EDISTO BEACH
COASTAL STORM DAMAGE REDUCTION
GENERAL INVESTIGATION STUDY

APPENDIX I

CORRESPONDENCE

Contents:

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A HAGOOD AVENUE
CHARLESTON, SOUTH CAROLINA 29403-5107

REPLY TO
ATTENTION OF

August 15, 2008

Planning Branch
Environmental Section

Mr. Leo Henry, Chief
Tuscarora Nation
2006 Mount Hope Road
Lewiston, NY 14092

Dear Mr. Leo Henry,

The US Army Corps of Engineers is working with the Town of Edisto on a feasibility study to examine alternatives for the reduction of hurricane and storm damages. In addition, we are also evaluating the potential for environmental benefits associated with providing protection of the beach, maritime forest and unique marsh habitats that exist along the Edisto Beach State Park area.

All Corps feasibility studies go through six basic steps before completion. Those steps are listed below as well as a short description of what the Corps' Project Delivery Team (PDT) is currently working on regarding each step.

1. **Identify Problems & Opportunities**- Identified high erosion rates for all beachfront Edisto Island- southwest of Highway 174 to the end of the island (beachfront). Beach nourishment would assist in reducing storm damages to structures and would have recreational & long-term T&E (sea turtle & piping plover) and environmental benefits.
2. **Inventory and Forcast Conditions**- A potential borrow source has been identified; however further analysis will be conducted to identify any other potential sites. Structures are being inventoried to determine damage potential. In addition, models will be used to determine the impacts associated with storm events.
3. **Formulate alternative plans-** Some alternatives that have been identified include nearshore placement, groin construction/manipulation, offshore breakwater, and beach nourishment.
4. **Evaluate alternative plans-** Once a complete list of alternatives is compiled, an evaluation of each individual alternative will be completed. Evaluation will consist of measuring or estimating the economic, environmental, and social

effects of each plan, and determining the difference between the without- and with-project conditions. Feasible plans will be carried forward for comparison against one another.

5. **Compare alternative plans-** Alternative plans will be compared, focusing on the differences among the plans identified in the evaluation phase including public comment. Differences in environmental and economic benefits produced by the alternatives are assessed.
6. **Select a plan**- A recommended plan will be identified for permitting and construction.

Enclosed you will find maps of the project areas as well as the type of benefit we believe will be derived from beach nourishment. Also enclosed is a map of the initial vibracore areas which help identify the potential borrow site. Please note this is preliminary and the area will more than likely be expanded or another borrow location may be identified. We are in the initial phases of this study. Some alternatives plans that will be considered include:

- Structure Relocation
- Groin Lengthening
- New Groin Construction
- Sand-Fencing/ Grassing
- Offshore Breakwater

During and after Step 5, "Selecting a Plan", we will be seeking the appropriate authorizations required to move forward with construction. However, we will be coordinating throughout the process in order to identify the plan that is economically justified and is environmentally sustainable.

Please provide any information you may have regarding alternatives for beach nourishment, potential economic or environmental benefits, information on existing site conditions, or any questions or concerns regarding this project. Please forward your responses to Elizabeth Jackson at 843-329-8099, by mail or e-mail her at elizabeth.g.jackson@usace.army.mil. It would be appreciated if you could provide your comments, concerns or information by September 19, 2008.

Thank you for your cooperation and participation in the Edisto Island Project.

Respectfully,

Joseph A. Jones
Chief, Planning Branch

encls.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

September 11, 2008

Mr. Joseph A. Jones
Chief, Planning Branch
U.S. Army Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

Attn: Elizabeth Jackson

Re: Hurricane and Storm Damage Reduction Study, Town of Edisto, SC
FWS Log No. 42410-2008-FA-0341

Dear Mr. Jones:

The U.S. Fish and Wildlife Service (Service) is in receipt of the U.S. Army Corps of Engineers (COE) letter regarding the feasibility study for storm damage reduction near the Town of Edisto, SC. The COE is evaluating multiple alternatives including beach renourishment, structure relocation, groin construction or enhancement, dune stabilization and use of offshore breakwaters, to accomplish this task as well as potential benefits associated with the beach protection measures. You have solicited the Service to provide any concerns regarding this project, potential alternatives as well as information on site conditions and benefits that may result from the project. Upon consideration of the alternatives we find this potential project represents several potential benefits as well as potential adverse impacts.

Renourishment

Renourishment of eroded beaches has proven to be an effective yet short-term method to protect coastal development. The Service believes placement of sand along the beachfront may provide effective protection and cause minimal harm to indigenous flora and fauna if the activity is performed during periods of low biological activity. The Service recommends any future renourishment project for the Town of Edisto beach be performed during the November through April time frame to avoid sea turtle nesting season. Turtle nesting success may increase upon completion of the renourishment project provided the source sand material is of suitable volume, grain size and texture.

Sand sources for renourishment projects should be thoroughly analyzed prior to use. The Service does not believe dynamic inlets or active beach areas are an appropriate source for large

scale projects. Offshore borrow areas, devoid of live bottom resources, will provide long-term source material with minimal impacts to benthic habitat.

It is understood that several potential borrow site locations for the Edisto project are under review by the COE. The offshore area immediately south of the project is a designated unit of the Coastal Barrier Resources System (Otter Island Unit M10). As such, the area is subject to the Coastal Barrier Improvement Act (P.L.101-591) and may be ineligible for use by this project.

Structure Relocation

The Service believes that the highest and best economic or environmental benefits would be attained though structure relocation. Moving beachfront homes landward and therefore further from the active beachfront zone significantly reduces the possibility of storm related damage to the structures and increases human safety. With the relocation of homes, artificial erosion control structures would not be necessary and the coastal area of Edisto Beach would eventually revert to a more natural beach/dune system. We believe this would ultimately result in an economic benefit through increased tourism.

Groin Construction or Enhancement

The Service would not object to maintaining or replacing existing groins with the existing configuration. However, enlargement of groins already in place or construction of new hardened structures has the potential to cause more of an impact to fish and wildlife resources. Shore perpendicular groin fields provide a limited protection benefit. Groin structures typically trap sand on the updrift side while contributing to an increased erosion rate on the immediate downdrift side. In addition to serving as an aesthetic distraction, groins represent a public safety hazard. The Service finds that the adverse impacts of groins far outweigh their benefits.

Dune Stabilization

Dune stabilization measures such as placement of dune vegetation or sand fencing would serve as an effective enhancement measure for renourishment activities. If properly installed, vegetation and fencing provides sand investment protection without impeding use of the beach/dune system by the endangered loggerhead seaturtle or the general public. Only dune vegetation native to Charleston County, SC should be planted.

Offshore Breakwaters

The Service is concerned that the use of offshore breakwaters will pose more risks than benefits to the beach/dune system. Placement of shore parallel structures may reduce onshore wave energy; however breakwaters may also prevent sea turtles from accessing the beachfront during the nesting season. In addition, breakwaters may create a navigational hazard for near shore vessels in addition to a public safety hazard for recreational swimmers.

Upon review of the Heritage Trust database, the Service finds few known occurrences of federally protected threatened and endangered (T&E) species within the study area. The two

most notable T&E species known to occur along the Edisto Beach shoreline are the loggerhead seaturtle, *Caretta caretta*, and the piping plover, *Charadrius melodus*. However, other T&E species and species of concern may also occur in the project area. A list of species for Charleston and Colleton Counties is included for your consideration during this project's planning efforts.

The Service appreciates the opportunity to provide comments on this project in its early stages. As planning proceeds, you should discuss the need for a Fish and Wildlife Coordination Act Report with the Service. If you have any questions or require additional information, please contact Mark Caldwell of the Charleston Field office. He may be reached at (843) 727-4707 ext. 215.

Sincerely,

Timothy N. Hall
Field Supervisor

TNH/MAC/km

South Carolina Distribution Records of
Endangered, Threatened, Candidate and Species of Concern
March 2008

E	Federally endangered
T	Federally threatened
P	Proposed in the Federal Register
CH	Critical Habitat
BGEPA	Federally protected under the Bald and Golden Eagle Protection Act
C	The U.S. Fish and Wildlife Service or the National Marine Fisheries Service has on file sufficient information on biological vulnerability and threat(s) to support proposals to list these species
S/A	Federally protected due to similarity of appearance to a listed species
SC	Federal Species of concern. These species are rare or limited in distribution but are not currently legally protected under the Endangered Species Act.
*	Contact the National Marine Fisheries Service for more information on this species

These lists should be used only as a guideline, not as the final authority. The lists include known occurrences and areas where the species has a high possibility of occurring. Records are updated continually and may be different from the following.

CHARLESTON COUNTY

Common Name	Scientific Name	Status	Occurrence
West Indian manatee	Trichechus manatus	E	Known
Bald eagle	Haliaeetus leucocephalus	BGEPA	Known
Bachman's warbler	Vermivora bachmanii	E	Known
Wood stork	Mycteria americana	E	Known
Red-cockaded woodpecker	Picoides borealis	E	Known
Piping plover	Charadrius melodus	T, CH	Known
Kemp's ridley sea turtle	Lepidochelys kempii*	E	Known
Leatherback sea turtle	Dermochelys coriacea*	E	Known
Loggerhead sea turtle	Caretta caretta	T	Known
Green sea turtle	Chelonia mydas*	T	Known
Flatwoods salamander	Ambystoma cingulatum	T	Known
Shortnose sturgeon	Acipenser brevirostrum*	E	Known
Sea-beach amaranth	Amaranthus pumilus	T	Known
Canby's dropwort	Oxypolis canbyi	E	Known
Pondberry	Lindera melissifolia	E	Possible
Chaff-seed	Schwalbea americana	E	Known
Southern Dusky Salamander	Desmognathus auriculatus	SC	Known
Gopher frog	Rana capito	SC	Known

Kirtland's Warbler	Dendroica kirtlandii	E	Known
Incised groovebur	Agrimonia incisa	SC	Known
Venus' fly-trap	Dionaea muscipula	SC	Known
Angiosperm (no common name)	Elytraria caroliniensis	SC	Known
Godfrey's privet	Forestiera godfreyi	SC	Known
Creeping St. John's wort	Hypericum adpressum	SC	Known
Pondspice	Litsea aestivalis	SC	Known
Boykin's lobelia	Lobelia boykinii	SC	Known
Sweet pinesap	Monotropsis odorata	SC	Known
Savannah or Piedmont cowbane	Oxypolis ternata	SC	Known
Pineland plantain	Plantago sparsiflora	SC	Known
False coco	Pteroglossaspis ecristata	SC	Known
Awned meadowbeauty	Rhexia aristosa	SC	Known
Bachman's sparrow	Aimophila aestivalis	SC	Known
Henslow's sparrow	Ammodramus henslowii	SC	Possible
Red knot	Calidris canutus	C	Known
Black-throated green warbler	Dendroica virens	SC	Known
Swallow-tailed kite	Elanoides forficatus forficatus	SC	Known
American kestrel	Falco sparverius	SC	Known
American oystercatcher	Haematopus palliatus	SC	Known
Loggerhead shrike	Lanius ludovicianus	SC	Possible
Black rail	Laterallus jamaicensis	SC	Known
Swainson's warbler	Limnothlypis swainsonii	SC	Known
Painted bunting	Passerina ciris ciris	SC	Known
Gull-billed tern	Sterna nilotica	SC	Known
Rafinesque's big-eared bat	Corynorhinus rafinesquii	SC	Known
Southeastern myotis	Myotis austroriparius	SC	Known
Bull's Island white-tail deer	Odocoileus virginianus taurinsulae	SC	Known
Southern hognose snake	Heterodon simus	SC	Known
Island glass lizard	Ophisaurus compressus	SC	Known

COLLETON COUNTY

Common Name	Scientific Name	Status	Occurrence
Bald eagle	Haliaeetus leucocephalus	BGEPA	Known
Wood stork	Mycteria americana	E	Known
Red-cockaded woodpecker	Picoides borealis	E	Known
Piping plover	Charadrius melodus	T, CH	Known
Kemp's ridley sea turtle	Lepidochelys kempii*	E	Known
Leatherback sea turtle	Dermochelys coriacea*	E	Known
Loggerhead sea turtle	Caretta caretta	T	Known
Green sea turtle	Chelonia mydas*	T	Known
Shortnose sturgeon	Acipenser brevirostrum*	E	Known
Pondberry	Lindera melissifolia	E	Possible
Canby's dropwort	Oxypolis canbyi	E	Known
Southern Dusky Salamander	Desmognathus auriculatus	SC	Possible
Angiosperm (no common name)	Elytraria caroliniensis	SC	Known
Godfrey's privet	Forestiera godfreyi	SC	Known
Pondspice	Litsea aestivalis	SC	Known
Boykin's lobelia	Lobelia boykinii	SC	Known
Carolina bird-in-a-nest	Macbridea caroliniana	SC	Known
Crested fringed orchid	Pteroglossaspis ecristata	SC	Known
Bachman's sparrow	Aimophila aestivalis	SC	Possible
Kirtland's Warbler	Dendroica kirtlandii	E	
Henslow's sparrow	Ammodramus henslowii	SC	Possible
Red knot	Calidris canutus	C	Possible
Black-throated green warbler	Dendroica virens	SC	Possible
Swallow-tailed kite	Elanoides forficatus forficatus	SC	Known
American kestrel	Falco sparverius	SC	Possible
American oystercatcher	Haematopus palliatus	SC	Known
Loggerhead shrike	Lanius ludovicianus	SC	Possible
Black rail	Laterallus jamaicensis	SC	Possible
Painted bunting	Passerina ciris ciris	SC	Possible
Gull-billed tern	Sterna nilotica	SC	Known
Bluebarred pygmy sunfish	Elassoma okatie	SC	Known
Southern hognose snake	Heterodon simus	SC	Possible
Island glass lizard	Ophisaurus compressus	SC	Known
Rafinesque's big-eared bat	Corynorhinus rafinesquii	SC	Known

South Carolina Department of
Natural Resources

September 8, 2008

John E. Frampton
Director
Robert H. Boyles, Jr.
Deputy Director for
Marine Resources

Ms. Elizabeth Jackson
U. S. Army Corps of Engineers
69-A Hagood Avenue
Charleston, SC 29403-5107

REF: Feasibility Study on Alternatives for the Reduction of Hurricane and Storm Damages on Edisto Island

Dear Ms. Jackson:

Personnel with the South Carolina Department of Natural Resources have reviewed the proposal to conduct a feasibility study on alternatives for the reduction of hurricane and storm damages on Edisto Island and offer the following comments.

