

Draft Minutes
Beaches and Shores Advisory Committee
Tuesday, March 5, 2015, 9:00 a.m.
Commission Chambers, Rm. 119
18500 Murdock Circle, Port Charlotte, FL 33948

****Please note that one or more Charlotte County Commissioners may be in attendance at any meeting of the Beaches and Shores Advisory Committee****

Members Present

Clifford Kewley, Member-at-Large, Chairman
[vacant], District 5
Dick Whitney, District 1
Katherine Ariens, District 2
Rich Parchen, District 4

Members Excused

Tommy Brock, District 3 / Vice Chairman
Robert Pierce, FL Shore & Beach Preservation Assoc.

Staff Present

Commissioner Stephen R. Deutsch
Chuck Mopps, Charlotte County Engineering Division
Gayle Moore, Recording Secretary

Guests Present

Michael Poff, Coastal Engineering Consultants
Steve Reilly, Sun Herald

Call to Order

Chairman Clif Kewley called the meeting to order at 9:00 a.m. and led the group in the Pledge of Allegiance. The Recording Secretary indicated that a quorum was present.

On motion made by Mr. Whitney, seconded by Ms. Ariens and carried unanimously, the Minutes from January 6, 2015, were approved as received.

Chairman Kewley gave a brief introductory overview of the work of BSAC for all the guests in attendance at today's meeting.

Citizens Comments

Mr. Steven Carlson of Englewood, observed that there was a contemporary meeting being held elsewhere at the same time, thus splitting the attendance. **Chair Kewley** commented in response regarding the long-standing BSAC meeting schedule.

Mr. Nick Caimano, renter on the Key, commented on the financial aspect of the recommendations made in the past, and gave details of what he believed would be a good funding alternative, which is for Charlotte County to use its bed tax for beach renourishment.

Commissioner Truex commented on emails he has received regarding current support for beach renourishment.

Commissioner Comments

Commissioner Deutsch commented first on the amount of volunteerism involved in making the County's Advisory Committees work, and also applauded the large turn-out for this present meeting and noted how much Committee volunteers appreciate the show of interest. He commented on Sunshine Law and how that impacts his ability to communicate with another Commissioner, and then spoke to the issue of conflicting meeting schedules, noting that it happens even on his own schedule. He then offered an update regarding a recent WCIND meeting at which the group selected a new Director; he noted that WCIND will be giving a grant to the County for \$331,000 for the Charlotte Harbor CRA projects on the shore at the north end of the US 41 northbound bridge. The project will start this year, now that state/fed delays are over.

New Business

Communicating to the public the current and future plans for beach renourishment on Manasota Key

Chair Kewley commented on the Manasota Key beach renourishment issues, noting that these are not new issues; he then introduced Mr. Michael Poff of Coastal Engineering Consultants, to discuss his study from 2002-2003, which is mostly still relevant today.

Mr. Michael Poff then addressed the gathering. He began by noting that there are generally three reasons why people didn't want the beach renourishment program in 2003:

- Distrust of government and refusal to sign the necessary easements.
- "Pocket beach" proponents, e.g., those who don't want the public on "their" beaches.
- The feeling that it would be way too expensive.

He then acknowledged the good turn-out today, which is a new development. He noted that some of the data in the old study is now out of date. However, it is still true that this is a sand-deprived system and erosion will be accelerated due to exposure of seawalls and revetments. He then showed the group a PowerPoint presentation (**copy attached**) and briefly elaborated on the content of the slides.

Commissioner Deutsch commented at end of presentation, noting that the Commission has worked to build bridges of cooperation with other counties, the MPO, and other similar bodies, to get support and a consensus on priority of projects such as road work, and he indicated that the same outreach was in place with regarding to WCIND and MAC concerning water-based projects. He indicated there was cause for optimism based on the level of cooperation with other counties, and suggested that there also seemed to be an increased level of cooperation from the State as well, and gave the progress on Stump Pass as an example.

Mr. Chuck Mopps observed that the sand moves from north to south on this side of the state; if we do a project that ends at the Sarasota county line, it will just erode in time, so a bigger project would have more longevity as well as accruing the benefits that come with involvement in a regional (as opposed to strictly local) project.

Chair Kewley next asked for public comment.

Mr. Steve Stump, a resident of La Coquina indicated that there was sand harvesting taking place offshore and asked if that was an associated project and if so, what its impact would be; Mr. Mopps indicated that there was no current project in Charlotte. Further discussion concluded the work was being done in Venice, and that there was a large vessel offshore, and a surveyor who had indicated that sand was being obtained from a half-mile offshore for Venice

beach. Mr. Mopps responded that it might be a Sarasota County project, but that he was not aware of the details. Commissioner Deutsch asked a few questions and indicated that he would get an answer noting that one part of the proposal for Stump Pass was that our sand stays in Charlotte Co. Mr. Poff indicated that he could look it up; he noted that there are sand bodies 5-6 miles offshore which are possible borrow area targets. He also commented that most projects permitted today go at least that far offshore or further, so it would be a surprise if something closer had been permitted.

Mr. Bob Garfield had comments involving with erosion, thanking the County for assistance in obtaining an emergency order to have a wall built, to save his house. He commented that all residents of his area are interested in beach renourishment, noting that from county line south, there's nothing but rocks – no sand, and the properties are really in need of help. He asked what citizens can do to form groups to vote for beach renourishment. Chair Kewley commented on emergency actions, indicating that the Committee had heard from citizens before about these temp measures. He advised anyone in an emergency situation to contact the County for guidance on temporary measures available.

Mr. Ed Hill, of the Englewood Chamber of Commerce, said his group would be making available any resources of the Chamber (e.g., meeting place or other resources can be useful) to the citizens as they work to get support for the renourishment project.

