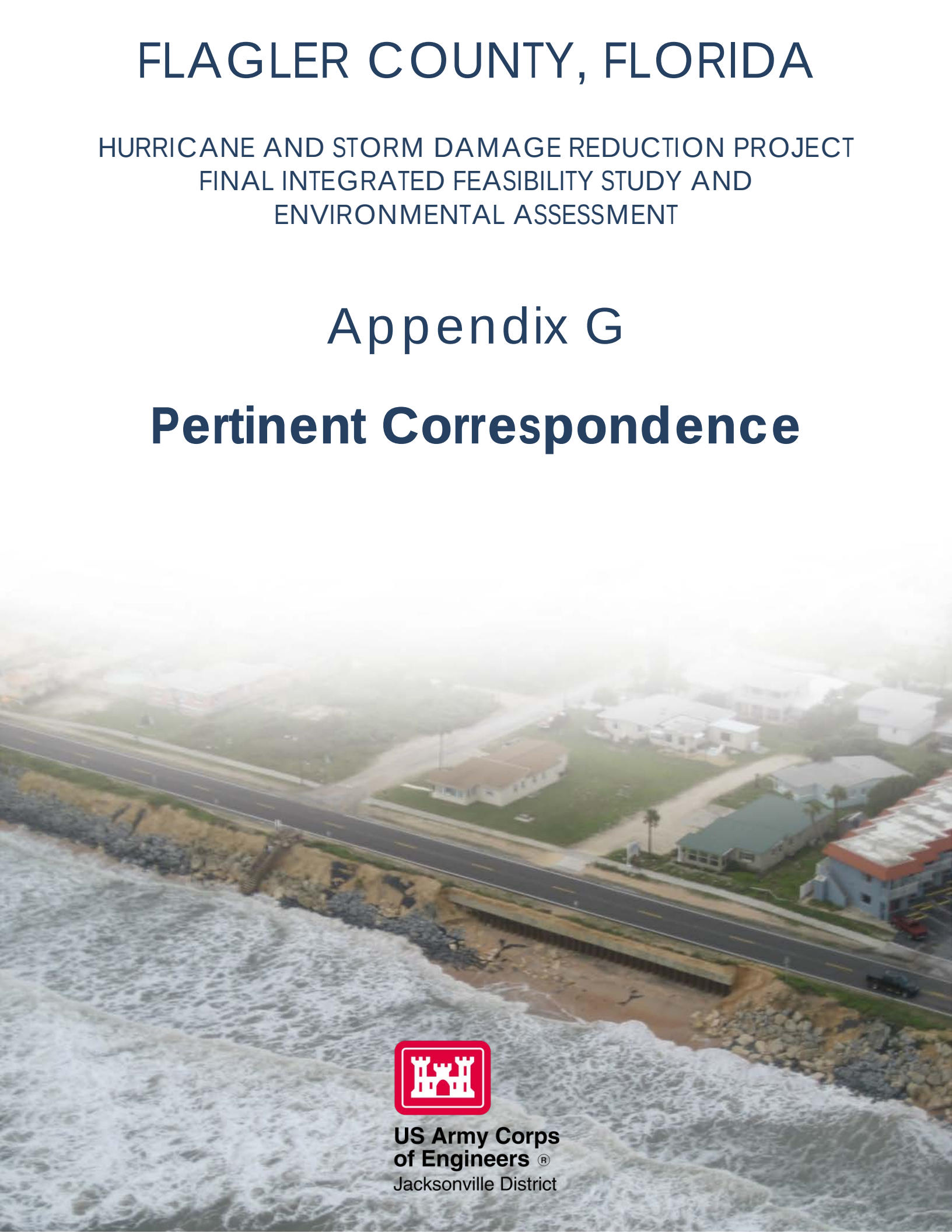
FLAGLER COUNTY, FLORIDA

HURRICANE AND STORM DAMAGE REDUCTION PROJECT
FINAL INTEGRATED FEASIBILITY STUDY AND
ENVIRONMENTAL ASSESSMENT

Appendix G

Pertinent Correspondence



US Army Corps
of Engineers ®
Jacksonville District

Appendix G
Pertinent Correspondence

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HURRICANE AND STORM DAMAGE REDUCTION PROJECT
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Agency Review Comments

FLAGLER COUNTY, FLORIDA HURRICANE AND STORM DAMAGE REDUCTION PROJECT DRAFT INTEGRATED FEASIBILITY STUDY AND ENVIRONMENTAL ASSESSMENT JANUARY 2014			
	Comments Provided by Department of Interior, Bureau of Ocean Energy Management (5 March 2014)		
#	**Page**	**Section**	**Specific Comment**
1	ES-2, Last Paragraph	Executive Summary	The first sentence of the last paragraph states that the sand borrow source is located 7 miles offshore, within Outer Continental Shelf (OCS) waters. Realizing that Under Section 8(k) of the Outer Continental Shelf Lands Act (OCSLA), BOEM has sole jurisdiction over these identified sand resources, recommend stating BOEM's role as a cooperating agency on this project as established via letter dated 23 February 2011. Stating BOEM's OCS resource management responsibility and cooperating status on this project up front in the Executive Summary will help establish the context of BOEM's role throughout the document.
SAJ Response:			The sentence "The Bureau of Ocean Energy Management (BOEM) has sole jurisdiction over the identified sand resources for this project under the Outer Continental Shelf Lands Act, and is a cooperating agency on this project." Has been added to the last paragraph on page ES-2.
2	ES-2, General	Executive Summary; General	Clarify whether the Cubic Yardage requirement identified in the Executive Summary and throughout the report is placed quantity or dredged quantity. In the context of BOEM's connected action through the issuance of the MOA, identifying the estimated dredged volume, including losses, is an important component of the NEPA analysis. Recommend distinguishing between dredged volume and placed volume in the Executive Summary and throughout the report.
SAJ Response:			Our cost estimate assumed 26% dredging losses from the borrow area. For the initial placement volume of 330,000 cy, the associated dredge volume is 415,800 cy. For the periodic nourishment placement volume of 320,000 cy, the associated dredge volume is 403,000 cy. Revisions will be made to distinguish between these volumes in the executive summary and throughout the report as appropriate (See new section 6.5).
3	ES-3, General	Executive Summary; General	The discussion of "coquina outcroppings" in the Executive Summary and throughout the report lacks context in some areas to help the reader understand why impacts will not occur. Recommend clarifying that, based on beach and nearshore hard bottom surveys,

			no "direct" burial of supratidal/onshore coquina outcroppings will occur as well as "indirect" burial to nearshore hard bottom features through transport processes both along shore and cross shore. This clarification helps to better classify the relative location of these features to the project area and is necessary to inform the EFH assessment as a component of MSFMCA compliance.
SAJ Response:			In the discussion of coquina outcroppings, the sentence, "Based on the beach and nearshore hardbottom surveys, neither direct burial of coquina outcroppings nor indirect burial to nearshore hard bottom features, through along shore and cross shore transport processes, will occur." Has been added to the on page ES-3.
4	ES-3, General	Executive Summary; General	The executive summary states that there are no known cultural resource issues in the placement or borrow area. However, on page F-38 there is clear indication of shipwreck debris in the side-scan sonar image within the nearshore, and on page F-37 the appendix suggests additional research and survey to assess the historical nature of the wreck. Clearly mapping and avoiding this area with respect to interrelated components of the dredging and placement action, such as potential pipeline corridors, pump out anchor points, etc., is necessary to assure that known sites are avoided. Additionally, appropriate surveys of the potential borrow area(s) have yet to be completed. Recommend that the executive summary more clearly state that additional surveys are still needing to be conducted to clear the borrow areas of potentially significant resources and that appropriate mitigative buffers would be included at the time to effectively avoid impacts.
SAJ Response:			The sentence that states "there are no known cultural resource issues…" has been revised to read, "There are currently no previously recorded cultural resources in the placement or borrow area. Additional cultural resource surveys still need to be conducted to clear the borrow areas and near shore of potentially significant resources and that appropriate buffers would be used at the time of construction to effectively avoid impacts."
5	1-5	1.3	Recommend stating the full scope of the study area including the offshore OCS sand resource. The full scope of the study area is necessary to effectively capture BOEM's purpose and need, to provide an MOA for use of sand resources within the OCS.
SAJ Response:			The following paragraph has been added to section 1.4 to clarify that the areas investigated for sand sourced, including OCS are part of the study area. "The study area includes the areas investigated for potential sand sources that could be used to implement storm damage reduction measures. These include upland sand mines and offshore borrow

			areas. Several of the offshore borrow areas investigated are partially or fully located in Outer Continental Shelf (OCS) waters, which is under the sole jurisdiction of The Bureau of Ocean Energy Management (BOEM)."
6	2-1	2.2	See previous comment. Recommend clarifying the location of these coquina outcroppings with respect to supratidal, intertidal, and subtidal environments (i.e. beach, swash, nearshore) to better inform the EFH analysis and the relative location of these resources to the proposed action.
SAJ Response:			Revised in report (Sect 2-2, pg 2-1): "The coquina rock is exposed in the supratidal area and in the intertidal zone at low tide along sections of the northern beaches between Florida Department of Environmental Protection (FDEP) Monuments R-3 and R-16. Another section of exposed outcrop is located between R-20 and R- 43. Other sections of rock are suspected to exist in the subtidal zone along the shoreline but are likely covered with sand (DEP, 1999)."
7	2-14	Figure 2-12	Clarify that a portion of borrow area 1 and all of borrow areas 2 and 3 are within the OCS and sole jurisdiction of BOEM relative to the state water line defined in the legend.
SAJ Response:			The text in section 2.2.5 has been revised to clarify that a portion of borrow area 1 and all of borrow areas 2 and 3 are within the OCS and sole jurisdiction of BOEM relative to the state water line defined in the legend.
8	2-28	2.4.1 and Appendix D (Section 1.2)	The document discussing the geology of the onshore "study area" well. However, realizing that the offshore borrow source is part of the study area, it is also important to characterize its geology and geomorphology to better inform the potential impact analysis and EFH assessment. Dredging of a relict sand shoal system with varying relief forms will have different impact characteristics compared to that of a sand sheet. Recommend including a discussion of the geomorphologic setting of the borrow source within Appendix D and incorporating relevant sections into the main report where appropriate.
SAJ Response:			The sentence "The investigated borrow areas include part of the Korona Ridge Field geomorphologic unit (Area 2) and part of the Flagler Sand Wave geomorphologic unit (Area 3)." has been added to section 2.4.1 of the main report. Appendix D also has been revised to include the description of the geomorphologic characteristics of the investigated sand sources.
9	2-29	2.4.3	NMFS requested that smalltooth sawfish be evaluated as a component of recent consultation for the recent Brevard County, FL project. Based on recent abundance and distribution studies, their presence in the borrow area is unlikely; however, recommend evaluating smalltooth sawfish distribution for this project to confirm whether additional

			consultation is necessary. The current 1997 SARBO does not include smalltooth sawfish.
SAJ Response:			Text revised in Sect 2.4.3, pg 2-32: "Smalltooth sawfish are unlikely to be present in the nearshore along Flagler County shoreline based on recent abundance and distribution data, although historically, they have been known to occur in the Atlantic in the Everglades region of south Florida and the Gulf of Mexico (NMFS website August, 2013)." Text inserted pg 2-43: "The smalltooth sawfish (*Pristis pectinata*) is currently listed as endangered under the ESA by NMFS (50 CFR 224). In 2003, it was the first marine fish species in U.S. waters added to the ESA listing. Although smalltooth sawfish once ranged throughout U.S. coastal waters along the southeastern Atlantic and northern Gulf of Mexico, its known primary range is now reduced to the coastal waters near Everglades National Park and the Charlotte Harbor Estuary in extreme southern Florida (NMFS website August, 2013). Sightings are very rare. No designated critical habitat occurs along the Flagler County shoreline within the study area. Smalltooth sawfish typically inhabit shallow waters (depths up to 20 feet) near the mouths of rivers in estuarine lagoons over sandy or muddy substrates; likewise, they may also be found in deeper waters (greater than 50 feet) along continental shelf (NMFS Website August 2013). The current 1997 South Atlantic Regional Biological Opinion (SARBO) does not include smalltooth sawfish. Sawtooth sawfish are unlikely to be present in the nearshore along Flagler County shoreline."
10	2-30	2.4.3	Recommend this section be updated to include the NMFS proposed critical habitat designation published on 18 July 2013: https://www.federalregister.gov/articles/2013/07/18/2013-17204/endangered-and-threatened-species-designation-of-critical-habitat-for-the-northwest-atlantic-ocean.
SAJ Response:			Inserted text Sect 2.4.3 pg 2-32 (sea Turtle Nesting Habitat): "Currently, the NMFS has proposed designation of critical habitat for loggerhead turtles along the Florida coastline. The outcome of this designation is pending."
11	2-30	2.4.3	The second paragraph on page 2-30 notes that only the North Atlantic right whale and the Humpback whale have been sighted along coastal Flagler County. The North Atlantic Right whale is discussed on page 2-36; however, there is no discussion on the Humpback whale. Recommend including a discussion of humpback whales in the project vicinity to better analyze potential effects in section 7. Additionally, in section 2.4.3 manatees are excluded from discussion based on their habitat range being outside of the project area; however, Table7-1 notes that potential encounters can occur associated with dredge and support vessels. Recommend consistency throughout the report regarding the potential

			risk of impacts to manatees based on all interrelated components of the proposed action.
SAJ Response:			Revised text to insert discussion of humpback whale starting on pg 2-40, (too long to include entire text here).
12	2-35	2.4.3	The discussion of nesting sea turtle distribution is good; however, recommend including a paragraph discussing known habitat use within the proposed offshore borrow areas. This discussion is necessary with respect to the dredging component of the action and the potential overlap with proposed critical habitat designation.
SAJ Response:			Revised text Sec 2.4.3 pg 2-33: "Sea turtles may also utilize the proposed borrow area offshore, although no survey data has been collected to assess this usage. The proposed loggerhead turtle critical habitat includes offshore Florida as potential breeding habitat, which could include the borrow area located 7 miles offshore (NMFS Website press release, July, 2013)."
13	2-40	2.4.3	This section needs to be updated to reflect the revised proposed listing as threatened (30 September 2013; http://www.fws.gov/northeast/redknot/pdf/ProposedRule_2013_22700.pdf). Additionally, proposed critical habitat is pending.
SAJ Response:			Revised text with insert on pg 2-43 "Red knot (*Caladris canutus* spp *rufus)* is proposed under the ESA as a candidate bird species by the northeast FWS Region 5 (FWS 2011). The current FWS species assessment and listing priority assignment (May 2011) states that the species wintering habitat range includes the eastern coastline of Florida where wintering red knots forage along sandy beaches, tidal mudflats, salt marshes, and peat banks, as well as mangrove and brackish lagoons. Of these habitat types, only sandy beaches are found in Flagler County, which are moderately degraded. Although the most recent report of a red knot sighting was in 2007 at Gamble Rodgers Memorial State Recreation Area (eBirds database website 2013), the likelihood of red knot occurring on the beaches throughout Flagler County is very low."
14	2-40	2.4.4	This section only discusses hard bottom survey data conducted in the nearshore environment. Recommend including survey data from proposed offshore borrow areas and subsequent borrow area refinement based on documented hard bottom communities and associated avoidance buffers. This data is important to effectively evaluate EFH impacts associated with dredging of the borrow area and to communicate any avoidance measures integrated into the planning process.

SAJ Response:			A paragraph has been added to section 2.4.4 stating "A side scan survey was also performed the USACE Jacksonville District Hydrographic Survey Section for Borrow Areas 2A, 2B, and 2C. No targets of interest or hardbottom were found in any of the areas. There were sand waves and sand ridges apparent in all three areas. The report from this survey can be found in Appendix F."
15	2-46	2.4.4	Section 3.0 of the nearshore hard bottom survey conducted by DCA suggested that towed video and or diver groundtruth would be necessary to ground truth presumed HB and cultural resources. As described on page 2-46, SAJ subsequently completed an additional survey which did not include the recommended ground truth methodologies and documented no hard bottom present. Though the paragraph states that multibeam and towed video were proposed, the actual survey only included side scan. Recommend providing some clarifying details regarding the actual survey methodology and what the different DCA and Corps survey techniques were to better explain why one survey suggested hard bottom and another suggested no hard bottom. If the Corps sides scan was run with tighter spacing and different frequency, this should be clarified.
SAJ Response:			Revised text with insert 2.4.4, pg 2-49, paragraph 1: [The USACE survey originally was to include towed video] "However, due to weather conditions at time of survey, towed video data was unable to be collected." "The USACE 2012 survey data collection method included use of EdgeTech 4125 Side-scan sonar operating at 400 and 900 kHz. Comparatively, the Dial Cordy and Associates 2011 data was operated at 600 kHz."
16	2-60	2.4.8	The referenced Cultural resources survey suggests that surveys of the offshore borrow areas have been completed; however, statements later in the report suggest that surveys still need to be conducted of the borrow areas. Confirm whether surveys were conducted and correct the report accordingly.
SAJ Response:			Updated to state "No cultural resource surveys have yet to be conducted within the borrow areas and along the nearshore"….
17	2-61	2.4.8	As stated on page 2-61, cultural resources surveys of the proposed borrow areas are still pending. This is a significant data set that is lacking with respect to SHPO compliance and the associated borrow area refinement and selection process. If resources are identified as a result of this survey, proposed borrow areas and associated volumes could be reduced due to incorporation of avoidance buffers. Based on the documented volume of material needed to complete the project relative to the volume available within the recommended borrow area, there is limited contingency to accommodate buffer requirements. These data are necessary to clearly define the borrow area and associated

			volume for incorporation into the BOEM/Corps MOA for use of OCS sand.
SAJ Response:			Section indicates that 2A, 2B, and 2C are to be surveyed. 1.7cy is just from 2A. See comment 25 for updated language to section 7-5 to clarify.
18	2-62	2.4.8	Recommend that the nearshore wreck identified on NOAA charts and subsequently documented by DCA and the Corps be accurately mapped based on recent survey data and incorporated into project plans as an avoidance area to minimize risk of anchoring and/or pipeline conveyance impacts associated with the dredge pump out activities.
SAJ Response:			Resource is not currently within area of proposed placement for selected plan. While the planned Cultural resource surveys will officially record the wreck it will not be placed on plans unless work is identified to occur near the resource. Appropriate buffering and language will be added to Plans and Specs as needed.
19	2-67	2.4.13	Recommend documenting that the borrow area has been cleared of any UXO risk.
SAJ Response:			We will coordinate with our FUDS group to see if there would be any reason to expect UXOs in the borrow area.
20	6-12	6.7	Understanding that more refined vibracore and survey data will occur during PED, recommend incorporating an additional discussion on the proposed borrow area use plan based on the available data. For example, the geotechnical appendix documents ranges of dredging depths based on the compatibility analyses conducted to date. Incorporating the ranges of potential dredging depths, the post dredging sediment types, etc. will help specifically inform the EFH analysis as well as other physical and biological effects.
SAJ Response:			A new section, now 6.5, has been added to more fully describe the borrow area based on available data and the proposed use plan. The map of the borrow areas and table showing quantities has been moved into this section along with a written description of the borrow areas to be used for the TSP, how they will be used, and the difference between placement volume and dredged volume.
21	7-3	Table 7.1	Hard bottom resources: This discussion is not consistent with the survey results presented in Appendix F. Confirm that all of the proposed borrow area 2A has been sufficiently surveyed and all hard bottom resources avoided. Recommend consistently documenting throughout the report what has or has not been completed.
SAJ Response:			Revised HB Resources of Table 7-1: Alternatives "No hardbottom resources are known to be present within or adjacent to the project limits or borrow area based on project-specific surveys. Resources that may exist outside of the project or borrow area will be

			avoided. No effects are expected to occur." No Action: "No impacts would occur. Known hardbottom resources occur within the study area but do not occur within the borrow area or project limits."
22	7-4	Table 7.1	Essential Fish Habitat: See previous comment. Also, a discussion of the geomorphology of the identified sediment resource is recommended. Understanding the geomorphology of the sand resource is important to inform the EFH assessment relative to physical and biological recovery.
SAJ Response:			Revised EFH of Table 7-1: Short-term turbidity would be present at the borrow area. No hardbottom resources were identified to be present in the borrow area during the subsurface resource survey. No placement of material will occur in the nearshore. No impact would occur to this resource.
23	7-5	Table 7.1	Historic and Cultural Resources: No survey for submerged cultural resources has been conducted in the proposed borrow area. These data could reduce the total volume available within 2A. Realizing that the total available within 2A is 1.7 MCY and the project calls for 1.6 MCY, there is little contingency.
SAJ Response:			Table now has added text:"May require use of borrow area 2 B to meet sand volume needs". 7.15.13 added text "While currently borrow area 2A is the main source, if is volume removed because of the identification of resources within the proposed borrow area then additional borrow sources can be looked at with 2B."
24	7-7	7.1.2	As discussed in previous comments, recommend discussing the details of the DCA and USACE hard bottom survey methodologies to support the difference in findings (i.e. line spacing, KHZ used, etc.).
SAJ Response:			Revised text Sect 7.1.2, pg 7-7 with insert:"Methods employed for the DCA survey differed from those employed by USACE Hydrographic survey as described in Section 2.4.4, and may account for the contrasting results." Last sentence: "Details of the two surveys, including details of methods and findings, are included in the **Environmental Appendix F**."

25	7-7	7.1.2	Recommend clarifying that additional surveys will be completed of the pipeline corridor and any associated pump out locations prior to construction to assure avoidance of hard bottom and cultural resources.
SAJ Response:			Text added "Prior to construction additional surveys may be required to assess the most current conditions to assure avoidance of hardbottom and culture resources. Such surveys will be performed as needed to address any changes in conditions or to complete any work as previous identified in the study."
26	7-8	7.3.1	Recommend including a discussion on the red knot as appropriate (see comment 13)
SAJ Response:			Revised text with insertion of Section 7.3.1.4: "The Preferred Alternative may affect, but is not likely to adversely affect the wintering piping plover population in Flagler County. The most recent sighting of a Red Knot on a Flagler County Beach was in 2007 at the Gamble Rodgers Memorial State Recreation Area. The degraded beach habitat quality within the project limits would prohibit use by Red Knot."
27	7-11	7.6	As discussed in previous comments, a discussion of the geomorphologic setting of the proposed borrow area would help better inform the physical and biological impact analysis associated with dredging of the habitat features.
SAJ Response:			Revised text in Section 7.6.1, pg 7-12, with insert: "Borrow areas that include part of the Korona Ridge Field geomorphologic unit (Area 2) and part of the Flagler Sand Wave geomorphologic unit (Area 3) would be affected by material excavation. These areas rely on currents to form mounds which are gradually deposited over time. Removal or the upper portion of the ridge would have minimal impact as the removal of material is conservatively estimated over the expanse of the shoal's upper portion that is approximately 7,500 ft long by 2,500 ft wide."
28	7-12	7.6.1	As discussed in previous comments, a discussion of the proposed borrow area use plan based on the current geotechnical data set would better inform the analysis of benthic recovery.
SAJ Response:			See comment above regarding discussion of the borrow area use. Revised text to include the text (on same page): "Benthic organisms are expected to recover and inhabit the substrate within the borrow areas over time."
29	7-13	7.10	Recommend including more recent references in the noise discussion. BOEM has contributed to recent studies on dredging noise in collaboration with ERDC and can provide recent relevant literature and recommend additional language upon request.

SAJ Response:			Unless there is some important aspect of information regarding noise that was overlooked, there is little justification to rewrite this section although newer references are available. If BOEM has a particular item that needs clarification, please provide it.
30	7-16	7.15.1.1	References to Appendix C need to be changed as Appendix C does not exist as a part of the report package. Recommend including Cultural resource survey as a separate attachment.
SAJ Response:			Cultural Resource Surveys will not be added as large portions of the survey would be not be available due to issues concerning the reporting of known resources. Appendix C is part of the report package and is the Economics Appendix.
31	7-16	7.15.1.3	Completion of cultural resource surveys will be required prior to initiating construction as will be outlined in the MOA. Currently, the total volume available vs. needed does not allow much room to incorporate any buffers.
SAJ Response:			See response to comment 24. Also it is acknowledged that surveys will be needed to be completed prior to completion of the MOA. Also note the 1.7 MCY is for the 50 Year period. It is unlikely that all 1.7 will be needed for first placement. This will allow for buffering as needed.
32	8-2	8.3	Recommend including a discussion of the Outer Continental Shelf Lands Act (OCSLA) and associated coordination requirements with BOEM.
SAJ Response:			A new section has been added, now 8.3.1, to discuss the OCSLA and associated coordination requirements using the provided text from comment # 43.
33	8-2	8.3.1	As previously discussed, recommend including a statement in the reference to the SARBO that clarifies BOEM's proposed action being covered under.
SAJ Response:			A sentence has been added to the end of section 8.3.2 (formerly 8.3.1) to clarify that the SARBO covers BOEM's proposed action.
34	8-3	8.3.2	As established in the cooperating agency letters, recommend clarifying BOEM's role in the EFH consultation.
SAJ Response:			A sentence has been added to section 8.3.4 (formerly 8.3.3) to clarify that as a cooperating agency, BOEM will have a participating role in the EFH consultation.
35	4	Appendix D; 1.2	Recommend including a discussion of offshore geology and geomorphology and incorporate relevant text into appropriate sections of the main report.

SAJ Response:			Appendix D and section 2.4.1 of the main report have been revised to include the description of the geomorphologic characteristics of the investigated sand sources.
36	9	Appendix D; Section 3.2, Table 3	Recommend incorporating references to the maximum depth of cuts into appropriate sections of the main report.
SAJ Response:			Appendix D and new section 6.5 of the main report have been revised to clarify the cut depths associated with the proposed borrow areas.
37	15	4.2.1	Clearly defining the dredged volume relative to the placement volume is important as the actual dredged volume is what will be included in the MOA. Recommend clarifying whether overfill and renourishment factors were considered in the total volume estimate and confirming that the dredged volume and placed volume are consistently reported throughout the report and appendices.
SAJ Response:			Revisions will be made to distinguish between these volumes in the executive summary and throughout the report as appropriate (See new section 6.5).
38	General		As a consequence of the integrated structure of the document, there are inconsistencies regarding which borrow areas are going to be utilized for this project. It seems to indicate that primarily Borrow Areas 2A, 2B, and 2C are going to be utilized, but in certain locations it mentions Borrow Area 3 and 3A will be utilized. In Appendix F (p. F-2) under Source of Material, Area 3 is discussed, but survey data is for Area 2, and no survey has been conducted of Area 3. Recommend clearly discussing the borrow areas that were considered from a formulation standpoint relative to those that were identified for use to meet the needs of the project. Clearly defining the borrow areas to be dredged is the basis of the NEPA analysis, the supporting surveys to define the level of potential impacts, and the quantity of OCS material defined in the pending MOA.
SAJ Response:			A new section, now 6.5, has been added to more fully describe the borrow area based on available data and the proposed use plan. The map of the borrow areas and table showing quantities has been moved into this section along with a written description of the borrow areas to be used for the TSP and how they will be used. This should help clarify between the areas studied and those planned to be used for the recommended plan.
39	App F		The identified Boat Wreckage coordinates should be redacted from the table until the wreck can be assessed and evaluated as being eligible for listing on the National Register of Historic Places. Recommend that the Florida SHPO should be notified of the discovery and NHPA Section 106 consultation should be initiated.

SAJ Response:			Coordinates have been blackout. Consultation and coordination will occur prior to PED phase. As stated in previous comment #24, the resource will be recorded with the state after the appropriate survey has been conducted. Currently the resource is outside the project area and thus no longer part of this undertaking at this time. Consultation is ongoing though and once surveyed, consultation will occur.
40	App F		The remote-sensing surveys that have been performed only consist of side-scan sonar in the borrow areas. BOEM usually requires that side-scan sonar, magnetometer and sub-bottom profiler data be collected according to our specifications and then reviewed by a qualified marine archaeologist meeting the Secretary of the Interior's Professional Qualifications. Compliance with these requirements is especially important within the proposed borrow area(s) prior to construction and for the near-shore area where the ship wreckage is found. Information on the existing ship wreckage (and potential sites identified in future surveys) from the more robust data set could provide additional information as to the type and age of the vessel, as well as the extent of the vessel remains. This will be critical for decisions related to buffer areas around the site to avoid affecting the potential historic property during beach renourishment.
SAJ Response:			Survey will be performed prior to PED. Corps standards for underwater survey will meet or exceed BOEM's requirements.
41	General		The cultural resource assessment of the near-shore environment and the offshore borrow areas should also discuss the potential for the presence of buried and submerged paleolandforms utilizing the data collected from the integrated remote-sensing survey (sss, mag, and sub-bottom profiler) as well as any relevant data from cores.
SAJ Response:			Concur. Survey performed prior to PED will address these issues. District requirement also include use of three types of equipment.
42	General		As discussed in previous comments, the discussion of the differences between the SSS surveys conducted by the contractor and the ACOE (pp. 2-46 through 2-48) lacks clarity both in the methodology utilized for both projects, as well as in the imagery used as examples in the report. The length of time between the two surveys and the amount of noise exhibited in the SSS imagery is problematic in reaching definitive conclusions about hard-bottom presence or absence, especially since the contractor and the ACOE reached very different conclusions from the survey data.

SAJ Response:			Revisions were made in Chapters 2 and 7 of the report to clarify the discrepancy. The revisions focus on the methods used to gain the data.
43	General		On 28 January 2010 the USACE Jacksonville District sent a letter requesting that BOEM (previously BOEMRE) participate as a cooperating agency in the preparation of the NEPA document for this project. Having jurisdiction over mineral leasing in the OCS, BOEM agreed to serve as a cooperating agency on the study via letter dated 23 February 2011. As stated in the letter, BOEM agreed to participate in required consultations (i.e. ESA, MSFCMA, NHPA, and CZMA). BOEM requested that the Corps state BOEM's cooperating role where the Corps is serving as the lead Federal agency to assure coverage for BOEM's action. Additionally, where existing biological opinions are being applied for this project (i.e. SARBO), BOEM requested that the Corps, as lead agency, ensure applicability to BOEM's action. The current Draft integrated document only discusses BOEM's involvement in Sections 6.8 (LERRD Considerations) and 9.1 (Draft Items of Local Cooperation). Recommend that additional text be included to clarify BOEM's Cooperating Agency status as established in the 23 February 2011 letter. Additionally, recommend adding additional language in the proposed action section that clarifies BOEM's proposed action to issue a negotiated agreement pursuant to its authority under the Outer Continental Shelf Lands Act. Request that if BOEM's cooperating role and connected action was not established in the consultation letters (i.e. ESA, EFH, NHPA, etc.), that follow-up coordination occurs with each agency to clarify. Recommended language may include the following: **Under Section 8(k) of the Outer Continental Shelf Lands Act (OCSLA), dredging of sediment resources within the OCS requires authorization by the Bureau of Ocean Energy Management (BOEM) for use during initial or maintenance construction or both. The BOEM Leasing Division is charged with environmentally responsible management of federal OCS sand and gravel resources. P.L. 102-426 [43 United States Code (U.S.C.) 1337(k)(2)], enacted October 31, 1994, gave BOEM the authority to negotiate, on a noncompetitive basis, the rights to OCS sand, gravel, and shell resources for CSDR projects; beach or wetlands restoration projects; or for use in construction projects funded in whole or part by or authorized by the federal government. Recognizing that identified borrow areas are within the OCS, BOEM has agreed to serve as a cooperating federal agency on this study and may**

			undertake a connected action (i.e. authorize use of the OCS borrow area) that is related to, but unique from the Corps' proposed action. BOEM's proposed action is to issue a negotiated agreement pursuant to its authority under the OCSLA.
SAJ Response:			The recommended language has been added to the new section 6.5.
44	General		Recommend including a summary table that documents all areas of concern relative to each resource category and the associated mitigation measures that will be implemented to avoid and/or minimize impacts.
EDITORIAL COMMENTS			
1	2-29	2.4.3	Recommend clarifying Federally listed species to distinguish from state-listed species.
SAJ Response:			All listed species are referenced as Federal listed under ESA. There are no state listed species included.
2	2-30	2.4.3, second paragraph	Cetacean common names should be lower case with the exception of proper nouns in the name (i.e., North Atlantic). Change to "sei whale, fin whale, humpback whale, sperm whale" and elsewhere in the document
SAJ Response:			Edits made
3	2-30	2.4.3, second paragraph	Once Balaenoptera has been spelled out, it is appropriate to shorten it to B. in subsequent uses. Also, the appropriate scientific name for the sperm whale is Physeter macrocephauls. Species name catadon is outdated.
SAJ Response:			Edits made
4	2-30	2.4.3	Sea Turtle Nesting Habitat paragraph: The scientific names for these sea turtle species were given previously (pg 2-29). They do not need to be listed again here. Suggest removing.
SAJ Response:			Leaving scientific names in both sections for clarity.
5	2-32	2.4.3	Last paragraph on this page, first two sentences of that paragraph: References to the South Atlantic Ocean DPS are incorrect. The relevant DPS for this area is the Northwest Atlantic DPS. The South Atlantic Ocean DPS occurs south of the equator; it does not include the southern portion of the North Atlantic Ocean.

SAJ Response:			Edit made
6	2-36	2.4.3	North Atlantic right whale section, second sentence: Recommend replacing "Wikipedia" citation with the primary literature.
SAJ Response:			Reference replaced
7	2-37	2.4.3	Second paragraph on this page: Recommend clarifying that critical habitat is designated pursuant to the ESA.
SAJ Response:			Edit made so that the sentence now reads "This usage is based upon key habitat criteria for wintering and calving, which lead to a "Critical Habitat" designation by NMFS, designated pursuant to the ESA."
8	2-37	2.4.3	Third paragraph on this page: This paragraph appears to be outdated. Recommend updating with latest recovery plan.
SAJ Response:			Latest recovery plan published in June 2013. Revision made accordingly.
9	2-51	Demersal Soft Bottom	Check the plural form for mentioned fish species.
SAJ Response:			Will Check
10	2-52	Coastal Pelagic	See comment above.
SAJ Response:			Will Check
11	2-53	Demersal Hard bottom	See comment above.
SAJ Response:			Will Check
12	2-68	Native Americans	Recommend including a summary of which tribes inhabited the area.
SAJ Response:			No portion of the TSP area is near the midden in question. The Corps has also consulted with appropriate federally recognized tribes regarding its shoreline survey work. If work is conducted in this are the consultation will be updated to address any concerns

			regarding this archaeological site.
13	3-1	3.1 and Global	New IPCC report may be available by publication of this EA – consider referring to it (or specifying that, as of time of preparation, 2007 IPCC report was most current).
SAJ Response:			Edit will be made if a new version of the report comes out prior to publication of this EA.
14	3-23	3.6	Where “no impacts will occur”, substitute, “no *reasonably foreseen* impacts will occur.” Recommend global application.
SAJ Response:			Edits made
15	4-2	4.1	BOEMRE to BOEM - remove **R**egulation and **E**nforcement for all BOEM references
SAJ Response:			Edit made

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

MARJORY STONEMAN DOUGLAS BUILDING
3900 COMMONWEALTH BOULEVARD
TALLAHASSEE, FLORIDA 32399-3000

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

March 24, 2014

Ms. Kathleen K. McConnell
Jacksonville District, Environmental Branch
U.S. Army Corps of Engineers
Post Office Box 4970
Jacksonville, FL 32232-0019

RE: Department of the Army, Jacksonville District Corps of Engineers – Draft Integrated Feasibility Study and Environmental Assessment (IFS/EA), Flagler County Hurricane and Storm Damage Reduction Project – Flagler County, Florida.
SAI # FL201401236812C

Dear Ms. McConnell:

The Florida State Clearinghouse has coordinated the state's review of the Draft IFS/EA under the following authorities: Presidential Executive Order 12372; Section 403.061(42), *Florida Statutes*; the Coastal Zone Management Act (16 U.S.C. §§ 1451 *et seq*., as amended); and the National Environmental Policy Act (42 U.S.C. §§ 4321-4347, as amended).

The Florida Department of Environmental Protection, Florida Fish and Wildlife Conservation Commission and Florida Department of Transportation submitted comments, concerns and recommendations regarding the Draft IFS/EA in the attached memorandum, letter and Clearinghouse database report, which are incorporated herein by this reference and made an integral part of this letter.

Based on the information contained in the Draft IFS/EA and the enclosed state agency comments, the state has determined that, at this stage, the proposed federal activities are consistent with the Florida Coastal Management Program (FCMP). To ensure the project's continued consistency with the FCMP, the concerns identified by our reviewing agencies must be addressed prior to project implementation. The state's continued concurrence will be based on the activities' compliance with FCMP authorities, including federal and state monitoring of the activities to ensure their continued conformance, and the adequate resolution of issues identified during this and subsequent regulatory reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting process, in accordance with Section 373.428, *Florida Statutes*.

Thank you for the opportunity to review the draft document. Should you have any questions regarding this letter, please don't hesitate to contact me at Lauren.Milligan@dep.state.fl.us or (850) 245-2170.

