PINELLAS COUNTY, FL

COASTAL STORM RISK MANAGEMENT STUDY

Integrated Feasibility Study and Environmental Assessment

DRAFT REPORT PUBLIC COMMENT PERIOD

U.S. Army Corps of Engineers
Jacksonville District
August 2020

AGENDA

1. Project History and Scoping
2. Plan Formulation Process
3. Tentatively Selected Plan
4. Sediment Sources
5. Technical Considerations
6. Study Timeline and Next Steps

Section 216 of the Flood Control Act of 1970:

"The Secretary of the Army, acting through the Chief of Engineers, is authorized to review the operation of projects the construction of which has been completed and which were constructed by the Corps of Engineers in the interest of navigation, flood control, water supply, and related purposes, when found advisable due [to] the significantly changed physical or economic conditions, and to report thereon to Congress with recommendations on the advisability of modifying the structures or their operation, and for improving the quality of the environment in the overall public interest."

- 1966 — Congress authorizes Pinellas County, Florida Beach Erosion Control Project
- 1969 — Treasure Island Initial Construction
- 1980 — Long Key Initial Construction
- 1993 — Sand Key Initial Construction
- 2014 — WRRDA/WIIN 2014 Extends Federal Participation by Three Years to 2022
- 2016 — WRDA 2016 Extends Federal Participation to 2025
- 2025 — End of Federal Participation for Treasure Island
- 2030 — End of Federal Participation for Long Key
- 2043 — End of Federal Participation for Sand Key

* The non-Federal sponsor is Pinellas County, Florida.

STUDY SCOPING

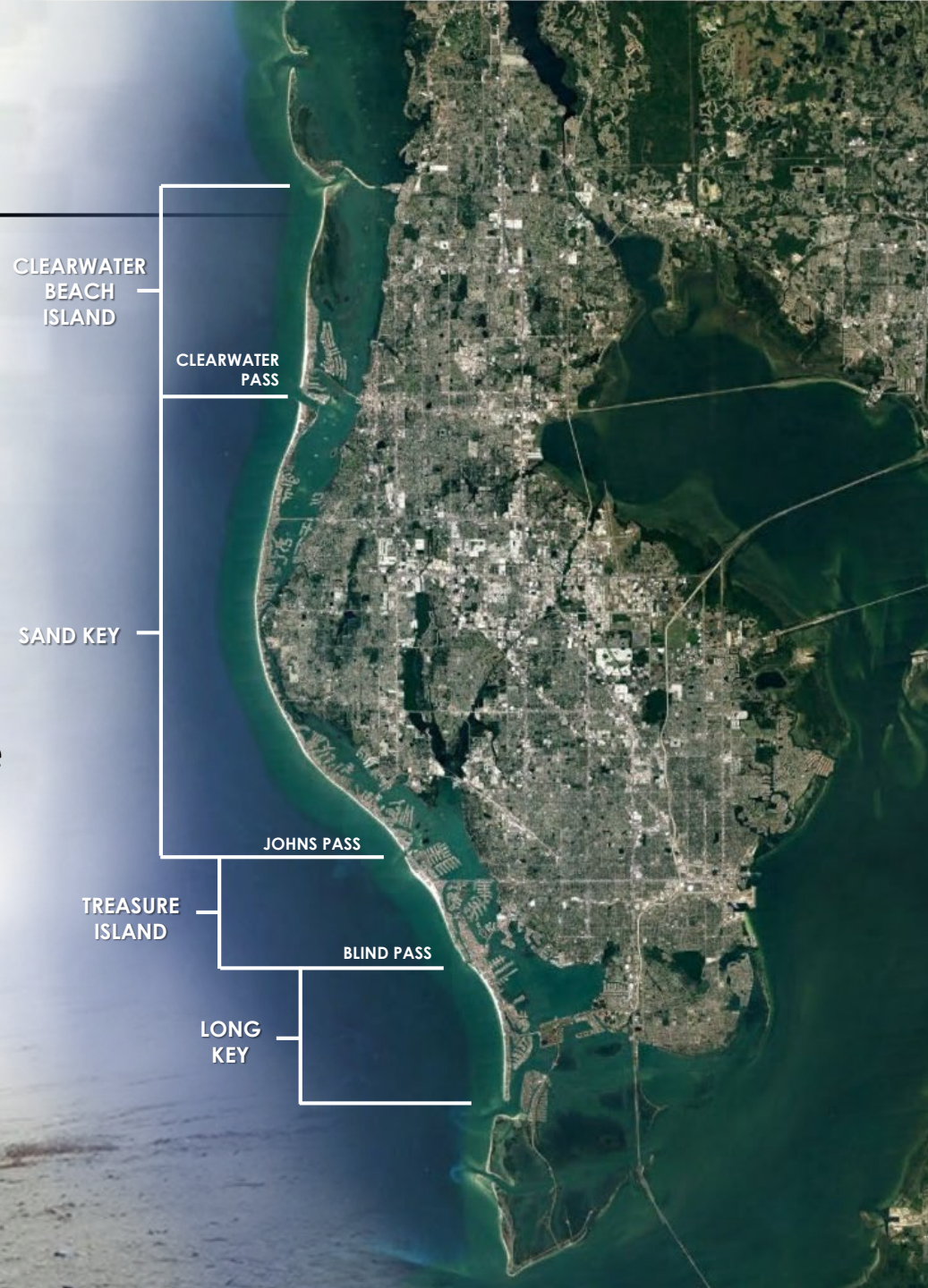
- Evaluate alternatives to manage coastal storm risk in Pinellas County for 50 years
- Develop an alternative that is environmentally acceptable
- Treasure Island and Long Key most urgent need

