

Town of Longboat Key

2021 Beach Projects

FSBPA

September, 2021

Tom Harmer, Town Manager

Charlie Mopps, Senior Project Manager

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TOWN OF LONGBOAT KEY

Where are we?

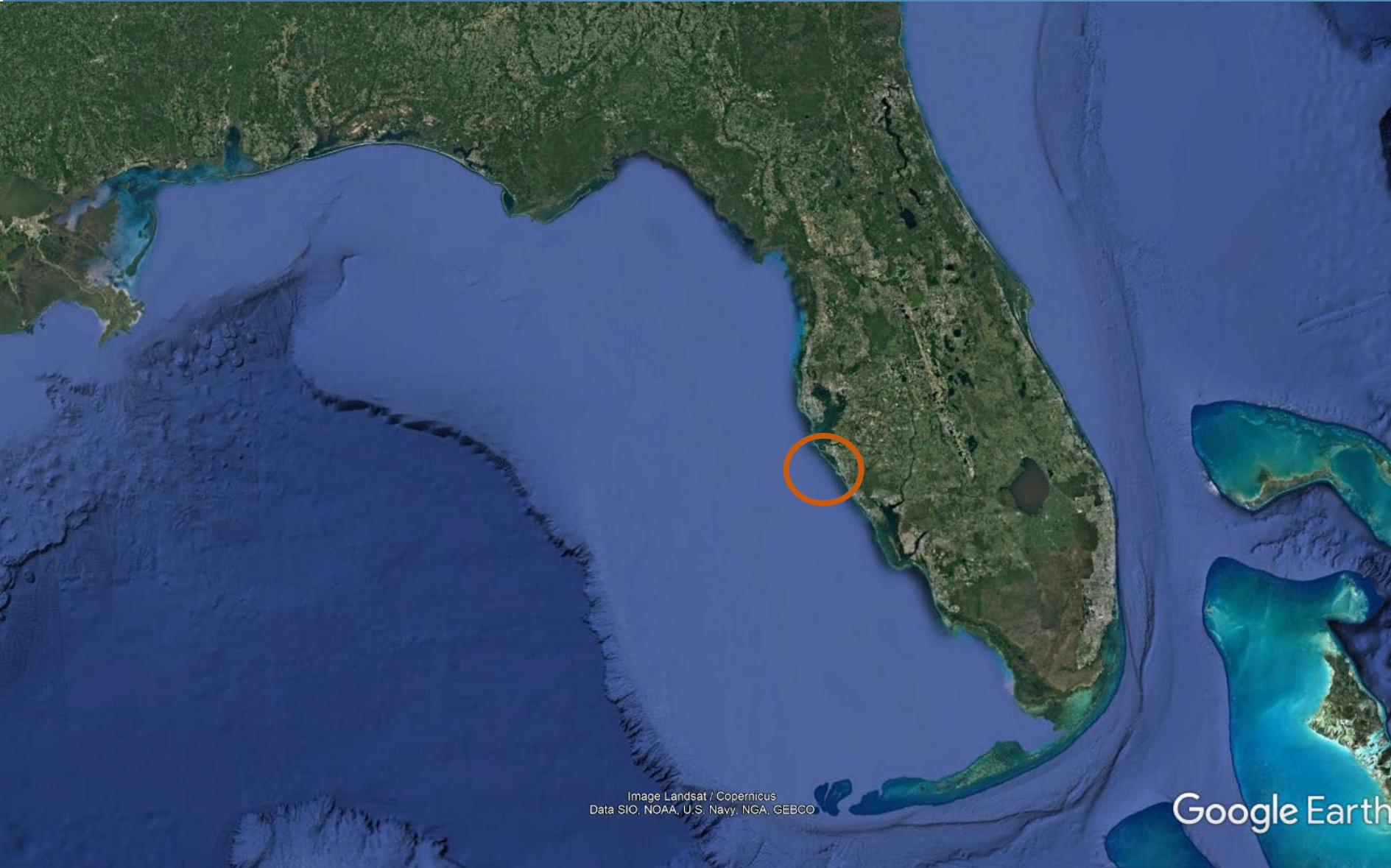


Image Landsat / Copernicus
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google Earth

