



Preserving Florida's Beaches

Beach Renourishment

By

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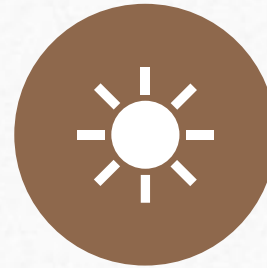
Discussion Topics



Project Need &
Approach



Community
Engagement



Project
Funding



Questions

PROJECT NEED & APPROACH



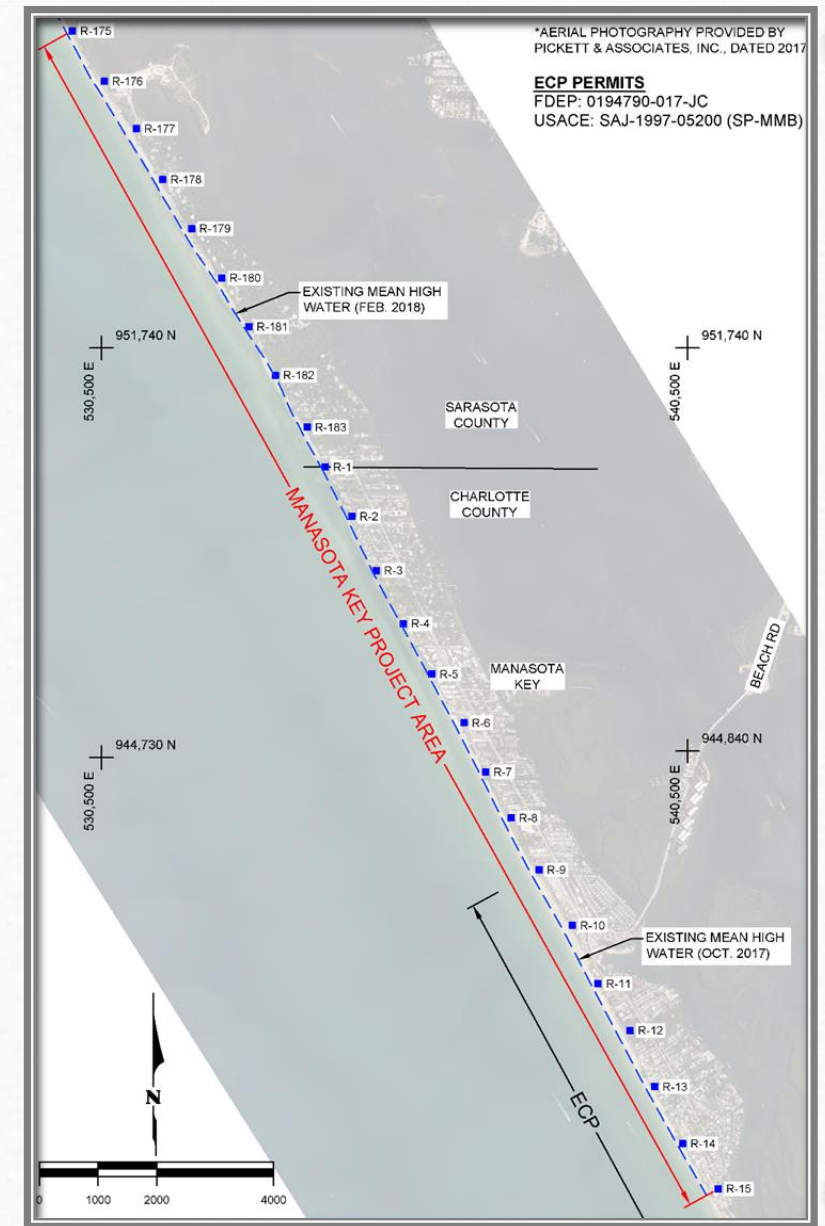


PROJECT NEED & APPROACH

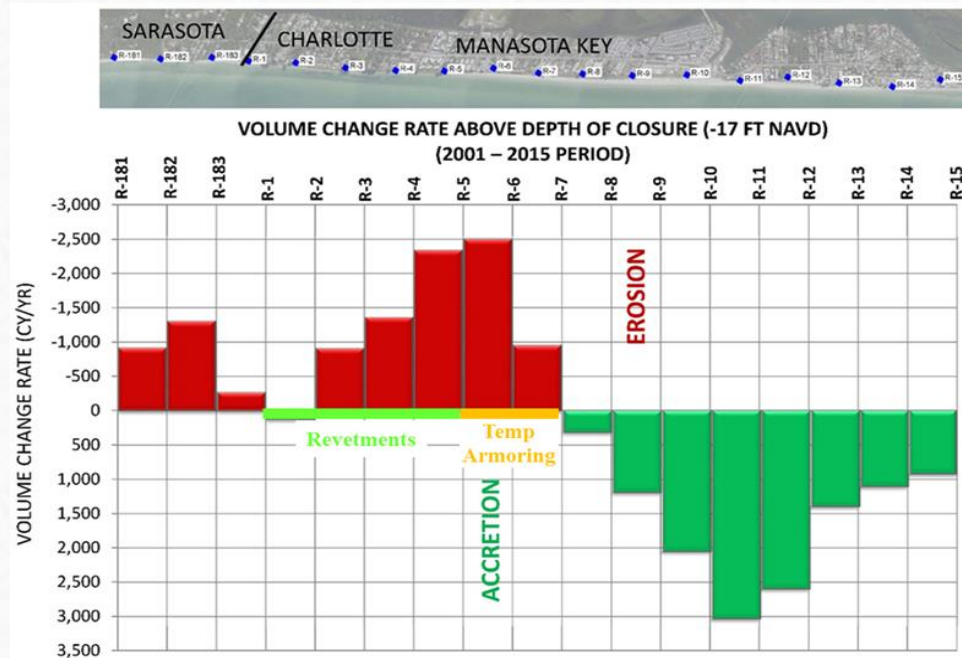
- Project Description
- Project Need
- Design Approach
- Challenges
- Construction Fun Facts