Yours sincerely,

Lauren P. Milligan

Lauren P. Milligan, Coordinator
Florida State Clearinghouse
Office of Intergovernmental Programs

Enclosures

ec: Roxane Dow, DEP BMESP
Scott Sanders, FWC
Martin Markovich, FDOT

Project Information	
Project:	FL201401236812C
Comments Due:	03/04/2014
Letter Due:	03/24/2014
Description:	DEPARTMENT OF THE ARMY, JACKSONVILLE DISTRICT CORPS OF ENGINEERS - DRAFT INTEGRATED FEASIBILITY STUDY AND ENVIRONMENTAL ASSESSMENT, FLAGLER COUNTY HURRICANE AND STORM DAMAGE REDUCTION PROJECT - FLAGLER COUNTY, FLORIDA.
Keywords:	ACOE - DIFS/EA, FLAGLER COUNTY HURRICANE AND STORM DAMAGE REDUCTION PROJECT
CFDA #:	12.101

Agency Comments:

FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

The FWC advises that a number of state and federally listed species - Florida manatee, North Atlantic right whale, marine turtles and least tern - may occur within or adjacent to the proposed project site. Because the project could adversely affect these species, FWC requests that the following information be included in the final IFS/EA or applications for state permits: construction access points and equipment travel corridors; and type of dredge equipment, actions taken to avoid or minimize take of marine turtles and any potential use of chase/relocation trawling. As additional information is developed or becomes available, the FWC may have additional comments regarding appropriate conservation measures. Please contact Ms. Kristen Nelson Sella at (850) 922-4330 or Kristen.Sella@MyFWC.com for further information and assistance.

ST. JOHNS RIVER WMD - ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

SJRWMD does not have any comments.

ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Staff of the DEP's Division of Water Resource Management has reviewed the Draft IFS/EA for the Flagler County project. The preferred alternative is consistent with the Strategic Beach Management Plan and staff generally agrees with the decisions currently documented. We concur that the Draft IFS/EA is consistent with our statutory authorities at this stage. There is a question on the assumption that there will be a 90% recovery of the berm after every storm. Is this reasonable to assume for high frequency events as well as extreme events? The state's final coastal zone consistency finding will occur at the completion of the engineering and design phase when the items needed to complete the state's permitting of the project are available. These items include: 1. Design level geotechnical data and analysis to confirm that the proposed sediments are beach-compatible within the final borrow area configuration. 2. A detailed review of the model setup and calibration used to determine the exact design of the construction profile. 3. Physical monitoring of the project needed to assess project performance. We appreciate the efforts of the U.S. Army Corps of Engineers to address this erosion problem, and look forward to working with them to construct the project.

STATE - FLORIDA DEPARTMENT OF STATE

No Comments Received

NE FLORIDA RPC - NORTHEAST FLORIDA REGIONAL PLANNING COUNCIL

The Northeast Florida Regional Council has no comments at this time.

FLAGLER -

No Comments

TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION

FDOT District Five staff reports that the agency supports the recommendations included in the Draft IFS/EA. Mr. Alan Hyman, Director of Transportation Operations, has been working with the USACE and Flagler County represetative, Faith Alkhatib, on the project and the FDOT will be contributing funding towards the study. For further information or comments concerning the FDOT's involvement, please contact Mr. Hyman at alan.hyman@dot.state.fl.us or (386) 943-5477.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTINEZ CENTER
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

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LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

MEMORANDUM

TO: Lauren Milligan, Florida State Clearinghouse
Office of Intergovernmental Programs

FROM: Roxane Dow, Beaches, Mines and ERP Support Section
Division of Water Resource Management

SUBJECT: Flagler County Hurricane and Storm Damage Reduction Project
SAI # FL201401236812C

DATE: March 19, 2014

Staff of the Division of Water Resource Management has reviewed the Draft Integrated Feasibility Study and Environmental Assessment (IFS/EA) for the Flagler County project. The preferred alternative is consistent with the Strategic Beach Management Plan and staff generally agrees with the decisions currently documented. We concur that the Draft IFS/EA is consistent with our statutory authorities at this stage.

There is a question on the assumption that there will be a 90% recovery of the berm after every storm. Is this reasonable to assume for high frequency events as well as extreme events?

The state's final coastal zone consistency finding will occur at the completion of the engineering and design phase when the items needed to complete the state's permitting of the project are available. These items include:

1. Design level geotechnical data and analysis to confirm that the proposed sediments are beach-compatible within the final borrow area configuration.
2. A detailed review of the model setup and calibration used to determine the exact design of the construction profile.
3. Physical monitoring of the project needed to assess project performance.

We appreciate the efforts of the U.S. Army Corps of Engineers to address this erosion problem, and look forward to working with them to construct the project.

Thank you for the opportunity to comment.

cc: Danielle Irwin, Marty Seeling, Tom Jacobs, Lainie Edwards

Florida Fish and Wildlife Conservation Commission

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Tampa

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MyFWC.com

March 12, 2014

Ms. Lauren P. Milligan
Department of Environmental Protection
Florida State Clearinghouse
3900 Commonwealth Boulevard, M.S. 47
Tallahassee, FL 32399-3000
Lauren.Milligan@dep.state.fl.us

RE: SAI # FL201401236812C, Jacksonville District Corps of Engineers, Draft Integrated Feasibility Study and Environmental Assessment (DIFS/EA), for Flagler County, Florida, Hurricane and Storm Damage Reduction Project, Flagler County, Florida.

Dear Ms. Milligan:

The Florida Fish and Wildlife Conservation Commission (FWC), Imperiled Species Management Section, has coordinated our agency's review of the Draft Integrated Feasibility Study and Environmental Assessment (IFS/EA) for hurricane and storm damage reduction along the Atlantic Ocean shoreline of Flagler County, Florida. We are providing the following input under the National Environmental Policy Act, the Fish and Wildlife Coordination Act, and the Coastal Zone Management Act/Florida Coastal Management Program (CZMA/FCMP).

Project Description and Location

The selected plan consists of a ten foot dune extension including a 10 ft sacrificial berm in Reach C between FDEP monuments R80 and R94 in central Flagler Beach. The selected plan covers 2.6 linear miles of shoreline and mainly prevents damage to SR-A1A.

Construction of the selected plan will use a sand borrow source located seven miles offshore of the project site in Federal waters. The project will most likely be constructed with a hydraulic dredge typically used for beach nourishment projects (bulldozers, dump trucks, etc.) Each nourishment event, including initial construction, will require approximately 330,000 cubic yards of sand. 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.

Potentially Affected Resources

The following state and federally listed species may occur within or adjacent to the proposed project location (see Table 1 below). These species are protected under federal law, as the State of Florida has adopted the federal status of these species, or are listed under state law in accordance with Chapter 67A-27, Florida Administrative Code.

Table 1. Potentially Affected Resources

Scientific Name	**Common Name**	**Status***
Trichechus manatus latirostris	Florida manatee	FE
Eubalaena glacialis	North Atlantic Right Whale	FE
Caretta caretta	Loggerhead sea turtle	FT
Chelonia mydas	Green sea turtle	FE
Dermochelys coriacea	Leatherback sea turtle	FE
Lepidochelys kempii	Kemp's ridley sea turtle	FE
Eretmochelys imbricata	Hawksbill sea turtle	FE
Sternula antillarum	Least tern	ST

*FE - Federally Endangered; FT - Federally Threatened; ST – State Threatened.

Potential Effects and Recommendations

The proposed project could adversely affect the species listed above; however, the potential adverse impacts associated with this work should be adequately offset with appropriate conservation measures. Fish and wildlife protective measures that would likely be applicable for this project are described in **Attachment 1**: *FWC Recommended Fish and Wildlife Species Protective Measures Flagler County, Florida, Hurricane and Storm Damage Reduction Project (March 12, 2014).* We recommend that these measures be incorporated into these documents as conservation measures and followed for all in-water and beach activity. Brief descriptions of potential effects are provided below.

Florida manatee: The Florida manatee (*Trichechus manatus latirostris*) may inhabit the waters of Flagler County, including coastal areas. Several manatee carcasses have been recovered along the ocean shoreline. In-water work in manatee habitat poses potential risk to manatees, including injuries from dredging equipment as well as vessels used during the project.

Sea turtles: The coastal waters of Flagler County provide important foraging and migratory habitat for the loggerhead (*Caretta caretta*), green (*Chelonia mydas*), Kemp's ridley (*Lepidochelys kempii*) and leatherback (*Dermochelys coriacea*) sea turtles and occasionally the hawksbill sea turtle (*Eretmochelys imbricata*). During the period of May 1 through October 31, Flagler County beaches support vital nesting habitat essential for the recovery of the loggerhead sea turtle and less frequently green and leatherback sea turtles.

Beach construction activities can disturb nesting females if the project occurs during the nesting season, and the placement of sand may physically alter nesting habitat. In addition, increases in artificial lighting due to construction activities and the creation of

an elevated beach berm can expose hatchlings and nesting females to lights that were not visible prior to the project and can increase the occurrence of disorientations which are often fatal.

Incidental take of sea turtles including the relocation of nests due to the proposed project must be authorized via the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) Biological Opinions and Incidental Take Authorization as appropriate. In accordance with Florida Statute 379.2431 (1), the FWC provides recommendations regarding the nature, timing, and sequence of the project to ensure the protection of sea turtles.

North Atlantic Right Whale: The proposed vessel operations for offshore dredging activities may affect the North Atlantic right whale (*Eubalaena glacialis)* as vessels travel through right whale critical habitat. The National Marine Fisheries Service (NMFS) has implemented both regulatory and non-regulatory conservation efforts, including the establishment of a Seasonal Management Area (SMA) with mandatory vessel speed restrictions as well as other conservation measures. Some of the activity associated with this project is proposed within the southeast SMA along the coast of Flagler County.

Seabird, shorebird and migratory birds: A variety of birds consistently use the intertidal zones along the Atlantic Coast waters and connecting waterways and adjacent mid-beach habitat within the project area.

Least terns (*Sternula antillarum*) as well as many other migratory species occur within the project area. Beach nourishment and associated construction activity in proximity to shorebird nests or nesting areas can interfere with ongoing or potential breeding activity, including mortality of eggs, chicks, and fledglings due to disturbance from heavy equipment and construction; therefore, measures are needed to protect them during sand placement. Continued nesting by shorebirds on the wider nourished berm could create a sink for reproductive effort unless all nesting areas are identified and protected. Migratory birds using the area are also protected by state and federal laws.

Additional Information Needed

Inclusion of the information requested below in the final Environmental Assessment (EA) or applications for state permits will facilitate our review of the project and result in a more efficient permitting process. Therefore, we recommend that the following information be included in the EA or applications for state permits:

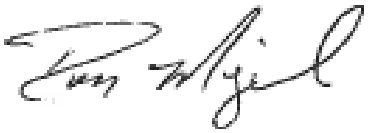
a) Identify any potential construction access points, equipment travel corridors and pipeline corridors (including upland areas) that may be used during the project. These corridors may impact resources not previously identified that will need to be included in the final EA.

b) Indicate what type of dredge equipment may be used and actions that will be taken to avoid or minimize take of sea turtles (e.g., construction windows), and if the applicant proposes to conduct chase/relocation trawling.

Summary

We find this proposal consistent with our authorities under Florida's Coastal Zone Management Program. As additional project information is developed or becomes available, the FWC may have additional comments regarding appropriate conservation measures. Because details and adequate offsetting measures are still forthcoming, FWC's final recommendations and CZMA consistency determination will be provided during the environmental permitting process. However, if the applicant incorporates the above recommendations, it would facilitate our review of the project and accelerate future permitting process. If your staff has any specific questions regarding our comments in this letter, I encourage them to contact Kristen Nelson Sella at (850) 922-4330 or Kristen.Sella@myfwc.com.

Sincerely,



for
Carol Knox, Section Leader
Imperiled Species Management Section

ck/kns

Flagler County Hurricane and Storm Damage Reduction_18627

Attachments: Attachment 1: March 12, 2013 *FWC Recommended Fish and Wildlife Species Protective Measures Walton County, Florida, Hurricane and Storm Damage Reduction Project*

Attachment 1:
FWC Recommended Fish and Wildlife Species Protective Measures
Flagler County, Florida, Hurricane and Storm Damage Reduction Project
(March 12, 2014).

The following recommendations are made by the Florida Fish and Wildlife Conservation Commission (FWC) for the protection of manatees, whales, seabirds, shorebirds and sea turtles and to ensure consistency with the Florida Coastal Zone Management Act and specifically with Florida Statute 379.2431 (1) and (2) and Florida Administrative Code 68A- 1.002, - 4.001, - 16.001 and 68A-27 (rules relating to endangered or threatened species).

1. The National Marine Fisheries Service's 2006 Sea Turtle and Smalltooth Sawfish Construction Conditions shall be followed for all in-water activity. In addition to guidelines outlined by NMFS, any collision with and/or injury to a sea turtle should also be reported immediately to the Sea Turtle Stranding and Salvage Network (STSSN) at 1-888-404-FWCC (3922).

2. To avoid impacts to manatees during nearshore placement, the 2011 Standard Manatee Construction Conditions for In-water Work shall be followed.

3. ***Hopper Dredging.*** In the event a hopper dredge is utilized, the following requirements shall be met in addition to the Terms and Conditions of the applicable NMFS SARBO (25 August, 1995; Revision 29 October, 1997).

a. Handling of captured sea turtles shall be conducted only by persons with prior experience and training in these activities and who is duly authorized to conduct such activities through a valid Marine Turtle Permit issued by the Florida Fish and Wildlife Conservation Commission (FWC), pursuant to Florida Administrative Code (FAC) 68E-1.

b. Standard operating procedure shall be that dredging pumps shall be disengaged by the operator, or the draghead bypass value shall be open and in use when the dragheads are not firmly on the bottom, to minimize impingement or entrainment of sea turtles within the water column. This precaution is especially important during the cleanup phase of dredging operations.

c. A state-of-the-art rigid deflector draghead must be used on all hopper dredges at all times of the year.

d. The Sea Turtle Stranding and Salvage Network (STSSN) Coordinator shall be notified at 1-904-573-3930 or via e-mail at Allen.Foley@myfwc.com of the start-up and completion of hopper dredging operations. In the event of capturing or recovering sea turtles or sea turtle parts, the STSSN should be contacted at seaturtlestranding@myfwc.com.

e. Relocation trawling or non-capture trawling shall be implemented in accordance with the applicable NMFS Biological Opinion and Incidental Take authorization. Any

activity involving the use of nets to harass and/or to capture and handle sea turtles in Florida waters requires a Marine Turtle Permit from FWC.

i. The permittee or their contractor shall e-mail (MTP@MyFWC.com) weekly reports to the Imperiled Species Management section on Friday each week that trawling is conducted in Florida waters. These weekly reports shall include: the species and number of turtles captured in Florida waters, general health, and release information. A summary (FWC provided Excel spreadsheet) of all trawling activity, including non-capture trawling, and all turtles captured in Florida waters, including all measurements, the latitude and longitude (in decimal degrees) of captures and tow start-stop points, and times for the start-stop points of the tows, including those tows on which no turtles are captured, shall be submitted to MTP@myfwc.com by January 15 of the following year or at the end of the project.

4. In order to protect right whales, the following protection precautions for North Atlantic Right Whales shall be followed from December 1 to March 31 while in the southeastern critical habitat area. This area encompasses the waters between 31 deg.15'N (approximately located at the mouth of the Altamaha River, GA) and 30 deg.15'N (approximately Jacksonville, FL) from the shoreline out to 15 nautical miles offshore; and the waters between 30 deg.15'N and 28 deg.00'N (approximately Sebastian Inlet, FL) from the shoreline out to 5 nautical miles:

a. The National Marine Fisheries Service (NMFS) shall be contacted prior to project commencement at se.rw.sightings@NOAA.gov in order to request daily updates of whale sightings during this portion of the year. The request for sighting updates should include at least one valid email address to receive these alerts within the text of the email.

b. To avoid collisions with whales, a dedicated observer shall be posted to spot right whales. The observer (s) shall use the daily updates of whale sighting from NMFS for assistance when looking for whales.

c. All personnel on all support vessels shall observe for right whales while operating within critical habitat.If whales have been spotted within 15 nautical miles (nm) of the vessel's path within the previous 24 hours, the dredge and support vessels shall slow to 10 knots or less when transiting between areas during evening hours or when there is limited visibility due to fog or sea states of greater than Beaufort 3 (unless weather and sea conditions dictate greater speeds for safe navigation).

d. All dredge and support vessel operators shall be familiar with, and adhere to, the federal right whale minimum approach regulation, as defined in 50 CFR 224.103(c).

5. ***Beach Driving.*** All vehicles shall be operated in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/). Specifically, the vehicle must be operated at a speed <6 mph and run at or below the high-tide line. All personnel associated with the project shall be instructed about the potential presence of nesting seabirds, shorebirds and sea turtles and the need to avoid take of (including

disturbance to) these protected species.

6. ***Beach Maintenance.*** All derelict concrete, metal, and coastal armoring material and other debris shall be removed from the beach prior to any material placement to the maximum extent practicable. If debris removal activities will take place during shorebird breeding or sea turtle nesting seasons, the work shall be conducted during daylight hours only and shall not commence until completion of daily seabird, shorebird or sea turtle surveys each day. All excavations and temporary alterations of the beach topography shall be filled or leveled to the natural beach profile prior to 9 p.m. each day.

7. ***Pre-Construction Meeting.*** A meeting between representatives of the contractor, the US Fish and Wildlife Service (FWS), the FWC, the permitted sea turtle surveyor and Bird Monitors as appropriate, shall be held prior to commencement of work on projects. At least 10-business days advance notice must be provided prior to conducting this meeting. The meeting will provide an opportunity for explanation and/or clarification of the protection measures as well as additional guidelines when construction occurs during nesting season, such as staging equipment and reporting within the work area as well as follow up meetings during construction.

8. ***Nesting Seabird and Shorebird Protection Conditions:*** Nesting seabird and shorebird (i.e. shorebird) surveys should be conducted by trained, dedicated individuals (Bird Monitor) with proven shorebird identification skills and avian survey experience. A list of candidate Bird Monitors with their contact information, summary of qualifications including bird identification skills, and avian survey experience shall be provided to the DEP and FWC. This information will be submitted to the FWC regional biologist (Figure 3) prior to any construction or hiring for shorebird surveys for revision and consultation. Bird Monitors shall use the following survey protocols:

a. Bird Monitors shall review and become familiar with the general information, employ the data collection protocol, and implement data entry procedures outlined on the FWC's Florida Shorebird Database (FSD) website (www.FLShorebirdDatabase.org). An outline of data to be collected, including downloadable field data sheets, is available on the website.

b. Breeding season varies by species. Most species have completed the breeding cycle by September 1, but flightless young may be present through September. The following dates are based on the best available information regarding ranges and habitat use by species around the state:

All Gulf Coast counties: February 15 – September 1 except:
Citrus and Levy: March 15- September 1
Dixie and Taylor: April 1 – September 1
St. Lucie, Martin, and Palm Beach Counties spoil islands & estuaries: March 15 – September 1
St. Lucie, Martin, and Palm Beach Counties coastal beaches: April 1- September 1
Broward and Miami-Dade Counties: April 1 – September 1
All other Atlantic Coast Counties: March 15 – September 1

c. Breeding season surveys shall begin on the first day of the breeding season or 10 days prior to project commencement (including surveying activities and other pre-construction presence on the beach), whichever is later. Surveys shall be conducted through August 31st or until all breeding activity has concluded, whichever is later.

d. Breeding season surveys shall be conducted in all potential beach-nesting bird habitats within the project boundaries that may be impacted by construction or pre-construction activities. Portions of the project in which there is no potential for project-related activity during the nesting season may be excluded. One or more shorebird survey routes shall be established in the FSD website to cover these areas.

e. During the pre-construction and construction phases of the project, surveys for detecting breeding activity and the presence of flightless chicks will be completed on a daily basis prior to movement of equipment, operation of vehicles, or other activities that could potentially disrupt breeding behavior or cause harm to the birds or their eggs or young.

f. Surveys shall be conducted by walking the length of the project area and visually surveying for the presence of shorebirds exhibiting breeding behavior, shorebird/seabird chicks, or shorebird/seabird juveniles as outlined in the FSD *Breeding Bird Protocol for Shorebirds and Seabirds*. Use of binoculars is required.

g.If an ATV or other vehicle is needed to cover large project areas, operators will adhere to the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/). Specifically, the vehicle must be operated at a speed <6 mph and run at or below the high-tide line. The Bird Monitor will stop at no greater than 200 meter intervals to visually inspect for breeding activity.

h. Once breeding is confirmed by the presence of a scrape, eggs, or young, the Bird Monitor will notify the FWC Regional Species Conservation Biologist (**Figure 3**) within 24 hours. All breeding activity will be reported to the FSD website within one week of data collection.

9. ***Seabird and Shorebird Buffer Zones and Travel Corridors.*** Within the project area, the permittee shall establish a disturbance-free buffer zone around any location where shorebirds have been engaged in breeding behavior, including territory defense. A 300 ft-wide buffer is considered adequate based on published studies. However, a smaller, site-specific buffer may be implemented upon approval by the FWC Regional Species Conservation Biologist (Figure 3) as needed. All sources of human disturbance (including pedestrians, pets, and vehicles) shall be prohibited in the buffer zone.

a. The Bird Monitor shall keep breeding sites under sufficient surveillance to determine if birds appear agitated or disturbed by construction or other activities in adjacent areas. If birds do appear to be agitated or disturbed by these activities, then the width of the buffer zone shall be increased immediately to a sufficient size to protect breeding birds.

b. Reasonable and traditional pedestrian access should not be blocked where breeding birds will tolerate pedestrian traffic. This is generally the case with lateral movement of beach-goers walking parallel to the beach at or below the highest tide line.

c. Pedestrian traffic may also be tolerated when breeding was initiated within 300 feet of an established beach access pathway. The permittee shall work with the FWC Regional Species Biologist to determine if pedestrian access can be accommodated without compromising nesting success.

d. Designated buffer zones must be marked with posts, twine, and signs stating "Do Not Enter, Important Nesting Area" or similar language around the perimeter which includes the name and a phone number of the entity responsible for posting. Posts should not exceed 3'in height once installed. Symbolic fencing (twine, string, or rope) should be placed between all posts at least 2.5' above the ground and rendered clearly visible to pedestrians. If pedestrian pathways are approved by the FWC Regional Species Conservation Biologist within the 300-foot buffer zone, these should be clearly marked. The posting shall be maintained in good repair until breeding is completed or terminated. Although solitary nesters may leave the buffer zone with their chicks, the posted area continues to provide a potential refuge for the family until breeding is complete. Breeding is not considered to be completed until all chicks have fledged.

e. No construction activities, pedestrians, movement of vehicles, or stockpiling of equipment shall be allowed within the buffer area.

f. Travel corridors shall be designated and marked outside the buffer areas so as not to cause disturbance to breeding birds. Heavy equipment, other vehicles, or pedestrians may transit past breeding areas in these corridors. However, other activities such as stopping or turning shall be prohibited within the designated travel corridors adjacent to the breeding site. When flightless chicks are present within or adjacent to travel corridors, movement of vehicles shall be accompanied by the Bird Monitor who will ensure no chicks are in the path of the moving vehicle and no tracks capable of trapping flightless chicks result.

g. To discourage nesting within the travel corridor, it is recommended that the Permittee should maintain some activity within these corridors on a daily basis, without disturbing any nesting shorebirds documented on site or interfering with sea turtle nesting, especially when those corridors are established prior to commencement of construction.

10. ***Notification.*** If shorebird breeding occurs within the project area, a bulletin board will be placed and maintained in the construction staging area with the location map of the construction site showing the bird breeding areas and a warning, clearly visible, stating that "NESTING BIRDS ARE PROTECTED BY LAW INCLUDING THE FLORIDA ENDANGERED AND THREATENED SPECIES ACT AND THE STATE and FEDERAL MIGRATORY BIRD ACTS".

11. ***Sea Turtle Nest Surveys and Relocation.*** For sand placement projects that occur during the period from May 1 through October 31, daily early morning (before 9 a.m.) surveys shall be conducted, and eggs shall be relocated per the requirements below (a to c) until completion of the project . (Note: sea turtle monitors shall not enter posted

shorebird buffer areas to conduct monitoring or to relocate nests.) Monitoring and reporting should continue throughout the nesting season and should be conducted according to Post-construction Monitoring and Reporting Sea Turtle Protection Conditions included in this document.

a. Nesting surveys shall be initiated 65 days prior to sand placement activities or by May 1 whichever is later. Nesting surveys and egg relocations shall continue through the end of the project or August 31 whichever is earlier. If nests are laid in areas where they may be affected by construction activities, eggs shall be relocated per the requirements listed in a through c below. Monitoring should resume the following nesting season and should be conducted according to *Post-construction Monitoring and Reporting Sea Turtle Protection Conditions* included in this document.

b. Nesting surveys and egg relocations shall only be conducted by persons with prior experience and training in these activities and who are duly authorized to conduct such activities through a valid permit issued by FWC, pursuant to F.A.C 68E-1. Please contact FWC's Sea Turtle Management Program in Tequesta at MTP@myfwc.com for information on the permit holder in the project area. It is the responsibility of the permittee to ensure that nesting surveys are completed. Nesting surveys shall be conducted daily between sunrise and 9 a.m. (in all time zones).

c. Only those nests in the area where sand placement shall occur shall be relocated. Nest relocation shall not occur upon completion of sand placement. Nests requiring relocation shall be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling orientation. Relocated nests shall not be placed in organized groupings. Relocated nests shall be randomly staggered along the length and width of the beach in settings that are not expected to experience daily inundation by high tides or known to routinely experience severe erosion and egg loss, or that are subject to artificial lighting. Nest relocations in association with construction activities shall cease when sand placement activities no longer threaten nests.

d. Nests deposited within areas where construction activities have ceased or will not occur for 65 days or nests laid in the nourished berm prior to tilling shall be marked and left in place unless other factors threaten the success of the nest. The turtle permit holder shall install an on-beach marker at the nest site and/or a secondary marker at a point as far landward as possible to assure that future location of the nest will be possible should the on-beach marker be lost. No activity will occur within this area nor will any activities occur which could result in impacts to the nest. Nest sites shall be inspected daily to assure nest markers remain in place and the nest has not been disturbed by the project activity.

12. ***Sea Turtle or Nest Encounters.*** Upon locating a dead or injured sea turtle adult, hatchling or egg that may have been harmed or destroyed as a direct or indirect result of the project, the Corps, applicant, and/or local sponsor shall be responsible for notifying FWC Wildlife Alert at 1-888-404-FWCC (3922). Care shall be taken in handling injured sea turtles or eggs to ensure effective treatment or disposition, and in handling dead specimens to preserve biological materials in the best possible state for later analysis. In the event a sea turtle nest is excavated during construction activities, the

permitted person responsible for egg relocation for the project shall be notified immediately so the eggs can be moved to a suitable relocation site.

13. ***Equipment Storage and Placement.*** Staging areas for construction equipment shall be located off the beach, if off-beach staging areas are available. Nighttime storage of construction equipment not in use shall be off the beach to minimize disturbance to shorebird and sea turtle nesting and hatching activities. In addition, all construction pipes that are placed on the beach shall be located as far landward as possible without compromising the integrity of the existing or reconstructed dune system. Pipes placed parallel to the dune shall be 5 to 10 feet away from the toe of the dune. Temporary storage of pipes shall be off the beach to the maximum extent possible. If it will be necessary to extend construction pipes past a known shorebird nesting site or over-wintering area for piping plovers, then whenever possible those pipes should be placed landward of the site before birds are active in that area. No pipe or sand shall be placed seaward of a shorebird nesting site during the shorebird nesting season.

14. ***Project Lighting.*** Direct lighting of the beach and nearshore waters shall be limited to the immediate construction area during the sea turtle nesting season and shall comply with safety requirements. Lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, EM 385-1-1, and OSHA requirements. Light intensity of lighting equipment shall be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields shall be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area (Figure 2 below).

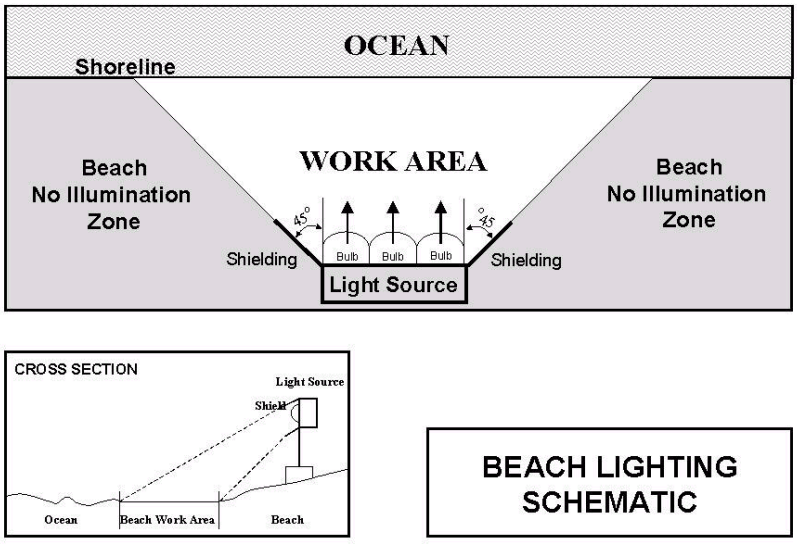


Figure 2.

15. ***Fill Restrictions.*** During the sea turtle nesting season, the contractor shall not extend the beach fill more than 500 feet along the shoreline between dusk and the following day

until the daily nesting survey has been completed and the beach cleared for fill advancement. An exception to this may occur if there is permitted sea turtle surveyor present on-site to ensure no nesting and hatching sea turtles are present within the extended work area. If the 500 feet is not feasible for the project, an agreed upon distance will be decided on during the preconstruction meeting. Once the beach has been cleared and the necessary nest relocations have been completed, the contractor will be allowed to proceed with the placement of fill during daylight hours until dusk at which time the 500-foot length limitation shall apply.

16. ***Compaction Sampling.*** Sand compaction shall be monitored in the area of sand placement immediately after completion of the project and prior to April 15th for three (3) subsequent years and shall be monitored in accordance with a protocol agreed to by the FWS, FWC, and the applicant or local sponsor. The requirement for compaction monitoring can be eliminated if the decision is made to till regardless of post-construction compaction levels. Out-year compaction monitoring and remediation are not required if placed material no longer remains on the beach. At a minimum, the protocol provided under a and b below shall be followed. If the average value for any depth exceeds 500 pounds per square inch (psi) for any two or more adjacent stations, then that area shall be tilled immediately prior to the following date listed above. If values exceeding 500 psi are distributed throughout the project area but in no case do those values exist at two adjacent stations at the same depth, then consultation with the FWC or FWS will be required to determine if tilling is required. If a few values exceeding 500 psi are present randomly within the project area, tilling will not be required.

a. Compaction sampling stations shall be located at 500-foot intervals along the project area. One station shall be at the seaward edge of the dune/bulkhead line (when material is placed in this area), and one station shall be midway between the dune line and the high water line (normal wrack line).

b. At each station, the cone penetrometer shall be pushed to a depth of 6, 12, and 18 inches three times (three replicates). Material may be removed from the hole if necessary to ensure accurate readings of successive levels of sediment. The penetrometer may need to be reset between pushes, especially if sediment layering exists. Layers of highly compact material may lie over less compact layers. Replicates shall be located as close to each other as possible, without interacting with the previous hole and/or disturbed sediments. The three replicate compaction values for each depth shall be averaged to produce final values for each depth at each station. Reports will include all 18 values for each transect line, and the final 6 averaged compaction values.

c. No compaction sampling shall occur within 300 feet of any shorebird nest.

d. Any vehicles operated on the beach in association with compaction surveys shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/).

17. ***Tilling Requirements.*** If tilling is required as specified above, the area shall be tilled to a depth of 36 inches. All tilling activity shall be completed prior to the sea turtle nesting season. If tilling occurs during shorebird nesting season (See 3b above), shorebird surveys prior to tilling shall be required per the Shorebird Conditions included within this document. It is the responsibility of the contractors to avoid tilling, scarp removal, or dune vegetation planting in areas where nesting birds are present. Each pass of the tilling equipment shall be overlapped to allow thorough and even tilling. If the project is completed during the sea turtle nesting season, tilling will not be performed in areas where nests have been left in place or relocated. If compaction measurements are taken, a report on the results of the compaction monitoring shall be submitted electronically to FWC at marineturtle@myfwc.com prior to any tilling actions being taken.

a. No tilling shall occur within 300 feet of any shorebird nest.

b. If flightless shorebird young are observed within the work zone or equipment travel corridor, a Shorebird Monitor shall be present during the operation to ensure that equipment does not operate within 300 feet of the flightless young.

c. A relatively even surface, with no deep ruts or furrows, shall be created during tilling. To do this, chain-linked fencing or other material shall be dragged over those areas as necessary after tilling.

d. Tilling shall occur landward of the wrack line and avoid all vegetated areas 3 square feet or greater with a 3 square foot buffer around the vegetated areas. The slope between the mean high water line and the mean low water line must be maintained in such a manner as to approximate natural slopes.

e. Any vehicles operated on the beach in association with tilling shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/).

18. ***Escarpment Surveys.*** Visual surveys for escarpments along the project area shall be made immediately after completion of the sand placement project and during March 15 to April 15 for three (3) subsequent years if sand from the project area still remains on the beach.

Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of at least 100 feet shall be leveled and the beach profile shall be reconfigured to minimize scarp formation by April 15. Any escarpment removal shall be reported by location. If the project is completed during the sea turtle nesting and hatching season, escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place. FWC shall be contacted immediately if subsequent reformation of escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet occurs during the nesting and hatching season to determine the appropriate action to be taken. If it is determined that escarpment leveling is required during the nesting or hatching season, the FWS or FWC will provide a brief written authorization that describes methods to be used to reduce the likelihood of

impacting existing nests. An annual summary of escarpment surveys and actions taken shall be submitted electronically to marineturtle@myfwc.com along with the annual summary as described below. If escarpment removal occurs during shorebird breeding season (See 3B), shorebirds surveys shall be required per the *Shorebird Conditions* included within this document prior to removal. (NOTE: Out-year escarpment monitoring and remediation are not required if placed material no longer remains on the dry beach).

a. No heavy equipment shall operate within 300 feet of any shorebird nest.

b. If flightless shorebird young are observed within the work zone or equipment travel corridor, a Shorebird Monitor shall be present during the operation to ensure that equipment does not operate within 300 feet of the flightless young.

c.Any vehicles operated on the beach in association with escarpment surveys or removal shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/).

19. ***Post-construction Shorebird Protection Conditions:***If beach cleaning will occur on the nourished beach, a minimum of 30% of the biotic material within the wrack line will be left on the beach post-cleaning at the strand line in a natural configuration to ensure that the nourished beach re-establishes its function as foraging habitat for shorebirds. This shall occur for as long as the placed sand remains on the beach.

20. ***Post-construction Monitoring and Reporting Sea Turtle Protection Conditions:*** Reports on all sea turtle nesting activity shall be provided for the initial sea turtle nesting season (May 1 through August 31) and for up to three additional nesting seasons as follows:

a. For the initial nesting season and the following year, the number and type of emergences (nests or false crawls) shall be reported per species in accordance with **Table 1 below**.

b. An additional year of nesting surveys may be required if nesting success for any species on the nourished beach is less than 40%.

c. For the initial nesting season, reproductive success shall be reported per species in accordance with **Table 1 below**. Reproductive success shall be reported for all loggerhead, Kemp's ridley, green and leatherback nests.

d. In the event that the reproductive success documented by species meets or exceeds required criteria (outlined in **Table 1 below**) for each species, monitoring for reproductive success shall be recommended, but not required for the second year post-construction.

e. Monitoring of nesting activity in the seasons following construction shall include daily surveys and any additional measures authorized by the FWC. Summaries shall include all crawl activity, nesting success rates, hatching success of all relocated

nests, hatching success of a representative sampling of nests left in place (if any) by species, project name and applicable project permit numbers and dates of construction.

f. Data should be reported for the nourished areas in accordance with the **Table 1 below** and should include number of nests lost to erosion or washed out. Summaries of nesting activity shall be submitted in electronic format (Excel spreadsheets) to the FWC Imperiled Species Management section at MTP@myfwc.com. All summaries should be submitted by January 15 of the following year. The FWC Excel spreadsheet is available upon request from MTP@myfwc.com.

