Appendix F

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

Environmental Appendix F
SECTION 404(B) EVALUATION

ENVIRONMENTAL ASSESSMENT
FOR
FLAGLER COUNTY HURRICANE STORM AND DAMAGE REDUCTION
FEASIBILITY STUDY

1. Project Description

a. Location. The Flagler County Hurricane and Storm Damage Reduction (HSDR) feasibility study area encompasses approximately 18 miles of beach shoreline, bounded to the north by St. Johns County, and to the south by Volusia County. The project area is located on a coastal barrier island that varies in width from approximately 800 to 5,000 feet. The barrier island extends uninterrupted by inlets or embayment for a length of 50 miles from Matanzas Inlet at the north end to Ponce de Leon Inlet, about 27 miles to the south in Volusia County. Smith Creek and the Atlantic Intracoastal Waterway bound the island directly to the west.

b. General Description. The study area for the Feasibility Study includes the FDEP designated coastal eroded shoreline of Flagler County, per 2009 designation. The study reaches include Marineland, FDEP monument R-1 to R-4; Painters Hill, R-50 to R-59; Beverly Beach R-6- to R-66; and Flagler Beach, R-66 to R-101. Reaches between R-4 and R-50 were determined early in the screening process to not contain areas of significant erosion requiring further investigation. The purpose of the feasibility study is to assess the feasibility of providing Federal Hurricane and Storm Damage Reduction (HSDR) measures to portions of the Flagler County shoreline. The local sponsor for this project, Flagler County, has indicated strong support for feasibility phase studies for HSDR purposes along their shoreline, and has declared willingness and the capability to share applicable costs in the current study. The Recommended Plan is the National Economic Development (NED) plan which consists of a dune extension and 10-ft sacrificial berm extension in Reach C only (FDEP monuments R80 to R94). This 2.6 mile area along Flagler Beach will have an average volume of 320,000 cubic yards of material placed on the beach dune for each nourishment event of the life of the project. The average renourishment interval is 11 years, and the total volume over the life of the project is 1,610,000 cubic yards. It is assumed that dredging losses will be 26%. Therefore the estimated volume to be dredged from
the offshore borrow area over the 50-year Recommended Plan is 2,028,600 mcy.

c. Authority. The authority for conducting this Feasibility Study is contained in House Resolution 2676 adopted May 22, 2002:

"Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, that in accordance with Section 110 of the Rivers and Harbors Act of 1962, the Secretary of the Army is requested to review the feasibility of providing shoreline erosion protection, hurricane and storm damage reduction, and related purposes to the shores of Flagler County, Florida."

In response to this authority, the reconnaissance phase of the study was initiated upon receipt of Federal funds in 2003. The reconnaissance study for Flagler County, Florida, completed in March 2004, recommended that this study continue into the feasibility phase based on the likelihood that a Federal project may be justified and implementable given available information.

d. General Description of Dredged or Fill Material.

1) General Characteristics of Material. The sediment in the borrow area is characterized as poorly-graded, fine grained sands with an average of 16% visual shell and 27% carbonate content. The mean grain size ranges between 0.19 mm and 0.47 mm, averaging 0.29 mm. The average standard deviation is 1 phi. The amount of fine grained material passing the #230 sieve averages 1.5%. The Munsell color of the dried sand is N 7/1.

2) Source of Material. The material for use in beach nourishment will be mined from an off-shore source. This source, (Area 2), located approximately 7 miles offshore from Flagler County, encompasses over 10,000 acres and would provide more than enough material for beach renourishment along the County’s beaches. Area 2 revealed beach compatible sand at three distinct locations: Sub-areas 2A, 2B, and 2C. Borrow Sub-areas 2A and 2B have a combined volume of beach compatible sand of approximately 3 million cubic yards, and borrow Sub-area 2C contains about 2.6 million cubic yards of material. Therefore, only Areas 2A and 2B are
proposed for Flagler County shoreline protection because they are closest to the placement area.

e. **Description of the Proposed Discharge Site.**

1) **Description of Existing Beach Material.** The native beach material throughout the study area consists of very fine-grained quartz sand thinly overlying coarse, medium-grained shell hash on the landward portion of the beach. The seaward portion of the beach consists of exposed, coarse shell hash. The sediment is comprised of less than 1% gravel or fine sand, less than 1% organic material, and 41.5% carbonate material. Results of the sediment analysis from collected samples indicate that the native beach sediment is bimodal consisting of a very fine-grained pinkish-gray quartz sand and medium grained reddish-yellow shell hash. The seaward portion of material consists of coarser shell hash, a likely resultant of Aeolian transport (particles transported by wind) on the sub-aerial portion of the beach along with sorting out of fine material by wave action in the intertidal (swash) zone. Some of this quartz sand appears to have been re-deposited seaward of the –0.5-ft contour.

2) **Size.** The project will consist of a dune extension some 10-ft seaward, as well as a 10-ft sacrificial berm with material obtained from an offshore borrow area via mechanical dredge. The length of the project along the shoreline is 2.6 miles.

3) **Type of site.** The type of site for placement of the sand fill material are segments of eroded, sandy, recreational beach with naturally occurring rock hardground that are variously exposed along and several hundred feet seaward of the low water shoreline. The seabed sites consist of unconsolidated fine, barren sand with no known subsurface rock within the project work zone.

4) **Type of Habitat.** The beach fill disposal site is a supra-tidal dry beach with a high energy intertidal environment.

5) **Timing and Duration of Discharge.** The exact timing of initial construction is not known at the time of submittal of the final Environmental Assessment.
f. **Description of Disposal Method.** Sediment form the offshore borrow area will be obtained by use of a hopper dredge with pump-out capability for subsequent hydraulic discharge to a designated staging site. Sediment will be removed from the staging site and placed and graded along the beach project areas by truck-haul and other mechanical grading equipment.

2. **Factual Determinations**

   a. **Physical Substrate Determinations.**

      1) **Substrate elevation and slope.** Details will be available with the final design.

      2) **Sediment Type.** Material from the borrow area is fine to coarse grained quartz sand with varying amounts of small broken shell fragment; see description of 1.d(1) above.

      3) **Dredge/Fill Material Movement.** The fill material will be subject to cross-shore erosion by waves with long-shore movement to both the north and south, and with principal new movement of fill material to the south.

      4) **Physical Effects on Benthos.** The placement of sand on the beach face will result in the burial and loss of most of the beach infauna. Key components of these assemblages are surf clam and mole crab. With adequate recruitment, surf zone infauna, including surf clams and mole crabs should recover within one year after completion of construction if the sedimentary characteristics of the restored beach are adequate, as described above and indicated by prior analogous use of the proposed borrow area sediments.

   b. **Water Circulation, Fluctuation, and Salinity Determination**

      1) **Water Column Effects.** Fill placement will not have long-term or significant impacts, if any, on salinity, water chemistry, clarity, color, odor, taste, dissolved gas levels, nutrients, or eutrophication.

      2) **Current Patterns and Circulation.** Currents in the project area are both tidal and longshore net movement of water due to the longshore current is typically from the north to the south.
3) Normal water Level Fluctuations and Salinity Gradients. Tides in the project area are semi-diurnal. Elevations of mean high water and mean low water tidal datum in Flagler County are approximately 2 feet below the NGVD 29 vertical datum.

c. Suspended Particulate/Turbidity Determinations.

1) Expected Changes in Suspended Particulates and Turbidity Levels in the Vicinity of the Disposal Site. There will be a temporary increase in turbidity levels in the waters adjacent to the material staging site during hydraulic discharge and a potential temporary increase in turbidity levels in the waters adjacent to the Flagler Beach shoreline within the project area during mechanical placement of the sediment to the beach face. Turbidity will be short-term and localized and no significant adverse impacts are expected. State standards for turbidity should not be exceeded during construction. Prior analogous use of the proposed borrow area sediment has not resulted in exceedance of stipulated State turbidity or water quality standards.

2) Effects on the Chemical and Physical Properties of the Water Column.

a) Light Penetration. The placement and spread of fill on the beach will increase turbidity in the nearshore area during construction. Because the immediate nearshore area is a high wave energy system and subjected to naturally occurring elevated turbidity and sediment, increases due to project construction should not be significant. A nearshore turbidity monitoring program with a plume mixing zone of 150 meters from the hydraulic dredge and discharge sites will be implemented during construction. Turbidity will be monitored during construction, and State standards for turbidity should not be exceeded. A nearshore monitoring program will be implemented to assess the potential secondary impacts of sedimentation and turbidity to nearshore communities adjacent to the equilibrium to of fill. No hardbottom resources are present in the project area.

b) Dissolved Oxygen. Dissolved oxygen levels will not be altered by this project.

c) Toxic Metals, Organics and Pathogens. No toxic metals, organics, or pathogens will be released by the project.
d) **Aesthetics.** Aesthetic quality will be reduced during that period when work is occurring. There will be a long term increase in aesthetic quality of the beach once the work is completed.

3) **Effects of Biota**

a) **Primary Productivity and Photosynthesis.** The level of suspended particles will temporarily increase in the surf zone during construction. Suspended material will prevent light from reaching existing algae temporarily restricting photosynthesis and primary productivity in local areas. Potential secondary impacts of chronic turbidity and sedimentation will be assessed for the nearshore communities during the post-construction monitoring.

b) **Suspension/Filter Feeders.** Suspension feeders will experience short-term impacts during construction, but no long-term adverse impact will occur as a result of this project.

c) **Sight Feeders.** Visual feeders will experience short term impacts, but no long-term adverse impacts will occur as a result of this project.

d) **Contaminant Determinations.** Deposited fill material will not introduce, relocate, or increase contaminants.

e) **Aquatic, Ecosystem, and Organism Determinations.** The grain size characteristics and composition exhibited by the proposed fill material are similar to those of the existing beach sediments. Therefore, no sediment related impacts are expected. The proposed fill material meets the exclusion criteria; consequently, no additional chemical-biological testing will be required.

4) **Effects on Plankton.** Although short term effects (e.g. clogging of feeder appendages) on plankton are likely, no adverse long-term impacts to planktonic organisms are anticipated.

5) **Effect on Benthos.** Although avoidance to non-motile or motile benthic invertebrates on nearshore hardbottom habitat and soft bottom habitat will be practiced, some long-term, adverse impacts are anticipated to occur.

6) **Effects on Nekton.** No adverse long-term impacts to nektonic species are anticipated.
7) **Effects on the Aquatic Food Web.** No adverse long-term impacts to any trophic group in the food web are anticipated.

8) **Effects on Special Aquatic Sites.**

   a) **Coral Reefs.** There are no coral reefs located with the proposed dredge and disposal areas.

   b) **Sanctuaries and Refuges.** There are no sanctuaries or wildlife refuges located within the proposed dredge and disposal areas.

   c) **Wetlands.** There are no wetlands located within the proposed dredge and disposal areas.

   d) **Mud Flats.** There are no mud flats located within the proposed dredge and disposal areas.

   e) **Vegetated Shallows.** There are no seagrass beds located within or adjacent to the dredge area, the staging sites or material placement locations.

9) **Endangered and Threatened Species.** There will be no significant impacts on any endangered or threatened species from the proposed project. Although designated critical habitat for the North Atlantic right whale occurs within the study area, activities proposed for the project sites will avoid impact to this habitat. Sea turtle nesting may occur in the project area during the time that the dredging and beach material placement takes place. If construction occurs during the nesting season, a nest monitoring and relocation program will be implemented as recommended by the USFWS. Although these species are unlikely to occur in the project area, protection measures for manatees, whales, shorebirds, gopher tortoise, southeastern beach mouse, and indigo snake will be followed to minimize the potential for harm to these species.

10) **Other Wildlife.** No significant adverse impacts to small foraging mammals, reptiles, wading birds, or wildlife in general are expected.

11) **Actions to Minimize Impacts.** All practical safeguards will be taken during construction to preserve and enhance environment, aesthetic, recreational, and economic values in the project area. Specific precautions that will be implemented in conjunction with the proposed project are discussed elsewhere in this Section 404(b) evaluation and Section 404 (b) Evaluation
d. **Proposed Disposal Site Determinations**

1) **Mixing Zone Determinations.** The fill material will not cause unacceptable changes in the mixing zone specified in the Water Quality Certification in relation to: depth, current velocity, direction and variability, degree of turbulence, stratification, or ambient concentrations of constituents.

2) **Determination of Compliance with Applicable Water Quality Standards.** Because of the inert nature of the fill material, state water quality standards will not be violated. Turbidity monitoring will be implemented as stipulated by state permits.

3) **Potential Effects of Human Use Characteristics.**

   a) **Municipal and Private Water Supplies.** No municipal or private water supplies will be impacted by the implementation of the action.

   b) **Recreational and Commercial Fisheries.** Recreational and commercial fisheries will not be permanently impacted by the disposal of dredged material on the beach. Minor or temporary adverse impacts to recreational fishing along the beach fill area may result from impacts to the nearshore hardbottom immediately along the shoreline; however, this may be evident as a seaward translocation of the fishing resource coincident with the addition of beach fill.

   c) **Water Related Recreation.** Beach recreation will be enhanced by the nourishment of the beach. Nearshore snorkeling and fishing may be temporarily affected by increased turbidity in the vicinity of fill sites. The presence of construction-related equipment will create public safety risks at the beach sites. Adverse impacts to swimming and surfing are not anticipated because of the narrow scale of beach fill to be placed immediately along the beach face, landward of locations where swimming and surfing occur.

   d) **Aesthetics.** The stabilization of an eroding beach will improve the aesthetics of the beach.

   e) **Parks, National and Historic Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves.** There
are numerous non-federal beach recreation areas, including state and county parks and facilities, located along the beach fill project area. The proposed activity is anticipated to maintain or improve beach recreation opportunities associated with these parks. There are no other national and historic monuments, national seashores, wilderness areas, research sites, and similar preserves located within the project areas.

f) Determination of Cumulative Effects on the Aquatic Ecosystem. As long as the characteristics of fill material remain consistent with previous projects (overall low proportion of fine-grained sand), there will be no significant cumulative impacts that result in a major impairment of water quality to the existing aquatic ecosystem as a result of placement of fill at the project site. Research during the feasibility phase of this project has indicated no net cumulative, adverse effect to the exposure of existing nearshore hardbottom along or adjacent to prior beach nourishment activities in the known recent past. No cumulative impacts to turtles, fish or wildlife have been documented.

   g) Determination of Secondary Effects on the Aquatic Ecosystem. No adverse secondary effects of the placement of the fill material are anticipated. Long-term monitoring will document potential secondary impacts of turbidity and sedimentation upon adjacent habitats.

3. Findings of Compliance or Non-compliance with the Restrictions on Discharge.

   a. No significant adaptations of the guidelines were made relative to this evaluation.

   b. No practicable alternative exists which meets the study objectives that does not involve discharge of fill into waters of the State of Florida and/or United States.

   c. After consideration of disposal site dilution and dispersion, the discharge of fill materials will not cause or contribute to, violations of any applicable State water quality standards for Class III waters. The discharge operation will not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.
d. The Flagler County HSDR project will not jeopardize the continued existence of any species listed as threatened or endangered or result in the likelihood of destruction or adverse modification of any critical habitat as specified by the Endangered Species Act of 1973, as amended.

e. The placement of fill material will not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreational and commercial fishing, plankton, fish shellfish, wildlife, and special aquatic sites. The life stages of aquatic species and other wildlife will not be adversely affected. Significant adverse effects on aquatic ecosystem diversity, productivity and stability, and recreational, aesthetic, and economic values will not occur. No adverse effects to hardbottom resources are likely to occur.

f. On the basis of the guidelines, the proposed disposal site for the discharge of dredged material is specified as complying with the requirements of these guidelines.
COASTAL ZONE MANAGEMENT CONSISTENCY

FLORIDA COASTAL ZONE MANAGEMENT PROGRAM
FEDERAL CONSISTENCY EVALUATION PROCEDURES

FLAGLER COUNTY HURRICANE AND STORM DAMAGE REDUCTION
FEASIBILITY STUDY
FLAGLER COUNTY, FLORIDA

1. Chapter 161, Beach and Shore Preservation.

The intent of the coastal construction permit program established by this chapter is to regulate construction projects located seaward of the line of mean high water and which might have an effect on natural shoreline processes.
Response: The proposed plans and information will be submitted to the state in compliance with this chapter.

2. Chapters 186 and 187, State and Regional Planning.

These chapters establish the State Comprehensive Plan which sets goals that articulate a strategic vision of the State’s future. Its purpose is to define in a broad sense, goals, and policies that provide decision-makers directions for the future and provide long-range guidance for an orderly social, economic and physical growth.
Response: The Proposed project has been coordinated with various Federal, State and local agencies during the planning process. The project meets the primary goal of the State Comprehensive Plan through preservation and protection of the shorefront and infrastructure.

3. Chapter 252, Disaster Preparation, Response and Mitigation.

This chapter creates a state emergency management agency, with the authority to provide for the common defense; to protect the public peace, health and safety; and to preserve the lives and property of the people of Florida.
Response: The proposed project involves the placement of beach compatible material onto an eroding beach as a protective means for residents, development, and infrastructure located along the Atlantic shoreline within Flagler County. Therefore, this project would be consistent with the efforts of the Division of Emergency Management.
Regarding natural resources, no hardbottom resources were identified to be present in the borrow or project placement areas (dune) during the subsurface resource survey; therefore, no impact would occur to this resource.


This chapter governs the management of submerged state lands and resources within state lands. This includes archaeological and historical resources; water resources; fish and wildlife resources; beaches and dunes; submerged grass beds and other benthic communities; swamps, marshes, and other wetlands; mineral resources; unique natural features; submerged lands; spoil islands; and artificial reefs.

Response: The proposed beach nourishment would create increased recreational beach and potential sea turtle nesting habitat. No seagrass beds, swamps, marshes and other wetland; mineral resources; unique natural features; spoil islands; and hardground or artificial reefs are located within or adjacent to the areas proposed for dredging, disposal, beach fill placement, or mitigation. The proposed project would comply with the intent of this chapter.

5. Chapters 253, 259, 256, and 375, Land Acquisition.

These chapters authorize the state to acquire land to protect the environmentally sensitive areas.

Response: No land acquisition is proposed in this project.

6. Chapter 258, State Parks and Aquatic Preserves.

This chapter authorizes the state to manage state parks and preserves. Consistency with this statute would include consideration of projects that would directly or indirectly adversely impact park property, natural resources, park programs, management or operations.

Response: There is one state park, Washington Oaks State Park within the study area, but will not be included for project management measures. Therefore, no adverse impact will occur to this state park. There is one state recreational area, Gamble Rodgers Memorial State Recreation Area, which is within the project area. Protective measures to avoid or minimize impact along with mitigation measures are included in the Environmental Assessment. Regarding natural resources, no hardbottom resources were identified to be present in the borrow or project placement areas (dune) during the subsurface resource survey; therefore, no impact would occur to this resource.

7. Chapter 267, Historic Preservation.
This chapter establishes the procedures for implementing the Florida Historic Resources Act responsibilities.
Response: No significant impacts to historical properties are expected from construction of the proposed Flagler County Hurricane and Storm Damage Reduction (HSDR) project based upon the results of site investigation and this coordination.

This chapter directs the state to provide guidance and promotion of beneficial development through encouraging economic diversification and promoting tourism.
Response: The proposed beach nourishment would provide more space for recreation and the protection of recreational facilities along the receiving beach. This would be compatible with tourism for this area and therefore, is consistent with the goals of this chapter.

This chapter authorizes the planning and development of a safe balanced and efficient transportation system.
Response: No public transportation systems would be impacted by this project.

10. Chapter 370, Saltwater Living Resources.
This chapter directs the state to preserve, manage and protect the marine, crustacean, shell and anadromous fishery resources in state waters; to protect and enhance the marine and estuarine environment; to regulate fishermen and vessels of the state engaged in the taking of such resources within or without state waters; to issue licenses for the taking and processing products of fisheries; to secure and maintain statistical records of the catch of each such species; and to conduct scientific, economic, and other studies and research.
Response: The tentatively selected plan consists of the creation of an extension of the upland dune and 10-ft sacrificial berm constructed with a hydraulic dredge. There will be no effect to fishery resources such as estuaries or other marine environments.

