

# Post-Milton Midnight Pass Inlet Evolution and Management



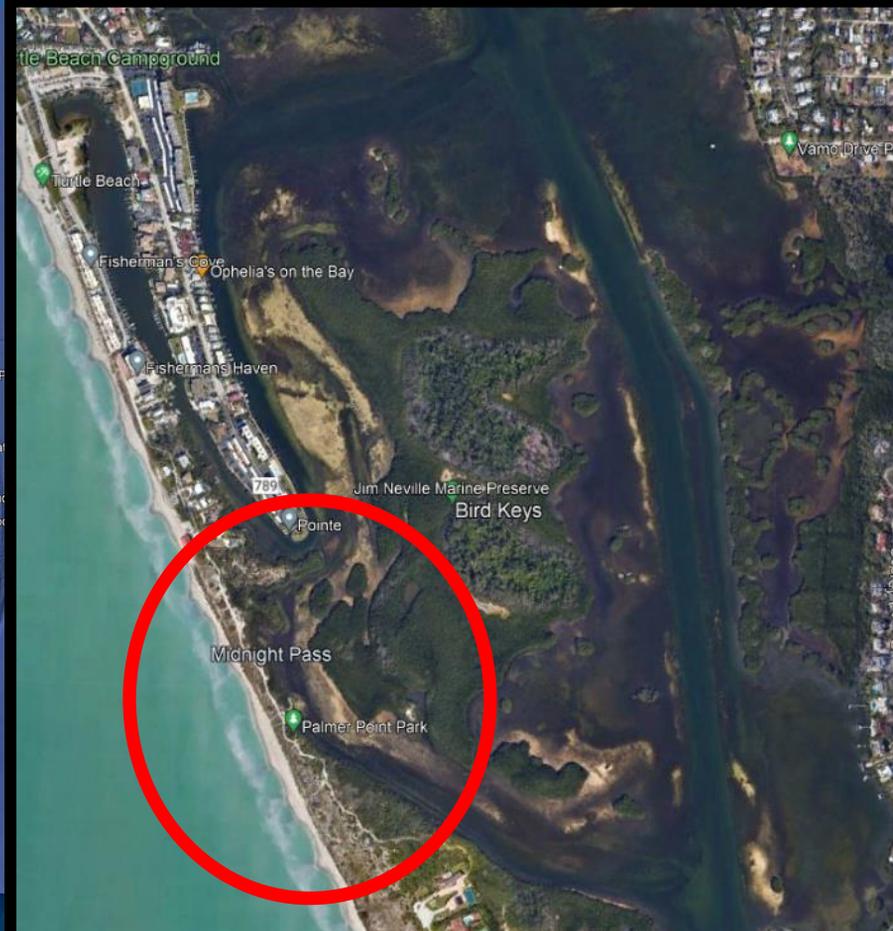
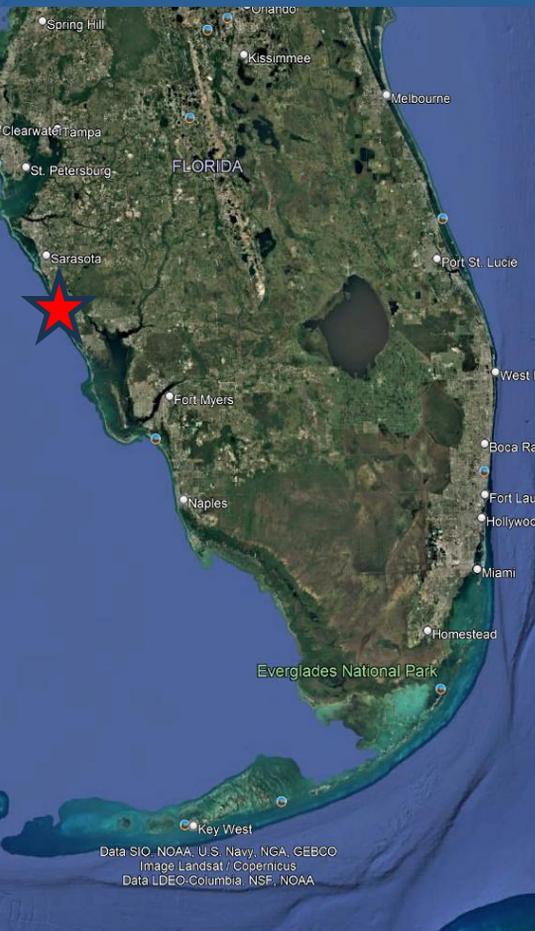
## 39<sup>th</sup> National Conference on Beach Preservation Technology