STUDY AREA PROBLEMS:

1. Storm damages due to erosion, inundation, and waves threaten infrastructure
2. Erosion causes loss of natural habitat
3. Shoreline erosion threatens recreational opportunities

PLANNING OBJECTIVES:

1. Reduce coastal storm damage to structures and infrastructure for the 50-year planning horizon.
2. Maintain environmental quality for human and natural use through the 50-year planning horizon.
3. Maintain existing recreation (beach and nearshore) for economic benefit over the 50-year planning horizon.

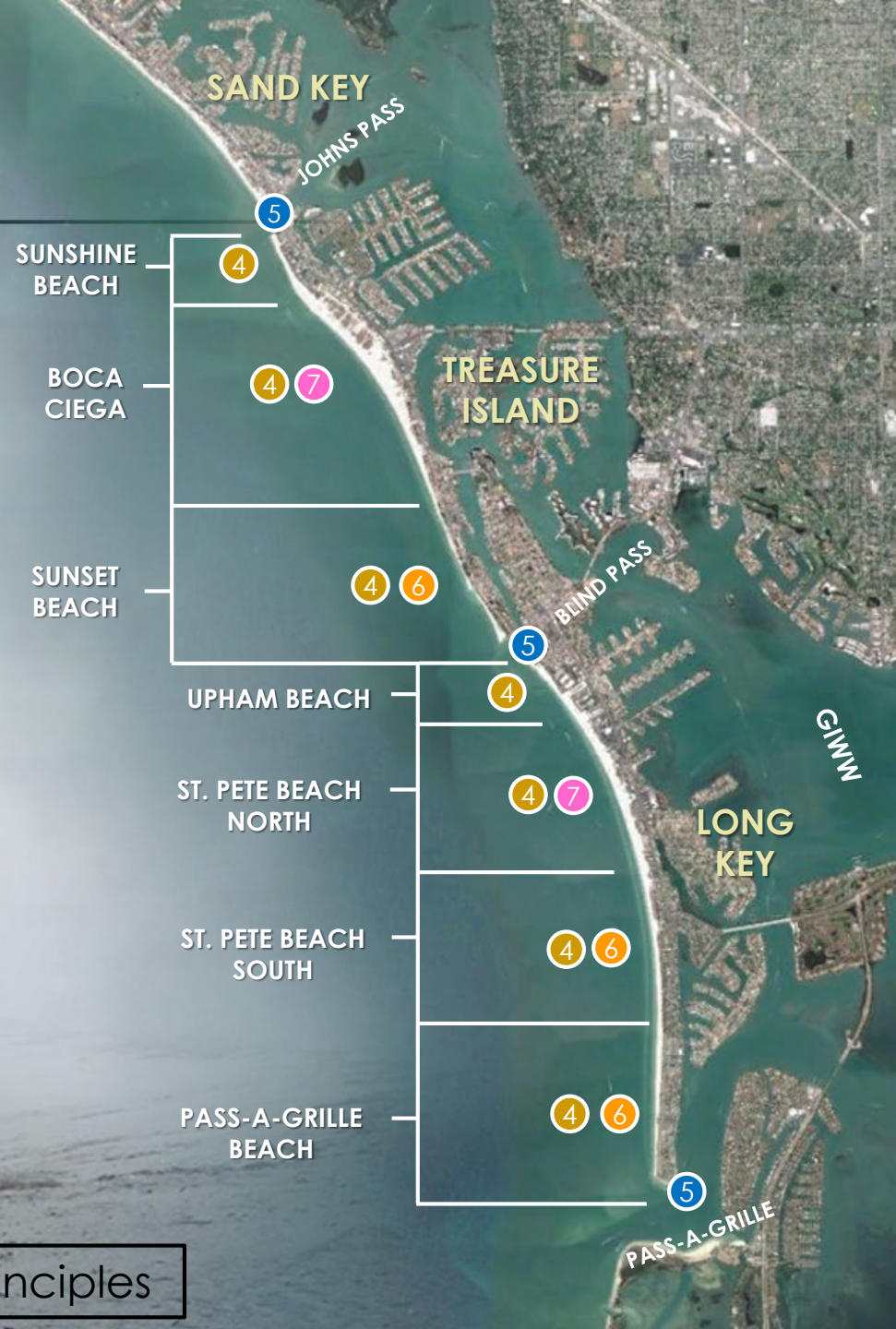


PLANNING PROCESS

Measures were scaled and combined to form alternatives.

MANAGEMENT MEASURES

1. NS-1: No Action (area-wide)
5. ~~NS-5: Relocation/Elevation of Structures (area-wide, as appropriate)~~
7. ~~NS-7: Buyout/Land Acquisition (area-wide, as appropriate)~~
8. NS-8: Public Awareness and Communication (area-wide)
4. S-4: Beach Nourishment
5. ~~S-5: Jetty Improvements~~
6. ~~S-6: Groins~~
7. ~~S- 7: Seawalls/Floodwalls~~

