

A large, stylized graphic in the background features a yellow sun with rays and a green leaf, both partially obscured by a light blue wave-like shape at the bottom.

Charlotte County Public Works Engineering

Beach Recovery Options



CHARLOTTE COUNTY
FLORIDA

Storm Erosion Summary – Manasota Key

- Since the completion of construction in 2020, to the present, thirteen named storms have impacted the Project Area.
 - Erosion damage from these storms equals ~ 388,000 cubic yards.



Storm Erosion Summary

Original Erosion Control Project (ECP) limits

- UBF - Updrift Beach fill
 - Stump Pass Beach State Park
- NBF - North Beach Fill
 - Northern tip of Palm Island that abuts Stump Pass
- SBF - South Beach Fill
 - South of the Palm Island Resort – Don Pedro and Knight Islands

Storm Erosion Summary (ECP) UBF, NBF, SBF

- Since the completion of construction in 2020, thirteen named storms impacted the Project Area.
- Erosion damage is estimated to be ~ 496,000 cubic yards.

Storm Erosion Summary (ECP) UBF, NBF, SBF

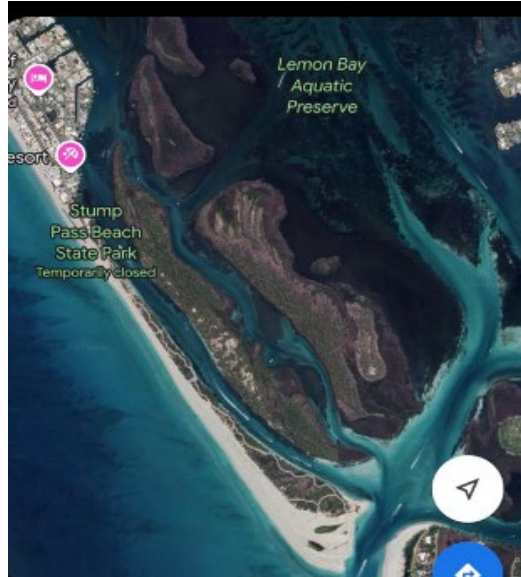
- In 2020 the South Beach Fill was built using an offshore borrow area utilizing the same contract for the Manasota Key Project.
- The Recovery Options assume that we would utilize the offshore borrow areas for the Storm Erosion Volume and the Permitted Template Volume, which is why this segment has been broken out separately.

Stump Pass Park Beach Breach – Milton Pass

- Hurricane Milton caused a breach in the beach approximately 1,000 feet south of the restroom and building.
- A budget of 30,000 cubic yards at a unit rate of \$30 per cubic yard, totaling \$900,000, is recommended.
- This activity is in line with the Stump Pass Inlet Management Plan that was adopted by the State.
- The costs for this activity will be 100% reimbursable by the State.

Stump Pass Park Beach Breach – Milton Pass

Before



After

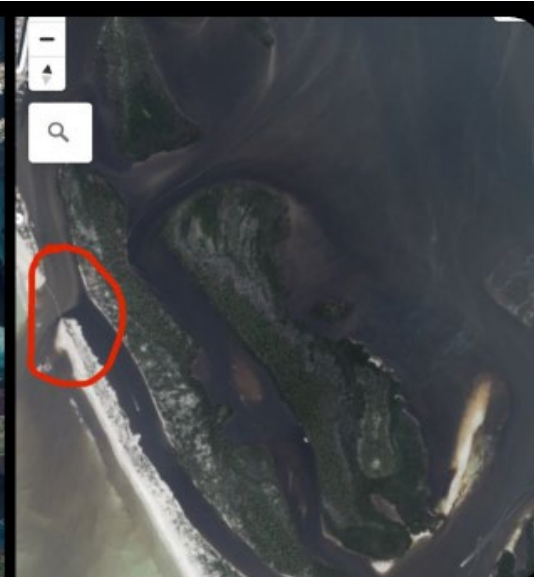


Photo from Google and NOAA survey

Stump Pass Park Beach Breach – Milton Pass



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Beach Recovery Options



Beach Recovery Option 1

- Addresses only the Storm Erosion Volume.
 - Replacing all the sand lost due to named storms, in which Charlotte County was included in the declaration, since project construction.
 - The local cost share would include the cost share associated with the grants for the named storms that are eligible.
 - For Hurricane Ian, the county has been obligated 90% from FEMA and 5% from the state specific to the Category G public assistance claim.
 - Hurricanes Ian and Nicole are being partially funded through the state's Hurricanes Ian and Nicole Recovery Plan.
 - This option offers an improved level of storm protection that was taken away due to the unprecedented last few seasons.



