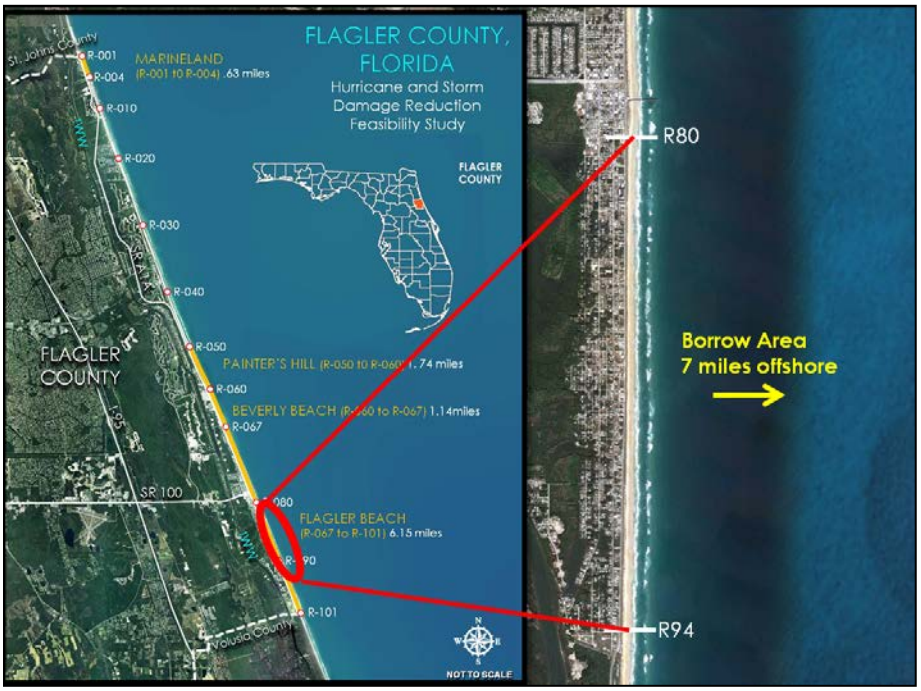
Flagler County, Florida
Hurricane and Storm Damage Reduction Project

26 August 2014



ABSTRACT: The proposed Flagler County hurricane and storm damage reduction project is located on the northeast coast of Florida, approximately midway between the Florida/Georgia state line and Cape Canaveral. The non-Federal sponsor for the project is Flagler County, FL.

Flagler County has a sandy shoreline which is subject to erosion caused by storms and natural shoreline processes. A Feasibility Study was conducted along the 18 miles of shoreline to assess the feasibility of providing Federal Hurricane and Storm Damage Reduction (HSDR) measures. Shoreline erosion in the Flagler County study reaches threatens oceanfront infrastructure, including National Scenic Highway, State Road (SR) A1A, and over 1,476 structures having a combined estimated structural and content value of approximately $340 million. SR A1A, the only north-south hurricane evacuation route for communities along this portion of the coastline, is an integral part of the county's infrastructure and is essential for public safety during evacuation events.

The recommended plan, that is the National Economic Development (NED) plan, consists of a ten-foot seaward extension of the dune and beach profile along 2.6 miles of shoreline in Flagler Beach and mainly prevents damage to SR A1A, an important hurricane evacuation route. Initial construction will require approximately 330,000 cubic yards of sand, and each periodic nourishment event will require approximately 320,000 cubic yards. The renourishment interval is expected to be approximately 11 years, equaling 4 renourishment events in addition to initial construction over the 50 year period of Federal participation. The borrow area is located 7 miles offshore of the placement area within Federal Waters. Sufficient quantities of beach quality sand exist for initial construction and all periodic renourishments. Stabilization of dunes would be accomplished through use of native grasses. As the Recommended Plan would not have any significant adverse effects, no mitigation measures (beyond management practices and avoidance) or compensation measures are required.

Based on October 2014 (FY15) price levels, the estimated First Cost of the Recommended Plan is about $14,182,000, which would be cost-shared, based on full compliance with parking and access requirements, at 65% Federal, and 35% non-Federal. The first three periodic renourishments are estimated at a cost of $7,717,000 each with the fourth periodic renourishment estimated at $7,692,000 at 50% Federal and 50% non-Federal cost shares. All project costs are allocated to the authorized purpose of hurricane and storm damage reduction.

Applying these cost-sharing percentages in accordance with Section 103 of the Water Resources Development Act of 1986, as amended, the Federal share of the first cost of initial construction would be about $9,218,300 (65 percent) and the non-Federal share would be about $4,963,700 (35 percent). Of that amount, the cost of lands, easements, rights-of-way, relocations, and dredged or excavated material disposal areas (LERRD) is estimated at $3,336,000, all of which is eligible for LERRD credit as part of the non-Federal sponsor's 35% cost share.

The Federal share of the total cost for the four periodic renourishments would be about $15,390,000 (50 percent) and the non-Federal share would be about $15,390,000 (50 percent). Flagler County would be responsible for the operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) of the project after construction, a cost currently estimated at about $10,000 per year.

Based on FY14 price levels, the current 3.5% discount rate, and a 50-year period of analysis, the average annual costs of the project are estimated to be $1,239,000, including monitoring and OMRR&R. The Recommended Plan would reduce potential coastal storm damages by 95% in the project area compared to the no-action alternative. The equivalent average annual benefits are estimated to be approximately $2,407,000 with net average annual benefits of approximately $1,168,000. The benefit to cost ratio is approximately 1.9 to 1.

Report Documentation: Pertinent documentation on the project, the results of the CWRB and subsequent Washington-Level Review Actions are linked below:

- CWRB Agenda
- Project Map/Placemat
- Project Summary
- CWRB Briefing Slides
- CWRB Lessons Learned
- CWRB Meeting Record
- State & Agency Review Comments Letters
- Documentation of Review Findings
- Signed Chief of Engineers Report
- Advanced Copy to Congressional Committees
- ASA (CW) Memo to OMB
- OMB Response
- ASA (CW) Transmittal to Congress
- Signed Finding of No Significant Impact
- Authorization

Additional Information: **South Atlantic Division** **Jacksonville District**