Southwest Florida

A Barrier Island

Across Sarasota Bay

In 2 Counties

-Sarasota

-Manatee

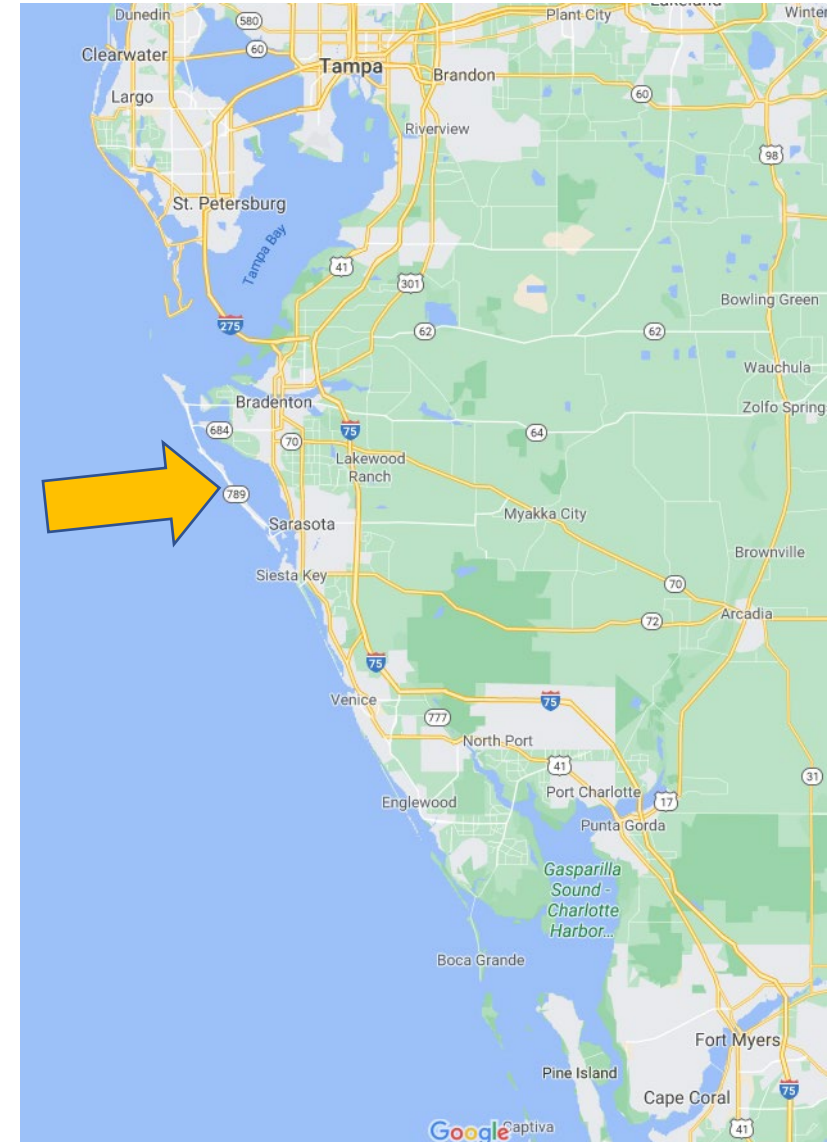
Anna Maria Island to
the North

St. Armands and Lido Key
To the South



Who We Are

- Establish as a Town in 1955
- **Full Service Municipality**
- Commissioner/Manager form of Government
- **2020 Census Population is 7,505**
- 10.5 Miles of Public Beach
- **Original Erosion Control Line established in 1993**
 - North end ECL originally set back in 1977
- Flanked by 2 Inlets: Longboat Pass to North, New Pass to South





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Looking North from New Pass



Looking South from Longboat Pass



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How we plan and fund our projects

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Beach Management Plan

- Typically 5-8 year nourishment cycles
- Use a beach funding financial model to forecast costs and funding strategies
- Five Year Capital Improvement Plan (FY21- FY25) \$49.5M
 - Current nourishment effort anticipated to be a 3 year effort \$44.6M
- Share sand from New Pass with City of Sarasota (Alternate dredging)
- Share sand from Longboat Pass with Manatee County (Alternate dredging)
- Dredge sand from Passage Key





Beach Management Plan

- **Funding is based on:**
 - Two District Debt Millage
 - Gulf (80%)
 - Bay (20%)
 - FDEP Beach Management Funding Assistance Program
 - TDT
 - FEMA
- **Referendum required for the debt**
 - Requested authorization to borrow up to \$34.5M
 - Voter approved
 - Gulf Side 83%
 - Bay Side 72%
 - FY21 Budget- \$21.2M @ 2.19%
 - ***Actual borrow for this cycle was \$21.2M @ .72%***





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The previous nourishment....