We understand your agency is in the initial phases of preparing a feasibility study for storm damage reduction on Edisto Island. As a part of this study, several alternative plans will be considered, including structure relocation, groin lengthening, new groin construction, sand fencing, and offshore breakwater construction. In general, our department prefers and encourages the use of soft solutions for erosion control, such as beach nourishment and sand fencing. These activities if properly planned and implemented can provide environmental benefits with minimal impacts to the environment. Other alternatives being considered that involve the construction of hard structures are of more concern and could potentially result in significant environmental impacts. The following is a summary on our concerns and recommendations for the alternatives being considered.

Structure Relocation – This alternative should be given serious consideration in areas subject to severe erosional patterns and where structures are threatened. We encourage a retreat from the beach in these situations.

Beach Nourishment - Soft solutions such as this are preferred using appropriate materials and timed to avoid impacts to nesting sea turtles. Beach nourishment should occur from November through April, which is outside of the sea turtle nesting season. The use of a hopper dredge to obtain borrow materials should only be used from December through March when sea turtles are not present. Only those borrow sites that provide materials with similar grain size and color to the native beach should be considered. The mining of sands from active beach areas, both intertidal and subtidal, should be avoided and considered in emergency situations only.

Groin Construction - We discourage the use of hard erosion control devices on the beach, especially in areas utilized for nesting by sea turtles. New groin construction is especially troublesome. The potential exists for significant direct and indirect impacts to nesting females

and nesting success as a result of groin construction and the use of heavy machinery on the beach. Groin placement can indirectly impact nesting activities by degrading nesting habitat on the downdrift side. Groin construction could result in accelerated erosion of the beach in areas currently used as nesting habitat. We are generally not opposed to the maintenance of existing groin structures, provided the size and dimension of the groins are not substantially different from the originally permitted structure.

Sand Fencing/Grassing – If properly designed, located and maintained, sand fencing can provide benefits in dune stabilization. All fencing should be done in accordance with current OCRM regulations. The same applies to plantings. Only native dune vegetation should be used.

Offshore Breakwater – The use of offshore breakwaters for erosion control is not a well known practice in this state and we have a number of concerns regarding its use on the beachfront. The potential exists for interference with aquatic life movement, particularly sea turtles attempting to access the beachfront. Such structures are also likely to adversely affect recreational use of the beach as well as pose a navigational hazard. Again, we discourage the use of hard erosional control devices on or near the beachfront.

We appreciate the opportunity to provide comments early in the planning stages of this project. We ask that you take the above comments into consideration in the formulation of a plan to reduce storm damages on Edisto Island.

Sincerely,

Susan F. Davis
Coastal Environmental Coordinator

Cc: SCDHEC/Beckham
OCRM/Rodgers
USEPA/Lord
USFWS/Hall
NMFS

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment

October 14, 2008

Ms. Elizabeth Jackson
Charleston District, Corps of Engineers
69A Hagood Ave.
Charleston, SC 29403

RE: Hurricane Damage Reduction Feasibility Study
Edisto Beach, SC

Dear Ms. Jackson:

Personnel with the SCDHEC Office of Ocean and Coastal Resource Management have reviewed the proposal to conduct a feasibility study on alternatives for the reduction of hurricane and storm damage on Edisto Island and have the following comments for the alternatives being considered. These comments are all based on South Carolina's overall policy for beachfront management, which is to encourage retreat in areas where structures have been built in close proximity to the beach.

Structure Relocation: This alternative is consistent with South Carolina's policy of retreat on beachfront property, wherein owners of structures that are located too close to the ocean are encouraged to relocate farther landward. We encourage pursuit of this alternative.

Beach Renourishment: It is South Carolina's policy to promote carefully planned renourishment as a means of beach preservation and restoration, where economically feasible. We encourage careful consideration of this alternative.

Groin Lengthening or new Groin Construction: It is generally understood that improperly designed or constructed groins can have an adverse impact on adjacent beaches. In this regard, groins may only be constructed after a thorough analysis demonstrates that the groin will not cause a detrimental effect on adjacent or downdrift areas. South Carolina only allows new groins to be constructed on beaches that have high erosion rates with erosion threatening existing development or public parks. In addition, new groins may be constructed and existing groins may be reconstructed only in furtherance of an on-going beach renourishment effort that includes initial beach renourishment concurrent with groin construction and periodic beach renourishment for the life of the groins. The responsible party must provide a financially binding commitment, such as a performance bond or letter of credit that is reasonably estimated to cover the cost of reconstructing or removing the groin and/or restoring the affected beach through renourishment if the groin causes an adverse impact on adjacent beaches.

Offshore Breakwaters: South Carolina has limited experience with offshore breakwaters in an open ocean environment. Since breakwaters can also interfere with the natural transport of sediment, they can only be constructed after a thorough analysis of the project demonstrates that there will be no negative effect on adjacent beaches.

Sand Fencing and Grassing: These passive dune stabilization measures are generally encouraged, provided they are not installed in a manner that will interfere with sea turtle nesting. However, it should be recognized that sand fencing and dune vegetation will not stop beach erosion, and should only be used on erosional beaches in conjunction with other beach restoration alternatives.

As you may be aware, SCDHEC-OCRM has sponsored a beach profile data collection program for the past 20 years that includes Edisto Beach. All beach profile data is available on the internet under the Online Profile Management option at http://gis.coastal.edu. We also have a fairly extensive collection of hardcopy shoreline assessment studies and post-renourishment monitoring reports for Edisto Beach that are available for your review at our office.

We would also appreciate receiving a time schedule for this study. Please contact me at 843-953-0237 if you have any questions.

Sincerely,

William C. Eiser
Project Manager

cc: Carolyn R. Boltin
Barbara Neale
Blair Williams

Jackson, Elizabeth G SAW@SAC

From: DuBose Griffin [GriffinD@dnr.sc.gov]
Sent: Wednesday, September 03, 2008 3:40 PM
To: Jackson, Elizabeth G SAW@SAC
Cc: Susan Davis; Melissa_Bimbi@fws.gov; Bob Perry
Subject: Town of Edisto Nourishment Project

Attachments: USACOE Edisto 8-15-2008.pdf; image001.jpg; image004.jpg


USACOE Edisto 8-15-2008.pdf (1...


image001.jpg (5 KB)


image004.jpg (5 KB)

Ms. Jackson,

Thank you for the attached letter concerning the implementation of a nourishment project/study on Edisto Beach (both the Town and state park). Please accept my comments on this project as requested by your letter. Best management practices as stated in the Beachfront Management Act and SCDHEC OCRM Critical Area Permit Regulations, and as recommended by the SCDNR are as follows:

1. Beach nourishment should occur from November through April, which is outside of the sea turtle nesting season.

2. A hopper dredge in South Carolina state waters should be used from December through March when sea turtles are not present.

Thank you and please let me know if you have any questions,

DuBose

Ms. DuBose Griffin, SC Sea Turtle Coordinator

South Carolina Marine Turtle Conservation Program

griffind@dnr.sc.gov <mailto:griffind@dnr.sc.gov>

http://www.dnr.sc.gov/seaturtle/ <http://www.dnr.sc.gov/seaturtle/>

Voice: (843) 953-9016

Cell: (843) 870-3667

Fax: (843) 953-9353

SC Department of Natural Resources

Wildlife and Freshwater Fisheries Division

Post Office Box 12559

217 Fort Johnson Road

Charleston, SC 29422 USA

Directions: www.dnr.sc.gov/boating/offices.html#charles
<http://www.dnr.sc.gov/boating/offices.html#charles>

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small Light Bumper sticker.jpg

Jackson, Elizabeth G SAW@SAC

From: Tritapoe, Fred - Walterboro, SC [Fred.Tritapoe@sc.usda.gov]
Sent: Wednesday, August 27, 2008 1:04 PM
To: Jackson, Elizabeth G SAW@SAC
Subject: Town of Edisto Feasibility Study

Elizabeth,
Long time but good day and how are you doing? Thank you for giving us a chance to comment. Vitex, the common invasive specie creeping it's way along the coast is truly my main concern in regard to beach nourishment. We need to rid our coast of this nightmare. Introduced as an ornamental, beach property owners thought vitex was beautiful and what they needed to stabilize the loose ground around their houses.NOT!! In completing this study, a professional who can identify any hotspots along Edisto's coast needs to assist in this study. Once identified, the rascal(Vitex) needs to be zapped.It will take over if left unchecked. Once all areas are clear, then coastal natives can be established.Got to go.Good day!--fred

Fredric K. Tritapoe--NRCS
District Conservationist
531 Robertson Blvd.-Suite B
Walterboro, S.C. 29488
(843)549-1821

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730
803.328.2427 Fax 803-328-5791

9 September 2008

Charleston District
Corps of Engineers
69 A Hagood Avenue
Charleston, South Carolina 29405

THPO #	P/N	Project Description
2008-1-235		Letter from Planning Branch / Town of Edisto Re. feasibility study to examine alternatives for reduction of hurricane and storm damages. Also evaluating potential for environmental benefits associated with providing protection of the beach, maritime forest and marsh habitats, Edisto Beach State Park area

Dear Mr. Jones,

The Catawba have no concerns at this time with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be contacted when and if a borrow pit or other actual ground disturbance occurs, regardless of which plan is chosen.**

If you have questions, please contact Sandra Reinhardt at 803-328-2427 ext. 233, or email sandrar@ccppcrafts.com.

Sincerely,

Sandra Reinhardt for
Wenonah G. Haire
Tribal Historic Preservation Officer

United States Department of the Interior

FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

January 27, 2010

Mr. Mark J. Messersmith
Biologist
U.S. Army Corps of Engineers - SAW@SAC
69A Hagood Avenue
Charleston, SC 29403-5107

Re: Edisto Beach Shore Protection Feasibility Study Area

Dear Mr. Messersmith:

This letter is in response to your January 6, 2010, email to Craig Aubrey of the U.S. Fish and Wildlife Service (Service) in which you asked the Service to ascertain if the proposed borrow site for the above-referenced project is located within the John H. Chafee Coastal Barrier Resources System (CBRS). After reviewing your email and the official maps for the CBRS, we have determined that the proposed borrow site is not located in the CBRS. Should you have any questions, please call Mr. Aubrey of my staff at (843) 727-4707 ext. 301.

Sincerely,

Diane L. Lynch
Acting Field Supervisor

DLL/CWA

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A HAGOOD AVENUE
CHARLESTON, SOUTH CAROLINA 29403-5107

REPLY TO
ATTENTION OF

June 4, 2010

Planning and Environmental Branch

Ms. Caroline Wilson
Review and Compliance Coordinator
SC Department of Archives and History
8301 Parklane Rd.
Columbia, SC 29223

Dear Ms. Wilson,

The US Army Corps of Engineers is working with the Town of Edisto on a feasibility study to examine alternatives for the reduction of hurricane and storm damages. In addition, we are also evaluating the potential for environmental benefits associated with providing protection of the beach, maritime forest and unique marsh habitats that exist along the Edisto Beach State Park area.

We would like to initiate consultation for Section 7 of the National Historic Preservation Act. We are in the planning phase for this project and just want to ensure that we include your office early on. Enclosed are the initial documents required by your office except for the existing and proposed site drawings. This will be supplied as we finalize the scope of the project. Please let us know if your office has any materials and/or data that would be applicable to this project. If you have any questions please contact Mark Messersmith at 843-329-8162, by phone or email him at mark.j.messersmith@usace.army.mil.

