

GALVESTON ISLAND PARKS BOARD-BUILDING RESILIENCY THROUGH PARTNERSHIPS: CASE STUDIES-BABE'S BEACH

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US Army Corps
of Engineers®



Building Resiliency Through Partnerships: Case Studies – Babe's Beach

Park Board of Trustees of the City of Galveston

Kimberly Danesi, COO



2017 Inaugural Ribbon Cutting for “Babe’s Beach”



TOURISM GENERATES

...

\$74 MILLION

Galveston
Tourism

Intersection for Collaboration

Opportunity

- Previous relationship based on permitting authorities only
- No clear local lead for beach nourishment
- Last nourishment project took place in 1994

Advantages

- Galveston District Offices
- D.C. Advocate who is familiar with coastal projects
- IDC funding mechanism
- Beach Maintenance Advisory Committee input



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ERDC/CHL TR-16-13

Coastal and Hydraulics Laboratory



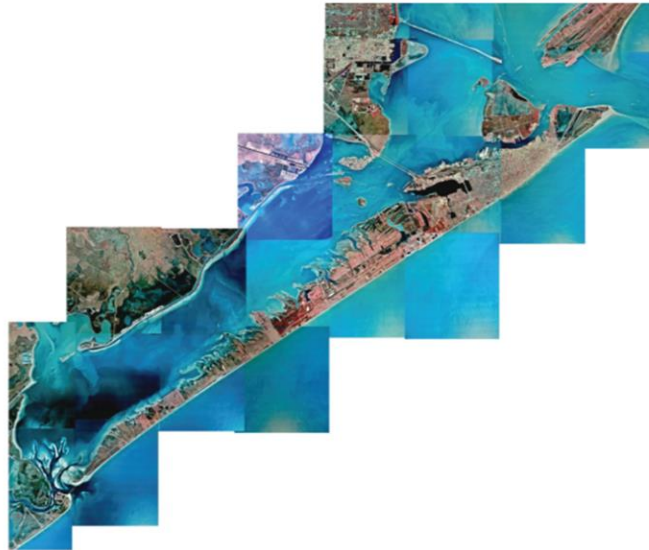
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Galveston Island, Texas, Sand Management Strategies

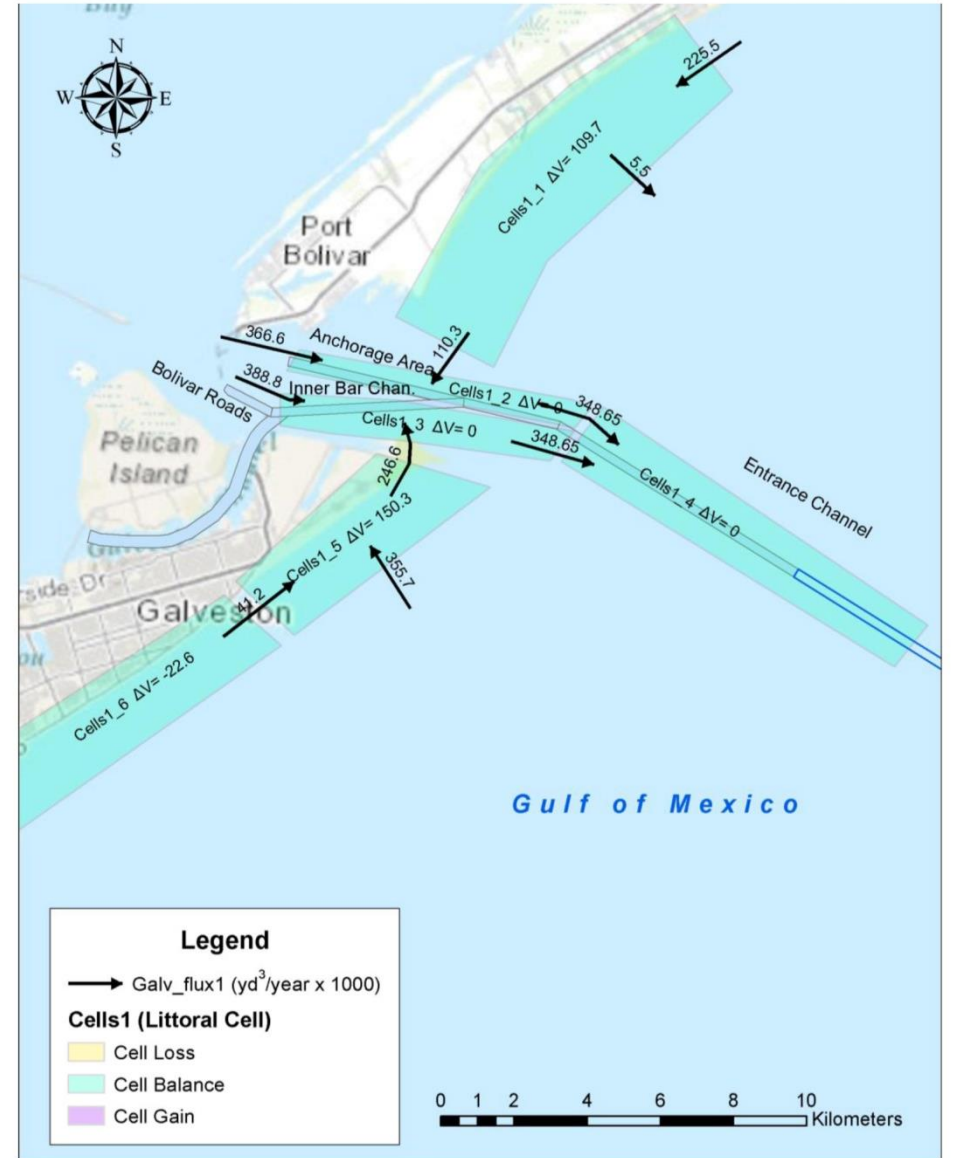
Ashley E. Frey, Andrew Morang, and David B. King