PROJECT DESCRIPTION

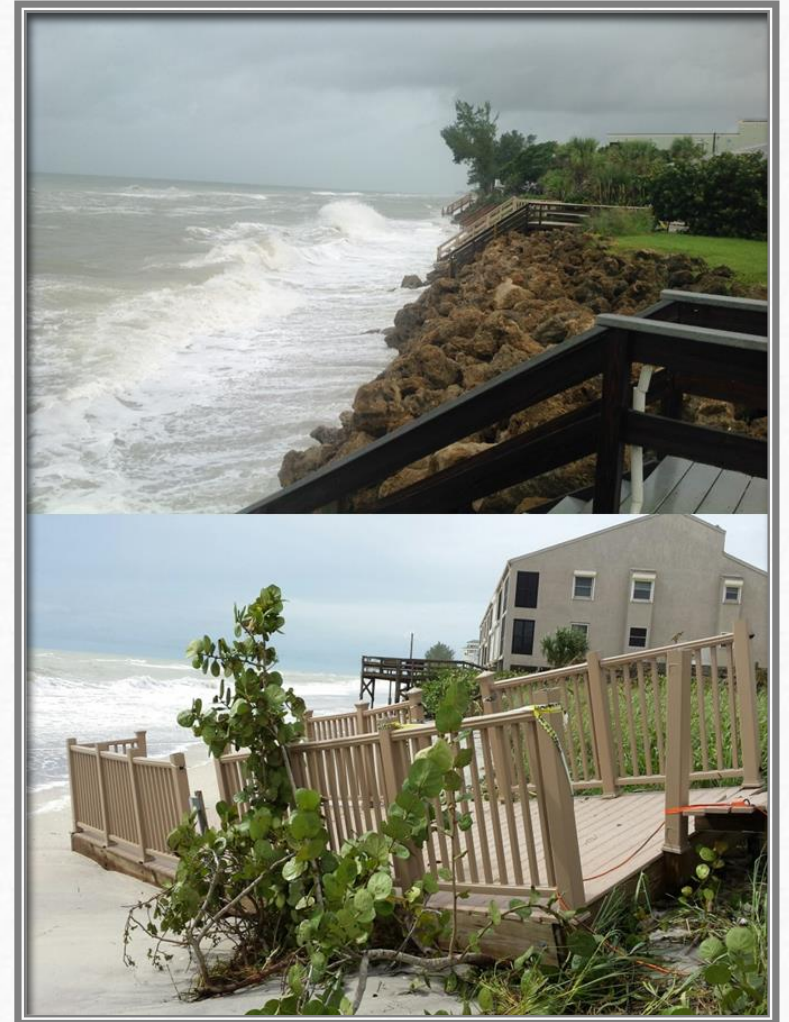
- Regional Beach Restoration Project
- 4.6 Miles of Designated Critically Eroding Beaches along Sarasota and Charlotte County Shorelines
- No Prior Beach Project along significant stretch of developed shoreline
- Co-funded by the Counties and State of Florida
- State Stats: Ranked 3rd(Vol), 4th(Length)
Cost Share ~ \$12.65 Mil (35%)



- Historical Context
 - 2001-03 Joint Beach Erosion Study
 - Background Erosion Rate < 1 ft/yr (74-01)
 - Small area of exposed hardbottom
 - Beach restoration recommended but never pursued due to lack of consensus