Michael G. Jenkins, Ph.D.; P.E. Senior Principal; Geosyntec

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# Midnight Pass – Sarasota County



- Historical Pass between Siesta and Casey Keys
- 1960's: Dredging of the Intracoastal Waterway (ICW)
- 1970s and early 1980's: Pass Gradually Closed and Migrated North
- December 5, 1983: Pass Closed to Protect 2 Gulf front Homes
- Extensive Efforts to Re-Open the Pass



- 2024 County Directive: **Open Midnight Pass!**
- **Hurricane Helene – September 2024**
- **Hurricane Milton – October 2024**
- 2025 County Directive: **Keep Midnight Pass Open!**



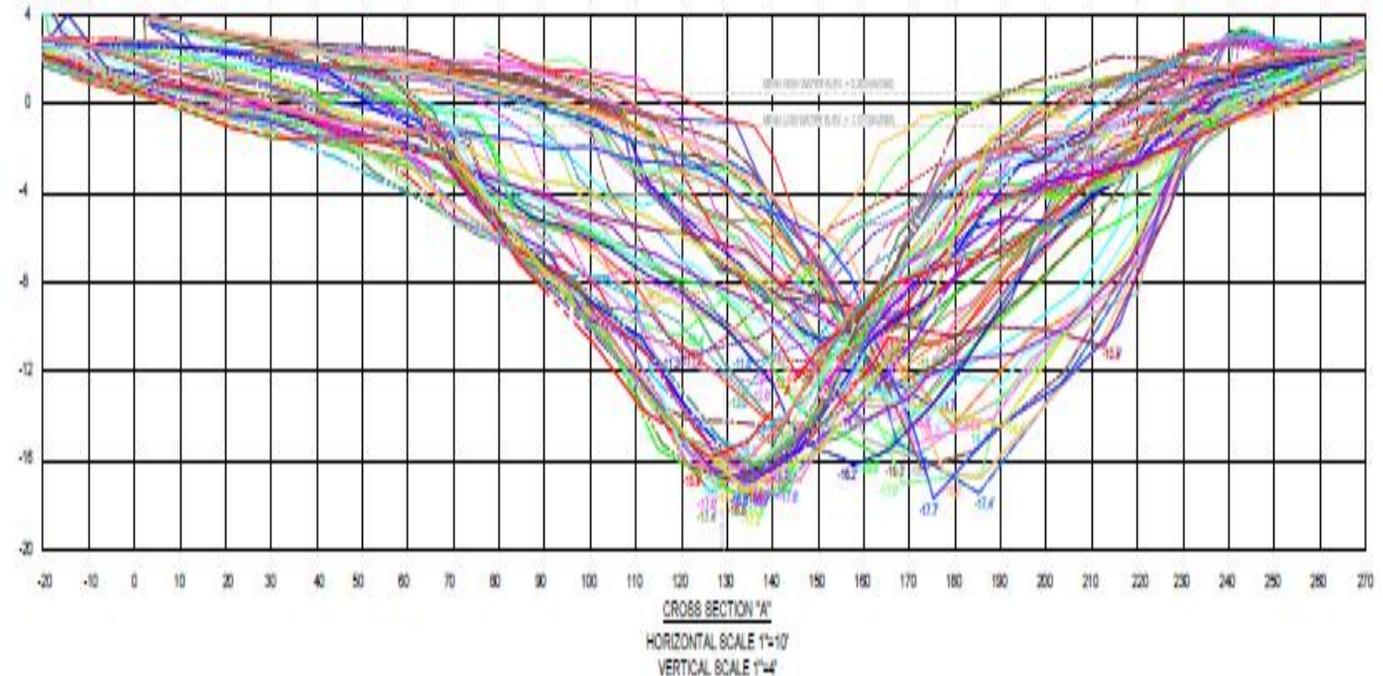
# Inlet Cross Section

Geosyntec<sup>®</sup>  
consultants

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# Inlet Cross Section

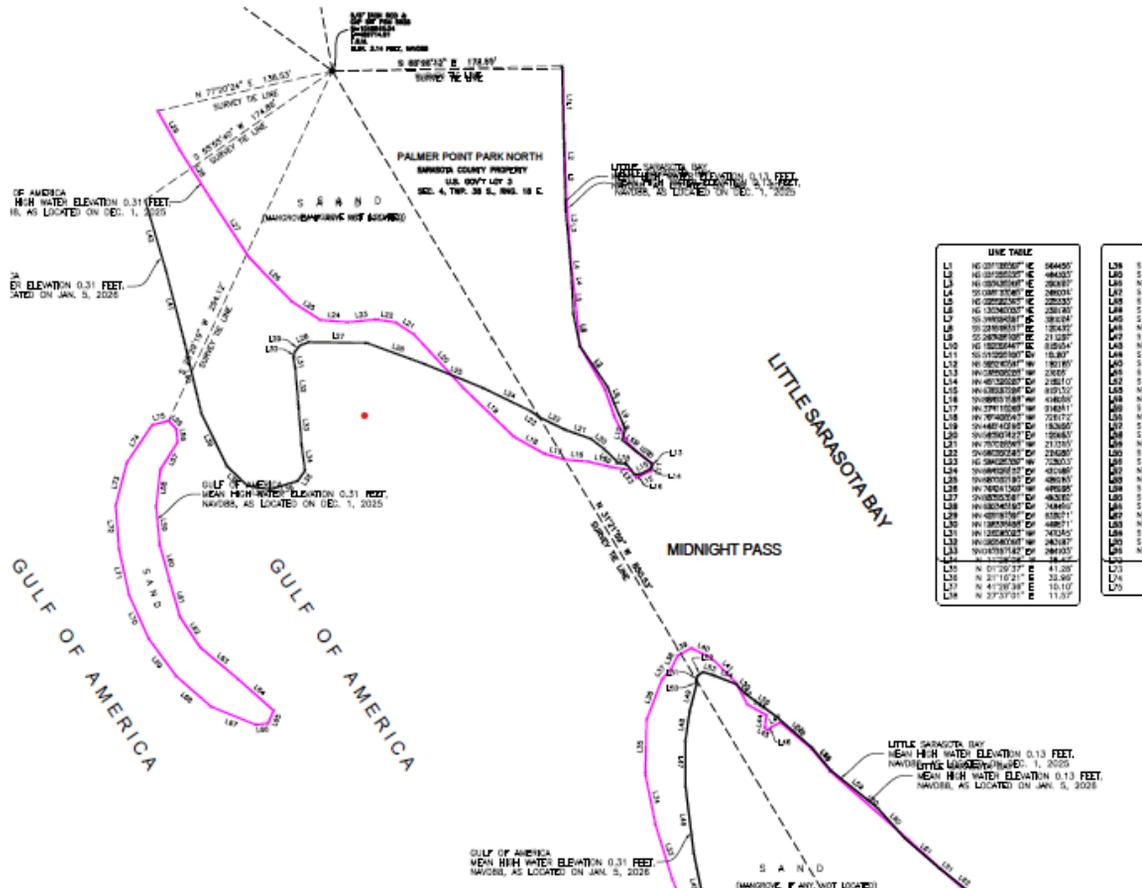


Min: January 21, 2025 (629 sf; 9.1 ft deep)

Max: January 20, 2026 (1,715 sf; 16.2 ft. deep)