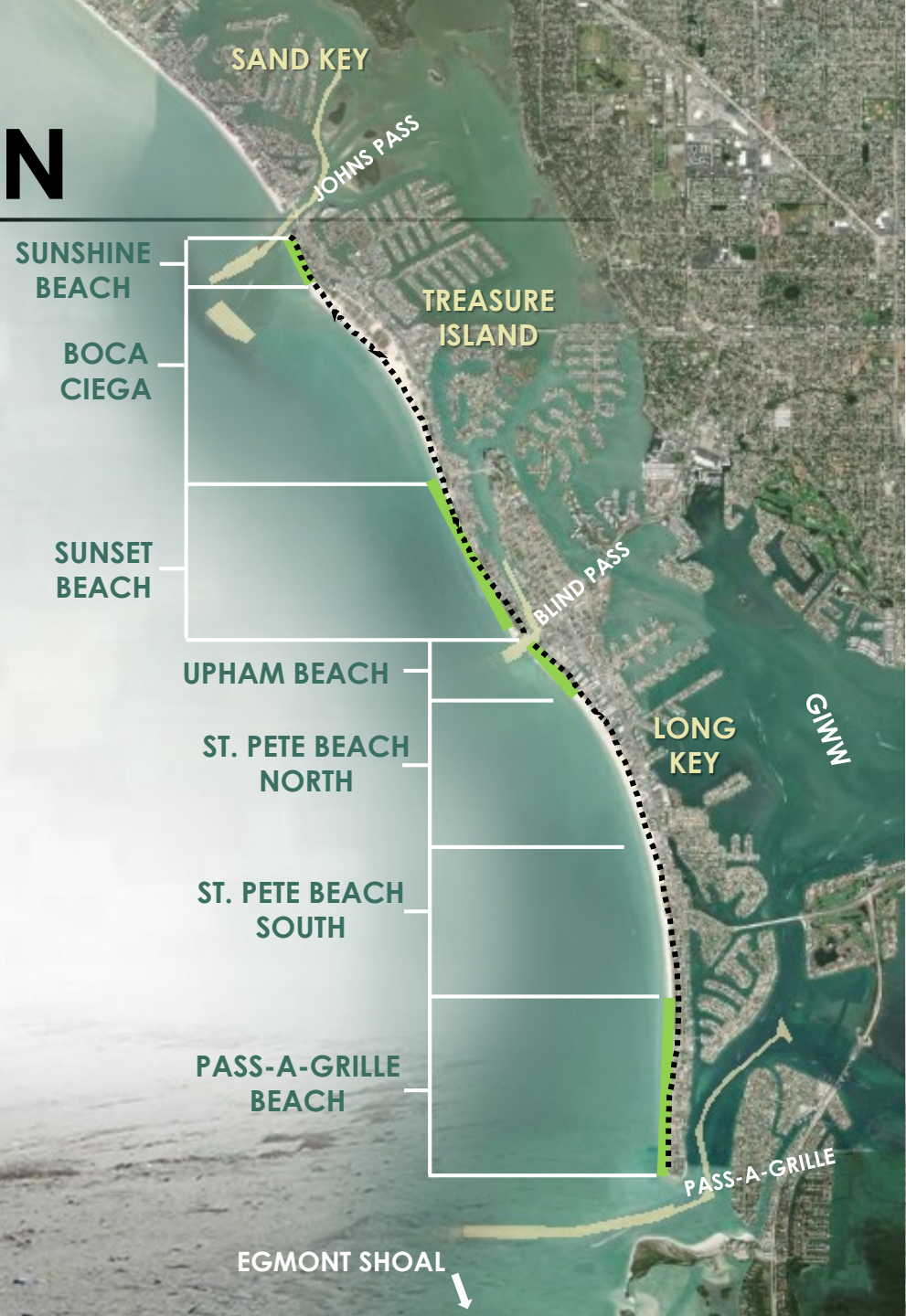


Formulated using the 4 P&G Accounts as guiding principles

TENTATIVELY SELECTED PLAN

The Tentatively Selected Plan (TSP) is for periodic beach nourishment, including dune and berm features, at the north and/or south ends of Treasure Island (R-126 to R-129 and R-136 to R-143) and Long Key (R-144 to R-147 and R-160 to R-166). The maximum dimensions include:

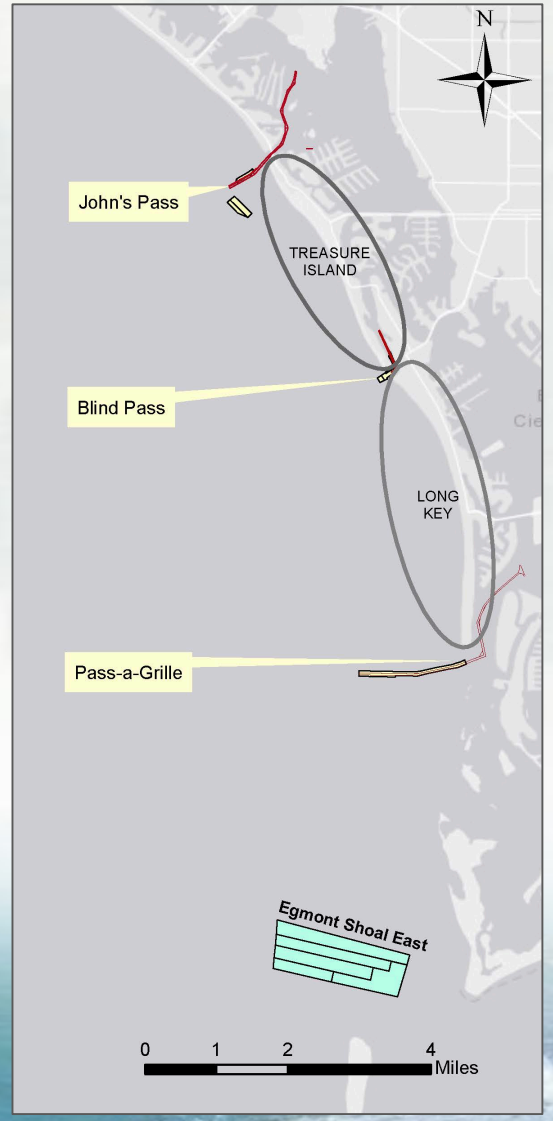
- A berm extension of up to 100 ft. seaward from the dune toe at an elevation that mimics the natural berm (4.6 ft. NAVD88); and
- A dune with a height of up to +10 ft. NAVD88 and a width that could extend the entire equilibrated beach profile up to 20 ft. seaward.