Mr. Caimano returned to the podium, asked whether connecting the project with efforts to help sea turtles would help to move things along faster; Mr. Poff responded regarding the permitting time frame, noting that the National Marine Fisheries (NMF) is very backlogged in their review of issues affecting the small tooth sawfish and, even though this project is not directly affecting this species, in general, projects can sit for up to 12 months, Mr. Caimano asked whether the commissioner can bring some political muscle to bear; Mr. Poff noted the effort is already under way but that doesn't change the essential situation. Mr. Mopps commented in support of this fact, noting that there are permit applications from 2013 which are still awaiting action. Finally, it was mentioned that in April, Charlotte elected officials will be going to Washington DC, hoping to talk with officials there about the NMF backlog.

Additionally, Mr. Poff noted, there is near-shore hard bottom which might be covered by renourishment sand placed on Manasota Key; that area is a protected resource that has to be mitigated for, and so that's another element in permit review. One of the most challenging things to deal with is mitigating for near-shore reefs.

Mr. Phillip Cross, resident of the Tamarind Condominiums, asked for an timeline if everybody agreed today in favor of the project. Mr. Mopps suggested that was an unanswerable question, since funding resources have to be established first; he noted he might be able to speak to the study timeline, but that would have to come after the funding issue was settled.

Mr. Poff was asked whether it would be possible to link the beach renourishment to the current Stump Pass project; he responded that it would probably take a miracle or two. He noted that, putting the funding question aside just for a moment, these are two items. First, the NMF issues would have to be completed in record time which depends on the agency completing a regional biological opinion. Second, it would be necessary to do current surveys of the hard bottom areas, run models to demonstrate that the project wouldn't impact the resources and thus would not need mitigation. If these two miracles occurred then possibly there could be a link to the planned 2016 construction event – but that scenario was judged to be highly unlikely. Usually, he said, from the point of getting approvals, it's three years from the time you start until you start pumping sand on the beach.

At the request of Chair Kewley, Mr. Mopps made further comment regarding availability of the Project Status Update page on the County website – demonstrating how to use it and how to track any particular project. Mr. Poff commented further regarding the current project for Stump Pass which should go out to bid by the end of this year with construction commencing in 2016; this work is for the State Park Beach, including the terminal structure to hold sand, dredging for navigation, placing sand on the down-drift beaches, and work to reverse the last five years of erosion. The project cost is estimated to be seven million dollars, and the County is hoping to get \$3.5 million from the state in cost-sharing funds. It was also suggested that even though the federal government isn't interested in contributing, the County has gotten FEMA funding in the past for addressing reduction in beaches due to storms; in fact, we are still fighting for post-Debbie dollars. But, in summary, significant hurdles exist and most likely it would be three years, at least, before any new sand would be on the beaches on north Manasota Key (north of County beach park).

Commissioner Deutsch made closing comments, then left for Commission Pre-agenda.

Mr. Leonard Bailey resident of Beach Rd. on Manasota Key, added clarification regarding the sand project in Venice, which is bringing dredged sand in from two-three miles out to a pumper closer to shore.

Chair Kewley welcomed Sarah Buck, Vice-Chair of the Marine Advisory Committee and liaison to BSAC.

Mr. Dwight Heitman, spoke next, asking what the next step would be for the community to move project forward. Chair Kewley responded, mentioning setting up and MSBU / MSTU for funding the project. Chuck Mopps concurred that the commission was adamant about identifying the necessary funding; in the meantime, owners need to sign easements for construction access, etc. He suggested collecting petitions signed in your communities that demonstrate the support is there for this project. He also noted that it could be a "child" MSBU created just for placing of the sand, which would go away once the project is done, and from that point onward there would just be a maintenance MSBU in place. But he emphasized that an overwhelming show of support would be crucial to getting everything started. Mr. Heitman noted that his community in Minnesota which had flooding issues, decided that rather than paying for rebuilding, they preferred to fund preventative measures and asked if that same approach has been considered locally; Mr. Mopps responded that is one of the many options which has been considered, and also noted that there are now RESTORE ACT funds that might be available for such projects.

Ms. Ariens commented to the citizens in general, with regard to becoming aware of issues and options, it was most effective to send someone from each citizen group to each month's Beaches and Shores meetings. This is an effective way to learn and to educate Committee members about citizen concerns and maintain visibility.

Mr. Damian Ocitab, resident, asked if Committee members, staff or consultants are available to speak at association meetings; Mr. Mopps indicated that's the better route: citizens can find a meeting spot, organize people to come and participate; that's what has been done in the past. He gave his email to assist in making future contact: Chuck.Mopps@charlottecountyfl.gov

With respect to the Boulder Point residents, the question raised was what is the history of the boulders; was it a local project or federal, and can that group (whichever it was) perform maintenance on the boulders? The boulders are sinking, shifting, and teetering so it's a public safety issue. Mr. Poff indicated that his firm, Coastal Engineering Consultants (CEC), did the design and permit of a revetment repair in the late 1980s / 90s but he indicate he didn't have any details at his disposal; he suggested the boulders were installed during the 1970s by the

property owners at that time. Therefore, it's not a federal or state project (there are no state or federal lands there) so they are on private property, and the original revetment may have been initiated before permitting regulations were even in existence.

Chair Kewley asked if anyone attending today was from Sarasota County, noting that part of the process going forward is getting Sarasota County buy-in.

Mr. Bob Venegoni commented that the revetment project where he lived was done with CEC in the 70s, and that residents had just recently gotten state approval to do repairs. He indicated that the original work was all privately funded, but that while he didn't know about Boulder Point, it was likely the same. He noted that engineers had indicated that 'the stuff settles'.

Further discussion ensued on formation of new MSBUs; what to do with petitions once signatures have been gathered; future considerations to have in mind regarding any MSBU created to fund ongoing work; working with Commissioner Truex, whose District this is;

Ms. Bridget Bailey raised an issue about getting local support, which was that when talking to people they may say, "I only rent doesn't affect me". She asked how best to involve renters – should they also sign the petitions? It was agreed that they should, especially since owners of the property that they rent would find their input to be important.