Respectfully,

Patrick E. O'Donnell
Chief, Planning and Environmental Branch

Encls.
USGS topographic map
Map of Area of Potential Effects
ArchSite search
Photographs

July 1, 2010

THE South Carolina Archives & History Center
HISTORY & HERITAGE FOR ALL GENERATIONS

Mark J. Messersmith
Department of the Army
Charleston District, Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

Re: Edisto Beach Renourishment, Edisto Beach, Colleton County, SC
SHPO #: 10CW0381

Dear Mr Messersmith:

Thank you for the letter of June 4, which we received on June 7, regarding the above referenced project. We also received photos as supporting documentation for this undertaking. The State Historic Preservation Office is providing comments to the Army Corps of Engineers pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800.

After consultation with the South Carolina Institute of Archaeology and Anthropology, we believe that there is potential for underwater archaeology at the proposed borrow site. We will require an underwater archaeological survey of the borrow site before we can concur with an assessment of effect.

If you have any questions, please contact me at (803) 896-6169 or cwilson@scdah.state.sc.us.

Sincerely,

Caroline Dover Wilson
Review and Compliance Coordinator
State Historic Preservation Office

UNIVERSITY OF SOUTH CAROLINA
SOUTH CAROLINA INSTITUTE OF ARCHAEOLOGY AND ANTHROPOLOGY

12 April 2013

Alisha N. Means
Biologist
Planning & Environmental Branch
US Army Corps of Engineers-Charleston District
69A Hagood Avenue
Charleston SC 29403-5107

Re: Review of Edisto Beach Renourishment Project report.

Dear Ms. Means,

Our office has reviewed the draft report of the *Hardbottom and Cultural Resource Surveys, Edisto Beach Offshore Borrow Site, Edisto Beach, South Carolina*, prepared by Dial Cordy and Associates, Inc. for the Edisto Beach hurricane and storm damage protection project. Our review is focused on the submerged cultural resources aspects of the project. The report is a solid discussion of the scope, methods, research, and findings, especially in its awareness of inundated paleolandscapes bearing the potential of prehistoric cultural materials along the South Carolina coast.

We concur with the contractor's recommendations to place a 1,500 ft. buffer zone around the two arbitrary center points: Site 1—E2213373, N232446; and Site 2--E2218203, N227338 (NAD83 South Carolina State Plane East U.S. Survey Feet) as potential paleolandscape features. We also agree that no additional inspections of the magnetic, acoustic, or sub-bottom reflectors is warranted in the designated borrow site. We do, however, request that any inadvertent discovery of potential archaeological materials, i.e., wood structure, prehistoric lithics, ceramics, etc. during dredging operations cease from that area until inspections may reveal the source of this material. Please contact my office or the SHPO for further guidance in this instance. Our office has no objections from a submerged cultural resources viewpoint for dredging operations to occur in this borrow site. If plans change, please consult with our office for additional guidance.

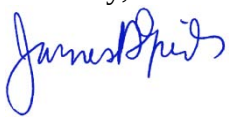
We do though offer several editorial comments to improve the graphics for the final report:

1. Fig. 34, p. 47—please choose a color scheme to more fully reveal the trackline points, as well as to bring out the contours.
2. The above recommendation would also go for the Appendix B contour maps.
3. Please ensure the PDF images are of good quality in 100% zoom.

1321 Pendleton Street • Columbia, SC 29208-0071 • (803) 576-6566 • FAX (803) 254-1338

Thank you for this opportunity to review the report and your support of preserving the submerged archeological legacy in South Carolina waters. If you have any questions, comments, etc. about this matter please contact me.

Sincerely,



James D. Spirek
State Underwater Archaeologist
Maritime Research Division

Cc: Rebekah Dobrasko, SC SHPO

September 9, 2013

THE South Carolina Archives & History Center
HISTORY & HERITAGE FOR ALL GENERATIONS

Bret Walters
Chief, Planning and Environmental Branch
US Army Corps of Engineers-Charleston District
69A Hagood Avenue
Charleston SC 29403-5107

Re: Edisto Beach Coastal Storm Damage Reduction, FONSI
Colleton County, South Carolina
SHPO Number: 10-CW0381

Dear Bret Walters:

Thank you for your letter of August 20, which we received on August 23, regarding the Edisto Beach Coastal Storm Damage Reduction project. We also received the Finding of no Significant Impact (FONSI) as supporting documentation for this undertaking. The State Historic Preservation Office is providing comments to the U.S. Corps of Engineers (COE) pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

In a letter dated April 12, 2013, James Spirek, State Underwater Archaeologist, provided his review of the draft report entitled *Hardbottom and Cultural Resource Surveys, Edisto Beach Offshore Borrow Site, Edisto Beach, South Carolina.* In his letter, Mr. Spirek states that he "concur(s) with the contractor's recommendations to place a 1,500 ft. buffer zone around the two arbitrary center points: Site 1—E2213373, N232446; and Site 2--E2218203, N227338 (NAD83 South Carolina State Plane East U.S. Survey Feet) as potential paleolandscape features. We also agree that no additional inspections of the magnetic, acoustic, or sub-bottom reflectors is warranted in the designated borrow site. We do, however, request that any inadvertent discovery of potential archaeological materials, i.e., wood structure, prehistoric lithics, ceramics, etc. during dredging operations cease from that area until inspections may reveal the source of this material."

Our office concurs with James Sprirek and the COE. There will be no effect to cultural resources within the APE with the implementation of a 1500 ft. buffer around the two submerged potential Paleoindian sites.

If you have any questions, please contact me at (803) 896-6181 or edale@scdah.state.sc.us.

Sincerely,

Emily Dale
Staff Archaeologist
State Historic Preservation Office

cc: Jim Spirek, SCIAA

US Army Corps of Engineers®

Edisto Beach, South Carolina
Hurricane and Storm Damage Reduction
Feasibility Study - QUESTIONNAIRE

This questionnaire will be used to gain insight on the perceptions and knowledge of hurricane and storm damage reduction techniques on Edisto Beach. Additionally, the questionnaire will determine current conditions and concerns on the Beach. Please complete the questionnaire and return to one of the US Army Corps of Engineers' presenters at the end of the meeting.

Name: *[optional]* BILL ANDREWS

Question 1: Do you live in the Town of Edisto Beach? ☒ Yes ☐ No

Question 2: Are you attending this meeting as a:

☐ Government official ☐ Non-Governmental or a Not-for-Profit Official ☐ Media

☐ Developer or Realtor ☐ Recreational Visitor ☒ Resident ☐ Other

Question 3: Which area(s) of the beach do you visit?

a. South Edisto River shoreline b. Atlantic Edisto shoreline c. State Park (d. All)

Question 4: How many days a year do you visit the beach in Edisto Beach or Edisto Beach State Park? 300+

Question 5: Please circle the activities you participate in while at the beach.

- Surfing
- (Sunbathing)
- Boating / Kayaking
- Clamming / Fishing
- Scuba Diving / Snorkeling
- Camping
- (Swimming)
- (Read / Relax/ Study)
- (Socialize / Meet People)
- I don't go to the beach
- Other *[please specify]* _____

Question 6: Have you endured structural damages to your home/property due to storm surge events? ☐ Yes ☒ No

Question 12: What do you value most about the beach front of Edisto Beach?

THE BEAUTY AND NON-COMMERCIALISM

Question 13: Identify any dislikes about the beach front of Edisto Beach and discuss how it can be improved.

Please share additional comments with us about Edisto Beach.

Thank you. Your concerns and needs are very important to us. Please return the questionnaire to one of the U.S. Army Corps of Engineers' presenters.

US Army Corps of Engineers®

Edisto Beach, South Carolina
Hurricane and Storm Damage Reduction
Feasibility Study - QUESTIONNAIRE

This questionnaire will be used to gain insight on the perceptions and knowledge of hurricane and storm damage reduction techniques on Edisto Beach. Additionally, the questionnaire will determine current conditions and concerns on the Beach. Please complete the questionnaire and return to one of the US Army Corps of Engineers' presenters at the end of the meeting.

Name: *[optional]* Iddy Andrews

Question 1: Do you live in the Town of Edisto Beach? ☑ Yes ☐ No

Question 2: Are you attending this meeting as a:

☐ Government official ☐ Non-Governmental or a Not-for-Profit Official ☐ Media

☐ Developer or Realtor ☐ Recreational Visitor ☑ Resident ☐ Other

Question 3: Which area(s) of the beach do you visit?

a. South Edisto River shoreline b. Atlantic Edisto shoreline c. State Park (d.) All

Question 4: How many days a year do you visit the beach in Edisto Beach or Edisto Beach State Park? 365 weather permitting ☺

Question 5: Please circle the activities you participate in while at the beach.

- Surfing
- (Sunbathing)
- Boating / Kayaking
- Clamming / Fishing
- Scuba Diving / Snorkeling
- Camping
- (Swimming)
- (Read / Relax/ Study)
- (Socialize / Meet People)
- I don't go to the beach
- Other *[please specify]* _____

Question 6: Have you endured structural damages to your home/property due to storm surge events? ☐ Yes ☑ No

Question 12: What do you value most about the beach front of Edisto Beach?
The natural beauty + lack of development

Question 13: Identify any dislikes about the beach front of Edisto Beach and discuss how it can be improved.
People who litter or destroy vegetation

Please share additional comments with us about Edisto Beach.
We Love Edisto!

Thank you. Your concerns and needs are very important to us. Please return the questionnaire to one of the U.S. Army Corps of Engineers' presenters.

US Army Corps of Engineers®

Edisto Beach, South Carolina
Hurricane and Storm Damage Reduction
Feasibility Study - QUESTIONNAIRE

This questionnaire will be used to gain insight on the perceptions and knowledge of hurricane and storm damage reduction techniques on Edisto Beach. Additionally, the questionnaire will determine current conditions and concerns on the Beach. Please complete the questionnaire and return to one of the US Army Corps of Engineers' presenters at the end of the meeting.

Name: *[optional]* _____

Question 1: Do you live in the Town of Edisto Beach? ☒ Yes ☐ No

Question 2: Are you attending this meeting as a:

☐ Government official ☐ Non-Governmental or a Not-for-Profit Official ☐ Media

☒ Developer or Realtor ☐ Recreational Visitor ☒ Resident ☐ Other

Question 3: Which area(s) of the beach do you visit?

a. South Edisto River shoreline b. Atlantic Edisto shoreline c. State Park d. All

Question 4: How many days a year do you visit the beach in Edisto Beach or Edisto Beach State Park? at least 3 times A week

Question 5: Please circle the activities you participate in while at the beach.

- Surfing
- Sunbathing
- Boating / Kayaking
- Clamming / Fishing
- Scuba Diving / Snorkeling
- Camping
- Swimming
- Read / Relax/ Study
- Socialize / Meet People
- I don't go to the beach
- Other *[please specify]*

_____

Question 6: Have you endured structural damages to your home/property due to storm surge events? ☐ Yes ☒ No

Question 12: What do you value most about the beach front of Edisto Beach?

SAND

Question 13: Identify any dislikes about the beach front of Edisto Beach and discuss how it can be improved.

Please share additional comments with us about Edisto Beach.

Thank you. Your concerns and needs are very important to us. Please return the questionnaire to one of the U.S. Army Corps of Engineers' presenters.

US Army Corps of Engineers®

Edisto Beach, South Carolina
Hurricane and Storm Damage Reduction
Feasibility Study - QUESTIONNAIRE

This questionnaire will be used to gain insight on the perceptions and knowledge of hurricane and storm damage reduction techniques on Edisto Beach. Additionally, the questionnaire will determine current conditions and concerns on the Beach. Please complete the questionnaire and return to one of the US Army Corps of Engineers' presenters at the end of the meeting.

Name: *[optional]* _____

Question 1: Do you live in the Town of Edisto Beach? ☑ Yes ☐ No

Question 2: Are you attending this meeting as a:

☑ Government official ☐ Non-Governmental or a Not-for-Profit Official ☐ Media

☐ Developer or Realtor ☐ Recreational Visitor ☐ Resident ☐ Other

Question 3: Which area(s) of the beach do you visit?

a. South Edisto River shoreline b. Atlantic Edisto shoreline c. State Park (d. All)

Question 4: How many days a year do you visit the beach in Edisto Beach or Edisto Beach State Park? LIVE HERE PERMANENTLY

Question 5: Please circle the activities you participate in while at the beach.

- Surfing
- Sunbathing
- (Boating / Kayaking)
- (Clamming / Fishing)
- Scuba Diving / Snorkeling
- Camping
- (Swimming)
- (Read / Relax/ Study)
- (Socialize / Meet People)
- I don't go to the beach
- Other *[please specify]*

_____

Question 6: Have you endured structural damages to your home/property due to storm surge events? ☐ Yes ☑ No

Question 12: What do you value most about the beach front of Edisto Beach?

Question 13: Identify any dislikes about the beach front of Edisto Beach and discuss how it can be improved.

Please share additional comments with us about Edisto Beach.

Thank you. Your concerns and needs are very important to us. Please return the questionnaire to one of the U.S. Army Corps of Engineers' presenters.

