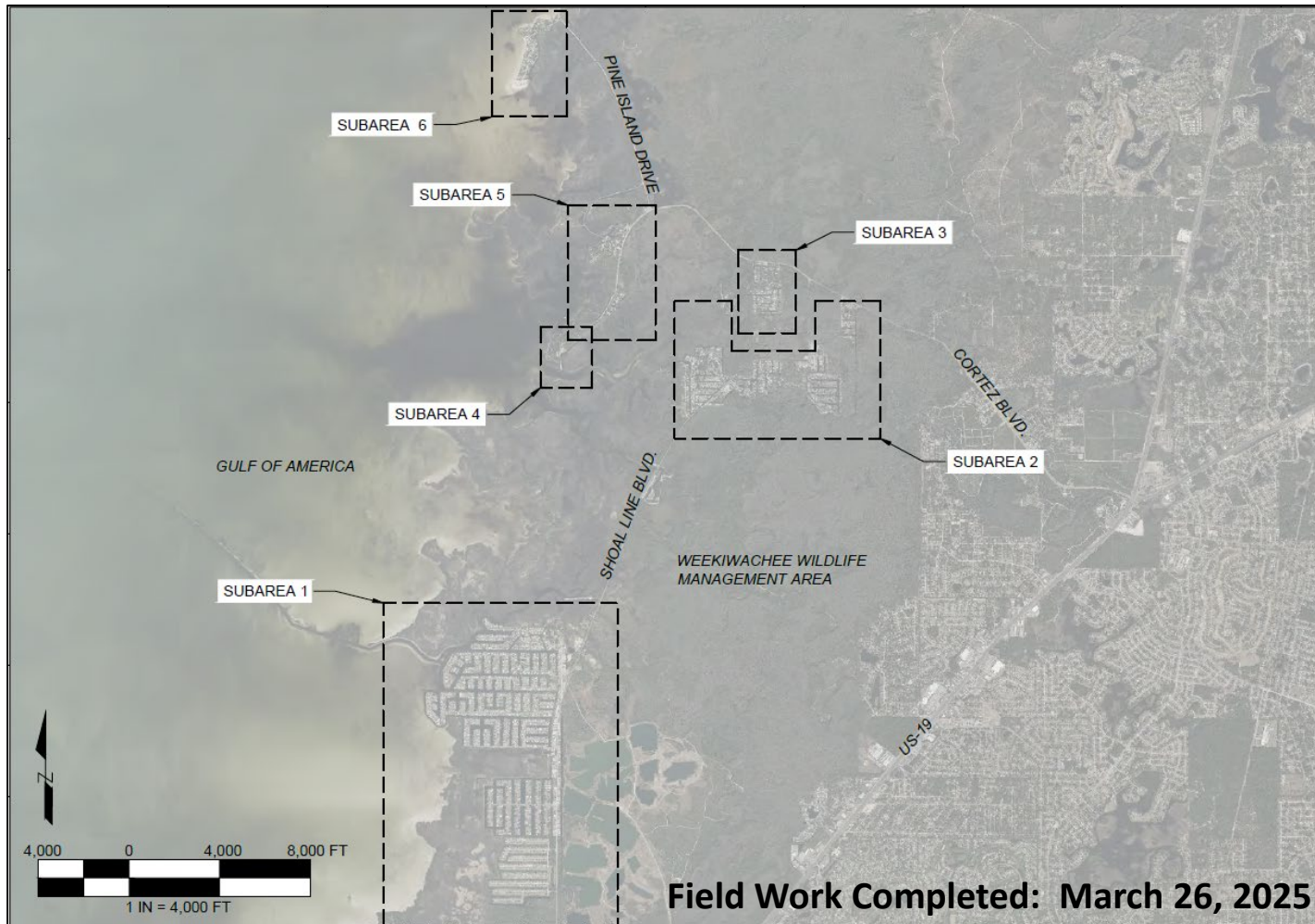


# Stantec Assigned Task Work Order

## December 17, 2024

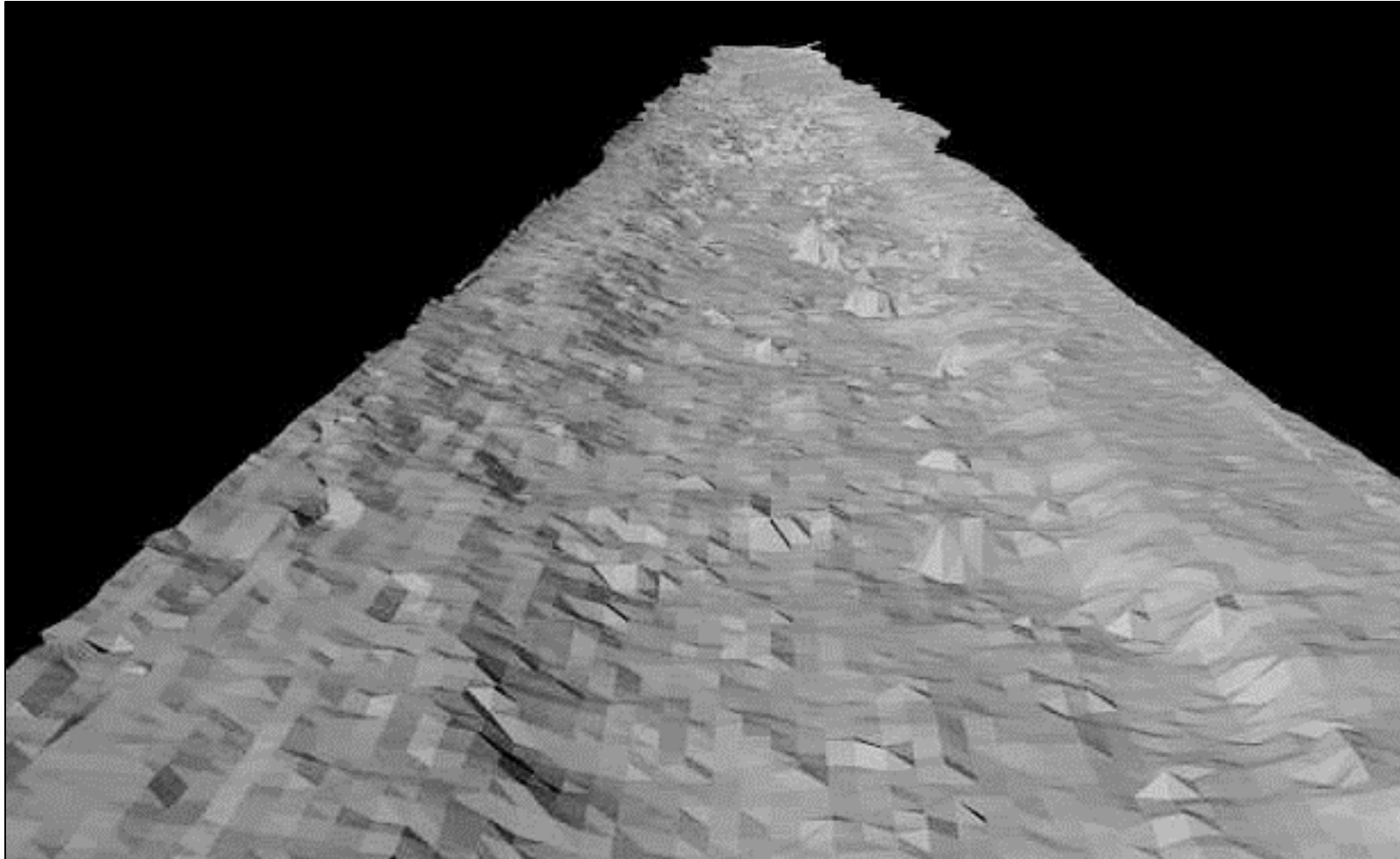
- Multi-Beam Hydrographic Survey
- Volume Calculations
- Feasibility Memo and Cost Estimates
- Presentation to Board of County Commissioners