Mr. Whitney motioned for a show of hands just to indicate interest in beach renourishment; Ms. Ariens seconded that motion. Upon the request to raise hands if interested, a majority of those present raised their hands (47 for and 1 against.) A further suggestion was made for renters to contact absentee landlords to let them know your interest.

Mr. Mopps indicate he also had to leave for Pre-agenda, and asked if there were any further questions before he left; none were offered. Chair Kewley also asked if anyone present was opposed to beach renourishment, and one woman raised her hand.

Another resident of the Tamarind Condominiums ask if there were a similar Committee in Sarasota County and asked if there was sufficient cooperation between the committees. Mr. Poff indicated that there was a Sarasota advisory committee also, but that they have a different composition, e.g., they were not all volunteers. Mr. Mopps indicated that there is a mechanism for this cooperation, and mentioned the WCIND, a regional organization which meets monthly and discusses coastal and boating issues, indicating that is the venue where the cooperation issues would be handled. It was noted that Commissioner Truex also has already contacted his counterpart in Sarasota. Mr. Poff commented that during 2002/3 there were numerous meetings with Sarasota County. He shared that Sarasota County sent a letter to residents looking for consensus, which they did not get at that time either. He noted further that Charlotte County Government could do a stand-alone project. He also observed that there is a joint meeting between the two boards coming up, and the concept of a joint project could be discussed there.

Mr. Bruce Pierson of Tamarind asked whether it is individuals or the Condo Assoc. that should generate the petitions; Mr. Mopps commented that it's always better to involve the Condo Assoc. to represent the owners, but that petitions should count the individuals along with the Association.

Ms. Ariens reemphasized that citizen representation at any future meeting is invaluable for keeping the lines of communication open. The group then took a short break while the citizens departed the meeting room; the meeting reconvened at 10:52 a.m.

Old Business

Update on the Stump Pass 10-Year Inlet Management Plan

Mr. Poff indicated the DEP had issued their second formal response to the county for changes to the application, which should make it complete at the State level; there would then be 60-90 days to issue permit, which would be the first week of June, in line with the estimate made last year. The Army Corps review is in process, and should go smoothly; also, positive outcomes are anticipated in the biological opinion to be rendered, while some activity restrictions are anticipated due to sea turtles that will affect construction windows.

Mr. Poff then commented on the anticipated County Board matters that will be dealt with in coming months such as getting easements from property owners, including temporary construction easements outside those originally required to support additional sand placement as part of the project. He reminded those present that the easement area is from any existing revetment or armoring out to the mean high water line.

Mooring at Chadwick Cove - Comments on the Joint Workshop in February

In this ongoing discussion, Chair Kewley noted there had been a joint meeting regarding the wisdom and difficulties of getting a mooring field at Chadwick Cove, which is different from the derelict vessels issue that has been discussed so often. This distinction possibly did not get a full review at the recent Joint Workshop, but what it comes down to is getting the support of the business community on the Key which would really benefit from the establishment of a mooring field.

Mr. Poff commented that the DEP is making an amendment to the general rules on mooring fields, improving the language and making it easier for municipalities to create a mooring field; he didn't know how long those changes would take to be generated.

Ms. Sarah Buck, Vice-Chair of the Marine Advisory Committee (MAC), commented on the Joint Workshop and the good information that resulted. She noted there was concern regarding the overall cost of establishing a mooring field at Chadwick Cove and the question of who gets the benefit, or was a mooring field just seen as an adjunct to regulation for eliminating rogue boaters. Ms. Ariens responded that her understanding was that a mooring field would not be a benefit and that the County should regulate these boaters instead.

Ms. Buck responded that the Commissioners would decide, and she was just looking to establish what the Committees recommendation to them would be - to pursue establishment of a mooring field or not. Chair Kewley indicated that he didn't think the "real" beneficiaries have been heard from yet, noting that some mooring fields have been beneficial to their communities, but he looked at this as really a Parks and Rec maintenance issue, as there is a lot of upland management involved so it would be important to hear from them.

Mr. Poff noted that the reason for the general rule being mentioned, is that the Joint Workshop presentation was based on the former rules, and when these rules are changed those aspects including cost, will change; his advice is to wait for the new rules before committing one way or the other. He also indicate that while he didn't have a time frame for the new rules to be implemented, an analysis can be done now before the new rule goes into effect using the draft rule.

Mr. Whitney motioned that the group table the issue of Chadwick Cove until the new information is available, and then bring it back for a vote.

Chair Kewley asked about the management responsibilities that accrue to a mooring field and whether they can be assigned to local vendors or does it have to fall on government; Mr. Mopps said that typically mooring fields are managed by local municipalities, and he gave some details from his personal experience from Jamestown. Chair Kewley noted that Marina Jack manages a mooring field for Sarasota County, so apparently that's an option in some places. Mr. Parchen then seconded Mr. Whitney's motion; Ms. Ariens asked for discussion, and expressed her concern that the other committees will be voting, so BSAC should proceed now. Chair Kewley said he thought that it didn't matter what the other committees did, that BSAC needed to be satisfied on its own; he then called the question to postpone the issue. The vote was:

Chair Kewley, Mr. Whitney, Mr. Parchen - AYE

Ms. Ariens - NAY

Ms. Buck then asked for comments on conditions in Stump Pass, as they would affect boaters there. Mr. Mopps indicated that conditions were currently good but that future storms would, as always, require maintenance work.

Citizen comments

None offered

Staff Comments

Mr. Mopps commented on the great turn-out at the Joint Workshop; he indicated that he felt the fact that there are new mooring field regulations coming, and that Ms. Buck has heard about that and can carry that information back to MAC, and that the information should be of interest to Parks and Rec also, meant that the County should await the new regulations before finally deciding on the viability of the mooring field proposal.

Member Comments

Ms. Ariens commented that staff and committee members tend to use jargon that not all citizens understand and she hoped all could do better in future; she suggested, as a starting point, that speakers begin by using the full phrase.