July 2016



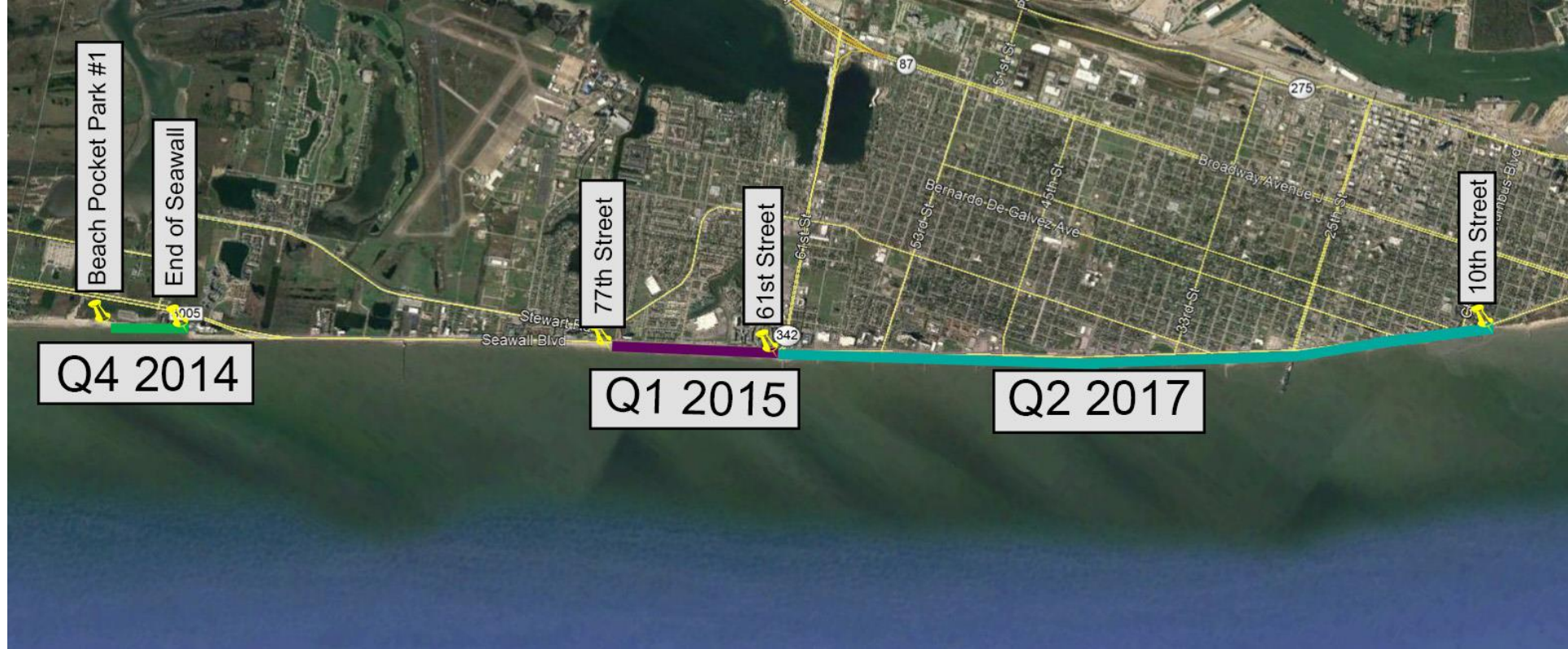
Approved for public release; distribution is unlimited.