# Shoreline Position



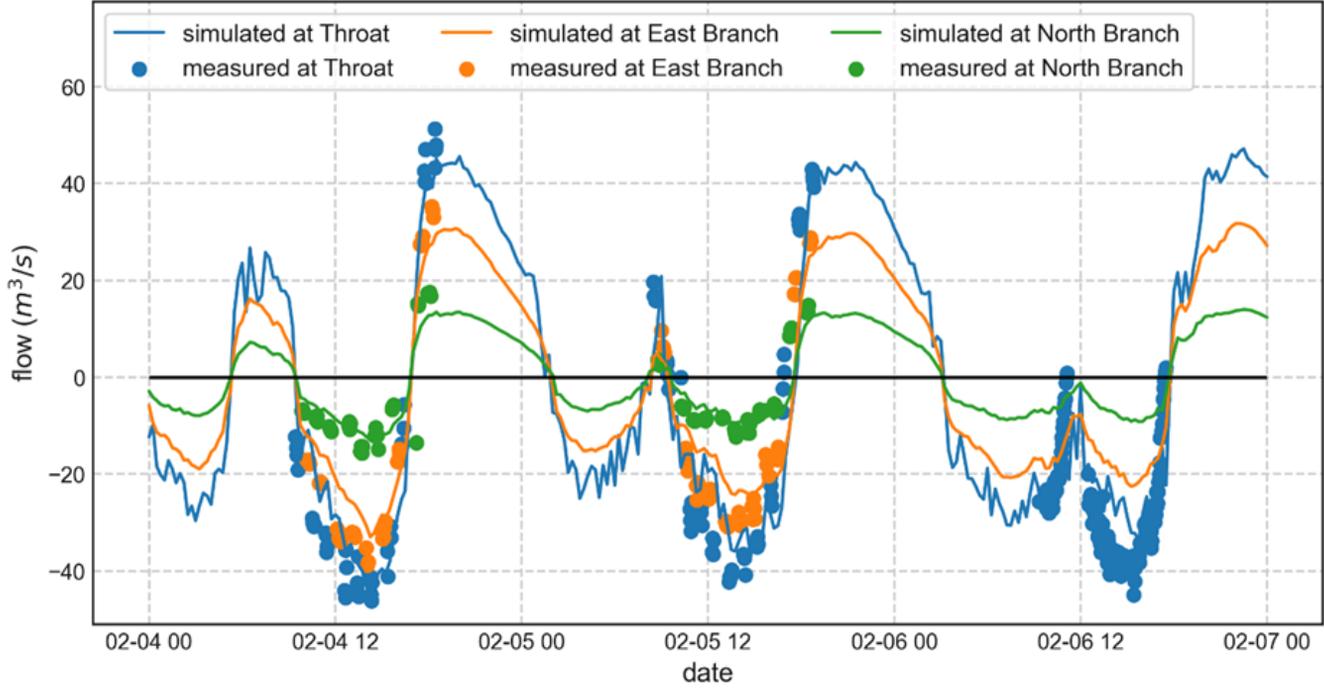
# Hydrodynamic Data Collection

Four Field efforts have been conducted to capture key tide and season conditions.

Additional Field Efforts are planned.



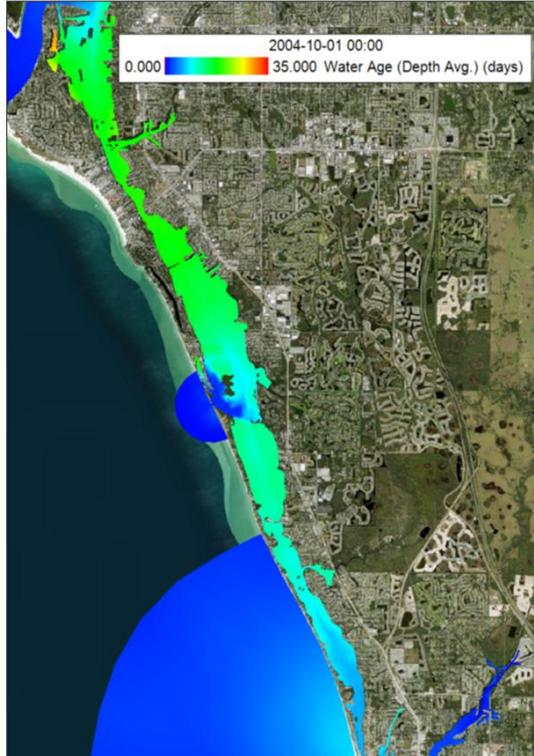
### LSB2025 model comparison to Midnight Pass data collected during trip 2