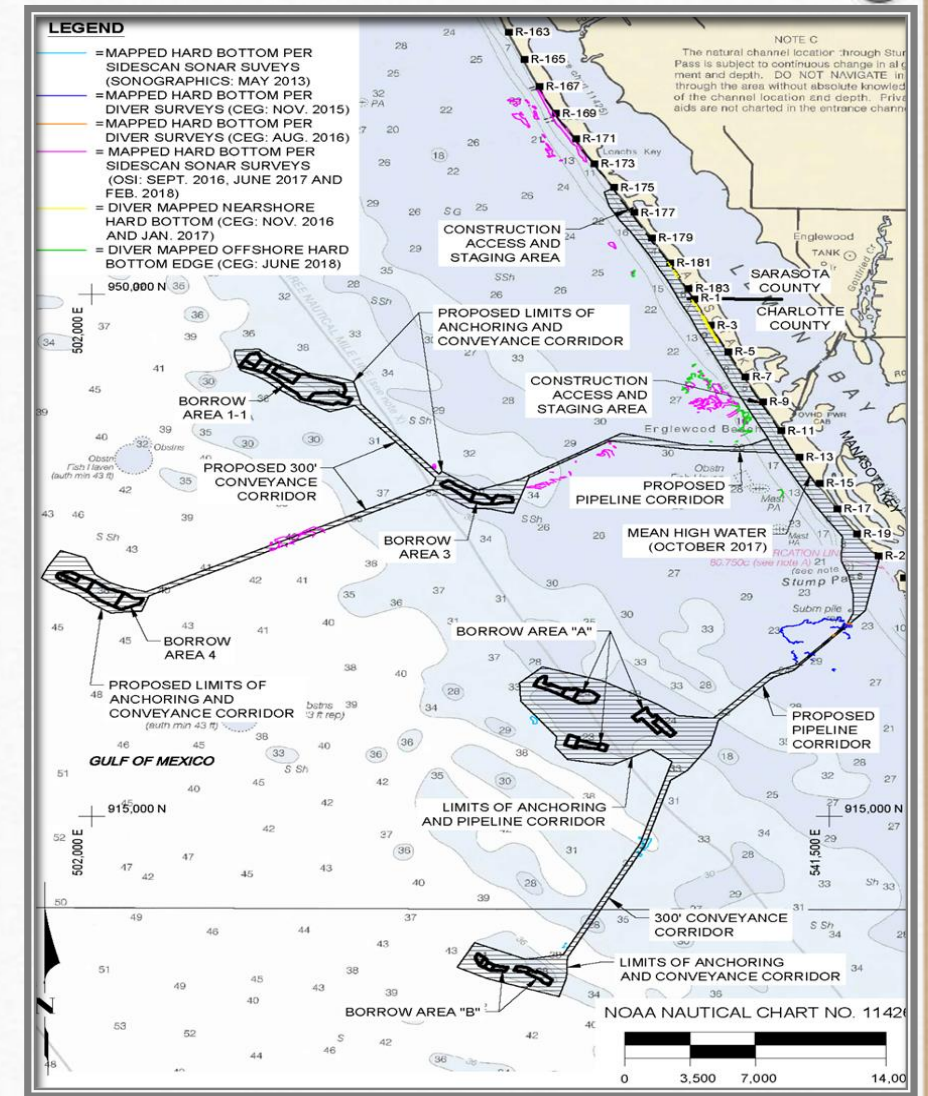


PROJECT NEED



DESIGN APPROACH

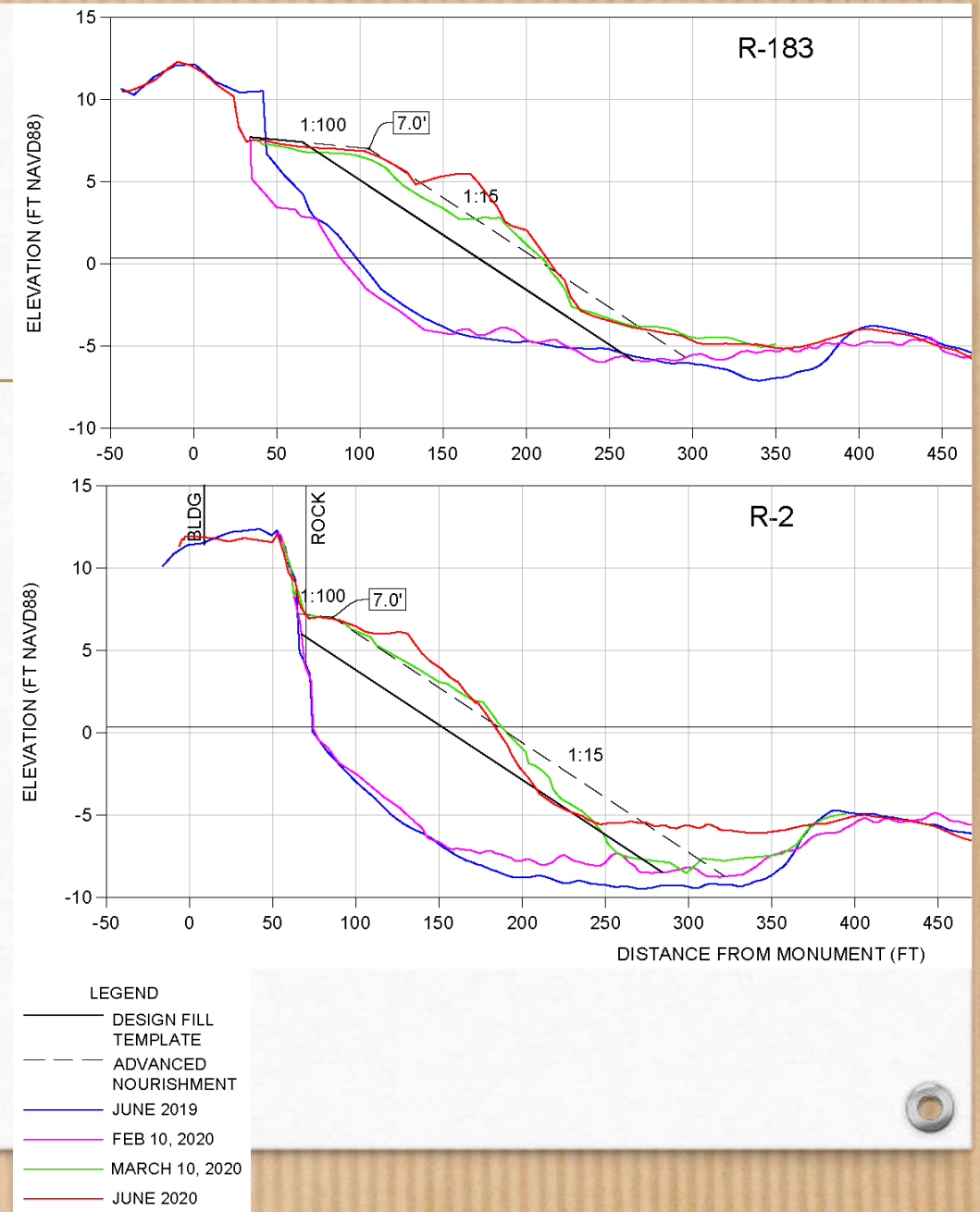
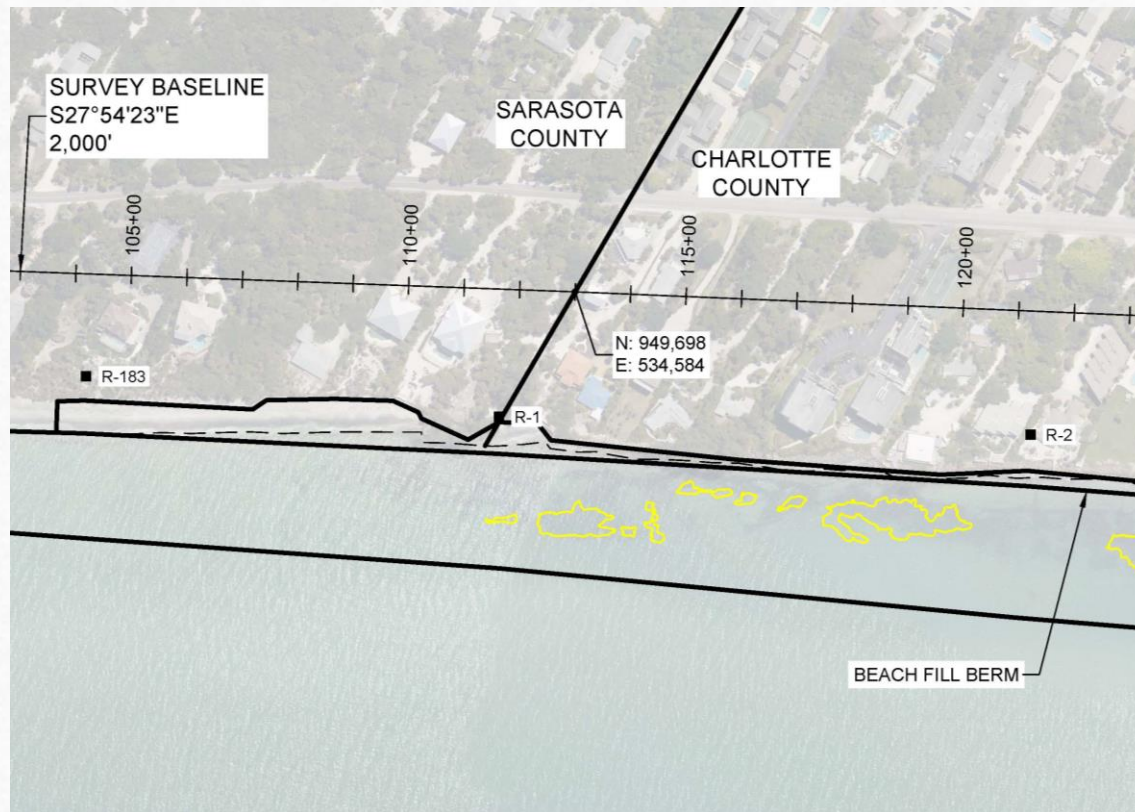
- Beach Fill Template
 - Design Storm ~ 25-Year Return Interval
 - 50 ft Wide Design Template
 - Beach Width Varies (e.g., Existing Armoring)
 - Design Volume ~ 879,000 CY
- Nearshore Hardbottom Impacts
 - Over 4 AC will be covered requiring mitigation
 - Construct artificial reef using native limestone
- Offshore Borrow Areas
 - Identified 3 New Sand Sources > 2 MCY
 - Existing Project has 5 Permitted Areas > 1 MCY