Segment 2: Central Key (Earth Tech)

- 205,000 cy beach fill
- 13,768 Trucks

Segment 3: South Key/Longboat Club Rd. (Earth Tech)

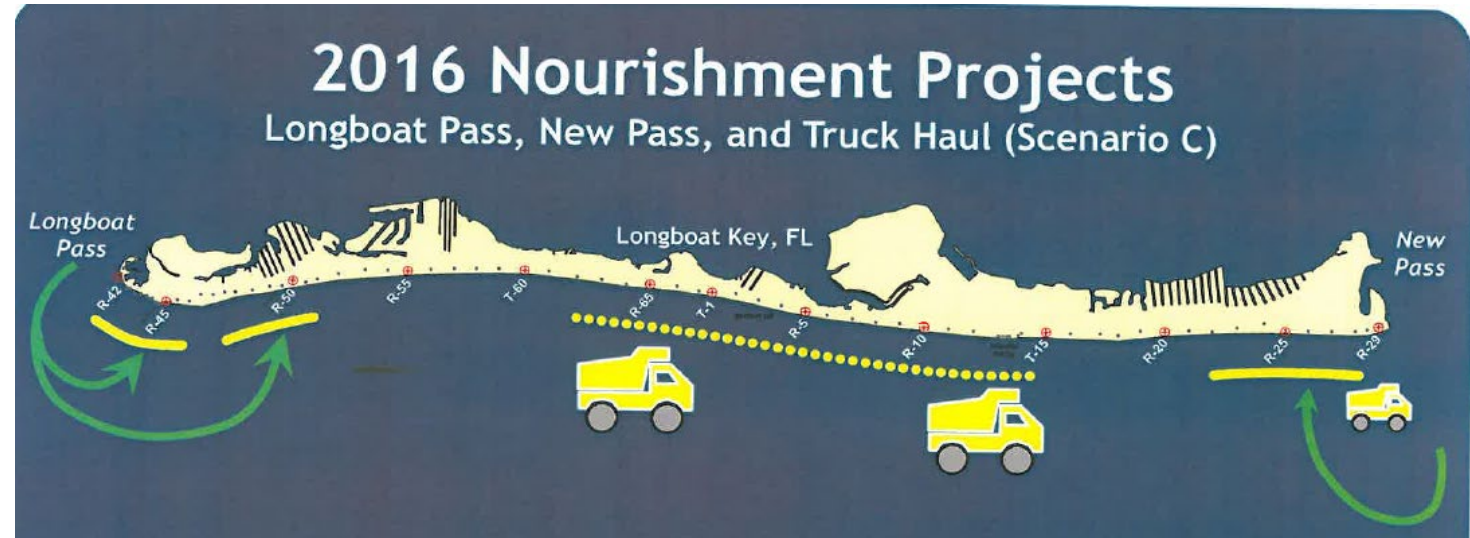
- 33,000 cy beach fill
- 2,250 Trucks

Segment 4: Gulf Side Rd/Longboat Pass (Norfolk Dredging)

- 205,000 cy beach fill

Segment 5: South End/New Pass Dredge (Norfolk Dredging)

- 200,000 cy beach fill



Truck Haul Costs = \$13,800,000 (\$53.78 per CY)