LEGEND

- Beach Nourishment (including Dunes and Vegetation)
- Periodic Nourishment as Needed
- Sediment Sources

SAND SOURCES



AVAILABLE SAND VOLUMES

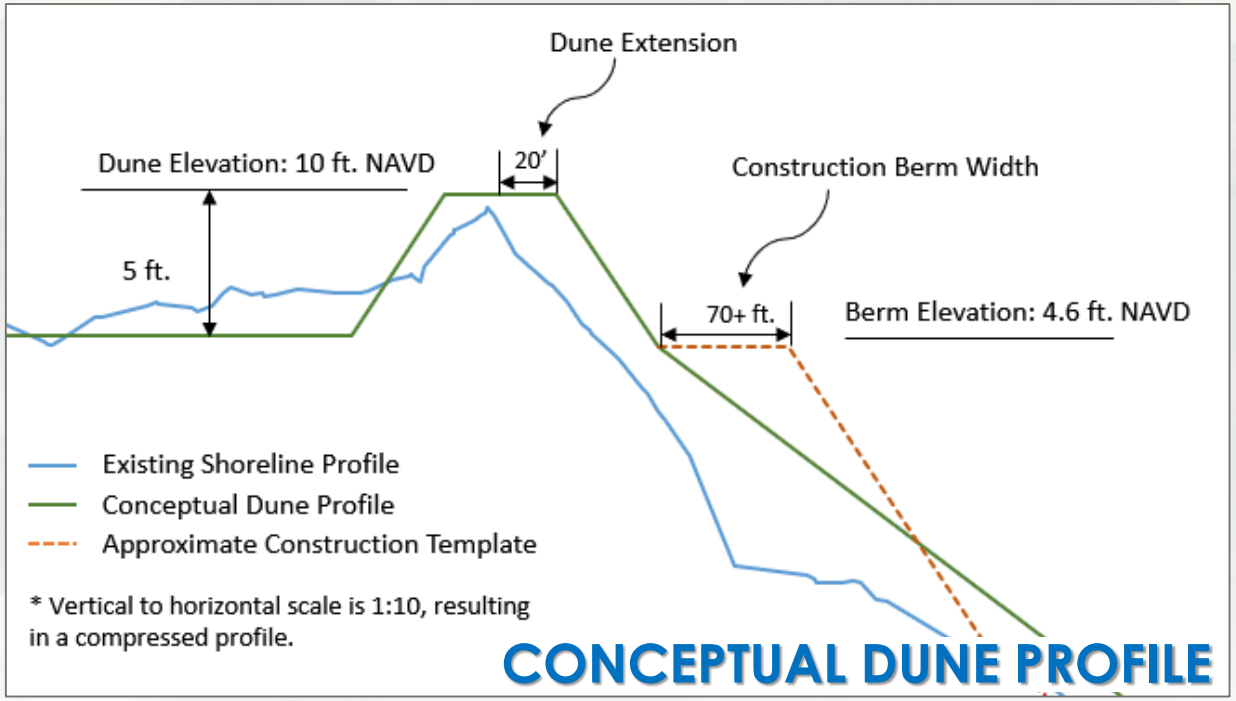
Sand Source	50-year Volume (cuyd)
Passes (Johns Pass, Blind Pass, Pass-a-Grille)	5,730,000
Egmont Shoal East	up to 15 Million
Pass-a-Grille Ebb Shoal Complex (Potential)	2,500,000

COMPATIBILITY

Composite	Mean (mm)	Silt (%)	Shell (%)	Munsell Color
TI/LK Beaches	0.28	1.04	24.30	2.5Y 8/1
Passes	0.26	1.18	19.99	2.5Y 8/1
Egmont Shoal	0.22	2.0	20.7	2.5Y 7/1