Design Plan and Sections

25-Yr Return Storm

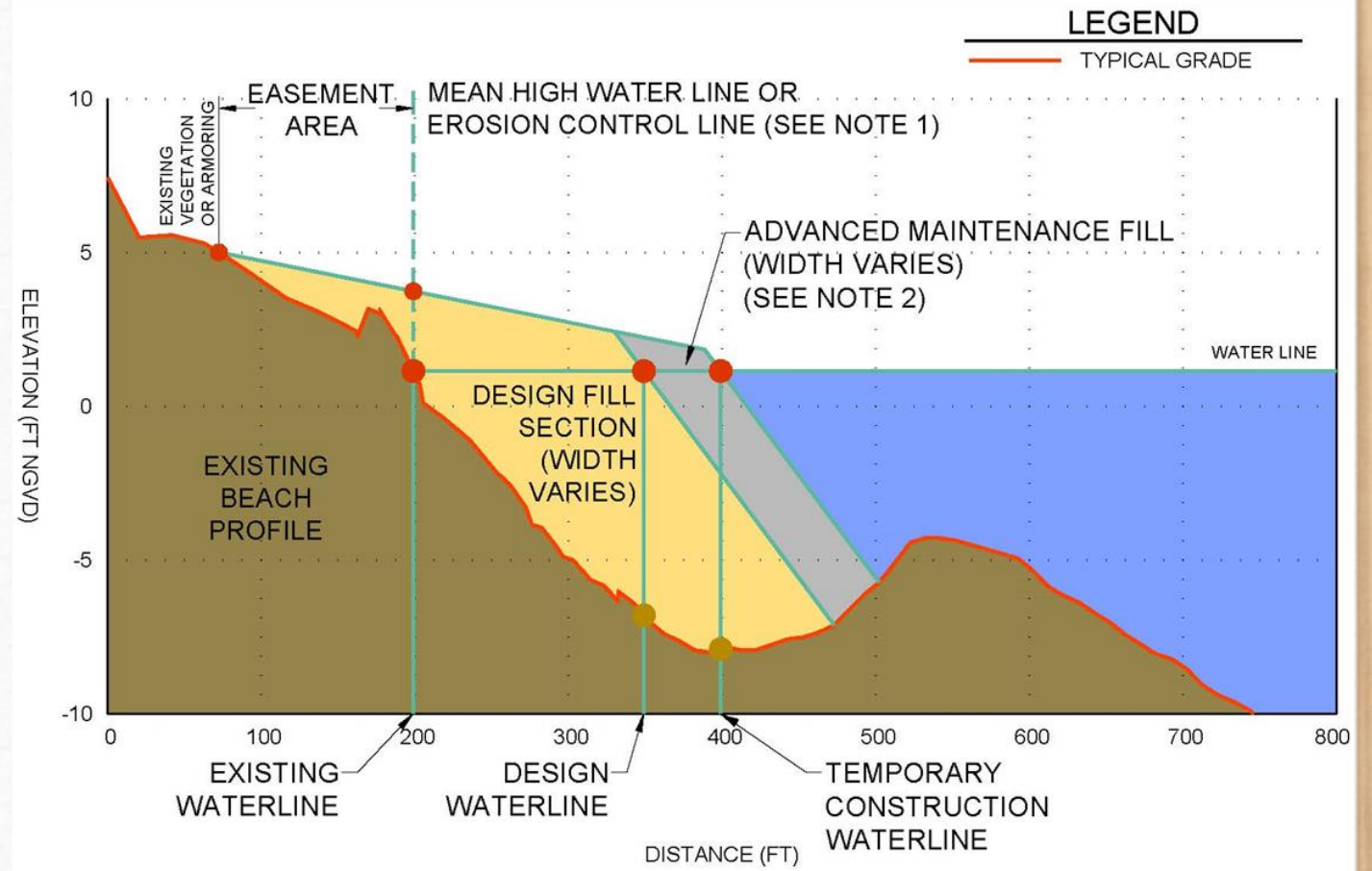
50-Ft Design Berm + Advanced Nourishment



- Construction Easements
- Erosion Control Line
- Stakeholder Opposition
- Nearshore Hardbottom Impacts
- Mitigation



CHALLENGES



NOTES:

1. THE SEAWARD LIMIT OF THE EASEMENT AREA IS THE MEAN HIGH WATER LINE OR THE EROSION CONTROL LINE IF ONE IS ESTABLISHED.
2. ADVANCED MAINTENANCE MAY BE PROPOSED SUBJECT TO FISCAL CONSTRAINTS.

