February 2016

St. Johns County shoreline feasibility study

The U.S. Army Corps of Engineers, Jacksonville District is working on the St. Johns County, Fla., Coastal Storm Risk Management Project draft feasibility study and environmental assessment.

The study team, consisting of federal, state and local agency officials, assessed the feasibility of providing federal coastal storm risk management measures to portions of St. Johns County's shoreline. Specific problems in the study area include storm damages due to erosion, inundation, and waves threatening infrastructure, natural habitat and recreational opportunities.

Shoreline erosion severely threatens State Road A1A, the only north-south hurricane evacuation route for communities along the coastline. SR A1A is an integral part of the county's infrastructure and is essential for public safety prior to, during and after major storm events.

The St. Johns County shoreline is approximately 42 miles long. The Corps of Engineers examined opportunities to reduce the risk of coastal damages and improve conditions on roughly 9.8 miles of beach. The study area consisted of 3.8 miles in the South Ponte Vedra area, 3.7 miles in Vilano Beach and 2.3 in Summer Haven.

Other areas of the county's shoreline were found either to not have excessive erosion such that infrastructure was threatened.

Alternatives considered in the study included no action, non-structural measures (flood proofing, relocation, land acquisition, etc.), shore protection with hard structures (seawalls, revetments, groins, etc.), shore protection with soft structures (beach nourishment, geotubes, etc.), combinations, and others.

Shore erosion threatens State Road A1A.

The tentatively selected plan (TSP) includes beach and dune nourishment within the Vilano Beach area and a small portion of the South Ponte Vedra Beach. During the study process, the team screened out the Summer Haven area because St. Johns County is already conducting managed retreat there. Most of

the South Ponte Vedra area was screened out due to its lack of public parking and access, which is a requirement for federal beach projects.

Shore erosion can threaten critical infrastructure such as roads and facilities, as well as homes and businesses, recreation / tourism, and wildlife habitat.

The TSP design consists of a 60-foot seaward berm extension and maintenance of the existing dune along 2.6 miles, approximately from the southern end of the Serenata Beach Club to San Pelayo Court. The Corps anticipates an initial construction, and then four periodic nourishment events at about 12-year intervals. Initial construction would use about 1.3 million cubic yards of material and the periodic nourishments would use roughly 866,000 cubic yards each. Jacksonville District anticipates the initial construction period to take about 14 weeks. The total project cost is estimated at $66 million using FY16 price levels.

Cost sharing for initial construction is 22 percent federal and 78 percent non-federal. The cost sharing for periodic nourishments is 17.7 percent federal and 82.3 percent non-federal.

Study future milestones include:
Public, technical, policy, and legal review: Feb. 18, 2016
Agency Decision: May 2016
Civil Works Review Board: January 2017
Chief of Engineers Report: May 2017