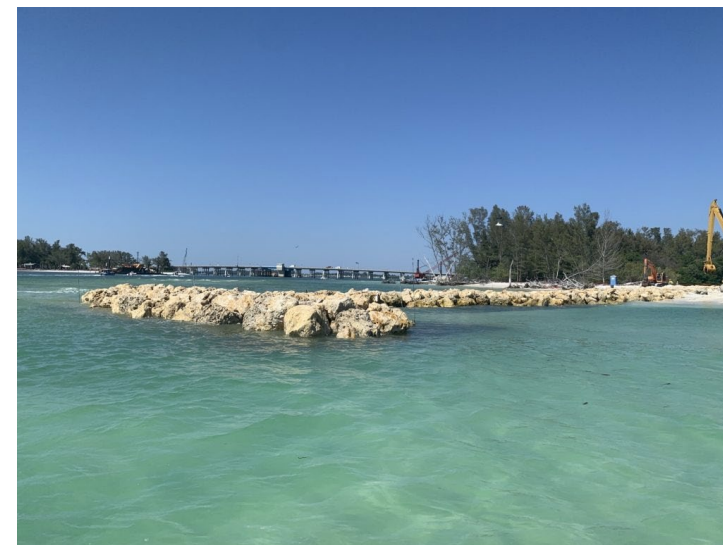
Dredge Costs = \$6,477,700 (\$15.99 per CY)



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Overall Project- 2021

- Three years of work anticipated
 - 5 Segments of sand placement
 - Construction of 5 Rock Groins (north end)
- Sand Sourcing
 - New Pass
 - Big Pass
 - Passage Key





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2021 Beach Projects What was Accomplished

Segment 1: North End/Greer Island (Weeks Marine)

- 5 rock groins (Kelly Brothers)
- 200,000 cy beach fill

Segment 2: Central Key (Weeks Marine)

- 375,000 cy beach fill

Segment 3: South Key/Longboat Club Rd. (Weeks)

- 175,000 cy beach fill

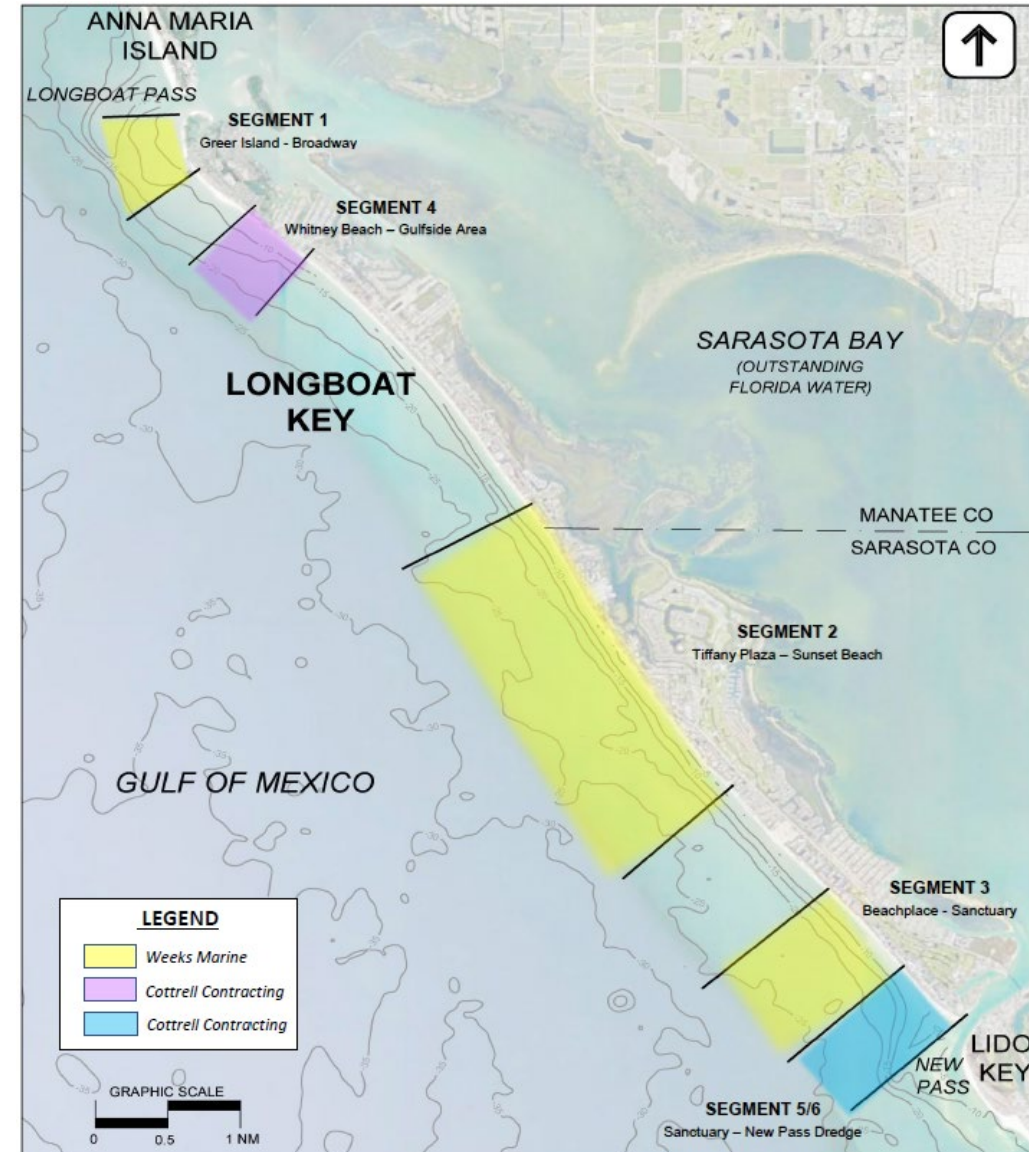
Segment 4: Gulf Side Rd/Longboat Pass (Cottrell Contracting)