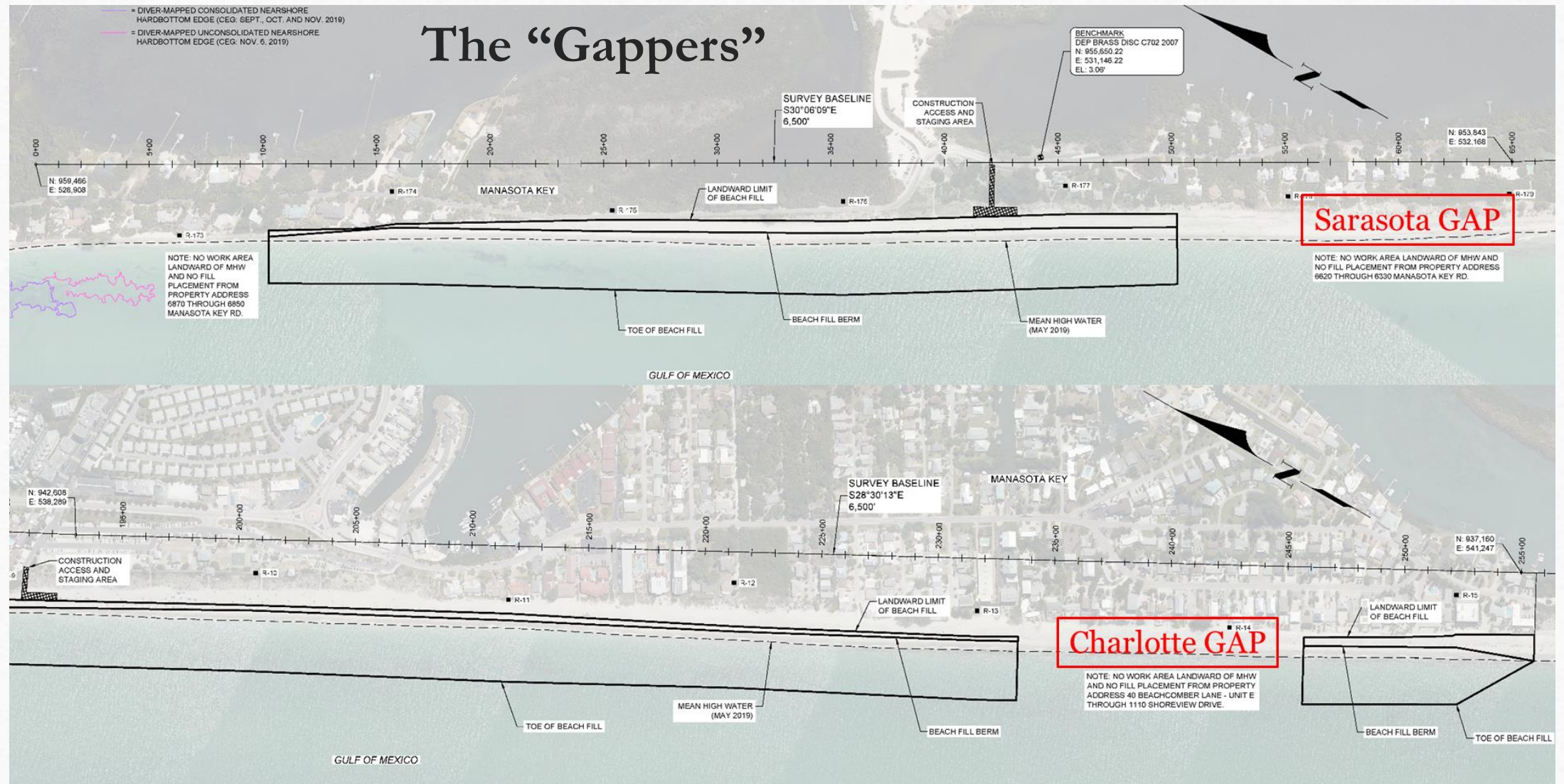
Erosion Control Line (ECL)

- ECL State Policy (FS 161.141)



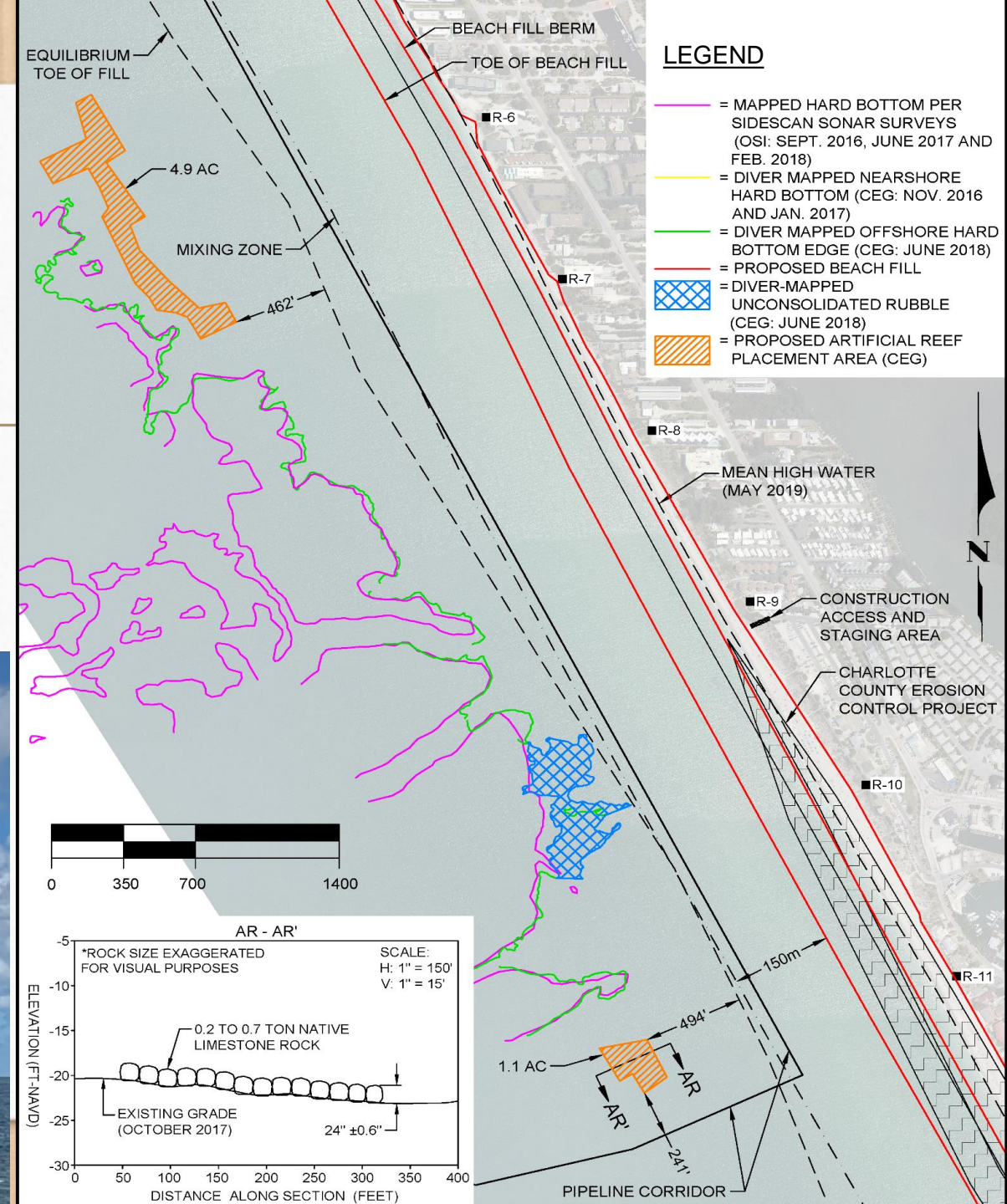
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- The Legislature declares that it is the public policy of the state to cause to be fixed and determined, pursuant to beach restoration, beach nourishment, and erosion control projects, the boundary line between sovereignty lands of the state bordering on the Atlantic Ocean, the Gulf of Mexico, or the Straits of Florida, and the bays, lagoons, and other tidal reaches thereof, and the upland properties adjacent thereto...
 - ECL Definition: Record of the Mean High Water Line (MHW) at the time established to legally document and fix the boundary between upland riparian property ownership and submerged lands of the State. MHW survey to be performed within six months of construction.