This chapter establishes the Fish and Wildlife Conservation Commission and directs it to manage freshwater aquatic life and wild animal life and their habitat to perpetuate a diversity of species with densities and distributions which provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.
Response: The project will have no significant effect on freshwater aquatic life or wild animal life.

Coastal Zone Management Consistency
12. Chapter 373, Water Resources.
This chapter provides the authority to regulate the withdrawal, diversion, storage, and consumption of water.
Response: The project does not involve water resources as described by this chapter.

This chapter regulates the transfer, storage, and transportation of pollutants and the cleanup of pollutant discharges.
Response: The contract specifications will prohibit the contractor from dumping oil, fuel, or hazardous wastes in the work area and will require that the contractor adopt safe and sanitary measures for the disposal of solid wastes. A spill prevention plan will be required.

14. Chapter 377, Oil and Gas Exploration and Production.
This chapter authorizes the regulation of all phases of exploration, drilling, and production of oil, gas, and other petroleum products.
Response: This project does not involve the exploration, drilling or production of gas, oil, or petroleum product, and therefore, does not apply.

15. Chapter 380, Environmental Land and Water Management.
This chapter establishes criteria and procedures to assure that local land development decisions consider the regional impact nature of proposed large-scale development.
Response: The proposed renourishment project will not have any regional impact on resources in the area. Therefore, the project is consistent with the goals of this chapter.

This chapter provides for a comprehensive approach for abatement or suppression of mosquitoes and other pest arthropods within the state.
Response: The project will not further the propagation of mosquitoes or other pest arthropods.

17. Chapter 403, Environmental Control.
This chapter authorizes the regulation of pollution of the air and waters of the state by the Florida Department of Environmental Regulation (now a part of the Florida Department of Environmental Protection).
Response: A Draft Environmental Assessment addressing project impacts has been prepared and is under review by the appropriate resource agencies including the Florida Department of Environmental Protection. Environmental protection measures will be implemented to ensure that no lasting adverse effects on water quality, air quality, or other environmental resources will occur. Water Quality Certification will be sought from the State prior to construction. The project complies with the intent of this chapter.

18. Chapter 582, Soil and Water Conservation.

This chapter establishes policy for the conservation of the state soil and water through the Department of Agriculture. Land use policies will be evaluated in terms of their tendency to cause or contribute to soil erosion or to conserve, develop, and utilize soil and water resources both onsite or in adjoining properties affected by the project. Particular attention will be given to projects on or near agricultural lands.

Response: The proposed project is not located near or on agricultural lands; therefore, this chapter does not apply.
MEMORANDUM FOR Commander, U.S. Army Records Management and Declassification Agency, ATTN: AHRC-PDD-RP Casey Building, Room 102, 7701 Telegraph Road, Alexandria, Virginia 22315-3860

SUBJECT: Notice of Intent to Prepare a Draft Environmental Impact Statement

Enclosed for publication in the Federal Register are three signed original copies of the Notice of Intent to prepare a Draft Environmental Impact Statement and compact disc for Flagler County, Florida proposal to recover critically eroded coastal shoreline. The billing code is 3710-AJ.

FOR THE COMMANDER

Encl

ERIC P. SUMMA
Acting Chief, Environmental Branch
BILLING CODE: 3710-AJ

DEPARTMENT OF DEFENSE

Department of the Army; Corps of Engineers

Intent to Prepare a Draft Environmental Impact Statement for Shoreline Protection for Flagler County, FL

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DOD.

ACTION: Notice of intent.

SUMMARY: The Jacksonville District, U.S. Army Corps (Corps) of Engineers intends to prepare a Draft Environmental Impact Statement (EIS) for protection of 18-Miles of coastal shoreline in Flagler County, FL. The project is a cooperative effort between the U.S. Army Corps of Engineers (lead Federal agency) and City of Flagler Beach (non-Federal sponsor and cooperating agency).

ADDRESSES: Ms. C. L. Brooks, U.S. Army Corps of Engineers, Jacksonville District, Planning Division, Environmental Section, P.O. Box 4970, Jacksonville, FL 32207.

FOR FURTHER INFORMATION CONTACT: C. L. Brooks at (904) 232-2130.

SUPPLEMENTARY INFORMATION: Authority for the proposed study is House Resolution 2676 adopted May 22, 2002. A Reconnaissance Report completed in March 2004 by the Corps, concluded based on preliminary findings, there was a federal interest in pursuing shoreline protection for Flagler County, FL.
Alternatives: Project's alternatives include no action and various levels of protection along approximately 18 miles of coastal shoreline with substantial critically eroded areas. In addition to various levels of beach nourishment and periodic renourishment, the Corps will consider other management measures such as nearshore placement of sand, breakwaters, submerged artificial reef, groins, revetments, seawalls, dunes/vegetation, change to the Coastal Construction Control Line, relocation of structures, moratorium on construction, establish a no-growth program, relocation of structures, flood proofing of structures, and condemnation of structures with land acquisition.

Issues: The EIS will consider impacts on hardbottom communities, sea grasses, protected species, shore impacts, health and safety, water quality, aesthetics and recreation, fish and wildlife resources, cultural resources, energy conservation, socio-economic resources, navigation, and other impacts identified through scoping, public involvement and interagency coordination.

Scoping: The scoping process will involve Federal, State, County and municipal agencies and other interested persons and organizations. Any public or agency scoping meeting will be announced separately from this notice.

Public Involvement: We invite the participation of affected Federal, State and local agencies, affected Native-American Tribes, and other interested private organizations and individuals. There will be a public meeting on the Draft
Environmental Impact Statement following its preparation. The date, time, and location will be announced.

Coordination: The proposed action is being coordinated with the U.S. Fish and Wildlife Service (FWS) [under Section 7 of the Endangered Species Act and the Fish and Wildlife and Coordination Act] and with the National Marine Fisheries Service [under the Magnuson-Stevens Fishery Conservation and Management Act (on Essential Fish Habitat) and Section 7 of the Endangered Species Act. The proposed action is also being coordinated with the Florida State Historic Preservation Officer, the U.S. Coast Guard, and the U.S. Environmental Protection Agency.

Other Environmental Review and Consultation: The proposed action would involve evaluation for compliance with guidelines pursuant to Section 404(b)(1) of the Clean Water Act, water quality certification (application to the State of Florida) pursuant to Section 401 of the Clean Water Act, certification of state lands, easements, and rights-of-way, and determination of Coastal Zone Management Act Consistency.

Agency Role: As the cooperating agency, non-Federal sponsor and leading local expert, the City of Flagler Beach will provide information and assistance on the resources to be impacted, mitigation measures and alternatives. Other agencies having either regulatory authority or special expertise may also be invited to become a cooperating agency in preparation of the EIS.
Draft EIS Preparation: It is anticipated that the Draft EIS will be available to the public by December 2010. As the study and EIS develop, additional information will be posted under Flagler County on the Jacksonville District's Environmental Documents web page at: http://planning.saj.usace.army.mil/envdocs/envdocsb.htm. The status of any Florida Department of Environmental Protection application submitted for permit of this action will be posted on the internet at: http://www.dep.state.fl.us/beaches/permitting/permits.htm.

DATE
26 Aug 2008

ERIC P. SUMMA
ACTING CHIEF, ENVIRONMENTAL BRANCH
The Jacksonville District, U.S. Army Corps of Engineers (Corps), is gathering information to define issues and concerns that need to be addressed during a shore protection study for Flagler County, Florida. Authority for the study is contained in House Resolution 2676 adopted May 22, 2002. A reconnaissance level report has been completed and resulted in a recommendation to continue the study into the feasibility phase. The study area is the coastal shoreline that exists within the boundaries of Flagler County, approximately 18 miles.

Flagler County is located on the northeast coast of Florida midway between the Florida/Georgia state line and Cape Canaveral. The study area is part of a barrier island and mainland complex that extends from the Matanzas Inlet to the Ponce de Leon Inlet (Figures 1 and 2). Geographically, the county is bound to the north by St. Johns County, to the south by Volusia County, Putnam County to the west and the Atlantic Ocean to the east. Critically eroded areas have developed along the shoreline and pose threats to existing development, infrastructures and recreation features; shoreline stabilization structures, a major roadway (State Highway A1A); and fish and wildlife habitat.

The feasibility study will develop and evaluate shore protection alternatives with potential to reduce hurricane and storm damage along critically eroded areas; improve the quality of suitable habitats for threatened and endangered species (Table 1); provide future protective features for unique habitats; provide beneficial use of dredged material; and improve local and regional recreational opportunities. See enclosed “Notice of Intent” for additional information.

For the purposes of the Feasibility Report, the study area has been divided into six (6) reaches (Figure 3) as following:

Reach 1 – Marineland. This reach is located between the Florida Department of Environmental Protection (FDEP) monuments R-1 to R-4. Erosion is being experienced at a rate of 0.5 feet per year (ft/yr).

Reach 2 – Painters Hill. This reach is located between FDEP monuments R-50 to R-55. Erosion is ranging from 1.5 to 2.0 ft/yr.
Reach 3 – Beverly Beach. This reach is located between FDEP monuments R-64 to R-67. Critical erosion extends about 0.3 mile.

Reaches 4, 5 and 6 – Flagler County. These reaches are located between FDEP monuments R-77 to R-91. Critical erosion extends approximately 2.5 miles.

During the reconnaissance study, sand source alternatives were identified (Figures 3 and 4). It is highly probable that beach quality sand may be secured from maintenance dredging of the Matanzas Intracoastal Waterway; dredging of the material deposited into the Matanzas Inlet by tidal shoals and sediment migration patterns; or secured from offshore sand sources. During the Feasibility Study, details specific to each alternative will be evaluated to determine available volume, quality, and compatibility.

The Flagler County Shoreline Protection Project is proposed for evaluation under the Environmental Impact Statement (EIS) process. The EIS will assess impacts on the human environment, identify methods and procedures to insure that present un-quantified environmental amenities and values are sufficiently addressed, evaluate unresolved conflict that may develop over the recommended alternatives; and will initiate and use ecological/natural resources information in the planning and development of project action and alternatives. During the Feasibility Study, public meetings also will be conducted to identify and develop public concerns and obtain substantive input into the study processes.

The Corps invite you to submit comments on environmental concerns, cultural resources, study objectives, and important features within the described study area, as well as, suggested alternatives, scientific data, and possible study improvements. Within 45 days of this letter, your written communication should be directed to the letterhead address. Questions of inquiry and clarification can be directed to the Environmental Point of Contact, Ms. C.L. Brooks, at either the above letterhead, telephone number 904-232-2130, facsimile number 904-232-3442, or email address Catherine.L.Brooks@usace.army.mil.

Sincerely,

Rebecca S. Griffith, Ph.D, PMP
Chief, Planning Division

Enclosure

bcc (w/ enc.):
CESA1-PD-PC
CESA1-DP-I
Dear Dr. Crabtree:

In accordance with regulations pertaining to the National Environmental Policy Act (Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for an Environmental Impact Statement (EIS) on the Flagler County, Shoreline Protection Feasibility Study. A copy of the Notice of Intent to Prepare an EIS and a Plan View map of the study area are enclosed. Additional information can be obtained from the following website: http://planning.saj.usace.army.mil/envdocs/envdocsb.htm#Flagler-County.

Please note that cooperating agency status involves actions and responsibilities beyond that normally associated with a commenting or permitting agency. We request that your role include the following: (1) designate a Point of Contact representing your agency on the Project Delivery Team for this action; (2) provide early review and comment on the EIS and Feasibility Study; and (3) participate in the Feasibility Scoping Meeting (FSM), the Alternative Formulation Briefing (AFB), the public meeting on the Draft EIS, and periodic project meetings and teleconferences.

The conduct of the FSM and AFB and the formulation of the project, alternatives, and mitigation will be in accordance with Engineer Regulation ER 1105-2-100 (http://www.usace.army.mil/publications/regs) and will fully consider a range of environmental, economic, and social factors. As a cooperating agency, you must fully consider the views, needs, and benefits of competing interests.

No cooperating agency will have “veto” over the selection of the project plan, alternatives, or mitigation measures. Under your status as a commenting agency, you may recommend actions not ultimately adopted or implemented by the lead agency. You may also impose requirements to the extent allowed under your legal authority as a permitting agency. Conflict with the lead agency may be resolved through mediation, placing a dissenting opinion in the EIS, withdrawing your cooperating agency status, or the Lead agency pursuing an EIS without you as a cooperating agency. For additional information see the enclosed “Rights and Responsibilities of Lead and Cooperating Agencies” (Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, Council on Environmental Quality, 1981). Additional information on Cooperating Agencies can be found at http://ceq.eh.doe.gov/nepa/regs.

Please indicate whether you accept this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Mr. Kenneth Dugger at 904-232-1686 or Ms. Catherine Brooks at 904 232-2130.

Sincerely,

[Signature]

Eric A. Sotulma
Acting Chief, Environmental Branch

Enclosures

Copies Furnished:

- Ms. Lauren Milligan, Florida Department of Environmental Protection, Office of Intergovernmental Programs, 3900 Commonwealth Boulevard, MS 47, Tallahassee, Florida 32399-3000
- Ms. Sally Mann, Director, Office of Intergovernmental Programs, Florida Department of Environmental Protection, 3900 Commonwealth Boulevard, MS 47, Tallahassee, Florida 32399-3000
- Mr. Jack Long, Florida Department of Environmental Protection Southeast District, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401
Dear Mr. Haddad:

In accordance with regulations pertaining to the National Environmental Policy Act (Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for an Environmental Impact Statement (EIS) on the Flagler County, Shoreline Protection Feasibility Study. A copy of the Notice of Intent to Prepare an EIS and a Plan View map of the study area are enclosed. Additional information can be obtained from the following website: http://planning.saj.usacc.army.mil/envdocs/envdocsb.htm#Flagler-County.

Please note that cooperating agency status involves actions and responsibilities beyond that normally associated with a commenting or permitting agency. We request that your role include the following: (1) designate a Point of Contact representing your agency on the Project Delivery Team for this action; (2) provide early review and comment on the EIS and Feasibility Study; and (3) participate in the Feasibility Scoping Meeting (FSM), the Alternative Formulation Briefing (AFB), the public meeting on the Draft EIS, and periodic project meetings and teleconferences.

The conduct of the FSM and AFB and the formulation of the project, alternatives, and mitigation will be in accordance with Engineer Regulation ER 1105-2-100 (http://www.usacc.army.mil/publications/eng-regs) and will fully consider a range of environmental, economic, and social factors. As a cooperating agency, you must fully consider the views, needs, and benefits of competing interests.

No cooperating agency will have “veto” over the selection of the project plan, alternatives, or mitigation measures. Under your status as a commenting agency, you may recommend actions not ultimately adopted or implemented by the lead agency. You may also impose requirements to the extent allowed under your legal authority as a permitting agency. Conflict with the lead agency may be resolved through mediation, placing a dissenting opinion in the EIS, withdrawing your cooperating agency status, or the Lead agency pursuing an EIS without you as a cooperating agency. For additional information see the enclosed “Rights and Responsibilities of Lead and Cooperating Agencies” (Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, Council on Environmental Quality, 1981). Additional information on Cooperating Agencies can be found at http://ceq.epa.gov/nepa/regs.

Please indicate whether you accept this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Mr. Kenneth Dugger at 904-232-1686 or Ms. Catherine Brooks at 904-232-2131.

Sincerely,

[Signature]

Eric P. Scamp
Acting Chief, Environmental Branch

Enclosures

Copies Furnished:
Mr. Tim Breault, Director, Habitat and Species Conservation, Fish and Wildlife Conservation Commission, 620 South Meridian Street, Tallahassee, Florida 32399-1600
Mr. Chuck Collins, Regional Director, Fish and Wildlife Conservation Commission, 8535 Northlake Boulevard, West Palm Beach, Florida 33412
Please indicate whether you accept this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Mr. Kenneth Daggett at 904-252-1866 or Ms. Catherine Brooks at 904-232-2130.

Sincerely,

[Signature]

[Name]

Acting Chief, Environmental Branch

Copies furnished:

Ms. Lauren Milligan, Florida Department of Environmental Protection, Office of Intergovernmental Programs, 900 Commonwealth Boulevard, MS 47, Tallahassee, Florida 32399-3000

Ms. Sally Mann, Director, Office of Intergovernmental Programs, Florida Department of Environmental Protection, 900 Commonwealth Boulevard, MS 47, Tallahassee, Florida 32399-3000

Ms. Jack Long, Florida Department of Environmental Protection Southeast District, 409 North Congress Avenue, Suite 210, West Palm Beach, Florida 33401
DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P.O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0011

Planning Division
Environmental Branch

Mr. Dave Hankla, Field Supervisor
U.S. Fish and Wildlife Service
North Florida Field Office
7915 Baymeadows Way, Suite 200
Jacksonville, Florida 32256-7517

Dear Mr. Hankla:

In accordance with regulations pertaining to the National Environmental Policy Act (Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for an Environmental Impact Statement (EIS) on the Flagler County, Shoreline Protection Feasibility Study. A copy of the Notice of Intent to Prepare an EIS and a Plan View map of the study area are enclosed. Additional information can be obtained from the following website: http://planning.saj.usace.army.mil/cnvdocs/lenvdocs/flagler-county.html.

Please note that cooperating agency status involves actions and responsibilities beyond that normally associated with a commenting or permitting agency. We request that your role include the following: (1) designate a Point of Contact representing your agency on the Project Delivery Team for this action; (2) provide early review and comment on the EIS and Feasibility Study; and (3) participate in the Feasibility Scoping Meeting (FSM), the Alternative Formulation Briefing (AFB), the public meeting on the Draft EIS, and periodic project meetings and teleconferences.

The conduct of the FSM and AFB and the formulation of the project, alternatives, and mitigation will be in accordance with Engineer Regulation ER 1105-2-100 (http://www.usace.army.mil/publications/eng-regs) and will fully consider a range of environmental, economic, and social factors. As a cooperating agency, you must fully consider the views, needs, and benefits of competing interests.

No cooperating agency will have “veto” over the selection of the project plan, alternatives, or mitigation measures. Under your status as a commenting agency, you may recommend actions not ultimately adopted or implemented by the lead agency. You may also impose requirements to the extent allowed under your legal authority as a permitting agency. Conflict with the lead agency may be resolved through mediation, placing a dissenting opinion in the EIS, withdrawing your cooperating agency status, or the Lead agency pursuing an EIS without you as a cooperating agency. For additional information see the enclosed “Rights and Responsibilities of Lead and Cooperating Agencies” (Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, Council on Environmental Quality, 1981). Additional information on Cooperating Agencies can be found at http://ceq.eh.doe.gov/NEPA/regs.

Please indicate whether you accept this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Mr. Kenneth Dugger at 904-232-1686 or Ms. Catherine Brooks at 904-232-2136.

Sincerely,

[Signature]

Eric P. Starnes
Acting Chief, Environmental Branch

Enclosures
Dear Mr. Bennett:

In accordance with regulations pertaining to the National Environmental Policy Act (Title 40 of the Code of Federal Regulations, part 1501.6), I am formally responding to your request for the Bureau of Ocean Energy Management, Regulation and Enforcement Division, Branch of Environmental Assessment to become a cooperating agency for an Environmental Impact Statement (EIS) on the Flagler County Hurricane and Storm Damage Reduction (HSDR) Feasibility Study. Informal coordination with your agency is forthcoming. An EIS is currently being drafted which will evaluate the Flagler County HSDR feasibility project with emphasis on identifying alternatives for the protection of natural and economic resources along Flagler County beaches and shoreline. A copy of the Notice of Intent to Prepare an EIS and a Plan View map of the study area are enclosed. Additional information can be obtained from the following website:


Please note that cooperating agency status involves actions and responsibilities beyond that normally associated with a commenting or permitting agency. Your agency is being specifically requested to provide special expertise on natural resources in this area.