- 76,000 cy beach fill
- Complete dredging of Longboat Pass

Segment 5: South End/New Pass Dredge (Cottrell Contracting)

- 180,000 cy beach fill
- Complete dredging of New Pass

NOTE: 3 Fiscal Years worth of work in 1 Year = 1 mil CY Placed





2021 Beach Projects

How and How Much

- Segment 1 Sand Source Changed
 - Add Segments 2 and 3
 - One Big Project
- Manatee County Started Longboat Pass
 - Sole Source Contract with Cottrell to Complete
- Delay in Cottrell follow-on project
 - Sole Source Contract with Cottrell to Complete

Weeks Contract = \$31,017,220.00

\$6,450,000.00 for Groin Construction

\$24,567,220.00 for sand placement = \$32.75 per CY

Cottrell Contracts (2) = \$5,045,994.00

Sand Placement = \$19.71 per CY





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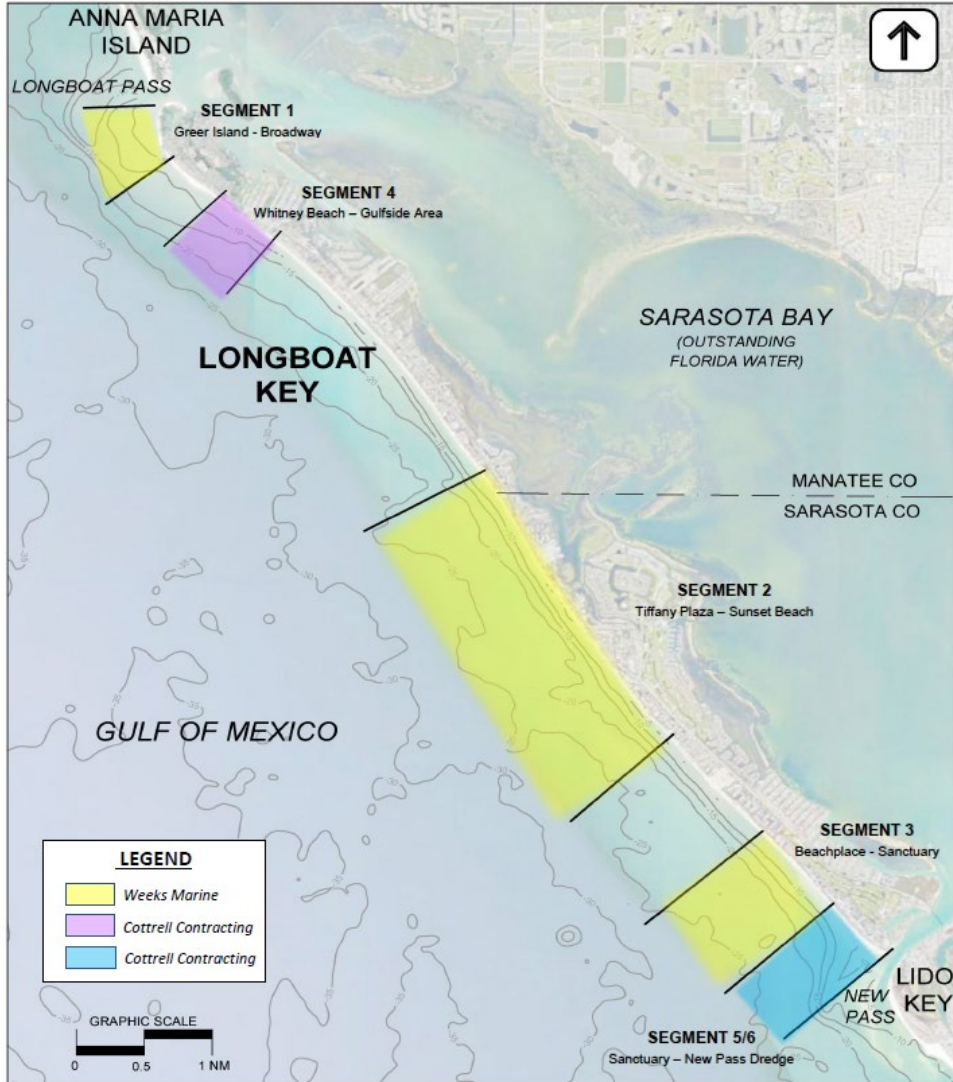
Opportunities