The "Gappers"



MITIGATION REEF

- Area = 3.9 Acres (Net) (80%-N, 20%-S)
- Estimated # of Rocks = 16,472
- Location ~ 1400 Ft Offshore
- Contractor: Cayo LLC
- Engineer's Opinion of Cost: \$6,957,000
- Bid Range: \$6,817,100 - \$9,100,000





Courtesy of GLDD

CONSTRUCTION FUN FACTS

- Length = 3.82 Miles
- Volume Placed = 880,280 CY
- Borrow Area ~ 4.2 NM Offshore
- Contractor: Great Lakes Dredge & Dock
- Dredge Details: Padre Island, Dodge Island
- Engineer's Opinion of Cost: \$30,550,320
- Bid Range: \$30,451,850 - \$32,505,000
- Estimated "Regional" Savings ~ \$8 Mil
- Avg Production Rate ~ 18,340 CY/Day

Charlotte County R-6

February 2020
Looking North



Charlotte County R-6

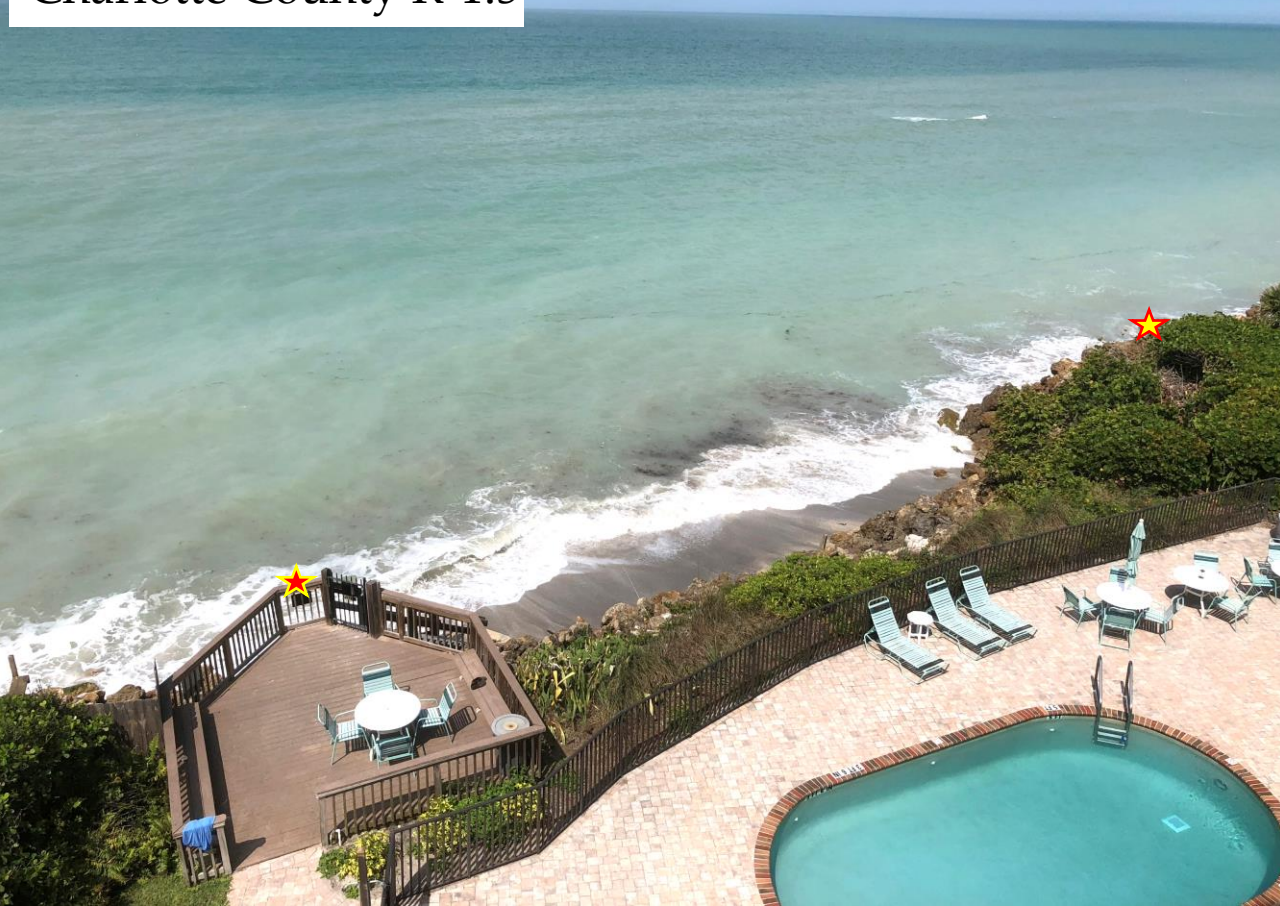


May 2020
Looking North