Edisto Beach, South Carolina
Town Public Meeting
October 29, 2009
7:00 PM

US Army Corps of Engineers®

Name	Address	Email Address	Contact Number
Mayor Bunky Lyons	Edisto Beach	Edistomayor@bls.net	843-869-2505
Addy & Bill Andrews	21 Rice Lane	biandrews@comcast.net	843631-1066
Tommy + Dale Mann	2005 Myrtle St. Edisto Beach	tmann@tnvista.net	803-261-5911
Pete Anderson	"	Pete@Edistotele.com	794774
K. Patrick Brown	2414 Murray St.	edistobrown@bellsouth.net	869-2505
Iris Hill	2414 Murray St	edistohille bellsouth.net	869 2505
ARCHIE JOHNSTON	P.O. Box 460	Archiejohnston@hotmail.com	869-3789
Jeanine Rhodes	3619 Yacht Club Edisto	jgrhodes@lowcountry.com	843-893-7702
E. LARRY HUTTO	2402 Palmetto Blvd.	[illegible]@earthlink.net	843-869-4013
Wanda McCarley	3927 Pat Ravenel St.	edisto @ bellsouth.net.	843 869-1308

Edisto Beach, South Carolina
Town Public Meeting
October 29, 2009
7:00 PM

US Army Corps of Engineers®

Name	Address	Email Address	Contact Number
Susan Spell	8377 Steamboat Landing Rd Edisto Isl. SC 29438	sspell@sprt.com	843-869-4425

U. S. ARMY ENGINEER DISTRICT, CHARLESTON
CORPS OF ENGINEERS
CHARLESTON, SOUTH CAROLINA

Page 1

Subject: Edisto Beach

Computation _____ No. _____

Computed by _____ Checked by _____ Date 1/20/10

NAME	AGENCY/ASSOC.	Telephone
Brian Williams	U.S. Army Corps of Engineers	843-329-8153
Mark Caldwell	US FWS	843 727 4707 x 215
Susan Davis	SCDNR	843 953-9003
Tommy Mann	Edisto Beach Council	843/869-5251
Bill Eiser	DHEC-OCRM	843 953 0237
Matt Slagel	DHEC-OCRM	843 953-2033
Fred Mallen	DHEC-OCRM	843-953-0236
Steven Traynum	CSE	803-799-8949
WILLIAM SAGERS	DHEC-OCRM	843-953-0258
DAVID SIMMS	SCPRT - SPS	803-734-0258
Pace Wilber	NOAA Fisheries	843-953-7200
Derk Bergquist	SCDNR	843 953-9074
Bob Martore	SCDNR	843 953-9303
Barbara Neale	SCDHEC-OCRM	843-953-0245
Iris Hill	Town of Edisto Beach	843 869 2505 x211
Patrick Brown	Town of Edisto Beach	843-869-2505
Susan Hornsby	Town of Edisto Beach	843-869-3155
LARRY HUTTO	Town of Edisto Beach	843-869-4013
Pat O'Donnell	USACE	843-329-8050
Mark Messersmith		
Keely Domville		

SAC FORM 255 1 MAR 85

	Renourishment			New Groins			
	Pros	**Cons**	**Caveats**	**Pros**	**Cons**	**Caveats**	
Discussion during meeting 0n January 20, 2010	Town - beach in good shape from GROIN 15 and south - GROIN 15 and north is more of a problem - CSE - Groin 1-6 is a hotspot) - DNR - borrow site positioning on a shoal on south end is ideal vs. north end - would be a positive benefit for EBSP	Town - migrating sand around the inlet to the mouth of big bay creek -	DNR and USFWS - make sure it's done at appropriate times for turtles - suitable materials from borrow site - if construct dunes, plant vegetation - impacts to nesting shorebirds more on north end Dec - March. For turtles - work with DNR to figure something out - trade-offs with hopper vs. pipeline cutterhead dredge - NMFS - guidelines for how much to borrow and the natural filling rate of the borrow site. - Will possible causeway project affect creek flows and alter sedimentation? Derk - talk to Bud Bader and David Whitaker at SCDNR Hydrology. Susan Hornsby- rock piles in borrow area are highly used by fisherman. Can South Edisto River accretion be used as sand source for renourishing Atlantic reaches?		DNR/USFWS/NMFS are opposed. already have 34 existing groins - might be enough - EBSP would not prefer them		**Discussion during meeting 0n January 20, 2010**
USFWS - letter dated 09/11/2008	Effective protection - minimal harm to flora/fauna - beneficial to turtle nesting success	Short term - dredging window	Nov-Apr dredging window, compatible sediments, inlets not appropriate for large borrow areas, CBRA unit	None	Potential to cause more impacts to fish and wildlife resources - limited protection benefit - increase erosion downdrift - not aesthetically pleasing - safety hazard		**USFWS - letter dated 09/11/2008**
SCDNR - letter dated 09/08/2008	Preferred method of shore protection		Use appropriate materials, dredging windows Nov-Apr, only use Hopper from Dec-Mar, avoid mining of sands from active beach areas	Discouraged - not opposed to maintenance of existing groins	Significant direct impacts to nesting sea turtle females and nesting success - heavy machinery is detrimental - degrades nesting habitat		**SCDNR - letter dated 09/08/2008**
SCDNR - Dubose Griffin - email dated 09/03/2008			Should occur from Nov-Apr (outside of turtle nesting season, Hopper dredge only used from Dec-Mar when sea turtles not present				**SCDNR - Dubose Griffin - email dated 09/03/2008**
SCDHEC - OCRM - letter dated 10/14/2008	A means of beach preservation and restoration		SC policy to promote carefully planned nourishment projects		If improperly designed - they are harmful to adjacent beaches	Only constructed after thorough analysis demonstrates that the groin will not impact downdrift - only allowed on beach with high erosion rates threatening development or parks - can only be constructed in furtherance of on-going beach renourishment - must have binding commitment to remove if causes adverse	**SCDHEC - OCRM - letter dated 10/14/2008**
NRCS - email dated 08/27/2008			Beach vitex - make sure a professional eradicates any of this nuisance species				**NRCS - email dated 08/27/2008**
Catawba- letter dated 09/09/2008	No concerns	No concerns	No concerns	No concerns		No concerns	**Catawba- letter dated 09/09/2008**

Modified Groins			Structure Relocation/Elevation			Dune Stabilization (sand fencing and grassing)		
Pros	**Cons**	**Caveats**	**Pros**	**Cons**	**Caveats**	**Pros**	**Cons**	**Caveats**
CSE -not looking at increasing height. lengthening would provide some toe protection and stabilize the underwater portion [assume to mean of the beach], create a platform for beach to build on and to create and maintain dunes - OCRM - groins are protecting the houses - without them the first row of houses would not likely be present	CSE - removing/notching would not be recommended	NMFS - removal or notching them would be recommended (NMFS - wants to see the notching of groins modeled - at least pick one option) - CSE - depends on wave climate to determine the position of the fillets - USFWS - need to determine if existing groin is exacerbating the problem and model whether lengthening will cause downdrift impacts	USFWS - eco tourism? (state park has record of day use)	Town - it would negatively impact tourism and impact town revenue - CSE - it would revert to an eroding beach, dunes would erode away - all - expensive	traffic counts for recreational use - would also have to remove infrastructure - all houses on septic -	Town - sand fencing has worked in portions of Atlantic Reach S and N -		CSE - Need wide dry portion of beach to be effective
None	Potential to cause more impacts to fish and wildlife resources - limited protection benefit - increase erosion downdrift - not aesthetically pleasing - safety hazard		Highest and best economic and environmental benefits - artificial erosion control structures would not be necessary - coastal area of Edisto would revert to more natural beach/dune system - increased	None		Dunes and vegetation are an effetive enhancement measure - sand investment protection - allows use of beach/dune system to turtles and		Only use native vegetation
Discouraged	Significant direct impacts to nesting sea turtle females and nesting success - heavy machinery is detrimental - degrades nesting habitat					Use sand fencing and grassing to accomplish this		Performed in accordance with OCRM regulations - only use native vegetation
	Only constructed after thorough analysis demonstrates that the groin will not impact downdrift - only allowed on beach with high erosion rates threatening development or parks - can only be constructed in furtherance of on-going beach renourishment - must have binding commitment to remove if causes					Encouraged	Will not stop beach erosion	Installed in a manner that will not interfere with sea turtle nesting - should only be used in conjunction with other beach restoration measures
No concerns		No concerns	No concerns		No concerns	No concerns	No concerns	No concerns

	Offshore Breakwaters			Artificial Reefs			Seawall		
	Pros	**Cons**	**Caveats**	**Pros**	**Cons**	**Caveats**	**Pros**	**Cons**	**Caveats**
Discussion during meeting 0n January 20, 2010		generally regarded as a negative impact to the project		NMFS has supported piles of sand used for reef construction (talk to SAM and SAS - doug clark at ERDC) - DNR - at folly pier the reefs caused accretion near the pier (anecdotal) - sand will fill in the holes in the reef balls - economic plus - edisto push for eco tourism. DNR (Martore) - The holes in reef balls are not big enough for a turtle to	USFWS - impediments to sea turtles accessing the beach for nesting - navigational problems - DNR - could change the beach profile and cause it to become flatter and extend outward more.	Town - shrimpers have 1/2 mile limit from pavilion north to inlet - extends out to 1 mile at the pavilion south. -	could provide protection to second row houses	OCRM - illegal - unlawful on ocean side of 40 year setback line - Town - town ordinance that says no seawalls	town provision for allowing revetments - OCRM - state does not distinguish (includes bulkheads, revetments, and seawalls)
USFWS - letter dated 09/11/2008	May reduce wave energy	More risk than benefit to beach/dune system - may prevent turtles from accessing beachfront - navigational hazard - and recreational hazard					None	Discouraged	
SCDNR - letter dated 09/08/2008		Not well known in this state - interferes with aquatic life movement - recreational impacts - navigational hazard					None	Discouraged	
SCDNR - Dubose Griffin - email dated 09/03/2008									
SCDHEC - OCRM - letter dated 10/14/2008		SC has limited experience - interferes with natural transport of sediment							
NRCS - email dated 08/27/2008									
Catawba- letter dated 09/09/2008	No concerns		No concerns	No concerns		No concerns	No concerns		No concerns

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A HAGOOD AVENUE
CHARLESTON, SOUTH CAROLINA 29403-5107

REPLY TO
ATTENTION OF

January 20, 2012

Planning and Environmental Branch

Mr. Jay Herrington
U.S. Fish and Wildlife Service
South Carolina Ecological Services
176 Croghan Spur Road - Suite 200
Charleston, SC 29407

Dear Mr. Herrington,

The US Army Corps of Engineers is working with the Town of Edisto on a feasibility study to examine alternatives for the reduction of hurricane and storm damages. Over the last several years we have coordinated with your staff and other agencies to receive input on a variety of possible measures to protect structures and restore habitat along the beach face. As a result of this coordination and the process so far, we are moving forward with evaluating the following measures: beach nourishment, dune vegetation, groin lengthening, submerged artificial reefs, demolition, floodproofing structures, and elevating structures. The end result of our study will be an integrated Feasibility Report / Environmental Assessment that among other items, documents the affected environment and the impacts of the various alternative plans, and will include an assessment of impacts to fish and wildlife resources.

As you know USACE and USFWS have a Memorandum of Agreement for conducting Fish and Wildlife Coordination Act activities. The purpose of this letter is to document our remaining compliance under section 2(a) of the Fish and Wildlife Coordination Act (FWCA) (16 U.S.C §§ 661 et seq.). After discussions with Mark Caldwell, of your staff, we propose that continued coordination and input from your office throughout the remainder of the project, as well as USFWS submission of Planning Aid Letters (PALs) when needed, will suffice it to substitute for a separate and exhaustive Coordination Act Report (CAR). The following specific coordination will take place:

a. The USACE intends to hold another agency meeting this coming spring/summer to present various alternatives to the interagency team and to receive more detailed comments on the potential impacts/benefits.
b. The USACE intends to route the draft Feasibility Study/Environmental Assessment/ Finding of No Significant Impact through a state and federal agency review when ready.
c. The USACE will hold a public meeting prior to release of a final document.

It is anticipated that future PALs would be appropriate to be received after (a) and (b), above. The USACE intends to use any PALs received from your office as input to better the project. Please let us know if you concur with the outlined coordination to comply with the FWCA. If you have any questions, please contact Mark Messersmith at (843) 329 – 8162 or by email at Mark.J.Messersmith@usace.army.mil.

Respectfully,

Patrick O'Donnell
Chief, Planning and Environmental Branch

United States Department of the Interior

FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

January 25, 2012

Mt. Patrick O'Donnell
Chief, Planning and Environmental Branch
U.S. Army Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

Attn: Mark Messersmith

Re: Town of Edisto Feasibility Study, Colleton County, SC
FWS Log No. 2012-CPA-0060

Dear Mr. O'Donnell:

The U.S. Fish and Wildlife Service (Service) submits this letter in response to the U.S. Army Corps of Engineers (USACE) request regarding future coordination for the Town of Edisto storm damage reduction feasibility study. You have requested that future coordination under the Fish and Wildlife Coordination Act (FWCA) be fulfilled through ongoing coordination and submission of Planning Aid Letters as the project progresses. In consideration of the project's characteristics and scope, the USACE believes this will suffice and substitute for a Coordination Act Report and satisfy section 2(a) of the FWCA. The Service concurs that our continued coordination and submission of necessary documentation or assessments will ensure that potential resource concerns will be adequately addressed.