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Equilibrate





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Our natural north end....





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Our natural north end....





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What about all of our events...



Coordination with Stakeholders

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- Manatee County for Sand Sharing of Longboat Pass
- Manatee County for Funding Contribution of North 2 Groins (\$2.69 Mil)
- City of Sarasota for Sand Sharing of New Pass
- Mayor of City of Anna Maria for Anchored Vessels
- State and Federal Agencies
 - Quick Turnaround for Added Segments to Overall Project
 - Environmental Approvals





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Flexible Procurement

- Use of Sole Source to Add Segments
- Use Change Orders to Increase Template Fills
- Adjusting Contracts for Turtle Monitoring and Relocation (Mote Marine)
- Adjusting Contracts for Bird Monitoring (Steve Sauers Environmental Monitoring)

Only way this is possible is through long lasting professional relationships with monitors and flexibility

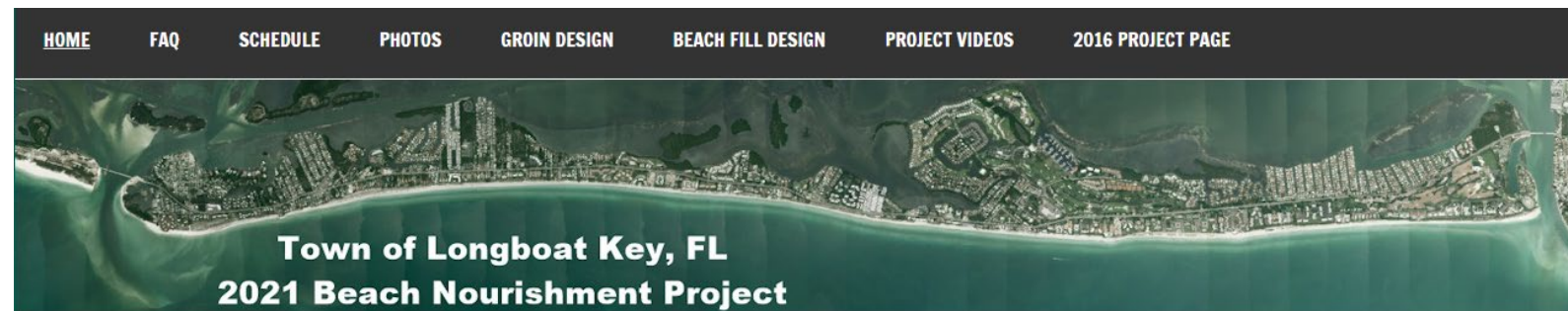




TOWN OF LONGBOAT KEY

Communications Management

- Beaches 101 and Beach Referendum Presentations
 - Over 12 presentations made Town wide.
 - Education
 - Funding Establishment
- During Construction Communications
 - Group and One on One
 - Manage Project through events and holidays
 - Flexibility of Contractors
- Talk of the Town
 - Web Videos
 - <https://www.longboatkey.org/residents/talk-of-the-town>
- Media / Press Outreach
- Project WEBSITE!
 - <http://olsen-associates.com/lbk2021/>