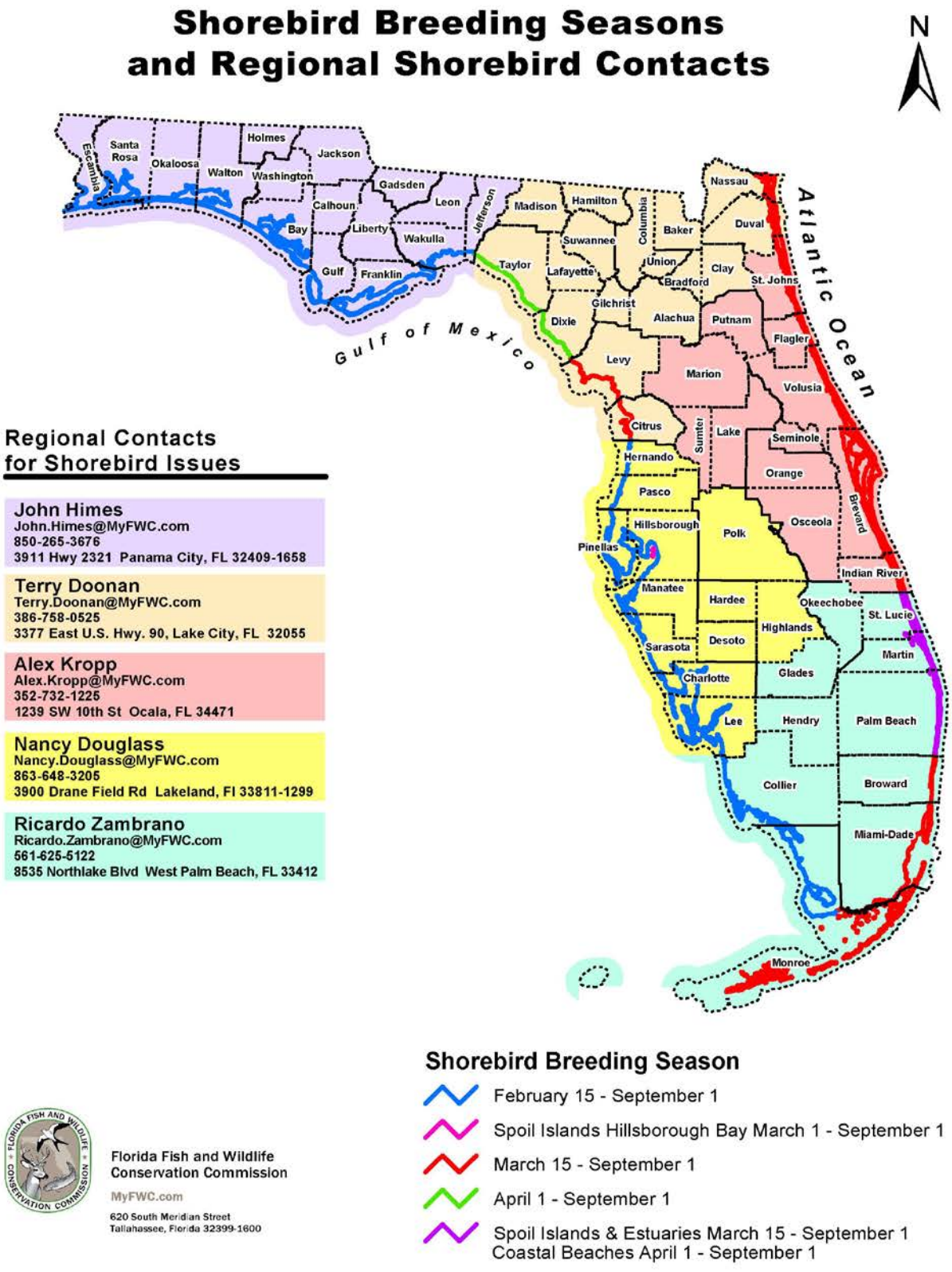
21. Two lighting surveys shall be conducted of all artificial lighting visible from the renourished berm. The first survey shall be conducted between May 1 and May 15 the first nesting season following construction or immediately after placement if construction is not completed until after May 15, and a second survey between July 15 and August 1. The survey shall be conducted by the permittee or local sponsor and should be conducted to include a landward view from the seaward most extent of the new beach profile. The survey should follow standard techniques for such a survey and include number and type of visible lights, location of lights and photo documentation. For each light source visible, it must be documented that the property owner(s) have been notified of the problem light with recommendations for correcting the light. Recommendations must be in accordance with the Florida Model Lighting Ordinance for Marine Turtle Protection (Chapter 62B-55, F.A.C.) and local lighting restrictions. In addition to local code enforcement, actions must be taken by the permittee to ensure that no lights or light sources are visible from the newly elevated beach within their respective areas. A report summarizing all lights visible shall be submitted to FWC Imperiled Species Management Section at marineturtle@myfwc.com by the 1st of the month following survey. A summary report documenting what corrective actions have been taken provided and all compliance and enforcement actions shall also be submitted by December 15 of that year. After the annual report is completed, a meeting shall be set up with the permittee or local sponsor, county or municipality, FWC and the FWS to discuss the survey report as well as any documented sea turtle disorientations in or adjacent to the project area.

Table 1. Sea Turtle Monitoring for Beach Placement of Material

Metric	Duration	Variable	Criterion
Nesting Success	Year of construction, one year to two or three years post construction if placed sand remains on beach and variable does not meet criterion based on previous year	Number of nests and non-nesting emergences by day by species	40% or greater

Hatching Success	Year of construction and one to three years post construction if placed sand remains on beach and variable does not meet criterion based on previous year	Number of hatchlings by species to completely escape egg	Average of 60% or greater (data must include washed out nests)
Emergence Success	Year of construction and one to three years post construction if placed sand remains on beach and variable does not meet success criterion based on previous year	Number of hatchlings by species to emerge from nest onto beach	Average must not be significantly different than the average hatching success
Disorientation	Year of construction and one to three years post construction if placed sand remains on beach	Number of nests and individuals that disorient	
Lighting Surveys	Two surveys the year following construction , one survey between May 1 and May 15 and second survey between July 15 and August 1	Number, location and photographs of lights visible from nourished berm, corrective actions and notifications made	100% reduction in lights visible from nourished berm within one to two month period
Compaction	Not required if the beach is tilled prior to nesting season each year placed sand remains on beach	Shear resistance	Less than 500 psi
Escarpment Surveys	Weekly during nesting season for up to three years each year placed sand remains on the beach	Number of scarps 18 inches or greater extending for more than 100 feet that persist for more than 2 weeks	Successful remediation of all persistent scarps as needed

Figure 3.


Shorebird Breeding Seasons
and Regional Shorebird Contacts
N
Gulf of Mexico
Atlantic Ocean
Escambia
Santa Rosa
Okaloosa
Walton
Holmes
Washington
Jackson
Bay
Calhoun
Liberty
Gadsden
Wakulla
Leon
Jefferson
Gulf
Franklin
Taylor
Madison
Hamilton
Suwannee
Columbia
Lafayette
Baker
Union
Bradford
Nassau
Duval
Clay
St. Johns
Gilchrist
Dixie
Alachua
Putnam
Flagler
Levy
Marion
Volusia
Citrus
Sumter
Lake
Seminole
Hernando
Orange
Pasco
Hillsborough
Polk
Osceola
Brevard
Pinellas
Indian River
Manatee
Hardee
Okeechobee
St. Lucie
Highlands
Sarasota
Desoto
Martin
Charlotte
Glades
Lee
Hendry
Palm Beach
Collier
Broward
Miami-Dade
Monroe
Regional Contacts
for Shorebird Issues
John Himes
John.Himes@MyFWC.com
850-265-3676
3911 Hwy 2321 Panama City, FL 32409-1658
Terry Doonan
Terry.Doonan@MyFWC.com
386-758-0525
3377 East U.S. Hwy. 90, Lake City, FL 32055
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1239 SW 10th St Ocala, FL 34471
Nancy Douglass
Nancy.Douglass@MyFWC.com
863-648-3205
3900 Drane Field Rd Lakeland, Fl 33811-1299
Ricardo Zambrano
Ricardo.Zambrano@MyFWC.com
561-625-5122
8535 Northlake Blvd West Palm Beach, FL 33412
Florida Fish and Wildlife
Conservation Commission
MyFWC.com
620 South Meridian Street
Tallahassee, Florida 32399-1600
Shorebird Breeding Season
February 15 - September 1
Spoil Islands Hillsborough Bay March 1 - September 1
March 15 - September 1
April 1 - September 1
Spoil Islands & Estuaries March 15 - September 1
Coastal Beaches April 1 - September 1

Northeast Florida Regional Council

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DEP Office of
Intergovt'l Programs

February 26, 2014

Lauren P. Milligan
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, MS 47
Tallahassee, Florida 32399-3000

SAI # FL201401236812C
NEFRC # FSC-14-F001

Project Description: Department of the Army, Jacksonville District Corps of Engineers – Draft Integrated Feasibility Study and Environmental Assessment, Flagler County Hurricane and Storm Damage Reduction Project - Flagler County, Florida.

Attn: Florida State Clearinghouse

Pursuant to the provisions of Presidential Executive Order 12372, Governor's Executive Order 95-359 and Chapter 29E-6 Florida Administrative Code, the staff of the Northeast Florida Regional Council (NEFRC) has reviewed the draft study & environmental assessment for storm damage reduction in Flagler County, Florida. After review, staff at the Northeast Florida Regional Council has no comments at this time.

All the best,

Eric B. Anderson

Eric B. Anderson, AICP
Regional Planner
Intergovernmental Coordination & Review
Northeast Florida Regional Council
(904) 279-0885 x178
eanderson@nefrc.org

Public Review Comments

Residents and Private Individuals

Name of Commenter	Contact Information	Date Comment Received	How Comment Received	Comment Key Point(s) Summary	USACE/Sponsor Response Summary
Carey Strickland	1708 N Central Ave Flagler Beach, FL 32137 dscissorhappy@aol.com	23-Jan-14	email	Wants to know if property her is within the TSP; has a dune walkover; inquiry of how the dune walkover would be affected.	This property is located north of the pier, and is not located with the TSP reach. Flagler County will need to get easements from the property owners will be needed prior to construction. These easements will cover what happens to the walkovers. (Response by MTD)
Dale Clegg	flaglerlpn@yahoo.com	23-Jan-14	email	Opposes sand placement on beach-- thinks it is an ineffective measure, not a solution but a waste of money	The return on investment for the TSP is estimated to be $1.83 for every dollar spent. (Response by MTD)
Frank Meeker	fmmeker@flaglercounty.org	25-Jan-14	email	Discusses other option of concrete filled tubes along shoreline as not appropriate. Coastline engineering modification would be required due to current steepness. Use of this technology would be more destructive to shoreline structures.	Groins and other similar structures were considered in this study, however, the beach along Flagler County is relatively straight. Structures in this case would likely cause the erosion to worsen on down drift shorelines unless additional sand was placed down drift of the structure. For this reason the study found structures to be cost prohibitive and not meet the study objectives. (Response by MTD)
Scott and Judy Adie	57 Barkley Lane, Palm Coast, FL 32137 scott@osgfx.com	28-Jan-14	email	Believe that adding sand to beach is a temporary fix; prefers concrete barriers and large stone placement perpendicular to the shoreline; believe it will retain sand. Requests breakwater structures in the plan.	Groins and other similar structures were considered in this study, however, the beach along Flagler County is relatively straight. Structures in this case would likely cause the erosion to worsen on down drift shorelines unless additional sand was placed down drift of the structure. For this reason the study found structures to be cost prohibitive and not meet the study objectives. (Response by MTD)
Dr. B. Nagendra Kumar SAB Innovations Pvt Ltd, Chennai, India	sabinnovationspvtltd@gmail.com	28-Jan-14	email and attachment	Proposes proprietary hard structure technology placement along shoreline that will trap sediment and become buried. Requests its use as a test project for Flagler Beach.	Specific to the conditions in Flagler County, Florida we do not feel like the use of hard structures either by themselves or in combination with other measures will be able to meet the objectives of the study. As far as using Flagler County as a test site for the SAB technology, that is something we cannot recommend through this study. The technology would first need to be vetted through the Corps Engineering Research and Development Center (ERDC). (Response by MTD)
Mary Ann Clark	1923 S Flagler Ave Flagler Beach FL 32136 mafsclark@bellsouth.net	3-Feb-14	email	Feels the plan is a waste of public funds and time; should let nature take its course.	The return on investment for the TSP is estimated to be $1.83 for every dollar spent over 50 years. (Response by MTD)
Frederick and Suze Peace	1571 Alanson Dr Deland, FL 32724 4sfpeace@bellsouth.net	3-Feb-14	email an USPS	Recommends use of eminent domain for re-routing of SR A1A to move it inland. Does not feel that TSP is a fix, but is detrimental to the environment, i.e. turtles, a waste of time, and will fail.	Regarding detriment to the environment: The shoreline within the TSP has been damaged from armoring by revetment and sea wall construction. The construction of a natural dune will replace lost functions of wildlife habitat and biodiversity. (Response by KKM)
Mike Flank	1732 S oceanshore Blvd Flagler Beach, FL mlfclf@aol.com	1-Feb-14	email	Proponent of preserving beaches, feel there are no guaranteed solutions to problem; and report accurately illustrates positive action to sustain beach, but is better than no action. Supports the project as presented by USACE and sponsor.	Noted
Jane L. Hitt	2544 S Central Ave Flagler Beach FL 32136	6-Feb-14	email	Feels the public meeting was informative, but disappointed at the turnout. Hopes the communication between the Flagler Beach Officials, County Commissioners and residents can be improved. Inquired if all property owners fronting SR A1A were included in the NOA mailing; if the 30-day comment period is flexible.	Regarding NOA mailing: All properties abutting the project site were included in the NOA mailing. The list was compiled from the Flagler Co Tax Appraiser website to get the most recent (2013) data; however, there were around 40 NOA's returned as non-deliverable. The 30 day period was extended to +/- 45 days. (Response by KKM)
Mark and Toni Treworgy	2316 & 2320 S Oceanshore Blvd Flagler Beach FL 32136 Tyacht@cfl.rr.com	13-Feb-14	email	Concerned about impact to businesses (boutique and B & B) during project construction; have 2 dune walkovers, concerned about access to beach and walkovers destruction; worried about potential loss of revenue and cost of walkover replacement.	Prior to construction Flagler County will need to obtain a 50 year perpetual easement from the property owner. This construction easement will allow for dune nourishment on the property as needed over 50 years. This easement will also cover what happens if the walkovers are damaged or need to be removed in order to construct the dune nourishment project. So, the responsibility for any repair or rebuild of the walkovers on the property will be between the property owner and Flagler County as agreed to in the easement. (Response by MTD)
Patti Powell	719 N Central Ave Flagler Beach FL 32136 44 powell@cfl.rr.com	14-Feb-14	email	Critical of $3.3M spent on feasibility report, along with time and conclusions. Feels TSP is wasteful, and not proven effective in event of storm or hurricane damage to structures. Critical of borrow area location 7 miles from shore, quality of material. Recognizes socio-economic significance of SR A1A, critical of FDOT's revetment and seawall. Critical of model (Beach-fx) determination of project to Reach C only, and lack of scientific documentation supporting model findings. Objects to terms "robust" and "highly effective" regarding model output and potential reduction of erosion damage. Suggest FDOT and FDEP come together and determine solution to SR A1A of revetment maintenance and on-going drainage problems; feels TSP is not a solution, and will not have positive effect to tourism (socio-economics). Objects to Flagler County residents participation in saving SR A1A via a dune restoration. Views entire project as wasteful spending for both Federal and non-Federal partners.	The feasibility report and study process having been undergoing several rounds of review required by the Corps policy, so it does take some time to ensure that all requirements are met. It is true that the TSP will primarily protect 2.6 miles of A1A. Flagler County supports this plan as the non-Federal sponsor for the project. This is the only stretch of the study area where a project was found to be both economically justified and to have adequate public access for Federal participation. The term "robust" is used to describe how the plan is economically justified across the three possible future sea level rise scenarios used by the Corps for planning purposes, and the term "highly effective" is used in describing how the TSP prevents almost all of the damages anticipated to occur in the future without project condition. The return on investment for the TSP is estimated to be $1.83 for every dollar spent over 50 years. (Response by MTD)

Residents and Private Individuals

Name of Commenter	Contact Information	Date Comment Received	How Comment Received	Comment Key Point(s) Summary	USACE/Sponsor Response Summary
Rick Morgan	15 Riviere Ln Palm Coast FL 32164 rlm3231@gmail.com	14-Feb-14	email	Request consideration of other alternatives than simply dredging sand and placement on the beach; include structures to hold sand and build up the beach. Proponent of Holmberg design; suggests using a small portion of the beach to test its integrity. Feels sand dredge and placement on beach is wasteful.	Groins and other similar structures were considered in this study, however, the beach along Flagler County is relatively straight. Structures in this case would likely cause the erosion to worsen on down drift shorelines unless additional sand was placed down drift of the structure. For this reason the study found structures to be cost prohibitive and not meet the study objectives. (Response by MTD)
Jane L. Hitt	2544 S Central Ave Flagler Beach FL 32136	15-Feb-14	email	Second comment follow up to reiterate opposition to the project. Feels without a defined evidence of success at other beaches, plan is a commitment to an open-ended drain on limited funds. Feels the plan will irreparably damage shoreline environment.	Regarding the irreparable damage to the shoreline environment: The shoreline within the TSP has been damaged from armoring by revetment and sea wall construction. The construction of a natural dune will replace lost functions of wildlife habitat and biodiversity. (Response by KKM)
JoAnne Ricardi	1423 N Central Ave Flagler Beach FL 32136 jodickric@aol.com	15-Feb-14	email	Disappointed with results of study, time and funds spent to conclude with dredge and renourishment; feels it is not a solution nor innovative. Objects to use of gray borrow area material covering coquina sand, impacting sea organisms at borrow site, sea turtles and benthic organisms on the shoreline. Objects to cost responsibility of project to local communities to support an FDOT roadway. Vehemently opposed to this project.	Short-term impact to dune and beach habitat due to burial/disturbance, but long term benefit through increase of these habitats for nesting sea turtles, shorebirds and benthic fauna. Temporary impact to fish in the water column and benthic resources during dredging activities. Short-term turbidity would be present at the borrow area and placement site. No hardbottom resources were identified to be present in the borrow area during the subsurface resource survey; therefore, no impact would occur to this resource. (Response by KKM)
Coralee Leon	PO Box 160 Flagler Beach FL 32136 1coralee@earthlink. net	16-Feb-14	USPS, email attachment	Objects to the time and cost of study to propose dredge and placement plan. Feels the solution is the problem with eroding onshore dunes and beaches. Sees the plan as a fix to FDOT problem of SR A1A, does not prevent damage that had occurred in the past or areas outside the 2.6 mile project limit. Dune is a temporary fix, citing New Smyrna Beach example. Feels the Federal and State governments should bear the cost of the project as the local residents don't have a say in the plan but must live with what is decided by State and Federal officials.	It is true that the TSP will primarily protect 2.6 miles of A1A. Flagler County supports this plan as the non-Federal sponsor for the project. This is the only stretch of the study area where a project was found to be both economically justified and to have adequate public access for Federal participation. Similar projects have worked around the state of Florida. The return on investment for the TSP is estimated to be $1.83 for every dollar spent over 50 years. (Response by MTD)
Rita Bloom Gombar	1517 N Oceanshore Blvd Flagler Beach FL 32136 ritabgombar@gmail.com	15-Feb-14	email and attachment	Finds current plan distasteful. Objects to 10-year and $3.3M study with TSP recommendation. Feels plan is temporary, costly and likely to fail. Feels that local opinion was overlooked by USACE and motive is to fix SR A1A; feels the State and Federal government are responsible for all costs.	Flagler County supports this plan as the non-Federal sponsor for the project. It is understood the project will need periodic renourishment over the 50 years of the TSP. Over this 50 years . The return on investment for the TSP is estimated to be $1.83 for every dollar spent. (Response by MTD)
JoAnne and Dick Ricardi (separate comments of same content received from each)	1423 N Central Ave Flagler Beach FL 32136 jodickric@aol.com	16-Feb-14	email	Second comment follow up to reiterate opposition to the project. Feels helpless by the prospect of being dominated by the USACE into a massive environmental disaster of dredging and beach renourishment. Shocked by conclusion after 10 years of study same old failed operation should be used again. Feels study lacks attention to environmental effects-- using borrow area 7 miles offshore could introduce a foreign substance; effect on sea turtles nesting; and gopher tortoises in the dune.	Regarding sea turtles and gopher tortoise: Sea turtle nesting on Flagler Beach is less often found within the TSP area as little or no dune exists; sea turtles do not typically nest along an armored shoreline. Dune construction with a fore beach of sand and native vegetation will encourage nesting. Gopher tortoise typically do not burrow along the base of beach or within armored shoreline, but prefer upland dune habitat in a higher elevation, i.e. south of Marineland outside of the TSP. Survey of the TSP by USACE biologists have not recorded any gopher tortoises or burrows along the beach face. (Response by KKM)
Kim Carney	604 Springdale Dr Flagler Beach FL 32136 kcarney123@gmail.com	17-Feb-14	email	Critical of $3.3M spent on feasibility report, along with time and conclusions. Feels TSP is wasteful, and not proven effective in event of storm or hurricane damage to structures. Critical of borrow area location 7 miles from shore and quality of material. Recognizes socio-economic significance of SR A1A, critical of FDOT's revetment and seawall. Critical of model (Beach-fx) determination of project to Reach C only, and lack of scientific documentation supporting model findings. Objects to terms "robust" and "highly effective" regarding model output and potential reduction of erosion damage. Suggest FDOT and FDEP come together and determine solution to SR A1A of revetment maintenance and on-going drainage problems; feels TSP is not a solution, and will not have positive effect to tourism (socio-economics). Objects to Flagler County residents participation in saving SR A1A via a dune restoration. Views entire project as wasteful spending for both Federal and non-Federal partners. Feels the project could be damaging to the environment (sea turtle nesting).	The feasibility report and study process having been undergoing several rounds of review required by the Corps policy, so it does take some time to ensure that all requirements are met. It is true that the TSP will primarily protect 2.6 miles of A1A. Flagler County supports this plan as the non-Federal sponsor for the project. This is the only stretch of the study area where a project was found to be both economically justified and to have adequate public access for Federal participation. The term "robust" is used to describe how the plan is economically justified across the three possible future sea level rise scenarios used by the Corps for planning purposes, and the term "highly effective" is used in describing how the TSP prevents almost all of the damages anticipated to occur in the future without project condition. The return on investment for the TSP is estimated to be $1.83 for every dollar spent over 50 years. (Response by MTD) Regarding environmental damage and sea turtles: Sea turtle nesting on Flagler Beach is less often found within the TSP area as little or no dune exists; sea turtles do not typically nest along an armored shoreline. Dune construction with a fore beach of sand and native vegetation will encourage nesting. (Response by KKM)

Residents and Private Individuals

Name of Commenter	Contact Information	Date Comment Received	How Comment Received	Comment Key Point(s) Summary	USACE/Sponsor Response Summary
Randall Cody	rcody1@gmail.com	20-Feb-14	email	Observed rocks holding up SR A1A are eroding away. Wants to know the status of the north side, was it considered in the study?	The northern portion of Flagler Beach was considered. The stretch of shoreline extending about 3.5 miles north from the Flagler Beach Pier is referred to as "Design Reach B" in the draft feasibility study. Based on surveys going back to the 70s the northern portion of Flagler Beach has been more stable than the stretch of shoreline south of the pier where the tentatively selected plan (TSP) calls for dune nourishment. Although there are a few locations in northern Flagler Beach where the department of transportation has placed rocks to protect A1A, it is anticipated that over the next 50 years, the cost to implement a dune nourishment or any other measure would cost more than the value of what would be protected. (Response by MTD)
Walter Mahler	walter.mahler@gmail.com	19-Feb-14	email	Feels the plan has merit if dunes are planted with stabilizing vegetation such as sea oats that can stand up better to storms and prevent erosion.	Native species included for planting in the newly created dune will include sea oats, recognized as fundamental for holding soil in place. Also, other appropriate native species for upland dune will be planted, such as beach morning glory and seashore paspalum grass. (Response by KKM)
Carol Propper	csprop60@gmail.com	28-Feb-14	email	Suggests using rip-rap revetment to retain sand on the shore and encourage sand to accumulate along the beach; would cost less and stay in place instead of washing out to sea like a dredge and fill operation. Refers to this project as a funding waste similar to the Cross Florida Barge Canal.	Structures were considered in this study, however, the beach along Flagler County is relatively straight. Structures in this case would likely cause the erosion to worsen on down drift shorelines unless additional sand was placed down drift of the structure. For this reason the study found structures to be cost prohibitive and not meet the study objectives. (Response by MTD)
James and Sharon Gallagher	51 Wedgewood Lane Palm Coast FL 32164	3-Mar-14	email	Critical of $3.3M spent on feasibility report, along with time and conclusions. Feels TSP is wasteful, and not proven effective in event of storm or hurricane damage to structures. Critical of borrow area location 7 miles from shore and quality of material. Recognizes socio-economic significance of SR A1A, critical of FDOT's revetment and seawall. Critical of model (Beach-fx) determination of project to Reach C only, and lack of scientific documentation supporting model findings. Objects to terms "robust" and "highly effective" regarding model output and potential reduction of erosion damage. Suggest FDOT and FDEP come together and determine solution to SR A1A of revetment maintenance and on-going drainage problems; feels TSP is not a solution, and will not have positive effect to tourism (socio-economics). Objects to Flagler County residents participation in saving SR A1A via a dune restoration. Views entire project as wasteful spending for both Federal and non-Federal partners. Feels the project could be damaging to the environment (sea turtle nesting).	The feasibility report and study process having been undergoing several rounds of review required by the Corps policy, so it does take some time to ensure that all requirements are met. It is true that the TSP will primarily protect 2.6 miles of A1A. Flagler County supports this plan as the non-Federal sponsor for the project. This is the only stretch of the study area where a project was found to be both economically justified and to have adequate public access for Federal participation. The term "robust" is used to describe how the plan is economically justified across the three possible future sea level rise scenarios used by the Corps for planning purposes, and the term "highly effective" is used in describing how the TSP prevents almost all of the damages anticipated to occur in the future without project condition. The return on investment for the TSP is estimated to be $1.83 for every dollar spent over 50 years. (Response by MTD) Regarding environmental damage and sea turtles: Sea turtle nesting on Flagler Beach is less often found within the TSP area as little or no dune exists; sea turtles do not typically nest along an armored shoreline. Dune construction with a fore beach of sand and native vegetation will encourage nesting. (Response by KKM)
Patricia Brown	whoknows11us@gmail.com	13-Mar-14	email and attachment	Feels the USACE completed the study with arrogance. Would like to see USACE and FDOT make an exception to the "Right of Way" issue faced by FDOT by allowing them to provide the solution. Dismayed by the delay of the study report issuance. Series of comments/question. 1) Why are federal monies spent on beach projects; feels that USACE beach projects in past have led to more damages. 2) Why did FDOT Dist 5 provide $250K to Flagler County for repayment to USACE for the feasibility study? Concerns that Flagler County is funding FDOT roadway project. 3) USACE is using both Federal and Flagler Co tax dollars for the project. USACE is essential a contractor and others are paid to do specific work; is there a bid process for selection? What was done by USACE and what was done by contractors? 4) Use of subjective words "robust, not aesthetically pleasing" as part of a scientific study. Challenge the use of these words and discounting Underwater Stabilizers as viable technology. 5) What was result of the "peer review plan" as updated in August 2010? 6) Why were the economic conditions not properly assessed during the USACE Reconnaissance Study; why was sand search and other items done before the economic value?	1) Federal money is used for beach nourishment projects that benefit the national economy and have a positive return on investment from reducing damages to public and private infrastructure. 2) FDOT provided funding to Flagler County in support of the feasibility study as agreed to between the County and FDOT. 3) Bids are solicited for work done by contractors in support of the study. Work contracted out for the feasibility study included physical and environmental surveys of the study area to determine first floor structure elevations, the presence and location of hardbottoms, and the characteristics of material in the offshore borrow areas. The generation of the report and reviews was done by the Corps. 4) Subjective words were used to describe alternatives, however they were not used to biasly screen out certain alternatives. 5) The peer review plan describes the required reviews for the study. 6) The economic conditions described in the 2004 Reconnaissance Study were based on existing data available at that time. (Response by MTD)

Residents and Private Individuals

Name of Commenter	Contact Information	Date Comment Received	How Comment Received	Comment Key Point(s) Summary	USACE/Sponsor Response Summary
				7) Why are misleading terms used in the report that can be mis-interpreted by average person? 8) Where is updated itemized Flagler County Feasibility Cost Estimate that was in August 2004 plan? Would like to compare original costs to current. 9) Beach walkovers are now part of the economic cost but not previously; why were they left out before? looking for proof of replacement costs.10) What is reasoning for 400-ft damage zone inland; clarification of FDOT ROW needed. 11) Dune walkover estimated costs for replacement are apart from project; can private owners afford replacing walkover on their property? 12) If project requires Federal easement along beach face, will County have to acquire the easements? 13) Contingency funding for the initial project can be manipulated for cost/benefit ratio; will Flagler County residents carry cost of revetment maintenance, a FDOT cost?	7) The references to renourishment interval and dune/beach nourishment are not meant to be misleading. The executive summary states that renourishment will be needed over the 50 year project life. 8) The latest study cost estimate was the one included in the in the PMP updated in 2010. 9) The cost to replace the public walkovers is included in the cost estimate incase the contractor is not able to build the project around the walkovers without damaging them. 10) The FDOT is included in the 400 foot inland extent of the study area. The inland extent does include Central Avenue and several structures west of it. The BCR only accounts for benefits to structures damaged in the future without project condition, so the inland extent of the study area and does not have an impact on the BCR. 11&12) Prior to construction Flagler County will need to obtain a 50 year perpetual easement from the property owner. This construction easement will allow for dune nourishment on the property as needed over 50 years. This easement will also cover what happens if the walkovers are damaged or need to be removed in order to construct the dune nourishment project. So, the responsibility for any repair or rebuild of the walkovers on the property will be between the property owner and Flagler County as agreed to in the easement. 13) The contingency is based on the risks identified on in the cost and schedule risk analysis (CSRA) which is included in the Cost Engineering Appendix. (Response by MTD)
				14) Why was Mayport tidal gauge used instead of St. Augustine or Bing's Landing for Appendix C, A-13? 15) Why was FDOT data beyond 2010 not used for updated report. 16) Project to last 11 years; if FDOT has already spent $6M why not use their own budget? 17) Clarify cost sharing scheme; does not follow as originally presented. 18) Requests scientific proof regarding the nearshore currents in the project area not influenced by the Gulf Stream but by interaction with incidental waves (Appendix C-A28).19) What is actual cost of sand, discrepancy of cost throughout report sections. 20) Requests justification of maintaining current slope as described in Appendix B-5. Critical of report length and funds expended; feels the information has been "massaged" to provide a basis of USACE employment and SR A1A costs on Flagler County taxpayers rather than FDOT.	14) The Mayport tide gauge is used because it has a long period of record and gives the best representation of the ocean tides in Flagler County compared to other gauges in the vicinity of the project area which are located in inland water ways away from inlets. 15) At the time of analysis and model set-up the FDOT was only able to provide data through 2010. 16) Flagler County is aware that most of the TSP benefits are associated with A1A and is still in support of the project as the non-Federal sponsor. 17) The cost sharing for the study is 50% Federal and 50% non-Federal. The cost sharing for the initial construction of the project is 65% Federal and 35% non-Federal. The cost sharing periodic renourishments is 50% Federal and 50% non-Federal. 18) The Gulf Stream, also known as the Florida Current when it travels between the Florida Straits and Cape Hatteras, reaches its closest proximity to the Florida coast near Fort Lauderdale. By the time the Gulf Stream reaches the latitude of Flagler Beach, it is approximately 50 nautical miles from shore. Although the current does meander both east and west over time, those meanders do not bring the current close enough to the shoreline for even the outermost layers to enter the coastal nearshore region (directly effecting nearshore current patterns). There are many sources of data available on the internet that discuss and define the basic characteristics and behavior of the Gulf Stream/Florida Current. There are also numerous sites which explain the basic concepts of how nearshore currents result from local wave climate. Two excellent sources are: http://oceancurrents.rsmas.miami.edu/atlantic/florida_3.html and http://www.seagrant.wisc.edu/Home/Topics/CoastalEngineering/Details.aspx?PostID=690 19) The cost of the sand from the offshore borrow area is estimated to cost approximately $21.54 per cubic yard without the 23% contingency factored in. 20) The slope of the constructed dune will not have the same slope as the existing revetment. The constructed dune will be designed to be similar to natural dunes in parts Flagler County that are currently unarmored. (Response by MTD & LH)

Residents and Private Individuals

Name of Commenter	Contact Information	Date Comment Received	How Comment Received	Comment Key Point(s) Summary	USACE/Sponsor Response Summary
JT Carney	jtcarney@cfl.rr.com	13-Mar-14	email and attachment	Concerned that study is a shift of maintenance cost of SRA1A from State and FDOT to Flagler Co taxpayers. Several Questions by Chapter. Ch 1: Please define which of 4 interests are at risk-- upland development, recreation, wildlife habitat, and cultural resources. Ch 2: Revetment areas have negative impact to sea turtle nesting prompted questions 1) is there a better way to define nest locations (GPS, by Block); 2) Location of picture in Figure 2-18; 3) How does this nesting area compare to other locations in Florida; 4) No details provided about sand along face of revetment areas (dry, wet); was Turtle Patrol contacted as data source, and have nests been moved? 5) Where was Figure 2-28 photo taken, leads viewers to think entire beach is this way; 6) objects to term "viewshed" as one word, commonly used word; 7) where are the bird nesting locations?	Ch 1: The four interests at risk referenced in the question are used by the state to deterring if erosion in an area is classified as "critical". Upland development at risk includes several single family houses located east of A1A in Painters Hill and Beverly Beach and SR A1A in Flagler Beach. Recreation at risk includes the areas where revetments and sea walls have been built as well as where dune walkovers have been damaged, limiting access too use the beach. Wildlife habitat at risk includes areas where revetments and sea walls have been or will be built to prevent erosion, resulting in the loss of beach/dune nesting habitat. A cultural resource at risk includes SR A1A which is a historic scenic byway. (Response by MTD) Ch 2: The data was acquired from the Florida Fish and Wildlife Conservation Commission (FWC) who manage all sea turtle volunteer data throughout the state. As discussed on page 2-33, the FWC data does not include GPS location coordinates because of inconsistency of reporting but has the nesting data organized by reaches, the basis of the Tables 2-10 to 2-12. The area found to have the least nesting was south Flagler Beach where revetment and SR A1A seawall have replaced habitat. 2.) Location of the photo in Figure 2-18 was north of Flagler Beach in the Painters Hill area. 3.) The Gulf region of the Florida has higher population density for sea turtle nesting. On the Atlantic coast, FWC data from 2010 shows that in Flagler Co, 463 nests were reported, whereas Brevard Co reported 31,758 nests. 4.) The sand material in front of the revetment is similar to the sand face of the native dunes. Turtle Patrol was not contacted; their data is submitted to the FWC, who provided that data used in Sec 2.4.3. To date, no nests have been relocated related to this project. 5.) The photo was taken on Flagler Beach north of the Pier, and was used as a representative view. 6.) "View shed" is a term that is used to describe an area of visible landscape. 7.) Survey of specific shorebird nests are not required as part of field activities for the study. (Response by KKM)
				Ch 3: Addresses cumulative impacts in Beverly Beach from seawalls. Several questions: 1) Has Beach-*fx* been calibrated to model US real life performance? 2) What predictive computer program does Beach-*fx* replace? 3) Where else has Beach-*fx* been used? 4) Does Beach-*fx* always recommend nourishment or have other technology been recommended? 5) Why is it assumed that 90% of the berm recovers post-storm (Table 3-6, pg 3-16); what scientific evidence exists that this happens? 6) Who is the SAJ contracted surveyor who estimated the first floor elevations of all structures in the sturdy area and what was the cost of this work? 7) Is it correct that the overall analysis uses the low level costs estimated in Table 3-7; what is the reasoning, and did it increase the benefit to cost ratio (BCR)?	Ch 3: 1) Yes, Beach-fx has been calibrated to model real life erosion and performance. 2) Beach-fx replaces the Storm Damage Model (SDM) which was developed and used by the Jacksonville District. Beach-fx is now the only certified model to be used Corps wide for this type of study. 3) Beach -fx has been used for projects that have been approved in Panama City Beach, FL and Edisto Beach, SC. There are other ongoing studies currently using it around the country. 4) Beach-fx does not always recommend beach nourishment. For example the Edisto Beach, SC study recommended groins in combination with beach nourishment. 5) Only one recovery factor can be used by the model, not different ones for different frequency storms. There is no post storm beach recovery data available for Flagler County. 90% represents an approximate average between recovery from frequent/small storms that is likely close to 100% and recovery from less frequent/larger storms that is likely less than 90%. It is also relevant that since we calibrate long term modeled erosion to measured rates, that the overall long-term volume loss of the beach is not controlled by the recovery factor, but it is controlled by the calibration to measured data. 6) Degrove Surveyors, Inc. was contracted to survey the first floor elevations of structures within the study area for approximately $60,000. 7) Table 3-7 shows without project damages for three different sea level rise scenarios. The low sea level rise scenarios which reflects the measured historic sea level rise is used for the BCR presented, however the analysis was done for the intermediate and high sea level rise rate also. The BCR remains about the same for the increased sea level rise scenarios as shown at the end of chapter 5. (Response by MTD)