Chair Kewley reminded members that for the April meeting, the group is hoping to have a field trip to Stump Pass and the shore areas northward, to view the groin, and the erosion area.

Adjournment

Motion to adjourn was offered by Ms. Ariens, seconded by Mr. Whitney; the meeting adjourned at 11:14 a.m.

Respectfully submitted,

Gayle Moore
Recording Secretary

Minutes Approved by

Clifford Kewley, Chairman
Beaches & Shores Advisory Committee

SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



SARASOTA COUNTY



www.charlotte-beachrestoration.com

www.beachstudy.com



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



OBJECTIVES OF BCC PRESENTATION

- **Present:**
 - Project Overview
 - Conceptual Alternatives
 - Potential Funding Sources and Plans
- **Provide an Opportunity for Public Discussion**
- **Identify Modifications or Objections to Community Goals for Beach Management and Erosion Control & Develop Prioritized Order of Alternatives Based on Community Consensus**
- **Present Preliminary Cost Estimates & Continue Discussions Relative to Potential Project Funding and Community's "Willingness to Pay"**



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SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



PROJECT OVERVIEW

PROJECT FUNDING

50% STATE - DEP

31% - SARASOTA

19% - CHARLOTTE

32 MILES OF SHORELINE

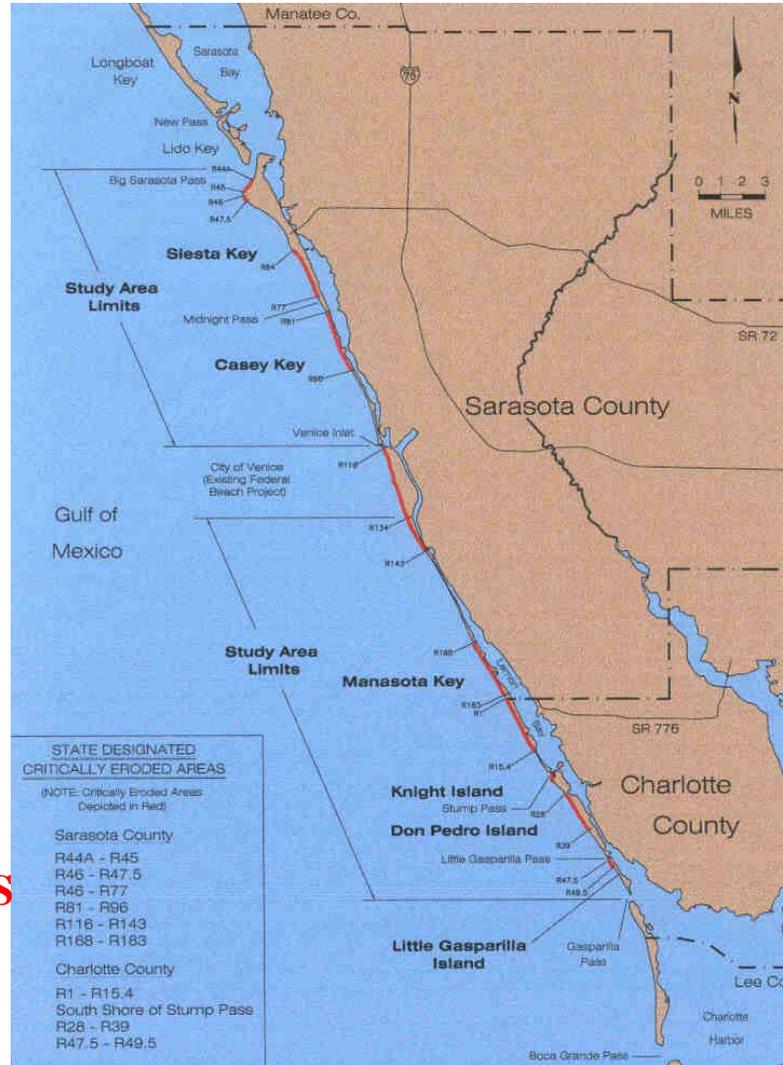
SARASOTA = 21

CHARLOTTE = 11

CRITICAL EROSION AREAS

SARASOTA = 10.5 MI

CHARLOTTE = 6 MI



SARASOTA

SIESTA KEY

CASEY KEY

MANASOTA KEY

CHARLOTTE

MANASOTA KEY

KNIGHT ISLAND

DON PEDRO ISLAND

LITTLE

GASPARILLA

ISLAND

SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



GOALS OF THE STUDY

- **Site Characterization and Risk Assessment**
- **Identify Community Shoreline Needs**
- **Assess Feasibility of Erosion Control Projects**
- **Develop Conceptual Alternatives and Funding Plans**
- **Provide Public Education For Technical Components and Funding**
- **Build Public Consensus and Support and Assess Stakeholders “Willingness” To Pay**