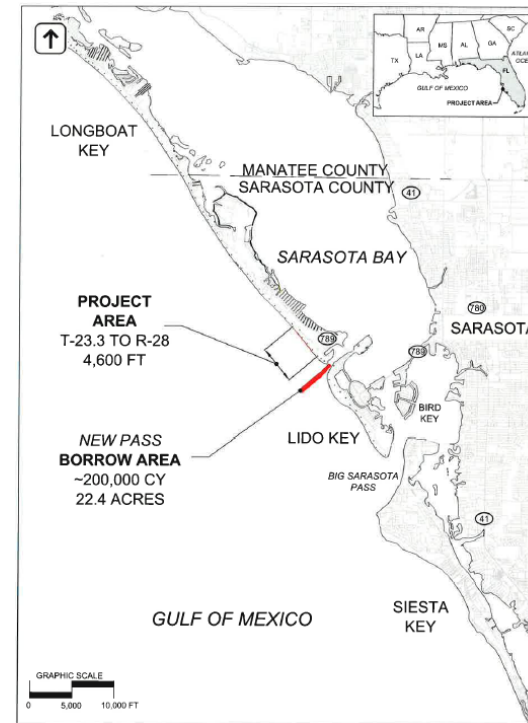
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What's Next?

- **Permit Updated – FY21**
- **Design and Bid –FY21**
- **Construction Start Winter 2022 (FY22)**
 - Anticipated Construction Time 60 Days
 - Will Tighten Groin through Maintenance
 - New beach to work from
 - Advanced fill in Segment
 - Provide Time to Construct
 - Equilibration Post Construction





Greer Island Spit Management Plan

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- **Spit Management**

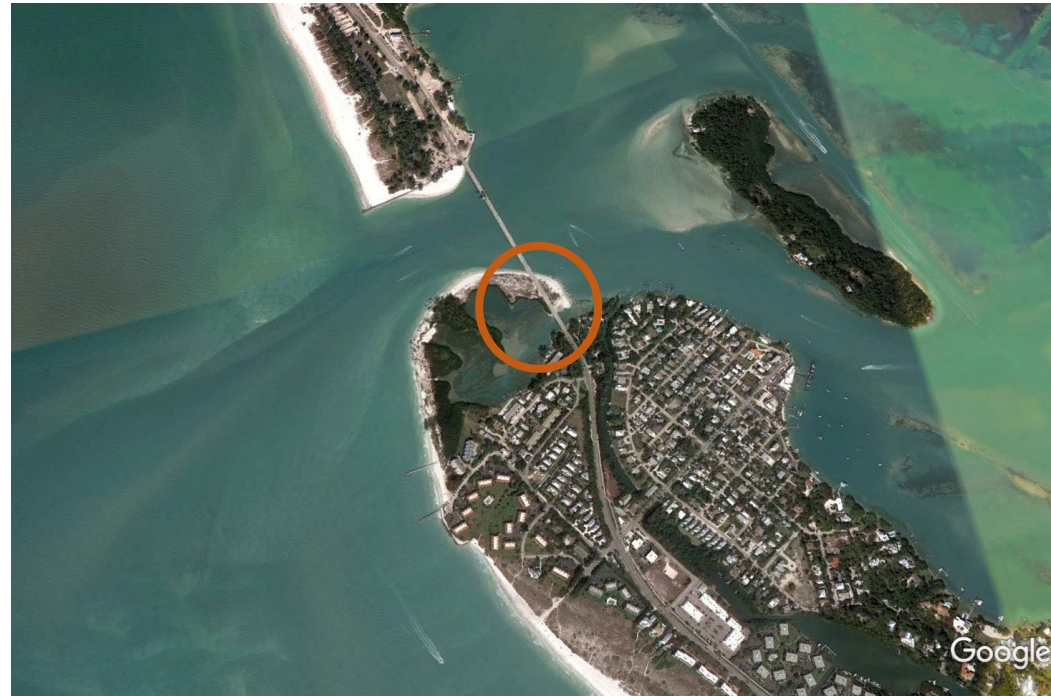
- Clear sand from lagoon channel
- Clear sand from bridge area
- Return sand to Gulf shoreline
- Return Conditions to approximately 2006 conditions