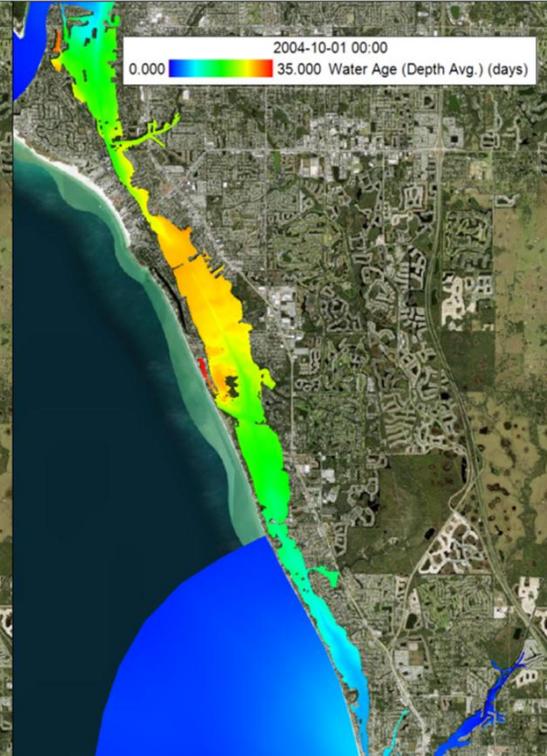
# Regional Mixing

Water Age –  
Wetter  
Period

Midnight Pass OPEN



Midnight Pass CLOSED



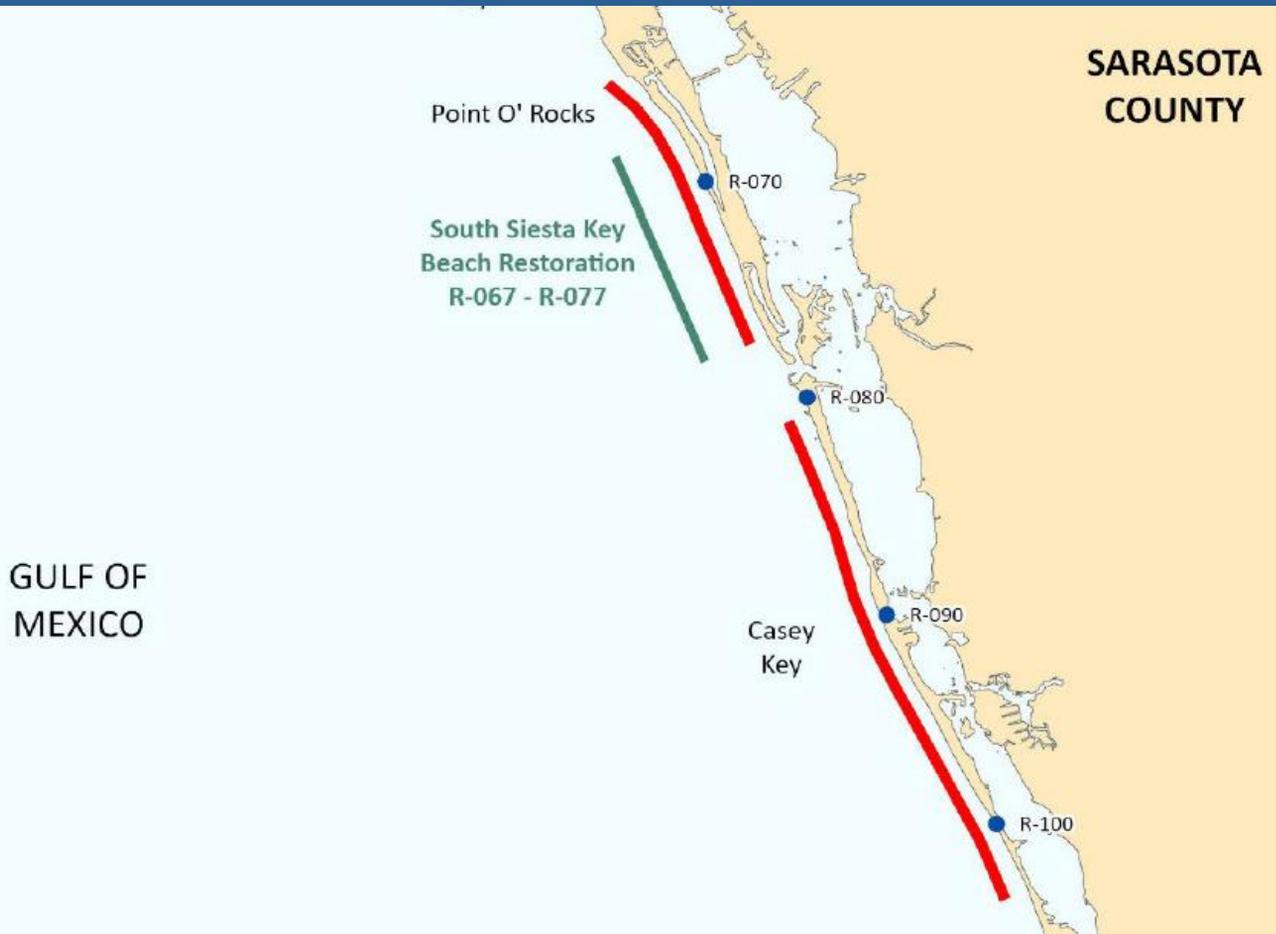
- Post storm condition meets the definition of an 'inlet' per 62B-41.002(19) FAC
- County intends to manage this inlet per the requirements of 62B-41.005(11) FAC



- General Considerations
- “Inlet Management” under Florida Statute and Rule (161.143, 161.142 FS)
- Trigger is Engineered Corrective Action (Dredging or Structures) for formal IMP
- Requirement to offset erosion to adjacent beaches and mitigate for project impacts



# Critical Erosion Areas



- Continue data collection and modeling efforts
- Monitor inlet conditions relative to closure and implement response plan (Emergency or Formal) if warranted
- Develop additional management initiatives as needed based on data and stakeholder input
- Seek cost share for ongoing monitoring and management efforts



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