Residents and Private Individuals

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				Ch 4: Addresses FDOT maintenance costs to beach revetment area, and Flagler Co taxpayers will be paying 50% of the costs for this area. Assumes FDOT costs would be reduced. Seawall along the beach is producing hazardous conditions from corrosion. Ch 5: Questions of the screening process (plan formulation). 1) Are there other ratios >1 that may yield longer term benefits, such as reef and renourishment with initial greater cost but lower maintenance longterm? 2) What is the balance between economic development vs storm damage and insurance; environmental quality vs aesthetics and natural resources; other social effects vs life, safety, and property values; regulate economic development vs employment, sales, and business development? Suggests more detail is needed in plan analysis with positive BCR, more detail for the elimination process. Is there a positive alternative to the proposed plan?	Ch 4: no specific questions. Ch 5: 1) all of the benefit to cost ratios presented consider costs that include all anticipated maintenance/repair costs over a 50 year period. The 50 year planning period is based on Corps policy. 2) The BCR is based on the economic benefits of reducing damages to existing infrastructure and a small amount is from incidental recreation benefits. Benefits for other social effects and environmental quality are considered qualitatively, but are not reflected in the BCR. The final alternatives with positive BCRs are shown in Table 5-9. (Response by MTD)
				Ch 6: No explanation regarding how sand will fit and stay on the dune at existing angle. Questions: 1) If known past successful projects using this plan, please provide the study results or citation. 2) Who (peer groups) has examined the Beach-*fx* data to provide assurance that renourishments is feasible every 11 years? 3) Sparse data of longterm impacts of dredging sand from borrow area; discussion should be improved. 4) Have FDOT or FDEP given approval of this plan? 5) Is Flagler County the first time experiment for this type of project; critical of other counties that have had similar concerns (erosion, loss of offshore sand source); Flagler County should not join them. Ch 7: Feels threatened by statement if borrow area is not used for this project, demand of sand for other shoreline protection would be used in the future by other stakeholders. Does not feel the TSP will improve or help solve the erosion longterm. Thinks data was skewed to create a project fitting within the BCR guidelines; are Flagler County officials just seeking federal funding? Believes the plan is to cover up past mistakes at great cost to county taxpayers and that dredging projects create more costly problems that they fix.	Ch 6: 1) The TSP design is specific to Flagler County, however similar projects have been successfully implemented along the east coast of Florida in Nassau, Duval, St. Johns, Brevard, Martin, Palm Beach, Broward, and Dade Counties. 2) The use of Beach-fx specific to this study has been reviewed the Engineering Research and Development Center (ERDC) by the model developers and by the Coastal Planning Center of Expertise. 3) The borrow area falls under the jurisdiction of the Bureau or Ocean Energy Management, and the discussion of dredging in the borrow area has been revised based on their comments. 4) FDOT and FDEP have reviewed the draft report and are currently in support of the project. 5) The TSP design is specific to Flagler County, however similar projects have been successfully implemented along the east coast of Florida in Nassau, Duval, St. Johns, Brevard, Martin, Palm Beach, Broward, and Dade Counties. (Response by MTD) Ch 7: The statement about the borrow areas potentially being used by other stake holders is not a threat, but a reflection of the current climate within Florida, where there are several active beach nourishment projects looking for new sources of sand. (Response by MTD)
SaveFlaglersBeach.com Officers	SaveFlaglersBeach.com whoknows11us@gmail.com	6-Mar-14	email	Gives background on citizen organization- non-profit, volunteers, education-focused on shoreline systems. Feels mining sand for placing on dune strewn rock revetment won't solve serious situation. Felt posters and information was difficult to understand, "young" engineers were ill prepared to answer questions, and have been educated with "out of date" text books. The 10-year, $3M study left them feeling cheated, and project will put a lot of money towards dredging industry. The group feels it is at "war" with USACE; the military is not held accountable for actions, cites Hurricane Katrina as example. Accusation of using money for backing Congressional politicians and lobbyists with no intention to solve the beach and shoreline avulsion on Flagler's coastline. Finds the work to date as unacceptable and would prefer to put two feet of annual vertical height of sand on the beach, protect the natural sand dune system, and preserve SR A1A. Feels that the group's dedicated work has been disregarded and deserves more respect than have received in the past.	The feasibility report and study process has been conducted in accordance with Corps policy. Flagler County is in support of the project as the non-Federal sponsor. The return on investment for the TSP is estimated to be $1.83 for every dollar spent over 50 years. (Response by MTD)
Lourdes Quintero-Knapp	2544 S Oceanshore Blvd Flagler Beach FL lourdes.knapp@gmail.com	14-Mar-14	email	Opposed to the project. Feels it is an open-ended commitment due to lack of knowledge about similar projects; not a permanent fix for erosion problem which could damage the shoreline and ecology.	Similar projects have worked around the state of Florida. The return on investment for the TSP is estimated to be $1.83 for every dollar spent over 50 years. (Response by MTD)

Residents and Private Individuals

Name of Commenter	Contact Information	Date Comment Received	How Comment Received	Comment Key Point(s) Summary	USACE/Sponsor Response Summary
Mary Louk	mllouklb@gmail.com	17-Mar-14	e mail and attachment	Feels it is fiscally irresponsible to recommend commitment of $43.5 funding for a plan that is known to fail by needing periodic renourishments. Questions: 1) How close of a match is the sand from 7 miles out? 2) What is the sand harvesting doing to the ocean floor? 3) What is the impact to the areas around it? 4) How long will the sand supply last? 5) What is the impact to the marine and sea life during this whole process from collection through redistribution of the sand? Concerned grows due to recent articles regarding Miami-Dade and Broward Counties sand search problem. Per study: wants more detail of analysis of other options with positive points (3 pts or less); short term and long term costs, and why they were eliminated. Believe a cross-agency review (USACE, FDOT, FDEP, others) review options for longterm cost and viability of options. Would like to see something different than what has been done before.	Regarding 5): Short-term impact to dune and beach habitat due to burial/disturbance, but long term benefit through increase of these habitats for nesting sea turtles, shorebirds and benthic fauna. Temporary impact to fish in the water column and benthic resources during dredging activities. Short-term turbidity would be present at the borrow area and placement site. No hardbottom resources were identified to be present in the borrow area during the subsurface resource survey; therefore, no impact would occur to this resource. (Response by KKM)
Robert Welz	88 Cochise Ct Palm Coast, FL 32137	5-Feb-14	USPS	Agrees that damage to beaches is from storms. Feels some areas need re-sanding. Thinks that the sand needs to come from Matanzas Inlet first due to its damage from sand build up which has hurt local fishing, bait shops, and impaired Coast Guard rescue response. Intracoastal has sand build-up problem; this project could help with that. Feels it would be cheaper to dredge from Matanzas Inlet and truck-transport to Flagler Beach.	Beach quality sand that is dredged from the intracoastal waterway in the vicinity of Matanzas Inlet has historically been placed on the beaches to the south of the inlet. The shoals around the Matanzas Inlet were considered as a potential sand source early on in the study, however it did not show to have enough sand available for the project. (Response by MTD)
Donald White, Conservation chair for Flagler Audubon Society	13 Wilderness Run Flagler Beach FL 32136 djwhite077@gmail.com	5-Feb-14	Comment Card	Requests listing Flagler Audubon Society, Inc as party of record, and gave contact information: Attn: Conservation Chair, P.O.Box 350695 Palm Coast, FL 32135-0695; e mail: flalgeraudubon@gmail.com. Phone 386-259-0366	Noted and added to mailing list
Donald White, Board Member Environmental Council of Volusia and Flagler Counties	P.O Box 929 Daytona Beach FL 32115 djwhite077@gmail.com	5-Feb-14	Comment Card	Requests listing Environmental Council of Volusia and Flagler Counties as party of record, and gave contact information. Phone 386-259-0366	Noted and added to mailing list
RM (Pete) Hull	19 Ibis Ct North Palm Coast, Fl 32137	5-Feb-14	Comment Card	Olsen Engineering in Jacksonville. No other comment given on card, see recorded comments below.	Noted
Barbara Revels, Flagler BOCC	P.O.Box 434 Flagler Beach Fl 32136 brevels@flaglercounty.org	5-Feb-14	Comment Card	Should major storm event occur before project is done, will the Corps react to FDOT's action to hold the highway? Will you stop them from hard vertical armoring? Will you assist them in emergency soil placement instead of armoring? What other options will they/we have and will local government have approval or denial ability of those actions?	Until the project becomes authorized and appropriated, it would be business as usual, so any type of storm incident that may occur before 2017 construction would be business as usual (FDOT or what ever the process would be). Once construction is completed, in the event of a major storm and erosion, the project would be eligible for Flood Control Coastal Emergency (FCCE) funds at 100% Federal responsibility; the local sponsor is not on for one dime. But to get into that program, the initial construction must be completed. USACE would not assist in emergency soil placemen; that would be a State function until such time as the project is authorized. Any technical assistance [pre-authorized] would be up to the State and FDOT. (Response by JH). The FDOT has a process in place with the City and County and all applicable agencies before we do anything, we have to activate biological assistance, and have to consult with all the applicable stakeholders, lessons learned from what was done previously. (Response by Aland Hyman FDOT).
Heidi McNeely	318 North 11th Street Flagler Beach FL 32136	5-Feb-14	Comment Card	If after initial event or up to third replenishment, and it's not working, can the County pull the plug?	If the project is not performing after initial construction, Flagler County could decide to pull the plug on the project. A project partnership agreement (PPA) will need to be executed prior to initial construction that will outline the Federal and non-federal responsibilities agreed to for the project. (Response by MTD)
Alan Hyman, Director of Transportation Operations, FDOT	719 South Woodland Deland FL 32720 386-943-5477 alan.hyman@dot.state.fl.us	5-Feb-14	Comment Card	Wanted to thank USACE, FDEP, City and County on working on this important project. The FDOT will continue to work with and actively support all efforts in stabilizing the beach while also protecting SR A1A. Thanks to all stakeholder to come up with a workable solution.	Noted
Allan Haller	P.O. Box 1838 Flagler Beach FL 32136	5-Feb-14	Comment Card	Requested to be included on the mailing list. No other comment	Noted and added to mailing list
Sandra Mason	1601 North Central Avenue Unit #801 Flagler Beach, FL 32136 beachsandra@mac.com	27-Mar-14	email and attachment	As discussed at the presentation meeting, the time allotted to read and understand and formulate questions and/or comments was extremely brief in relation to the nearly 10 years it took to create the plan. I appreciate your willingness to extend the 30 day comment period.	The comment period was extended to March 15, 2015.

Residents and Private Individuals

Name of Commenter	Contact Information	Date Comment Received	How Comment Received	Comment Key Point(s) Summary	USACE/Sponsor Response Summary
				Has this type of “sacrificial berm” been done in the SE US on the Atlantic coast? Please provide location(s) and renourishment intervals.	There are several beach nourishment projects on the Atlantic Coast of Florida that have beach nourishment projects that have sacrificial berm features. These projects and their respective planned nourishment intervals are as follows: Nassau County has a 4 mile project with a planned nourishment interval of 5 years, Duval County has a 10 mile project with a planned nourishment interval of 4 years, St. Johns County has a 3 mile project with a planned nourishment interval of 5 years, Brevard County has a 6 mile project and 3 mile project with a planned nourishment intervals of 6 years, Ft. Pierce has a 1 mile project with a planned nourishment interval of 2 years, and Martin County has a 4 mile project with a planned nourishment interval of 13 years. The planned nourishment interval does not always match exactly with when the actual nourishments take place depending on the timing of storms and erosion. (Response by MTD)
				How is it possible to project a cost if the type of equipment is not known? What other type(s) of equipment are being considered and what are their associated costs and environmental risks?	We can not say for sure what type of equipment will be used because the construction of the project will be bid out to a contractor, and we cannot dictate the exact type of equipment they must use. However, the cost is based on the most likely equipment expected to be used based on similar completed projects. There is a low risk that a different type of equipment would be used that would increase the cost or have negative environmental impacts. (Response by MTD)
				How does the TSP benefit the critically eroded area in North Flagler Beach? How does the non-critical beach benefit?	The Florida Department of Environmental Protection (FDEP) has designated 4.8 miles of shoreline in Flagler County as "Critically Eroded". The TSP will directly benefit 2.6 miles of the critically eroded shoreline. Non-critical areas will not be benefited by the TSP. (Response by MTD)
				This report does not meet the purpose and objectives. See Table 5-5 and 5-6.	Table 5-5 and 5-6 present a preliminary evaluation of the possible management measures considered in the first step of project formulation compared to the Federal objectives. The study has determined that there is a feasible HSDR project for Flagler County, which is described by the TSP. (Response by MTD)
				Does economic justification mean the cost of implementation or are potential benefits over time factored in? Some projects may have a higher initial installation cost but a relatively low repeat maintenance cost, making them a more cost effective alternative long term. Renourishment projects have a 4- time repeat over 50 years. Was 50 years the repeat maintenance interval used in determining cost/benefit for all alternatives?	The economic justification includes a comparison of the costs including initial construction and all periodic nourishments over 50 years to the benefits realized over the same 50 year period. 50 year maintenance costs in addition to initial construction costs were used in determining the costs for all of the alternatives. The 50 year maintenance costs for the different alternatives are described in figure 5-3. (Response by MTD)
				“The inland extent of the Flagler County study is based on detailed engineering analysis recently completed for St. John’s County…” Why is this valid for Flagler County?	This inland extent was used for setting up the Beach-fx model based on the extent of shoreline recession in the study area being expected to be similar to that immediately to the north since geographic characteristics and wave climate closely resemble those of St. Johns County. An additional 100 feet was added to the probable 100-year storm recession to ensure adequate data collection for probable areas of impact. The model results showed that the erosion and damages did not go beyond this inland extent, so the inland model extent is valid. (Response by MTD)
				Referring to referenced erosion rates from 1999 FDEP report: Where is the verification? Since a range is given was the mid range number of -0.5 ft./yr. used for the model? If not, and no verification has been reported, would not the -1 foot per year stated in your report be inaccurate?	The context of the reference to the FDEP report made in section 1.6.2 is a short summary of the FDEP report along with summaries of other non-Federal studies. This erosion rate was not used for the model. The latest erosion rates based on the surveys at each profile in the study area were used in the model. These erosion rates are described in Table 3-1 of the main report and in even more detail in Table A-9 and Figure A-10 of the Engineering Appendix. (Response by MTD)
				“FDOT does not currently have any dune stabilization plans for SR A1A in their 5 year work program.” The 5-year rolling budget published in 2012 had a total of $4,289,751 projected for SR A1A Stabilization between 2011-2015 with $3,957,486 budgeted for 2014-2015.	The context of the reference to FDOT not currently having any dune stabilization plans in section 1.6.2 is a short summary of the FDOT 2010 PD&E study along with summaries of other non-Federal studies. (Response by MTD)
				What role does the pier play in the critical erosion in south Flagler Beach?	The pier tends to trap sand from longshore transport causing downdrift erosion about 2,000 feet south of the pier due to the interruption of longshore transported sand. (Response by MTD)

Residents and Private Individuals

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				"Due primarily to the stabilizing presence of a concrete and steel seawall over a significant portion of the reach, Beverly Beach experiences a lower shoreline rate of change, approximately -0.11 ft./yr." This seems to indicate that a similar seawall constructed along the length of Flagler Beach would solve the erosion problems. Where are the cost/benefit numbers over a 50-year period for comparison to the TSP? Does the Beverly Beach seawall cause the same downdrift erosion as the pier and what role does it play in the critical erosion of reach R065.2-070 in north Flagler Beach?	The rough order of magnitude cost for a seawall, including maintenance over 50 years is estimated at $5,191/linear foot where as the rough order magnitude cost for vegetated dunes over 50 years is estimated at $3,166/linear foot. These costs used for screening purposes is shown in figure 5.3. The seawall in Beverly Beach doesn't cause downdrift erosion to the same extent as the pier. This seawall is located about 3,000 feet north of the critically eroded area from R-65.2 to R-70. The critical designation for this area is primarily due to the proximity of erosion to A1A. (Response by MTD)
				Why then was Alternative S-8 Nearshore Placement dismissed?	Nearshore placement was screened out because it is not likely to work as well as beach placement as there is a possibility that the sand may never migrate onto the beach. (Response by MTD)
				"…any tropical disturbance passing within this distance even a weak tropical storm, would be likely to produce some damage along the shoreline." This statement is conjecture. Where is the data to substantiate this statement? As a Flagler Beach resident I can tell you from experience that frequently tropical systems produce less damage than non-named systems or nor'easters.	The first paragraph in section 2.2.11 notes that although hurricanes typically generate larger waves and storm surge, northeasters often have a greater impact on the shoreline because of longer duration and greater frequency. More importantly nor'easters are included in the historic storm database which is used my the model to estimate future erosion and damages. The context of the discussion referenced by this comment is in reference to Figure 2-15 which shows only tropical storm paths. (Response by MTD)
				Nesting data with specific locations is available. Locations are referenced by cross street numbers and walkovers.	The data was acquired from the Florida Fish and Wildlife Conservation Commission (FWC) who manage all sea turtle volunteer data throughout the state. As discussed on page 2-33, the FWC data does not include GPS location coordinates because of inconsistency of reporting but has the nesting data organized by reaches, the basis of the Tables 2-10 to 2-12. The area found to have the least nesting was south Flagler Beach where revetment and SR A1A seawall have replaced habitat. (Response by KKM)
				The Flagler Turtle Patrol relocates nests that are in danger of overwash, especially those areas in R-79. Relocation information is also available.	Through consultation between the Corps, USFWS and NMFS, the Federal Biological Opinion for the project covers all activities related to sea turtle protection, including nest monitoring, relocation and data collection submission. Furthermore, prior to any construction activities, the project will require permit issuance by FDEP which also includes mandatory actions for the continued protection of sea turtles and their nests. Sea turtle nest relocation will be conducted by qualified permit holders which could include the Flagler Turtle Patrol or other parties determined by project-specific requirements at time of construction in compliance with the Biological Opinion and FDEP permit. (Response by KKM)
				Why was there only one site visit in a 9-year period for a $3m plus project?	There have been several site visits by USACE Biologists, Archaeologists, Geologists, hydrographic surveyors, and other team members throughout the feasibility planning phase of this study, most recently occurring from 2010 to present. Additionally, data collection by contracted services have been conducted on behalf of the USACE and Flagler County including cultural resource, nearshore resources, borrow area, and sand search surveys. (Response by KKM)
				"Florida pompano, flounder and tarpon are considered to be Aquatic Resources of National Importance (ARNI) by the U.S Environmental Protection Agency (EPA)" How will these species be affected by dredging, loss of habitat, and turbidity?	Dredging may temporarily affect feeding success of species due to turbidity and loss of benthic organisms; however, adjacent similar habitat is available for feeding. Benthic organisms are expected to recover and inhabit the substrate within the borrow areas over time. The temporary adverse effect of turbidity from dredging is expected to diminish upon completion of dredging activities. No permanent loss of fish habitat is expected. (Response by KKM)
				Table 2-16 Bird Sightings. "All observations occurred during one-day event (August 2, 2011) by USACE Biologist. Is a sample of one valid considering the length of the project? Same single site visit in a 9-year $3mil project?	Several site visits have occurred by USACE biologists for the purpose of the Environmental Assessment (EA) component of the feasibility study, although observations from the August 2, 2011 date were included in the EA. These site visits were incidental in nature which is sufficient for NEPA compliance during a planning phase. The site visits are not intended to be considered comprehensive bird surveys, which are not required for a planning phase EA under NEPA. In addition, data resources from FWC, Florida Audubon Society, and Cornell Ornithology Lab (birds) database website were researched for statistical data used in the study during the planning phase of the project. (Response by KKM)

Residents and Private Individuals

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				Table 2-18 Existing Coastal Inventory by Damage Element Category & Type. Is this table for the entire length of Flagler County or just the length of the TSP? There are not 1,286 structures in the 2.6 miles of project area. What is the real number for the project area? What is the cost/benefit ratio in the actual project area? Are you suggesting that the TSP will benefit all structures along the Flagler County coast? If so, how?	Table 2-18 is for the entire 9.6 mile study area described in Table 1-3 and in more detail section 2.2.1. Table 2-5 of the Economic Appendix shows that there are 472 structures in the 2.6 mile TSP area, also known as reach C. The TSP will not benefit all structures along the entire Flagler County coast or even all of the structures in reach C. The project only benefits the structures that would otherwise be damaged in the without project condition. Most of the benefits are associated with reductions to armor damage along the A1A revetment. The benefit to cost ratio of 1.83 presented in the report only applies to the 2.6 mile TSP. (Response by MTD)
				What is the dollar value placed on beach armor in “disrepair” in the project area?	Existing coastal armor was inventoried, categorized, and valued based on its composition and level of protection afforded. The existing value of the road and armor in the 2.6 mile TSP (reach C) area is estimated at approximately $7.5 million. More details on the existing coastal armor value is in section 2.3 of the economic appendix. (Response by MTD)
				“According to FDOT contractors, this revetment is maintained at an annual cost of approximately $1.5million.” Please cite the source of this information. It is in conflict with the published FDOT budget.	This should be $1.25 million annually based on the FDOT PD&E study. This sentence will be revised for consistency. (Response by MTD)
				This study notes only 40 years of shoreline data. Why were earlier sources such as the aerial photographs in the UF digital collections not used?	Earlier sources of shoreline data were not used because the accuracy of that data can not be. Also aerial photographs and some of the older data can not be used to determining volume changes when compared to the data used for the study. (Response by MTD).
				Table 3.3 Qualitative Matrix describing vulnerability of resources from potential accelerations in SLC. This table appears to show “low vulnerability” for infrastructure over the next 50 years. Why then is there a need to spend $40mil of taxpayer money?	Table 3-3 does show that the infrastructure in the study area has a low vulnerability specific to future sea level change (SLC). However, the infrastructure is still vulnerable to erosion damages and the return on investment for the TSP is estimated to be $1.83 for every dollar spent over 50 years. (Response by MTD)
				“…it can be reasonably assumed that efforts will be made to maintain the dune at its current elevation to protect Highway A1A.” That being said, why is spending $40m needed or justified?	Over the 50 year project life the cost to implement the TSP is estimated to cost less than what it would cost FDOT to repair the armor and roadway on an as needed basis. The return on investment for the TSP is estimated to be $1.83 for every dollar spent over 50 years. (Response by MTD)
				Does beach-fx take into account the natural recovery processes during those intervals? It appears to be a snapshot of the worst-case scenario. Beaches have the ability to recover naturally as evidenced by the fluctuation in the location and length of “critically eroded” segments within the study area.	Beach-fx does account for the natural recovery process following erosion events. A 90% recovery factor is used. Only one recovery factor can be used by the model, not different ones for different frequency storms. There is no post storm beach recovery data available for Flagler County. 90% represents an approximate average between recovery from frequent/small storms that is likely close to 100% and recovery from less frequent/larger storms that is likely less than 90%. It is also relevant that since we calibrate long term modeled erosion to measured rates, that the overall long-term volume loss of the beach is not controlled by the recovery factor, but it is controlled by the calibration to measured data. (Response by MTD, LH, &JE)
				What criterion is used to determine aesthetics?	The impacts on aesthetics in the future without project condition is described as long-term decline in appearance of the beach as it continues to erode based on the comments at past public workshops and meetings that the existing revetment and seawall are considered visually unattractive. (Response by MTD)
				...why was Alternative S-8 Nearshore Placement eliminated? It is the only alternative that addresses “the natural process to replace sediment.”	Nearshore placement was screened out because it is not likely to work as well as beach placement as there is a possibility that the sand may never migrate onto the beach. (Response by MTD)
				“The report will serve as a decision document for Federal participation related to hurricane and storm damage reduction over a 50-year period.” Does this mean that regardless of advances in technology our community has no other option or alternative FOR THE NEXT 50 YEARS?	Monitoring of the project performance, changes to the project area, or advances in technology may warrant changes to the project over the 50 years of the project life. Any potential future change to the project would need to get certain approvals, including congressional authorization, before the change could be implemented. (Response by MTD)
				Referring to NED benefits: Does this benefit have a time frame? For example, cheapest to construct has very little value if it doesn’t last. How were the cost savings over time factored in to each alternative? Also, how were negative environmental impacts factored in?	The time frame for NED benefits is 50 years. The costs used for each of the alternatives reflects the total costs over 50 years. The project was formulated to avoid negative environmental impacts. If an alternative was selected that required mitigation for negative environmental impacts, then the cost of the mitigation would be included in the total project cost. No mitigation for environmental impacts is anticipated for this project. (Response by MTD)

Residents and Private Individuals

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				Please quantify how each alternative met or did not meet the NED criteria above. Charts 5-9 to 5-19 subjectively rule out alternatives without providing any data.	Table 5-1 to 5-6 on pages 5-9 to 5-19 include a subjective rating based on the potential to meet the planning objective of reducing storm damages, as well as decreased costs of emergency services, lowered flood insurance premiums, and project costs. Costs and benefits used to fully evaluate the NED objective were not computed at this stage; however, engineering judgment was used for the value of a measure for this initial screening. (Response by MTD)
				"It was assumed that it would not be feasible or practical to implement any alternatives along a stretch of shoreline less than 1 mile." Why? Critical erosion is critical erosion. If Federal protection is deemed necessary in one area how can it not be in another? This implies that the cost/benefit ratio is used solely for the critical area and not the county as a whole.	In order to compare costs for different alternatives, the costs would need to have a similar scope in terms of shoreline length protected and time period. One mile was assumed because projects smaller than this would not likely provide enough protection to infrastructure to justify Federal project. This one mile length was used for developing the rough order of magnitude cost estimates. Project formulation and screening was not based on the "critical erosion designation". (Response by MTD)
				"ROM Estimate (One Time Build) $/LF" Is this the basis for selecting a method? Cost of construction over the life span of each alternative needs to be factored in for an accurate cost/benefit analysis. Where are these numbers?	The rough order of magnitude (ROM) cost estimates presented in Figure 5-3 include construction and maintenance costs applicable over 50 years for each alternative. The screening is based on this 50 year cost. (Response by MTD)
				Was not the criteria to be 5-1 above, demonstrating economic benefit consistent with protecting the environment? How exactly does dredging protect the environment? How can dredging and creating an artificial berm be cheaper per 5-26 (One Time Build) than alternative S-8, Nearshore placement?	The national economic development (NED) account does displays the plan with the greatest net economic benefit consistent with protecting the nation's environment. Dredging to construct the TSP would establish a protective vegetative dune that will incidentally provide nesting habitat for birds and turtle. Without a project this area it is likely that rock revetment will continue to be placed over the next 50 ears leading to additional loss of this habitat. Nearshore placement would likely be cheaper that dune and berm construction, however nearshore placement was screened out because it is not likely to work as well as beach placement as there is a possibility that the sand may never migrate onto the beach. (Response by MTD)
Attendance at Public meeting- recorded comments					
Jane Mealy				Not commenting on meeting, heard most of this before at previous meetings. Wants on record that Flagler Beach Commission brought up at last workshop and other discussion, want County and Corps to answer any final concerns that we might have.	Noted
Doyle Lewis				Lives in Flagler Beach. Observed the beach present over last 10+ years, and appreciates the plan. Wants to inspect whatever equipment that will be used, when it arrives in port. Plans to build a house on the beach.	The earliest the construction could be expected to begin is 2017. The project will be bided out, and the exact equipment to be used will be determined by the contractor awarded the project. (Response by MTD)
Sandra Mason				Already addressed some questions. Wonder when the Corps submits budgets to the Federal government where we see this project in your budget for the next phase? Also requested additional time for the public review period, to be included in the record.	The main people that are responsible to provide budgets is the Office of Management Budget (OMB). Based on the guidelines they have set forth, we did not receive the preconstruction, engineering design fund for 2015. (Response by JH, PM)
Linda Provencher, Mayor City of Flagler Beach				Has this project been done anywhere else in the state of Florida or anywhere else that we could possibly look at or monitor?	Numerous beach and dune nourishments around, gave Martin County as example: has small beach and dune nourishment project at north end of county. Brevard County at Patrick's AF Base,: built dune nourishment project along the road. They are very similar to this project. Difference is that the others built a dune as part of the project, but also included beach widening. Specifically, Flagler Beach has a small beach with a steep berm, which we are trying to emulate to establish natural function. (Response by MTD)

Residents and Private Individuals

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Heidi McNeely			Comment card above	Question on other studies, cite St. John's project, where >1M cyds of sand placed in St Augustine in 2003, 2005 and 2012. Report did not provide funding spent; cycle is >11 years. Referred to Virginia Beach projects in 1960's and 70's where millions of dollars were spent; feels this data should have been included in the report. Questions relevance of facts provided in Ch.1, example: cited structural and content value-- why should USACE/ Sponsor be concerned about the contents of very expensive homes on the beach. Looking at the proposed $43M, feels that it is only 1/6th of the total investment, but that the $43M won't be spent for any of those homes in that area, instead just a small portion of Flagler Beach. Questions the $43M over 50 years for a natural process of losing sand every 11 years as stated (by USACE), along with statement of sand accretion; questions the renourishment cycle. Felt that a lot of the non-structural measures were dismissed. Mentions the Hammock and the coastal construction line westward; is the Hammock "hurting" that bad because of this? What is the effect to Flagler Beach if SR A1A has to be moved a little bit, i.e. onto an alternative street; has this cost been looked at? Feels USACE/Sponsor are playing the hurricane card a bit regarding the SR A1A evacuation route; there are alternative streets and more concerned about the IWW bridge.	The costs associated with this project are detailed in the Cost Engineering Appendix and summarized in the main report. While similar to other projects, this project requires less volume to be placed than most other projects, so the over all costs are not comparable to projects in other locations. The content value of structures is included in the analysis according to Corps policy. The content of structures has an economic value associated with it, and reducing damages to it yields an economic benefit in the same way that benefits are realized by preventing damages to the structures themselves. The structure inventory and future without project information presented in the first 3 chapter cover the 9.6 mile study area described in Table 1-3. The TSP will not benefit all structures along the entire Flagler County coast or even all of the structures in reach C. The project only benefits the structures that would otherwise be damaged in the without project condition. Most of the benefits are associated with reductions to armor damage along the A1A revetment. This is described in chapters 5 and 6. The benefit to cost ratio of 1.83 presented in the report only applies to the 2.6 mile TSP. Non-structural measures were considered and costs were developed with input from FDOT for relocating A1A in Flagler Beach which is described in chapter 5. The CCCL setback in the Hammocks area has worked because most of the development was built after this policy was in place. A1A and other structures were built in according to the development policy at the time, and non-structural measures are more costly and have more legal challenges when development is already in place. (Response by MTD)
John Herpielding				Not a genius but can read. Other sites where USACE has done beach erosion projects, will hear it is wonderful, but when you ask the people what they think of the job a couple years later, they will say it doesn't work. Asking local people to foot the bill for >$10M is a lot of money for something that doesn't work. Discusses God and Mother Nature's role in ocean currents. Key Point: Unless you can justify what you are doing, thinks it is wrong by the simple fact that you've been running a study for 12 years and can't find the right answer.	The return on investment for the TSP is estimated to be $1.83 for every dollar spent over 50 years. (Response by MTD)
Rick Belhumer				Resident of Flagler Beach. Points out that parts of the Reach are close to the road [SR A1A].Are you starting out with that average and then adding 10 more feet so it will be pretty my a straight dune going down through there? If there is a wall, you are only going 10 feet from it?	Initial construction it will start where the existing dune ends if existing armor is there now at the top of the dune. It will extend seaward 10 feet from there. It will slope downward 3-on-1 to the level of the existing beach berm, then continue out for the rest of the volume. The first 10 feet is straight out from the wall, and then with 3-on-1 slope, about another 30 feet from there. (Response by MD). The dune will be 10-ft off what we are referring to as the existing edge. However, the shoreline is not straight, it waivers. We plan to essentially extend the existing dune edge by bringing it out about 20 feet from SR A1A, then 10 feet from there for an average of 30 feet from the road edge with the slope to the berm, and straighten the dune as well. (Response by LH)
John Herpielding (repeat)				Second question regarding eminent domain: do you guys have any answers to what might be involved with that? Who pays for that part? (Referring to walkovers and the property that will be dumped upon.)	There are 42 walkovers in the project footprint. Of these, 21 are public and 21 are private. The study proposes they would be removed, the extension put in, and then replaced, but this is not definite. During the 2015 construction and design phase, will look at every opportunity to keep them in place and possibly work around them. The non-federal sponsor, Flagler County, is responsible for obtaining those perpetual storm damage easements for all creditable structures or items-- whatever money they spend for the public walkovers, USACE will credit back to their share on the construction. USACE will also cost-share in the replacement of the public walkovers. For the private walkovers, that is between the county and private citizen. (Response by JH)

Residents and Private Individuals

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Pete Hall				Resident of Palm Coast. Refers to his son's house in Baldhead Island [NC] where the USACE dredged the Cape Fear channel and eroded the beach. USACE help refurbish the beach with similar technology of groin construction which was found to be effective. The engineering firm that did the work is based in Jacksonville (Olsen Engineering), who is well-versed in Atlantic coastline and has done local private and public funded projects; Olsen Engineering are interested in helping with this project as well. Mr. Hall is interested in anything that might be useful to the people of Flagler County or the Federal government in solving the erosion problem.	Groins and other similar structures were considered in this study, however, the beach along Flagler County is relatively straight. Structures in this case would likely cause the erosion to worsen on down drift shorelines unless additional sand was placed down drift of the structure. For this reason the study found structures to be cost prohibitive and not meet the study objectives. (Response by MTD)
Alan Hyman, Director of Transportation Operations, FDOT			Comment card above	Thanks the Corps [USACE] FDEP, City and county on working this very important project, long time coming as indicated by the timeline. The FDOT will continue to work with and actively support all efforts in stabilizing the beach while also protecting SR A1A. We realize that it is very important economically. Thanks again to all the state coffers to come up with a workable solution.	Noted
Joanne Ricardi			E mail also	Long time Flagler Beach resident. Disappointed that the only solution is same thing that has been done elsewhere and doesn't work. Concerned about statement that there will be no harm to creatures. States there are gopher tortoises on the dunes, assume they will be addressed prior to sand placement. Sea turtle beach nesting concern for 6 months of the year, commitment from USACE/Sponsor to do the project outside of the sea turtle nesting season.	Regarding gopher tortoises- USACE has surveyed the entire study area and have not found any gopher tortoises along the dune face or top. They may be further back in the dune outside of the work or study area. Typically they like to burrow in upland soft sand, but along the beach, they are out of their element. Regarding sea turtle nesting season, a requirement that USACE has with our resource agencies, USFWS, NMFS, and FWC, is to work together and get biological opinions, which are memorandums of agreement that the project will meet specific terms and conditions to address the habitat and usage of these areas by listed protected species as well as general wildlife. Working outside the windows of nesting season is preferred but not always the reality. We have measures in place that we can use to address the nesting season, such as pre-construction surveys and nest relocation if construction is during these windows. All work is done in the best feasible manner possible to protect these species and in compliance with our biological opinions and permits to the satisfaction of the resource agencies. (Response by KKM)
Doyle Lewis, return				Repeated that the younger people that want to build here need somebody to support them; they are the ones that is doing the work. If you want them to have a job, you would give them a job.	Noted

From:	Carey Strickland Strickland
To:	kathleen.k.mcconnell@usace.army.mil.
Subject:	[EXTERNAL] dunewalkover
Date:	Thursday, January 23, 2014 9:13:10 PM

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i live in Flagler Beach and am concerned about my property on a1a which I have Littoral rights too and have a dune walkover on, in which i have permitted and built a dune walkover on. The talk about possibly damaging it or taking it by eminent domain is alarming . my name is Carey Strickland and my address is 1708 N. Central Flagler Beach , Fl. 32137 . Is this property in the path of restoration of the beach ? If so why would they need to remove it or take my land ?

PLease email me something about my situation as to my concern. I will be looking forward to hearing back from you , Carey.

if you would rather call me my phone # is (305)299-9955

From: Durkin, Martin T SAJ on behalf of HSDR Comments, Flagler
To: McConnell, Kathleen K. SAJ
Subject: FW: [EXTERNAL] Flagler Beach restoration by sand dredging (UNCLASSIFIED)
Date: Monday, January 27, 2014 10:58:59 AM

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: Dale Clegg [mailto:flaglerlpn@yahoo.com]
Sent: Thursday, January 23, 2014 4:37 PM
To: HSDR Comments, Flagler
Subject: [EXTERNAL] Flagler Beach restoration by sand dredging

Hello -
I'll start by saying that I've been spending year-round time at Flagler Beach for the 50+ years I've lived in Flagler County. I've spent hours hiking, surfing and fishing that beach, and I know it well. I've also frequently spent time at beaches as far north as St. Augustine and as far south as Ponce Inlet.

I don't claim to know what the solution is to the erosion, but I know what it isn't. The solution is not to pump sand onto the beach and just hope it doesn't wash away during the first n'easter or hurricane that goes by. I've seen what happened to the beach at St. Augustine after millions of tax dollars were spent dredging and pumping from the inlet to the beach some years back. The first time, one storm wiped away all the efforts that money could buy. Some of that white sand ended up down here on our red beaches for awhile, then most of it washed away to somewhere else. I'm expecting that to happen at St.Augustine beach again before long after the second foolhardy effort was just recently completed. Flagler Beach has always been a narrow beach since I was a kid and long before that. That's the way it is, and that's the way it will always be, no matter what Man tries to do with it. The problem isn't the beach - it's the fact that we've foolishly built stuff (including a state road) right on top of an ever-changing piece of real estate. I don't know any good solution for that, but please don't waste millions of our tax dollars on a non-solution. Thanks for your time - Dale Clegg

Classification: UNCLASSIFIED
Caveats: NONE

From: Durkin, Martin T SAJ on behalf of HSDR Comments, Flagler
To: McConnell, Kathleen K. SAJ
Subject: FW: Comments on the ACOE study (UNCLASSIFIED)
Date: Monday, January 27, 2014 10:59:45 AM

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: Frank Meeker [mailto:fmeeker@flaglercounty.org]
Sent: Saturday, January 25, 2014 6:43 PM
To: HSDR Comments, Flagler
Subject: [EXTERNAL] Comments on the ACOE study

In reference to the reasons why some options are not appropriate. I suspect that undercurrent stabilizers have difficulty in high wave energy environments. Attempts have been made in the past on the west coast. I believe at least two efforts ended in failure as the concrete filled tubes bucked as waves eroded under the bases. That coast is considerable flatter than ours so I suspect that without engineered modifications in a current design, (and so far, such engineering has not been presented to the Flagler Beach Commission, the Tourist Development Council or the Flagler County Commission) our steep slopes will allow a transfer of a greater amount of destructive wave energy closer inshore rendering anything of permanent nature susceptible to failure.