- **15-year permit proposed**

- Dredging and Placement every 4-8 years

- **Initial Spit Dredge**

- 25,000 – 35,000 cy
- Depth to -5 feet



Current Conditions



Historical Conditions

Greer Island Spit Management Plan

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- **Permit Applications**

- Under Review

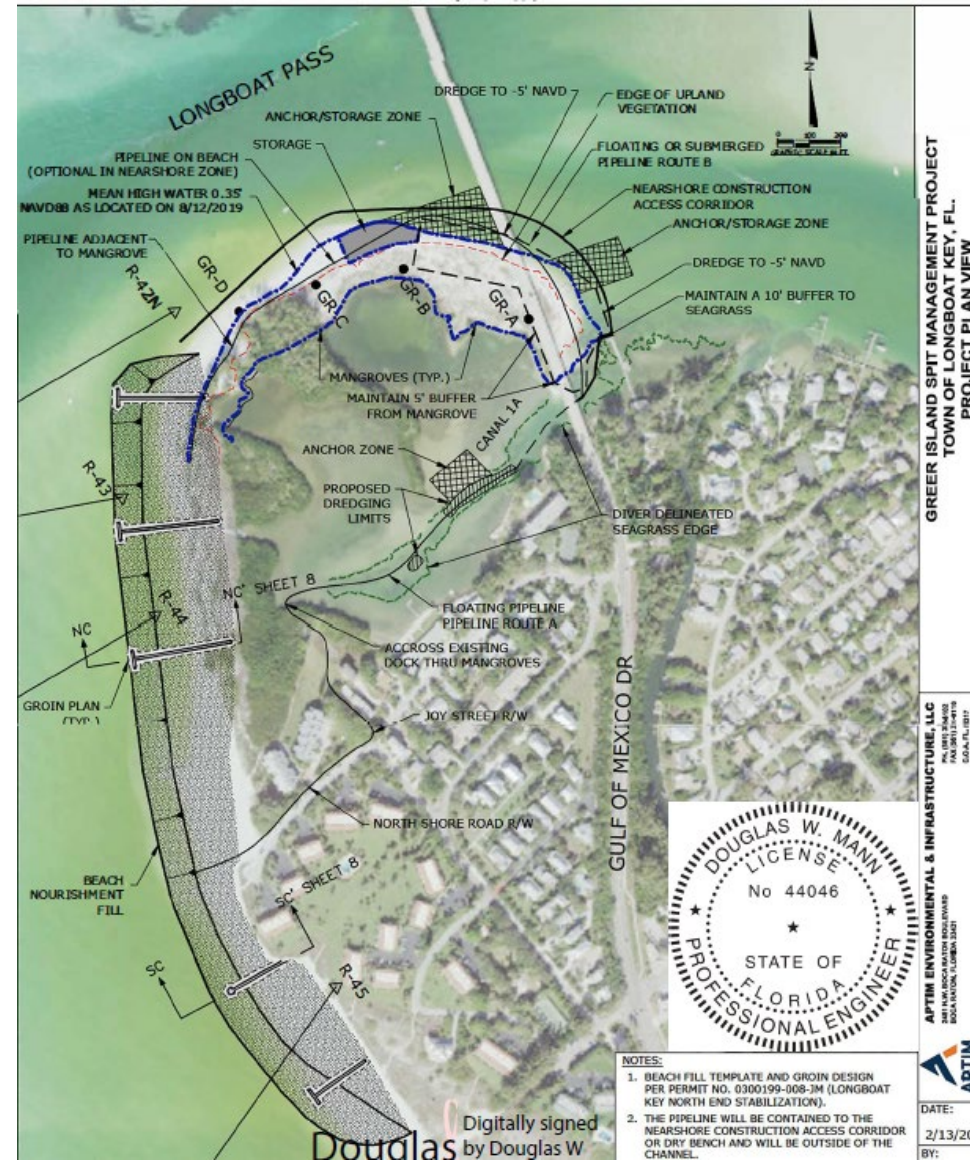
- FDEP (Deemed Complete)
 - ACOE (?)
 - FDOT (Received)

- **Level of Permitting**

- Could take an additional 6 months

- **Construction Start**

- When Needed
 - Duration 60-90 days





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Thank You



olsen
associates, inc.
Coastal Engineering





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Questions?



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