The formulation of the project, alternatives, and mitigation will be in accordance with Engineer Regulation ER 1105-2-100 and will fully consider a range of environmental, economic, and social factors. As a cooperating agency, you must fully consider the views, needs, and benefits of competing interests.

No cooperating agency will have “veto” over the selection of the project plan, alternatives, or mitigation measures. Under your status as a cooperating agency, you may recommend actions not ultimately adopted or implemented by the lead agency. You may also impose requirements to the extent allowed under your legal authority as a permitting agency. Conflict with the lead agency may be resolved through mediation, placing a dissenting opinion in the EIS, withdrawing your cooperating agency status, or the Lead agency pursuing an EIS without you as a cooperating agency.

For additional information see the enclosed “Rights and Responsibilities of Lead and Cooperating Agencies” (Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, Council on Environmental Quality, 1981).

Please indicate whether you accept this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Ms. Kathleen McConnell at 904 232-3607.

Sincerely,

[Signature]

[Name]
Chief, Environmental Branch

Enclosures
Dear Director:

This letter initiates the 30-day coordination with your office under the Statewide Programmatic Biological Opinion (SPBO) for beach placement and shore protection for the Flagler County Hurricane and Storm Damage Reduction (HSDR) project located in Flagler County, Florida. The Corps proposes to reduce damage from extreme storms and hurricanes through the shoreline protection measure of rebuilding a natural dune system that includes planting native dune-type vegetation for a section of Flagler Beach from FDEP monument R-80 to R-92. The proposed project consists of a 10-foot seaward extension of the existing dune; construction of the dune extension will extend the existing berm and entire active profile seaward. The attached figure provides a summary of the plan.

There are no identified terms and conditions, or other criteria that would not be followed. Standard Manatee protection measures would be imposed on activities in the water. With respect to sea turtles, all other terms and conditions of the SPBO would be followed. The proposed activity may affect nesting sea turtles and is not likely to adversely affect Manatees. The activity is unlikely to affect beach mice as none are known to be present within the project footprint.

This letter also notifies your office with respect to the Programmatic Piping Plover Biological Opinion (P3BO). The activity will not occur in “optimal” Piping Plover habitat and is not likely to adversely affect the Piping Plover (see enclosed information sheet). Although no optimal Piping Plover habitat is present within the project area, this species has been documented as occurring within the Gamble Rodgers State Recreational Area to the south of the project limits (R-94). It is for this reason that a P3BO informational sheet is being submitted with this document.

Should you determine that the proposed activity is not within the scope of the SPBO or the P3BO, please consider this letter initiation of consultation pursuant to Section 7 of the Endangered Species Act. If you have any questions, please contact me at 904 232-1665 or the technical point of contact. The technical point of contact for this action is Kathleen McConnell who can be reached at 904 232-3607.

Sincerely,

Eric P. Summa
Chief, Environmental Branch

Enclosures

[Signature]

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P.O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019
Planning Division
Environmental Branch
Ms. Teresa Callesen, Acting Director
U.S. Fish & Wildlife Service
North Florida Ecological Services Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517

Flagler County HSDR Proposed Project

Flagler County HSDR Feasibility Report
Environmental Appendix
Scoping
Public and Resource Agencies
Piping Plover Project Information and Checklist

- Seasonal Window, Beach Work Limited to May 16 through July 14; Construction activities may extend beyond the May through July window due to contracting constraints.

Survey Dates: How Many Months Before Construction

Habitat Avoided by Pipeline: Interdunal Flats

High Value Habitats Affected: Interdunal Flats

Habitat Evaluation Method/Source: Aerial Photo

Two or more Adjacent Beach Segments or Inlets Affected the Same Year

All Material Placed in the Nearshore

Project Description: The construction of dune extensions 10-8' from the top of dune face. Material to be placed landward of nearshore.

OPTIMAL HABITAT DETERMINATION (any of the following 3 categories)

1. Designated Critical Habitat Affected

2. Affected public lands: Within 1 mile of an inlet; nearshore feature(s)

3. Other Optimal Habitat

4. Construction contractors will directly hire bird monitors with qualification for piping plover observation. However, all oversight for bird monitor activities and hiring approval remains with the Corps Planning Division Environmental Branch and the project Sponsor, Flagler County.

Flagler County HSDR Feasibility Report
Environmental Appendix

Scoping
Public and Resource Agencies

Page 2 of 2
Statewide Programmatic Biological Opinion (SPBO) Beach Placement and Shore Protection 
Coast of Florida 
U.S. Fish and Wildlife Service (FWS)

New Record  
Save Record  
Close  
Record #  69

Prepared by:  
Date Entered: 10/9/2013

Project Name:  
Project Event:  
Project Number: 133166  
Application #:  
Sponsor / Applicant: Flagler County

Quantity (CT):  
Location #:  
Municipal:  
Lat %:  
Long %:  
Borrow or Dredge Site:

Beach Placement from Navigation Dredging:  
Beach Nourishment/Shore Protection Project:  
Nature of Activity:  
Dune Placement or Planting:  
Beach Placement Below MLW:  
Sand Bypassing:  
Jetty Repair or Replacement:  
*Other Activity (List in comment box):  
Area with Sea Turtle Window:  
Other Beach Mouse Habitat:  
Beach Mouse Habitat (List in comment box):  
Important Manatee Area:  
Beach Jacquemontia Habitat:  
Rosanea Term Colon, May-June (Pelican Shela, Vaca Rock, Truman Annex, Marathon/Gev Center):  
Snowy Plover Breeding Area, Mar-Sep (Gulf Coast: Caladari Is, Fort DeSoto Park, Cayo Costa, isolated peninsulas):  
*These items may be outside the scope of the SPBO and/or require additional coordination w/FWS (see next page)

Page 1 of 2

Flagler County HSDR Feasibility Report
Environmental Appendix

Scoping 
Public and Resource Agencies

Page 2 of 2

F-29
Dear Colonel Dodd:

This document transmits the U.S. Fish and Wildlife Service’s (Service) decision regarding the application of the proposed Flagler County Hurricane and Storm Reduction project located in Flagler County, Florida, to the August 22, 2011, Statewide Programmatic Biological Opinion (SPBO) (Service, 2011) and the May 22, 2013, Programmatic Piping Plover Biological Opinion (P3BO) (Service, 2013). The U.S. Army Corps of Engineers (Corps) determined on October 8, 2013, that the proposed project “may affect” the threatened North Atlantic population of the loggerhead sea turtle (Caretta caretta), the endangered green sea turtle (Chelonia mydas), and the endangered leatherback sea turtle (Dermochelys coriacea). In addition, the Corps determined that the proposed project “may affect, but was not likely to adversely affect” the endangered West Indian (Florida) manatee (Trichechus manatus latirostris) and the piping plover (Charadrius melodus), because it was not located in optimal Piping Plover Habitat. This document is provided in accordance with Section 7 of the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 et seq.), the Marine Mammal Protection Act of 1972, as amended (MMPA) (16 U.S.C. 1361 et seq.), and the provisions of the Fish and Wildlife Coordination Act of 1958, as amended (FWCA) (48 Stat. 401; 16 U.S.C. 661 et seq.).

PROJECT DESCRIPTION

The Corps is proposing to perform shoreline protection activities from Florida Department of Environmental Protection monuments R-80 to R-94 in Flagler Beach in order to rebuild a natural dune system by adding a 10-foot seaward extension of the existing dune (Figure 1). In the event of future storms, the work should result in a significant reduction in storm damage along State Road A1A. The proposed construction will result in 330,000 cubic yards of sand placement followed by periodic nourishment events of 320,000 cubic yards. The sand will be mined from a borrow area located seven miles offshore of the placement area and delivered to the project site using a hydraulic dredge. The proposed project is expected to take 30 days for the mobilization/demobilization activities and approximately 123 days for construction. The expected interval between renourishment events would be 11 years. Additional work associated with the project will include the planting of native shoreline vegetation on the constructed dune and on the
existing dune disturbed by the proposed construction. We consider the action area for this project to include approximately 2.6 miles of linear shoreline.

The action area is defined as all areas to be affected directly or indirectly by the action and not merely the immediate area involved in the action. The Service identifies the action area to include the staging and discharge areas, pipeline corridor, beach access corridor, and the area of the sand placement. The project is located along the Atlantic Ocean, Flagler County, between R-80 and R-94.

**THREATENED AND ENDANGERED SPECIES**

**Sea Turtles**

The Service and the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries) share Federal jurisdiction for sea turtles under the Act. The Service has the responsibility for sea turtles on the nesting beach and the NOAA Fisheries has jurisdiction for sea turtles in the marine environment. As a result, our analysis will only address activities that may impact nesting sea turtles, their nests and eggs, and hatchlings as they emerge from the nest and crawl to the sea.

Please note the provisions of this consultation do not apply to sea turtles in the marine environment, such as swimming juvenile and adult sea turtles. If applicable, you are required to consult with the NOAA Fisheries on your project. For further information on Act compliance with the NOAA Fisheries, please contact Ms. Cathy Tortorici, Chief of the Interagency Cooperation Branch, by e-mail at cathy.tortorici@noaa.gov or by phone at 727-209-5953.

The applicant has agreed to implement SPBO’s Reasonable and Prudent Measures and Terms and Conditions, which apply to sand placement projects constructed during the sea turtle nesting season. The Service has determined that the proposed project is appropriate to apply to the SPBO as it concerns sand replacement activities along the coast of Florida. The minimization measures, Reasonable and Prudent Measures, and Terms and Conditions in the SPBO are applicable to the proposed project and must be followed for the loggerhead, green, and leatherback sea turtles. We have assigned log number 2014-F-0038 to this individual consultation. Please submit a report for the proposed project as described in the SPBO Term and Condition A22 following completion of the proposed work.

**Piping Plover**

The proposed project is located in non-optimal piping plover habitat and, therefore, consistent with the P³BO, we conclude that a determination of “may affect, but is not likely to adversely affect” is appropriate, provided that conservation measures agreed to by the Corps for all projects that may affect the piping plover are followed. The applicant has agreed to implement the conservation measures outlined in the P³BO that apply to projects in non-optimal habitat, including implementing the survey guidelines for non-breeding shorebirds.
Wintering shorebird surveys as described in the P3BO are intended to document shorebird use of project sites before and after construction and thereby monitor project impacts to the piping plover. Reasonable and Prudent Measure 5 and Terms and Conditions 8 and 9 in the P3BO describe the monitoring requirement. Term and Condition 8 stipulates that for one full piping plover migration and winter season (July 15 to May 15) prior to construction and 2 seasons following construction, bimonthly (twice-monthly) surveys for piping plovers shall be conducted in any intertidal or shoreline areas within or affected by the project. Term and Condition 9 outlines information to be collected. For projects in non-optimal habitat, such as this project, the Service has modified winter shorebird survey requirements as deemed appropriate based on specifics of the project.

If piping plovers are documented in the project area during the preconstruction surveys, the Service will be contacted for potential implementation of additional conservation measures prior to commencing construction. All shorebird survey data will be forwarded to the Service annually by July 31 of each year in which monitoring is conducted, as described in Term and Condition 9 of the P3BO. The person(s) conducting the surveys must demonstrate the qualifications and ability to identify shorebird species and be able to provide the information outlined in the P3BO.

West Indian (Florida) Manatee

Provided that the Florida Fish and Wildlife Conservation Commission’s (FWC’s) 2011 Standard Manatee Conditions for In-Water Work and minimization measures outlined in the SPBO are implemented to avoid potential impacts to manatees, the Service concurs with the determination of “may affect, but not likely to adversely affect” for the manatee.

This letter fulfills the requirements of the Act and no further action is required. If modifications are made to the project, if additional information involving potential effects to listed species becomes available, or if a new species is listed, reinitiation of consultation may be necessary.

FISH AND WILDLIFE RESOURCES

This section is provided in accordance with the FWCA of 1958, as amended (48 Stat. 401; 16 U.S.C. 661 et seq.) to address other fish and wildlife resources in the project area.

In accordance with the Migratory Bird section of the SPBO, the Corps should follow the FWC standard guidelines (see attached guidelines) to protect against impacts to nesting shorebirds as a result of the proposed project. With the protection measures from the guidelines, the SPBO, and the P3BO implemented, the proposed work should not result in significant impacts to those resources.

The Corps should continue to consult with NOAA Fisheries regarding the dredge and sand placement templates as well as the downdrift areas. In addition, the Corps will assess and consult with NOAA Fisheries concerning potential impacts to foraging and swimming sea turtles, and all other marine species under their jurisdiction within the action area.
REINITIATION NOTICE

This concludes formal consultation on the action outlined in the request. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if:

1. The amount or extent of incidental take outlined in the SPBO and/or P3BO is exceeded. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation;
2. New information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion;
3. The agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or
4. A new species is listed or critical habitat designated that may be affected by the action.

Thank you for your cooperation in the effort to conserve fish and wildlife resources. Should you have additional questions or require clarification regarding this letter, please contact Terri Calleson at 904-731-3286.

Sincerely,

[Signature]

Jay B. Herrington
Field Supervisor

cc: Corps, Jacksonville, Florida (Kathleen McConnell)
DEP, Tallahassee, Florida (Lanie Edwards)
FWC, Tallahassee, Florida (Robbin Trindell)
NOAA Fisheries, St. Petersburg, Florida (Kathy Tortorici)
Figure 1. Specific location of proposed work
LITERATURE CITED


Attachment

Standard Conditions for Placement of Dredged Material at Seabird and Shorebird Nesting Sites

1. **Selection of Bird Monitors.** The permittee or designated representative ("Permittee") shall hire one or more Bird Monitors, depending on the size of the area to be affected, who will monitor shorebird activity before, during, and after construction. Bird Monitors should have proven seabird and shorebird identification skills and avian survey experience. Before hiring any Bird Monitors, the Representative shall provide a list of candidate Bird Monitors with (1) their contact information and (2) a summary of their qualifications, including bird identification skills and avian survey experience, to the FWC Regional Species Conservation Biologist (contact information attached) for FWC approval before the Permittee hires the Bird Monitor(s).

2. **Pre-Construction Meeting.** The Permittee is responsible for arranging a meeting with the U.S. Fish and Wildlife Service (USFWS), the Florida Fish and Wildlife Conservation Commission (FWC), and the Bird Monitor(s) before any work begins. The Permittee shall notify the USFWS, the FWC Regional Species Conservation Biologist (contact information attached), and the Bird Monitor(s) at least 10 business days before the date of that meeting. The purpose of this meeting is to ensure that the Permittee and Bird Monitor(s) fully understand and agree with the protection measures and any additional site-specific measures that need to be taken before, during, and after construction.

3. **Nesting Seabird and Shorebird Protection Conditions:** Bird Monitors shall use the following survey protocols:

   a. The Bird Monitor(s) shall review and become familiar with the general information on the FWC's Florida Shorebird Database (FSD) website (www.FLShorebirdDatabase.org). They shall use the data-collection protocol and implement data-entry procedures as outlined in that website. 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 until September 1 except:
        - Spoil islands in Hillsborough County: March 1 until September 1
        - Citrus and Levy counties: March 15 until September 1
        - Dixie and Taylor counties: April 1 until September 1
- St. Lucie, Martin, and Palm Beach counties:
  - Spoil islands and estuaries: March 15 until September 1
  - Coastal beaches: April 1 until September 1
- Broward and Miami-Dade counties: April 1 until September 1
- All other Atlantic Coast counties: March 15 until September 1

Surveys during the breeding season shall begin on the first day of the breeding season or 10 days before any site work begins, whichever is later. Surveys shall be conducted through August 31 or until all breeding activity has concluded, whichever is later.

c. During the breeding season, the Bird Monitor(s) shall survey all potential beach-nesting bird habitats that may be affected by construction or pre-construction activities. The Bird Monitor(s) shall establish one or more shorebird survey routes into the FSD website to cover these areas.

d. During the pre-construction and construction phases of the project, the Bird Monitor(s) shall complete surveys on a daily basis to detecting breeding activity and the presence of flightless chicks before (1) equipment is moved to the area, (2) vehicles are operated in the area, or (3) any other activities occur that have the potential to disrupt breeding behavior or cause harm to the birds or their eggs or young.

e. The Bird Monitor(s) shall survey the project area by walking and looking for evidence of (1) shorebirds exhibiting breeding behavior, (2) shorebird chicks, or (3) shorebird juveniles, as outlined in the FSD’s Breeding Bird Protocol for Shorebirds and Seabirds. The Bird Monitor(s) must use binoculars for these surveys.

If an ATV or other vehicle is needed to cover large project areas, operators shall 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 under 6 mph and only on beaches at or below the high-tide line. The Bird Monitor(s) will stop at no greater than 200-meter intervals to look for breeding activity.

f. Once the Bird Monitor(s) confirms that birds are breeding, as evidenced by the presence of a scrape, eggs, or young, the Bird Monitor(s) shall notify the FWC Regional Species Conservation Biologist (contact information attached) within 24 hours. The Bird Monitor(s) must report all breeding activity to the FSD website within one week of data collection.

4. **Seabird and Shorebird Buffer Zones and Travel Corridors.** The Bird Monitor(s) shall establish a disturbance-free buffer zone around any location within the project area where
shorebirds have been engaged in breeding behavior, including territory defense. The FWC considers a 300-foot-wide buffer to be adequate based on published studies; however, a smaller, site-specific buffer may be established if approved by the FWC Regional Species Conservation Biologist (contact information attached). All sources of human disturbance (including pedestrians, pets, and vehicles) shall be prohibited in the buffer zone.

a. The Bird Monitor(s) 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 Bird Monitor(s) shall widen the buffer zone immediately to a sufficient size to protect breeding birds.

b. The Bird Monitor(s) shall ensure that reasonable and traditional pedestrian access is not blocked situations under which breeding birds will tolerate pedestrian traffic. Breeding birds may tolerate pedestrian traffic within 300 feet of an established pathway. The Bird Monitor(s) shall work with the FWC Regional Species Conservation Biologist to determine if pedestrian access can be accommodated without compromising nesting success.

c. The Bird Monitor(s) shall ensure that the perimeters of designated buffer zones are marked with posts, twine, and signs stating “Do Not Enter, Important Nesting Area” or similar language. The signs shall include the name and a phone number of the entity responsible for posting. Posts should not be higher than 3 inches once installed. “Symbolic fencing” (i.e., twine, string, or rope) shall be placed between all posts and be clearly visible to pedestrians. In areas where marine turtles nest, the ropes shall be at least 2.5 feet above the ground. If pedestrian pathways are approved by the FWC Regional Species Conservation Biologist within the 300-foot buffer zone, these should be clearly marked. The Bird Monitor(s) shall ensure that the posting is 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.

d. The Bird Monitor(s) shall ensure that no construction activities, pedestrians, moving vehicles, or stockpiled equipment are allowed within the buffer area.

e. The Bird Monitor(s) shall designate and mark travel corridors outside the buffer areas so as not to cause disturbance to breeding birds. Heavy equipment, other vehicles, or pedestrians may go past breeding areas in these corridors. However, other activities such as stopping or turning heavy equipment and vehicles shall be prohibited within the designated travel corridors adjacent to the breeding site. When flightless chicks are present within or next to travel corridors, the Bird Monitor(s) shall accompany moving vehicles to ensure that no chicks are in the path of the moving vehicle and no tracks are left that could trap flightless chicks.
f. The FWC recommends that the Bird Monitor(s) ensure that some activity in the travel corridor is maintained on a daily basis in order to discourage birds from nesting within the travel corridor. These activities should not be allowed to disturb shorebirds nesting on site or interfere with marine turtle nesting, especially if the corridors are established before construction has started.

g. Flooding or flagging potential breeding sites shall be the only passive methods for modifying their suitability in upland placement areas before breeding starts unless the FWC Regional Species Conservation Biologist has approved alternative methods. The Bird Monitor(s) shall survey these areas for shorebird activity before these areas are flooded or flagged.