Please note our concurrence does not negate the Service's or the USACE responsibilities or requirements mandated by other resource laws such as the Endangered Species Act, National Environmental Policy Act, or the Coastal Zone Management Act. We look forward to continued coordination with the USACE toward the development of this project. If you have any questions or need clarification of Service comments, please contact Mr. Mark Caldwell at (843) 727-4707 ext. 215 and reference FWS Log No. 2012-CPA-0060.

Sincerely,

Jay B. Herrington
Field Supervisor

JBH/MAC

From: Allan Strand
To: Messersmith, Mark J SAW@SAC
Subject: RE: Sea beach amaranth
Date: Thursday, October 29, 2009 4:59:37 PM

Hi Mark,

If you talk to most botanists in the state (at least the loudly vocal ones), they will say that seabeach amaranth has never been found southwest of Charleston Harbor. Of course that's wrong, there are herbarium records from Kiawah in the University of Georgia Herbarium. I have not seen, however, any records of plants found naturally below Kiawah.

We did introduce some plants to Seabrook in 03, I think. They did not do well, and I suspect did not export any meaningful number of seeds.

cheers,
a.

On Thu, 2009-10-29 at 13:32 -0400, Messersmith, Mark J SAW@SAC wrote:
> We are looking into a shore protection project on Edisto Beach. I am looking
> for information documenting the extent of Seabeach Amaranth's range. It's not
> listed on the USFWS T&E list for Colleton Co, so I assume it must not quite
> reach down that far south. I remember you gave a talk once on the seed
> dispersal of this plant, and I was curious if you had data or any lit on its'
> range. Also what do you think of the plants' ability to be introduced on
> Edisto Island? If it's not found there naturally, are there any adverse
> impacts that could be anticipated from introducing it? Also, if it's not
> found there, what are the contributing factors to it not germinating on that
> beach (i.e., currents, temperature, grain size, etc.)?
>
> Thanks for your time. - Mark
>
>
>
>
> Mark J. Messersmith
> Biologist
> US Army Corps of Engineers - SAW@SAC
> (843) 329-8162
> mark.j.messersmith@usace.army.mil
>
>
> -----Original Message-----
> From: Allan Strand [mailto:stranda@cofc.edu]
> Sent: Thursday, October 29, 2009 1:25 PM
> To: Messersmith, Mark J SAW@SAC
> Subject: Re: Sea beach amaranth
>
> Hi Mark,
>
> Sad to say, I don't. I might be able to answer some questions though.
> cheers,
> Allan
>
> On Thu, 2009-10-29 at 13:11 -0400, Messersmith, Mark J SAW@SAC wrote:

> > Dr. Strand,
> >
> > I came across the attached draft of a seabeach amaranth survey from
> > 2003. Do you have a final publication on this research that you can
> > send to me?
> >
> >
> > <<South Carolina Sea Beach Amaranth Survey - 2003.pdf>>
> >
> > Thanks -
> >
> > Mark J. Messersmith
> > Biologist
> > US Army Corps of Engineers - SAW@SAC
> > (843) 329-8162
> > mark.j.messersmith@usace.army.mil
> >
> >
>
>

From: Andrea J Grabman
To: Messersmith, Mark J SAW@SAC
Subject: FW: Artifical reef deployment
Date: Friday, January 15, 2010 4:08:25 PM

...and one more comment with some additional input- this time from FL. I still think that it's a good idea to try to combat erosion, but maybe a reef could be constructed with a Turtle Excluder Device (TED) similar to the ones on shrimp nets?
Still planning to send you the erosion photos...

Andrea Grabman
Interpretive Program Manager
Edisto Beach State Park
8377 State Cabin Rd.
Edisto Island, SC 29438

Ph: 843.869.4426

Shaping & Sharing a Better South Carolina
At Tax Time, "Check Off" for SC State Parks!<http://www.checkoff4scparks.com/>

_____
From: Sea Turtle Biology and Conservation [CTURTLE@LISTS.UFL.EDU] On Behalf Of Michael Barnette [Michael.Barnette@NOAA.GOV]
Sent: Thursday, January 14, 2010 5:43 PM
To: CTURTLE@LISTS.UFL.EDU
Subject: Re: Artifical reef deployment

I don't believe there is any literature to date (due to inherent difficulty in evaluating the issue, lack of monitoring/reporting, and the limited time span the "evidence" exists to document the issue at any given site), however there may be potential issues depending on the type of material and the location.

Typically, rock or rubble material is not expected to introduce any issues.

There have been several instances of turtles entrapped in modules. Sally mentioned one from off SC in October 1995, which was from a metal "pup tent" or "lean-to" module, which had a large circular opening on each of the panels. The sides of this module are open, but the turtle (I remember it being larger than a juvenile) wedged itself firmly into the round opening and was found freshly dead. There has also been a documented turtle mortality in another metal module off Pensacola, and a suspected entrapment of a turtle in a concrete tetrahedron (also off FL), which had an open bottom that apparently allowed the turtle to wiggle under, gain entrance, and drown.

Then there are potential issues with vessels, many of which are associated with entanglements in lost anchor lines and monofilament. I have images of several examples of this interaction, which were forwarded on to the STSSN.

Cheers,
Mike

Michael C. Barnette

On Jan 14, 2010, at 10:14 AM, "Stetzar Edna (DNREC)" <Edna.Stetzar@STATE.DE.US<mailto:Edna.Stetzar@STATE.DE.US>> wrote:

All-

Are you aware of any literature pertaining to injury of sea turtles from the deployment of artificial reef

materials on existing artificial reefs? I've conducted a literature search but have found limited information. It may be possible that it is a non-issue?

Any information would be greatly appreciated,
Sincerely,
Edna

_____

Edna J. Stetzar
Biologist/Environmental Review Coordinator
Natural Heritage and Endangered Species Program
Division of Fish and Wildlife
Delaware Department of Natural Resources and Environmental Control
4876 Hay Point Landing Rd
Smyrna, DE 19977
(302) 653-2880 ext. 101
<mailto:Edna.Stetzar@state.de.us>Edna.Stetzar@state.de.us<mailto:Edna.Stetzar@state.de.us>

From:	Andrea J Grabman
To:	Messersmith, Mark J SAW@SAC
Subject:	photos3- overwash from Hurricane Bill
Date:	Saturday, January 16, 2010 3:35:26 PM
Attachments:	Hurrican Bill erosion 2.jpg Hurrican Bill erosion 9.jpg Hurrican Bill erosion 7.jpg Hurrican Bill erosion 6.jpg

---

Erosion in action! Attached photos show the extreme overwash from the Hurricane Bill storm tides. First two photos show the overwash on the boardwalk at the ranger station. Normally the steps are exposed. In the second photo, you can really see how far the tide came in! (The main road in the town flooded.) Also attached are photos of the sand fencing that was pulled down by the storm tides. This sand fencing is on the high area of the beach. We normally have this area roped off to keep the public from trampling the primary dune line.

Andrea Grabman
Interpretive Program Manager
Edisto Beach State Park
8377 State Cabin Rd.
Edisto Island, SC 29438

Ph: 843.869.4426

Shaping & Sharing a Better South Carolina
At Tax Time, "Check Off" for SC State Parks!<http://www.checkoff4scparks.com/>

From:	Bill Post
To:	Messersmith, Mark J SAC
Cc:	Moran, Joseph SAC
Subject:	RE: edisto sturgeon counts (UNCLASSIFIED)
Date:	Thursday, May 02, 2013 3:45:25 PM

Mark,
Through the ongoing multi-state telemetry study, we've documented 13 Atlantic sturgeon and 2 shortnose sturgeon passing thru the borrow pit area.
The Atlantic sturgeon were observed during February-May and again October-November. The shortnose were observed in March.
In addition, through the same telemetry study, there have been 32 Atlantic sturgeon and 4 shortnose sturgeon that more than likely passed through that same area during north/south migrations along the coast. Remember, these are only fish with transmitters that have been detected, there are no doubt others in the vicinity.
Hope this answers your question.

Bill

Bill Post
S.C. Department of Natural Resources
Diadromous Fishes Coordinator
217 Fort Johnson Rd.
Charleston, SC 29412
Office: (843)953-9821
Cell: (843)209-1644
Fax: (843)953-9820

-----Original Message-----
From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Thursday, May 02, 2013 10:21 AM
To: Bill Post
Subject: edisto sturgeon counts (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Bill - attached is a map of the project area. The orange box is the proposed borrow site. the red line is the extent of the project. Do you have any numbers and/or literature for sturgeon in this area (both species)?

Thanks - Mark

Mark Messersmith
Planning and Environmental Branch
US Army Corps of Engineers
Charleston District
69A Hagood Ave
Charleston, SC 29403
(p) (843) 329 - 8162
(f) (843) 329 - 2231
mark.j.messersmith@usace.army.mil

From: Bill Post
To: Messersmith, Mark J SAC
Subject: RE: edisto sturgeon counts (UNCLASSIFIED)
Date: Friday, May 03, 2013 9:18:24 AM

Mark,

If you are citing the what's reflected in the text below, yes I'm fine with that.

Bill

Bill Post

S.C. Department of Natural Resources

Diadromous Fishes Coordinator

217 Fort Johnson Rd.

Charleston, SC 29412

Office: (843)953-9821

Cell: (843)209-1644

Fax: (843)953-9820

-----Original Message-----
From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Friday, May 03, 2013 8:42 AM
To: Bill Post
Subject: RE: edisto sturgeon counts (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Thanks Bill. I'd like to use this information in our Biological Assessment, with a "may affect, not likely to adversely affect" determination. Are you comfortable with me citing this via "personal communication"?

Mark

-----Original Message-----

From: Bill Post [mailto:PostB@dnr.sc.gov <mailto:PostB@dnr.sc.gov>]

Sent: Thursday, May 02, 2013 3:44 PM

To: Messersmith, Mark J SAC

Cc: Moran, Joseph SAC

Subject: RE: edisto sturgeon counts (UNCLASSIFIED)

Mark,

Through the ongoing multi-state telemetry study, we've documented 13 Atlantic sturgeon and 2 shortnose sturgeon passing thru the borrow pit area.

The Atlantic sturgeon were observed during February-May and again October-November. The shortnose were observed in March.

In addition, through the same telemetry study, there have been 32 Atlantic sturgeon and 4 shortnose sturgeon that more than likely passed through that same area during north/south migrations along the coast. Remember, these are only fish with transmitters that have been detected, there are no doubt others in the vicinity.

Hope this answers your question.

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Bill Post

S.C. Department of Natural Resources

Diadromous Fishes Coordinator

217 Fort Johnson Rd.

Charleston, SC 29412

Office: (843)953-9821

Cell: (843)209-1644

Fax: (843)953-9820

-----Original Message-----

From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil

<mailto:Mark.J.Messersmith@usace.army.mil>]

Sent: Thursday, May 02, 2013 10:21 AM

To: Bill Post

Subject: edisto sturgeon counts (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Bill - attached is a map of the project area. The orange box is the proposed borrow site. the red line is the extent of the project. Do you have any numbers and/or literature for sturgeon in this area (both species)?

Thanks - Mark

Mark Messersmith

Planning and Environmental Branch

US Army Corps of Engineers

Charleston District

69A Hagood Ave

Charleston, SC 29403

(p) (843) 329 - 8162

(f) (843) 329 - 2231

mark.j.messersmith@usace.army.mil <mailto:mark.j.messersmith@usace.army.mil>

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From:	Bob Martore
To:	Messersmith, Mark J SAW@SAC
Subject:	RE: artificial reefs
Date:	Friday, February 05, 2010 3:00:07 PM
Attachments:	SC Artificial Reef User 2006 Final Rpt.pdf

Mark,

Robert M. Martore
South Carolina Department of Natural Resources
Marine Resources Division
Office of Fisheries Management
phone (843) 953-9303
fax (843) 953-9849
martoreb@dnr.sc.gov

-----Original Message-----
From: Messersmith, Mark J SAW@SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Friday, February 05, 2010 2:47 PM
To: Bob Martore
Subject: artificial reefs

Mr. Martore - Real quick email (it's Friday afternoon) In your opinion... what type of design would be the most ideal for a multi-use reef that we're considering? Would some type of rubble stone accomplish the same thing as the reef balls?

Thanks - Mark

Mark J. Messersmith
Biologist
US Army Corps of Engineers - SAW@SAC
(843) 329-8162
mark.j.messersmith@usace.army.mil

From: Craig_Aubrey@fws.gov
To: Messersmith, Mark J SAW@SAC
Subject: RE: Edisto Beach and CBRA zones
Date: Wednesday, January 27, 2010 3:23:33 PM

---

sorry. The letter is being formatted by the secretary and given to the supervisor for signature. May be signed this afternoon. More likely Thursday.