Frank J. Meeker, C.E.P.
Flagler BOCC, District 2

Classification: UNCLASSIFIED
Caveats: NONE

Robert Welz
88 Cochise Ct
Palm Coast, Florida 32137

Kathleen McConnell
(CESAJ-PD-EC)
Us Corps of Engineers
701 San Marco Boulevard
Jacksonville, Fl 32207

Dear Kathleen McConnell:

Flager beach resand project

1. I agree that their was damage done to the beaches and a lot was from NE storms

2. That some areas need resanding

3. But I think the sand needs to come from Matanzas inlet first this inlet all some has been damaged with added sand

    * This has hurt the local fishing

* hurt local bait shops and the area as we are losing a inlet that was hard to get out is now very hard now but people will still try and the bar is a bad place to get stuck and could cause lost of life as there is no rescue eg Coast Guard coming for a long time.

* The intercoastal has a major problem with sand building up but if the extra sand was removed from the inlet and just inside of the bridge this would greatly improve the intercoastal area also where do you think the sand for shoring up intercoastal comes from ever few year you all have to spend many millions on dreging the intercoastal area at matanza do to shoring. Would not it be better to now take the sand you need for flager beach form this inlet. and as for cost it would be cheaper also as from dredged to dunp truck to area needed.Thank you!

Sincerely,

Robert Welz

From:	Nagendra Kumar B
To:	HSDR Comments, Flagler
Cc:	McConnell, Kathleen K. SAJ
Subject:	Re: [EXTERNAL] SAB Technology for Beach Development at Flagler? (UNCLASSIFIED)
Date:	Wednesday, January 29, 2014 7:49:39 AM

Dear Martin Durkin,

Thank you very much for your reply.

In my opinion, SAB technology is unique and it is not a totally hard structure though it virtually appears to be a hard structure. Humans can not replace the nature fully using the artificial nourishment for eroding areas as in case of Flagler. So Green Technology like SAB technology is essential to save human resources while fighting against the nature. I appreciate views and existing players of business if the net result is environment friendly. So, there is a scope for your recommendation for a test project on SAB Technology as it is like a digestible pill in human body for diseases without negative impacts. I am sure ERDC will look into this new, innovative and environment friendly technology for coastal protection. I request that you kindly recommend this technology for a test site, if possible and I assure you the huge economic benefits for all stake holders of coastal protection at Flagler.

I will not be able to attend the public workshop to be held on Feb 5. If possible, pl. convey message to convince that this new concept may be investigated with a test site.

Thanking in advance for kind review and consideration of my views.

Dr. B.Nagendra Kumar
Executive Director
SAB Innovations Pvt Ltd.
Chennai, India
Phone No. :+91-94442-38590

On Tue, Jan 28, 2014 at 11:18 PM, HSDR Comments, Flagler <Flagler.HSDRComments@usace.army.mil> wrote:

> Classification: UNCLASSIFIED
> Caveats: NONE
>
> Dr. B.Nagendra Kumar,
> Thank you for your e-mail and interest in this study. We have considered several measures similar to the SAB technology which you have provided information on. Specific to the conditions in Flagler County, Florida we do not feel like the use of hard structures either by themselves or in combination with other measures will be able to meet the objectives of the study. As far as using Flagler County as a test site for the SAB technology, that is something we cannot recommend through this study. The technology would first need to be vetted through the Corps Engineering Research and Development Center (ERDC). The ERDC website is http://www.erdc.usace.army.mil/.
> A public workshop for this study will be held on Wednesday, Feb 5 at 6 pm, at the Government Center in Bunnell, FL.
> Thank you,
> Marty
>
> Martin Durkin
> Coastal-Navigation Section
> Planning Division
> Jacksonville District
> US Army Corps of Engineers

Phone- (904)-232-2190

-----Original Message-----
From: Nagendra Kumar B [mailto:sabinnovationspvtltd@gmail.com]
Sent: Tuesday, January 28, 2014 10:18 AM
To: HSDR Comments, Flagler
Subject: [EXTERNAL] SAB Technology for Beach Development at Flagler?

Dear Sir,

I am sending this mail with a request to review the application of SAB Technology along the coast of Flagler for beach development and for a possible consideration of test project at this coastal site using this technology.

This SAB technology has many applications in the fields of coastal protection, coastal inlet stability, near shore pipeline installations, Scour protection along the marine and hydraulic structures and river and estuarine bank protection. You may find further description on this new, innovative, effective and economic technology at the web site given below:

https://plus.google.com/u/0/b/101194826952224271949/101194826952224271949/about/p/pub

The latest information brochure on this technology is attached for your information, perusal and further discussion if possible.

Dr. B.Nagendra Kumar

Executive Director

SAB Innovations Pvt Ltd.

Chennai, India

Phone No. :+91-94442-38590

Classification: UNCLASSIFIED
Caveats: NONE

From:	Durkin, Martin T SAJ on behalf of HSDR Comments, Flagler
To:	McConnell, Kathleen K. SAJ
Subject:	FW: [EXTERNAL] Breakwaters for Flagler Beach. (UNCLASSIFIED)
Date:	Tuesday, January 28, 2014 12:21:34 PM
Attachments:	Scott Adie.vcf

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: Scott Adie [mailto:scotta@osgfx.com]
Sent: Tuesday, January 28, 2014 9:45 AM
To: HSDR Comments, Flagler
Subject: [EXTERNAL] Breakwaters for Flagler Beach.

Dear Army Corps of Engineers,

I just finished reading an article in the 'Palm Coast Observer' titled 'Flagler County Beaches About To Get Sandier'. I am excited about the possibilities. However, I agree with County Commissioner Kim Carney, that just adding sand to the beaches is a temporary fix. My reasons come not from and engineering background, though I have studied this subject in the past, but mostly from observation and experience. This is what I believe will offer a more permanent solution.
Breakwaters of concrete and large stone running perpendicular to the coastline and AIA Highway will retain the sand better than anything else. Experience shows that just the simple construction of a pier extends the beaches by reducing erosion due to storm and wave action. The most damaging wave action comes from either northern or southern sea swells that tend to scrape sand away from the shoreline and displace it to deeper waters offshore. Waves that come straight into the coastline do displace some soil but not at nearly the level that northern or southern swells do. Breakwaters and piers tend to greatly diminish the effects of this wave action. I believe if you do not include the addition of breakwaters to the soil replacement plan, that most of the effort will be wasted in a few years. Breakwaters also improve the habitat for sea life and improve the safety for swimmers by reducing rip tides. Please try to incorporate breakwaters into the plan to ensure that this is not a wasted effort. Examples of the success of breakwaters are available for study and Newport Beach California is one of the beaches that has been enhanced by the addition of breakwaters many years ago. Check it out, you'll be glad you did and so will we. Thanks.

Scott & Judy Adie
Hospitality Ministry
Calvary Chapel Flagler Beach
57 Barkley Lane
Palm Coast, FL 32137
scotta@osgfx.com
www.osgfx.com
386-627-8210

Classification: UNCLASSIFIED
Caveats: NONE

From: Durkin, Martin T SAJ on behalf of HSDR Comments, Flagler
To: McConnell, Kathleen K. SAJ
Subject: FW: [EXTERNAL] Storm Damage Reduction STudy (UNCLASSIFIED)
Date: Monday, February 03, 2014 4:36:23 PM

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: Mary Ann clark [mailto:mafsclark@bellsouth.net]
Sent: Monday, February 03, 2014 11:53 AM
To: HSDR Comments, Flagler
Subject: [EXTERNAL] Storm Damage Reduction STudy

In my opinion this plan is a complete waste of the public's money and your time. The ocean takes the sand away and returns it at its own pace over many years. We humans should not interfere with Mother Nature! Use the money for the education of our children.

Mary Ann Clark, 1923 South Flagler Avenue, Flagler Beach FL 32136

Classification: UNCLASSIFIED
Caveats: NONE

From: Durkin, Martin T SAJ on behalf of HSDR Comments, Flagler
To: McConnell, Kathleen K. SAJ
Subject: FW: [EXTERNAL] Public Comment on Flagler Beach Problem (UNCLASSIFIED)
Date: Tuesday, February 04, 2014 7:39:13 AM

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: FREDERICK & SUZE PEACE [mailto:4sfpeace@bellsouth.net]
Sent: Monday, February 03, 2014 6:02 PM
To: HSDR Comments, Flagler
Subject: [EXTERNAL] Public Comment on Flagler Beach Problem

This is a time for eminent domain use. There is NO way to fix the Flagler Beach problems except to remove state road A1A. Move it inland. What a nice natural beach it would be. Adding 10 feet of sand and shore is NOT a fix. It is costly, detrimental to the environment, ie. turtles, and it simply is a waste of time and won't work.

Suze Peace
1571 Alanson Dr.
DeLand, Fl 32724
Volusia County
386-738-0924
4sfpeace@bellsouth.net

Classification: UNCLASSIFIED
Caveats: NONE

From:	Durkin, Martin T SAJ on behalf of HSDR Comments, Flagler
To:	McConnell, Kathleen K. SAJ
Subject:	FW: [EXTERNAL] Comments regarding Flagler County Beach Project (UNCLASSIFIED)
Date:	Wednesday, February 05, 2014 11:31:39 AM

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: Mike Flank [mailto:mlfclf@aol.com]
Sent: Wednesday, February 05, 2014 11:07 AM
To: HSDR Comments, Flagler
Cc: ssettle@cityofflaglerbeach.com; lprovencher@cityofflaglerbeach.com
Subject: [EXTERNAL] Comments regarding Flagler County Beach Project

I am a resident of Flagler Beach and have just built a house on South Oceanshore Blvd.

I have read through the 300 page Army Corp report on the issues and recommendations involving the repair and protection of the beach as we know it. Reading through the data on research predictions of possible present and future storm damage is of course of great interest to anyone living in the immediate area.

I am a strong proponent of preserving and protecting the beaches as one of Florida's most vital resources. I do realize that many opponents feel that any measures proposed by the Army Corp's Report are only temporary measures with no sustainable permanence. However, I realistically feel that there are no guaranteed solutions with regards to nature and its fury. As the report accurately illustrates positive action to sustain is certainly far better than no action. Likewise, to consider experimental solutions that are unproven as was considered earlier in 2013 by the City of Flagler Beach have proven to be completely unverifiable and bad choices.

In conclusion, I completely support the project as presented by the Army Corp. to re nourish the beach and repair the revetments and maintain the same appearance and quality of the beaches that we love.

Mike Flank
1732 South Oceanshore Blvd.
Flagler Beach, Florida
mlfclf@aol.com

Classification: UNCLASSIFIED
Caveats: NONE

From: Jane
To: McConnell, Kathleen K. SAJ
Subject: [EXTERNAL] I attended the meeting in Flagler
Date: Thursday, February 06, 2014 1:01:19 PM

Hi Ms. McConnell,

The meeting was very informative. However, I was surprised and disappointed in the turnout from Flagler Beach. If, as was mentioned last night, Flagler Beach officials had not been actively included/ involved in the County meetings up to now, that may explain the relatively small turnout..

I hope as a result of the forum you provided last night, that the communication between Flagler County Commissioners and the Flagler Beach officials and residents can be improved. As a result, you should receive many more comments from those who would be directly affected by your Project.

As an owner of one a private beach walkway parcel, I received notification of the 30 day comment period in your letter of Jan. 17. I am interested to know if all property owners fronting A1A were included in that mailing , or approximately how many Flagler Beach residents received them. Also, did I understand correctly that the 30 day period for comments is flexible?

Thank you for your response,

Jane L. Hitt
2544 .S. Central Avenue
Flagler Beach, FL 32136
(386)439-1465

From: Jane
To: McConnell, Kathleen K. SAJ
Subject: [EXTERNAL] Comment on Flagler County Project
Date: Saturday, February 15, 2014 9:58:16 AM

To: Kathleen McConnell, USACOE

From: Jane L. Hitt, 2544 S. Central Ave., Flagler Beach, FL 32136

This is a follow-up of my letter to you of Feb. 6, 2014, in response to the Feb. 5 presentation of the Corps of Engineers proposed beach re-nourishment project for a section of Flagler Beach.

I hereby wish to place on record my opposition to the proposed Flagler County Hurricane and Storm Damage Reduction Project.

Without any definitive evidence of successful outcomes at other beaches, this plan becomes a commitment to an open-ended drain on the limited funds of our City and County. As your report demonstrates, there is no permanent fix for the erosion problem. And of greatest importance, this plan will irreparably damage the shoreline, animals and plants.

We will not support unending destruction of our beach habitat, as well as our future quality of life here.

Sincerely,

Jane Hitt

.

From:	Patti Powell
To:	McConnell, Kathleen K. SAJ
Subject:	[EXTERNAL] Flagler Beach
Date:	Friday, February 14, 2014 5:53:23 AM

Colonel Alan M. Dodd

District Engineer

Dear Colonel Dodd,

I have been involved for the past several years in the FLAGLER COUNTY, FLORIDA, HURRICANE AND STORM DAMAGE REDUCTION STUDY Project No.: 113166. Needless to say the amount of funding required to bring this project to this point, over $3,300,000 of taxpayer's dollars, is obscene. The time required, just a few months shy of 10 years since the September 2004 signed agreement with the non-federal sponsor, to bring this project to this point is obscene and the end result of this study is obscene.

The document presented is very neatly titled with all appropriate pages and sections, as the law requires, however, the content is skewed 100% toward a wasteful sacrificial dune with no studies showing this project will "save" in the event of a storm or hurricane, structural and content value of approximately $340 million as stated in the study. The structure this project beautifies is SR A1A, which by its name alone will tell you it is a State Road and belongs to the State of Florida. Our community has been built around this road. And it is because of this road being built on the primary dune system many years ago that many people believe we have the areas of critically eroded dunes and beach that we have today.

The reader often gets confused because the entire beach in Flagler County is used throughout the report however, the only area that is being used to justify the study is the very small and focused area of the tentatively selected plan as Reach C in Flagler Beach. As stated in the Executive Summary page ES-2 "The TSP covers 2.6 miles of shoreline length and mainly prevents damage to SR A1A."

I cannot believe the sand being used for the dune extension is being taken 7 miles directly offshore. Where is our sand? For years the USACOE has been telling us that sand only travels via long shore transport. NOW after years of fighting the fight, the report admits on page 2.23 "Once caught in the waves, this sediment is carried along the shore and redeposited farther down the beach, or is carried offshore and stored temporarily in submerged sand bars." It goes on to describe the fierce wave's effect on the beach width and height. Look at the changes in Flagler Beach's profile from photos in 1920s and now. The slope of the beach has grown from 2-3 feet to 11-14 feet. Our sand is gone! It is unique and colorful sand that will not return from dredged sand offshore.

The City of Flagler Beach has lived with an unsightly, eroding seawall since December 2006. The FDOT

built the seawall in a defensive move to hold up A1A and it has. The revetment is a complete eyesore. Both the City of Flagler Beach and Flagler County have written resolutions against seawalls. The revetment is in effect a seawall. It was designed by a civil engineer not a coastal engineer. We all know a healthy beach system contains a vegetated dune with a slope of 1:1. Over the years the waves have encroached on our dune system and the storm water runoff from SRA1A has led to many vulnerable areas of erosion for the road and the dune. Since the decision to put SRA1A where it is, followed by widening the road several years ago the City of Flagler Beach and our beach did not have a chance. We are blessed not to have had a direct hit from a hurricane. We have lost homes on South Flagler Avenue due to storms. Refer to page 3-7, "However, it should be noted that elevations within the project area (Atlantic Ocean-side of the island) are some of the highest on the barrier island, about 15-20 feet above Mean Sea Level. The profile of the island slopes downward from these elevations to the landward side , marsh side, of the island where the lowest elevations of infrastructure are around 2 -10 feet above current MSL." It goes on to state, "Marsh side areas of the island will likely be impacted by inundation more frequently than the ocean side as sea level rises, especially during extreme high tide events."

Storms and hurricanes bring wind and rain. Nothing in this TSP prevents or protects homes from storms or hurricanes. It does not even protect SRA1A. The mitigation of damages can only be to SRA1A. The report leaves the reader thinking the TSP will protect houses and infrastructure. The sea wall used to calculate the total damages does have a useful life. There are projected dates when the sea wall will need to be rebuilt. How does that happen with this project? The last sentence on page 6-2 states, "Most of the benefits are associated with reductions to armor damage along the A1A revetment. In the with-project condition, the cost of maintaining and repairing the revetment is significantly less than it would be in the without project condition. This reduction is the primary source of economic benefits." There is a figure used of $49,000,000 to $2,200,000. That savings is recognized by the State of Florida NOT the City of Flagler Beach nor Flagler County. The State maintains this infrastructure. They should be the entity that enters into a relationship with the USACOE.

What exactly is meant by "highly effective"? There are no highly effective beach/dune nourishment projects. One hundred percent of these projects must have repeated nourishments. On page 6-3 the TSP is described as "not only highly effective, it is also efficient." Moving sand from offshore to the dune and back again, and again, and again is not efficient. There is no data that supports the fact the TSP is effective. Over time this one very small section of A1A will continue to experience erosion because nothing is being done to prevent it. Our sea turtle nests will still need to be relocated to wider sections of the beach. By extending the dune 10 feet seaward the actual width of the beach, mostly at high tide will decrease the width of the beach. The most critical area in front of the dune that needs to have dry sand to feed the dune will be decreased.

Your study uses modeling to determine "the NED plan is highly effective at reducing erosion damages. In the with-project condition the vast majority of damages in Reach C are prevented". The model does not state how or why. There is no science to back this statement. It is a computer model. The last sentence on page 6-3 states "the plan can be considered robust". Robust is a word used in creative writing. If you asked 50 people what they think when they hear the word robust you would probably get 50 different definitions. That is not a word I would use when I see what this report has to offer. So many decisions are made based on the contents of the draft report. Why would the writer use such a word? Robust in relation to what?

Lack of citizen involvement should not be interpreted as citizen support. Many citizens have not been involved with this project because it has taken so long to get to this point. Many people are not affected by this project. Tourism is going to continue to be a major source of revenue for Flagler County with or without this project. This project has so many long term effects on our environment, on our infrastructure and on our community as a whole. The TSP does not solve any problem. I suggest you pull FDEP and FDOT together to discuss this project as they are the stakeholders. They may be willing to fund it, however, I am not. Flagler County does not have a tourist base like Miami and Ft. Lauderdale. Our eroded dunes are NOT stopping visitors. In fact our Tourism Development Council has done an outstanding job marketing our county and we have surveys to prove it. The revetment and

seawall is just outside of the "busy" section of our beach. In a 2011 meeting with the FDOT and their proposed project to extend the current seawall and add sand and vegetation to the project led to a resolution in the City of Flagler Beach against seawalls. They will not continue to cover the wall year after year. This project is nothing more than moving the money responsibility from the state to the citizens of Flagler County.

As far as Beachfx, it is nothing more than a computer program. A program that does not have any history as this project is the first project on the Beachfx program. It appears the USACOE is trying to forecast the future of our beach. Why not look back instead of trying to look forward? The only structures damaged during a storm event include a hotel, the pier and a few west of A1A buildings. THIS PROJECT WOULD NOT HAVE SAVED THEM!

The City of Flagler Beach has a Historical Museum that gives data on what our City has evolved into over the past 90 years. The City is working on and has a draft of our Beach Management Plan, all giving you much history about our shoreline and the rebuilding of our structures. The structure damages included in this study does not take into effect the Municipal Pier. This single structure brings more people to Flagler Beach than any other destination in Flagler County. FEMA has assisted with rebuild of this structure as well as our City insuring the structure. THIS PROJECT WILL NOT PROTECT THIS STRUCTURE. The ONLY structure this project attempts to protect is SRA1A. The revetment was not built correctly, it is NOT maintained by the FDOT and the problem with the runoff on A1A has not been dealt with. Start with resolving the problem not adding to it.

Our community is not financially positioned to buy into this dune beautification project. Many of us do not believe dredging is a sound, proven technique to save our beaches. There is so much harm done to the environment as a result of dredging that is not discussed in your report. Dredgers are made rich by all of the work the USACOE provides them with year in and year out. Our community does not want to be part of this repeated, ineffective, costly solution to saving SRA1A. The infrastructure is important for those of us on the island but more importantly it is more important for tourism. That is why the County is behind this. This scenario is nothing more than saving a road that brings money into our community.

I cannot wrap my mind around the fact it cost the citizens of Flagler County $3,300,000 for this study. Local tourism dollars have been drained at the expense of this draft report. The Federal government will be given numbers that are exploited and manipulated to "calculate" a magical ratio. This project will be thrown into a pool of projects and we will call on lobbyists to move us to the top of the list. You know the politics behind the future funding of this wasteful spending, however, you should probably look at the financial health of the non-federal sponsor. Can you enter into a relationship with them not knowing how they are going to fund their portion? Levying taxes on a community that is riddled with high unemployment and marked decreases in home values is not a secure method of funding.

Thank you for your consideration in this matter.

Patti Powell

719 North Central Ave

Flagler Beach, FL 32136

-----Original Message-----
From: M Treworgy [mailto:Tyacht@cfl.rr.com]
Sent: Thursday, February 13, 2014 12:21 AM
To: McConnell, Kathleen K. SAJ
Subject: [EXTERNAL] Flagler Beach renourishment

Hello,
We live and have our boutique bed and breakfast inn at 2316 & 2320 S Oceanshore Blvd in Flagler Beach. According the the Feasibility Study and Environmental Assessment, this project while underway, it will greatly impact our ability to rent our rooms. We own two lots east of SR A1A each with dune walkovers which provide our guest with direct access to the beach. When this project begins and if the dune walkovers are damaged or destroyed, will we have an Executive Order, or the similar, allowing us to immediately rebuild or repair without having to apply for State, County or City building permits? This is of utmost concern to us because everyday that goes by will be lost revenue, which is our sole source of income.
Please respond as soon as possible. Thank you.
Mark and Toni Treworgy
386-439-0092

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From:	Rick Morgan
To:	McConnell, Kathleen K. SAJ
Subject:	[EXTERNAL] flagler beach
Date:	Friday, February 14, 2014 1:49:20 PM

Please consider alternatives to simply dredging sand and dumping it on Flagler Beach for it to wash away in a short time. You should consider the opportunity to restore sand but also install devices to hold the sand and build up the beach. The town considered a process by Mr Holmburg which made sense.Give it a try on a short section of beach to either prove or dis-prove that it works. Just dumping sand is dumping our money!

Rick Morgan

15 Riviere Ln

Palm Coast, FL 32164

From: jodickric@aol.com
To: McConnell, Kathleen K. SAJ
Subject: [EXTERNAL] Flagler County, Hurricane and Storm damage Reduction Study
Date: Saturday, February 15, 2014 8:16:37 PM

Attention of Colonel Alan M Dodd, District Manager, USACOE, Jacksonville FL Project No.: 113166

Dear Sir,

I am a tax payer and resident of Flagler Beach where much of this project is to take place. I have attended the many meetings that have taken place in the last 10 years and I am bitterly disappointed with the results. You have had available to you time, money, supposed expects in the fields of science, engineering, coastal biology, FWC, and who knows how many others, and the only solution you can come up with is the same one that you always do that doesn't work,: Dredging and renourishment . THIS IS THE EQUIVALENT OF NO SOLUTION and is so sad. Where are your innovators, problem solvers, inventors, people who will try new things, and just might find a permanent solution?

The cost is already high and it is all taxpayer money for no real solution.

Now you want to go forward with a costly plan to dredge 7 miles off our shore, and destroy our existing dune with the sand that looks like cement, totally foreign to our coquina sand which is unique to only our beach. It will look terrible until it is washed away, and that will surely happen, probably in less than 5 years as was suggested in your plan. Did any of your people spend any real time in Flagler Beach, or was this all done by computer and previous studies?

Now to the creatures that we care about, the sea turtles, the ghost crabs who clean up the beach, and others who live there. They will be killed by your sand placement, as will the sucking up of the ocean creatures 7 miles out. As to your.idea of relocating the nests, we have a very capable Turtle Patrol that has been doing it and doesn't need your help.

Lastly, with the amount of money all of this will take to accomplish, you should be discussing this project with the state of Florida and the DOT as they are responsible for securing A1A which is the reason for the project. We, in Flagler Beach have already told them we do not want any more seawalls to ruin more of our beach, which is essential to the tourists who come here.

Flagler County has many small cities who do not have the deep pockets needed to fund the millions of dollars for this destruction. As a citizen and tax payer, I am vehemently opposed to this project.

Respectfully submitted,
JoAnne Ricardi
1423 N Central Ave
Flagler Beach FL 32136
386-439-4261

From:	Coralee Leon
To:	McConnell, Kathleen K. SAJ
Subject:	[EXTERNAL] Flagler Beach project
Date:	Sunday, February 16, 2014 10:55:03 AM
Attachments:	ACE Feb 14 2014.docx

The attached are my comments regarding the project planned for Flagler Beach

Thanks for your attention,

Coralee Leon

Coralee Leon
PO Box 160 Flagler Beach FL 32136 Phone: (386) 517 1617 E-mail 1coralee@earthlink.net

February 14, 2014

Planning Division Environmental Brand, Coastal Section
Department of the Army, Jacksonville District Corps of Engineers
PO Box 4970
Jacksonville FL 32232-0019

It has taken nearly 10 years and cost the citizens of Flagler County more than $3.3 million for the Army Corps of Engineers to come to the same conclusion it reaches in nearly 100 percent of its studies—that dredging is the best way to fix our dunes.

This is the very "solution" that has proved itself over the years to have the dual advantages of playing havoc with the onshore and offshore environments while creating even more quickly eroding beaches and dunes. And you think the citizens of Flagler County should pay many more millions to bring this project to fruition.

It hardly matters that the study concerns just a 2.6 mile portion of dune. After all, the only thing your project purports to protect is State Road A1A, which the Florida Department of Transportation has told us repeatedly is not even under the jurisdiction of Flagler County.

Over the years our area has weathered many storms and sustained storm damage. But what you propose would not prevent any of the damage that has occurred in the past. And judging by your similar artificial dune in New Smyrna Beach a few years back, I'd venture a guess that the project itself will disappear beneath the waves within a short period of time. All at a magnificent cost of many, many millions of dollars.

We, the citizens of Flagler Beach and Flagler County, can no longer propose a more sustainable alternative to dredging and seawalls to save our beaches, so we are pretty much stuck with whatever those in charge decide. But it should be clear to all that "those in charge"—meaning the state and federal officials—should bear the costs of those decisions.

The people of Flagler County have already paid our fair share. Please be kind enough to take up the rest of the matter with the appropriate state departments.

Cordially,

Coralee Leon

From:	Rita Bloom Gombar
To:	McConnell, Kathleen K. SAJ
Subject:	[EXTERNAL] Flagler Beach
Date:	Sunday, February 16, 2014 12:56:07 PM
Attachments:	army corps of engineers.docx

This letter is my comment on the feasibility study done for portions of A1A in Flagler Beach.

Thank you for your consideration.

rita b gombar

Rita Bloom Gombar (Mrs. Stephen E. Gombar Jr.)
PO Box 1839
1517 North Oceanshore Boulevard
Flagler Beach, Florida 32136

February 15, 2014

Planning Division Environmental Brand, Coastal Section
Department of the Army, Jacksonville District Corps of Engineers
PO Box 4970
Jacksonville FL 32232-0019

Hello.

As a 40-year former resident of Hollywood, Florida and now a 13-year resident of Flagler Beach, I cannot express my complete and utter distaste for your current plan for our beach. I will let others more knowledgeable speak to all the problems that dredging has caused in other areas along our coast; my frustration comes from personal experience.

It is almost impossible to believe that the result of a more than ten year long and more than $3 million dollar study ended with this solution: "I know, let's dredge"! I have seen first hand over the last fifty years what a silly (and am I purposely understating here) idea this is.

Aside from the prohibitive expense, we all know that dredging is a band aid --- and one that does not prevent damage to occur to the underlying problem. This method has been tried up and down the east coast over ad over and has failed miserably.

It is my understanding that this project is for a 2½ mile stretch of Flagler Beach and its purpose is to make sure A1A remains viable, as it is an emergency route. Okay. Fine. You're going to do what you're going to do. I have been to enough meetings in this city to know that Flagler Beach really has no say in what the Army Corps of Engineers does. Our opinions do not matter; we know. We get it.

But given that fact – and it has been hammered into us over the years – don't make us pay for it. We have already spent over $3 million dollars which could have been put to better use elsewhere, and which accomplished nothing.

So please send the bills somewhere north of us: to Tallahassee or Washington, DC. I think we have been more than fair and I think our responsibility should be over.

Thank for your consideration.

Rita Bloom Gombar
1517 North Oceanshore Boulevard

Flagler Beach, Florida 32136

From: jodickric@aol.com
To: McConnell, Kathleen K. SAJ; HSDR Comments, Flagler
Subject: [EXTERNAL] Fwd: Planned Environmental Disaster
Date: Sunday, February 16, 2014 5:02:17 PM

To Whom it Should Concern:
Project no.: 113116

Residents of Flagler County and particularly Flagler Beach feel helpless by the prospect of being dominated by The Corps of Engineers into a massive environmental disaster called dredging and beach renourishment. We are shocked by their conclusions after a ten year, 3.3 million dollar study, that the same old failed operations that has burdened tax payers in the past should be used again for the next ten years.

Incredibly, the study by Federal, State and local agency officials together could only offer on the same old fallacies we have been brainwashed with in the past . Most alarming is the study's lack of attention to the environmental affect.
++ There is no mention of the far reaching detrimental effect of introducing a foreign substance from seven miles at sea onto a beach of unique crushed coquina shells.
++ What will be the effect on sea turtles who have imprinted themselves to the beach of their birth? By nature they return to the same beach to reproduce but are spooked away by any threatening changes.
What is the affect on the ecological balance of nature at the sea bed where dredging occurs? That disruption will harm all forms of sea life.
++ Gopher Tortoises? When asked about safety precautions for the tortoise population on the dunes we were told by a team member that they had checked and there are no tortoises because they don't like to be near the water. This tells me they never looked or never considered the problem. I plan to photograph gopher tortoise burrows on the dunes and will send them to you in the near future.

In closing, it is unbelievable to think our government would spend this amount of taxpayer money while exposing the harmful affects on nature its creatures and only to enable the beach problem to continue for years to come.
With regard to your plan, Personally, I would rather do nothing. That would save the money , save the beach, save our sea life and let mother nature do what she has been doing for hundreds of years. It would also give us time to consider new and better ideas.

Dick Ricardi
1423 No Central Ave, Flagler Beach, Fl
Tel 386 439 4261

From:	Kim Carney
To:	McConnell, Kathleen K. SAJ
Subject:	[EXTERNAL] Public Comment for Flagler County Draft Feasibility Study
Date:	Monday, February 17, 2014 9:35:23 AM
Attachments:	Letter re USACOE Study.docx

Please make my response part of the study. I have also mailed via USPS.

February 14, 2014

Colonel Alan M. Dodd
District Engineer
USACOE
Jacksonville, FL

Dear Colonel,

I have been involved for the past several years in what appears to be a strained Project Management Plan: Project Title: FLAGLER COUNTY, FLORIDA, HURRICANE AND STORM DAMAGE REDUCTION STUDY
Project No.: 113166. Needless to say the amount of funding required to bring this project to this point, over $3,300,000 of taxpayer's dollars, is obscene. The time required, just a few months shy of 10 years since the September 2004 signed agreement with the non-federal sponsor, to bring this project to this point is obscene and the end result of this study is obscene.

The document presented is very neatly titled with all appropriate pages and sections, as the law requires, however, the content is skewed 100% toward a wasteful sacrificial dune with no studies showing this project will "save" in the event of a storm or hurricane, structural and content value of approximately $340 million as stated in the study. The structure this project beautifies is SR A1A, which by its name alone will tell you it is a State Road and belongs to the State of Florida. Our community has been built around this road. And it is because of this road being built on the primary dune system many years ago that many people believe we have the areas of critically eroded dunes and beach that we have today.

The reader often gets confused because the entire beach in Flagler County is used throughout the report however, the only area that is being used to justify the study is the very small and focused area of the tentatively selected plan as Reach C in Flagler Beach. As stated in the Executive Summary page ES-2 "The TSP covers 2.6 miles of shoreline length and mainly prevents damage to SR A1A."

I cannot believe the sand being used for the dune extension is being taken 7 miles directly offshore. Where is our sand? For years the USACOE has been telling us that sand only travels via longshore transport. NOW after years of fighting the fight, the report admits on page 2.23 "Once caught in the waves, this sediment is carried along the shore and redeposited farther down the beach, or is carried offshore and stored temporarily in submerged sand bars." It goes on to describe the fierce wave's effect on the beach width and height. Look at the changes in Flagler Beach's profile from photos in 1920s and now. The slope of the beach has grown from 2-3 feet to 11-14 feet. Our sand is gone! It is unique and colorful sand that will not return from dredged sand offshore.

The City of Flagler Beach has lived with an unsightly, eroding seawall since December 2006. The FDOT built the seawall in a defensive move to hold up A1A and it has. The revetment is a complete eyesore. Both the City of Flagler Beach and Flagler County have written resolutions against seawalls. The revetment is in effect a seawall. It was designed by a civil engineer not a coastal engineer. We all know a healthy beach system contains a vegetated dune with a slope of 1:1. Over the years the waves have encroached on our dune system and the storm water runoff from SRA1A has led to many vulnerable areas of erosion for the road and the dune. Since the decision to put SRA1A where it is, followed by widening the road several years ago the City of Flagler Beach

and our beach did not have a chance. We are blessed not to have had a direct hit from a hurricane. We have lost homes on South Flagler Avenue due to storms. Refer to page 3-7, "However, it should be noted that elevations within the project area (Atlantic Ocean-side of the island) are some of the highest on the barrier island, about 15-20 feet above Mean Sea Level. The profile of the island slopes downward from these elevations to the landward side , marsh side, of the island where the lowest elevations of infrastructure are around 2 -10 feet above current MSL." It goes on to state, "Marsh side areas of the island will likely be impacted by inundation more frequently than the ocean side as sea level rises, especially during extreme high tide events." Storms and hurricanes bring wind and rain. Nothing in this TSP prevents or protects homes from storms or hurricanes. It does not even protect SRA1A. The mitigation of damages can only be to SRA1A. The report leaves the reader thinking the TSP will protect houses and infrastructure. The sea wall used to calculate the total damages does have a useful life. There are projected dates when the sea wall will need to be rebuilt. How does that happen with this project? The last sentence on page 6-2 states, "Most of the benefits are associated with reductions to armor damage along the A1A revetment. In the with-project condition, the cost of maintaining and repairing the revetment is significantly less than it would be in the without project condition. This reduction is the primary source of economic benefits." There is a figure used of $49,000,000 to $2,200,000. That savings is recognized by the State of Florida NOT the City of Flagler Beach nor Flagler County. The State maintains this infrastructure. They should be the entity that enters into a relationship with the USACOE.

What exactly is meant by "highly effective"? There are no highly effective beach/dune nourishment projects. One hundred percent of these projects must have repeated nourishments. On page 6-3 the TSP is described as "not only highly effective, it is also efficient." Moving sand from offshore to the dune and back again, and again, and again is not efficient. There is no data that supports the fact the TSP is effective. Over time this one very small section of A1A will continue to experience erosion because nothing is being done to prevent it. Our sea turtle nests will still need to be relocated to wider sections of the beach. By extending the dune 10 feet seaward the actual width of the beach, mostly at high tide will decrease the width of the beach. The most critical area in front of the dune that needs to have dry sand to feed the dune will be decreased.

Your study uses modeling to determine "the NED plan is highly effective at reducing erosion damages. In the with-project condition the vast majority of damages in Reach C are prevented". The model does not state how or why. There is no science to back this statement. It is a computer model. The last sentence on page 6-3 states "the plan can be considered robust". Robust is a word used in creative writing. If you asked 50 people what they think when they hear the word robust you would probably get 50 different definitions. That is not a word I would use when I see what this report has to offer. So many decisions are made based on the contents of the draft report. Why would the writer use such a word? Robust in relation to what?

Lack of citizen involvement should not be interpreted as citizen support. Many citizens have not been involved with this project because it has taken so long to get to this point. Many people are not affected by this project. Tourism is going to continue to be a major source of revenue for Flagler County with or without this project. This project has so many long term effects on our environment, on our infrastructure and on our community as a whole. The TSP does not solve any problem. I suggest you pull FDEP and FDOT together to discuss this project as they are the stakeholders. They may be willing to fund it, however, I am not. Flagler County does not have a tourist base like Miami and Ft. Lauderdale. Our eroded dunes are NOT stopping visitors. In fact our Tourism Development Council has done an outstanding job marketing our county and we have surveys to prove it. The revetment and seawall is just outside of the "busy" section of our beach. In a 2011 meeting with the FDOT and their proposed project to extend the current seawall and add sand and vegetation to the project led to a

resolution in the City of Flagler Beach against seawalls. They will not continue to cover the wall year after year. This project is nothing more than moving the money responsibility from the state to the citizens of Flagler County.

As far as Beachfx, it is nothing more than a computer program. A program that does not have any history as this project is the first project on the Beachfx program. It appears the USACOE is trying to forecast the future of our beach. Why not look back instead of trying to look forward? The only structures damaged during a storm event include a hotel, the pier and a few west of A1A buildings. THIS PROJECT WOULD NOT HAVE SAVED THEM!