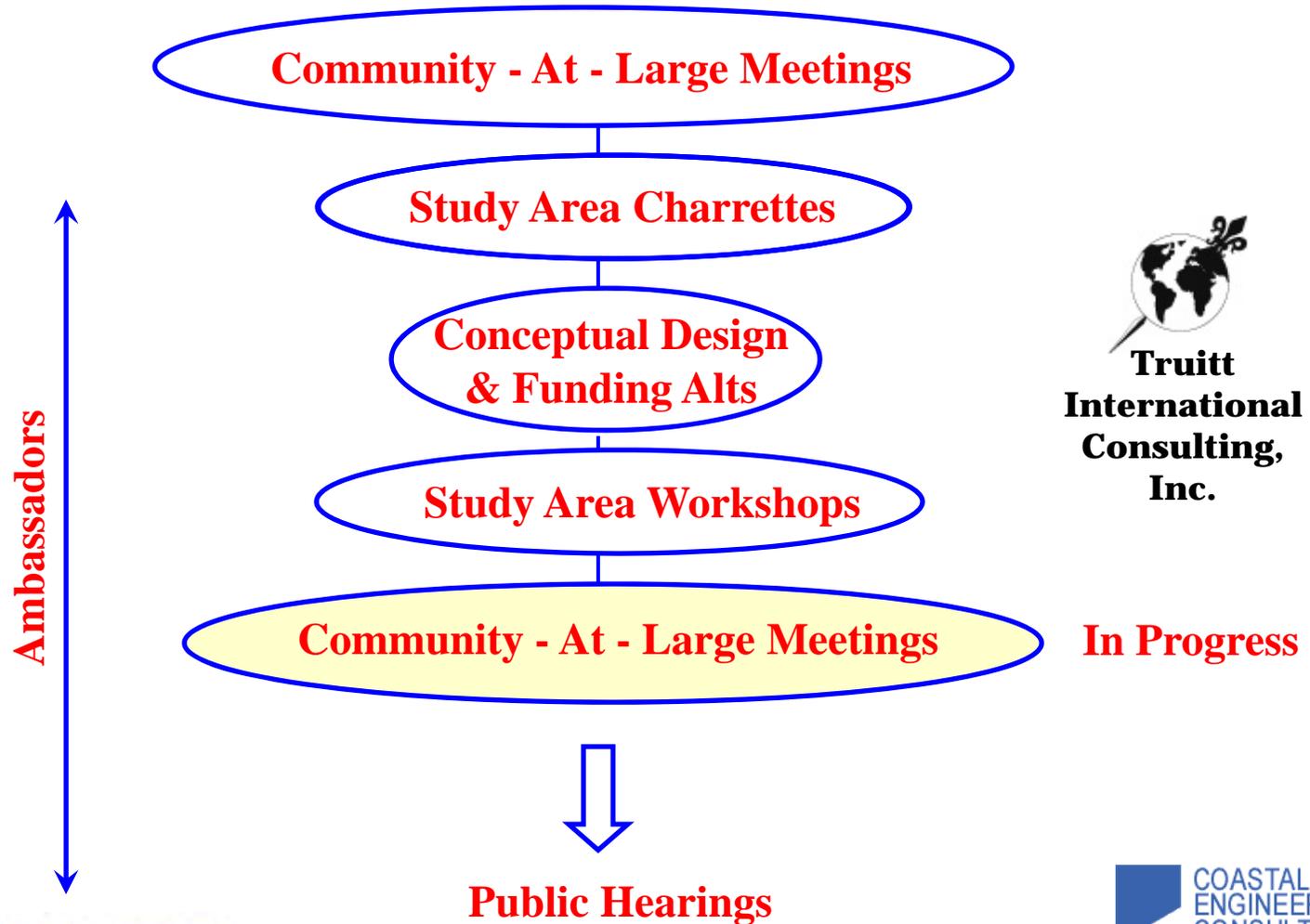


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SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



PUBLIC INVOLVEMENT PROCESS



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



SITE CHARACTERIZATION

- **Beach Profile Surveys**
- **Aerial Photography**
- **Historical Erosion Analysis**
- **Wave Climate and Design Criteria**
- **Erosion Modeling & Risk Assessment**
- **Sand Source Inventory**
- **Natural Resources**