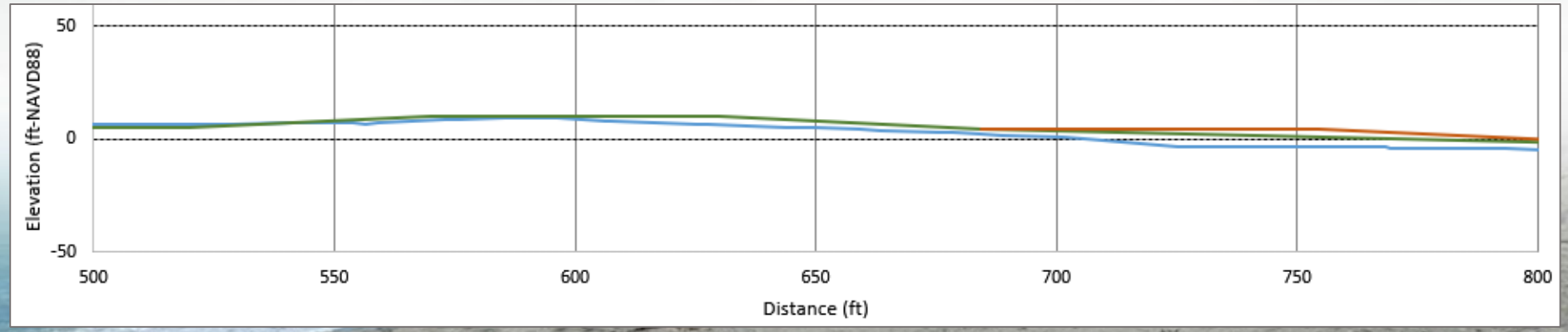
- The material of the existing beaches and the sand sources are very **similar and compatible**.
- The material is composed of poorly graded fine-grained sand consisting of quartz and shell fragments, and is of light gray color.