The City of Flagler Beach has a Historical Museum that gives data on what our City has evolved into over the past 90 years. The City is working on and has a draft of our Beach Management Plan, all giving you much history about our shoreline and the rebuilding of our structures. The structure damages included in this study does not take into effect the Municipal Pier. This single structure brings more people to Flagler Beach than any other destination in Flagler County. FEMA has assisted with rebuild of this structure as well as our City insuring the structure. THIS PROJECT WILL NOT PROTECT THIS STRUCTURE. The ONLY structure this project attempts to protect is SRA1A. The revetment was not built correctly, it is NOT maintained by the FDOT and the problem with the runoff on A1A has not been dealt with. Start with resolving the problem not adding to it.

Our community is not financially positioned to buy into this dune beautification project. Many of us do not believe dredging is a sound, proven technique to save our beaches. There is so much harm done to the environment as a result of dredging that is not discussed in your report. Dredgers are made rich by all of the work the USACOE provides them with year in and year out. Our community does not want to be part of this repeated, ineffective, costly solution to saving SRA1A. The infrastructure is important for those of us on the island but more importantly it is more important for tourism. That is why the County is behind this. This scenario is nothing more than saving a road that brings money into our community.

I cannot wrap my mind around the fact it cost the citizens of Flagler County $3,300,000 for this study. Local tourism dollars have been drained at the expense of this draft report. The Federal government will be given numbers that are exploited and manipulated to “calculate” a magical ratio. This project will be thrown into a pool of projects and we will call on lobbyists to move us to the top of the list. You know the politics behind the future funding of this wasteful spending, however, you should probably look at the financial health of the non-federal sponsor. Can you enter into a relationship with them not knowing how they are going to fund their portion? Levying taxes on a community that is riddled with high unemployment and marked decreases in home values is not a secure method of funding.

Kim Carney
Citizen, City of Flagler Beach
604 Springdale Drive
386-439-0899

From: McConnell, Kathleen K. SAJ
To: Durkin, Martin T SAJ
Subject: FW: [EXTERNAL] Flagler Beach (UNCLASSIFIED)
Date: Thursday, April 17, 2014 7:28:19 AM
Attachments: Letter re USACOE Study rev2.doc

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: Jim Gallagher [mailto:jimgallagher@cfl.rr.com]
Sent: Monday, March 03, 2014 5:59 PM
To: McConnell, Kathleen K. SAJ
Subject: [EXTERNAL] Flagler Beach

Here you go. Best Wishes.

Jim Gallagher
Home - 386-446-7511
Cell - 386-793-4377

Classification: UNCLASSIFIED
Caveats: NONE

February 14, 2014

Colonel Alan M. Dodd
District Engineer
USACOE
Jacksonville, FL

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Sincerely,

James J and Sharon K Gallagher

51 Wedgewood Lane’

Palm Coast,Fl 32164

From: Randy Cody
To: HSDR Comments, Flagler
Subject: [EXTERNAL] Flagler Beach Shoreline Re-nourishment
Date: Wednesday, February 19, 2014 10:49:15 AM

I have a home on the north side of Flagler Beach. Rocks have been added to hold up A1A, this fix is eroding away. What about the north side? Is this area not being considered?

Randall Cody
Florida Seaside Rentals
Cody Real Estate/ERA
Owner/Broker
513/871-0640(O)
513/407-2639(C)
floridaseasiderentals.com <http://floridaseasiderentals.com/>

From:	Walter Mahler
To:	HSDR Comments, Flagler
Subject:	[EXTERNAL] Sand dune build-up
Date:	Wednesday, February 19, 2014 8:32:14 PM

I think the plan has merit as long as the built-up dunes are properly planted with stabilizing vegetation such as sea oats. Areas with healthy vegetation stand up much better to storms that tend to erode the dunes.

Sent from my iPad

From:	carol propper
To:	HSDR Comments, Flagler
Cc:	editor@palmcoastobserver.com
Subject:	[EXTERNAL] NOT RE-NOURISHING OUR BEACHES BY DREDGING
Date:	Friday, February 28, 2014 10:35:31 AM

Dear Sirs: Do you remember when all up and down the EASTERN SEABOARD , people put out fingers along the coast, called "rip-rap" made of ROCKS and other hard objects. These managed to retain the sand on the shore and encourage sand to accumulate along the beaches.

This MUST cost less than dredging sand out of the ocean. The BEST part is that it is inclined to stay where you put the material, instead of washing out to sea again like always happens when a dredge-and-fill job is done.

Look at the times when the different beaches are "re-nourished" and sure enough, a few days later, a big storm comes in washes all that 'new' sand out to sea.

What a waste of money by the Corps of Engineers; similar to the CROSS FLORIDA BARGE CANAL bondoggal.

Here's to common sense(which I realize is not so common, anymore) and a solution that will last YEARS AND YEARS instead of the inevitable WASH-OUTS of our FLORIDA BEACHES.

Sincerely, Carol Propper

March 13, 2014

To: Colonel Alan M. Dodd, USACE Commander

Jacksonville District

OFFICIAL COMMENT: Via: Flagler.HSDRCComments
Flagler.HSDRCComments@usace.army

OFFICIAL COMMENT: Via: kathleen.k.mcconnell@usace.army.mil.

From: Patricia W. Brown, Flagler Beach, FL

Re: Flagler County, Florida Hurricane and Storm Damage Reduction Report Draft Integrated Feasibility Study and Environmental Assessment Project 11316 dated January 2014

As a Flagler County and Flagler Beach citizen for over 40 years, I have been very involved since 2004 with the erosion problems of our beautiful beach. Early on, my research even earned $40,000 for the county when I found the FDEP sharing agreement which no one seemed to know about or had used. I have been aghast at the arrogance displayed by the USACE representatives over the years, even though several did show common sense and were helpful. My feeling was that the USACE were bought and paid for by us, the citizens and taxpayers**, but learned through experience that was not the case.**

It can only be a display of arrogance that the feasibility study would be allowed to extend over the years once it was learned that there was not enough economic value to do the typical solution of mining sand and dumping and spreading it on the beach. **It is evident that the USACE has had to work their "magic" with the numbers in order to provide their continued employment – partly through fees, percentages and contingency costs.**

Basically, I would like to see the USACE, FDOT, state and any other people who would need to be involved cooperate and make an EXCEPTION to the "right-of-way" issues faced by FDOT and allow them to provide the solution. If they had the right and ability to choose a plan which would widen the beach and rebuild the dune, there would be much more protection for both A1A and businesses/residences than what is being proposed by the Feasibility Study or seawalls. FDOT, according to this report, has been spending $600,000 per year on maintenance of the revetment.

After all, we are one of the few places in the state where FDOT right-of-way lies so close to the beach and ocean. As is pointed out in C-22 of the Feasibility Study, "the road and road armor is not a protective feature that provides benefits for protecting landward structures."

Most of the comments below demand an answer, but since answers from USACE have NOT been time-sensitive or forth-coming in the past, we will see what happens at this point. At meetings I well remember the promise in February 2013 that the Feasibility report would be forth-coming, and then every month or so, it was moved later and later, until it was announced in January 2014. I had a lot of confidence in Major General Michael Walsh in his changes in the process, but see that he has now retired. Hopefully his practical ideas were not what precipitated his retirement.

1. Why are federal monies spent on beach projects?

Supporting legislation acknowledges damage done to beaches and coastlines by planning, execution and projects for inlets controlled by the Army Corp of Engineers – many studies conducted by the USACE have proven that the engineering work done by the USACE has resulted in damage. The federal monies appropriated by Congress is a legislated attempt to compensate for such damage. Please acknowledge what is stated from many sources.

2. Why did the District 5, Florida Department of Transportation, provide $250,000 to Flagler County as part of the funds for "pre-payment" to the USACE for the Feasibility Project?

The USACE acknowledges throughout the report their cooperative effort with Florida Department of Environment, Florida Department of Transportation, etc. and I have been to many meetings where the FDOT, in particular, was involved in teleconferencing. I, for one, would like the question answered honestly – if the FDOT understands that the proposed project would shift partial maintenance costs away from the state and onto Flagler taxpayers, it would be logical they would provide a small amount of money to help this happen.

Were the county commissioners involved in the decision or what others were involved and is there any reason they did not understand the consequences to Flagler taxpayers? Of what benefit is it to Flagler taxpayers to shift expenses to them rather than the state? What examples are there that Flagler County has paid maintenance costs for state roads in Flagler County?

I understand that USACE realized they would not receive any funding FY2013 and they may have pressed the point so that the county would prepay. It has just been announced that there would be funding from the FY2014 budget.

I have never heard Flagler County acknowledge that the expenditures for Marlowe and Company as lobbyist for Flagler Beach for a number of years has had an effect in the county getting the USACE funding. Marlowe and Company certainly states that this is the case.

3. The USACE is spending both federal dollars and Flagler county tax payer dollars for the project. It appears the USACE is essentially a contractor and that others are paid to do different sections of the work. Is there a bid process for selection? Where is the documentation for bids for the Flagler project?

I notice that In the Cape Canaveral Authority *Integrated Section 203 Navigation Study Report and Draft Environmental Assessment* (June 2012) (this "project involves deepening and widening existing Federal navigation channels" which was expected to cost $43.3 million.)

CH2MHILL engineering was involved and Dial, Cordy & Associates, Inc. was used for the environmental analysis. This is the same company used in the Flagler Project. I know that FDOT uses CH2Mhill for many projects as well. TetraTech, Irvine CA was used by Peoples First Community Bank for an environmental study on "Sunset Cove, Flagler Beach". What USACE personnel was used and what contractors were used?

4. When did it become appropriate to use "subjective" words such as *robust, not aesthetically pleasing*, etc. as part of a 3 million plus dollar "scientific" study?

In my opinion, these words were used specifically to appeal emotionally and judgmentally to people unacquainted to the process and what was being proposed. For instance, in Table 5-6 Flagler Beach Structural Measures, S-1 Seawalls and S-2 Revetments (rocks presently in place) which we know are unsightly are not discussed, but S-12 Undercurrent Stabilizers are listed as "Not aesthetically appealing". Undercurrent stabilizer projects can be viewed via Google Earth and as they successfully increase shorelines in a number of locations and are not visible as their success proceeds, why would the comment be made? I personally have talked with owners of successful installations, and they certainly would not characterize a process which, in one case, has saved their home and property from falling into Lake Michigan as anything but positive. I challenged this statement early in the process of the Feasibility Study with the Team Leader when he contacted me, and it is noted that it is still included. Why would the USACE, with their access to sophisticated satellite imagery, historical permit information, etc. as well as pretty much unlimited staff and time (the project is in it's 10th year) have the audacity to make such a prejudiced statement? As expected, this procedure was eliminated immediately.

5. Where are the results of the Peer Review Plan as updated in August 2010? A Recent Final Independent External Peer Review for Brevard County (December 9, 2009) done by Battelle, Columbus, OH found inaccuracies in environmental species, misspelling, under- and over- estimates of various elements of sand requirements, indication that "the decision of mitigate for 3.0 acres of rock burial was negotiated and not based on scientific data" (pA-20), lack of justification for certain conclusions, etc.

Will there be inaccuracies highlighted in the Flagler study as well? I have a copy of the August 2010 "Feasibility Scoping Meeting Read Ahead Package" and there have been suggestions made in that paper.

Daniel Haubner, Project Manger, was responsible for both the St. Johns County Peer Review Plan (Draft updated May 2010 – wasn't able to locate a copy without "draft" designation) and the Flagler County Peer Review Plan (updated August 2010). Both plans are essentially word for word except for specific county details.

The preliminary cost estimates for the 4 ITR were itemized:

- FSM Briefing Materials - $20 K
- AFB Materials - $30 K
- Draft Report - $40 K-ITR plus $10K for EPR
- Final Report - $30K – ITR
- PCX management - $20 K ($5 K peer each review)
- PCX CWRB (USACE National Planning Center of Expertise – Coastal Storm Damage Reduction) preparation and participation - $5 K

for a total of approximately $155,000 added to the Feasibility Plan cost. Jason Harrah is listed as project manager now.

The reviews were determined to be required because the total anticipated cost would be over $45 million, although that figure has been reduced.

6. Why were the economic conditions not properly assessed during the Reconnaisance Study provided by USACE (federal funds) which cost $200,000 – or as I have found new figures when doing research for this letter, it now shows as $98,000? Why was the sand search study and other items done before the economic value. If the economic value had been done first, we might not be discussing the Feasibility Study.

This study was done in order to assess whether the cost-benefit ratio for Flagler County was conducive to mining (dredging) sand and putting it on the beach, and if so, where. The USACE Reconnaisance Study determined that a Feasibility Study – first at $1.2 million in 2004, now up to $3.3+ million – was justified. In the past few years there was a "mea culpa" from USACE stating that the economic value was insufficient to warrant "dredged sand on the beach" BUT it was sufficient to apply dredged sand to the rock revetment to cover it and provide sacrificial sand to wash away over the years, in a supposed effort to protect state A1A. To quote page ES-2, "The TSP is the National Economic Development (NED) plan, consisting of a ten foot dune extension including a 10' sacrificial berm in Reach C, between FDEP monuments R80 and R94 in central Flagler Beach.

7. Why are misleading references made to "renourishment interval," "dune/beach renourishment," throughout the report? The average lay person interprets that to mean mining (dredging) sand and placing it on the beach – where they walk, swim, play, etc. and turtles lay their nests.

The report clearly states, page ES-2, "The TSP is the National Economic Development (NED) plan, consisting of a ten foot dune extension including a 10' sacrificial berm in Reach C, between FDEP monuments R80 and R94 in central Flagler Beach." Media coverage followed the information in the Executive Summary which was misleading in most respects. One newspaper did print a second story which clarified the impression somewhat.

8. Where is the updated <u>itemized</u> Flagler County Feasibility Cost Estimate which was a part of the August 2004 Feasibility Plan, the authorization and beginning of this study? The Project Management Plan in August 2010 (FY 2010) contained estimated costs as well as current progress; cost estimate to complete, remaining duration, predecessors along with Appendix C, Feasibility Phase Cost Estimates and showed expended as well as remaining, in-kind, etc. costs. All this information was left out of the January 2014 report.

I'm sure this has been done – after all, the USACE is accountable to so many different offices, including Congress and the non-federal sponsor. It will be interesting to compare original estimates against actual expenditures, since the cost of the project went from approximately $1.5 million to $3.3+ million where it is now. Dates for these totals should be given as well as who did the work – is there any reason to expect less from the USACE than from a private contractor?

9. Beach walkovers are now considered as part of the economic cost, but were not considered at the time of one of the public meetings. A citizen's comment brought up the cost. Why would something this obvious be left off since they have been there the whole 10+ years of the study? Where is the proof for the replacement/repair cost for the public walkovers – who was consulted since these belong to the City of Flagler Beach and are either on city owned land or land with city easements.

They are easily seen in aerial mapping, etc. and I understand USACE representatives visited the city on more than one occasion.

10. What was the reasoning for 400' inland as the damage zone during a hurricane (section 2-p73)? According to FDOT documents, approximately 70-100' of that 400' would be FDOT right-a-way, leaving approximately 300' inland. Please indicate whether this is one block – from A1A to Central Avenue or whether it includes part of the next street.

Without this information and the ability to verify it, the cost to benefit ratio can be skewed very easily.

11. The report indicates there are 21 public dune walkovers with anticipated demotion and reconstruction from 40' to 50'. The cost given in Appendix C-3p28, at lowest cost, is $2,356,115. This equates to a cost of $112,195.95 per walkover. There is an anticipation of contracted construction apart from the rest of the project – with perhaps several contractors.

Presently, the city has done reconstruction and repairs of the present walk-overs after storm damage. This cost is another one which is easy to skew . As well, how many private owners are going to be able to spend this kind of money for a walkover from their property?

12. If the project requires federal easements for all the lots which face the beach before they can do this project, does that mean that the county would have to buy or acquire the easements? The city of Flagler Beach already has these easements and owns many of the lots. Does that essentially mean that the Flagler County would be in control of the beach through the easements?

The city of Flagler Beach has paid many years of lobbyist costs which resulted in the funds being "found" for the USACE portion of the project. As well they spent a FDEP grant for half a million dollars for the Halcrow Sand Search – for which Flagler County only received less than $300,000 as in-kind credit.

13. Contingency funding for the initial project of between 22% and 25% can easily be manipulated to generate an acceptable cost-benefit ratio. Is this really what the citizens of Flagler County want – a project which saddles them with the cost of revetment maintenance which should be an FDOT and state cost?

14. Appendix C, A-13 uses the Mayport (Jacksonville) gage for various tidal information. Why wasn't the St. Augustine or the Bing's Landing gage used?

15. Data indicates that FDOT has spent approximately $600,000 per year from Fy2001-2010. The report was presented in January 2014. Why wasn't the information updated

past 2010? In addition, revetment mid-cost was given in the study. 2.6 miles for the project = 13,728 lineal feet x $423.87 per lineal foot = $5,818,887 total cost. Somewhat a different picture, without even the inclusion of the walkovers.

16. The project is projected to last for 11 years -- if FDOT has spent $6 million in 10 years on maintenance of the right-of-way revetment, as reported, why don't they use their budget for this project – disregard the federal and non-federal shares, and spend about the same amount of money. Is it the same old story that FDOT is hampered by the antiquated, but possibly purposeful, splitting up of responsibility mentioned at the first of this official comment.

17. In original materials, the federal/non-federal cost split was going to be higher for the federal share. According to USACE FY 2014 the federal cost sharing has been 50/50, not as originally anticipated. This does not include the complete cost for Halcrow Sand Search study paid by Flagler Beach (using FDEP funds) nor Marlowe and Company lobbyist cost paid solely by Flagler Beach.

18. Please show scientific proof for the statement in Appendix C-A28:
The near-shore currents in the project vicinity are not directly influenced by the Gulf Stream, but may be influenced indirectly via interaction with incident waves.

Influence of Matanzas Inlet (2.4 miles to the north) and Ponce de Leon Inlet (27 miles to the south) ebb and flood currents on local currents is negligible. In both cases the distance between the inlet and the project area places the project outside the influence of inlet tidal fluctuations.

19. Page 5-48 indicates 320,000 cubic yards average volume for each nourishment event, with 5 events at an average annual cost of $810,000. Other numbers are given in other areas of reports, appendices. What are the actual costs for sand which agree from section to section of the report? As quoted on page 9-1, "The TSP covers 2.6 miles of shoreline length and mainly prevents damage to SR-A1A."

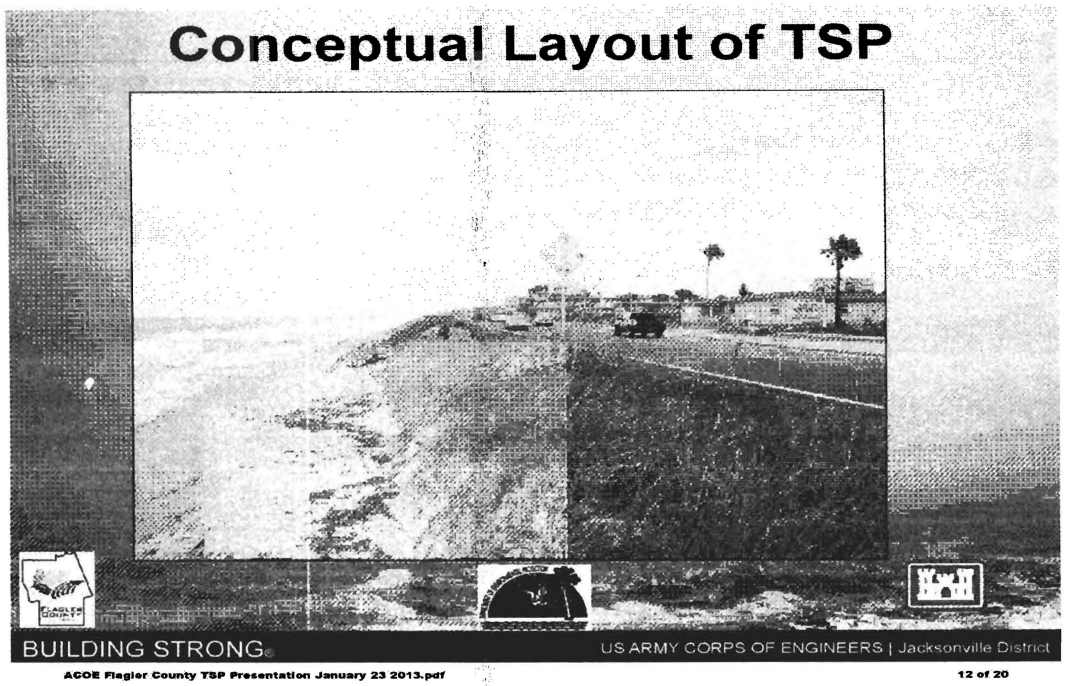
20. Numerous studies point out that most of the problem for Flagler County beaches is the slope of the dune. Appendix B-p5, indicates a 1 on 3 slope, a 35.0 berm with a 1 on 100 slope, and foreshore fill of approximately –2 feet – NAVD88 with a slope of 1 on 5. Please justify maintaining the current slope based on the following information.

The 1st picture is the photoshopped example of how the project will look given by the USACE.

The 2nd illustration used by the USACE is drawn in such a way to ignore A1A and the distances of the road. It is very misleading in my estimation and I hunted through all the report and the appendices to find something different, but I never found it.

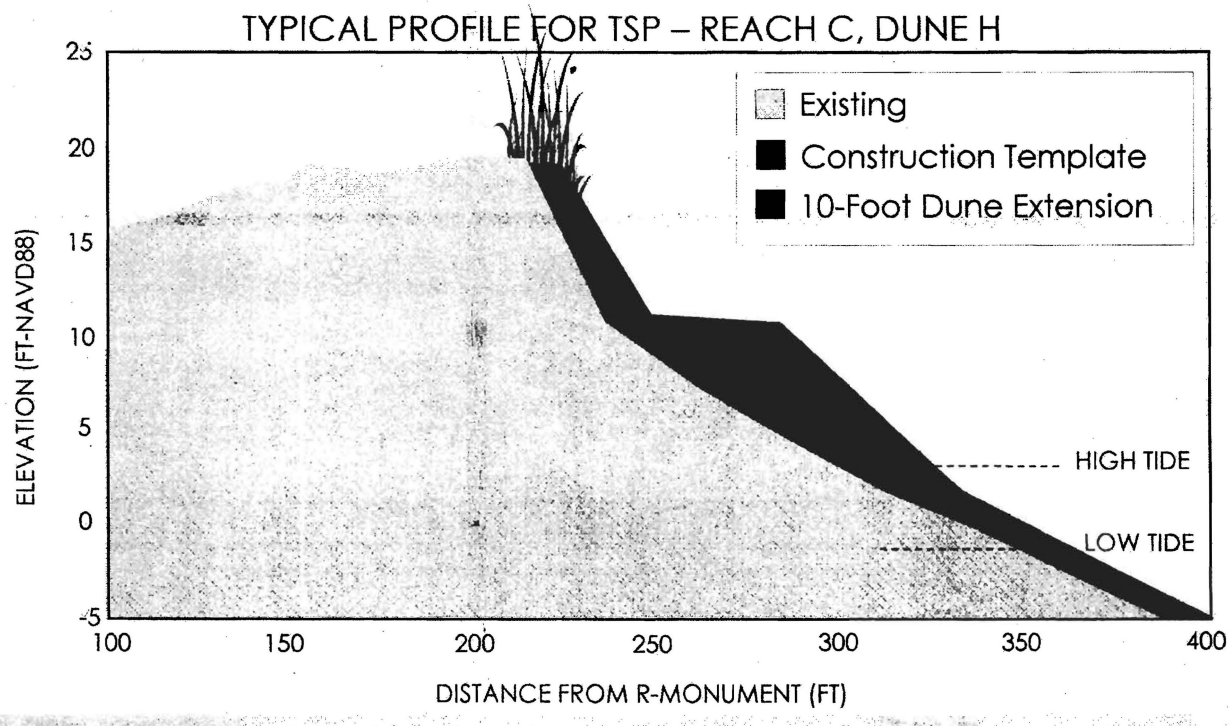
The 3rd picture was presented in a powerpoint given by John Herrin of ASR. It agrees with many other engineering reports which I am not taking the time to enumerate now.

The 4th illustration was used in a powerpoint by FDOT, explaining the jurisdictional boundaries and why they couldn't do anything on the beach, even if it was the best approach.

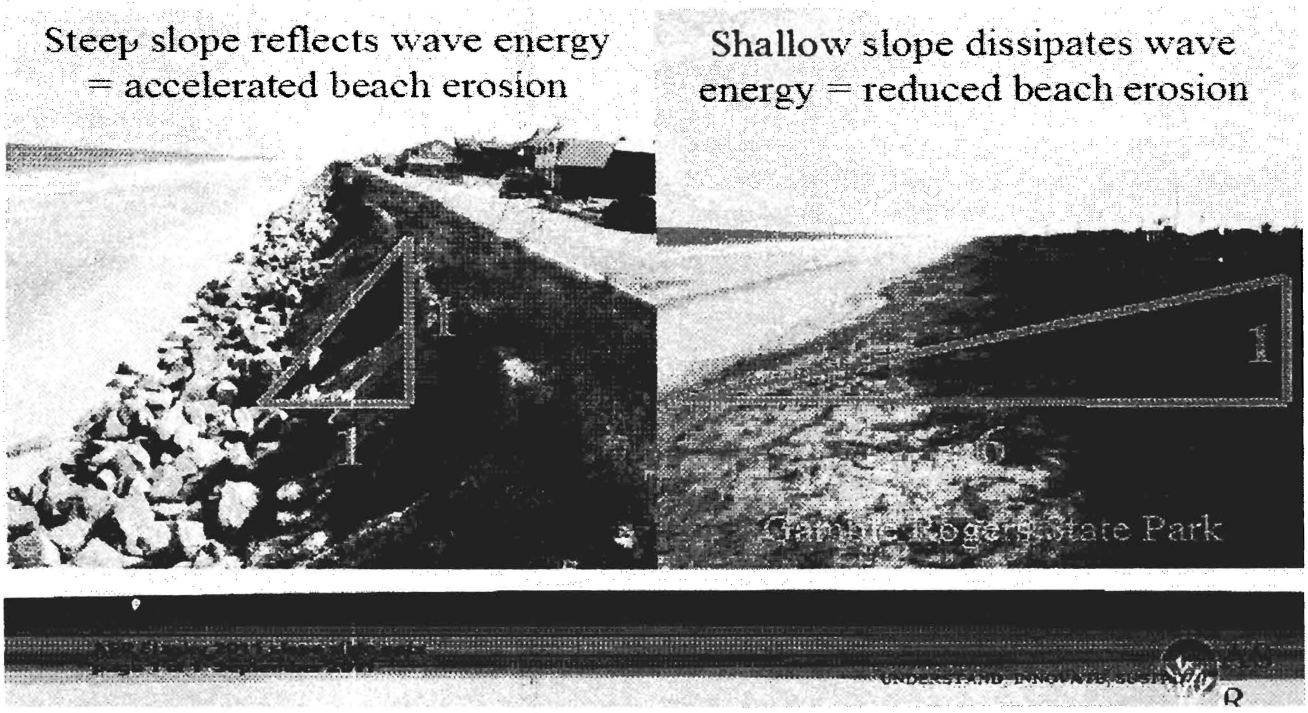


ENGINEERING ASPECTS

10-foot seaward extension of the dune and beach profile in Reach C

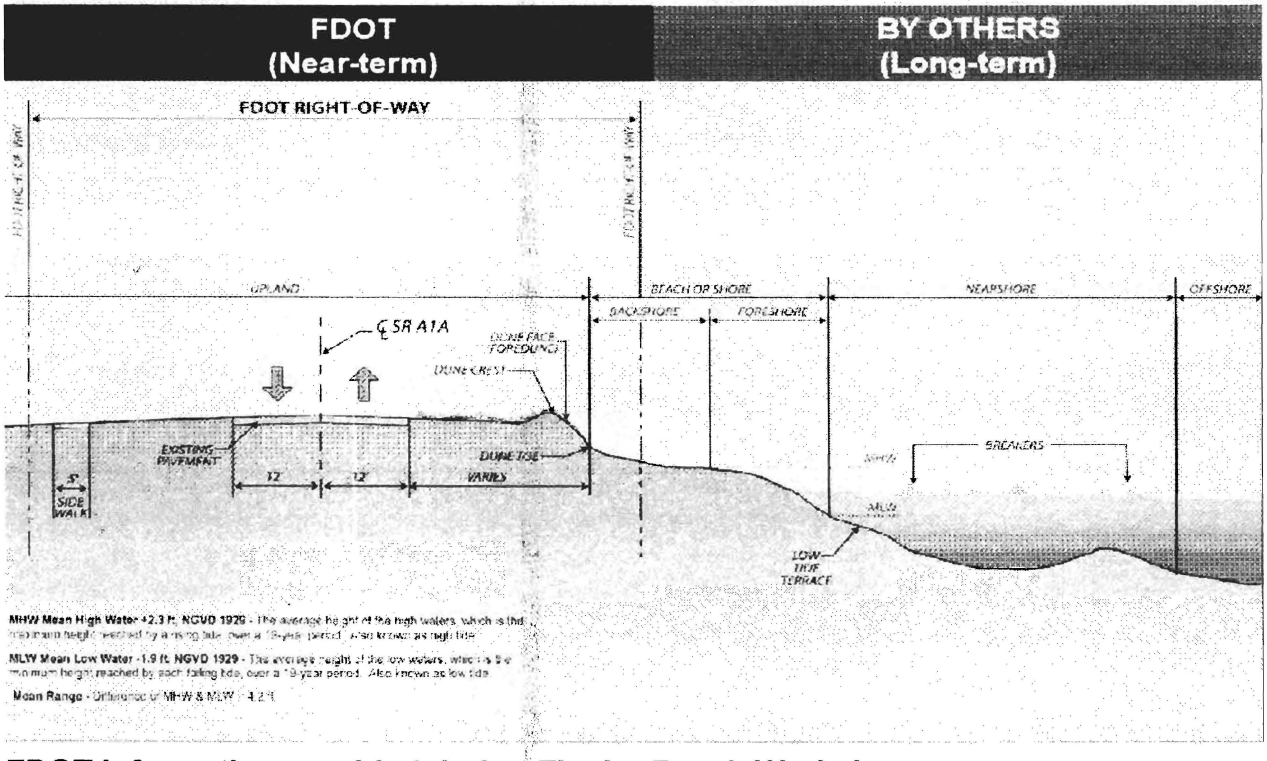


Flagler Beach vs Natural Beach



Slope presented during Flagler Beach Workshop 2011 by John Herrin of ASR:

Responsible Agencies



FDOT information provided during Flagler Beach Workshop

As you can see, I have taken the time and effort to study the nearly 1000 pages of USACE information for this project as well as many other references. I am vehemently opposed to using our taxes to continue this charade of a project – I feel the information has been "massaged" in many ways to allow it to provide a basis for obtaining continued employment opportunities for USACE and shift the maintenance expense of A1A to the shoulders of Flagler taxpayers. Why anyone, including our county and city government, would be held hostage by this project is unbelievable to me. We deserve better.

CC by mail:

Major General John Peabody, US Army

(reference letter to Major General Walsh 4/29/13)

Deputy Commanding General for Civil and Emergency Operations

US Army Corps of Engineers

441 G Street, NW

Washington, DC 20314-1000

James C. Dalton, P.E., Chief, South Atlantic Division

(reference letter to Major General Walsh 4/29/13 w/cc to you)

Regional Integration Team, Chief of Engineering and Construction

Headquarters, US Army Corps of Engineers

441 G Street, NW

Washington, DC 20314-1000

March 13, 2014

To: Colonel Alan M. Dodd, USACE Commander, Jacksonville District

OFFICIAL COMMENT: Flagler.HSDRComments: mailto:Flagler.HSDRComments@usace.army.mil
OFFICIAL COMMENT: via: Kathleen.k.mcconnell@usace.army.mil

From: James T Carney, Citizen of Flagler Beach, FL

Re: Flagler County, Florida Hurricane and Storm Damage Reduction Report Draft Integrated Feasibility Study and Environmental Assessment Project 11316 dated January 2014

I have to thank my friend, a civil engineer, for the help in understanding this very large study which has been produced. Our beach is very valuable to me, and obviously a project which is going to benefit our city and county is of importance to me.

That the project is being done to protect the rock revetments along A1A, with shifting the cost of maintenance of the revetment being transferred from the state and FDOT to the taxpayers of Flagler County makes me WAKE UP and wonder what is going on.

My questions and comments are organized by chapter.

Chapter 1: Information has been shown in table form (Table 1-1 and 1-2). Please define which of these 4 specific interests are at risk (or more at risk) in each area:

- Upland Development
- Recreation
- Wildlife Habitat
- Important Cultural Resources

Chapter 2: The study acknowledges the poor performance of existing revetments. They do not meet the needs of turtle nesting and there is a negative impact on turtle nesting. I do not understand why the Fish and Wildlife Division would approve the study, unless everyone's philosophy is "we expect the volunteer Turtle Patrol to move the nests when there are problems, so let the local people deal with the problems which are created by the project."

- Is there a better way to define turtle nesting locations? GPS locations? By block?
- Where was the picture taken shown in Figure 2-18?
- How does the amount of nesting compare to other areas in Florida?
- Turtles require dry sand for nesting. Interestingly p2-35 indicates "no nests were observed along the section soft shoreline containing armoring or revetment." But no indication was given about the sand conditions there. Did the USACE biologist contact the Turtle Patrol which does a day-to-day observation, tagging, etc.? Had nests been moved?

- Where was the picture taken for figure 2-28? I would recognize it as the northern portion of Flagler Beach, at low tide. People looking at this figure would think the entire beach is this way.
- The dictionary shows "viewshed" as one word, while two words are used in the report. Which is correct? In addition, would this be a commonly used word? I had to look it up.
- Where are bird nesting locations?

The report on p2-63 indicates "these (aesthetic) values are subjective, and as such, the erosional features of the beach and its adverse impact to the area's aesthetic quality cannot be effectively quantified." However subject words such as "robust, aesthetically unpleasing" etc. were used in the study – I think most people would say that the revetments, etc. can certainly be effectively quantified as unpleasant to look at as well as unsafe as the rocks work their way down to the beach.

Chapter 3: Page 3-2 indicates that Beverly Beach experiences a lower rate of shoreline rate of change due primarily to the stabilizing presence of a concrete and steel seawall over a significant portion of the beach. However, what is not said is that the first seawall created so much erosion on the south end that much land was eroded and another seawall had to be put up. The result of the second seawall is the erosion of the adjacent lot. This is typical of the disadvantages of a seawall.

- Has Beach-*fx* been calibrated to model US real life performance?
- What predictive computer program does Beach-*fx* replace?
- Where else has Beach-*fx* been used?
- Does Beach-*fx* always recommend nourishment or have other technologies been recommended?
- In Table 3-6 (p3-16) why is it assumed that 90% of the berm recovers post storm? What scientific evidence exists that this happens?
- Who is the SAJ contracted surveyor who estimated the first floor elevations of all structures in the study area? What was the cost of this survey work?
- Is it correct that the overall analysis uses the low level costs estimated in Table 3-7? What was the reasoning for this? Did this help to increase the cost/benefit ratio?

Chapter 4: It is reported that FDOT spends approximately $600,000 annually to maintain the Flagler Beach revetment areas. In contrast, if the study recommendation is implemented, Flagler County taxpayers will be paying 50% of the cost for essentially the same areas. It would have to be assumed that FDOT (state) costs would be substantially reduced. The current seawall is producing shards of steel that fall to the base of the seawall and end up due to waves in the area where people walk. So far luckily no one has been injured by one. Although several have been picked up and thrown back to A1A.

Chapter 5: This chapter indicates the screening process followed by the USACE study.

- Are there other ratios above 1 that may yield longer term benefits? One example might be: reef and renourishment may cost more initially but have lower long term maintenance cost and less renourishment.
- What is the balance between (or are all equal?):
  Economic Development vs storm damage, insurance
  Environmental Quality vs aesthetics, natural resources
  Other Social Effects vs life, safety, property values
  Regulate Economic Development vs employment, sales, business development

Greater detail should be given in the analysis of plans with a positive benefit/cost ratio as well as more detail for the elimination process. There is very little detail in pros and cons of each section. Is there a positive alternative to the proposed plan?

Chapter 6: Costs are based on Beach-*fx* average calculations for dredged sand required. No explanations are given for how the sand is actually going to fit and stay on the same dune angle as exists now. So many efforts have been made over the years to hold the sand on the dune – plantings of native grasses, etc.; discarded Christmas trees, etc. FDOT has paid for some of the actions, while volunteers and city sponsorship have provided others.

- If there have been successful past projects using this same plan (sacrificial dredged sand placed in front of a rock revetment), please provide the study, evaluation, etc. in the references or provide specific inserts.
- Who or what groups have examined the Beach-*fx* data to provide reassurance that renourishment of the revetment area is feasible every 11 years (4 times after initial plan)?
- There is sparse data on the long term impacts of removing dredged sand from the proposed borrow area approximately 7 miles offshore. This should be improved.
- Has FDEP given approval of this plan? What about FDOT?
- Is Flagler County the "experimental" first time for such a project as this? Remember, Flagler and Volusia Counties are the only two coastal counties which have not been involved in an offshore dredging (mining) project. Other counties in the state are paying the piper for their past dredging projects with lack of off-shore sand, increased erosion, etc. I would not want Flagler County to join their ranks.