Figure 10. Sediment budget cells in the Galveston Entrance area. Units are in $\text{yd}^3/\text{yr} \times 1000$. ΔV represents volume change in each cell (beach accretion or erosion).



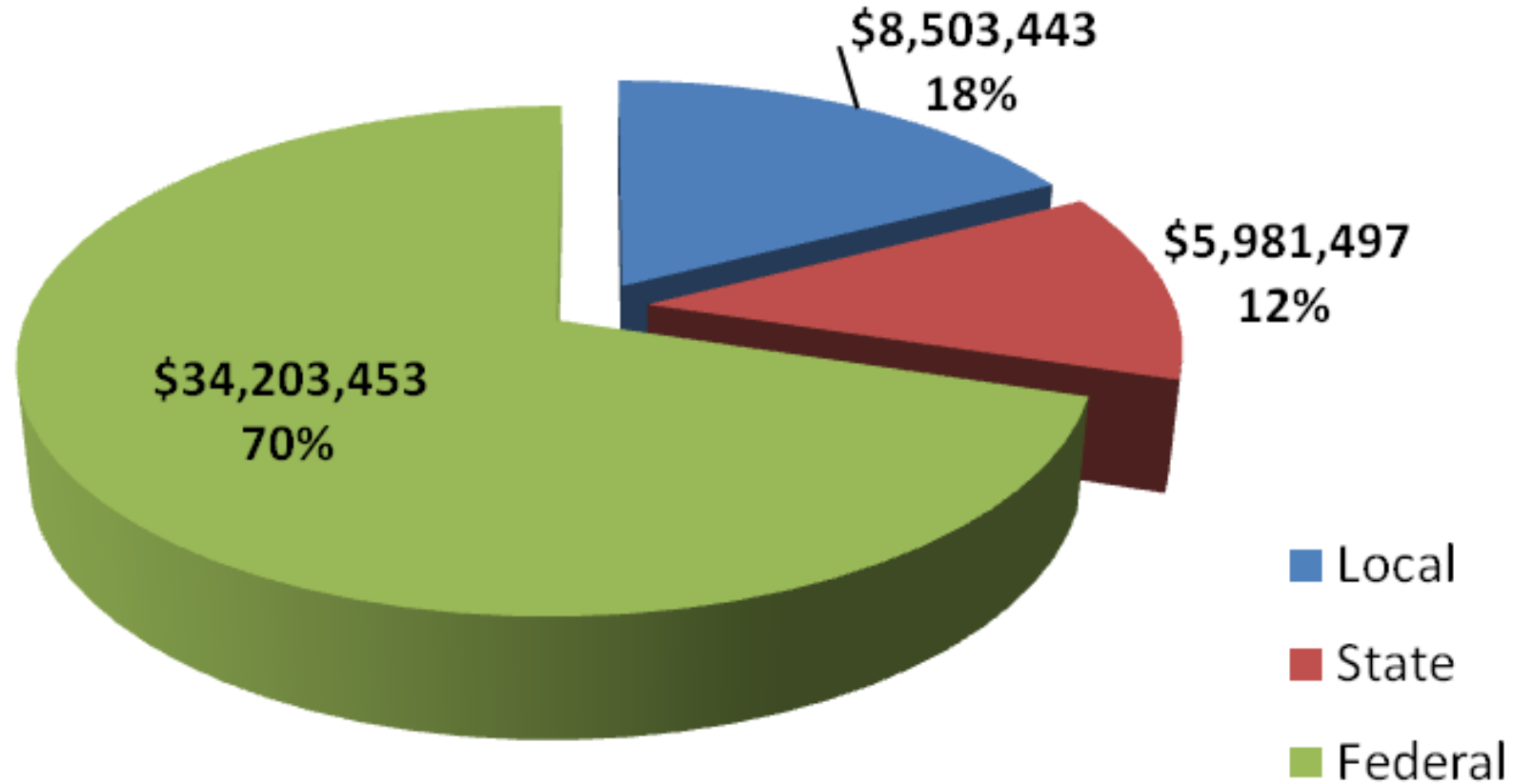
Strategic Planning

- Knowing there is a need for continuous nourishment, how do we ensure long term needs are met
 - Identified Funding opportunities at the Federal and State level
 - Sand Sourcing
 - Amended Permits with Sand Sourcing Data
 - Researched alternatives
- Now it's time to Nourish our Beaches
 - Dellanera
 - Historic Seawall
 - Babe's Beach