Beach Recovery Option 2

- Construct full permitted template-completely restore beaches and dunes
 - The local share would include the cost share associated with the FEMA and State grants, the sand lost due to the ineligible storms, and the balance of sand needed between the eligible storm erosion volume and permitted template.
 - There are additional funding opportunities available to reduce the local cost share, including the FDEP cost share program. (see slide 20)
 - This option offers the chance to restore the permitted level of storm protection and reset the timeclock/lifespan of our beach projects.
 - The impact of thirteen named storms since 2020 has been unprecedented, resulting in devastating effects on the beach and dune systems along Charlotte County's shoreline.

Beach Recovery Option 2 - *continued*

- The lifespans of our beach projects have been greatly reduced. The 8-year cycle for Manasota Key and South Beach Fill has been interrupted due to the record number of storms over this period.
 - It is anticipated that, if the unprecedented storm activity subsides to normal frequency, the predicted 8-year cycle for this project would be the reality.
 - It should be noted that constructing the full template now would allow us to take full advantage of having the equipment mobilized in our area, reducing the overall cost for sand placement.





Manasota Key Recovery Options

MANASOTA KEY RECOVERY OPTIONS	PROJECTED VOLUME (CY)	BUDGET
Storm Erosion Volume Offshore Borrow Area	353,000	\$15.61 Million
Permitted Template Offshore Borrow Area	500,000	\$18.81 Million

SPBSP and Palm Island Recovery Options

SPBSP and Palm Island Recovery Options	Estimated Volume (CY)	Budget
Storm Erosion Volume Stump Pass	217,000	\$5.33 Million
Permitted Template Stump Pass	320,000	\$6.81 Million
Breach Closure	30,000	\$0.90 Million



Knight-Don Pedro Island (SBF) Recovery Options

KNIGHT-DON PEDRO ISLAND (SBF) RECOVERY OPTIONS	PROJECTED VOLUME (CY)	BUDGET
Storm Erosion Volume Offshore Borrow Area	269,000	\$11.86 Million
Permitted Template Offshore Borrow Area	400,000	\$15.05 Million

Erosion by Event and Existing/Potential Funding

Manasota Key Storm Erosion	
Impacts by Named Event	Loss (CY)
2020 Hurricane Season (6 storms)	25,000
2021 Hurricane Elsa	10,000
2022 Hurricane Ian	30,731
2022 Hurricane Nicole	37,189
2023 Hurricane Idalia	39,422
2024 Hurricane Debby	32,705
2024 Hurricanes Helene/Milton	213,289
Total Losses:	388,336
No Relief Funding	
Obligated by FEMA & Supplemental Funding from State	
Pending FEMA Approval	
Pursue FEMA Funding	

Erosion by Event and Existing/Potential Funding

Erosion Control Project (UBF/NBF/SBF) Storm Erosion	
Impacts by Named Event	Loss (CY)
2020 Hurricane Season (6 Storms)	47,000
2022 Hurricane Ian	87,069
2022 Hurricane Nicole	87,069
2023 Hurricane Idalia	48,102
2024 Hurricane Debby	14,049
2024 Hurricanes Helene/Milton (Estimated)	212,918
Total Losses:	496,207
No Relief Funding	
Obligated by FEMA & Supplemental Funding from State	
Pending FEMA Approval	
Pursue FEMA Funding	

Schedule and Funding

Post Helene/Milton Surveys & Assessments	November 2024
Final Design	November-December 2024
Bid Process	November 2024-February 2025
Construction*	March-July 2025

*Work on Manasota Key must be completed by April 30, 2025, unless a biological opinion from the USFWS and permit modifications from the FDEP and USACE were obtained that would allow work to continue past May 1, 2025.

Schedule and Funding - *continued*

- This aggressive schedule is to try and take advantage of the fact that there are contractors working in the Gulf that can mobilize timely and offer a competitive price.
 - We are also focused on rescoping the existing claim with FEMA for Hurricane Ian, and completing the existing claims with FEMA for Hurricanes Idalia and Debby. Additionally, we will initiate claims with FEMA and the State for Hurricanes Helene and Milton.
 - We will pursue funding through the Florida Hurricane Restoration Reimbursement Grant Program (HRRGP) and our annual Beach Management Funding Program. Additionally, our grant staff will be looking for all opportunities that become available.

Options

- Beach Recovery Option 1
 - Addresses only the Storm Erosion Volume
- Beach Recovery Option 2
 - Construct the full Permitted Template

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Questions?



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