Chapter 7: Section 7-18.1 is almost like a veiled threat: "If the borrow areas identified in this EA are not used for this project, the growing demand for sand to use in protecting Florida shorelines suggests that they would be utilized in the future by other stakeholders." Who is going to approve/encourage such use – the USACE?

All in all, after spending the time and effort to review the study, I am disappointed that the USACE did not come up with a project which was really going to improve/help beach erosion on a long term basis. It really appears that the information has been skewed in order to create a project that will fit the federal cost/benefit guidelines – in reality, are Flagler County administrators just in the mix in order to obtain federal funding?

Will this be another situation like the rock revetment – it is acknowledged that it was a poor choice of materials, poor design, etc. from the beginning – and we are living with the results now. Now we are being asked by the USACE to cover up the past mistakes, and to do it for the next 50 years – at a great cost to Flagler taxpayers. There appears to be no other solutions to any beach erosion problem than dredging. My research shows more money being spent on problems produced by these projects than the projects themselves.

From:	Durkin, Martin T SAJ on behalf of HSDR Comments, Flagler
To:	Harrah, Jason S SAJ; Bronson, Candida K SAJ; McConnell, Kathleen K. SAJ
Subject:	FW: [EXTERNAL] Official Comment (UNCLASSIFIED)
Date:	Thursday, March 06, 2014 6:55:24 AM

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: whoknows11us@gmail.com [mailto:whoknows11us@gmail.com] On Behalf Of PB
Sent: Wednesday, March 05, 2014 9:05 PM
To: HSDR Comments, Flagler
Subject: [EXTERNAL] Official Comment

March 4, 2014

To: Colonel Alan M. Dodd, USACE Commander

Jacksonville District

OFFICIAL COMMENT: Via: Flagler.HSDRComments Flagler.HSDRComments@usace.army <mailto:Flagler.HSDRCComments@usace.army>

OFFICIAL COMMENT: Via: kathleen.k.mcconnell@usace.army.mil <mailto:kathleen.k.mcconnell@usace.army.mil> .

Re: USACE presentation on Wednesday, February 5, 2014 - Flagler County, Florida Hurricane and Storm Damage Reduction Report Draft Integrated Feasibility Study and Environmental Assessment Project 11316 dated January 2014

From: SaveFlaglersBeach.com officers

We appreciate the opportunity to respond to what was presented to the citizens of our seaside town by the USACE on February 5, 2014. First, here's a little about us.

A group of citizens organized the movement in 2004. Most of our members attended the commission meetings, town hall meetings, workshops and training sessions held over the years. We are a Florida non-profit corporation and have a website. For ten years we have done extensive research on beach and shoreline avulsion, which we know is man-made. We know how to solve the problems and resolve all issues. We made a PowerPoint and met and shared our findings with many members of professional groups and residents. We stood and spoke with many people and at Flagler Beach "First Friday in the Park" gatherings. We also had business cards and handouts to help people understand the seriousness of our situation here. We traveled to other coastal communities to discuss their problems and concerns.

The movie, "The Big Uneasy" was mandatory viewing for our members. It does indeed tell the "true story" when Katrina came calling to New Orleans and 1,800 human beings shouldn't have died in the parishes along the Gulf Coast. We met with many local, county and state politicians with no real ROI on our investments of time and money. Most politicians stick together but never become the leaders we vote for. Very sad!

We have worked and educated ourselves just like your Corps employees but received no pay. At the meeting February 5, the crowd was much smaller than earlier years. Many of our citizens have become tired of hearing the same old, same old. Although there was a suggestion about doing something about the erosion, there was no scientific information shared about what actually causes the avulsion and how to stop it. Mining sand and pushing it against our dune strewn rock revetment doesn't solve or resolve our serious situation. Your pictures and information set up around the room took some effort but the audience didn't understand the posters and pictures. The young engineers trying to answer questions were ill-prepared to do that. It is a difficult subject to understand, and your engineers have been educated with text books that are very much out of date. So sad!

Your 10 year study has cost us over 3 million dollars and we feel cheated. We also understand that it puts a great deal of money in the pockets of the huge dredging (mining) industry as well as engineering firms and lobbyists – it becomes a matter of power and heaps of greed. We feel that we are in a "war" with you – as part of the military, you are not held responsible nor accountable for anything you do. The 1,800 people killed on the gulf coast of New Orleans is an example.

You have the money….which is really our tax money. You have the political backing of the lobbyists and a very political process in Congress. You all stick together and have absolutely no intention of actually learning how to solve beach and shoreline avulsion on our coastlines. We could teach you many things and we didn't learn about wave action in a classroom aquarium the size of a swimming pool. Your work is unacceptable to us when we could be putting two feet of annual vertical height of sand on our beach, protecting our natural sand dune system, and preserving A1A, our designated historic, scenic A1A Byway.

To quote retiring Major General Michael J Walsh, November 28, 2013, "'Essayons' is an American Army term. It means 'Let us try.' When others have failed, let us try. When others don't know what to do, let us try. When the mission must be accomplished, 'Essayons!'

A good statement, but we want more than trying – and this report doesn't even meet that standard. We feel that we are being held captive by you and congress for getting the truth out. Does this make you feel proud of your contributions? Is this your mission and your desired legacy? How pitiful and pathetic.

Let's get real and work together for real and truthful solutions and endless solid contributions. We welcome you to join us in not trying, but making some real progress in the state of Florida. We deserve to be respected and treated much better than you have treated us in the past. Actually, you have appeared to disregard us and our dedicated work.

CC by mail:

Major General John Peabody, US Army

(reference letter to Major General Walsh 4/29/13)

Deputy Commanding General for Civil and Emergency Operations

US Army Corps of Engineers

441 G Street, NW

Washington, DC 20314-1000

James C. Dalton, P.E., Chief, South Atlantic Division

(reference letter to Major General Walsh 4/29/13 w/cc to you)

Regional Integration Team, Chief of Engineering and Construction

Headquarters, US Army Corps of Engineers

441 G Street, NW

Washington, DC 20314-1000

Classification: UNCLASSIFIED
Caveats: NONE

From:	Lourdes Quintero-Knapp
To:	McConnell, Kathleen K. SAJ
Subject:	[EXTERNAL] Flagler Beach, Fl
Date:	Friday, March 14, 2014 6:46:49 PM

To: Kathleen McConnell, USACOE

From: Lourdes Knapp 2544 S OceanShore blvd Flagler Beach, FL

This a follow-up in response to the presentation of the Corp of Engineers proposed beach re-nourishment project for a section of Flagler Beach.

I hereby wish to place my opposition to the proposed Flagler County Hurricane and Storm Damage Reduction Project.

With out any definitive evidence of successful outcomes at other beaches, this plan becomes a commitment to an open-ended drain on the limited funds
of our City and County. As your report demonstrates, there is no permanent fix
for the erosion problem. And of greatest importance, this plan will irreparably damage the shoreline, animals and plants.

We will not support unending destruction of our beach habitat, as well as our future quality of life here in our beautiful town.

Sincerely,

Lourdes Knapp

March 15, 2014

Colonel Alan M. Dodd
District Engineer
USACOE
Jacksonville, FL

Dear Colonel Dodd,

I have serious reservations about using beach renourishment in the Flagler County Hurricane and Storm Damage Reduction Project. First off, I feel it is fiscally irresponsible to recommend to the taxpayers that we commit to a spend of $43,466,000 when the plan is one that is known to fail and has built into the plan "periodic renourishment", which is nice way of saying do it over and over again. The estimated cost of the initial renourishment is $14,127,000 that leaves $29,339,000 to fix the failed renourishment.

I also wonder what the impact is of renourishment:

- How close of a match is the sand from 7 miles out?
- What is this sand harvesting doing to the ocean floor?
- What is the impact to the areas around it?
- How long will the sand supply last?
- What is the impact to the marine and sea life during this whole process from collection through redistribution of the sand?

My concern for renourishment being the solution is further complicated when you have articles such as the one that ran in AP.org dated August 14, 2013 states "Miami-Dade and Broward counties are the first in the state to deplete their offshore sources of sand that can be used for beach renourishment projects, said Tom Martin, a senior coastal engineer with the U.S. Army Corps of Engineers." (http://bigstory.ap.org/article/corps-runs-out-sand-miami-dade-beaches) I do not want to see us build a dependency on something that has a limited supply.

As for the study:
I would like to see more detail of the analysis on the other options with positive points (3 points or less), what their short term and long term costs are and why they were eliminated.

Section 4.2.1 on page 4-5 states "It is estimated that the annual expense to FDOT of maintaining the revetment in Flagler Beach is approximately $600,000/year." I would like to see the detailed breakdown by year of what work FDOT has done and the associated expense.

In summary, I strongly believe that we need a cross agency review including USACE, FDOT, FDEP and other impacted agencies to review the options including consideration of the long term cost and viability of the various options and/or combination of options. I think now is the time to look hard at the options and try something different than what has been done before.

Sincerely,
Mary Louk,
Flagler Beach, FL

Sandra Mason
1601 North Central Avenue
Unit #801
Flagler Beach, FL 32136
beachsandra@mac.com
March 24, 2014

Jason Harrah, Project Manager
Jacksonville District
US Army Corp of Engineers
701 San Marco Blvd.
Jacksonville, FL 32201
Jason.s.harrah@usace.army.mil

Dear Mr. Harrah:

Please find attached my questions regarding the Flagler County Hurricane & Storm Damage Reduction Project Tentatively Selected Plan (TSP). As we discussed at the presentation meeting, the time allotted to read and understand and formulate questions and/or comments was extremely brief in relation to the nearly 10 years it took to create the plan. I appreciate your willingness to extend the 30 day comment period.

It was a pleasure meeting you at the presentation. Thank you for your help.

Sincerely,

Sandra Mason

Bcc:

ACOE 1 2014 Feasibility Study for Flagler County, Florida
Questions:

ES-2 "The TSP is the National Economic Development (NED) plan, consisting of a ten foot dune extension including a 10' sacrificial berm in Reach C…"
Has this type of "sacrificial berm" been done in the SE US on the Atlantic coast? Please provide location(s) and renourishment intervals.

ES-2 "The plan will most likely be constructed with a hydraulic dredge…"
How is it possible to project a cost if the type of equipment is not known? What other type(s) of equipment are being considered and what are their associated costs and environmental risks?

1-2 "By including the entire southern half of the county, economic and real estate data will be available to determine the benefits of reducing the risk of storm damage in the critical areas along with the non-critical areas…"
How does the TSP benefit the critically eroded area in North Flagler Beach? How does the non-critical beach benefit?

1-5 1.3 Purpose and Objectives "This study will determine the feasibility of providing hurricane and storm damage reduction within…reaches of Flagler County coastline. Alternatives considered will include: no action, non-structural measures, shore protection with hard structures, shore protection with shot structures combinations of the above, and others."
This report does not meet the purpose and objectives. See Table 5-5 and 5-6.

"This report will recommend a plan that is technically sound, environmentally acceptable, and economically justified."
Does economic justification mean the cost of implementation or are potential benefits over time factored in? Some projects may have a higher initial installation cost but a relatively low repeat maintenance cost, making them a more cost effective alternative long term. Renourishment projects have a 4-time repeat over 50 years. Was 50 years the repeat maintenance interval used in determining cost/benefit for all alternatives?

1-5 "The inland extent of the Flagler County study is based on detailed engineering analysis recently completed for St. John's County…"
Why is this valid for Flagler County?

1-9 "Shoreline Change Rate Estimates Flagler County July 1999. "The report estimated a shoreline change rate of approximately -1 foot per year for the county."
The statement actually reads, "The shoreline orientation is not straight but rather has a concave curvature in the north, transitioning toward a headland at Flagler Beach. The primary coastal process appears to be a smoothing of irregularities along the overall curvature, with net transport to the south.

Erosion is generally <u>between 0.0 and -1.0 ft./yr</u>. Caution in future planning is recommended, as is the verification of these results via future surveys." Where is the verification? Since a range is given was the mid range number of -0.5 ft./yr. used for the model? If not, and no verification has been reported, would not the -1 foot per year stated in your report be inaccurate?

1-10 "FDOT does not currently have any dune stabilization plans for SR A1A in their 5 year work program."
The 5-year rolling budget published in 2012 had a total of $4,289,751 projected for SR A1A Stabilization between 2011-2015 with $3,957,486 budgeted for 2014-2015.

2-17 "…the Flagler Pier at R-79. The pier tends to trap sand from long shore transport causing accretion north of the pier, as well as down drift erosion about 2.000 feet south of the pier due to the interruption of long shore transported sand."
What role does the pier play in the critical erosion in south Flagler Beach?

2-18 "Due primarily to the stabilizing presence of a concrete and steel seawall over a significant portion of the reach, Beverly Beach experiences a lower shoreline rate of change, approximately -0.11 ft./yr."
This seems to indicate that a similar seawall constructed along the length of Flagler Beach would solve the erosion problems. Where are the cost/benefit numbers over a 50-year period for comparison to the TSP? Does the Beverly Beach seawall cause the same downdrift erosion as the pier and what role does it play in the critical erosion of reach R065.2-070 in north Flagler Beach?

2-24 "After storms pass, gentle waves usually return sediment from the sand bars to the beach, which is restored gradually to its natural shape."
Why then was Alternative S-8 Nearshore Placement dismissed?

"…any tropical disturbance passing within this distance even a weak tropical storm, <u>would be likely</u> to produce <u>some damage</u> along the shoreline."
This statement is conjecture. Where is the data to substantiate this statement? As a Flagler Beach resident I can tell you from experience that frequently tropical systems produce less damage than non-named systems or nor'easters.

2-32 "Nesting data provided by FWC could not be correlated with exact spatial locations as GPS data are not collected during the next monitoring. Therefore we were not able to determine any established trends…"
This is simply not true. Nesting data with specific locations is available. Locations are referenced by cross street numbers and walkovers.

2-35 "However no nests were observed near the Flagler Beach Pier, R-79 where dune erosion, revetment, and armor structure are present."

The Flagler Turtle Patrol relocates nests that are in danger of overwash, especially those areas in R-79. Relocation information is also available.

Anecdotal observation of sea turtle nests along various reaches of the study area were recorded during a site visit by USACE Biologist on 2 August, 2011."
Why was there only one site visit in a 9-year period for a $3m plus project?

2-54 "Florida pompano, flounder and tarpon are considered to be Aquatic Resources of National Importance (ARNI) by the U.S Environmental Protection Agency (EPA)"
How will these species be affected by dredging, loss of habitat, and turbidity?

2-60 Table 2-16 Bird Sightings. "All observations occurred during one-day event (August 2, 2011) by USACE Biologist.
Is a sample of one valid considering the length of the project? Same single site visit in a 9-year $3mil project?

2-73 Table 2-18 Existing Coastal Inventory by Damage Element Category & Type.
Is this table for the entire length of Flagler County or just the length of the TSP? There are not 1,286 structures in the 2.6 miles of project area. What is the real number for the project area? What is the cost/benefit ratio in the actual project area? Are you suggesting that the TSP will benefit all structures along the Flagler County coast? If so, how?

2-75 "Flagler Beach has the most armor in the study area, much of which is in varying stages of disrepair."
What is the dollar value placed on beach armor in "disrepair" in the project area?

"<u>According to FDOT contractors</u>, this revetment is maintained at an annual cost of <u>approximately</u> $1.5million."
Please cite the source of this information. It is in conflict with the published FDOT budget.

3.1 "Historical rates of shoreline erosion were projected to future years to locate the shoreline position 50 years from now."
This study notes only 40 years of shoreline data. Why were earlier sources such as the aerial photographs in the UF digital collections not used?

3.6 Table 3.3 Qualitative Matrix describing vulnerability of resources from potential accelerations in SLC.
This table appears to show "low vulnerability" for infrastructure over the next 50 years. Why then is there a need to spend $40mil of taxpayer money?

3.10 "…it can be reasonably assumed that efforts will be made to maintain the dune at its current elevation to protect Highway A1A."

That being said, why is spending $40m needed or justified?

3-13 "Beach-fx fully incorporates risk and uncertainty, and is used to simulate future hurricane and storm damages…Storm damage is defined as the damage incurred by the temporary loss of a given amount of shoreline as a direct result of waves, erosion, and inundation."
Does beach-fx take into account the natural recovery processes during those intervals? It appears to be a snapshot of the worst-case scenario. Beaches have the ability to recover naturally as evidenced by the fluctuation in the location and length of "critically eroded" segments within the study area.

3-24 "Aesthetic Resources"
What criterion is used to determine aesthetics?

4-4 "Throughout the study area, infrastructure has been developed directly on top of the primary dune system, often depriving the beach from sediment gained from natural dune erosion…Therefore, periodic severe storm events are removing sediment from the dune and beach face and the natural processes to replace the sediment are being restricted."
This being the case, why was Alternative S-8 Nearshore Placement eliminated? It is the only alternative that addresses "the natural process to replace sediment."

4-14 "The report will serve as a decision document for Federal participation related to hurricane and storm damage reduction over a 50-year period."
Does this mean that regardless of advances in technology our community has no other option or alternative FOR THE NEXT 50 YEARS?

5-1 "The national economic development (NED) account displays the plan with the greatest net economic benefit consistent with protecting the nation's environment,,,"
Does this benefit have a time frame? For example, cheapest to construct has very little value if it doesn't last. How were the cost savings over time factored in to each alternative? Also, how were negative environmental impacts factored in?

5-7 "The NED criteria includes consideration a measure's potential to meet the planning objectives of reducing storm damages, as well as decreased costs of emergency services, lowered flood insurance premiums and project costs."
Please quantify how each alternative met or did not meet the NED criteria above. Charts 5-9 to 5-19 subjectively rule out alternatives without providing any data.

5-25 “It was assumed that it would not be feasible or practical to implement any alternatives along a stretch of shoreline less than 1 mile.”
Why? Critical erosion is critical erosion. If Federal protection is deemed necessary in one area how can it not be in another? This implies that the cost/benefit ratio is used solely for the critical area and not the county as a whole.

5-26 “ROM Estimate (One Time Build) $/LF”
Is this the basis for selecting a method? Cost of construction over the life span of each alternative needs to be factored in for an accurate cost/benefit analysis. Where are these numbers?

5-31 “The five measures carried forward into the intermediate screening phase showed the greatest potential to feasibly achieve planning objective #1 to reduce damages to structures and infrastructure in the study area based on ROM estimates.”
Was not the criteria to be 5-1 above, demonstrating economic benefit consistent with protecting the environment? How exactly does dredging protect the environment? How can dredging and creating an artificial berm be cheaper per 5-26 (One Time Build) than alternative S-8, Nearshore placement?

MARLOWE & COMPANY

GOVERNMENT AFFAIRS CONSULTANTS

Memo

To: Bruce Campbell
From: Howard Marlowe and Rich Ring
Re: Comments on the Corps' Feasibility Study Report
Date: February 15, 2014

The comments below were written by our consultant Rich Ring, formerly of the Corps' North Atlantic Division and of the Corps' Coastal Center of Planning Expertise. The City does not need to submit these as formal comments. Rather, with your permission and after explaining Rich's comments and concern, we will communicate directly with the District's study manager.

Background:

1. The Flagler County study covers 18 miles of shoreline subject to erosion caused by storms and natural processes. The study investigated 9.7 miles as the remaining 8.3 miles were found not to experience erosion that threatens infrastructure or produce economic benefits that would exceed costs, therefore resulting in a negative benefit-cost ratio (BCR) precluding further study.

2. The 9.7 miles under study were divided into four reaches with Flagler Beach (6.2 miles) accounting for two-thirds of the area.

Findings:

1. The Tentatively Selected Plan (TSP) for the study is also the National Economic Development Plan (NED) and covers 2.6 miles of shoreline in central Flagler Beach. The majority of economic benefits (93%) are based in the reduction/prevention of damage to State Route A1A. These benefits are based in the components of the TSP providing protection to the existing revetment and coastal armoring which protect A1A.

1667 K STREET, NW ■ SUITE 480 ■ WASHINGTON, DC 20006 ■ (202) 775-1796 ■ FAX (202) 775-0214
EMAIL: MARLOWE@MARLOWECO.COM ■ WWW.MARLOWECO.COM

A Limited Liability Company

2. The TSP consists of a 10 foot wide dune extension and a 10 foot wide sacrificial berm over the 2.6 mile length of the project. Initial construction and renourishments will each consist of 330,000 cubic yards of sand which will come from a borrow source, in Federal waters, 7 miles offshore from the project site. The renourishment interval is estimated to be 11 years which will result in four renourishments over the 50 year period of federal participation.

3. The total project cost including initial construction and all renourishments in Oct 2014 prices is $43,465,000. Annual benefits and annual costs, both estimated at the current FY '14 discount rate of 3.5% are $2,000,000 and $1,100,000 respectively. The benefit cost ratio is 1.83 to 1. Total benefits include recreation benefits, however they only account for 3.5% of total benefits.

4. The report states that no mitigation is required. There are also no known cultural resource issues in the placement or borrow area. Existing dune vegetation will be impacted during construction. However, the TSP includes planting of dune vegetation on newly constructed areas as well as revegetation of areas disturbed during construction.

Observations:

1. Jacksonville District (SAJ) did a good job on this report. There is an extensive amount of information and analysis in all pertinent areas. All of the steps in the Corps Planning process were covered in detail.

2. It is admirable that SAJ used the Beach Fx model, which incorporates Risk and Uncertainty, in performing the economic analysis. This should be a plus in the HQ review and the CWRB.

3. SAJ also incorporated all 3 scenarios of Sea Level Rise in all of the without-project and with-project conditions as well as the plan formulation process.

4. SAJ also relied on much information provided by the Florida DEP and other Federal sources for the environmental analysis.

5. It is a strength of the project that its outputs protect SR A1A which is an evacuation route and a heavily used local route. This will preclude the recreation benefits criticism.

Items of Concern:

1. The report did not contain letters from the Federal agencies (US fish and Wildlife Service, National Marine Fisheries Services, EPA) nor the state agencies such as FLDEP agreeing with the finding that no mitigation is required. I am sure that SAJ will not forward this report for review without obtaining and including these letters.

2. There is no evidence of District Quality Control (DQC) performed by SAJ or Agency Technical Review (ATR) conducted by the Coastal PCX. Again, I trust that these will and must be done and documented prior to forwarding the report.

3. The greatest concern that I have is shown in Table ES-3 on page ES-4. The benefit-cost ratio is displayed at the current Federal discount rate of 3.5% without recreation (1.76 to 1), with recreation (1.83 to 1) and at the arbitrary OMB rate of 7% which results in a BCR of 1.1 to 1. Just the difference in rates (3.5% vs. 7%) causes a decrease in annual benefits of 18.5% due to present worth

discounting and an increase in annual cost of 31% due to a higher annual payment. These changes are all artificial and math related and very detrimental to the project. I know of no requirement to include the 7% budgetary exercise rate in a Feasibility Report and it is my recommendation not to include any 7% based information in this Feasibility Report. **The place for 7% information is the annual FY budget drill after this project is authorized. This is (again) a Feasibility vs. Budgetary issue; each of which should be addressed independently. Including 7% information in this Feasibility report could provide a basis for bias in a reviewer who tends to blend feasibility and budgetary considerations**.

US Army Corps of Engineers
Jacksonville District

Comments/ Questions

See Privacy Act Statement on reverse side

SUBJECT/EVENT: Flagler County Shoreline Study Mtg

DATE: Feb 5, 2014

CHECK ONE:

☒ OFFICIAL COMMENT (Comment WILL be included in the final report)

☐ GENERAL QUESTION (Informational only. Comment WILL NOT be included in the final report)

COMMENTS/QUESTIONS Please also List Flagler Audubon Society, Inc as a party of record and send written correspondence to:
Flagler Audubon Society, Inc
Attn: Conservation Chair
P.O. Box 350695
Palm Coast, FL 32135-0695 and
electronic correspondence to
flaglersaudubon@gmail.com

Donald White Conservation Chair Flagler Audubon Society, Inc
NAME AND TITLE (PLEASE PRINT)

13 Wilderness Run
MAILING ADDRESS

Flagler Beach FL 32136
CITY STATE ZIP CODE

386-259-0366
PHONE NUMBER

djwhite077@gmail.com
EMAIL ADDRESS

US Army Corps of Engineers.
Jacksonville District

Comments/ Questions

See Privacy Act Statement on reverse side

SUBJECT/EVENT: Flagler County Shoreline Study Mtg

DATE: Feb 5, 2014

CHECK ONE:

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☐ GENERAL QUESTION (Informational only. Comment WILL NOT be included in the final report)

COMMENTS/QUESTIONS Please list Environmental Council of Volusia + Flagler as a party of record. Send written correspondence to:
Environmental Council of Volusia and Flagler
P.O. Box 929
Daytona Beach, FL 32115

Donald White, Board Member
NAME AND TITLE (PLEASE PRINT)

See above
MAILING ADDRESS

CITY STATE ZIP CODE

386-259-0366
PHONE NUMBER

djwhite077@gmail.com
EMAIL ADDRESS

US Army Corps of Engineers
Jacksonville District

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COMMENTS/QUESTIONS

Olsen Engineering in Jacksonville

RM (Pete) Hull
NAME AND TITLE (PLEASE PRINT)

19 Ibis Court North
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Palm Coast FL 32137
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COMMENTS/QUESTIONS

Should there be A major storm event occur Before the Project is done with major erosion, How will the Corps react to FDOT's actions to hold the highway?

① Will you stop them from Hard Vertical armoring?

② Will you Assist them in Emergency soil placement instead of Armoring?

③ What other options will they have and will Local government have approval or denial Ability of those actions?

BARBARA Revels
NAME AND TITLE (PLEASE PRINT)

P.O. Box 434
MAILING ADDRESS

Flagler Beach FL 32136
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386 439-3136
PHONE NUMBER

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US Army Corps of Engineers.
Jacksonville District

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DATE: Feb 5, 2014

CHECK ONE:

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☐ GENERAL QUESTION (Informational only. Comment WILL NOT be included in the final report)

COMMENTS/QUESTIONS

If after Initial Event or 1 or 2, Owner 3rd re-plenishment event, it's not working, can County pull the plug?

Heidi McNeely

NAME AND TITLE (PLEASE PRINT)

318 N. 11th St.

MAILING ADDRESS

Flagler Beach FL 32136

CITY STATE ZIP CODE

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US Army Corps of Engineers
Jacksonville District

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☐ GENERAL QUESTION (Informational only. Comment WILL NOT be included in the final report)

COMMENTS/QUESTIONS

I would like to thank the Corps of Engineers, FDEP City & County in working on this very important project.

The DOT will continue to work with & actively support all efforts in stabilizing the beach while also protecting SRA1A.

Thanks again to all stakeholders to come up with a solution. Workable

Alan Hyman — Director of Transportation Operations - Florida D.O.T.
NAME AND TITLE (PLEASE PRINT)

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EMAIL ADDRESS

Page 1

FLAGLER COUNTY, FLORIDA
HURRICANE AND STORM DAMAGE REDUCTION STUDY
PUBLIC WORKSHOP

DATE TAKEN: Wednesday, February 5, 2014
TIME: 6:20 p.m. - 7:15 p.m.
PLACE: Flagler County
Emergency Operations Center
1769 East Moody Boulevard
Building 3
Bunnell, Florida

This cause came on to be heard at the time and place aforesaid, when and where the following proceedings were reported by:

Delina M. Valentik,
Registered Professional Reporter,
Florida Professional Reporter

Page 2

THEREUPON

MR. HARRAH: Okay. We'll go ahead and get started. If everyone will take your seats.

First of all, I'd like to say good evening. I want to do some introductions first, if I can. I'll start with the County folks first. We have Chairman of the County, Mr. Hanns. Stand up.

We have Commissioner Meeker.

MR. MEEKER: By the way, he's wrong, do not take your chairs. Leave your chairs right here.

MR. HARRAH: That's right. Commissioner Revels.

MS. REVELS: Right here. Thanks.

MR. HARRAH: And Commissioner Ericksen.

We also have County Administrator, Mr. Coffey. And we have County Engineer Faith Alkhatib. And that's it for the County.

For the City we have Vice Chair Mealy. We have the Mayor, Ms. Provencher. We have Commissioner Shupe, Commissioner Carney. And we have City Manager, Mr. Bruce Campbell.

And we also have Alan Hyman from the FDOT as well.

And now I'd like to introduce some of the Corps folks you'll see in the room. These folks

Page 3

will be in the back of the room here at the posters when we conclude the presentation to answer additional questions or comments you may have.

My name is Jason Harrah. I'm the project manager for the Flagler County Shore Protection Project from the US Army Corps of Engineers. I have Marty Durkin, he's the planning technical lead for the project. Candida Bronson out of our planning group. Kat McConnell, she's the head biologist for the project. Jim Lagrone, he's our engineering technical lead for the project. Laurie Hadley. Laurie's our modeler, who's preparing models for the project. And we also have Idris Dobbs. Idris is our economist for the project. And Susan Jackson standing up is in our corporate communications office, public relations.

Who did I forget? I just met her today, so I'm having a hard time remembering her name. She's from our headquarter's office in Washington DC on an assignment.

Lauren. Is that right?

MS. VICINIE: Laura.

MR. HARRAH: Laura. So she's in from Washington DC visiting the district for a few weeks.

Page 4

Good evening everyone, we're here tonight to present to you the recommended plan for the Flagler County Shore Protection Project. Since 2008 the Jacksonville district's been fully engaged to develop a recommended plan that everyone in the City and the surrounding community can live with. We've been working diligently with the local echelon of Flagler County to find a working solution.

The recommended plan you're about to see calls for the seaward extension of dunes in certain portions of the county. These dunes are an important natural resource for the county and will help provide protection from storms. They're going to provide habitat for wildlife and they're also going to provide a recreational attraction for tourists. They will provide protection from strong winds and waves during storms. And they will also protect State Road A1A which is a major hurricane evacuation route as most of you know. And is also a culturally significant resource as well to the County.

These dunes are going to minimize the impacts to erosion and finally these dunes are going to enhance the tourism for the beautiful beaches of

Flagler County. And I will tell you that it is a beautiful place. Most of my relatives from West Virginia, believe it or not, they drive from West Virginia eight hours to Flagler County to vacation. So it is a beautiful place.

So now what I will to do is turn it over to Candida Bronson for a quick update on the planning and the Marty Durkin will do the presentation.

MS. BRONSON: Thanks, Jason. Good evening everyone. My name is Candida Bronson and I am from the Corps Coastal Navigation Planning Section. And I just wanted to share a few thoughts on the importance of this meeting tonight and where we're going through this planning process. The draft report has been compiled. The team's been working hand in hand, the Army Corps of Engineers with Flagler County and -- over the last several years they've completed data collection, engineering and economic modeling efforts and have evaluated alternatives. And tonight we'll be presenting the plan to you.

This plan will aid in the stabilization of the shoreline here providing storm damage reduction and shore protection along this coastline. We feel this is the best plan out of the alternatives that

we have evaluated.

The plan is described in the draft report which is out for public review right now. The State of Florida and environmental resource agencies are also reviewing the plan right now.

Your comments are very important to us. As you came in you got a fact sheet and a comment card. On there you can mark if you'd like to speak and there will be an opportunity after the presentation for you to say your comments and get those on the record. If you want to think about your comments, you can also send it in. There's an e-mail address and a mailing address on the comment card. Your comments will be incorporated into the final report. As it goes through the next steps of review and approval over the next several months, then it will accompany the final report, your comments are included in that submittal, as it goes up to Washington for review.

The assistant secretary of the Army is the one that would approve this project. And after that it would be transmitted over to Congress. Congress needs to authorize the project and appropriate the funds, provide us the money, before we could go to construction. So there's several

more steps along the way.

I think that's all the major points, so at this point I will turn it over to Mr. Marty Durkin who will be presenting the plan.

MR. DURKIN: Hi, everyone. My name's Marty Durkin. Thanks for coming out tonight. Getting to the presentation. These are some of the things I'm going to talk about. We'll go over the background of the study. How we came up with our selected plan for identifying problems and opportunities, our study objectives. Our future without project conditions, I'll talk about. And then I'll talk about the plan formulation and how we came up with our Tentatively Selected Plan. And some of the engineering costs and environmental aspects of that plan. And then I'll also talk about the schedule and where the study goes from here at the end.

So quick back ground this study was authorized in 2002 through a House resolution where Congress directed the Army Corps of Engineers to study the Flagler County shoreline for hurricane and storm damages and ways to resolve those problems. A reconnaissance report was completed in 2004. And that's a quick one-year study without going out and doing any new analysis, just

gathering existing data to determine if there's federal interest in continuing into the feasibility stage that we're at now.

So there's a positive reconnaissance report that was completed. The Army Corps and our partners, Flagler County, executed a feasibility cost-sharing agreement to begin the feasibility study. Then due to lack of federal funding the feasibility study was not initiated until 2008.

In 2011 we got to the feasibility scoping milestone where we got approval from our headquarters on, you know, the -- what we were looking at in this study and the path it was going on. And here today we're at the draft feasibility study and environmental assessment. So that draft report just went out for public review and that's what we're going to be talking about here tonight.

So the first thing we do when we begin our study is identify our problems and opportunities. Well, along the coastline in Flagler County the problem is that erosion is causing damages and threatening infrastructure, both public and private that includes single family-houses, the road, A1A, anything out there along the shoreline that could

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be damaged by erosion is what we're looking at in our study. And in addition to that, there's also, you know, threat to tourism opportunities and habitat and environmental conditions with eroding shoreline.

So opportunities focus on positive outcomes if those problems are addressed. So there's opportunities to reduce damages to coastal infrastructure caused by erosion. There's opportunities to maintain the environmental habitat and the evacuation route that's out there now and -- as well as the tourism opportunities that exist. And from those problems and opportunities we develop our study objectives which is the, you know, what's the purpose of the study what do we want to do. The main thing we want to do is reduce damages to infrastructure. You know, roads, buildings, like I said, anything out there that's been built and is threatened by erosion, our main objective is to reduce damages to that through any project we implement. So that's our main goal that we're formulating to meet that objective. At the same time we want to make sure that we maintain the environmental quality and, you know, the evacuation route and the recreational and tourism

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opportunities that exist out there.

So we started out the study and we started out with four study reaches, Marineland at the north end of the county, then in the southern half of the county, Painter's Hill, Beverly Beach, and Flagler Beach. That was our study area. And those were areas identified in the reconnaissance report that I mentioned earlier. Also the DEP -- or sorry. I'll try to avoid acronyms -- acronyms as much as I can. TSP is Tentatively Selected Plan. So that's one you're going to see a lot tonight. But the State of Florida designates shoreline as critically eroded, based on surveys they've been conducting along the shoreline, and the DEP designated critical areas when we began the study -- were also included in these study reaches up in Marineland and Painter's Hill which begins just south of Varn Park, if you know where that is, and then down to the Volusia County line.

So once we started looking into the study, we started to focus in on the southern half. Up in Marineland the main pieces of infrastructure or stuff that could be damaged up there is the Marineland Oceanarium and the parking lot just to the south of it. Which is already, you know,

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currently protected by large robust revetment, so what we saw with our preliminary analysis that, you know, there's no storms that have happened in the past in Flagler County that would significantly cause damages, so any project wouldn't be cost efficient, meaning that, you know, any project we could build, the benefits wouldn't outweigh that. So we started looking at the southern half of the county. And we split it up into these design reaches. So reach A is Painter's Hill and Beverly Beach. And these are kind of based on the -- the physical shoreline differences. So in Reach A -- and also the development that exists there. So in Reach A it's mostly unarmored single-family residences. There's a few houses that have put up vinyl sheet pile walls, but mostly unarmored single family residences is your infrastructure closest to the shoreline.

In Reach B, A1A became -- becomes your most shore front infrastructure all the way down past the pier. And then as you get into reach C from about 7th Street South down to 28th Street, you have where the existing DOT revetment seawall currently exists. And then reach D is Gamble Rogers Recreation Area at the southern end of the

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county. So that's how we split up our design reaches for analysis purposes because they're so similar with the existing infrastructure that's there.

And on the next slide what we'll talk about is our future without project conditions. The study reaches I just showed you along the bottom, Reach A, Painter's Hill and Beverly Beach. Reach B, north part of Flagler Beach. Reach C, south of the pier. And Reach D at the southern end of the county. And what our without -- before I explain what these -- this graphic is showing. Our without project conditions is what we forecast to happen over the next 50 years without a federal project being implemented. So 50 years is our study horizon or planning period of analysis. So over 50 years we want to forecast what's going to happen along the shoreline in Flagler Beach if we don't do a federal summit. So we want to look at what's going to be damaged over the next 50 years. So to do that we gather existing physical data that's out there.

The Department of Environmental Protection with the State of Florida has been surveying these beaches since the '70s. So we have surveys going

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back to the '70s that we can look at to see what areas of shoreline are eroding faster than others. That's what you see this red line here showing the historic erosion rates. We got to consider that the sea level's rising. So the sea level is going to the continue to rise at least at the rate it's been rising over the next 50 years. So we consider that.

We have a database of all the storms that have ever impacted Flagler -- Flagler County shoreline. So we have a database that has all the, you know, wave heights and durations of those storms and water elevations during those storms. On top of that we have all the data for the houses and the road and what it costs to replace them when they're damaged. So we model our future without project conditions, you know, based on that information we have along with what the pictures show and what DOT is going to do to continue to keep the road open by putting armor out there. And if -- you know, houses built after 1988, they can get a permit from the State to build a vinyl sheet pile wall.