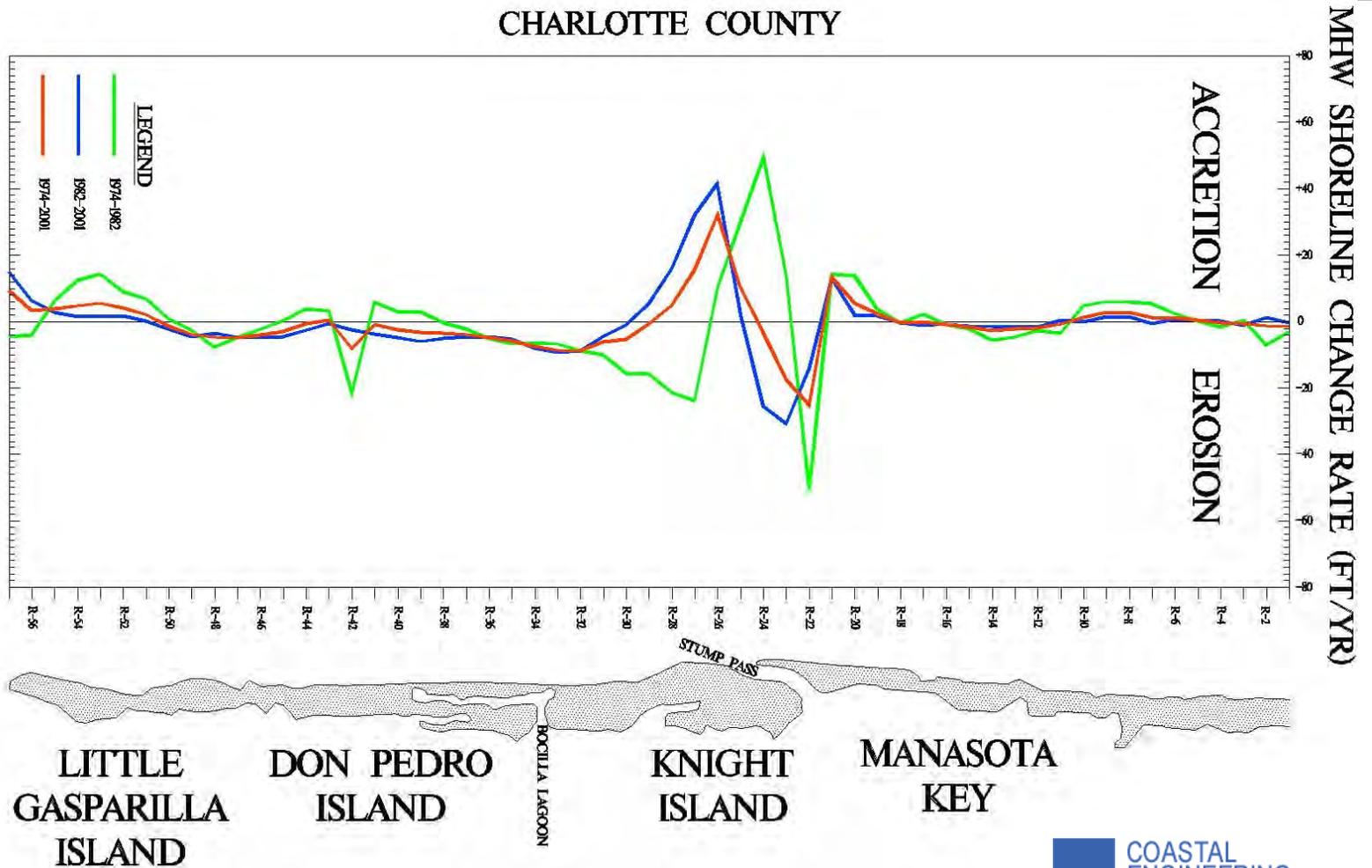


SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



HISTORICAL EROSION ANALYSIS

CHARLOTTE COUNTY

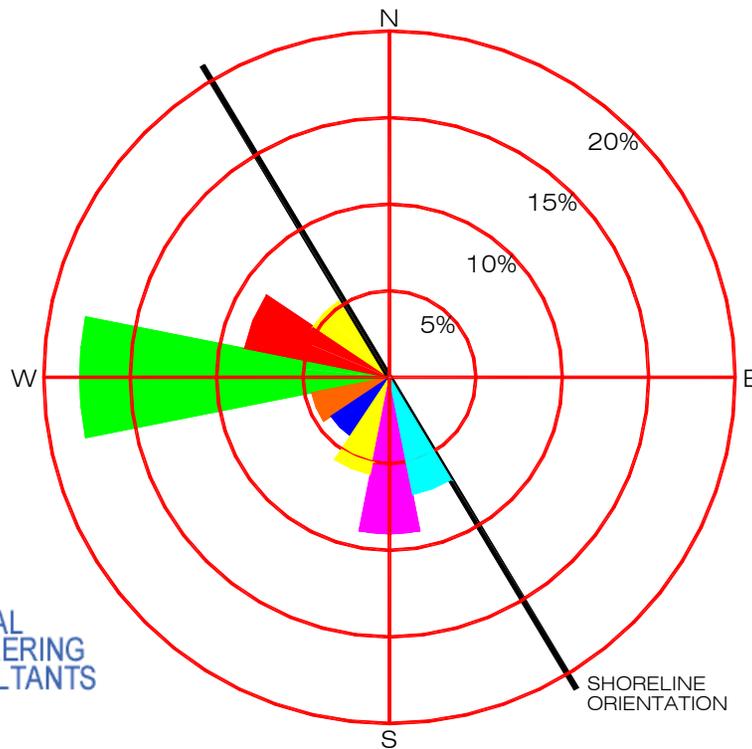


SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



WAVE CLIMATE AND DESIGN CRITERIA

WAVE DIRECTION,
PERCENT OCCURRENCE



SELECTED W.I.S. DATA FROM
STATION 19 FOR INPUT INTO MODEL

COLOR CODE	WAVE DIRECTION & TYPE	WAVE ANGLE TO SHORE (AZIMUTH)	HEIGHT (HMO) (FEET)	PERCENT OCCURRENCE
Yellow	NORTH WEST SWELL	-77° (316°)	0.82	1.68%
	NORTH WEST SEA	-75° (314°)	0.75	3.62%
Red	WEST NORTH WEST SWELL	-53° (292°)	0.69	1.12%
	WEST NORTH WEST SEA	-53° (292°)	0.72	7.43%
Light Green	WEST SWELL	-31° (270°)	0.69	2.76%
	WEST SEA	-31° (270°)	1.44	15.17%
Orange	WEST SOUTH WEST SWELL	-7° (246°)	0.52	0.63%
	WEST SOUTH WEST SEA	-8° (247°)	2.23	3.96%
Blue	SOUTH WEST SWELL	17° (222°)	0.49	0.79%
	SOUTH WEST SEA	15° (224°)	1.80	3.28%
Yellow	SOUTH SOUTH WEST SWELL	35° (204°)	0.66	0.99%
	SOUTH SOUTH WEST SEA	36° (203°)	1.61	4.73%
Magenta	SOUTH SWELL	57° (182°)	0.72	1.12%
	SOUTH SWELL	59° (180°)	1.02	7.93%
Cyan	SOUTH SOUTH EAST SWELL	81° (158°)	0.79	0.58%
	SOUTH SOUTH EAST SEA	81° (158°)	0.75	6.32%