ENGINEERING CONSIDERATIONS



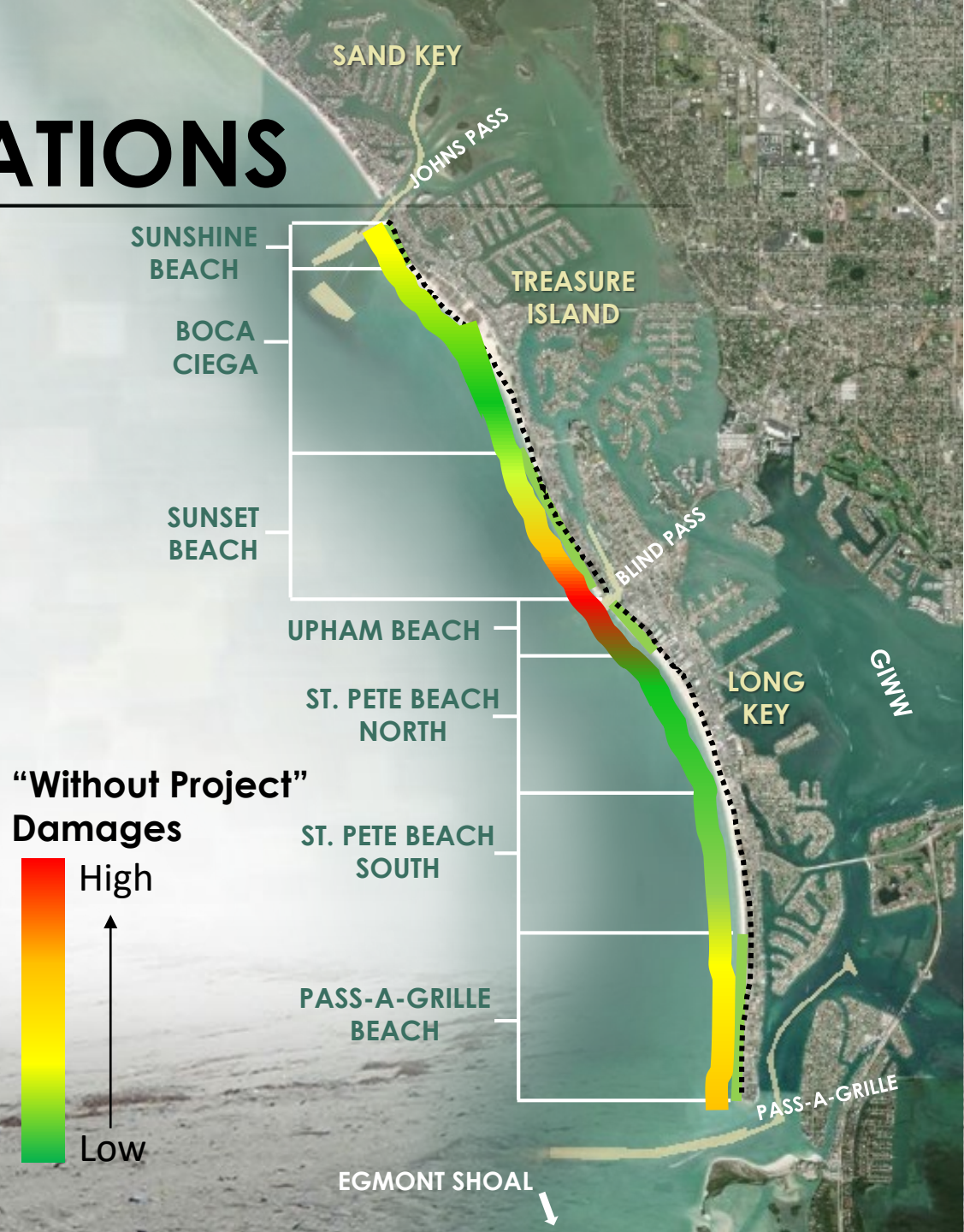
CONCEPTUAL DUNE PROFILE

EXISTING PASS-A-GRILLE DUNE SYSTEM



ECONOMIC CONSIDERATIONS

- Benefits represent the reduction in damages from the “Future Without-Project” condition
- Net benefits = Benefits - Costs
- Sunset Beach and Upham Beach: highest net benefits
- Sunshine and Pass-a-Grille Beaches did not contribute as much to net benefits; important for stabilizing unfilled portions of the shorelines
- No construction proposed for the center reaches of the islands (Boca Ciega, St. Pete Beach North, and St. Pete Beach South) – these reaches benefit from fill placed to the north



ENVIRONMENTAL CONSIDERATIONS

ISSUES CONSIDERED IN THE ENVIRONMENTAL ASSESSMENT:

- Aesthetics
- Air Quality
- Archaeological/ Cultural Resources
- Essential Fish Habitat
- Contaminants
- Navigation
- Noise
- Noise
- Recreation
- Benthic Resources
- Socioeconomics
- Threatened and Endangered Species
- Turbidity
- Wildlife Resources

AESTHETICS

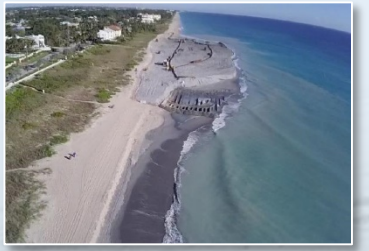
CULTURAL RESOURCES

ESSENTIAL FISH HABITAT

THREATENED & ENDANGERED SPECIES

HARDGROUNDS

TURBIDITY



NAVIGATION

WILDIFE RESOURCES

STUDY SCHEDULE/PROGRESS