# Multi-Beam Hydrographic Survey

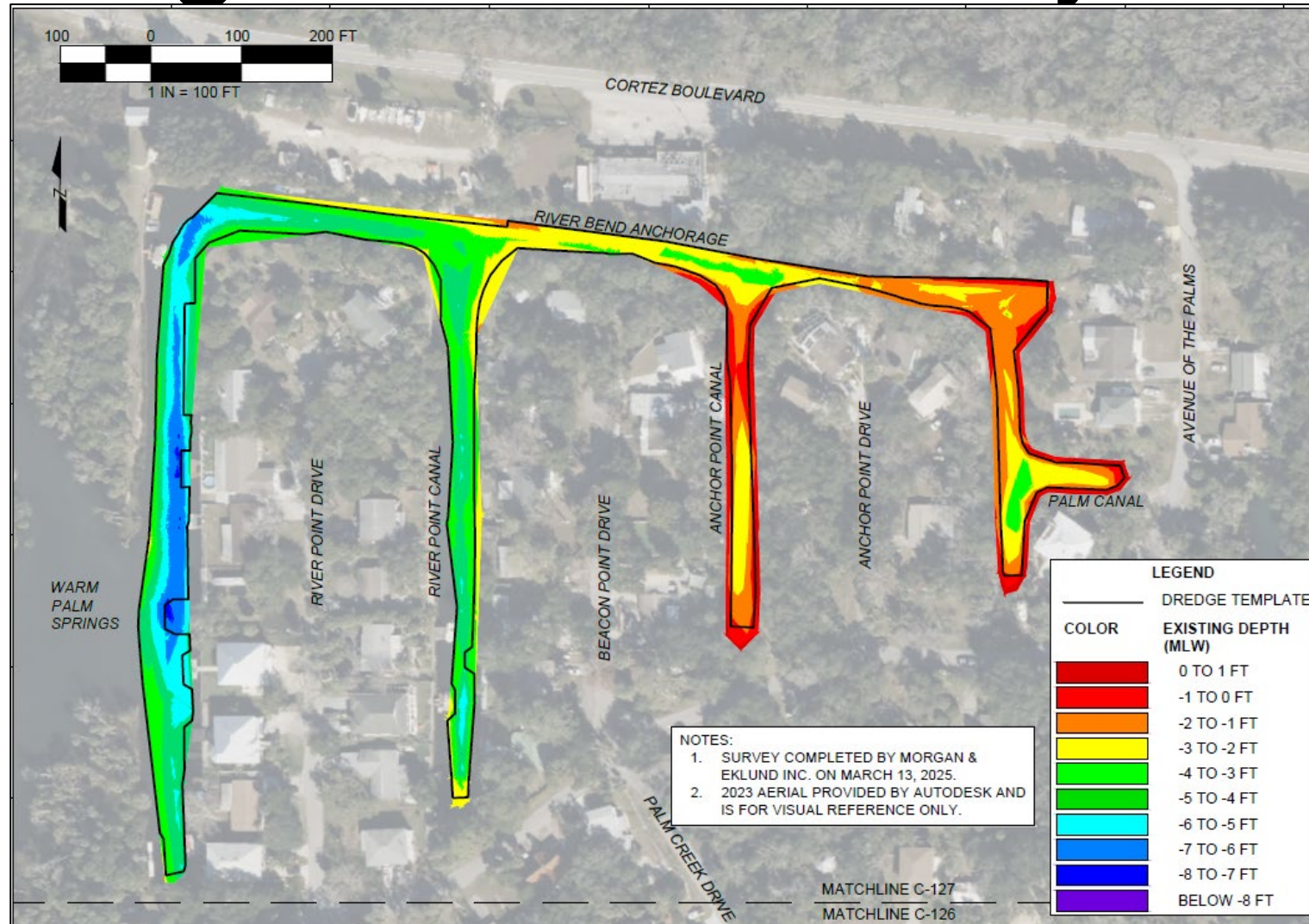




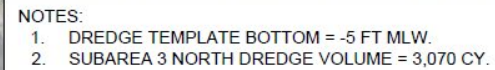
# Multi-Beam Hydrographic Survey



# Existing Conditions – Survey Results

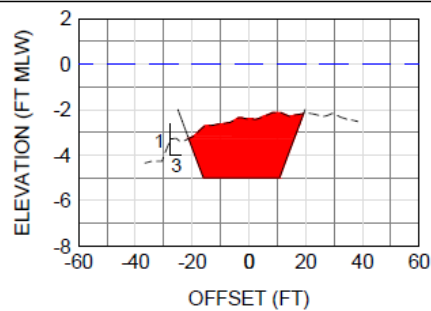




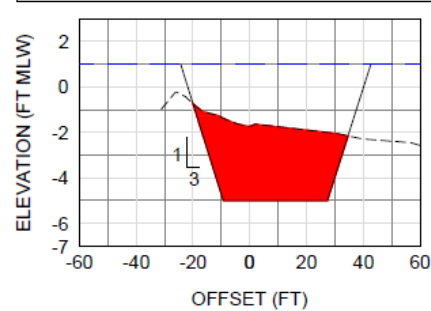


# Volume Calculations

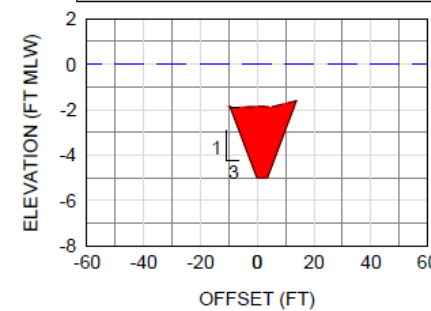
SUBAREA 1 S. AMBERJACK CANAL STATION 17+00