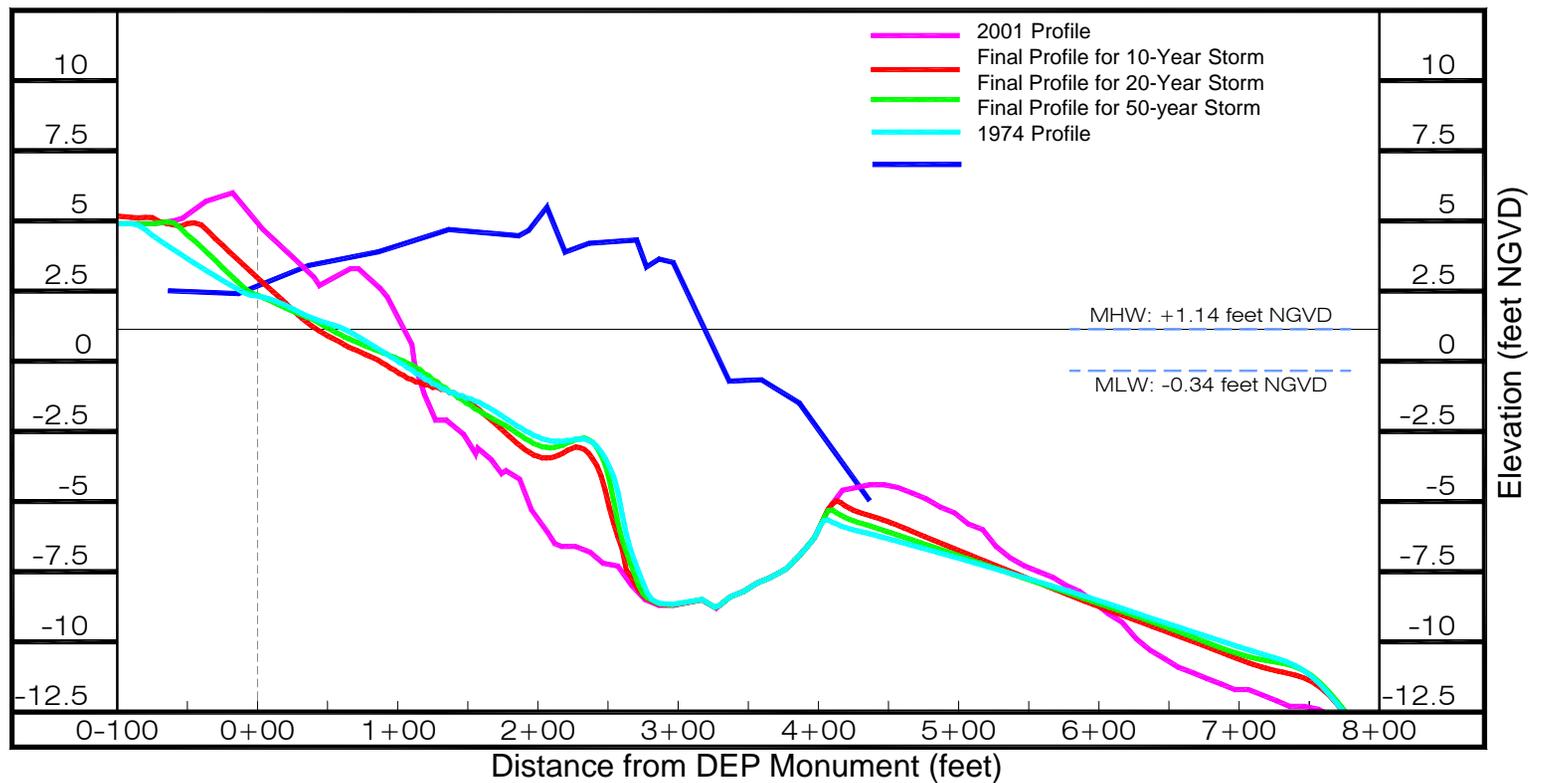


SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



STORM EROSION MODELING

DEP Monument R-35



Charlotte County
SBEACH Erosion Results

SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



RISK ASSESSMENT





SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



SAND SOURCE INVENTORY

- Existing Sand Resources
 - Location, Quality and Quantity
 - Additional Field Work Requirements
- Native Beach Analyses & Characterizations
 - Grain Size
 - Composition
 - Color



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



CHARACTERIZATION OF NATURAL RESOURCES



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



CONCEPTUAL ALTERNATIVES ASSESSMENT

- **Project Description**
- **Concept Plans**
- **Performance & Maintenance Intervals**
- **Natural Resources Impacts**
- **Permit Feasibility**
- **Initial and Maintenance Cost Estimates**
- **Stakeholders & Agency Meetings**



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NO ACTION



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



DUNE RESTORATION



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



BEACH RESTORATION



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



COASTAL STRUCTURES



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY

PLANNING AREAS



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



MANASOTA KEY

- **Identified Local Community Goals and Objectives for Beach Management and Erosion Control**
 - Severe Erosion Problem - Motivated to Find Solution
 - Beach Restoration/Fill Acceptable
- **Initiated Discussions Relative to Potential Project Funding**
 - Support Shown for “Willingness to Pay” Provided Funding Distributed Fairly Among Project Beneficiaries
- **Alternative Number 1: No Action**
- **Alternative Numbers 2 & 3: Basic Restoration Project (R-173, Sarasota, to R-3, Charlotte)**
- **Alternative Number 4: Extended Project Lengths - Both North (Sarasota) and South (Charlotte)**



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SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



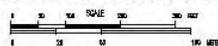
MANASOTA KEY ALTERNATIVE NO. 2

- **Basic Restoration Project**
- **Volume: 660,000 Cubic Yards**
- **Buffer Effects of 10 to 15 Year Storm**
 - **Fill Placement of Over 52 cy/lf**
 - **Average Movement of Waterline 130 Feet**
- **Beach Fill - Manasota Key**
 - **Length = 12,580 Ft Along Shoreline**
 - **DEP Monuments R-173 (Sarasota) to R-3 (Charlotte)**



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 ANY MEASUREMENTS ARE APPROXIMATE.

STATE OF FLORIDA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHARLOTTE COUNTY
 MANASOTA KEY PLANNING AREA



DATE OF PHOTOGRAPH: ATTACHED ECOL
 DRAWN BY: GPD SHEET: 1 OF 4
 CHECKED BY: KIV
 DTG NO. 01480-01-MANAS-DE.DWG



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



MANASOTA KEY ALTERNATIVE NO. 4

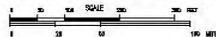
- **Extension of Alternative 2 to Address Increasing Losses North and South**
 - 2,200,000 cy
- **Buffer Effects of 10 to 15 Year Storm**
 - Placement of 52 cy/lf North to Manasota Public Beach, R-156 (Sarasota)
 - Move Waterline 130 Feet on Average
 - Potential Environmental Constraints
 - Placement of 30 cy/lf South to State Park Beach, R-16 (Charlotte)
 - Reduced Erosion Stress and Stump Pass Issues
- **Beach Fill - Manasota Key**
 - Length = 42,640 Ft Along Shoreline
 - DEP Monuments R-156 (S) to R-16 (C)





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 ANY DIMENSIONS ARE APPROXIMATE.