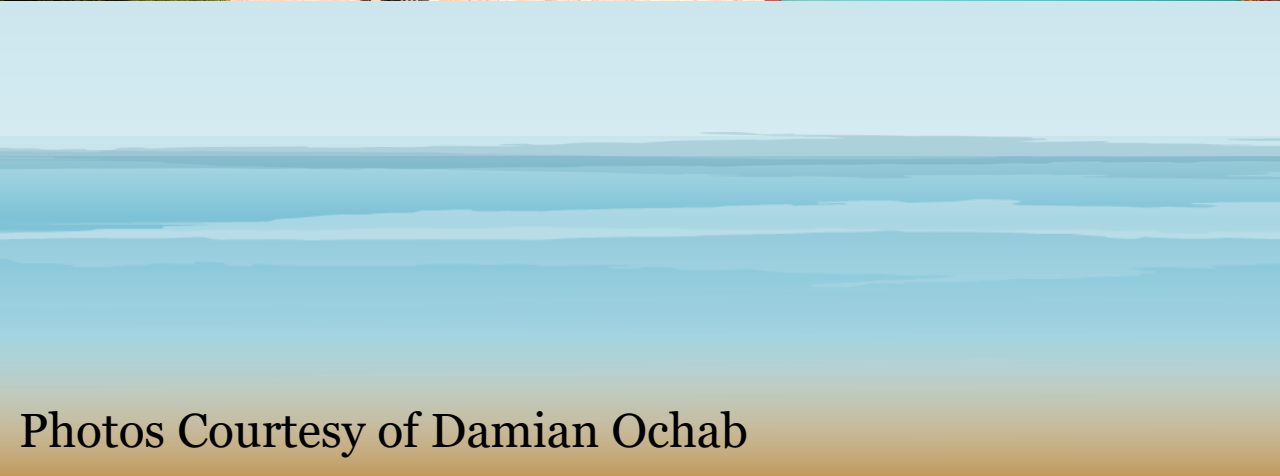
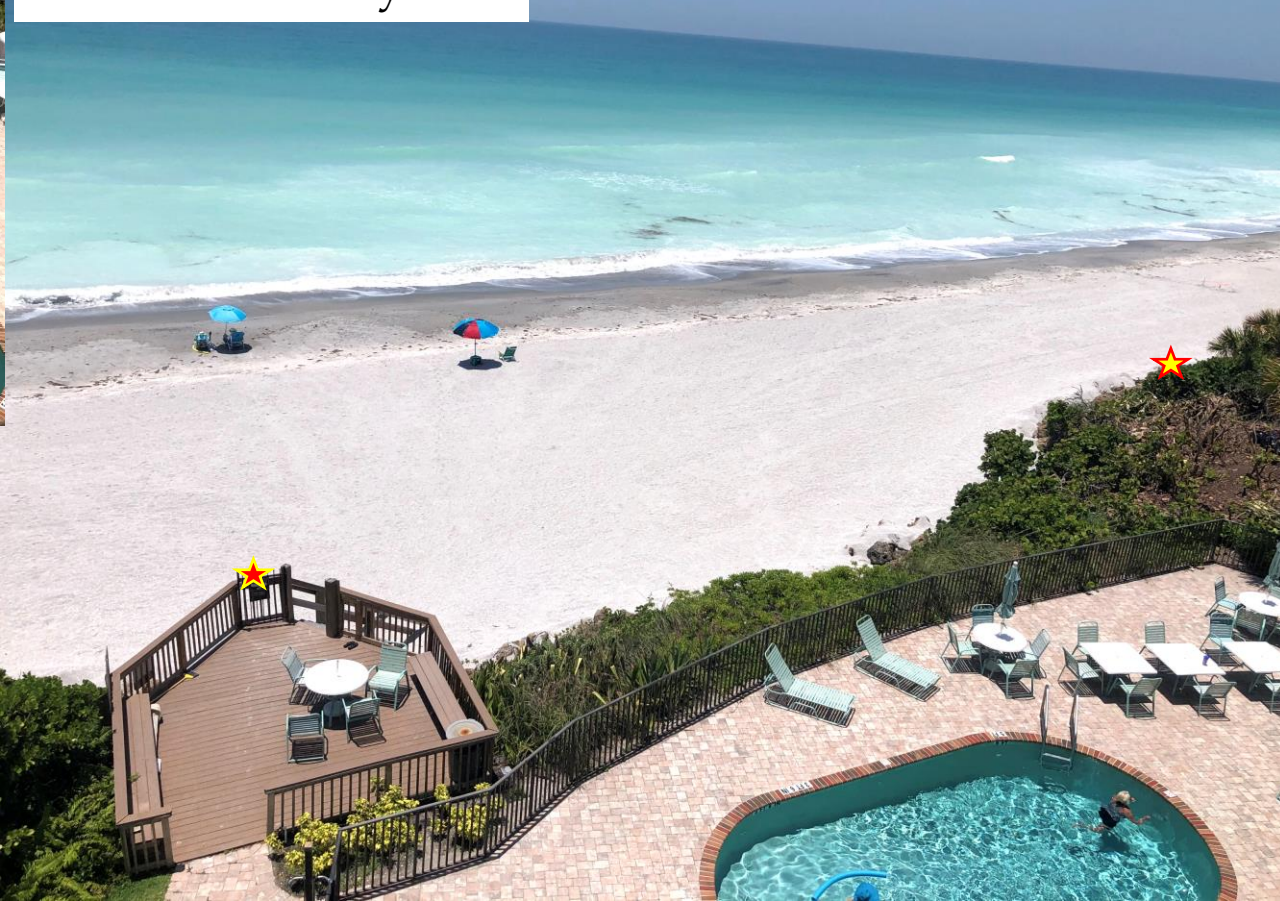
Charlotte County R-1.5

February 2020



Charlotte County R-1.5

March 2020





THANKS!

COMMUNITY ENGAGEMENT





COMMUNITY
ENGAGEMENT

**Raising local funds for beach
nourishment.**

It can be done.

Why Local Funding is Hard

- **Foisting off** — No one wants to pay, everyone wants to foist the cost on others.
- **Futility** — “You can’t fight mother nature. It’s all going to wash away.”
- **Fault** — “I didn’t buy house on the beach or on the island so it’s not my fault and I should not pay.”
- **Frames of Reference** — Key decision-makers operate under different timeframes of reference. Landowners, elected officials, and coastal engineers and geologist see the problem and the action horizon differently.

