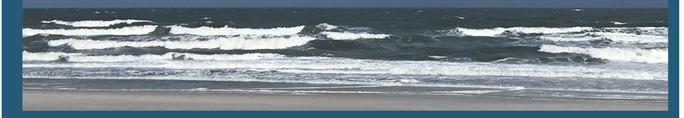
ST. JOHNS COUNTY, FL, PONTE VEDRA BEACH COASTAL STORM RISK MANAGEMENT PROJECT

BACKGROUND

The St. Johns County, Ponte Vedra Beach Coastal Storm Risk Management (CSRM) Study is the first step toward a potential federally-cost shared, 50-year project designed to provide sustainable coastal storm risk management for property; infrastructure such as evacuation route SR A1A; and environmental habitat. Projects provide for recreation opportunities, as well.

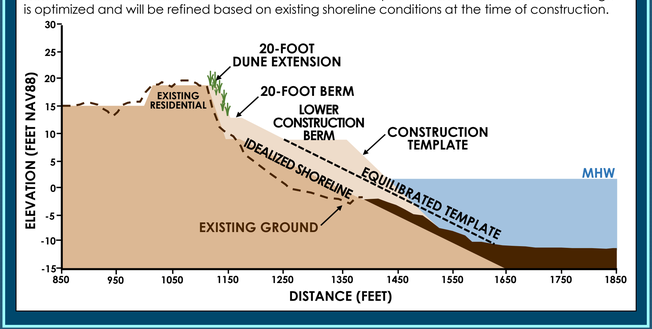
A CSRM project provides a holistic, environmentally-friendly defense against impacts from coastal storms and sea level rise. The St. Johns County, Ponte Vedra CSRM project is expected to significantly reduce future storm impacts, fostering a more resilient coastal environment and community that is better able to withstand and recover from storm impacts.



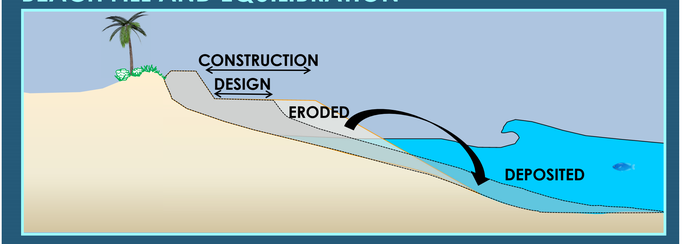
RECOMMENDED PLAN OVERVIEW

- Federal Participation: 50 years from initial construction
- Initial Sand Volume: ~ 2.2 million cubic yards
- Borrow Sources: Northern Offshore Borrow Areas
- Renourishment Volume: ~ 662,000 cubic yards
- Renourishment Interval: ~ 10 years (4 after initial construction)
- Typical Project Profile:
  - Reflects the average need for sand across the project area
  - Berm: 20-foot equilibrated berm
  - Dune: 20-foot dune extension

Note: The exact dimensions of the beach nourishment template will be determined as the design is optimized and will be refined based on existing shoreline conditions at the time of construction.