Craig

Inactive hide details for "Messersmith, Mark J SAW@SAC"
<Mark.J.Messersmith@usace.army.mil>"Messersmith, Mark J SAW@SAC"
<Mark.J.Messersmith@usace.army.mil>

"Messersmith, Mark J SAW@SAC" <Mark.J.Messersmith@usace.army.mil>

01/27/2010 03:08 PM

To

<Craig_Aubrey@fws.gov>

cc

Subject

RE: Edisto Beach and CBRA zones

Craig - I hope I'm not expressing my ignorance here, but what is "surnaming"?

My assumption is that it means that it's being routed internally for signatures, or some other process of formalizing the letter... but maybe it's a typo.

-----Original Message-----
From: Craig_Aubrey@fws.gov [mailto:Craig_Aubrey@fws.gov]
Sent: Wednesday, January 27, 2010 2:58 PM
To: Messersmith, Mark J SAW@SAC
Subject: RE: Edisto Beach and CBRA zones

letter is in surnaming.

Craig

Craig W. Aubrey
Coastal Program Coordinator
U.S. Fish and Wildlife Service
Charleston Field Office
176 Croghan Spur Road, Suite 200
Charleston, SC 29407

Phone: (843) 727-4707, ext. 301
Fax: (843) 727-4218
Inactive hide details for "Messersmith, Mark J SAW@SAC"
<Mark.J.Messersmith@usace.army.mil>"Messersmith, Mark J SAW@SAC"
<Mark.J.Messersmith@usace.army.mil>

"Messersmith, Mark J SAW@SAC"
<Mark.J.Messersmith@usace.army.mil>

01/27/2010 01:55 PM

To

<Craig_Aubrey@fws.gov>

cc

Subject

RE: Edisto Beach and CBRA zones

69A Hagood Ave.
Charleston, SC 29403-5107

Mark J. Messersmith
Biologist
US Army Corps of Engineers - SAW@SAC
(843) 329-8162
mark.j.messersmith@usace.army.mil

-----Original Message-----
From: Craig_Aubrey@fws.gov [mailto:Craig_Aubrey@fws.gov]
Sent: Wednesday, January 27, 2010 1:54 PM
To: Messersmith, Mark J SAW@SAC
Subject: Re: Edisto Beach and CBRA zones

what's your mailing address?

From: David Simms
To: Messersmith, Mark J SAW@SAC
Subject: Edisto
Date: Friday, October 23, 2009 10:07:27 AM

Mark:

: Good speaking with you today. Please keep me posted on this project.

David R. Simms, P.E.

Chief of Engineering and Construction

SC State Park Service

SC Department of Parks, Recreation & Tourism

1205 Pendleton St., Suite 251

Columbia, SC 29201

Phone: (803) 734-0258

Mobile: (803) 360-3938

From:	Dobrasko, Rebekah
To:	Messersmith, Mark J SAC; SPIREK, JIM
Cc:	Patrick, Dudley SAC; Walters, Bret L SAC
Subject:	RE: Edisto Beach borrow area surveys (UNCLASSIFIED)
Date:	Thursday, November 08, 2012 11:11:25 AM
Attachments:	Edisto - Cultural Resources - Hardbottom - Subbottom SOW 30Oct 2012_SHPO Comments.doc

---

Mark,

Just a few comments from us to clarify standards and National Register of Historic Places determinations.

Rebekah

-----Original Message-----
From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]

Sent: Tuesday, November 06, 2012 12:53 PM
To: SPIREK, JIM; Dobrasko, Rebekah
Cc: Patrick, Dudley SAC; Walters, Bret L SAC
Subject: Edisto Beach borrow area surveys (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Jim and Rebekah - Attached is a draft SOW for cultural and hardbottom resource surveys at the proposed Edisto Beach borrow area to be used for a future Federal project at the Town of Edisto Beach. Please review this draft and let me know if you see any problems with the SOW prior to us submitting it for proposals. If you can provide comments by November 16 we would greatly appreciate it. If there are any known surveys of the borrow area from any past work can you please let us know as well? As always, feel free to call me with any questions.

Thanks - Mark

Mark Messersmith
Planning and Environmental Branch
US Army Corps of Engineers
Charleston District
69A Hagood Ave
Charleston, SC 29403
(p) (843) 329 - 8162
(f) (843) 329 - 2231
mark.j.messersmith@usace.army.mil

Classification: UNCLASSIFIED
Caveats: NONE

From:	DuBose Griffin
To:	Messersmith, Mark J SAC
Subject:	RE: Edisto sea turtle nests (UNCLASSIFIED)
Date:	Wednesday, September 19, 2012 4:52:12 PM
Attachments:	edistonestdata2010-2012.xls

Here is the data. The nests that have unknown dates (00-00-2010) is because we do not know the date it was laid. These are nests that are found at hatching and were originally missed.

DuBose

-----Original Message-----
From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Wednesday, September 19, 2012 4:12 PM
To: DuBose Griffin
Subject: RE: Edisto sea turtle nests (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

2010,2011,2012 .

As for the disorientations. Did you get a chance to look at the town's new beachfront management plan? OCRM completed it for them sometime in the early spring this year. Not sure what it has in there for beach lighting, but that would be a good start. What are some other issues that USACE can address if we move forward with a beach nourishment?

Thanks - Mark

-----Original Message-----
From: DuBose Griffin [mailto:GriffinD@dnr.sc.gov]
Sent: Wednesday, September 19, 2012 3:53 PM
To: Messersmith, Mark J SAC
Subject: RE: Edisto sea turtle nests (UNCLASSIFIED)

Hi Mark,

I am sorry for the delay. I am going to put this data together for you this week! What years do you want exactly? We also need to use any opportunity we have to work with the town to reduce orientations. They were really bad this year.

DuBose

-----Original Message-----
From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Monday, August 20, 2012 3:36 PM
To: DuBose Griffin
Subject: Edisto sea turtle nests (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dubose - hope you've been doing well. I'm preparing for a meeting with our HQ folks on the Edisto Beach Feasibility Study. Could you please send me the sea turtle nesting data from the last few years. I've been on this site, http://www.seaturtle.org/nestdb/?view=2 , and it'd be nice to have the spreadsheet or database that the info is pulled from. In 2009 you sent me an xls of the statewide data.

Also, do you have coordinates (GIS data) for the locations of the nests? If so, does it have attributes associated with it? I'd like to see if one particular section of beach results in greater nesting success, false crawls, etc to see if there are any trends. Feel free to call me.

Thanks - Mark

Mark Messersmith
Planning and Environmental Branch
US Army Corps of Engineers
Charleston District
69A Hagood Ave
Charleston, SC 29403
(p) (843) 329 - 8162
(f) (843) 329 - 2231
mark.j.messersmith@usace.army.mil

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From:	DuBose Griffin
To:	Messersmith, Mark J SAC
Cc:	Melissa_Bimbi@fws.gov
Subject:	RE: Edisto sea turtle nests (UNCLASSIFIED)
Date:	Thursday, September 20, 2012 7:42:44 AM

Mark,

I think this would be great. I have added Melissa to this email so she can let us know her availability. I will put together the disorientation data from this year for you guys as well. My only hang up is that next week is full. I have October 1 and 5 of the following week.

Melissa - can we meet for coffee with Mark to discuss the Edisto Town beach nourishment.

DuBose

-----Original Message-----
From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Thursday, September 20, 2012 6:53 AM
To: DuBose Griffin
Subject: RE: Edisto sea turtle nests (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Thanks DuBose. Would you and Melissa be able to meet for coffee one day next week? We could meet at the Starbucks at South Windemere one morning.

Mark

-----Original Message-----
From: DuBose Griffin [mailto:GriffinD@dnr.sc.gov]
Sent: Wednesday, September 19, 2012 4:51 PM
To: Messersmith, Mark J SAC
Subject: RE: Edisto sea turtle nests (UNCLASSIFIED)

Here is the data. The nests that have unknown dates (00-00-2010) is because we do not know the date it was laid. These are nests that are found at hatching and were originally missed.

DuBose

-----Original Message-----
From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Wednesday, September 19, 2012 4:12 PM
To: DuBose Griffin
Subject: RE: Edisto sea turtle nests (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

2010,2011,2012 .

As for the disorientations. Did you get a chance to look at the town's new beachfront management plan? OCRM completed it for them sometime in the early spring this year. Not sure what it has in there for beach lighting, but that would be a good start. What are some other issues that USACE can address

if we move forward with a beach nourishment?

Thanks - Mark

-----Original Message-----
From: DuBose Griffin [mailto:GriffinD@dnr.sc.gov]
Sent: Wednesday, September 19, 2012 3:53 PM
To: Messersmith, Mark J SAC
Subject: RE: Edisto sea turtle nests (UNCLASSIFIED)

Hi Mark,

I am sorry for the delay. I am going to put this data together for you this week! What years do you want exactly? We also need to use any opportunity we have to work with the town to reduce orientations. They were really bad this year.

DuBose

-----Original Message-----
From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Monday, August 20, 2012 3:36 PM
To: DuBose Griffin
Subject: Edisto sea turtle nests (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dubose - hope you've been doing well. I'm preparing for a meeting with our HQ folks on the Edisto Beach Feasibility Study. Could you please send me the sea turtle nesting data from the last few years. I've been on this site, http://www.seaturtle.org/nestdb/?view=2 , and it'd be nice to have the spreadsheet or database that the info is pulled from. In 2009 you sent me an xls of the statewide data. Also, do you have coordinates (GIS data) for the locations of the nests? If so, does it have attributes associated with it? I'd like to see if one particular section of beach results in greater nesting success, false crawls, etc to see if there are any trends. Feel free to call me.

Thanks - Mark

Mark Messersmith
Planning and Environmental Branch
US Army Corps of Engineers
Charleston District
69A Hagood Ave
Charleston, SC 29403
(p) (843) 329 - 8162
(f) (843) 329 - 2231
mark.j.messersmith@usace.army.mil

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: DuBose Griffin
To: Messersmith, Mark J SAC
Subject: RE: Edisto sea turtle nests (UNCLASSIFIED)
Date: Wednesday, September 19, 2012 4:49:34 PM

There are ordinances in place for lighting. It is a matter of getting the town to do a better job bringing property owners' homes into compliance.

DuBose

-----Original Message-----
From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Wednesday, September 19, 2012 4:12 PM
To: DuBose Griffin
Subject: RE: Edisto sea turtle nests (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

2010,2011,2012 .

As for the disorientations. Did you get a chance to look at the town's new beachfront management plan? OCRM completed it for them sometime in the early spring this year. Not sure what it has in there for beach lighting, but that would be a good start. What are some other issues that USACE can address if we move forward with a beach nourishment?

Thanks - Mark

-----Original Message-----
From: DuBose Griffin [mailto:GriffinD@dnr.sc.gov]
Sent: Wednesday, September 19, 2012 3:53 PM
To: Messersmith, Mark J SAC
Subject: RE: Edisto sea turtle nests (UNCLASSIFIED)

Hi Mark,

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DuBose

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Sent: Monday, August 20, 2012 3:36 PM
To: DuBose Griffin
Subject: Edisto sea turtle nests (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

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associated with it? I'd like to see if one particular section of beach results in greater nesting success, false crawls, etc to see if there are any trends. Feel free to call me.

Thanks - Mark

Mark Messersmith
Planning and Environmental Branch
US Army Corps of Engineers
Charleston District
69A Hagood Ave
Charleston, SC 29403
(p) (843) 329 - 8162
(f) (843) 329 - 2231
mark.j.messersmith@usace.army.mil

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

From: Mark_Caldwell@fws.gov
To: Messersmith, Mark J SAC
Subject: Re: Edisto (UNCLASSIFIED)
Date: Wednesday, August 22, 2012 9:22:15 AM

Mark,

This is to confirm that integration of the Edisto Beach renourishment project CAR into the feasibility study/EA is acceptable.

Mark A. Caldwell
U.S. Fish and Wildlife Service
South Carolina Ecological Services
176 Croghan Spur Road - Suite 200
Charleston, SC 29407
843-727-4707 ext. 215
843-727-4218 - facsimile

"Messersmith, Mark J SAC" <Mark.J.Messersmith@usace.army.mil>

08/21/2012 09:40 AM To
Mark Caldwell <Mark_Caldwell@fws.gov>
cc
Subject
Edisto (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Mark - a while ago we spoke about the CAR for Edisto... we talked about it being okay to integrate it into the feasibility study/EA. Just want to confirm that this is still okay with your office?

Thanks - Mark

Ps. Sorry for not having any meetings the last few weeks!

Mark Messersmith
Planning and Environmental Branch
US Army Corps of Engineers
Charleston District
69A Hagood Ave
Charleston, SC 29403
(p) (843) 329 - 8162
(f) (843) 329 - 2231
mark.j.messersmith@usace.army.mil

Classification: UNCLASSIFIED

Caveats: NONE

From: Melissa_Bimbi@fws.gov
To: Messersmith, Mark J SAW@SAC
Cc: Mark_Caldwell@fws.gov
Subject: Re: Piping plovers
Date: Tuesday, January 12, 2010 9:25:56 AM

Hi Mark,

I do have PIPL info for SC, but I don't have anything specific for Edisto. The South Carolina Shorebird Project report is in the process of being finalized. It contains all the SC info from 2006-2008. There are also International Non-breeding Piping Plover Census reports and our latest status review online. I would expect plovers on the State park end if the disturbance is minimal. It may be worth another site visit.