Discovering the Funding Solution

- Commit to a ground-up process. Be willing to learn what will work
- Develop the funding strategy through true open community workshops
- Expected Timeframe: 6-12 months? (It's done when it's done)
- Cornerstone of Engagement: Discover “what is fair and workable” for the community

This is not a campaign to sell a pre-determined funding approach.

There's Nothing Like a Beach

Public Benefits

- Community “park”
- Protects public infrastructure
- Foundation of the tourism economy
- Increases the property tax base
- Increases public revenue
- If maintained, beaches provide a substantial public income stream

Private Benefits

- Protects private structures
- Increases property values
- Drives rental and commercial income
- Provides recreational & spiritual benefits
- Great place for young and old
- If maintained, beaches protect property values and provide reliable private income stream

Dual Benefits of the Beach

The Key to the Kingdom

- Successful local funding strategies reflect the Public and Private nature of beaches
- Local funding plans run into trouble when:
 - Public benefits of the beach are emphasized without regard to the private benefits; or
 - Private benefits are emphasized without regard to public benefits
- Successful funding plans must recognize and reflect that everyone has a stake in wide, healthy, stable beaches – public and private sector

Beach Funding Philosophy

- The beach is an economic and community asset
- Erosion is a natural process that can adversely affect public and private interests and the economy
- Beach communities must work together to address erosion as best they can
- Funding streams must be **as persistent as the waves**



Secrets of Success

Local Beach
Project Funding

Secret #1: “Discover” What is Fair

- **Within the Community** - The funding plan must be “*fair and equitable*” in the eyes of most in the community.
- **Funding Process** - Must be transparent, have wide participation, and be flexible in exploring options.
- **To Adopt a Funding Plan** - Community support must precede local government action.

Secret #2: Avoid the Perfection Trap

- Funding Strategies can become complex . . . *and the discussions and debate can continue for months and years, losing precious time*
- **Best Rule:** Avoid the perfection trap, find a reasonable funding solution that works for you and move forward to implement your beach program

Secret #3: Build Broad Funding Coalitions

All of the Above

Public Sector

- Federal
- State
- County / City
- Tourism Development Council
- Special Districts such as Erosion Control & Navigation districts

Private Sector

- Property Owners - Beachfront, off-beach, & mainland
- Commercial Operators – Hotel, retail, attractions
- Vacationers/Day Trippers- Bed Taxes, Parking Fees

Secret #4: Secure “FEMA Beach” Eligibility

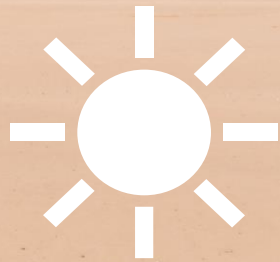
- Purpose:
 - Ensure the local beach project is eligible for federal reimbursement if the beach is lost or damaged in a “declared disaster” (Insurance)
- FEMA Beach Eligibility Requirements:
 - Monitor - Annual beach profiles
 - Maintain - Annual maintenance & regular renourishment
 - Fund - Establish stable & adequate funding source

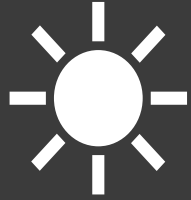
Secret #5: Dedicate Revenue to a Beach Fund

- Set aside new revenue in a Dedicated Fund
- Use Fund for Specified Purposes Only:
 - Design, Permit & Construct Beach Projects
 - Annual Beach Monitoring Program
 - Beach and Dune Maintenance Program

No funds for beach cleanup, lifeguards, beach patrol, or other beach-related costs

FUNDING





FUNDING OPTIONS

- Grants
- General Fund
- Municipal Service Taxing Units
- Municipal Service Benefit Units

MUNICIPAL SERVICE TAXING UNIT

- “MSTU”
- §125.01(q) and (r), Florida Statutes
- “Beach Erosion Control” enumerated
- Not a special district
- Property Tax Funding Source
- Levy by a county within millage limits for “municipal purposes.”
- No referendum required
- Ad valorem tax levied less than countywide without violating Article VII, §2, Fla. Const.

MSTU BASICS

Creation:	Ordinance
Deadlines:	January 1 or July 1 per Section 200.066, Florida Statutes
Consent:	Municipal Consent by ordinance if includes incorporated areas
Millage:	Levied through annual budget and TRIM process; aggregated with County millage.

MUNICIPAL
SERVICE
BENEFIT
UNIT

- “MSBU”
- §125.01(q) and (r), Florida Statutes
- Special Assessment Funding Source
- Uniform Method of Collection in §197.3632, Florida Statutes

SPECIAL ASSESSMENTS

Special assessments are charges assessed against the property of some particular locality because that property derives some special benefit from the expenditure of the money.

SPECIAL ASSESSMENT CASE LAW

Special Benefit to Property
and
Fair and Reasonable Apportionment

*Beach Renourishment, See Donovan v. Okaloosa County, 82 So. 3d 801 (Fla. 2012)

APPORTIONMENT

- Fair and Reasonable
- Logically and factually driven method must be developed to spread the costs among the benefited properties.
- Does method of apportionment make sense in terms of what is being provided?
- Legislative determination receives judicial deference.

An aerial photograph of a coastal scene. The top portion shows a row of houses with swimming pools, separated from the beach by a line of trees and sand dunes. The middle section is a wide, sandy beach. The bottom section shows the ocean with waves breaking onto the shore. The text "MANASOTA KEY" is centered over the beach area in a white, serif font. A thin white horizontal line is positioned below the text.

MANASOTA KEY



MANASOTA KEY

- Area Specific Approach
- Benefit Zones based on proximity to beach and properties in critically eroded areas
- Weighted benefit
- REC - Uniform benefit on entire barrier island based on recreational access to a healthy and accessible beach
- NBZ - Greater benefit to beach area parcels based on storm damage protection

Island-wide REC Apportionment

- **Residential**
 - EDU - Current or Potential Dwelling Units
- **Commercial**
 - Proportionate Just Value with minimum charge equal to one EDU
- **Government**
 - Proportionate Just Value with minimum charge equal to one EDU
 - Paid by County

Beach Area NBZ Apportionment

- Beachfront Footage
- Lot Size
- Only Tax Parcels in Nearshore Benefit Zone

Questions?

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