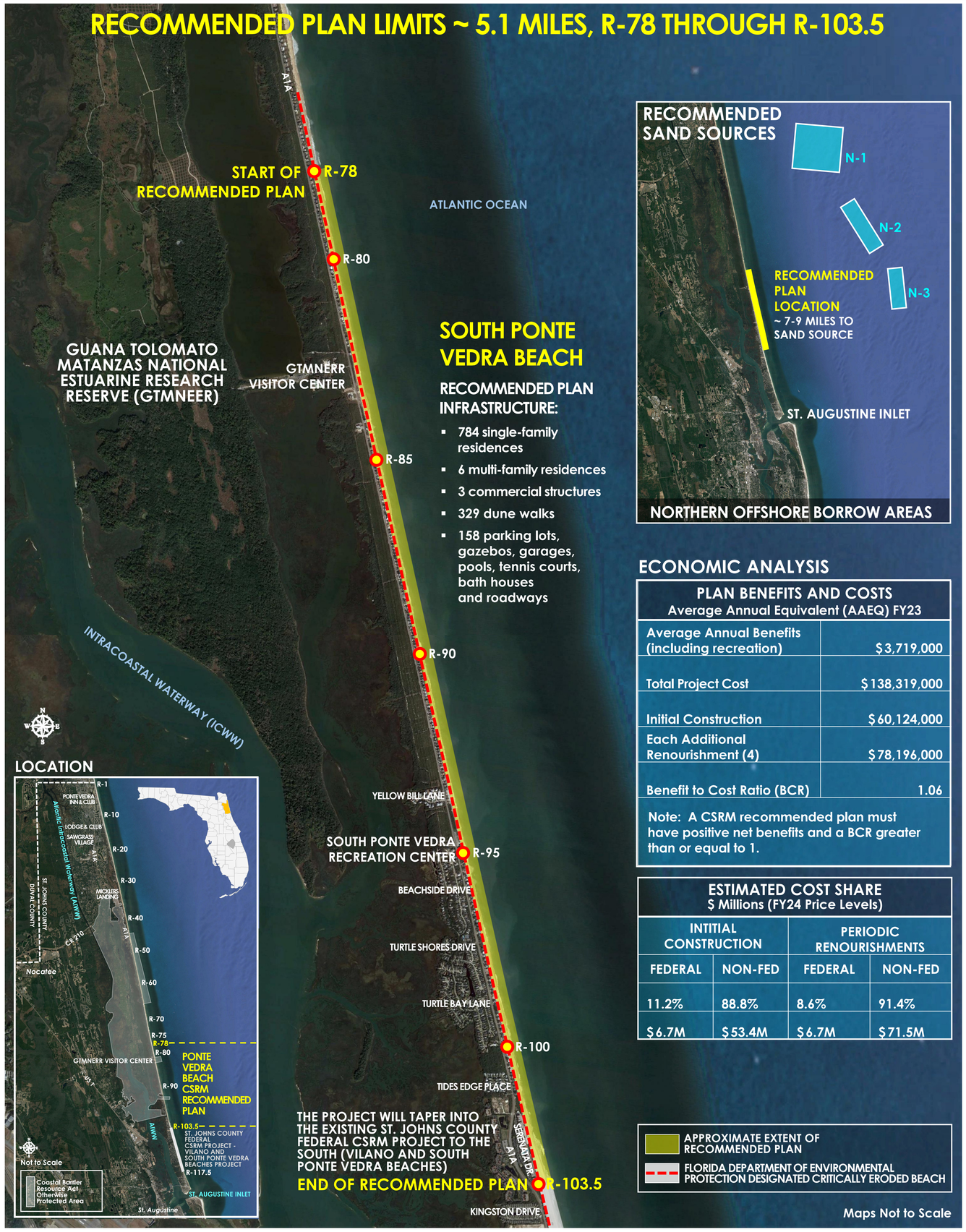
BEACH FILL AND EQUILIBRATION



Waves and currents will reshape the constructed beach fill over time to a more natural "equilibrated" shape by transporting sand from the dry beach and depositing it offshore within the active beach profile to help dissipate wave energy and provide the intended coastal storm risk management benefits. This process begins immediately after construction, with full adjustment of the beach shape typically requiring many months or multiple significant wave events.

The initial equilibration process may appear to dramatically decrease the width of the dry beach, but the beach is operating as designed. Once the beach has reached an equilibrium condition, the beach is expected to recede at a slower rate.

RECOMMENDED PLAN LIMITS ~ 5.1 MILES, R-78 THROUGH R-103.5



SOUTH PONTE VEDRA BEACH

RECOMMENDED PLAN INFRASTRUCTURE:

- 784 single-family residences
- 6 multi-family residences
- 3 commercial structures
- 329 dune walks
- 158 parking lots, gazebos, garages, pools, tennis courts, bath houses and roadways

LOCATION

ECONOMIC ANALYSIS

PLAN BENEFITS AND COSTS Average Annual Equivalent (AAEQ) FY23	
Average Annual Benefits (including recreation)	$3,719,000
Total Project Cost	$138,319,000
Initial Construction	$60,124,000
Each Additional Renourishment (4)	$78,196,000
Benefit to Cost Ratio (BCR)	1.06

Note: A CSRM recommended plan must have positive net benefits and a BCR greater than or equal to 1.

ESTIMATED COST SHARE
$ Millions (FY24 Price Levels)

INITIAL CONSTRUCTION		PERIODIC RENOURISHMENTS	
FEDERAL	NON-FED	FEDERAL	NON-FED
11.2%	88.8%	8.6%	91.4%
$6.7M	$53.4M	$6.7M	$71.5M

APPROXIMATE EXTENT OF RECOMMENDED PLAN

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION DESIGNATED CRITICALLY ERODED BEACH

Maps Not to Scale

ENVIRONMENTAL AND CULTURAL CONSIDERATIONS

ENVIRONMENTAL AND CULTURAL BENEFITS

- Sea turtle nesting habitat will be maintained over 50 years, benefitting threatened species such as the Loggerhead and Green sea turtles as well as endangered Leatherback, Hawksbill, and Kemp's ridley sea turtles. The project will provide habitat benefitting shorebirds including threatened Rufa Red Knot and Piping Plover overwintering habitats.
- Berm and dune slopes designed to closely mimic the natural beach, and the sand source is compatible with native beach sand.
- Dune to be vegetated with native plants for dune stabilization and to promote wildlife usage (shelter, food, slope change signaling turtles to nest, etc.).
- No significant effects on Essential Fish Habitat (EFH).


PIPING PLOVER


SEA TURTLES

- Reduces potential damages to Scenic and Historic Coastal Byway SR A1A.
- One archaeological site further protected by placement of material.

ENVIRONMENTAL MONITORING DURING CONSTRUCTION

- Turbidity in the water column is monitored while dredging the borrow area, and at the placement site.
- Equipment operating in the project area is routinely monitored.
- Standard manatee and marine animal monitoring and protective measures are employed during project construction.


MANATEE


LEAST TERN
(Image courtesy of USFWS, Larry Richardson)

FOR MORE INFORMATION: WWW.SAJ.USACE.ARMY.MIL/PONTEVEDRA/