STATE OF FLORIDA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 CHARLOTTE COUNTY
 MANASOTA KEY PLANNING AREA

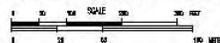


DATE OF PHOTOGRAPHY: AUGUST, 2001
 DRAWN BY: GJD SHEET 1 OF 6
 CHECKED BY: MY
 DWG NO. 01480.CH.MANAL.D4DWG



THIS PHOTOGRAPH IS FOR PICTORIAL ILLUSTRATION ONLY.
 ANY MEASUREMENTS ARE APPROXIMATE.

STATE OF FLORIDA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHARLOTTE COUNTY
 MANASOTA KEY PLANNING AREA



DATE OF PHOTOGRAPH ATLANTIS 8/01
 DRAWN BY GFD SHEET 5 OF 5
 CHECKED BY MY
 DWG NO. 01480_CEL_MANASOTA.DWG



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



LONG-TERM FUNDING PROGRAM

- **Public Access Inventory**
- **Goals**
 - Multiple Sources
 - Benefits-based
 - ‘Tailored’ to each Planning Area
 - Long-term commitment
 - Adequate Funds to Support the County’s Beach Management Objectives
- **Potential Funding Sources**
 - Local
 - TDC, MSBU, General Revenue/CIP
 - WCIND, Property Owners
 - State: Beach Erosion Control Program
 - Federal: WRDA, FEMA



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SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



PUBLIC ACCESS INVENTORY

- **State Requirements**
 - **Easements Must Be Granted to County for Public Beach Access**
 - **Easements Must Remain Open to Public for Life of Project (defined as nourishment cycle)**
 - **Beach Access Must have “Public Signage”**
 - **Beach Access Must be 5 Foot Wide Minimum and Accessible From Public Roadway**
 - **Beach Access Must be Available to Public on Equal Basis**
 - **Parking Must be Located Within 1/4 Mile of Beach Access**
- **Existing Accesses**
 - **Manasota Key = 25% State Cost Sharing**
 - **Knight Island/Don Pedro Island = 12% State Cost Sharing**
 - **Little Gasparilla Island = 0% State Cost Sharing**

SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



PUBLIC ACCESS STRATEGIES

- **Existing Access: Palm Island Resort**
 - **Qualifies Project for 12% State Cost Sharing**
- **Potential Accesses**
 - **WCIND Lots: Increase to 35% State Cost Sharing**
 - **Additional Easements Along Gulf Front: Increase to 50% State Cost Sharing**
- **Parking**
 - **Clear and Stabilize (Mulch or Shell) Existing County R.O.W. Within 1/4 Mile of Public Access**



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SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



LOCAL FUNDING PLAN COMPONENTS

- **Municipal Services Benefit Unit (MSBU)**
- **Goal: Provide Stakeholders with Preliminary Estimate of Reasonable Range of Costs**
- **Project Benefits**
 - **Primary Benefit: Storm Protection (reduced risk of storm damage)**
 - **Secondary Benefits: Enhanced Property Values, Recreation, Environmental Habitats**
- **Benefit Allocation**
 - **Storm Protection: 60% - 75% of Project Benefits**
 - **Secondary: 25% - 40% of Project Benefits**
- **MSBU Zones**
 - **Zone A - all beachfront properties - 100% Storm Protection**
 - **Zone B - all off-beach properties - 0% Storm Protection**



SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



CONCEPTUAL PROJECT FUNDING PLANS

- **Manasota Key: Alternatives 2 and 4**
 - **Zone A**
 - 100% Storm Protection Benefits
 - 41% (Alt 2) to 62% (Alt 4) of Secondary Benefits
 - **Zone B**
 - 0% of Storm Protection Benefits
 - 38% (Alt 4) to 59% (Alt 2) of Secondary Benefits
- **Knight Island/Don Pedro Island: Alternatives 1 and 2**
 - **Zone A**
 - 100% of Storm Protection Benefits
 - 21% (Alt 1) to 23% (Alt 2) of Secondary Benefits
 - **Zone B**
 - 0% of Storm Protection Benefits
 - 77% (Alt 2) to 79% (Alt 1) of Secondary Benefits
- **Little Gasparilla Island: Alternative 3**
 - **Zone A**
 - 100% of Storm Protection and Secondary Benefits

SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



MANASOTA KEY - ALTERNATIVE 2

Basic Restoration Project

Total Project Cost = \$7,343,000

County Share of Costs = - ? -

State Share of Costs = \$1,982,600

Community Share of Costs = \$5,360,400

Zone	Description	Number of Properties	Estimated Low Assessment		Estimated High Assessment
Zone A	Beach Front	110	\$3,720 per year for 10 years	to	\$4,155 per year for 10 years
Zone B	Off Beach	156	\$505 per year for 10 years	to	\$810 per year for 10 years

SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



MANASOTA KEY - ALTERNATIVE 2

Basic Restoration Project

Community Share of Costs = \$5,360,400

60% / 40% Split

Storm Benefits

\$3,216,240

100% / 0% Split

Zone A

Zone B

\$3,216,240

\$0

110 Prop

156 Prop

\$2,920/Yr

\$0/Yr

Secondary Benefits

\$2,144,160

41% / 59% Split

Zone A

Zone B

\$879,106

\$1,265,054

110 Prop

156 Prop

\$800/Yr

\$810/Yr

SARASOTA/CHARLOTTE COUNTY BEACH EROSION STUDY



MANASOTA KEY - ALTERNATIVE 4

Enhanced Restoration Project

Total Project Cost = \$22,000,000

County Share of Costs = - ? -

State Share of Costs = \$5,500,000

Community Share of Costs = \$16,500,000.....

Zone	Description	Number of Properties	Estimated Low Assessment		Estimated High Assessment
Zone A	Beach Front	650	\$2,125 per year for 10 years	to	\$2,265 per year for 10 years
Zone B	Off Beach	400	\$390 per year for 10 years	to	\$625 per year for 10 years