5. **Seabird and Shorebird Notification.** If the Bird Monitor(s) find that shorebirds are breeding within the project area, he or she shall ensure that an informational bulletin board is placed and maintained in the construction staging area. This bulletin board shall display the location map of the construction site, depict the location(s) of the bird breeding areas, and include a clearly visible warning stating: “NESTING BIRDS ARE PROTECTED BY LAW INCLUDING THE FLORIDA ENDANGERED AND THREATENED SPECIES ACT AND THE STATE AND FEDERAL MIGRATORY BIRD ACTS”.

6. **Equipment Storage and Placement.** The Bird Monitor(s) shall ensure that staging areas for construction equipment are located off the shoreline whenever possible. Equipment not in use or left overnight shall be stored away from the shoreline in order to minimize disturbance to nesting shorebirds. In addition, all construction pipes that are placed on the shoreline shall be located as far landward as possible. Pipes that are stored temporarily shall be placed off the shoreline to the maximum extent possible. If it will be necessary to extend construction pipes past a known shorebird nesting site or an over-wintering area for piping plovers, then those pipes should be placed landward of the site whenever possible 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.
To Whom It May Concern:

The Jacksonville District, U.S. Army Corps of Engineers (Corps), is gathering information to define issues and concerns that need to be addressed during hurricane and storm damage reduction (HSDR) study for Flagler County, Florida. Authority for the study is contained in House Resolution 2676, adopted May 22, 2002. A Notice of Intent to prepare a Draft Environmental Impact Statement was issued on August 26, 2008. A reconnaissance level report was completed resulting in a recommendation to continue the study into the Feasibility phase. The study area is the coastal shoreline of Flagler County, approximately 18 miles.

The Flagler County HSDR Project is being evaluated under the National Environmental Policy Act (NEPA) process. The NEPA would assess impacts to the human environment, identify methods and procedures to insure that present un-qualified environmental amenities and values are sufficiently addressed, and evaluate unresolved conflict that may develop over the recommended alternatives. Additionally, the NEPA would initiate and use ecological/natural resources information in the planning and development of project action and alternatives.

The Corps invites you to attend this public scoping workshop to address environmental concerns, cultural resources, study objectives, and important features within the described study area, and to suggest alternatives, scientific data collection, and possible study improvements. The workshop would provide the opportunity for verbal and written commentary, and participation with technical specialists of various disciplines that address the Corps planning process, environmental and cultural resources, as well as engineering and economic concerns.

The workshop will be held on October 25, 2011, from 6:00 pm to 9:00 pm at the Flagler County Government Services Building, located at 1769 East Moody Blvd, Building #2, Bunnell, FL 32110. Inquiries regarding this meeting may be directed to Ms. Kathleen McConnell, at the above letterhead, by telephone at 904-232-3607, or email at Kathleen.k.mcconnell@usace.army.mil.

Sincerely,

[Signature]

Eric P. Summa
Chief, Environmental Branch

Scoping
Public and Resource Agencies
June 11, 2014

Colonel Alan M. Dodd, Commander
U.S. Army Corps of Engineers Jacksonville District
Jacksonville District, Corps of Engineers
P.O. Box 4970
Jacksonville, Florida 32232-0019

Attention: Kathleen McConnell

Dear Colonel Dodd:

NOAA’s National Marine Fisheries Service (NMFS) reviewed the Flagler County, Florida Hurricane and Storm Damage Reduction Project Draft Integrated Feasibility Study and Environmental Assessment (EA) dated January 2014. The Tentatively Selected Plan (TSP) is the National Economic Development plan and consists of a ten-foot dune extension and a ten-foot sacrificial berm over 2.6 miles of shoreline in central Flagler Beach between Florida Department of Environmental (FDEP) monuments R-80 and R-94. The sand would come from a borrow area seven miles offshore. A hydraulic dredge would likely be used to dredge sand from the borrow area and to pump sand onto the beach; heavy equipment (such as bulldozers) would be used to grade the sand into the construction template. Over the 50-year period of Federal participation, the Jacksonville District estimates four nourishment events at 11-year intervals would occur after initial construction. Initial construction and each nourishment event would require approximately 330,000 cubic yards of sand. As the nation’s federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, the following comments are provided pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

**Essential Fish Habitat**

EA Section 2.4.6 identifies federally managed fishery species the Jacksonville District believes occur in the project area and discusses their distribution along with the distribution of numerous other species. These descriptions do not require augmentation to complete the EFH consultation.

**Impacts to Essential Fish Habitat**

NMFS examined whether the project may adversely impact live/hardbottom habitat, which EA Sections 2.4.4 and 2.4.6 note is a Habitat Area of Particulars Concern. EA Appendix F includes a report from Dial Cordy and Associates (DCA) showing “exposed or near-surface rock” between the 10-foot and 15-foot depth contours between R-80 to R-87 and notes this is generally consistent with a 1999 report from FDEP. While the DCA report does not quantify the area of
the outcrops, NMFS estimates Figures 4C and 4D show 1 to 2 acres of hardbottom habitat. The DCA report notes confirmation of these signatures may be required, and EA Appendix F and the latter part of EA Section 2.4.4 discuss a follow-up survey done about one year later in 2012. The description of the follow-up surveys is not clear. The text says multi-beam sonar and towed video were “proposed to acquire further detail of the hardbottom” but it appears only an additional sidescan sonar survey was done. The proximity of these potential outcrops to the equilibrium toe-of-fill also is not clear because the EA has few cross-sectional drawings. EA Appendix A (page A-66) suggests the equilibrium toe-of-fill extends to the 12-foot depth contour. Amending Figures 4D and 4E to include the estimated equilibrium toe-of-fill would greatly clarify the extent of the potential live/hardbottom impacts. Assuming no live/hardbottom habitat would be buried by the equilibrium toe-of-fill, NMFS has no concerns about impacts to this habitat in the fill area.

NMFS also examined whether the project may adversely impact live/hardbottom habitat at the borrow area. EA Appendix F reports no hardbottom in or near Borrow Areas 2A, 2B, and 2C. While SEAMAP\(^1\) shows hardbottom may be present in Area 2C, the data reported in Appendix F should be substantially higher in quality and reliability than the much older SEAMAP data. Further, EA Sections 7.3.1 and 7.6.1 note a 400-foot buffer would be maintained around any hardbottom found as new information becomes available as project planning progresses (NMFS assumes the 200-foot buffer listed in Table 7-1 is a typographical error given the support the EA offers elsewhere for the 400-foot buffer). Provided a 400-foot buffer is used to protect any live/hardbottom habitat found in a borrow area, NMFS has no concerns about impacts to this habitat in the borrow areas.

Lastly, NMFS examined whether dredging of the borrow area and filling at the beach may increase the concentration of suspended sediments that can clog gills in young, less mobile fish and invertebrates and thereby increase their mortality rate. The extent of negative effects is dependent on the life history stages of the species present and duration of exposure to high concentrations of suspended sediments. In open areas, adherence to the State Water Quality Criteria for turbidity at the edge of a 150-meter mixing zone is normally sufficiently protective of fishery resources. In addition to the State Water Quality Criteria, another practicable way to minimize fishery impacts is restricting dredging to the winter months or placing restrictions on dredge operations (e.g., in the case of a cutterhead dredge, the swing speed of the ladder arm supporting the cutterhead, the rotational speed of the cutterhead blades, and the intake suction velocity at the cutterhead) can be used to minimize suspension of material. NMFS requests the Jacksonville District evaluate whether a seasonal restriction on dredging would be a practicable way to minimize impacts to larvae and juveniles migrating along the shoreline. If a seasonal restriction is not practicable, an evaluation of the duration that larvae and young juvenile fish would be exposed to high levels of suspended sediments should be beneficial.

We appreciate the opportunity to provide these comments. Please direct related questions to the attention of Mr. George Getsinger at our Northeast Florida field office. He may be reached at 9741 Ocean Shore Drive, St. Augustine, Florida, 32080; by telephone at (904) 461-8674; or by email at George.Getsinger@noaa.gov.

Sincerely,

/ for

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

cc:

COE, Jason.J.Spinning@usace.army.mil, Kathleen.K.Mcconnell@usace.army.mil
EPA, Eric.H.Hughes@usace.army.mil
FWS Annie_Dziergowski@fws.gov, Terri_Calleson@fws.gov
SAFMC, Roger.Pugliese@safmc.net
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F/SER4, David Dale@noaa.gov, George.Getsnger@noaa.gov
Flagler County (Florida) Nearshore Hardbottom Survey

Submitted in support of the Flagler County Hurricane and Storm Damage Reduction Feasibility Study

Prepared for
Jacksonville District
U.S. Army Corps of Engineers

by
Dial Cordy and Associates Inc.
490 Osceola Avenue
Jacksonville Beach, Florida 32250

3 October 2011
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Flagler County Nearshore Hardbottom Survey
Dial Cordy and Associates

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1.0 INTRODUCTION

Background. Flagler County is located on the northeast coast of Florida approximately midway between the Florida/Georgia state line and Cape Canaveral. The county is bounded to the north by St. Johns County and to the south by Volusia County (Figure 1). Flagler County has approximately 18 miles of sandy shoreline, all of which are authorized for Federal study. The coast has no inlets or embayments and the beaches are typically fronted by steep dune faces or rock revetment. Sections of coquina rock outcroppings and nearshore hardbottom are present along the coast. The Flagler County shoreline is subject to erosion caused by both storms and natural shoreline processes. The purpose of the study is to assess the feasibility of providing Federal Hurricane and Storm Damage Reduction (HSDR) measures to portions of the Flagler County shoreline (USACE 2011).

The four reaches listed in Table 1 encompass approximately 9.6 miles of coastline to be investigated in the Flagler County Feasibility Study. This includes 5.7 miles of shoreline that is designated by the Florida Department Environmental Protection (FDEP) as critically eroded. Of these four reaches, three will be included in the sidescan sonar hardbottom resource survey. These include Painters Hill, Beverly Beach, and Flagler Beach as identified in Figure 1. Marineland is excluded from the study area for this side scan sonar hardbottom resource survey (USACE 2011).

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Designated Feasibility Study Reaches for Flagler County, Florida</th>
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<tbody>
<tr>
<td>Section</td>
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<tr>
<td>Painter’s Hill*</td>
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<tr>
<td>Beverly Beach*</td>
<td>60-67</td>
</tr>
<tr>
<td>Flagler Beach*</td>
<td>67-101</td>
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</table>

*Denotes areas to be included in the side scan sonar hardbottom resource survey.

Authorization. The authority for conducting this Feasibility Study is contained in House Resolution 2676 adopted May 22, 2002:

“Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, that in accordance with Section 110 of the Rivers and Harbors Act of 1962, the Secretary of the Army is requested to review the feasibility of providing shoreline erosion protection, hurricane and storm damage reduction, and related purposes to the shores of Flagler County, Florida.”

In response to this authority, the reconnaissance phase of the study was initiated upon receipt of Federal funds in 2003. The reconnaissance study for Flagler County, Florida, completed in March 2004, recommended that this study continue into the feasibility phase based on the likelihood that a Federal project may be justified and implementable given available information. (USACE 2011).

Objective. The objective of this study was to detect and map potential hardbottom resources via remote sensing survey (including the use of sidescan sonar) of Flagler County beaches (from R-50 to R-101, Figure 1). Dial Cordy and Associates Inc. (DC&A) performed the work under Jacksonville District USACE under contract W912EP-11-F-0006. Identification and delineation of potential benthic habitat(s) and substrate types within the study area was conducted.
2.0 METHODS

Flagler County Nearshore Hardbottom Survey
Dial Cordy and Associates

Figure 1 Flagler County Study Areas

Source: Jacksonville District, USACE 2011
2.1 Field Activities

Sidescan sonar data of the study area was collected below the mean low water line in Flagler County on seven occasions between June 20 and August 4, 2011 (Table 2). Due to perpetual sea state issues (seas over 2 feet), all data could not be collected at the same day or week. The study area included the nearshore submerged substrates extending from 300-ft north of the FDEP marker R-50 to 300-ft south of FDEP marker 101 (at the Volusia-Flagler County line), then waterward from the mean high water line (MHW) directly 1200-ft east of these markers. The linear distance along the shoreline was approximately 9.3 miles. The spatial area encompassed approximately 2.3 square miles (Figure 2).

Table 2. Flagler Nearshore Side Scan Data Acquisition

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<th>Start Time</th>
<th>Stop Time</th>
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<td>10:40</td>
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</table>

Prior to mobilization, survey lines were established within the survey area using ArcMap 9.2 providing sufficient coverage to detect benthic variation of habitats and delineate their extents (Figure 2). The ArcInfo file was imported into Hypack version 2009a for navigational use.

A 25-foot Parker survey vessel was mobilized for the operation. The sidescan fish was towed off the slightly port side of the bow and submerged to a depth to not be adversely affected by surface waves. A Marine Sonic High Definition Sonar (HDS) 900 kHz high definition side-scan sonar fish in conjunction with a Trimble DSM 232 sub-meter accurate dGPS and Hypack navigation software version 2009a was used to survey each area.

Sidescan sonar coverage was 100 percent. The maximum allowable lateral range was 100 meters, but typically only data collected from within 30 meters of the fish was determined suitable for detailed analysis. With use of the 600 kHz fish, data collected out to 30 meters was determined of sufficient quality for analysis. The sidescan sonar system was operated with sufficient resolution that it was capable of detecting an object on the sea floor measuring 1m x 1m x1m from shadow length measurements. The sidescan towfish was operated at a height above the bottom of 8 to 15 percent of the range scale used. For any towfish height below 8 percent of the range scale in use the effective scanning range was defined to equal 12.5 times the towfish height. The towfish was towed at a speed such that an object 1 m on a side on the sea floor would be independently ensonified a minimum of three times per pass. At a 65 m or less range this was expected to be less than 5 knots.
Figure 2    Project Map for Flagler County Beach Hardbottom Survey

2.2      Data processing and analysis

Side Scan Sonar Photo Mosaic. Pixel resolution of the side scan mosaic produced from the survey was greater than 0.5 m by 0.5 m. The digital image file on the attached DVD is in a standard geo-referenced image format (GeoTiff). The mosaics were generated in one complete image file per scan transect.

Contact Images. A list of contacts with significant subsurface features was compiled and included in Appendix A. Contacts with computed target heights (based on the side scan sonar shadow lengths) of at least 1 foot were considered “significant.” Other contacts without shadows
were also considered “significant” if the sonargram signature (e.g., size, shape, or pattern qualities) was notable.

**Data Acquisition and Processing Abstracts.** Data capture was accomplished using Seascan Survey software (Marine Sonics) and the mosaic image was created using Sonar Whiz 5.0 (Chesapeake Technology). Data processing and analysis was accomplished using QTC Swathview seabed classification software (Quester Tangent). All sonargrams and data acquisition/processing comments are available in digital form in the attached DVDs. Sonargrams are submitted in the XTF format.

### 3.0 RESULTS AND DISCUSSION

Figure 3 presents the mosaic of the side scan sonar data collected for the project. An electronic copy is included on the DVD for more detailed viewing. The insert included on Figure 3 provides an example of the resolution and detail that was the basis for the additional analysis. Three different features are included in the insert including washboard sand, exposed or near-surface rock, and boat wreckage debris.

Figure 4 provides a key for the analysis of the processed side scan data that is provided in more detail in Figures 4A through 4E. While the majority of the study area was determined to consist of sandy substrates, linear bands of sand with shell hash were parallel to the shoreline, mainly around the 5-foot depth contour line. The shell hash extends throughout the full range (north to south) of the study area.

Approximately 75 isolated areas of either exposed rock or near-surface rock are scattered throughout the study area, predominately between the 10-foot and 15-foot depth contours (Appendix A). These areas tended to run perpendicular to the shoreline and were more concentrated in the central region of the study area. However, as seen in Figure 4A, a number of small, isolated areas of exposed/near-surface rock were identified west of the 5-foot contour line, but are restricted to the northern portion of the study area.

Confirmation of the substrate signatures may require additional investigation. Towed video or diver surveys or a combination of the two would determine if any of the areas designated as potential exposed rock contained biological resources that could be affected by beach fill. In addition, the boat wreckage debris site would require investigation to determine any historical or cultural significance.

### 4.0 LITERATURE CITED AND CONSULTED

Flagler County HSDR Feasibility Report
Environmental Appendix

Flagler County Nearshore Hardbottom Survey
Dial Cordy and Associates

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Flagler County HSDR Feasibility Report
Environmental Appendix

Flagler County Nearshore Hardbottom Survey
Dial Cordy and Associates
Appendix A

Flagler County HSDR Hardbottom Survey
Contact Coordinate Table
Flagler County HSDR Harbottom Survey Anomale Coordinate Table

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* Coordinates are in NAD 83 Florida State Plane System (feet)
SURVEYOR'S REPORT
Hydrographic Survey
Flagler Co. Nearshore Hard Bottom
Flagler County, FL
Survey No. 12-115

Report of Survey prepared by: Matthew Staley P.S.M., U.S. Army Corps of Engineers
Jacksonville District

Project: Flagler County nearshore hard bottom Side-scan, Multi-beam, and Underwater Camera Survey FY12

Location: Atlantic Ocean, 150-500 yards offshore from Flagler County, Florida.

Date: Field data was acquired 16 & 17 Aug 2012.

Right of Access: There were no access issues.

Personnel: System Operators: Kevin Smith, Chad Harralson, and Matthew Staley
Boat Captains: Dave Morrison and Rory Riker


Instruments: The following instruments were used for data collection:

Survey Vessel: SV-FLORIDA
Data Collection Software: HYPACK2011, EdgeTech DISCOVER
Side-scan: EdgeTech 4125 Side-scan Sonar
Positioning: DGPS / Applanix POS MV
IMU: Applanix POS MV

Field Procedures: This survey was performed utilizing Differential GPS. Data was collected using EdgeTech Discover Software and an Edgetech 4125 Dual Frequency Side-scan operating at 400 and 900 kHz. Data was processed using SonarWiz5 software from Chesapeake Technology. GeoTIFFS and DXF files were created using SonarWiz5 as deliverables for this project.

Field Conditions: Sea conditions were on average light (1-3 feet).

Data Processing: The survey data was processed immediately upon completion of the survey. Processing, Mosaicking, and quality checks were completed in SonarWiz5.
Data Display: A total of seven GeoTIFFs were created due to the large scope of the project. These GeoTIFFs range in size from 9 MB to 30 MB. DXF polygon outlines were also created to highlight areas of interest. These polygons are color coded to show changes between current and previous survey data. Found wreckage and other man-made objects on the seafloor were used to rectify and correlate current and previous survey data sets.

Special Note: It is the Surveyor's opinion, based on the available survey data, that there is no hardbottom reef in the survey area. The current survey data shows no elevated outcroppings or scoured hardbottom areas associated with hardbottom reef. The areas of supposed hardbottom reef were not found in the current survey data as compared to the previous data set. The areas of interest found in the current survey data appear to be compacted sand waves due to their shape, texture, and intensity of signal return. Similar compacted sand waves appear in the previous survey data, but are in different locations and with far less frequency and coverage.

Special Note: Upon direction from Planning Division bathymetry data was not collected due to the lack of elevated features.

Special Note: Upon direction from Planning Division underwater video was not collected due to recent storm activity and the probable obliteration of compacted sand wave areas.
MAP SHEET NOTES:

REFER TO SURVEY NO. 12-115.

PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE EAST ZONE OF FLORIDA AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83).

THIS SURVEY WAS PERFORMED USING DIFFERENTIAL GPS POSITIONING.

SIDE-SCAN DATA MOSAICS WERE MADE USING AN EDGETECH 4125 OPERATING AT 400/900 KHZ AND PROCESSED USING SONARWIZ.

SURVEY VESSEL: SV-FLORIDA
DATE OF SURVEY: 16-17 AUG 2012
AREA: FLAGLER NEARSHORE HARDBOTTOM

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED ABOVE AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME. THIS CHART IS SOLELY FOR THE DISTRIBUTION OF AVAILABLE DEPTHS AT THE TIME OF SURVEY.