So those are all costs and damages that you're seeing in this these gray bars that'll

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happen over the next 50 years without a federal project. So you see some costs up here in to reach A to single-family homes as erosions continues over the next 50 years. These are, you know, damages and what it's going to cost to replace anything that gets damaged as well as costs for individuals to armor their property.

In Reach B you see there's a lower historical erosion rate. And, you know, it's mostly unarmored there currently. And A1A -- and, so you don't have high damages in that area which kind of makes sense. There hasn't been -- you know, DOT hasn't gone out there and started armoring yet. So we don't forecast a whole lot of damages in reach B.

In Reach C, south of the pier, you have some of your historical erosion rates are the highest. And you also have the highest damages where most of these damages here are DOT protecting the roadway, roadway and, you know, replacing the armor in order to keep it open. So those are those damages out in the 50-year future. So based on those future without -- and then in reach D, the road kind of comes more inland, so there's not as many damages there. It's in Gamble Rogers so there's not as much infrastructure.

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So we formulate, based on this without project conditions, and in Reach A, federal participation is not warranted because there's not adequate public parking and access. Which means a project could be there, though, it would be justified economically. However, our Corps policy states that every half mile there needs to be public access to the beach which doesn't exist. So we cannot cost share in a federal project in that area.

In Reach B and Reach D where you saw the low future without project damages, project is not economically justified meaning that the benefits do not exceed the costs to build a project.

And Reach C is where our Tentatively Selected Plan is. The alternative for a dune, extension of the dune and beach profile meets all of our study objectives and it's consistent with Corps policy. There's adequate parking in Flagler Beach for the public to use every half mile. So that -- what that Tentatively Selected Plan entails it's 2.6 miles from 7th Street South down to South 28th Street, it's a 10-foot extension of the dune and beach profile which I'll talk a little bit more about what that is on the following slides.

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The sand will be from a borrow area seven miles off shore. It will be brought in by a dredge and placed on the beach. Vegetation'll be planted on the dunes to match the native vegetation that's out there now. And so over a 50-year period, you'd have your initial construction at the beginning of that 50 years, and then you'd have four more constructions over that 50 years at about every 11 years. That's an estimate, average estimate, 'cause the timing of when you have storms and how the beaches erode, it's not consistent over time. So that could vary some. And each time it would be about 320,000 cubic yards brought in.

So the 10-foot seaward extension of the dune and beach profile, what you have here -- I'll go back -- just explain something. These are monuments that are out here. The State of Florida has put those out there. They're all around the state, you'll see those in our report and other reports, so all these are monuments. They're survey markers, surveying the marks for where they run beach profile surveys. And these exist all around the state of Florida. And the State's been surveying on them to try to get each -- each area at least once every four years or more often, if

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they can.

So they survey out from these survey markers, and they survey a line straight out, so for a typical one of those survey lines in reach C, this is the cross sectional profile that you'll see. So you have, you know, the high -- the high dunes that you have here in Flagler Beach where A1A is right here at the top of the dune. Then this area now in most areas is armor, DOT armor, and various conditions or the seawall protecting the road. Then you have your beach area here which slopes down and your about four to five-foot idle range depending on the time of the year.

And then underwater the beach keeps going. And, you know, you have your sandbars and offshore area. And how beaches naturally function if there's no development or armoring on top of them, beaches can naturally take care of themselves. You all know this. You live at the beach. But when you get a storm a lot of the sand will erode out of the dune and move out onto the berm. And the sand from the berm will move out into the underwater area into the sandbars and then when you have calmer conditions in the summertime a lot of that sand moves back up onto the beach. And if you have

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no development here, you know, the wind can blow the sand back into the dune and the dune has a chance to naturally recover.

Once there's armor put up here, you know, that -- when a storm happens that sand from the dune can't move out onto the beach and so the sand from the beach still moves offshore, but your -- your beach profile continually gets lower once armor goes up. So what the project proposes to do is shift this whole -- the whole shoreline profile, including the underwater part, 10 feet seaward so that way you have some dune here to allow the beach to function naturally when you do get a storm. But we can't place sand efficiently in the underwater part, so what our construction template will look like when we build is like this, so you have the top of the dune -- we'll come out from the existing top of the dune 10 feet. This'll come out -- and these slopes look really steep right now, you can't, you know, build something that steep. I'll get to that in a second. But keep in mind the scale on the bottom here is a lot longer. That's like 300 feet there, then 30 feet along the side here. So it's not drawn proportionally to -- to fit it on this screen here.

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So we have to place all the material -- in order to extend the whole profile out, including the underwater part, we have to place it all above water when we build the beach. So at initial construction, you know, it'll look like we've made the beach a whole lot wider. But the main thing is just to extend this dune and the whole profile 'cause that's where you're getting your protection from storms.

During the normal wave climate and environment, the water's not making it up to the dune or impacting it. So this'll insure that there's sand there when the storm does hit to allow the beach to function naturally and take care of itself. So we'll vegetate the dune and probably shortly within a year after construction you're going to see all this -- this stuff that was placed on the dry beach kind of naturally, due to the wave action, you know, move out into the offshore sandbars. So it's -- it's eroding, but it's not disappearing from the beach system. It's still out there. So now your whole beach go -- even the underwater part is there for when storms come, you know, sand can move from this dune that we built out onto the -- the beach to maintain its profile.

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In the summertime you know that sand can move back on shore under the calmer wave environments. So that's -- that's what is entailed in this Tentatively Selected Plan and how it's supposed to work.

And then over time, you know, eventually it will erode away and we'll have to come back out approximately every 11 years and rebuild it to get back to its natural function. And, like I was saying, the steep slopes that's not what it's really going to look like. So here's what it looks like now. And what you'd expect it to look like from a ground level after we've built it is more like this. Something that you would see toward the northern part of the county or in Gamble Rogers where there is no armor currently built.

The beach -- we're not going to make a beach any wider like a huge Miami Beach or Daytona Beach or anything like that. Flagler County's historically always had a relatively narrow beach. But those dunes over time have gotten to the point where armors needed to be put up. So we're putting those dunes back to allow the beach to function naturally. So this is a visual rendering of what you'd expect the beach there to look like from the

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before to after, after it all equil- -- equilibrates or equilibrated just meaning, you know, once it's been constructed and the waves have had time to work it all out to its natural shape.

So the cost for the project, the initial construction would be about $14,000,000 which would be 65 percent on the federal government and then the nonfederal costs would be 35 percent of that. Following nourishments would be about $7,000,000 with that cost being cost shared 50/50 between the Army Corps and Flagler County and -- well, I guess, it would be a combination of Flagler County and the State. But those would be nonfederal costs. And so the total cost over 50 years would be about a little over $40,000,000.

The environmental aspects of this, though, even though we weren't -- you know, the Tentatively Selected Plan was the best plan for reducing damages to infrastructures, coincidentally it's also very good for the environment and it's preferable over our without project condition where now you have habitat for birds and turtles to nest. There's some hard bottom resources in northern Flagler County coquina rock outcroppings on the beach. This fill would not cover up any rock

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outcroppings. And there would be no impacts to any cultural resources. And actually, you know, protect A1A which is a historic scenic byway, so it's positive for cultural resources as well.

So in summary the Tentatively Selected Plan meets all of our objectives to reduce damages to infrastructure. The benefit cost ratio is 1.83. So over the 50-year period for the plan, for every dollar you spend, you're getting a return on your investment of $1.83 due to, you know, damages being prevented or armor not having to be placed after every storm. And in addition to that you're also maintaining your environmental quality and recreational and tourism opportunities that exist now.

So here's where we're at, this is kind of our whole civil works process, planning process right here. We're currently at the feasibility study phase. It's a draft report. It still has to go up and eventually become finalized and approved by the Assistant Secretary of the Army for Civil Works as Candida mentioned earlier. After that it'll move into our preengineering -- or preconstruction, engineering and design phase. Then it would have to go up to Congress. And Congress would have to

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authorize the construction of the project through a Water Resources Development Act. And once that happens Congress then also has to fund it for construction to happen. So the earliest that construction could happen would be 2017.

Again -- so, as Candida mentioned earlier, again, the report is out for public review right now. You can e-mail Kat these -- or send mail to Kat McConnell. You can send e-mails to this address here. And there's comment cards here tonight for you to write down your comments and we'll take them. We have some poster stations set up around the room. And, hopefully, you got to go around and ask any questions you had and, you know, we'll be here for after the question session if you have any more questions or anything else you would like to discuss with us.

And now I will pass it over to Susan for the question answers.

Thank you for your time.

MS. JACKSON: Can you hear me? Okay.

UNIDENTIFIED SPEAKER: No.

UNIDENTIFIED SPEAKER: No.

MS. JACKSON: Turn this up?

MR. HARRAH: You got to get it real close.

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MS. JACKSON: Testing. Testing. Okay. I'm glad everybody could make it here tonight. We really appreciate the community's interest in our project and we hope to hear some great comments and questions from you. We'll also be here, though, like Marty said after the meeting, to answer more one-on-one questions. The way we operate this is we would like to give everybody a few minutes of time to comment and/or ask questions and we'll respond to them. And what we're going to do is invite you one by one up to the podium, please give your first name and last name clearly. I've got a list of people who already have told us that they would like to speak, so I'll announce the name.

MR. HARRAH: Let me just say one thing.

MS. JACKSON: All right.

MR. HARRAH: We will -- we will try to answer your question if we can. If it's something that we can answer right now, we do have a court reporter we're taking all the questions back with us. We have to when we get the report finalized every single question that we receive in writing, e-mail or here tonight will be provided in the final report. So you'll get an answer to every single question you have. If it's something quick and

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simple we can answer here, we will. If you have a more complex issue or question, we'll take a that back with us and we will address those.

Do you want to do it there or here?

MS. JACKSON: Well, they're going to be moving up here, then this is for us.

MR. HARRAH: I didn't know if you'd have backfeed, if you didn't turn it off.

Okay.

MS. JACKSON: Okay. Our first speaker, and I apologize guys in advance if I mispronounce some of these names. But this is Jane Mealy.

MS. MEALY: Hi, I'm not going to comment so much on the plan, we've sat through the meetings before and have heard most of this, those of us that have been to those meetings. I just want to have on the record that the Flagler Beach Commission did vote to -- well, we brought it up at the last workshop and then we've discussed it several times since that we want to either the County, and maybe with some representatives from the Corps, to answer any concerns that -- final concerns that we might have, so I just want to have that on the record.

MS. JACKSON: Thank you very much.

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Doyle Levy.

MR. LEWIS: Lewis:

MS. JACKSON: Oh, Doyle Lewis.

MR. LEWIS: I live in Flagler Beach. My name is Doyle Lewis. I've been watching the ocean, the beach there for 10 years for sure, longer than that, but a lot of people didn't know that. So I appreciate your plan very much. This is going to be very short. Whenever you figure out what kind of equipment you're going to be using, I'd like to see it. If it comes in port up here in Jacksonville or wherever it is, I would like to know immediately, so I can tell the people here. I've got to do some traveling now. And I would just like to be informed because I'm very interested in building a house right there where I can keep watching the beach and I'm planning on it. Thank you.

MS. JACKSON: Thank you very much, sir.

Sandra Mason.

MS. MASON: Hi. You all have answered a couple of the questions already. But I wonder if you had any idea since you do have to submit budgets from the Corps to the federal government where you see this project in your budget for the

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next phase? I mean, 2015's already been submitted; right? So, I mean, there aren't --

MR. HARRAH: Based on the guidelines, the main people that are responsible to provide budgets is the Office of Management Budget, or OMB, based on the guidelines they've set forth, we did not receive the preconstruction, engineering design funds for 2015.

MS. MASON: Uh-huh.

MR. HARRAH: We're in the process right now of preparing 2016 packages. And we will submit those.

Now, does that mean the project stops once this report is done? No. The County has the opportunity, if they should choose so, to provide what we call contributed funds for the preconstruction phase. So they can advance us the funds to keep the design moving and not miss that one-year window and have to wait until 2016. So the County can up front those funds, if they would like to do so.

MS. MASON: Okay. Thank you for answering that.

And then my husband sent you an e-mail and he asked if I would read it into the record.

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MR. HARRAH: Yes.

MS. MASON: He's a re- -- we're both residents of Flagler Beach. And reviewing the draft report on hurricane and storm reduction, it has been in work for numerous years, and it's quite lengthy with the pendencies even longer, we have a 30-day response period, given the length of time it took to you write it, would it not be fair to have a little bit more of a time to read it and respond to it? And that was his question to you which you answered.

MR. HARRAH: Yes, ma'am.

MS. MASON: And I just wanted to read it into the record. Thank you.

MR. HARRAH: Yes, ma'am.

MS. JACKSON: Linda Provencher.

Linda, I hope I pronounced that correctly.

MR. HARRAH: Mayor Provencher.

MS. JACKSON: Mayor.

MS. PROVENCHER: Thank you very much.

My question is has this project been done anywhere else in the state of Florida or anywhere else that we could possibly look at or monitor?

MR. HARRAH: Marty.

MR. DURKIN: Dune nourishment pro- --

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MR. HARRAH: Microphone.
MR. DURKIN: There's been numerous beach nourishments and dune nourishments around -- around the state of Florida. And the closest ones to here would be in Martin County to the south of here where they've done one project that's a federal project that is a dune and a small beach nourishment project at the north end of the county. And then they've done private dune only nourishment projects down there into the southern half of the county.
Also in Brevard County in Patrick's Air Force Base they've built dune nourishment projects along the road there. And so those are the two that are closest along the east coast that I can think of.
MS. PROVENCHER: So not exactly like this, but close to it?
MR. DURKIN: Yes, very similar.
MS. PROVENCHER: Okay. But this is really the first time that this particular project has been done?
MR. DURKIN: The only difference is that on most of the other projects they build a dune part of it and then they -- based on what the existing beach was like in that specific area, if it was

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naturally a lot wider beach, they'll build out a wider beach, traditionally. So in a lot of our projects, it's more of just building out the flat part of the beach. Where in this the project, you know, the shorelines are -- or naturally been a small beach with a steep berm, so we're trying to emulate that. So it -- it functions naturally. We're not trying to build out a beach like we do in other places. We're trying to build something specific to Flagler.
MS. PROVENCHER: Thank you.
MR. HARRAH: And they -- we've done these projects also, another planning, Superstorm Sandy came up the east coast, New Jersey, some of the districts up there, they're looking at the dune extension projects as well. You can go on Google. I did a couple of weeks ago. There are some of those dune projects they're already proposing up in New Jersey everywhere.
MS. JACKSON: Heidi -- Heidi McNeely.
MS. McNEELY: I'm Heidi McNeely. I'm a resident of Flagler Beach. To follow up on Mayor Provencher's question about other studies, you in your actual -- in this study you cite a study that was done for the St. Johns project. And in there

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you talk about over a million cubic yards of sand being deposited in St. Augustine that had to be done in 2003, again in 2005, in 2012. You did not provide information on the number of dollars that were spent for that. Obviously, that's a lot more than every 11 years. I think that's information that you could have provided in that study.
I know that Virginia Beach has had beach replenishment projects for decades. I used to live up there. Back in the '60s and '70s they were doing it. They've spent millions of dollars. I imagine you have the information on that. I think those sorts of numbers should have been included in a report like this.
I also feel that in that first chapter you gave us facts that now that I've seen your presentation, I'm wondering why are they even there. For example, you mention that in your study almost 1,500 structures could be affected by dune erosion. You cite a structural and content value of $340,000,000. Why you should be concerned about the contents of very expensive homes on the beach front, I don't know. But there's that number of $340,000,000.
And so when I look at the 43,000,000, I

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think, well, gee, that's only a sixth of the total investment here. Well, maybe it's worth it. But now I'm learning tonight that that 43,000,000 won't even be spent for any of those homes or that area, instead just a very small portion of Flagler Beach. So you see where you throw in numbers, like, ooh, maybe it's really worth it. And then maybe it really isn't.
I also really questioned this idea of the $43,000,000 over 50 years, it's a natural process we're just going to keep losing sand. You know it yourself. You say it's every 11 years. Maybe it'll be much more sooner than that. And then you even said in your study that parts of Flagler Beach are experiencing accretion right now. And devoted maybe one sentence to that. Maybe we're in accretion mode right now. Maybe there will be more accretion. Maybe we don't really need to spread this out as much as we do. I don't know.
Gosh, I had -- well, I had a few other points, but I'm forgetting one that was right on the tip of my tongue.
Oh, yes, I felt that you dismissed a lot of the nonstructural measures, just sort of out of hand. A1A, you've mentioned yourself how well it

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works in the Hammock, that you move the co- -- you moved the coastal construction line westward. A1A goes to the west. Is the Hammock really hurting that bad because of that? How much is that really going to affect Flagler Beach if we did have to reroute A1A a little bit, maybe just a small part of it. There are alternate streets. Did you even look at what the cost of that would be? There are no numbers on it.

And I also feel that you're sort of playing the hurricane card a little bit where it doesn't need to be played when you talk about, oh, A1A is our hurricane evacuation route. Well, it is and it's really important. But we do have alternate streets. And I think most of us are more concerned about getting over the Intracoastal bridge than whether we have to take Daytona or Flagler, instead of A1A to get out of here. Plus it's not going to disappear overnight. There's going to be time to make adjustments for A1A if we have to.

MR. HARRAH: Thank you.

MS. JACKSON: Thank you very much.

John Herpielding.

MR. HERPIEDLING: Hi there. My name is John Herpielding. I'm no genius and -- but I do -- I

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can read. And every place that I've looked at to where they've gone ahead and done this for this beach erosion, if you listen to the Army Corps of Engineers, they'll tell you what a wonderful job it's done. But if you go in there and look to see what the people think of the job that's been done, a couple of years later almost to a fault people will tell you it doesn't work. It doesn't work. Well, if it doesn't work then these people here that you're asking to foot the bill for over $10,000,000. That's a lot of money for something that just doesn't work. And you can't prove it.

God brings that -- the ocean in. The ocean is coming on. It's a natural thing that is moving around. The sand comes out. The sand comes in. You're just not improving it. You can't stop it. You cannot stop Mother Nature. God might be able to and he ain't asking for $10,000,000. So unless you can really justify what you're doing, I think it's wrong. And the simple fact that you've been running a study for 12 years already tells you you're wrong, you can't find the right -- right answer. So I got my say.

MS. JACKSON: Thank you, sir.

Barbara Revels.

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MS. REVELS: I just submitted my questions.

MS. JACKSON: Oh, okay.

MS. REVELS: I mean, I don't know if you're going to answer them or not tonight.

MR. HARRAH: Well --

MS. JACKSON: You want to --

MR. HARRAH: I think the easiest -- we could look at them, keep going, I'll look at them and see if we can. If not, we'll -- you know we'll answer them definitely in the report, let me see what you got. Just keep on going with the other folks.

MS. JACKSON: Rick Belhumer.

MR. BELHUMER: Yeah, Rick Belhumer, Flagler Beach. There's parts of that area, that reach area that are very, very close to the road right now. And you're talking about adding 10 feet. Are you starting out with that average and then adding 10 more feet so it will be pretty much a straight dune going down through there? Is that what you're --

MR. DURKIN: For the -- for the initial construction, it'll -- it'll start at wherever the existing dune ends or if there's existing armor there now at the top of there, it'll extend out 10 feet from there. Then it'll slope out, about three-on-one slope out to about the level of the

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existing beach berm. And then continue out from there for the rest of the volume.

MR. BELHUMER: So in other words --

MR. DURKIN: To that --

MR. BELHUMER: -- so where there's a wall, you're only going out 10 feet from it?

MR. DURKIN: Ten feet straight out and then it's -- with the three-on-one slope probably about another 30 feet out from there, the slope. So the whole footprint -- do you want to talk?

MS. HADLEY: See, if I can talk loud enough for this. Actually, what we're going to do is it's 10 foot off what we're referring to as the existing. However, we know the shoreline's not straight. It waivers. So what we're planning to do is to essentially -- I hate to say extend the existing, but to bring it out about 20 feet from A1A and then 10 feet from there so --

MR. HERPIELDING: So it's going to average 30 feet from the edge of the road?

MR. HARRAH: Correct.

MR. HERPIELDING: So it's going to straighten it out.

MS. HADLEY: Yes, sir.

MR. HERPIELDING: Now, I have another

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question about this eminent domain, do you guys answer or have any answers to what might be involved with that? And who -- who pays for that part of this?

MR. HARRAH: Are you talking about for the walkovers? Is what you -- what are you referring to?

MR. HERPIELDING: Walkovers and the property that you're going to be dumping --

MR. HARRAH: Right.

MR. HERPIELDING: -- sand on.

MR. HARRAH: Right. Typically, the way these projects work, there's about 42 walkovers in the project footprint. There's about 21 public and 21 private. Right now on the study we have proposed that those walkovers would have to be removed, the dune extension put in and those walkovers replaced. Now, is that a definite? Absolutely not.

Once we get into the preconstruction and design phase in 2015 we're going to look at every opportunity to keep those in place and possibly work around 'em. And so the question is how does that work. The nonfederal sponsor, in this case, Flagler County, is responsible for obtaining those perpetual storm damage easements and for all of

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those structures that is creditable -- creditable item that whatever money they spend for the public walkovers, we will credit back to their share on the construction. So they will receive credit for that. We will also cost share with them in the replacement cost of the public walkovers.

For the private walkovers that is between the County and the private citizen.

MR. HERPIELDING: Okay. All right. Thank you.

MS. JACKSON: Is there anybody else from the audience that would like to come up to speak?

Sir.

MR. HALL: Give you my slip.

MR. HARRAH: Yes, sir.

MS. JACKSON: Can you please state your name once you get up there.

MR. HALL: My name is Pete Hall. And I live in Palm Coast. And I've been here about seven years. I grew up in Jacksonville. The reason I wanted to come up and talk to y'all is that my son has a house on the beach in Baldhead Island where the Corps of Engineers dredged Cape Fear to keep the channel open. And they had a lot of erosion on the beach. And as a result of that, they helped

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the people on Cape Fear to refurbish that beach and they've done it through a technology that was very similar to the technology that you purchased -- Flagler purchased the study on it, which has to do with putting groins (phonetic) out perpendicular to the beach. And it's been very effective. So because of the news I've seen about the Flagler Beach problem, I got in touch with Baldhead and asked them who they were working with to help them to do this and it's a company in Jacksonville called Erik Engineering -- Olsen Engineering. And they're very well-versed in the coastline of the Atlantic Coast. They have projects, one in Amelia Island. They have projects in Ponte Vedra. They have projects all down the coast. Many of them are private. Many of them are through the government. And so they're very interested in what they can do to help. I'm very interested in anything that might be useful to the people of Flagler or to the federal government in -- in trying to solve the problem of erosion.

MS. JACKSON: We appreciate that. Thank you, sir.

MR. HYMAN: Good evening, Alan Hyman, Florida Department of Transportation. I just have a

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comment. I would just like to thank the Corps, Florida DEP, City and County on working on this very important project. It's been a long time coming as we've seen from the timeline. The D- -- the DOT will continue to work with and actively support all efforts in stabilizing the beach while also protecting State Road A1A. We realize that it is very important economically. And thanks again to all state coffers to come up with a workable solution, so I just like to thank everyone that's working on this.

MS. JACKSON: Thank you very much.

Anybody else from the audience?

MS. RICARDI: My name is Joanne Ricardi. I live in Flagler Beach. I know this has been a long -- long session for everybody. And I've attended most everything. I'm very, I have to say, acutely disappointed that the only solution has come out of this, and it was an expensive one, is the same thing that has been being done and doesn't work. Having said that, I wanted to bring up one other thing that I have never mentioned here. I think it was in section six -- might have been six two -- 6.2, it mentioned that there would be no problem with creatures. I don't know how that

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could possibly happen. We have gopher tortoises all the way up and down our dunes. I'm assuming you will do something about those before you -- before you dump any sand on the dune structure.

The other thing is the sea turtles, they come and they do their nesting six months of our year. And I would also hope that you would make a commitment, if you get to this project, 2'17, we may not even -- we may not need to be talking about this anymore, but also commit to not do this when it is turtle nesting time.

MR. HARRAH: Absolutely.

MS. RICARDI: And I'd like to see that.

MR. HARRAH: Absolutely.

MS. RICARDI: They are very precious to us and a lot of people in this community are very concerned about how this will affect them. Thank you.

MS. McCONNELL: Hi, I'm Kat McConnell, I'm the lead ecologist and environmental specialist for this project and I appreciate your comment. I would like to address the two things that you mentioned. First off with gopher tortoises, we have done surveys all along up and down the -- the entire study area which went from county line to

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county line, and we have not found any gopher tortoises that would be along the dune or the dune face. They may be further back in on the dune, but that is not in our work area or our study area.

So gopher tortoises, typically, don't like beaches because they like to burrow in and if they burrow too far, then they get water and then they're very -- they're out of their element and they're not very happy.

As far as working within -- with -- with sea turtle nesting season, part of the requirements that the Army Corps has with our resource agencies, especially, the US Fish and Wildlife Service as well as the Fish and Wildlife Conservation with the State of Florida is to work together and get biological opinions from these agencies which are basically memorandums of agreement that we will meet specific terms and conditions to address the habitat and the usage of these areas by a list of protected species as well as general wildlife.

We will be working with the Fish and Wildlife Service in doing any kind of sea turtle relocation nests -- of nests if we are working in those windows. But if we are working outside of those windows, which would be our preference, then we

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won't need to do that.

So let me recap. To do a work of this nature using federal funds, we have to coordinate with these agencies. In this coordination process we work with them to do it in the best feasible manner possible so that we are protecting these species. Working outside the windows of nesting season is our preferred, but that isn't always the reality. But we do have measures in place that we can use to address those -- those windows -- or, excuse me, to address those sea turtles when they are nesting. And one of the things is to do surveys before and during the -- the work to relocate nests if necessary. That's what we've been doing now with our emergency beach renourishment projects down in the southern part of the state as -- as well.

As these contracts were awarded and we needed to build these beaches back after Hurricane Sandy, we just didn't have the luxury of working outside the window so we ended up having to work within them. But it was done in a manner that was compatible with our biological opinions and that was to the satisfaction of our resource agencies.

MS. JACKSON: We only have Jason that's going to answer a few questions that we received from the

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audience.

MR. HARRAH: Questions from the commissioner, should there be a major storm that may occur before the project is done with major erosion, how will the Corps react to FDOT's actions to hold the highway? Will you stop them from harboring armor?

Yeah, I mean, until the project becomes authorized and appropriated, it would basically be business as usual. So any type of storm incident that may occur before that 2017 construction event, would be business as usual. Mr. Hyman and FDOT or whatever the process would be, would be what would occur until we get the construction complete.

Now, once the construction is complete, the initial construction is complete, the project's authorized, et cetera, in the event there be a major storm come up the coast, and we receive significant erosion, we have another program called FCCE, I don't know the acronym, Flood Control Coastal Emergency that we would come in, assess the beach, do renourishment and a portion of that is 100 percent federal. So the local sponsor is not on for a dime. That's 100 percent federal. But in order to get in that program, we have to complete the initial construction.

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The next question, will you assist them in emergency soil placement instead of armoring? No, I don't think we would at that time till the project was authorized. That would be strictly a State function.

MS. REVELS: I meant, technical assistance.

MR. HARRAH: We have technical assistance costs in the Army through our support for others group that we could do, but I don't know if Mr. Hyman would want to venture into that program or not. That's up to the FDOT.

Number three, what other options will they -- will we have and will local government have approval or deniability of those actions?

What are you referring to exactly in actions?

MS. REVELS: Again, emergency. Before the project's built if there is an emergency storm event and FDOT does what they need to do to protect the road, how is local government considered in that?

MR. HARRAH: Alan, you want to speak to that?

MR. HYMAN: I think the --

MR. HARRAH: You want that way. Okay.

MR. HYMAN: I can face the crowd. We do have a process in place with the City and County and all

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applicable agencies before we do anything, we do have call numbers for biological assistance, so we're not just going to go out and dump rock. We will consult with all the applicable stakeholders. And that was one of the lessons learned from what we've done previously. Thank you.

MS. JACKSON: Anybody else with any questions?

MR. LEWIS: (Raises hand.)

MS. JACKSON: Sir, you want to come back up?

MR. LEWIS: Doyle Lewis. I just want to repeat that the younger people that want to build here, they need somebody to support them. And they're going to be the ones that's doing the work. If you want them to have a job, you would let them have a job, very serious out there. Give 'em a job.

MS. JACKSON: Thank you, sir.

Ladies and gentlemen, this concludes our meeting portion tonight. You are more than welcome to stay and talk to the members of our team. We have these poster boards up here. If there is one in particular or is there a question you want answered one on one, please make yourself at home, we'll be here for a while now.

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(The public workshop concluded at 7:15 p.m.)

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CERTIFICATE OF REPORTER

STATE OF FLORIDA
COUNTY OF VOLUSIA

I, Delina M. Valentik, Registered Professional Reporter, Florida Professional Reporter, CERTIFY that I was authorized to and did stenographically report the foregoing proceedings; and that the transcript is a true and complete record of my stenographic notes.

I FURTHER CERTIFY that I am not a relative, employee, attorney, or counsel of any of the parties, nor am I a relative or employee of any of the attorneys or counsel connected with the action, nor am I financially interested in the action.

DATED this 20th day of February, 2014.

Delina M. Valentik,
Registered Professional Reporter
Florida Professional Reporter
Digital Certificate Authenticated
By VeriSign

Administration
1769 E. Moody Blvd Bldg 2
Bunnell, FL 32110

FLAGLER COUNTY
FLORIDA

www.flaglercounty.org
Phone: (386)313-4001
Fax: (386)313-4101

June 2, 2014

Colonel Alan M. Dodd, District Commander
U.S. Army Corps of Engineers
Jacksonville District
701 San Marco Blvd.
Jacksonville, FL 32207

Dear Colonel Dodd,

Flagler County as the non-federal sponsor for the Flagler County SPP fully supports the recommended plan as proposed in the final report. The success of this project is essential to the protection of critical resources and infrastructure along our coast as well as our local economy. We stand committed to working with the Army Corps of Engineers to complete the feasibility report process. We also understand our financial obligations as stated throughout the feasibility report.

Sincerely,

Craig M. Coffey

Craig M. Coffey
County Administrator

cc: Faith Alkhatib, P.E. Flagler County
Jason Harrah, ACOE
Candida Bronson, ACOE

NON-FEDERAL SPONSOR'S
SELF-CERTIFICATION OF FINANCIAL CAPABILITY
FOR DECISION DOCUMENTS

I, Kristi Moss, do hereby certify that I am the Financial Services Director of Flagler County (the "Non-Federal Sponsor"); that I am aware of the financial obligations of the Non-Federal Sponsor for the Flagler County Shore Protection Project; and that the Non-Federal Sponsor will have the financial capability to satisfy the Non-Federal Sponsor's obligations for that project. I understand that the Government's acceptance of this self-certification shall not be construed as obligating either the Government or the Non-Federal Sponsor to implement a project.

IN WITNESS WHEREOF, I have made and executed this certification this 5th day of June, 2014

BY: Kristi Moss
Kristi Moss

TITLE: Financial Services Director

DATE: June 5, 2014

FDOT

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 South Woodland Boulevard
DeLand, Florida 32720

ANANTH PRASAD, P.E.
SECRETARY

August 12, 2014

Mr. Jason Harrah
Project Manager
Water Resources Branch Jacksonville District
US Army Corps of Engineers
701 San Marco Boulevard
Jacksonville, FL 32207

Subject: Flagler County, Florida
Hurricane and Storm Damage Reduction Project
Integrated Feasibility Study and Environmental Assessment

Dear Mr. Harrah:

The Florida Department of Transportation would like to thank the Corps of Engineers for working on this very important project in Flagler County, Florida. The constant erosion of Flagler Beach will continue to threaten and erode sections of SRA1A resulting in the possibility of significant damage to not only the roadway but also upland areas, recreational interests, evacuation routes, local business and residential interests that will result in significant impacts to the local and regional economy. Prior remedial work performed by the Department primarily consisted of protecting the roadway only without consideration of permanent dune restoration or other strategies to protect the adjacent beach or upland areas.

The Department believes that the comprehensive solution proposed by the Corps is necessary for future protection of not only the roadway but the local community as well. We are in full support of the recommended plan and look forward to seeing this project authorized and constructed in the near future.

Sincerely,

Noranne Downs

Noranne Downs, P.E.
District Secretary

ND:AH:n

Cc: Alan E. Hyman, P.E., FDOT
Faith Alkhatib, Flagler County

City Of BUNNELL
Incorporated - 1913
Crossroads of Flagler County

August 11, 2014

Honorable George Hanns, Chairman
Flagler County Board of County Commissioners
1769 E. Moody Boulevard, Building 2
Bunnell, Florida 32110

Honorable Linda Provencher, Mayor
City of Flagler Beach
105 S. Second Street
Flagler Beach, Florida 32136

RE: Flagler County and City of Flagler Beach Stabilization Project

Dear Honorable Hanns and Provencher:

The City of Bunnell strongly supports Flagler County Hurricane and Storm Damage Reduction Study and the Environmental Assessment Project. As members of Flagler County and neighbors to the City of Flagler Beach we all understand how important this project is to the stability of the coastal infrastructures.

Not only is SR-A1A a major hurricane evacuation route, it is also an integral part of Flagler County's coastal infrastructure as the beaches are vital to sustaining the tourism in our County.

Every opportunity to reduce the risk of coastal erosion and damage to the infrastructure caused by the onslaught of hurricanes and storms should be considered priority number one.

Sincerely,

Catherine D. Robinson,
Mayor

TOWN OF BEVERLY BEACH, FLORIDA

2735 NORTH OCEANSHORE BLVD.
BEVERLY BEACH, FL 32136
(386) 439-6888
FAX: (386) 439-3202

August 12, 2014

RECEIVED
AUG 15 REC'D
COUNTY ADMINISTRATOR
FLAGLER COUNTY, FLORIDA

Flagler County Administration
1769 E. Moody Blvd., Bldg. 2
Bunnell, FL 32110

Re: Letter of Support for the Flagler County Hurricane and Storm Damage Reduction Study and Environmental Assessment Project

Dear Commissioner Hanns and Mayor Provencher,

Few are the opportunities to act before a disaster actually occurs. We in government often work from a reactive framework: a problem arises and we address it in a slow and methodical manner, channeling it through the proper authorities before trying to resolve it. By that time, however, other variables enter the scenario and the problem changes altogether.

In the case of the Flagler County Hurricane and Storm Reduction Study and Environmental Assessment Project, we have the chance to act before it is too late. Erosion is a slow, insidious process that robs municipalities of tourist dollars, and undermines every residence and business in its path. While mathematical models are not always totally accurate predictive mechanisms, a consensus of these models tells us that we still have time to forestall a disaster that would negatively impact Flagler County forever.

On behalf of the Town of Beverly Beach, I want to thank you and your respective administrations for having the courage and leadership to bring this issue to the forefront. With a spirit of determination and cooperation, your efforts can induce the realization that the time to act is now.

Sincerely,

James D. Ardell

James Ardell
Mayor

OFFICE OF THE MAYOR

August 13, 2014

The Honorable George Hanns
County Commission Chairman, Flagler County
1769 E. Moody Blvd, Bldg 2
Bunnell, FL 32110

The Honorable Linda Provencher
Mayor, City of Flagler Beach
PO Box 70
Flagler Beach, FL 32136

Re: Flagler Beach Stabilization Project

County Commission Chairman George Hanns and Mayor Linda Provencher:

The Palm Coast City Council would like to express support for a beach stabilization project in Flagler Beach. It is our understanding that you and your staffs have been working diligently with the U.S. Army Corps of Engineers (USACE) to identify potential steps to protect A1A, a critical north-south roadway corridor for Flagler County. Palm Coast recognizes the importance of the natural resources of such a special place. The Atlantic Coast shoreline supports a rich diversity of native habitat and beauty of regional, state, and national importance. These resources enrich the quality of life for our citizens and are vital to attracting visitors to our beautiful community.

Through extensive due diligence inclusive of numerous studies and assessments, the collaboration with the USACE has generated potential action that addresses the sensitivity of the area. Please accept this letter in support of this due diligence and overall approach to protecting this precious area.

Sincerely,

Jon Netts
Mayor

CC: City Council
Executive Team
Craig Coffey, County Administrator

THE TOWN OF
MARINELAND
FLORIDA
ESTABLISHED 1940
FLORIDA'S FIRST REMARKABLE COASTAL PLACE

9507 N. Oceanshore Blvd.,
St. Augustine, FL 32080

Phone: (904)461-4005
mayor.marineland@gmail.com

RECEIVED
AUG 22 REC'D
COUNTY ADMINISTRATOR
FLAGLER COUNTY, FLORIDA

Mr. George Hanns
Chairman, Board of County Commissioners
1769 E. Moody Blvd., Bldg. 2, Suite 301
Bunnell, FL 32110-0787

The Honorable Linda Provencher
Mayor, City of Flagler Beach
105 S. Second St.
Flagler Beach, FL 32136

22 August 2014

Dear Colleagues,

On behalf of the Town of Marineland, please accept this letter in support of your recent efforts in beach stabilization in Flagler County, subject to appropriate environmental safeguards ensuring the long-term health of the beach. As your neighbors in Flagler County, we are well aware of the positive effect this project will have on our tourism industry. As such, we feel this this project is essential for the continuing vivacity of our county. Should you need further information or support from us, please do not hesitate to contact us.

Sincerely,

Leslie S. Babonis, Ph.D.
Mayor, Town of Marineland