Melissa Bimbi
Endangered Species Biologist
U.S. Fish & Wildlife Service
Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
(843) 727-4707 x 217
(843) 727-4218 Fax
Inactive hide details for "Messersmith, Mark J SAW@SAC"
<Mark.J.Messersmith@usace.army.mil>"Messersmith, Mark J SAW@SAC"
<Mark.J.Messersmith@usace.army.mil>

"Messersmith, Mark J SAW@SAC" <Mark.J.Messersmith@usace.army.mil>

01/12/2010 09:06 AM

To

<Melissa_Bimbi@fws.gov>

cc

Subject

Piping plovers

Melissa,

Do you have historical/yearly piping plover counts for SC, specifically Edisto Beach?

I'm going to try to attend your talk at the library tomorrow.

Hope you've been doing well.

Mark

Mark J. Messersmith
Biologist
US Army Corps of Engineers - SAW@SAC
(843) 329-8162
mark.j.messersmith@usace.army.mil

From: Melissa_Bimbi@fws.gov
To: Messersmith, Mark J SAC
Subject: paper
Date: Monday, July 26, 2010 5:01:20 PM
Attachments: Stewart and Wyneken 2004.pdf

(See attached file: Stewart and Wyneken 2004.pdf)

Melissa Bimbi
Endangered Species Biologist
U.S. Fish & Wildlife Service
Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
(843) 727-4707 x 217
(843) 727-4218 Fax

From:	Myra Brouwer
To:	Messersmith, Mark J SAC
Subject:	RE: trawl line data
Date:	Monday, June 07, 2010 10:33:03 AM

Hey Mark! Thanks for sending this info. I'm glad you were able to get it from the DNR.
Things are going to be a bit sketchy this week: we are in Orlando for the Council meeting and we are expecting hordes of angry fishermen to show up because of the whole red snapper issue, etc. Yikes!
Take care,
Myra

From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Mon 6/7/2010 10:14 AM
To: Myra Brouwer
Subject: FW: trawl line data

Myra - We spoke awhile ago about trawling boundaries in SC. I was able to get the attached data from DNR. Just wanted to pass it on to you and your office. Also, check out the following link. Hope you've been doing well.

http://www.dnr.sc.gov/licenses/pdf/TrawlingFY2010.pdf

- Mark

Mark J. Messersmith
Biologist
Planning and Environmental Branch
US Army Corps of Engineers - Charleston District
(843) 329-8162
mark.j.messersmith@usace.army.mil

From: Pace Wilber
To: Messersmith, Mark J SAC
Subject: Re: EFH for Edisto Beach
Date: Tuesday, June 08, 2010 12:12:21 PM

Hi Mark.

A couple of pints (and I apologize for our web site not making these clear) . . .

For South Carolina waters, there are three federal entities that manage fish: the South Atlantic Fishery Management Council (SAFMC), Mid-Atlantic Fishery Management Council (MAFMC), and NMFS. SAFMC is by far the bigger player, so it is not unusual for people to think they are the only player, but this is not the case.

The species you list are managed by SAFMC, with the exception red drum. It is a long story, but in November 2008, the federal government backed out of managing Atlantic stocks of red drum and deferred all mgmt of this species to the states. As such, the red drum FMP, along with its EFH designations, was repealed. Your list suggests that red drum is in the same FMP as snapper/grouper, which is not the case. Snapper/grouper have their own FMP.

MAFMC manages bluefish and summer flounder north of NC, but the EFH that MAFMC designates for these species extends southward into Georgia (for summer flounder) and central Florida (for bluefish). Essentially MAFMC designates "estuarine waters" as EFH for these species and does not designate any HAPCs. In practice, nothing is lost from an EFH assessment when summer flounder and bluefish are excluded because of the overlap with the designations for SAFMC-managed species, so it is seldom that we get picky when an assessment does not list summer flounder or bluefish. But if you are looking to be complete and a model for others, summer flounder and bluefish should be included.

Separately from the Councils, NMFS manages highly migratory species (~billfish, tunas, and sharks). Info on these species and their EFH can be found at:
http://www.nmfs.noaa.gov/sfa/hms/EFH/index.htm
Due to overlaps with SAFMC-managed species, projects limited to state waters and away from inlets often do not omit anything consequentional from at EFH assessment if the highly migratory species are left out, but highly migratory species should be included in the assessment.

On to maps . . . . the GIS data available from SAFMC's website and NMFS' "EFH Mapper" website should be used very cautiously (to be frank, we usually advise applicants to not use these data for inshore projects--the EFH Mapper website does not go to this extreme, but you may have noticed all the caution icons). The data have scale issues (many small areas of EFH are missing) due to the coarseness of the data and some data layers depict areas in manners that are inconsistent with the text-based EFH designations; and the rule is quite clear that the text-based designations take precedence. I know this mismatch is a source of frustration (it is for us too!!), but it will be with us for some time. If you'd like, I'd be glad to proof any maps you are developing to make sure what is shown in consistent with how we comment on EFH in SC.

Pace

Messersmith, Mark J SAC wrote:
> Hi Pace -
>
> Hope you enjoyed your Memorial Day weekend. Just wanted to inform you that
> I'm working on an EFH for the Edisto Beach project that you're familiar with.
> We're still exploring nourishment, groin modification, and artificial reefs
> as potential measures for protecting the beach. I have pulled a bunch of info
> from the NMFS website on EFH and want to make sure that I include everything
> that I should. I have pdfs of the following:
>
> - coastal migratory pelagic EFH FMP
> - dolphin wahoo FMP
> - other inverts, corals, live bottom EFH
> - Penaeid shrimp EFH
> - red drum, snapper-grouper EFH
> - south atlantic golden crab habitat plan
>
> I believe that is all that came up for SC. Am I missing anything? Do you have
> a list of species particular to coastal SC that I should focus on? I also
> pulled all the GIS layers to make some nice maps.
>
> Thanks, and hope you've been doing well. - Mark
>
>
> Mark J. Messersmith
> Biologist
> Planning and Environmental Branch
> US Army Corps of Engineers - Charleston District
> (843) 329-8162
> mark.j.messersmith@usace.army.mil
>
>
>

--

Pace Wilber, Ph.D.
Atlantic Branch Chief, Charleston (F/SER47)
Southeast Regional Office, NOAA Fisheries
PO Box 12559
Charleston, SC 29422-2559

Street address:
219 Ft Johnson Road
Charleston, SC 29412

843-953-7200
FAX 843-953-7205
pace.wilber@noaa.gov

http://sero.nmfs.noaa.gov/hcd/hcd.htm

From:	Prescott.Brownell@noaa.gov
To:	Messersmith, Mark J SAW@SAC
Cc:	O"Donnell, Patrick E SAC; Pace.Wilber@noaa.gov
Subject:	Re: Edisto Beach storm damage reduction meeting
Date:	Monday, January 04, 2010 9:32:14 PM

Hello Mark and Patrick,
I will discuss the meeting with Pace Wilbur in our office, and one of us will plan to attend the meeting on January 20. Thank you for keeping us informed of the project.

Best Regards
Prescott Brownell
843-953-7204

----- Original Message -----
From: "Messersmith, Mark J SAW@SAC" <Mark.J.Messersmith@usace.army.mil>
Date: Monday, December 21, 2009 8:59 am
Subject: Edisto Beach storm damage reduction meeting
To: "smtp-Brownell, Prescott" <Prescott.Brownell@noaa.gov>
Cc: "O'Donnell, Patrick E SAC" <Patrick.E.ODonnell@usace.army.mil>

> Mr. Brownell,
>
> Hope you've been doing well. As you know, the US Army Corps of
> Engineers is
> working with the Town of Edisto on a feasibility study to examine
> alternatives for the reduction of hurricane and storm damages. In addition,
> we are evaluating the potential for environmental benefits associated
> with
> providing protection of the beach, maritime forest and marsh habitat
> that
> exists along the Edisto Beach State Park area. We spoke awhile ago about
> involving your agency and others in the planning process for this
> study. On
> Wednesday, January 20 from 0900 - 1100 we would like you to join us
> at our
> office to discuss the project. During this meeting we will present the
> various project reaches that we have defined. We will also discuss
> the pros
> and cons of various measures to address the erosion problem along Edisto
> Beach. Such measures may include: no action, renourishment (varying beach
> profiles), fencing and grassing, groin construction, existing groin
> modification, multi-purpose reefs, and structure relocation. Your
> participation in this meeting would be very much appreciated. If you
> have an
> opinion one way or the other regarding these measures, please try to
> provide
> some evidence in support of your opinion. Thanks for your involvement
> in this
> process. Please let me know whether or not you will be attending.
>
> What: Edisto Storm Damage Feasibility Study Alternative Formulation Meeting
> Date: January 20, 2010 (Wednesday)
> Time: 0900 - 1100
> Location: US Army Corps of Engineers, 69A Hagood Ave, Charleston, SC

> 29403
>
> Respectfully,
>
> Mark J. Messersmith
> Biologist
> US Army Corps of Engineers - SAW@SAC
> (843) 329-8162
> mark.j.messersmith@usace.army.mil
>
>
>

From: Ray Stevens
To: Messersmith, Mark J SAC
Subject: RE: Edisto Agency Meeting (UNCLASSIFIED)
Date: Thursday, June 14, 2012 4:29:12 PM
Attachments: image001.png

Mark

As you had mentioned it has been a while. Can you please remind me the exact content/project of the meeting?

Thanks,

Ray T. Stevens

Regional Chief, Coastal Region

SC Department of Parks Recreation and Tourism

2555 Sea Island Parkway

Hunting Island, South Carolina 29920

Phone (843) 838-4868

Mobile (843) 441-2542

IP Phone 6864

rstevens@scprt.com

Description: Description: SPSlogo

-----Original Message-----
From: Messersmith, Mark J SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Tuesday, June 12, 2012 1:40 PM
To: Collins.Garyw@epa.gov; Jaclyn Daly; Susan Davis; Andrea J Grabman; MartoreB@dnr.sc.gov; Ray Stevens; Susan Spell; ihill@townofedistobeach.com; Mark_Caldwell@fws.gov
Cc: Gravens, Mark B ERDC-CHL-MS; Williams, Brian P SAC; McGuire, Julie W SAM; Lackey, Ben SAW; Fersner, Jeffery W SAC; Lin, Jeffrey P SAW; O'Donnell, Patrick E SAC
Subject: Edisto Agency Meeting (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

All - I only heard back from 2 people on their availability for this meeting. Rather than having a small meeting, I'd like to open up availability to more dates. Please use the "Doodle" link to add your availability by June 22. Thanks.

http://www.doodle.com/meb3bmsarrr8ubsa <http://www.doodle.com/meb3bmsarrr8ubsa>

Mark

Here is my last email and rough meeting information:

It's been a while since we've last been in contact as a group on this project. We are currently close to holding our "Feasibility Scoping Meeting" with our Division and HQ offices. This process will result in the approval of the without project condition and our "measures" to carry forward to the next stage. We'd like to have another meeting with you all to discuss these components and gain your input. SCPRT indicated a while back that they were not in a position to cost share on the project, but I think it'd be valuable for them to stay engaged. An agenda will be forthcoming. By COB Friday, May 18, please send me the dates of your availability for a 2-3 hour meeting in mid to late June at the Charleston District Office. Telecon and webinar can be arranged if needed.

Mark Messersmith

Planning and Environmental Branch

US Army Corps of Engineers

Charleston District

69A Hagood Ave

Charleston, SC 29403

(p) (843) 329 - 8162

(f) (843) 329 - 2231

mark.j.messersmith@usace.army.mil <mailto:mark.j.messersmith@usace.army.mil>

Classification: UNCLASSIFIED

Caveats: NONE

From:	Ray Stevens
To:	edistohill@bellsouth.net
Cc:	Susan Spell; James Thompson; Phil Gaines; David Simms; Messersmith, Mark J SAW@SAC
Subject:	FW: ACOE Feasibility
Date:	Tuesday, January 19, 2010 9:01:25 AM

Iris,

Susan forwarded your email on the feasibility study and your request for the State to consider funding the remaining amount of $281,000. We did discuss and consider the request however at this time the State Park Service is unable to contribute funding to the feasibility study. Hopefully at a later date economic times and budgets will allow us to partner with the town if and when a plan is implemented. If we can be of assistance with providing information from our end or answering questions during the planning process we will be happy to do so.

Respectfully,

Ray T. Stevens

Regional Chief, Coastal Region

SC Department of Parks Recreation and Tourism

2555 Sea Island Parkway

Hunting Island, South Carolina 29920

Phone (843) 838-4868

Mobile (843) 441-2542

IP Phone 6864

rstevens@scprt.com

www.southcarolinaparks.com

From: Iris Hill [edistohill@bellsouth.net]

Sent: Wednesday, January 06, 2010 11:46 AM

To: Susan Spell

Subject: ACOE Feasibility

Susan:

The Town has already paid the ACOE $594,000 with $281,000 remaining. We request that the State consider funding this remaining amount.