SURVEY ACCURACY STANDARDS, QUALITY CONTROL, AND QUALITY ASSURANCE REQUIREMENTS WERE FOLLOWED DURING THIS SURVEY IN ACCORDANCE WITH USACE EM 1110-2-1003, HYDROGRAPHIC SURVEYING, 1 JAN 02.
SURVEYOR'S REPORT
Hydrographic Survey
Flagler Beach Offshore Borrow Areas
FY13, Examination Survey
Flagler Beach, FL
Survey No. 13-015

Report of Survey prepared by: Kevin Smith, U.S. Army Corps of Engineers, Jacksonville District

Project: Flagler Beach Borrow Areas, FY13 Examination Survey, Flagler Beach, Florida

Location: Flagler Beach, Florida

Date: Field data was acquired 04-06 February 2013.

Right of Access: There were no issues of special access required for this project.

Personnel: SV-FLORIDA: System Operators: Tommy Thomas, Rob Jenkins, Kevin Smith
Boat Captains: Dave Morrison and Rory Riker

Datum: The horizontal coordinates are referenced to the State Plane Coordinate System, Florida East, North American Datum of 1983 (NAD 83).

Instruments: The following instruments were used for data collection:

Survey Vessel: FLORIDA
Data Collection Software: Hypack 2011, Discover V3.07
Side Scan: Edgetech 4125 Side scan Sonar Operating at 400/900 kHz
Positioning: Trimble/Applanix POS MV 320
IMU: Trimble 351 DGPS Receiver

Field Procedures: This survey was performed utilizing Differential GPS (DGPS). An Edgetech 4125 was towed behind SV FLORIDA at a length noted daily on the log sheets. A line spacing of 200 feet was used to ensure 150% coverage of all three areas. Biologist Kat McConnell rode along during the first day of data collection.

Data Processing: The survey data was processed upon completion of the survey. The software SonarViz5 was used to post process the raw JSF files. The bottom track filters were applied along with EGN and AGC filters to remove stripping from the data caused by seas. The data from each line was then merged together to form three different mosaics using the 900kHz data, one for each area (See Appendix A). Theses mosaics were then exported to Google earth for viewing. No targets of interest were found in any areas. There were schools of fish encountered in areas 2A and 2C, along with sand waves and ridges apparent in all three areas. Also in area 2C there are areas of weaker intensity return (Darker Color) which appears to from different densities of bottom material. It should be noted that any hard bottom would show a higher intensity return (Bright colors) along with some type of shadow to show relief off the surrounding bottom.
Google Earth files to accompany report:

FLAGLER BORROW AREA 2A
FLAGLER BORROW AREA 2B
FLAGLER BORROW AREA 2C

Field Conditions: Sea conditions were within hydrographic survey standards.

MAP SHEET NOTES:

1. REFER TO SURVEY NO. 13-015.

2. PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE EAST ZONE OF FLORIDA AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83).

3. THIS SURVEY WAS PERFORMED USING DIFFERENTIAL GPS POSITIONING.

4. SIDESCAN IMAGERY WAS COLLECTED USING AN EDGETECH 4125 SYSTEM OPERATING AT 400-900 KHZ. MOSAICS SHOWN ARE IN HIGH-FREQUENCY/900 KHZ.

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5. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED ABOVE AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME. THIS CHART IS SOLELY FOR THE DISTRIBUTION OF AVAILABLE DEPTHS AT THE TIME OF SURVEY.

6. SURVEY ACCURACY STANDARDS, QUALITY CONTROL, AND QUALITY ASSURANCE REQUIREMENTS WERE FOLLOWED DURING THIS SURVEY IN ACCORDANCE WITH USACE EM 1110-2-1003, HYDROGRAPHIC SURVEYING, 1 JAN 02.
Area 2C

-Note the Google Earth KMZ files have a 1’ resolution for better examination of the data.
# Flagler County Hurricane Storm Damage Reduction

## Sea Turtle Nesting Data Summary

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<th>Leatherback</th>
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*Sea Turtle Nesting Data Summary*
| Year | Beach Name                        | Protection | Distance Range | Nesting Count | |---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 | Marineland Beach                  | No         | R-1 to R-12    | 2             | 4 | 1 | 0 | 0 | 0 |
|      | Washington Oaks State Park        | No         | R-12 to R-16   | 4             | 7 | 4 | 5 | 0 | 0 |
|      | North Flagler County Beaches      | No         | R-16 to R-35   | 55            | 33 | 20 | 3 | 0 | 0 |
|      | South Flagler County Beaches      | Partially (DR- A and B) | R-35 to R-67 | 92 | 40 | 52 | 4 | 0 | 0 |
|      | Flagler Beach                     | Yes (DR- B, C and D) | R-67 to R-95 | 58 | 61 | 14 | 25 | 0 | 0 |
|      | Flagler Beach State Park          | Yes (DR- D) | R-95 to R-101 | 8 | 13 | 1 | 4 | 1 | 0 |
|      | **Total for Year**                |            |                | 219           | 158 | 92 | 41 | 1 | 0 |
| 2008 | Marineland Beach                  | No         | R-1 to R-12    | 15            | 8 | 6 | 3 | 0 | 0 |
|      | Washington Oaks State Park        | No         | R-12 to R-16   | 3             | 4 | 6 | 2 | 0 | 0 |
|      | North Flagler County Beaches      | No         | R-16 to R-35   | 61            | 12 | 11 | 4 | 0 | 0 |
|      | South Flagler County Beaches      | Partially (DR- A and B) | R-35 to R-67 | 142          | 45 | 9 | 0 | 0 | 0 |
|      | Flagler Beach                     | Yes (DR- B, C and D) | R-67 to R-95 | 90 | 111 | 1 | 4 | 0 | 0 |
|      | Flagler Beach State Park          | Yes (DR- D) | R-95 to R-101 | 41 | 18 | 2 | 1 | 0 | 0 |
|      | **Total for Year**                |            |                | 352           | 198 | 35 | 14 | 0 | 0 |
| 2009 | Marineland Beach                  | No         | R-1 to R-12    | 8             | 0 | 1 | 0 | 0 | 0 |
|      | Washington Oaks State Park        | No         | R-12 to R-16   | 12            | 5 | 3 | 2 | 0 | 0 |
|      | North Flagler County Beaches      | No         | R-16 to R-35   | 45            | 10 | 12 | 4 | 1 | 0 |
|      | South Flagler County Beaches      | Partially (DR- A and B) | R-35 to R-67 | 90 | 36 | 26 | 18 | 5 | 1 |
|      | Flagler Beach                     | Yes (DR- B, C and D) | R-67 to R-95 | 42 | 55 | 3 | 4 | 2 | 0 |
|      | Flagler Beach State Park          | Yes (DR- D) | R-95 to R-101 | 29 | 7 | 2 | 0 | 0 | 0 |
|      | **Total for Year**                |            |                | 226           | 113 | 47 | 28 | 8 | 1 |
| 2010 | Marineland Beach                  | No         | R-1 to R-12    | 8             | 7 | 1 | 1 | 0 | 0 |
|      | Washington Oaks State Park        | No         | R-12 to R-16   | 8             | 5 | 3 | 3 | 0 | 0 |
|      | North Flagler County Beaches      | No         | R-16 to R-35   | 135           | 31 | 13 | 9 | 0 | 0 |
|      | South Flagler County Beaches      | Partially (DR- A and B) | R-35 to R-67 | 184          | 62 | 25 | 13 | 0 | 0 |
|      | Flagler Beach                     | Yes (DR- B, C and D) | R-67 to R-95 | 95 | 89 | 5 | 6 | 0 | 0 |
|      | Flagler Beach State Park          | Yes (DR- D) | R-95 to R-101 | 28 | 9 | 3 | 0 | 0 | 0 |
|      | **Total for Year**                |            |                | 458           | 203 | 50 | 32 | 0 | 0 |

**Sea Turtle Nesting Data Summary**
<table>
<thead>
<tr>
<th>2011</th>
<th>Marineland Beach</th>
<th>No</th>
<th>R-1 to R-12</th>
<th>11</th>
<th>14</th>
<th>5</th>
<th>1</th>
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<th>0</th>
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</thead>
<tbody>
<tr>
<td>Washington Oaks State Park</td>
<td>No</td>
<td>R-12 to R-16</td>
<td>12</td>
<td>5</td>
<td>5</td>
<td>3</td>
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<tr>
<td>North Flagler County Beaches</td>
<td>No</td>
<td>R-16 to R-35</td>
<td>87</td>
<td>16</td>
<td>10</td>
<td>2</td>
<td>5</td>
<td>1</td>
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<tr>
<td>South Flagler County Beaches</td>
<td>Partially (DR- A and B)</td>
<td>R-35 to R-67</td>
<td>162</td>
<td>34</td>
<td>29</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Flagler Beach</td>
<td>Yes (DR- B, C and D)</td>
<td>R-67 to R-95</td>
<td>72</td>
<td>57</td>
<td>9</td>
<td>2</td>
<td>3</td>
<td>0</td>
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<tr>
<td>Flagler Beach State Park</td>
<td>Yes (DR- D)</td>
<td>R-95 to R-101</td>
<td>27</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
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</tr>
<tr>
<td><strong>Total for Year</strong></td>
<td></td>
<td></td>
<td></td>
<td>371</td>
<td>130</td>
<td>60</td>
<td>13</td>
<td>13</td>
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## North Atlantic Right Whale Sightings

### Coastal Flagler County

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Species/Class/Number</th>
<th>Notes</th>
<th>Whale ID#</th>
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</thead>
<tbody>
<tr>
<td>2005 - 2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Dec</td>
<td>Washington Oaks</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>2503</td>
</tr>
<tr>
<td>15-Jan</td>
<td>Flagler Beach</td>
<td>2 Adults</td>
<td>Not Photo-verified</td>
<td></td>
</tr>
<tr>
<td>30-Jan</td>
<td>Flagler Beach</td>
<td>2 Adults</td>
<td>Not Photo-verified</td>
<td></td>
</tr>
<tr>
<td>1-Mar</td>
<td>Flagler Beach</td>
<td></td>
<td>Stranding Report, Non-verified</td>
<td></td>
</tr>
<tr>
<td>12-Mar</td>
<td>South Flagler Beach</td>
<td></td>
<td>Not verified</td>
<td></td>
</tr>
<tr>
<td>25-Mar</td>
<td>South Flagler Beach</td>
<td></td>
<td>Stranding Report, entangled, possible Volusia County</td>
<td></td>
</tr>
<tr>
<td>2006 - 2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29-Dec</td>
<td>Jungle Hut (Palm Coast)</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>2430</td>
</tr>
<tr>
<td>4-Jan</td>
<td>Beverly Beach</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>2430</td>
</tr>
<tr>
<td>5-Jan</td>
<td>South Flagler Beach</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>2430</td>
</tr>
<tr>
<td>25-Jan</td>
<td>Flagler Beach</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>2601</td>
</tr>
<tr>
<td>2-Feb</td>
<td>Flagler Beach</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>2430</td>
</tr>
<tr>
<td>12-Feb</td>
<td>Flagler Beach</td>
<td>Unknown</td>
<td>Not Photo-verified</td>
<td></td>
</tr>
<tr>
<td>13-Feb</td>
<td>Flagler Beach</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>1425</td>
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<tr>
<td>15-Feb</td>
<td>Flagler Beach</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>3360</td>
</tr>
<tr>
<td>2007 - 2008</td>
<td>Data Unavailable</td>
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<td></td>
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<tr>
<td>2008 - 2009</td>
<td>Data Unavailable</td>
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<tr>
<td>2009 - 2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-Jan</td>
<td>Painters Hill</td>
<td>Mother/Calf</td>
<td>Sighted from Air Cam</td>
<td>3157</td>
</tr>
<tr>
<td>24-Jan</td>
<td>Flagler Beach</td>
<td>1 Adult</td>
<td>Sighted from Shore</td>
<td></td>
</tr>
<tr>
<td>27-Jan</td>
<td>Marineland</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>2430</td>
</tr>
<tr>
<td>28-Jan</td>
<td>Flagler Beach</td>
<td>Mother/Calf</td>
<td>Sighted from Shore</td>
<td>2430</td>
</tr>
<tr>
<td>28-Jan</td>
<td>Marineland</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>1950</td>
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<tr>
<td>28-Jan</td>
<td>Off-shore Flagler Beach</td>
<td>8 Adults</td>
<td>Two separate sightings</td>
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<tr>
<td>28-Jan</td>
<td>South of Flagler Pier</td>
<td>2 Adults, Mother/Calf</td>
<td>Two separate sightings</td>
<td>2430 (M/C)</td>
</tr>
<tr>
<td>13-Feb</td>
<td>North Flagler Beach</td>
<td>Unknown</td>
<td>Not Photo-verified</td>
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</tr>
<tr>
<td>15-Feb</td>
<td>South Flagler Beach</td>
<td>Mother/Calf</td>
<td>Not Photo-verified</td>
<td></td>
</tr>
<tr>
<td>15-Feb</td>
<td>Flagler Pier</td>
<td>1 Humpback</td>
<td>Not Photo-verified</td>
<td></td>
</tr>
<tr>
<td>15-Feb</td>
<td>North Flagler Beach</td>
<td>1 Humpback</td>
<td>Maybe duplicate sighting of same individual</td>
<td></td>
</tr>
<tr>
<td>16-Feb</td>
<td>Flagler Beach</td>
<td>1 Humpback</td>
<td>Not Photo-verified</td>
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</tr>
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</table>

North Atlantic Right Whale Data Summary

Coastal Flagler County
<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Species/Class/Number</th>
<th>Notes</th>
<th>Whale ID#</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-Feb</td>
<td>North Flagler Beach</td>
<td>1 Humpback</td>
<td>Maybe duplicate sighting of same individual</td>
<td></td>
</tr>
<tr>
<td>16-Feb</td>
<td>Beverly Beach</td>
<td>1 Humpback</td>
<td>Maybe duplicate sighting of same individual</td>
<td></td>
</tr>
<tr>
<td>19-Feb</td>
<td>Beverly Beach</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>3123</td>
</tr>
<tr>
<td>20-Feb</td>
<td>Beverly Beach</td>
<td>1 Adult</td>
<td>Photo-verified</td>
<td></td>
</tr>
<tr>
<td>20-Feb</td>
<td>North Flagler Beach</td>
<td>2 Adults</td>
<td>Not Photo-verified</td>
<td></td>
</tr>
<tr>
<td>22-Feb</td>
<td>Flagler Beach</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>3123</td>
</tr>
<tr>
<td>2-Mar</td>
<td>South Flagler Beach</td>
<td>3 Adults, Mother/Calf</td>
<td>Photo-verified</td>
<td>3123 (M/C)</td>
</tr>
<tr>
<td>15-Mar</td>
<td>South Flagler Beach</td>
<td>2 or 3 Humpback</td>
<td>Not Photo-verified</td>
<td></td>
</tr>
<tr>
<td>24-Mar</td>
<td>Flagler Beach</td>
<td>1 Humpback</td>
<td>Air Cam Verified</td>
<td></td>
</tr>
<tr>
<td>29-Mar</td>
<td>Flagler Beach</td>
<td>Mother/Calf, 3 Juveniles</td>
<td>Photo-verified</td>
<td>2614 (M/C)</td>
</tr>
</tbody>
</table>

**2010 - 2011**

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Species/Class/Number</th>
<th>Notes</th>
<th>Whale ID#</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Jan</td>
<td>North Flagler Beach</td>
<td>2 Adults, 1 Juvenile</td>
<td>Photo-verified</td>
<td>calf of 2645</td>
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<tr>
<td>9-Jan</td>
<td>Flagler Pier</td>
<td>Unknown</td>
<td>Not Photo-verified</td>
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</tr>
<tr>
<td>18-Jan</td>
<td>Flagler Pier</td>
<td>1 Adult, 1 Juvenile</td>
<td>Photo-verified</td>
<td></td>
</tr>
<tr>
<td>19-Jan</td>
<td>South of Flagler Pier</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>1911</td>
</tr>
<tr>
<td>19-Jan</td>
<td>South of Flagler Pier</td>
<td>1 Adult, 1 Juvenile</td>
<td>Photo-verified, Prop Scars</td>
<td>2010 calf of 3123</td>
</tr>
<tr>
<td>19-Jan</td>
<td>South Flagler Beach</td>
<td>1 Adult, 1 Juvenile</td>
<td>Photo-verified</td>
<td>2010 calf of 3123</td>
</tr>
<tr>
<td>1-Feb</td>
<td>Flagler Beach</td>
<td>Mother/Calf</td>
<td>Photo-verified</td>
<td>3270</td>
</tr>
<tr>
<td>3-Feb</td>
<td>North Flagler Beach</td>
<td>2 Adult, 1 Juvenile</td>
<td>Photo-verified</td>
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</tr>
<tr>
<td>18-Feb</td>
<td>Beverly Beach</td>
<td>1 Humpback Juvenile</td>
<td>Sighted from Air Cam</td>
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**2011 - 2012**

<table>
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<tr>
<th>Date</th>
<th>Location</th>
<th>Species/Class/Number</th>
<th>Notes</th>
<th>Whale ID#</th>
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<tbody>
<tr>
<td></td>
<td>North Flagler Beach</td>
<td>1 Juvenile</td>
<td>Carcass washed up on beach 12/19/12. No other sightings</td>
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</table>
Flagler County HSDR Feasibility Report
Environmental Appendix