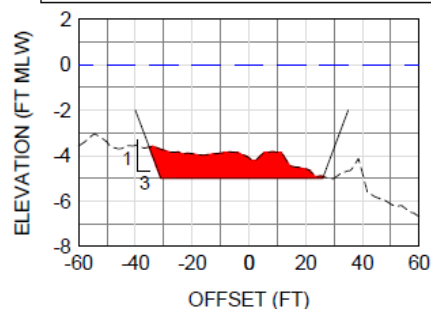
SUBAREA 2 RIVERBOAT CANAL STATION 8+00



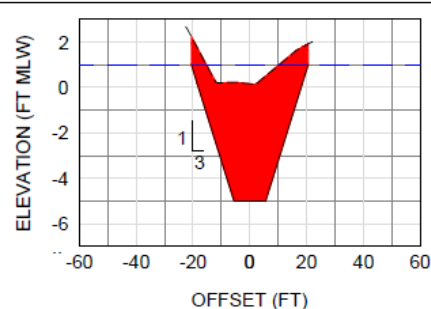
SUBAREA 3 SOUTH STATION 16+68



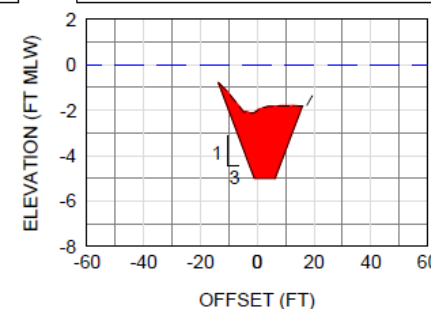
SUBAREA 1 GULF CANAL STATION 22+00



SUBAREA 2 WEEKI WACHEE CANAL STATION 113+00



SUBAREA 3 NORTH STATION 15+30



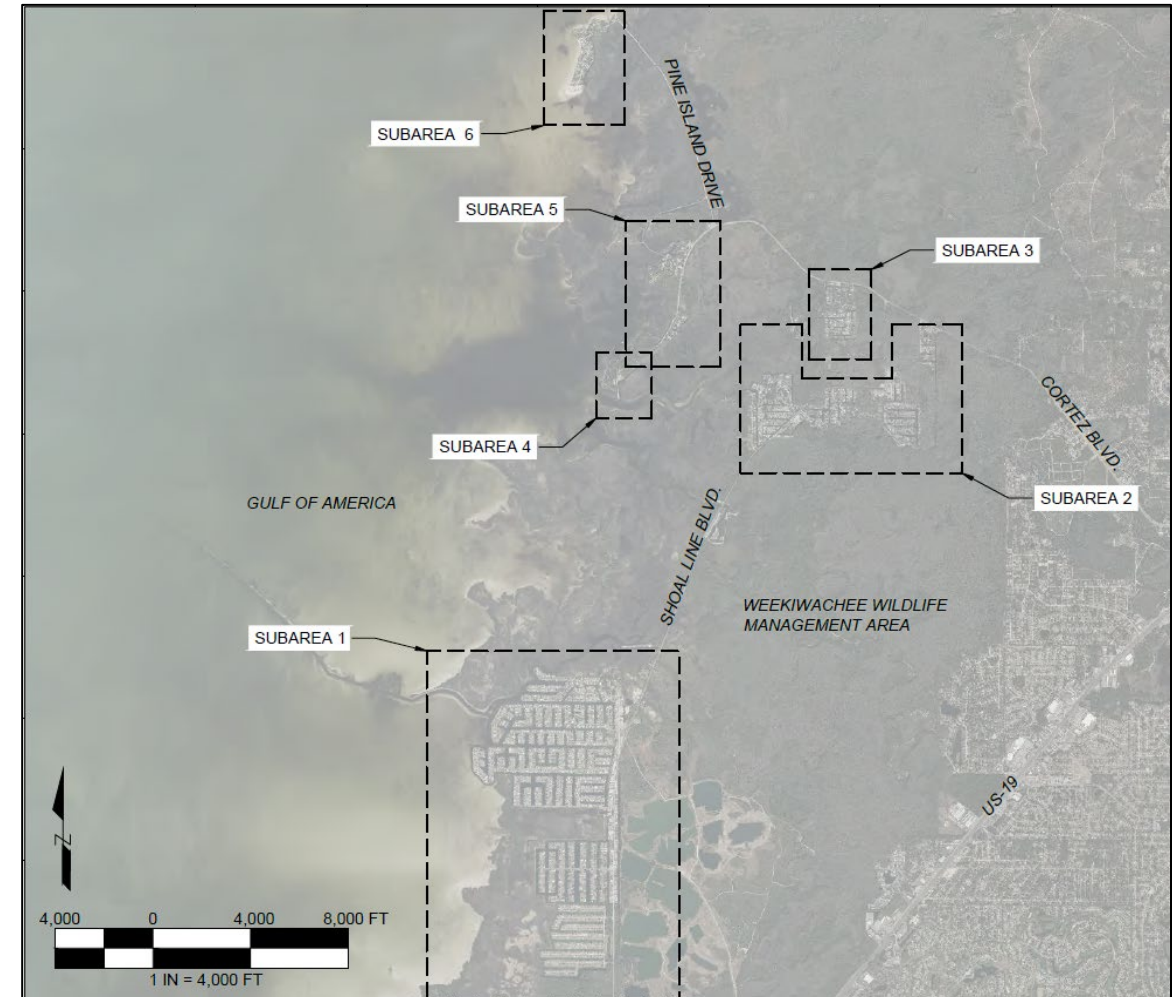
**NOTES:**

1. VERTICAL SCALE: 1 IN = 5 FT
2. HORIZONTAL SCALE: 1 IN = 40 FT
3. DREDGE TEMPLATE SIDE SLOPE: 3H:1V

DREDGE AREA    
  EXISTING GROUND    
  DREDGE TEMPLATE    
  MLW (0 FT)

# Volume Calculations

Subarea	Volume (CY) Dredging to -5 ft MLW
1	18,850
2	49,991
3	6,414
4	5,955
5	11,337
6	10,643
<b>Total</b>	<b>103,190</b>





# Feasibility Memo and Cost Estimates

Subarea	Volume (CY) Dredging to -5 ft MLW	Dredging Cost (Low): \$135/CY	Dredging Cost (High): \$210/CY
1	18,850	\$2,544,750	\$3,958,500
2	49,991	\$6,748,785	\$10,498,110
3	6,414	\$865,890	\$1,346,940
4	5,955	\$803,925	\$1,250,550
5	11,337	\$1,530,495	\$2,380,770
6	10,643	\$1,436,805	\$2,235,030
<b>Total</b>	<b>103,190</b>	<b>\$13,930,650</b>	<b>\$21,669,900</b>

\*Dredging would likely be performed in phases or canal-by-canal.

# Feasibility Memo and Cost Estimates

- **Data Collection – Benthic/Seagrass:** Data collection window June 1<sup>st</sup> – September 30<sup>th</sup>
- **Data Collection – Geotech:** Vibracores and Sediment Sampling
- **Design:** 60% Permitting Plans, 90% & 100% Construction Plans, Technical Specifications, Engineer's Opinion of Probable Cost
- **Permitting:** Pre-Application meeting with agencies, Permit Application submittal and responses to Requests for Additional Information (RAIs)
- **Bidding/Contractor Procurement:** Contractor Procurement support services, Bid Package, Recommendation of Award

Next Step	Unit Cost (Low)	Unit Cost (High)
Design	\$75,000	\$150,000
Permitting	\$50,000	\$100,000
Data Collection – Benthic/Seagrass	\$75,000	\$200,000
Data Collection – Geotech	\$75,000	\$150,000
Bidding/Contractor Procurement	\$25,000	\$50,000
<b>Total</b>	<b>\$300,000</b>	<b>\$650,000</b>



# Questions?

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