Summary Table of 2015 -2017 Beach Nourishment Program				
	Cost	Volume (yds.3)	\$/yd3	Length (ft.)
End of Seawall	4,986,720	113,000	\$44.13	2,100
Seawall West	23,515,358	629,188	10.60	4,980
Historical Seawall	19,586,315	1,000,000	16.74	19,483
Total	\$48,088,393	1,742,188		26,563

2015- 2017 Beach Nourishment Efforts



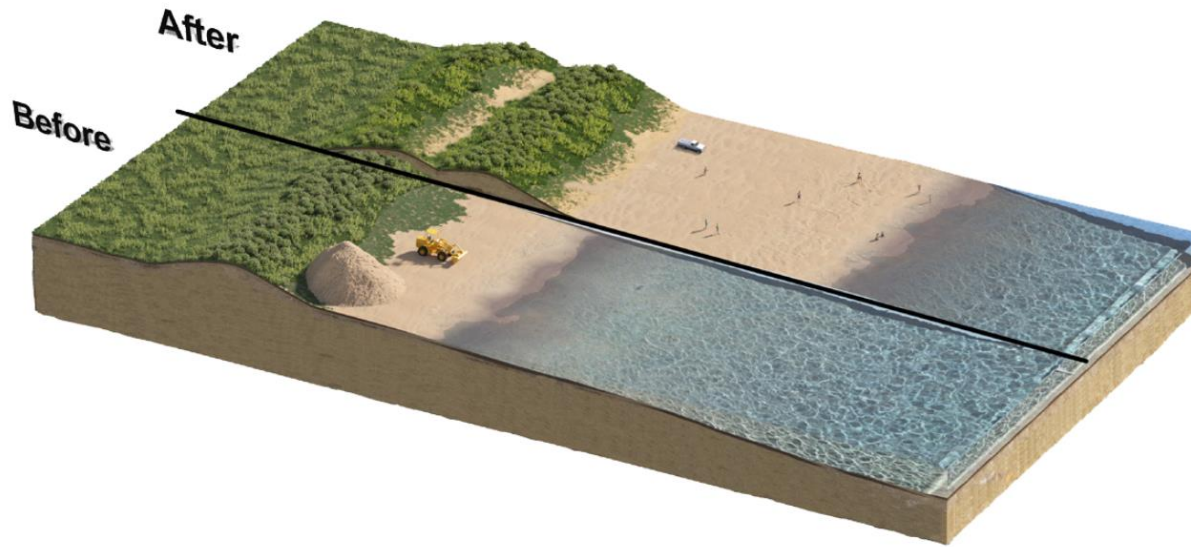
*\$5 to \$1 return on local funding

Babe's Beach

- Location: West of 61st Street along Seawall Blvd.
- Length: 4,980LF
- Volume: 629,188 cu/yds. Density: 126.3cu/yd. LF
- Timing: Construction 09/2015 to 11/15/2015
- Budget:

Total Budget	\$22,993,050.00
Beach Placement	\$ 8,039,192.80
- Cost cu/yd: \$10.60
- Contractor: Great Lakes Dredge and Dock

Moving Forward

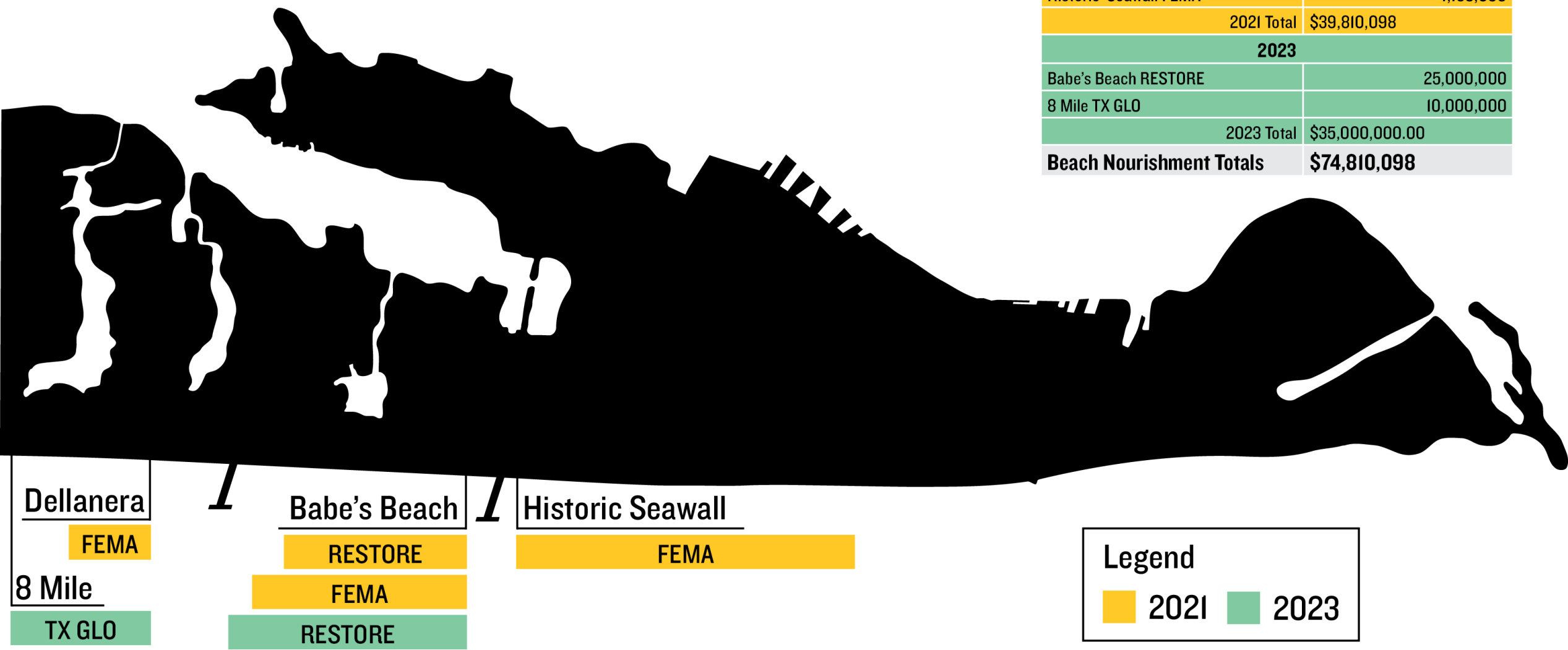


Conceptual rendering of the beach restoration process



Conceptual rendering of a proposed beach and dune field system

Beach Nourishment Plans 2021 - 2023



2021	
Babe's Beach FEMA	2,961,202
Babe's Beach RESTORE	25,000,000
Dellanera FEMA	4,680,797
Historic Seawall FEMA	7,168,099
2021 Total	\$39,810,098
2023	
Babe's Beach RESTORE	25,000,000
8 Mile TX GLO	10,000,000
2023 Total	\$35,000,000.00
Beach Nourishment Totals	\$74,810,098

















Stay well.