ESTIMATED STUDY SCHEDULE

ALTERNATIVES MILESTONE	PLAN FORMULATION Eng & Econ Modeling	TENTATIVELY SELECTED PLAN	DRAFT REPORT & NEPA Technical Review	DRAFT REPORT & NEPA Public & Policy Review	AGENCY DECISION MILESTONE	FINAL REPORT State and Agency Review	CHIEF OF ENGINEERS REPORT	PROJECT ENGINEERING & DESIGN/ CONSTRUCTION
January 2019	Jan. 2019 to March 2020	April 2020	June 2020 to July 2020	August 2020	October 2020	June 2021	Sept. 2021	2025 through 2027*

* Contingent on authorization and appropriations

How Can You Help?

- EMAIL your official comments on the draft integrated Feasibility Report and Environmental Assessment by **September 4, 2020** to:

PinellasCountyStudyComments@usace.army.mil

- Review the Draft NEPA document at the USACE, Jacksonville District website.
- Provide any questions in the Chat Box for informal response.

VIRTUAL OFFICE HOURS

Feel free to drop in any time during our "virtual" office hours to chat with team members and ask your questions!

August 20 from 2:00 to 3:00 p.m.

August 26 from 11:00 a.m. to 12:00 p.m.

*** Please refer to the project website for the access information to attend the office hours:**

www.saj.usace.army.mil/PinellasCSRMStudy