Mailing Lists, updated 2013

<table>
<thead>
<tr>
<th>Company/Agency</th>
<th>Address</th>
<th>Contact Person</th>
</tr>
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<tbody>
<tr>
<td>US Fish and Wildlife Service</td>
<td>1875 Century Boulevard, Atlanta, GA 30345</td>
<td>Mr. Heinz J Mueller</td>
</tr>
<tr>
<td>FEMA Insurance &amp; Mitigation Division</td>
<td>3003 Chamblee Tucker Road, Atlanta, GA 30331</td>
<td>Mr. Richard Harvey</td>
</tr>
<tr>
<td>U.S. Geological Survey</td>
<td>7920 NW 71st St, Gainesville, FL 32653</td>
<td>Magalie Roman Salas</td>
</tr>
<tr>
<td>USDA/Natural Resources Conservation Service</td>
<td>P.O. Box 141510, Gainesville, FL 32605-1510</td>
<td>Colleen Finnegan</td>
</tr>
<tr>
<td>US Coast Guard</td>
<td>909 SE 1st Avenue, Miami, FL 33131-3050</td>
<td>Captain Paul F Thomas</td>
</tr>
<tr>
<td>Florida Integrated Science Center</td>
<td>7920 NW 71st St, Gainesville, FL 32653</td>
<td>Office of the Dir Center for Env Health Injury Control F29</td>
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F-62
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR WILLIAM LEARY</td>
<td>COUNCIL ON ENV QUALITY</td>
<td>722 JACKSON PLACE NW, WASHINGTON DC 20503</td>
</tr>
<tr>
<td></td>
<td>EXECUTIVE DIRECTOR</td>
<td>FL SHORE &amp; BEACH PRESERVATION ASSOCIATION, PO BOX 13146, TALLAHASSEE FL 32317</td>
</tr>
<tr>
<td></td>
<td>REGIONAL DIRECTOR</td>
<td>NATIONAL PARK SERVICE, 61 FORSYTH STREET, ATLANTA GA 30303</td>
</tr>
<tr>
<td></td>
<td>MS FAITH ALKHATIB</td>
<td>FLAGLER COUNTY ENGINEER, 1769 EAST MOODY BLVD. BLDG 2, STE 309, BUNNELL FL 32110</td>
</tr>
<tr>
<td></td>
<td>ENGINEERING &amp; STORMWATER DEPT</td>
<td>JOHN MODEN, CITY OF PALM COAST, 305 PALM COAST PKWY NE, PALM COAST FL 32137</td>
</tr>
<tr>
<td></td>
<td>ARMANDO MARTINEZ</td>
<td>CITY MANAGER, 1769 E MOODY BLVD, BUNNELL FL 32110</td>
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<tr>
<td></td>
<td>US DEPT OF AGRICULTURE</td>
<td>MARITIME OFFICE BLDG, 1 EAST 11TH STREET, STE 332 BOX 3, RIVIERA BEACH FL 33404</td>
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<tr>
<td></td>
<td>SOUTH ATLANTIC FISHERY MGMT COUNCIL</td>
<td>4055 FABER PLACE DR, STE 201, N CHARLESTON SC 29405 8523</td>
</tr>
<tr>
<td></td>
<td>FED HIGHWAY ADMINISTRATION</td>
<td>1200 NEW JERSEY AVE SE, WASHINGTON DC 20590</td>
</tr>
<tr>
<td></td>
<td>USGS GEOLOGICAL SURVEY</td>
<td>FLORIDA INTEGRATED SCIENCE CENTER, 12703 RESEARCH PARKWAY, ORLANDO FL 32826</td>
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<tr>
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<td>ENGINEERING &amp; STORMWATER DEPT</td>
<td>JOHN MODEN, CITY OF PALM COAST, 305 PALM COAST PKWY NE, PALM COAST FL 32137</td>
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<tr>
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<td>ARMANDO MARTINEZ</td>
<td>CITY MANAGER, 1769 E MOODY BLVD, BUNNELL FL 32110</td>
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<tr>
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<td>FLORIDA INTEGRATED SCIENCE CENTER, 12703 RESEARCH PARKWAY, ORLANDO FL 32826</td>
</tr>
<tr>
<td></td>
<td>MR PACE WILBUR</td>
<td>NMFS - HCD, 219 FORT JOHNSON RD, CHARLESTON SC 29412</td>
</tr>
<tr>
<td></td>
<td>CONSERVATION PLANNING SERVICES</td>
<td>620 S. MERIDIAN ST. MB 5B5, TALLAHASSEE FL 32399 1600</td>
</tr>
<tr>
<td></td>
<td>DR. JANET SNYDER MATTHEWS</td>
<td>STATE HISTORIC PRESERVATION OFFICE, 500 S. BRONOUGH STREET, TALLAHASSEE FL 32399 0250</td>
</tr>
<tr>
<td></td>
<td>CONSERVATION PLANNING SERVICES</td>
<td>620 S. MERIDIAN ST. MB 5B5, TALLAHASSEE FL 32399 1600</td>
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<tr>
<td></td>
<td>MR DENNIS DAVID</td>
<td>REGIONAL DIRECTOR, FFWCC, 1239 S.W. 10TH STREET, Ocala FL 34471 0323</td>
</tr>
<tr>
<td></td>
<td>STEPANIIAN C. KOPELOUSOS,</td>
<td>SECRETARY OF TRANSPORTATION, 605 SUWANNEE STREET, TALLAHASSEE FL 32399 0450</td>
</tr>
<tr>
<td></td>
<td>MR DAVID ROACH</td>
<td>FL INLAND NAVIGATION DISTRICT, 1314 MARCINSKI RD, JUPITER FL 33477</td>
</tr>
<tr>
<td></td>
<td>ROBIN TRINDELL</td>
<td>FFWCC, OFFICE OF ENV SVC PROTECTED SP, 620 S MERIDIAN STREET, TALLAHASSEE FL 32399 1600</td>
</tr>
<tr>
<td></td>
<td>CHIEF EXECUTIVE OFFICER</td>
<td>NORTHEAST FLORIDA REGIONAL COUNCIL, 6850 BELFORT OAKS PLACE, JACKSONVILLE FL 32216</td>
</tr>
<tr>
<td></td>
<td>FDEF DIO DIV OF WATER RESOURCES (CD)</td>
<td>BEACHES AND COASTAL SYSTEMS, DAVID COURSON, 4708 CAPITOL CIRCLE NW, TALLAHASSEE FL 32303</td>
</tr>
<tr>
<td></td>
<td>DIRECTOR</td>
<td>FL DEP - DIVISION OF STATE LANDS, MAIL STATION 140, TALLAHASSEE, FL 32339</td>
</tr>
</tbody>
</table>

Mailing Lists, updated 2013
MR TIM TELFER  
ENVIRONMENTAL PLANNER  
FLAGLER COUNTY  
1769 EAST MOODY BLVD. BLDG 2  
STE 302  
BUNNELL FL 32110  

US DEPT OF INTERIOR- OFFICE OF  
ENVIRONMENTAL POLICY AND COMPLIANCE  
NW RM 2340  
1849 "C" STREET  
WASHINGTON DC 20240  

MAYOR CATHERINE ROBINSON  
CITY OF BUNNELL  
PO BOX 756  
300 TOLMAN ST  
BUNNELL FL 32110  

MR JIM LANDON  
CITY MANAGER OF PALM COAST  
160 CYPRESS POINT PKWY  
STE B-106  
PALM COAST FL 32164  

FLAGLER COUNTY CHAMBER OF  
COMMERCE  
20 AIRPORT RD STE C  
PALM COAST FL 32164  

CITY COMMISSIONERS OFFICE  
CITY OF BUNNELL  
1769 E MOODY BLVD  
BUNNELL FL 32110  

MR BILL GREEN  
PUBLIC WORKS DEPARTMENT  
CITY OF BUNNELL  
300 TOLMAN ST  
BUNNELL FL 32110  

MS. HOLLY ALBANESE, DIRECTOR  
FLAGLER COUNTY PUBLIC LIBRARY  
2500 PALM COAST PARKWAY NW  
PALM COAST FLORIDA 32137  

MAYOR STEVE EMMETT  
TOWN OF BEVERLY BEACH  
2735 N OCEANSHORE BLVD  
BEVERLY BEACH, FL 32136  

BRANCH COORDINATOR *  
BUNNELL LIBRARY  
103 E MOODY BLVD  
BUNNELL FL 32110  

BOARD OF COMMISSIONERS  
TOWN OF BEVERLY BEACH  
2735 N OCEANSHORE BLVD  
BEVERLY BEACH, FL 32136  

TIITF/DNR DIV REC & PARKS  
WASHINGTON OAKS STATE PARK  
C/O DEP  
3900 COMMONWEALTH BLVD  
TALLAHASSEE FL 32399  

TOWN OF MARINELAND &  
FLAGLER COUNTY  
1769 EAST MOODY BLVD BLDG 2  
BUNNELL FL 32110  

TIITF OF FLORIDA  
DIVISION OF STATE LANDS  
C/O DEP  
3900 COMMONWEALTH BLVD  
TALLAHASSEE FL 32399  

CITY COUNCIL  
CITY OF PALM COAST  
160 CYPRESS POINT PKWY  
STE B-106  
PALM COAST FL 32164  

FLORIDA DEFENDERS OF THE  
ENVIRONMENT  
4424 NW 13 STREET STE. C 8  
GAINESVILLE FL 32609 1885  

GTM RESEARCH RESERVE  
ENVIRONMENTAL EDUCATION CENTER  
505 GUANA RIVER RD  
PONTE VEDRA BEACH FL 32082  

FRIENDS OF GTMNERR  
450 GUANA RIVER RD  
PONTE VEDRA BEACH FL 32082  

AUDUBON CENTER FOR BIRDS OF PREY  
1101 AUDUBON WAY  
MAITLAND FL 32751  

MS VISTORIA TSCHINKEL, CHAIRMAN  
1000 FRIENDS OF FLORIDA  
926 EAST PARK AVENUE  
PO BOX 5948  
TALLAHASSEE FL 32314 5948  

CARIBBEAN CONSERVATION  
CORPORATION  
PO BOX 2866  
GAINESVILLE FLORIDA 32602  

MR PATRICK ROSE  
SAVE THE MANATEE CLUB  
500 N MAITLAND AVENUE  
MAITLAND FL 32751  

MS ALEXA ROSS  
VOLUSIA FLAGLER SIERRA CLUB  
P. O. BOX 929  
DAYTONA BEACH FLORIDA 32115  

MR GERALD WARD  
30 WEST 20" STREET  
RIVIERA BEACH FL 33404  

Mailing Lists, updated 2013  

F-65
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<td>ELLIS WILLIAM MOORE</td>
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Mailing Lists, updated 2013
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| RE: 6917 OCEANSHORE BLVD N | 2475 &amp; 2469 OCEANSHORE BLVD N | STEVEN GOLDIN |
| RE: 6645 OCEANSHORE BLVD N | 2488 OCEANSHORE BLVD N | 27950 SW 182ND AVENUE |
| RE: 2235 OCEANSHORE BLVD N | 2501 N OCEANSHORE BLVD N | HOMESTEAD FL 33031 |
| RE: 63 OCEAN ST | 6553 OCEANSHORE BLVD N | 1583 CARTERETT AVE |
| RE: 62 OCEAN ST | 59 OCEANSIDE DR | CHARLESTON NC 29407 |
| RE: 61 OCEAN ST | 58 SEASCAPE DR | 60162 HILLSIDE IL 60162 |
| RE: 60 SEASCAPE DR | 61 OCEAN ST | 217 N WESTMONTE DR STE 1007 |
| RE: 30 AVENUE ROYALE | 8653 OCEANSHORE BLVD N | ALTEMONTE SPRINGS FL 32714 |
| RE: 3527 OCEANSHORE BLVD N | 59 OCEANSIDE DR | 217 N WESTMONTE DR STE 1007 |
| RE: 2481 OCEANSHORE BLVD N | 60 SEASCAPE DR | ALTEMONTE SPRINGS FL 32714 |
| RE: 2585 OCEANSHORE BLVD N | 6645 OCEANSHORE BLVD N | HOMESTEAD FL 33031 |
| RE: 2514 OCEANSHORE BLVD N | 2235 OCEANSHORE BLVD N | 1937 N OCEANSHORE BLVD N |
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| RE: 6645 OCEANSHORE BLVD N | 59 OCEANSIDE DR | CHARLESTON NC 29407 |
| RE: 63 OCEAN ST | 61 OCEAN ST | 217 N WESTMONTE DR STE 1007 |
| RE: 60 SEASCAPE DR | 8653 OCEANSHORE BLVD N | ALTEMONTE SPRINGS FL 32714 |
| RE: 30 AVENUE ROYALE | 59 OCEANSIDE DR | 217 N WESTMONTE DR STE 1007 |
| RE: 2481 OCEANSHORE BLVD N | 60 SEASCAPE DR | 1583 CARTERETT AVE |
| RE: 2501 N OCEANSHORE BLVD N | 59 OCEANSIDE DR | CHARLESTON NC 29407 |
| RE: 60 SEASCAPE DR | 61 OCEAN ST | 217 N WESTMONTE DR STE 1007 |
| RE: 30 AVENUE ROYALE | 8653 OCEANSHORE BLVD N | ALTEMONTE SPRINGS FL 32714 |
| RE: 2481 OCEANSHORE BLVD N | 60 SEASCAPE DR | 1583 CARTERETT AVE |</p>
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<th>RE: N OCEANSHORE BLVD PROPERTY DE HOYOS EVELIO &amp; ELIN SATORY DE HOYOS</th>
<th>RE: 3531 OCEANSHORE BLVD N</th>
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<td>1000 OLD ENGLAND AVENUE WINTER PARK FL 32799</td>
<td>JUSTESEN EVELYN AND NANCY M BLY CO TRUSTEES</td>
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<td>GAMBLE NELSON R &amp; DEBRA A</td>
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<td>LANGELLO GRACE M 3481 N OCEANSHORE BLVD</td>
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<td>1624 CLEARVIEW DR BRENTWOOD TN 37027</td>
<td>LYNCH MICHAEL B &amp; SUSAN C PURYEAR</td>
<td>DARRYL AND LUCILLE MASLAK</td>
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<td>16612 JOHNS LAKE RD CLERMONT FL 34711</td>
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<td>PETER C TRIOL 1515 LAKE DANIEL DR</td>
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Mailing Lists, updated 2013

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RE: 3381 OCEANSHORE BLVD N
BRIDGET LAPIONT
3381 OCEANSHORE BLVD N
FLAGLER BEACH FL 32136

RE: 3373 OCEANSHORE BLVD N
CONWAY STEPHEN S & LUPITA
PO BOX 1620
FLAGLER BEACH FL 32136

RE: 3369 OCEANSHORE BLVD N
GAIL W HOLT
3369 OCEANSHORE BLVD N
FLAGLER BEACH FL 32136

RE: 3361 OCEANSHORE BLVD N
BRIAN A & DIANNE WALSH
585 TECHNOLOGY PARK STE 100
LAKE MARY FL 32746

RE: 3359 & 3209 OCEANSHORE BLVD N
LB CRAYTON TRUSTEE
10435 MIDTOWN PLWY UNIT 131
JACKSONVILLE FL 32246

RE: 3341 OCEANSHORE BLVD N
LEE DENNIS G AND CARIDAD E
P O BOX 357845
GAINESVILLE FL 32635

RE: 3323 OCEANSHORE BLVD N
WILLIAM J & CAROL ANN SHEAFFER
609 EAST CENTRAL BLVD
ORLANDO FL 32801

RE: 3319 OCEANSHORE BLVD N
CHARLES E JOHNSON JR TRUSTEE
436 ANCHORAGE DRIVE
NAKOMIS FL 3 4275

RE: 3311 OCEANSHORE BLVD N
TOMMY D AND BARBARA TANT
PO BOX 53
FLAGLER BEACH FL 32136

RE: 3309 OCEANSHORE BLVD N
JAMES E CORBIN JR
12470 SUNNYDALE DRIVE
WELLINGTON FL 33414

RE: 3303 OCEANSHORE BLVD N
KAHANA BEACH LLC
2 STAHL COURT
MARLTON NJ 08053

RE: 3299 OCEANSHORE BLVD N
CHARLES E II & SANDY B MULLER
7920 SW 129TH TERRACE
MIAMI FL 33156

RE: 3295 OCEANSHORE BLVD N
DAVID R SMITH TRUSTEE
3404 SHADYWOOD DR
LAMBERTVILLE MI 48144 9600

RE: 3264 OCEANSHORE BLVD N
TG-EG LLC & MARTIN GILBERT JR, PAUL M
AND HARRIET H DODD, TRUSTEES
1075 MASON AVE
DAYTONA BEACH FL 32117

RE: 3249 OCEANSHORE BLVD N
PAUL & SHARON SAMARTAN
3249 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 3243 OCEANSHORE BLVD N
THOMAS J & GAIL VALLELY
P O BOX 689
3243 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 3227 OCEANSHORE BLVD N
HOWARD L & MARLENE R SKLAR
PO BOX 280
FLAGLER BEACH FL 32136

RE: 3221 OCEANSHORE BLVD N
HOWARD J MCLAUGHLIN
PO BOX 403
FLAGLER BEACH FL 32136

RE: 3215 OCEANSHORE BLVD N
RAJALAKSHMY SUNDARARAJAN
50959 WALDON PARK LN
GRANGER IN 46530

RE: 3203 OCEANSHORE BLVD N
MAGALY L MUSSER
10311 RAMELWOOD DR
CORAL SPRINGS FL 33071

RE: 3199 OCEANSHORE BLVD N
KEENE R BRUCE & BARBARA
2185 VIA TUSCANY
WINTER PARK FL 32789

RE: 3195 OCEANSHORE BLVD N
STEVEN R & JANICE Q DAVIS
3195 NORTH OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 3189 OCEANSHORE BLVD N
TERRY ANNE WEDDINGTON & JOHN S
REINEKE & TERESA M REINEKE
351 HAMILTON SHORE DRIVE
WINTER HAVEN FL 33881

RE: 3183 OCEANSHORE BLVD N
DAPHNE-A-OFE ESTATE S UNIT & INTNL SEMINARY OF TYLER CRUS
P O BOX 1208
PLYMOUTH FL 32768 1208

RE: 3179 OCEANSHORE BLVD N
GEORGE C HARPER III
PO BOX 355
PIERSON FL 32180

RE: 3171 OCEANSHORE BLVD N
OLD A1A PARTNERS LLC
PO BOX 1030
O’FALLON MO 63366

RE: 3167 OCEANSHORE BLVD N
MICHAEL & DEBRA MEURER
12534 ELM MANOR ST
SAN ANTONIO TX 78256

Mailing Lists, updated 2013
RE: 3165 OCEANSHORE BLVD N
DANA L FAULKNER
226 LAKE TER DR
HENDERSONVILLE TN 37075

RE: 3161 OCEANSHORE BLVD N
SUSAN W ROBERTS
PO BOX 2037
LAKELAND FL 33806

RE: 3153 N OCEANSHORE BLVD
GORDON JAMES N & RUTH H JTWROS
3153 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 3147 OCEANSHORE BLVD N
ASTON KENNETH P JR & LORI A
P.O. BOX 2150
FLAGLER BEACH FL 32136

RE: 3143 OCEANSHORE BLVD N
ELEANOR SINES
30081 ST HWY 10
WALTON NY 13856

RE: 3131 OCEANSHORE BLVD N
POKORSKY THOMAS M & MICHELE M
4436 WEILERS WAY
PORT WASHINGTON WI 53074

RE: 3129 OCEANSHORE BLVD N
COHEN WILLIAM H AS TTEE
C/O THREE SISTERS INVESTMENT
1150 CHARMING ST
MAITLAND FL 32751

RE: 3123 OCEANSHORE BLVD N
CHARLES P & KRISTIN SHIKANY
914 N MAIN ST
WHEATON IL 60187

RE: 3121 & 3109 OCEANSHORE BLVD N
3109 N A1A LLC
1800 OLD MOODY BLVD
BUNNELL FL 32110

RE: 3105 OCEANSHORE BLVD N
TORGGLER REALTY LLC
200 OCEAN CREST DR APT 412
PALM COAST FL 32137

RE: 3101 OCEANSHORE BLVD N
MASSARO JOSEPH
3010 PAINTERS WALK
PALM COAST FL 32136

RE: 3093 OCEANSHORE BLVD N
MCMAHON PATRICK M & DELIA MCCOY MCMAHON
18 BUCK RUN
MOHNTON PA 19540

RE: 3087 OCEANSHORE BLVD N
GALLOGLY EUGENE F
837 PITT ST
MT PLEASANT SC 29464

RE: 3079 OCEANSHORE BLVD N
ROBERT AND SHARON BARRY TRUSTEES
3738 CARDINAL BLVD
DAYTONA BEACH FL 32118

RE: 3073 N OCEANSHORE BLVD
GELSGINDER CHERRY ANN
3073 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 3065 OCEANSHORE BLVD N
MCKNIGHT JESSE H III & GENETTE PO 306 E
MOODY BLVD
BUNNELL FL 32110

RE: 3059 OCEANSHORE BLVD N
KOPCHA THOMAS S
3640 GREEN MEADOW LANE
ORION MI 48359 1492

RE: 3051 OCEANSHORE BLVD N
HOEPKER TODD & JUDY & BUHAY JOHN & KATHLEEN T
735 EDGEBATER DRIVE
ORLANDO FL 3 2804

RE: 3043 OCEANSHORE BLVD N
GOLDEN BEACH LLC
1356 CLASSIC CT N
LONGWOOD FL 32779

RE: 3037 OCEANSHORE BLVD N
MEDLIN CHARLES H & KRISTI L
PO BOX 68
FLAGLER BEACH FL 32136

RE: 3029 OCEANSHORE BLVD N
FRANCO E EDWARD & SHARON L
7852 JAMES ISLAND WAY
JACKSONVILLE FL 32256

RE: 3023 N OCEANSHORE BLVD
LYONS THOMAS F & SUZANNE O
LIFE ESTATE
3023 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 2637 OCEANSHORE BLVD N
OKELLEY SUE S & STEPHEN BROOKS OKELLEY & EDWARD BENSON OKELLEY
1139 ST. ANDREWS CIR
DUNWOODY GA 30338

RE: 3009 OCEANSHORE BLVD N
CHRISTOPHER A & SARAH A LEWIS
2081 CLERMONT ST
DENVER CO 80207

RE: 3001 OCEANSHORE BLVD N
GILLIARD ONETHA A & LEMA JAMISON
18051 SW 224TH STREET
MIAMI FL 3170

RE: 2999 OCEANSHORE BLVD N
FLAGLER PARADISE LLC
800 BRICKELL AVE STE 1501
MIAMI FL 33131 3040

RE: 2995 OCEANSHORE BLVD N
EDWARD E & EILEEN F HAMBY
2995 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

Mailing Lists, updated 2013
RE: 2649 OCEANSHORE BLVD N
TRIVETT DANNIE W & BARNIE L
PO BOX 181
DELAND FL 32721

RE: 2641 OCEANSHORE BLVD N
GARY & KRISTIN LEE
1068 LAUREL VALLEY ST
MARIETTA GA 30064

RE: 2629 OCEANSHORE BLVD
STEFANSSON LIVIA K TRUSTEE
9770 MOUNTAIN VIEW DRIVE
WAITE HILL OH 44094

RE: 72 FLAGLER DR
SCOTT & CLAUDIA JACKSON
240 HUNTINGTON RD
ATLANTA GA 30309

RE: 73 ROLLINS DR
STEVEN MITCHELL
1801 NW MARKET ST #311
SEATTLE WA 98107

RE : 27 ROLLILNS DUNES DR
WILLIAM C BRUNK
2001 CIRCLE DRIVE
COLUMBUS OH 43220

RE: 29 ROLLINS DUNE DR
BERNARDO M & LORETTE F UTSET
3790 HUNT CLUB RD
JACKSONVILLE FL 32224 8412

RE: 28 ROLLINS DUNE DR
JOSEPH C & SHARON L KEHOE TRUSTEE
28 ROLLINS DUNE DR
PALM COAST FL 32137

RE: 1 SEA COLONY DR
SEA COLONY HOMEOWNERS ASSOC
C/O SOUTHEAST MANAGEMENT
PO BOX 354734
PALM COAST FL 32135 4734

RE: 25 OCEAN DUNE CIRCLE
HAL & LINDA IRWIN
420 LAKE ESTATE DR
CHAPIN SC 29063

RE: 23 OCEAN DUNE CIRCLE
JOSEPH & LAURA DEFOREST
411 S OAKDALE DR
STILLWATER OK 74074 6704

RE: 21 OCEAN DUNE CIRCLE
MICHAEL J & MARGARET MAHONEY
20 VILLAGE WOODS RD
HAVERHILL MA 01822

RE: 15 OCEAN DUNE CIR
TODD & VALERIE ELLIOTT
13610 DORNOCH DR
ORLANDO FL 32828

RE: 9 OCEAN DUNE CIR
JEFFERY R KISSINGER TRUSTEE
9 OCEAN DUNE CIR
PALM COAST FL 32137

RE: 7 OCEAN DUNE CIR
WHITMAN LORD R AND LURUE L
PO BOX 1009
STATESBORO GA 30459

RE: OCEAN DUNE CIR PROPERTY
PETER & DEBBIE HEALEY
16 OCEAN DUNE CIR
PALM COAST FL 32137

RE:3439 & 2424 OCEANSHORE BLVD N
GEOFFREY BODDEN & CARRIE SMITH
6337 JACK WRIGHT ISLAND RD
ST AUGUSTINE FL 32092

RE: 2621 OCEANSHORE BLVD N
GROMLING FRANK C & BRENDA P
P O BOX 1080
FLAGLER BEACH FL 32136

RE: 2601 OCEANSHORE BLVD N
JOSEPH & MARY LICATA
2804 RIVERSIDE DR
WANTAGH NY 11793

RE: 3349 OCEANSHORE BLVD N
EDDIE FINNEY LIFE ESTATE
PO BOX 446
FLAGLER BEACH FL 32136

RE: 2611 OCEANSHORE BLVD N
LAKE AND RESORT PORPERTIES LLC
669 EMORY VALLEY ROAD
OAK RIDGE TN 37830

RE:2140 OCEANSHORE BLVD S
DEL SIGNORE RONALD & ROSALIA
2126 BELLCREST COURT
ROYAL PALM BEACH FL 33411

AMMEX INVESTMENTS INC
PO BOX 65417
ORANGE PARK FL 32065

RE:1935 OCEANSHORE BLVD N
MCKENZIE W H & MARGARET
1935 N OCEANSHORE DRIVE
FLAGLER BEACH FL 32136

RE: 2450 OCEANSHORE BLVD N
OCEANSIDE @ BEVERLY BEACH CONDOS
2450 OCEANSHORE BLVD N
FLAGLER BEACH FL 32136

RE: 2136 OCEANSHORE BLVD S
DAVID & SUZANNE DEFERIE
PO BOX 15388
ASHEVILLE NC 28805

RE: 2024 S OCEANSHORE BLVD
GARRIS THOMAS C & EDWARD
2024 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136
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<td>798 NE 71ST STREET</td>
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<td>9560 BAY HILL DR</td>
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<td>C/O LEE CAIN</td>
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<td>IRVING TX 75038</td>
<td>3812 VIRGINIA DR</td>
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<td>NEPTUNE BEACH FL 32266</td>
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<td>1597 OCEANSHORE BLVD N</td>
<td>OL Rich BILLIE SHAFFER</td>
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<td>10739 SANTA ROSA DR</td>
<td>SEASCAPe PROPERTIES LLC</td>
<td>C/O JACKIE HARDIN</td>
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<td>1597 MASTERPIECE WAY</td>
<td>P.O. BOX 731</td>
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<th>RE: 1802 CENTRAL AV</th>
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<td>RYCRRAFT HELEN A</td>
<td>WHITTAKER ALICIA GREENE</td>
<td>GREGORY L &amp; MARSHA SAUER</td>
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<td>13555 LAKES WAY</td>
<td>1815 N OCEANSHORE BLVD</td>
<td>1802 N CENTRAL AVE</td>
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<td>JAMES A NELSON &amp; JOANNE ECKHARDT</td>
<td>FRANK J &amp; BARBARA H NAVRAN</td>
<td>FRANK A AND PAMELA J BOTELHO</td>
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<td>P.O. BOX 2098</td>
<td>23 WHITE DEER LANE</td>
<td>35 ST ANDREWS CT</td>
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<th>RE: 1728 N CENTRAL AVE</th>
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<td>CHAS E AND CAROLYN E SALYER</td>
<td>HVIZDIK WILLIAM G</td>
<td>JOHN WADE THOMPSON</td>
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<td>1744 N CENTRAL AVE</td>
<td>3154 HILLSIDE RD</td>
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<td>EDINBURG PA 1 6116</td>
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<td>WHITTAKER RICHARD &amp; MARGINE E</td>
<td>GARY &amp; MARTHA SPRINGER</td>
<td>CAREY &amp; DOOROTHY KLEE STRICKLAND</td>
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<tr>
<td>1815 N OCEANSHORE BLVD</td>
<td>1246 LAKESIDE DRIVE</td>
<td>8107 SW 72 AVE 305 E</td>
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<td>FLAGLER BEACH FL 32136</td>
<td>COROLLA NC 27927</td>
<td>MIAMI FL 33143</td>
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Mailing Lists, updated 2013
RE: HWY A1A PROPERTY
RHUDY MARTHA
P.O. BOX 1525
FLAGLER BEACH FL 32136

RE: HWY A1A PROPERTY
MICHAEL J & MARIANNE KEHOE
PO BOX 591
FLAGLER BEACH FL 32136

RE: OCEANSHORE BLVD N PROPERTY
MARGARET O'NEIL
37 MEETINGHOUSE LANE
WEYMOUTH MA 02189 1044

RE: N HWY A1A PROPERTY
1309 FLAGLER LLC
11621 KEW GARDEN AVE STE 109
PALM BEACH GARDENS FL 33410

RE: N HWY A1A PROPERTY
DUENSING CLYDE JR & WINNIE R
PO BOX 121
FLAGLER BEACH FL 32136

RE: 1635 OCEANSHORE BLVD N
JAMES HARTKOP & STACY WITFILL
3079 W BLOSSOM DR
BEVERLY HOLLS FL 34465

RE: OCEANSHORE BLVD N PROPERTY
THE ALIKI TOWNHOUSE ASSOC INC
PO BOX 2496
FLAGLER BEACH FL 32136

RE: N HWY A1A PROPERTY
1305 N OCEANSHORE BLVD
THOMAS M SCARISBRICK
P.O. BOX 1267
FLAGLER BEACH FL 32136

RE: N HWY A1A PROPERTY
DUENSING CLYDE JR & WINNIE R
PO BOX 121
FLAGLER BEACH FL 32136

RE: 1633 N OCEANSHORE BLVD
SAUNDERS JEANNE FULGHUM & JAMES ANTHONY
1633 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 1647 OCEANSHORE BLVD N
CAROLYN B HUNSAKER
1647 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 1347 N OCEANSHORE BLVD
DEAN CLAUDE SISCO
PO BOX 637
FLAGLER BEACH FL 32136 0637

RE: 1309 N OCEANSHORE BLVD
WELLS FARGO BANK
MAC Z3057 010
PO BOX 2248
JACKSONVILLE FL 32203 2248

RE: 1201 N OCEANSHORE BLVD N
PARKER RAYMOND A & CLAUDIA J
1201 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 1505 NORTH OCEAN SHORE BLVD
JANIE T BARROWS E TAYLOR LAWHORN
1505 N CENTRAL AVE
FLAGLER BEACH FL 32136

RE: 1305 N OCEANSHORE BLVD
THOMAS M SCARISBRICK
P.O. BOX 1267
FLAGLER BEACH FL 32136

RE: N HWY A1A PROPERTY
RICHARD A NORTHRIP &
1900 ALASKAN WAY #306
SEATTLE WA 98101

RE: 1201 N OCEANSHORE BLVD
PETER A & LUCILLE M CANALE
112 CHRISTOPHERS MILL RD
MEDFORD NJ 08055

RE: N HWY A1A PROPERTY
LHP SCALES INC
P O BOX 1207
FLAGGER BEACH FL 32136

RE: 1119 OCEANSHORE BLVD
IRWIN MARCI E
1119 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 1119 OCEANSHORE BLVD
IRWIN MARCI E
1119 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 1119 OCEANSHORE BLVD
IRWIN MARCI E
1119 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: N HWY A1A PROPERTY
LONG LARRY W & JEANNE R
PO BOX 1445
FLAGLER BEACH FL 32136

RE: N HWY A1A PROPERTY
RAVAL PRADEEP A & MARTA C
3554 NW 63RD PLACE
GAINESVILLE FL 32653

Mailing Lists, updated 2013
RE: N HWY A1A PROPERTY
WOLCOTT INC REALTORS
PO BOX 1407
FLAGLER BEACH FL 32136

RE: N HWY A1A PROPERTY
JAMES F AND BETTY L COX
341 PALM DRIVE
FLAGLER BEACH FL 32136

RE: N HWY A1A PROPERTY
KASTURY UMA R
5 CATHERINE CT
BOONTON NJ 07005

RE: 2579 OCEANSHORE BLVD N
CHARLES R & RHODA TURNBLACER
2579 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: N HWY A1A PROPERTY
DOUGLAS E ERNST
150 POND TRACE
FAYETTEVILLE GA 30215 5351

RE: 909 OCEANSHORE BLVD N
FLAGLER BEACH HOLDINGS LLC
8851 HWY A1A SOUTH
ST AUGUSTINE FL 32080

RE: N HWY A1A PROPERTY
FLAGLER BEACH PROPERTIES LLC
17375 W HWY 40
OCALA FL 34481 8797

RE: N HWY A1A PROPERTY
LOWE PALM COAST INC
PO BOX 354489
PALM COAST FL 32135 4489

RE: N HWY A1A PROPERTY
KENNETH R TARSITANO
29 BEDFORD DRIVE
PALM CITY FL 32137

RE: 2080 OCEANSHORE BLVD N
DENNIS L LOTT & KELLY A LEWELLEN
2080 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: N HWY A1A PROPERTY
WALKER DEAN
6156 S WILLIAMSON BLVD
PORT ORANGE FL 32128

RE: N HWY A1A PROPERTY
DAVID ALLEN AND AFAF K WENSKY
2628 CORTE VIDA
PLEASANTON CA 94566

RE: N HWY A1A PROPERTY
WILLIAM M & ZOE B FOREHAND
P O BOX 2029
FLAGLER BEACH FL 32136

RE: N HWY A1A PROPERTY
VRE FLAGLER BEACH LLC
502 N CARROLL AVE STE 120
SOUTHLAKE TX 76092 6449

RE: N HWY A1A PROPERTY
FLAGLER BEACH HOLDINGS LLC
1481 LAMBERT AVE
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
BETTY H ANNIS
2826 MONDAUI DR
ROCKLEDGE FL 32955

RE: S HWY A1A PROPERTY
BR & FAMIL LTD PARTNERSHIP
C/O BILLY TIMMS
1203 CAVE SPRING RD
ROME GA 30161

RE: S HWY A1A PROPERTY
JAI HANUMAAN LLC
1224 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 1544 S HWY A1A
OLDE TOWNE ENCHANTMENT INC
1544 S A1A
FLAGLER BEACH FL 32136

RE: 1600 S HWY A1A
DIANE DOMPE LARSON
1600 SOUTH A1A
FLAGLER BEACH FL 32136

RE: 1604 S OCEANSHORE BLVD
TIMOTHY GOULD
1604 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
DETTRICK FRED G
P O BOX 964
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
JERE SCOLA
4615 NW 53RD AVE
GAINESVILLE FL 32653

RE: S HWY A1A PROPERTY
JEFFREY A FISHER
2015 N CENTRAL AVENUE
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
AMIN BHAVESH R & DIVYA
224 GREGG PKWY
COLUMBIA SC 29206

RE: 1816 OCEANSHORE BLVD S
RODERG & SUZANNE CLEMENT
1816 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
MOIDOM LLC
140-25 MULBERRY AV
FLUSHING NY 11355

Mailing Lists, updated 2013
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<th>RE: S HWY A1A PROPERTY</th>
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<tr>
<td>JULES S II &amp; THERESE ABBOSH</td>
<td>DEMUS &amp; CARRIE DEERING</td>
<td>FIRST LAND NORTH LLC</td>
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<td>100 BRISTOL PL</td>
<td>4401 OLD SPARTA RD</td>
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<td>PONTE VEDRA BEACH FL 32082</td>
<td>COOKEVILLE TN 38506</td>
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<tr>
<td>VASYL N &amp; MILKA G</td>
<td>LEO A JR &amp; KAREN SCHOTT</td>
<td>JUDY MISBACH</td>
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<tr>
<td>C/O NINA RAM</td>
<td>4530 38TH WAY SOUTH</td>
<td>2130 E 56TH AVE APT J106</td>
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<tr>
<td>208 CLUBSIDE DR</td>
<td>ST PETERSBURG FL 33711</td>
<td>ANCHORAGE AK 99507 5438</td>
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<td>TANEYTOWN MD 21787</td>
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<th>RE: 2264 OCEANSHORE BLVD S</th>
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<tr>
<td>TAMMY JANE SULLIVAN</td>
<td>YANKOWSKI JUDITH A &amp; JOSEPH R</td>
<td>ROBERT J &amp; CAROLE A ELLIOTT</td>
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<td>400 E BAY ST STE 302</td>
<td>PO BOX 1192</td>
<td>PO BOX 445</td>
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<td>JACKSONVILLE FL 32202</td>
<td>FLAGLER BEACH FL 32136</td>
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<tr>
<td>THE EIGHTEEN EIGHT GROUP LLC</td>
<td>PHILLIP &amp; MARGO BACSICK</td>
<td>KALBERER RICHARD N TRUSTEE</td>
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<tr>
<td>193 BLACK MEADOW RD</td>
<td>2568 S CENTRAL AVE</td>
<td>PO BOX 2194</td>
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<tr>
<td>CHESTER NY 10918</td>
<td>FLAGLER BEACH FL 32136</td>
<td>MYRTLE BEACH SC 29578 2194</td>
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<td>NICKLER MICHAEL TRUSTEE</td>
<td>MELTON MARIE A</td>
<td>CYNTHIA A DANGIOLINI</td>
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<td>8246 MAN O WAR ROAD</td>
<td>2316 S OCEANSHORE BLVD</td>
<td>P O BOX 1889</td>
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<td>PALM BEACH GARDENS FL 33418 7719</td>
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<tr>
<td>BUFFARDI INVESTMENT CORP</td>
<td>WILLIAM STEPNICKA</td>
<td>SAMORSKI PAUL J</td>
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<td>% PALM WEST REALTY INC</td>
<td>9521 MEECH AVE</td>
<td>5331 SW 98TH COURT</td>
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<td>2 FLORIDA PK DR N SUITE 107</td>
<td>CLEVELAND OH 44105</td>
<td>MIAMI FL 33165</td>
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<td>PALM COAST FL 32137</td>
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<tr>
<td>HALL LINDA B &amp; RICHARD D</td>
<td>RUDOLPH &amp; MARGARET P BARLAN</td>
<td>JOSEF &amp; VALENDON WALLY</td>
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<td>628 YORKSHIRE DR</td>
<td>9 BLACKBERRY PL</td>
<td>908 HARDSTONE WAY</td>
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<td>FLAGLER BEACH FL 32136</td>
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<td>SANTA ROSA CA 95405</td>
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<td>ROBERT S LUTZ</td>
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<td>2340 S OCEANSHORE BLVD</td>
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<td>1700 N JIMMIE FOX PATH</td>
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<td>HERNANDO FL 34442</td>
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<tr>
<td>LEE C &amp; LOIS A FOSHAY</td>
<td>BARRY GRIFFIN</td>
<td>MOULTIE L &amp; JANE L HITT</td>
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<td>151 CENTER RD</td>
<td>2448 S OCEANSHORE BLVD</td>
<td>2544 S CENTRAL AVE</td>
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<td>DUDLEY MA 01571</td>
<td>FLAGLER BEACH FL 32136</td>
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Mailing Lists, updated 2013
RE: S HWY A1A PROPERTY
PAL PARKER & SONS INC
PO BOX 218
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
STEVENS D FANN
119 BETH COURT
GALLATIN TN 37066

RE: S HWY A1A PROPERTY
MONTGOMERY ANDREW WILLIAMSON
MARY ELIZABETH SLOOF
576 HAROLD AVE NE
ATLANTA GA 30371 1790

RE: HWY A1A PROPERTY
FRANK & ISABEL CARRANO
5951 NW FOURTH AVE
BOCA RATON FL 33487

RE: S HWY A1A PROPERTY
MARK J CHICKERING
45 WHITCOCK LANE
Palm COAST FL 32164

RE: S HWY A1A PROPERTY
FRANK JOSEPH & MARGARETA
PO BOX 295
REDDING CT 06896

RE: S HWY A1A PROPERTY
BROOKS A TRUSTEE
PO BOX 571
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
SLLAN G & DELORIS C HALLER
PO BOX 1838
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
MARIO R AND MARYLOU BAIATA
1411 S DAYTONA AVE
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
JOHN J & JAMI L VERDEROSA
1399 CURRAHEE CLUB DRIVE
TOCOCOA GA 20577

RE: S HWY A1A PROPERTY
JAMES JOSEPH ANDERSON
623 CUMBERLAND DR
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
NEAL R & AMORETTE J NORDIN
2820 DOWNING ST
JACKSONVILLE FL 32205

RE: S HWY A1A PROPERTY
GLENN P MACARTHUR
7432 SUNSHINE SKYWAY LN S
ST PETERSBURG FL 33711 5110

RE: S HWY A1A PROPERTY
CAROL A MICKEN
2614 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
ROBERT L SLATTERY
2616 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 2620 OCEANSHORE BLVD S
JOHN R ATHEY & DENISE MANZOLILLO
2620 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 2624 OCEANSHORE BLVD S
JOHN J & JANICE M JENKINS
2624 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 2628 SOUTH A1A
JOSEPH M & BEVERLY A BACHMAN
2628 SOUTH A1A
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
JAMES & DOROTHEA BENINTENDE
PO BOX 1802
FLAGLER BEACH FL 32136 1802

RE: S HWY A1A PROPERTY
WOLFGANG BAER TRUSTEES
380 W CARMEL VALLEY RD
CARMEL VALLEY CA 93924

RE: 1001 OCEANSHORE BLVD N
MAURO ALISON
1001 N OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 2644 S OCEANSHORE BLVD
JOHN T & GLORIA W RIDENOUR TRUSTEES
2644 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
CHARLES L & MARY E JETT
7469 APELLE DR
SANFORD FL 32771

RE: S HWY A1A PROPERTY
JOHN P BERNARDI
2652 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: 2656 OCEANSHORE BLVD S
WILLIAM T & ERIKA T EVERETT
2656 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: S HWY A1A PROPERTY
TONY STIVERS ET AL
10400 INNISBROOK DRIVE
JACKSONVILLE FL 32222

RE: S HWY A1A PROPERTY
CHARLES W JR & SUSAN HEATH
JEAN GEORGE & DAVID ROBBINS
614 CODDINGTON ROAD
ITHACA NY 14850

Mailing Lists, updated 2013
RE: S HWY A1A PROPERTY
HALBERT C & LIVIA M CAPUY
625 HIGH HAMPTON DRIVE
AUGUSTA GA  30907

RE: S HWY A1A PROPERTY
JAY R & MARTIA S MCNEILL
PO BOX 1292
FLAGLER BEACH FL  32136

RE: S HWY A1A PROPERTY
THOMAS W III & CAROLE HARWOOD
2724 S OCEANSHORE BLVD
FLAGLER BEACH FL  32136

RE: OCEANSHORE BLVD S PROPERTY
MICHELE HERBOLDT
2744 A OCEANSHORE BLVD
FLAGLER BEACH FL  32136

RE: OCEANSHORE BLVD PROPERTY
TYPE E CORPORATION INC THE
2805 SOUTH OCEANSHORE BLVD
FLAGLER BEACH FL  32136

RE: OCEANSHORE BLVD PROPERTY
PEBBLE BEACH VILLAGE HOA INC
PO BOX 1221
FLAGLER BEACH FL  32136

RE: 3590 HWY A1A S
C/O DAVID ROTENBERG
555 SKOKIE BLVD STE 555
NORTHBROOK IL 60062

RE: 3551 OCEANSHORE BLVD N
HAMMOCK MOORINGS N HOA INC
5455 HIGHWAY A1A S
ST AUGUSTINE FL 32080

RE: 3600 OCEANSHORE BLVD S
OCEANVIEW MANOR CONDO
3600 OCEANSHORE BLVD S
FLAGLER BEACH FL 32136

RE: 48 OCEAN RIDGE BLVD N
SUSAN C MACFARLAN TRUSTEE
66 ISLAND ESTATES PKWY
PALM COAST FL  32137

RE: 3580 OCEANSHORE BLVD S
NAUTILUS CONDO
3580 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: OCEAN HAMMOCK PROPERTY
OWNERS ASSOC INC MGT SERV
5455 HWY A1A SOUTH
ST AUGUSTINE FL  32080

RE: S HWY A1A PROPERTY
ELINO F PHELAN
PO BOX 2837
BUNNELL FL  32110

RE: S HWY A1A PROPERTY
DEBORAH GAINES
4410 NE 25TH AVE
LIGHTHOUSE POINT FL 33604

RE: S HWY A1A PROPERTY
THOMAS W III & CAROLE HARWOOD
2724 S OCEANSHORE BLVD
FLAGLER BEACH FL  32136

RE: OCEANSHORE BLVD S PROPERTY
WALTER Czerwona & PAUL S ALLEN
6453 CROSSWINDS DR
CLOVER SC 29701 7528

RE: OCEANSHORE BLVD S PROPERTY
ELOISE CANTORE
3603 CARAMBOLA CIR
VIERA FL 32940

RE: OCEANSHORE BLVD S PROPERTY
WALTER Czerwona & PAUL S ALLEN
6453 CROSSWINDS DR
CLOVER SC 29701 7528

RE: 2811 OCEANSHORE BLVD S 6
CHARLOTTE F SANDERS TRUSTEE
2144 PENN DR
DELAND FL  32724

RE: 3510 & 3500 OCEANSHORE BLVD S
OCEAN BEACH CLUB II CONDO
3510 OCEANSHORE BLVD S
FLAGLER BEACH FL 32136

RE: 3580 OCEANSHORE BLVD S
NAUTILUS CONDO
3580 S OCEANSHORE BLVD
FLAGLER BEACH FL 32136

RE: OCEAN HAMMOCK PROPERTY
OWNERS ASSOC INC MGT SERV
5455 HWY A1A SOUTH
ST AUGUSTINE FL  32080

RE: 48 OCEAN RIDGE BLVD N
SUSAN C MACFARLAN TRUSTEE
66 ISLAND ESTATES PKWY
PALM COAST FL  32137

Mailing Lists, updated 2013

F-80
Flagler County HSDR Feasibility Report
Environmental Appendix

RE: 9 OCEAN RIDGE BLVD S
E C N PROP OF ST JOHNS CO LLC
8301 WEST MCMABBB ROAD
TAMARAC FL 33321

RE: 11 OCEAN RIDGE BLVD S
CHARLES S & CHRISTINE M HARDIGREE
11 OCEAN RIDGE BLVD S
PALM COAST FL 32137

RE: 13 OCEAN RIDGE BLVD S
TROYA EDUARDO
102 YACHT HARBOR DR UNIT 377
PALM COAST FL 32137 3432

RE: 15 OCEAN RIDGE BLVD S
JERRY C SPRINGER
2587 MUIR CIRCLE
WEST PALM BEACH FL 33414

RE: 19 OCEAN RIDGE BLVD S
DAPILA ARVIND & SNEH &
SONEET KAPILA & PRABODH
2420 DEL LAGO DRIVE
FORT LAUDERDALE FL 33316

RE: 21 OCEAN RIDGE BLVD N
WILLIAM JOHN ROGERS II
21 OCEAN RIDGE BLVD SOUTH
PALM COAST FL 32137 3378

RE: 23 OCEAN RIDGE BLVD S
CHARLES C MULLINS III
10267 HART BRANCH CIRCLE
ORLANDO FL 32832

RE: 25 & 27 OCEAN RIDGE BLVD S
RICHARD M & GRACE BENNINGTON
9612 ENCLAVE PLACE
PORT ST LUCIE FL 34986

RE: 29 OCEAN RIDGE BLVD S
ROBERT M & STACEY TROLLINGER
2916 MILTON
DALLAS TX 75205

RE: 31 OCEAN RIDGE BLVD S
MICHAEL & MOLLY H GENNARO
6 MEADOW ROAD
HARRISON NY 10528

RE: 35 OCEAN RIDGE BLVD S
ALSH INVESTMENTS LLC
2207 S CLEAR CREEK RD
KILLEEN TX 76549

RE: 37 & 39 OCEAN RIDGE BLVD S
ARCEO CONSTANTINO MD
39 OCEAN RIDGE BLVD
PALM COAST FL 32137

OCEAN HAMMOCK PROPERTY
HOA INC MNGT SERVICES
5455 HWY A1A SOUTH
ST AUGUSTINE FL 32080

RE: 31 CALLE DEL SUR
JAMES & EVETTE MENI
13120 RIVER ROAD
POTOMAC MD 208541123

RE: 33 CALLE DEL SUR
FELDMAN HOWARD J & CLARICE R & ALAN MINTZ & PAMELA
4455 29TH STREET NW
WASHINGTON DC 20008

RE: 69 CALLE DEL SUR
MORRIS & GREENE LLC
6004 BROWNSBORO PARK BLVD
SUITE E
LOUISVILLE KY 40207

RE: 47 CALLE DEL SUR
HUNT HARVEY & MELISSA
19 AVENUE DE LA MER APT 102
PALM COAST FL 32137

RE: 57 CALLE DEL SUR
KAZA ERIKS & KRISTINA
5030 DOWN POINT LANE
WINNDERMERE FL 34786

RE: 61 CALLE DEL SUR
WHANG & KYOUNG JA MOON
1085 DEARBORN ROAD
FORTLEE NJ 07024

RE: 61 CALLE DEL SUR
RICHARD A & SANDRA J MECKLER
21 LAKE ROAD
SHORT HILLS NJ 07078

RE: 63 CALLE DEL SUR
THOMAS R ANDERSON
8 CARLOS COURT
PALM COAST FL 32137

RE: 69 CALLE DEL SUR
WILLIAM H & KIELE NEAS WOLF
1545 BELLEVUE AV
HILLSBOROUGH CA 94010

RE: 71 CALLE DEL SUR
MICHAEL T & MARIE RUSSO
71 CALLE DEL SUR
PALM COAST FL 32137

RE: 73 & 75 CALLE DEL SUR
PRIVATE IDAHO
632 11TH ST
SANTA MONICA CA 90401 2904

RE: 77 CALLE DEL SUR
FLAGLER DEL SUR LLC
2758 DAWN RD
JACKSONVILLE FL 32207

RE: 81 CALLE DEL SUR
WATERFRONT LLC
19416 PRESIDENTIAL WAY
N MIAMI BEACH FL 33179

RE: 83 CALLE DEL SUR
DONALD & GLORIA GARDNER
83 CALLE DEL SUR
PALM COAST FL 32137

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RE: 85 CALLE DEL SUR
KAREN B & CRAIG W MOORE
717 KENNINGTON TERRACE
LAKE FOREST IL 60045

RE: 87 CALLE DEL SUR
CHARLES H E & JUANITA VOGEL
26 ISLAND ESTATES PKWY
PALM COAST FL 32137

RE: 89 CALLE DEL SUR
JEFFREY J VORHOLT
13 VIA ROMA
PALM COAST FL 32137

RE: 91 CALLE DEL SUR
LAZZARA GASPER JR TRUSTEE
5000 SAWGRASS VILLAGE STE 28
PONTE VEDRA BEACH FL 32082

RE: 95 CALLE DEL SUR
MICHAEL & LISA HELLER
128 DOCKSIDE CIRCLE
WESTON FL 33327

RE: 97 CALLE DEL SUR
RICHARD PRESTON & L GROLL
4820 NW 128TH ST
MIAMI FL 33054

RE: 99 CALLE DEL SUR
GARY N & JESSICA M ACKERMAN
RONALD T & BARBARA ACKERMAN
55 ST JAMES DRIVE
PALM BEACH GARDENS FL 33418

RE: 101 CALLE DEL SUR
CRUZ EVARISTO G & ELAINE
28 WINCHESTER LN
HOLMDEL NJ 07733

RE: 103 CALLE DEL SUR
FRANK A TAYLOR TRUSTEE
44 N LAKEVIEW DR
PALM COAST FL 32137

RE: 105 CALLE DEL SUR
FISERV ISS & CO TRUSTEE
FBO ALAN MESSER & GRASMERE LLC
PO BOX 173859
DENVER CO 80217

RE: 107 CALLE DEL SUR
RICHASON THOMAS F & MARY ANN
107 CALLE SUR DEL S
PALM COAST FL 32137 1218

RE: 109 CALLE DEL SUR
PATEL ATUL & REShma PATEL
12949 HUNTLEY MANOR DRIVE
JACKSONVILLE FL 32224

RE: 111 CALLE DEL SUR
RICHARD W & CHARLOTTE A COLLIER
5500 GRASMERE DR
PLANO TX 75093

RE: 113 CALLE DEL SUR
RICHARD F & MICHAEL R DIETZ
185 AVENUE DE LA MER # 203
PALM COAST FL 32137

RE: 35 CALLE DEL SUR
GIBBS JUDITH L TRUSTEE
35 CALLE DEL SUR
PALM COAST FL 32137

RE: 3913 OCEANSHORE BLVD N
HARRIS D & SHARON P HOBBY
8070 INNSBRUCK DRIVE
ATLANTA GA 30350

RE: 3919 OCEANSHORE BLVD N
WILSTA INVESTMENTS FLAGLER LLC
ATTN: KRISTY KING
1172 S. DIXIE HWY., #481
CORAL GABLES, FL 33146

RE: 35 CALLE DEL SUR
HARRIS D & SHARON P HOBBY
8070 INNSBRUCK DRIVE
ATLANTA GA 30350

RE: 3861 OCEANSHORE BLVD N
BROTHEN BRIAN R & JILL M
404 AVONDALE COURT
WINTER SPRINGS FL 32708

RE: 3855 OCEANSHORE BLVD N
PUVVADA VENKATAPATHI & MADHAVI
KANTAMNENI
1163 MEADOWLOOK CT
RESTON VA 20194

RE: 3849 OCEANSHORE BLVD N
THOMPSON BLAKE
PO BOX 52
NASSAU DE 19969

RE: 3843 OCEANSHORE BLVD N
STEVEN R & DENISE E PARSON
6054 WINDING LAKE DR
JUPITER FL 33458

RE: 3837 OCEANSHORE BLVD N
PJR REALTY LLC
340 N 12TH STREET STE 203
PHILADELPHIA PA 19107

RE: 3835 OCEANSHORE BLVD N
ALPINE LLC
11390 TWELVE OAKS WAY STE 520
NORTH PALM BEACH FL 33408

RE: 3825 OCEANSHORE BLVD N
DAMODAR LLC
13830 SAXON LAKE DR
JACKSONVILLE FL 32225

RE: 3813 OCEANSHORE BLVD N
DUYCK CARL W & DENNIS J FLOOD
PO BOX 215
LEWES DE 11958
Flagler County HSDR Feasibility Report
Environmental Appendix

RE: 3765 OCEANSHORE BLVD N
LEVERTON ROGER F & MARILYN F
3765 NORTH OCEANSHORE
PALM COAST FL  32137

RE: 3741 OCEANSHORE BLVD N
ROBERT & BARBARA J PAPE
1203 SALT CREEK ISLAND DRIVE
PONTE VEDRA BEACH FL  32082

RE: 3709 OCEANSHORE BLVD N
ERIC J BOHRER
7980 MAYTEN AVE APT 4004
RANCHO  CA  91730

RE: 3759 OCEANSHORE BLVD N
CAROLYN BREWER &
GUILLERMO H DAVILA
2580 SE 8TH STREET
POMPANO BEACH FL  33062

RE: 3735 OCEANSHORE BLVD N
ALAN & RENE M CARDINALE
10095 MAIN ROAD
PO BOX 77
MATTITUCK NY  11952

SEA COLONY HOA INC
C/O SOUTHEAST MANAGEMENT
P.O. BOX 354734
PALM COAST FL  32135 4734

RE: N HWY A1A PROPERTY
GLADSTONE A MYLES & MATTY J
315 KING FARM BLVD APT 402
ROCKVILLE MD  20854 2556

RE: 2617 OCEANSHORE BLVD N
CLASSIC 59 INVESTMENTS
7888 CATHEDRAL DRIVE
NIAGRA FALLS, ON CANADA

RE: 3729 OCEANSHORE BLVD N
ROESSEL PAUL F
10095 MAIN ROAD
STATESBORO GA  30461

RE: 3735 OCEANSHORE BLVD N
ANAL & RENE M CARDINALE
10095 MAIN ROAD
PO BOX 77
MATTITUCK NY  11952

OCEANSIDE @ BEVERLY BEACH CONDOMINIUM BLDG B
2455 OCEANSHORE BLVD N
FLAGLER BEACH FL 32136

RE: 2811 OCEANSHORE BLVD BLVD S 5
CASS LARMORE CAROLYN
PO BOX 1289
FLAGLER BEACH FL  32136

RE: 2800S A1A
HILLIER LORETTA
2340 S OCEANSHORE BLVD
FLAGLER BEACH FL  32136

RE: 2400S A1A
HILLIER LORETTA
2340 S OCEANSHORE BLVD
FLAGLER BEACH FL  32136

RE: 41 CALLE DEL SUR
LINDEGREN LENNART S AND
ROBERTA T LINDEGREN H/W
41 CALLE DEL SUR
PALM COAST FL 32137

RE: 2811 OCEANSHORE BLVD BLVD S 7
CLARK JOSEPH R
12 LAKE AVENUE
DELAND FL  32724

Mailing Lists, updated 2013
FLAGLER COUNTY HURRICANE AND STORM DAMAGE REDUCTION
INTEGRATED DETAILED PROJECT REPORT AND ENVIRONMENTAL
ASSESSMENT

FLAGLER COUNTY, FLORIDA

FINDING OF NO SIGNIFICANT IMPACT

I have reviewed the Detailed Project Report (DPR) and Environmental Assessment (EA) of the Selected Plan and the Future Without Project (No Action Alternative) for the Flagler County Hurricane and Storm Damage Reduction Study, Flagler County. The Selected Plan includes reduction of damage from extreme storms and hurricanes through the shoreline protection measure of rebuilding a natural dune system that includes planting native dune-type vegetation. This Finding incorporates by reference all discussions and conclusions contained in the integrated EA enclosed hereto. Based on information analyzed in the EA, reflecting pertinent information obtained from other agencies and special interest groups having jurisdiction by law and/or special expertise, I conclude that the proposed action will have no significant impact on the quality of the human environment. Reasons for this conclusion are in summary:

a. The U.S. Army Corps of Engineers, Jacksonville District, (Corps) will take measures to minimize the effects to the threatened and endangered species including sea turtles. There will be no unauthorized impacts to other threatened and endangered species. The project will not jeopardize the continued existence of any federally listed species or adversely modify designated critical habitat.

b. I have determined that Selected Plan, as proposed, will have no adverse affect on significant historic properties. Coordination with the Florida State Historic Preservation Officer and appropriate federally recognized tribes has been initiated. As stated in the EA, use of the shoreline will have no effect on historic properties as none are located within the immediate footprint of the project area, and that the preferred alternative (Selected Plan) will have beneficial effects to those historic properties located immediately west of the project area. Furthermore, no historic properties would be affected by any of the project alternatives in the nearshore.

c. State water quality standards will be met. A Water Quality Certification (WQC) permit application will be submitted for issuance by the Florida Department of Environmental Protection (FDEP).
d. The Corps has determined that the proposed project is consistent with the Coastal Zone Management Act (CZMA). The final concurrence from the State will be issued with the FDEP permit.

e. Measures to eliminate, reduce below the level of significance, or avoid potential impacts to fish and wildlife resources will be implemented during project construction.

f. The proposed project has been evaluated pursuant to the Migratory Bird Treaty Act. The Jacksonville District’s Migratory Bird Protection procedures will be implemented for this project and for future projects. These procedures have been coordinated with the U.S. Fish and Wildlife Service and the State of Florida.

g. Benefits to the public will include restored and improved natural habitat for protected species, fish and wildlife, restored aquatic ecosystem, and engagement by the local community.

h. Measures will be in place during construction to eliminate, reduce, or avoid adverse impacts below the threshold of significance to fish and wildlife resources include the following:

1. All dredge and placement activities will occur within the template of authorized and permitted areas;
2. All water based activities would follow standard sea turtle protections measures and the conditions of the NMFS SARBO, and
3. Dredged material placement would comply with the shoreline protection measures conditions of the USFWS SPBO.

In consideration of the information summarized, I find that the proposed action will not significantly affect the human environment and does not require an Environmental Impact Statement. This document will be available to the public on the U.S. Army Corps of Engineers Jacksonville District website at:

http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx#Flagler

Date

__________________________  ________________________

Alan M. Dodd
Colonel, U.S. Army
District Commander
To Whom It May Concern:

Pursuant to the National Environmental Policy Act and U.S. Army Corps of Engineers Regulation (33 CFR 230.11), this letter constitutes the Notice of Availability for the Flagler County, Florida Hurricane and Storm Damage Reduction Project Draft Integrated Feasibility Study and Environmental Assessment.

The draft document is available on the U.S. Army Corps of Engineers, Jacksonville District website for your review and comment at:

http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx#Flagler

For comments to be considered, they must be received within 30 days from the date of this letter unless additional review time is authorized by federal law. Letters should be addressed to the letterhead address, to the attention of the Planning Division, Environmental Branch, Coastal Section. If you have any questions or comments, please contact Ms. Kathleen McConnell by telephone at 904-232-3607, or by email at kathleen.k.mcconnell@usace.army.mil.

Sincerely,

Eric P. Summa
Chief, Environmental Branch