(excerpt below from Patrick O'Donnell ACOE)

Right now, we're looking at several alternatives- beach renourishment, groin modifications, and artificial reefs. We'll look at each as a stand-alone and see what it could do to reduce storm damage, and we'll look at them in combination. For the different reaches, we're looking at (1)the state park as one reach; (2)about one mile of your beach from the beginning of Palmetto Blvd. southward as another reach; (3)the rest of the Atlantic coast as a third reach; and (4) the Edisto River side of town as the fourth reach. We will look at the costs and benefits of doing a project at each reach, and then combined- all reaches, the three reaches along the Atlantic, just the two reaches in the Town of Edisto.

We'll end up with a lot of different options.

We also want to know if there is any other agency that would like to help pay for the cost of the study, design, and construction. We're thinking that it might be possible to have state parks, DNR, or some other state agency help pay for a project if it has a good habitat value by creating artificial reefs. If the reefs also reduce storm surges to Edisto, we could have a project that helps in more than one way.

FYI. CSE (Dr. Kana) is coming to Edisto on Feb 12 to present their 3rd year beach monitoring report post renourishment. Please come if you can. Meeting starts at 10:00 am.

Iris Hill

Town Administrator

Town of Edisto Beach

2414 Murray Street

Edisto Beach, South Carolina 29438

(P) 843 869 2505

(f) 843 869 3855

email edistohill@bellsouth.net

[cid:image001.jpg@01CA8EC5.ECA813A0]

From:	Shannon K. Berry
To:	Messersmith, Mark J SAW@SAC
Subject:	Edisto Data
Date:	Thursday, October 29, 2009 1:19:35 PM
Attachments:	Messersmith.xls

Mark

If you need past year please let me know.

Shannon

Shannon Berry
Program Coordinator
Beach Monitoring
803-898-3541

Each day I'll do a golden deed.

From:	SPIREK, JIM
To:	Messersmith, Mark J SAC
Cc:	Dobrasko, Rebekah
Subject:	RE: Edisto Beach borrow area surveys (UNCLASSIFIED)
Date:	Thursday, November 15, 2012 4:10:12 PM

Mark,

Please find below our comments regarding the SOW for the Edisto Beach borrow area survey project. We also concur with the SHPOs comments to provide SCIAA with copies of the draft/final reports.

1--In reference to the side scan sonar--we recommend that this instrument is operated concurrently with the magnetometer, which is the primary cultural resources survey instrument, at the 20m lane spacing for efficiency sakes.

2--In the General Requirements section the graphically illustrated letter report with preliminary findings should also include a magnetic contour map along with the sonar mosaic--also mag/acoustic anomalies should be cross-referenced to each other if applicable. Any potential cultural resources should also be identified for potential historical/archaeological significance. This is mentioned in the Cultural Resources Analysis section but should be referenced in the Gen. Reg. section as well.

3--Recommendations: While a meeting prior to implementation of Phase 2 is appropriate, this meeting should only occur after all appropriate materials have been produced by the Contractor consisting of the graphic report as well as historical/archaeological information in order to more fully discuss/understand the findings--i.e., magnetic/acoustic anomalies in connection to historic record. Would preferably occur after the Rough draft has been submitted for reviewed by the SHPO/SCIAA.

4--A deliverable in the report should include a magnetic contour map.

5--In the accompanying figure, assume Appendix A mentioned in the SOW--I see the refined borrow area (RBA) but the .25 mi buffer zone does not extend all around the RBA? Why not?

If you have any questions, etc. about our comments please contact me. Thanks for your efforts in protecting submerged cultural resources in South Carolina waters.

Sincerely,

Jim

James D. Spirek
State Underwater Archaeologist
Maritime Research Division
South Carolina Institute of Archaeology and Anthropology
University of South Carolina
1321 Pendleton Street
Columbia, SC 29208 USA
Office phone: (803) 576-6566
Fax: (803) 254-1338
E-mail: spirek@sc.edu
SCIAA Web Site: http://www.cas.sc.edu/sciaa/
Maritime Research Division Website: http://www.cas.sc.edu/sciaa/mrd/mrd_index.html

From:	SPIREK, JIM
To:	Messersmith, Mark J SAC; Dobrasko, Rebekah
Cc:	Means, Alisha N SAC
Subject:	RE: Edisto: Cultural/Hardbottom Report Review (UNCLASSIFIED)
Date:	Wednesday, February 20, 2013 4:50:49 PM

Mark,

Thanks for the update. I have in contact with the contractors about arranging a visit to the SC Archaeological Site Files and gathering some reports of interest.

Jim Spirek
SCIAA

From:	SPIREK, JIM
To:	Means, Alisha N SAC; Messersmith, Mark J SAC
Cc:	"Dobrasko, Rebekah"
Subject:	Review of draft report of Edistor beach renourishment project
Date:	Friday, April 12, 2013 2:50:04 PM
Attachments:	SCIAA_DC_review_13.pdf

Dear Alisha,

Please find attached a PDF of our response letter to the above re: project report. We agree with the contractors recommendations, offer a few editorial comments, and find no objections to dredging in the proposed borrow site. If you have any questions, comments, etc. please do not hesitate to contact me.

Sincerely,

Jim

James D. Spirek

State Underwater Archaeologist

Maritime Research Division

South Carolina Institute of Archaeology and Anthropology

University of South Carolina

1321 Pendleton Street

Columbia SC 29208 USA

Office phone: (803) 576-6566

Fax: (803) 254-1338

E-mail: spirek@sc.edu <mailto:amerc@sc.edu>

SCIAA Web Site: http://www.cas.sc.edu/sciaa/ <http://www.cas.sc.edu/sciaa/>

Maritime Research Division Website: http://www.cas.sc.edu/sciaa/mrd/mrd_index.html <http://www.cas.sc.edu/sciaa/mrd/mrd_index.html>

From: Susan Spell
To: Messersmith, Mark J SAW@SAC
Subject: RE: Edisto Beach hurricane and storm damage reduction project
Date: Wednesday, October 21, 2009 3:08:23 PM

Mr. Messersmith,

As I mentioned in my earlier email, I have forwarded the emails to our engineer, David Simms but I wanted to go ahead and give you his contact number (803-270-0258).

Susan

Susan Spell
Manager, Edisto Beach State Park

SC Department of Parks, Recreation & Tourism

8377 State Cabin Road

Edisto Beach, SC 29438

Phone: (843) 869-4425

Shaping & Sharing a Better South Carolina

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<http://www.southcarolinaparks.com/hotdealspackages.aspx> on cabins and camping this summer.

From: Messersmith, Mark J SAW@SAC [mailto:Mark.J.Messersmith@usace.army.mil]
Sent: Wednesday, October 21, 2009 8:12 AM
To: Susan Spell
Subject: Edisto Beach hurricane and storm damage reduction project

Ms. Spell,

Sorry to belabor the point, but since we are having a public meeting on this project next Thursday, Oct. 29 at 7pm at the Edisto Beach Civic Center, I wanted to let you know about it in case you wanted to attend. Ideally, I would like to discuss this project with someone from PRT beforehand. I just started working on this project, but I'm not sure if we've gotten any feedback from PRT regarding our letter we sent last summer. Please let me know who I should talk to in Columbia, or feel free to call me at the number below. Thanks.

Respectfully,

Mark J. Messersmith
Biologist
US Army Corps of Engineers - SAW@SAC
(843) 329-8162
mark.j.messersmith@usace.army.mil

-----Original Message-----
From: Messersmith, Mark J SAW@SAC
Sent: Thursday, October 15, 2009 10:01 AM
To: 'Susan Spell (sspell@scprt.com)'
Cc: Shirey, Alan D SAW@SAC
Subject: Edisto Beach Shore Protection Project

Ms. Spell,

This email is in response to our recent phone conversation….

I was hoping to speak to someone from SCPRT regarding a feasibility study that the US Army Corps of Engineers is undertaking with the Town of Edisto Beach and Colleton County as the sponsors. For this project we would like to coordinate with PRT to see if there are any options we can explore to help: (1) ease the erosion problems, (2) create more and higher quality habitat for various species, (3) protect the salt marsh on the north end of the island on the beach side of the State Park, and (4) increase recreational opportunities as an incidental benefit of the project. Please let me know who would be the most appropriate person for me to talk to regarding this effort. Thank you.

Respectfully,

Mark J. Messersmith
Biologist
US Army Corps of Engineers - SAW@SAC
(843) 329-8162
mark.j.messersmith@usace.army.mil

From: Susan Spell
To: Messersmith, Mark J SAC
Cc: Ray Stevens
Subject: RE: Edisto meeting (UNCLASSIFIED)
Date: Wednesday, July 18, 2012 2:16:42 PM

Mr. Messersmith,

I'm afraid will not be able to attend. I am out of town on some personal business.

Susan

Susan D Spell
Manager,
Edisto Beach State Park
8377 State Cabin Road
Edisto Island, SC 29438
Office 843-869-4425
Fax 843-869-4428
www.southcarolinaparks.com

From: Messersmith, Mark J SAC [Mark.J.Messersmith@usace.army.mil]
Sent: Wednesday, July 18, 2012 2:08 PM
To: Susan Spell
Subject: Edisto meeting (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Ms. Spell - Will you be able to attend tomorrows USACE meeting on the Edisto Beach Storm Damage Reduction study?

Thanks - Mark

Mark Messersmith
Planning and Environmental Branch
US Army Corps of Engineers
Charleston District
69A Hagood Ave
Charleston, SC 29403
(p) (843) 329 - 8162
(f) (843) 329 - 2231
mark.j.messersmith@usace.army.mil

Classification: UNCLASSIFIED
Caveats: NONE

From: Susan Spell
To: Messersmith, Mark J SAC
Cc: Ray Stevens
Subject: RE: Edisto meeting (UNCLASSIFIED)
Date: Thursday, July 19, 2012 10:04:00 AM

Mark,

I feel certain our position on this is the same. There is not money in the budget for this.

On the subject of Andrea, I don't really know where she went. I heard she was married recently. I'm assuming she will be staying in the Charleston area but I don't know that.

Sorry,

Susan

Susan D Spell
Manager,
Edisto Beach State Park
8377 State Cabin Road
Edisto Island, SC 29438
Office 843-869-4425
Fax 843-869-4428
www.southcarolinaparks.com

_____
From: Messersmith, Mark J SAC [Mark.J.Messersmith@usace.army.mil]
Sent: Wednesday, July 18, 2012 2:37 PM
To: Susan Spell
Cc: Ray Stevens
Subject: RE: Edisto meeting (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Ok... awhile ago your agency mentioned that there was no money in the budget to cost share a nourishment on your beach. Is this still the case? I'm fighting hard to keep yall in the mix.

My family and I were camping there last weekend and I noticed some substantial dunes at the RV area, but heading north to Jeremy inlet was still looking rough. What are your thoughts? Lastly, I heard that Andrea has left PRT. She was a good interpreter. Where is she working now? (I went to grad school with her).

Thanks - mark

-----Original Message-----
From: Susan Spell [mailto:sspell@scprt.com]
Sent: Wednesday, July 18, 2012 2:17 PM
To: Messersmith, Mark J SAC
Cc: Ray Stevens
Subject: RE: Edisto meeting (UNCLASSIFIED)

Mr. Messersmith,

I'm afraid will not be able to attend. I am out of town on some personal business.

Susan

Susan D Spell
Manager,
Edisto Beach State Park
8377 State Cabin Road
Edisto Island, SC 29438
Office 843-869-4425
Fax 843-869-4428
www.southcarolinaparks.com

From: Messersmith, Mark J SAC [Mark.J.Messersmith@usace.army.mil]
Sent: Wednesday, July 18, 2012 2:08 PM
To: Susan Spell
Subject: Edisto meeting (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Ms. Spell - Will you be able to attend tomorrows USACE meeting on the Edisto Beach Storm Damage Reduction study?

Thanks - Mark

Mark Messersmith
Planning and Environmental Branch
US Army Corps of Engineers
Charleston District
69A Hagood Ave
Charleston, SC 29403
(p) (843) 329 - 8162
(f) (843) 329 - 2231
mark.j.messersmith@usace.army.mil

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

PUBLIC AND AGENCY COMMENTS

AND USACE RESPONSES

Official Comment Period: 19 Aug – 30 Sep 2013

Table of Contents

1. David Cannon Public Comment 26 August 2013

Comments and Questions for the Corps of Engineers Hearing August 26, 2013

The Edisto Beach Beachfront Management Committee (BMC) has made recommendations on groin extensions and these extension lengths have been substantially confirmed in a Coastal Science and Engineering (CSE) study dated January 3, 2013. The groin extensions total 1,130 ft., an exact match for the Corps recommended total length. However the Corps plan concentrates all the groin lengthening in the Groin 1-24 reach and none in the Groin 25 to 27 reach. This reach has the shortest groins on the beach and the least house to groin end dimensions, and therefore the least beach width and the least protection from storms. The Corps plan prescribes a much reduced dune and berm for this area as well, probably in recognition that the short groins cannot sustain the dune and berm of the longer groins updrift.

Questions:

1) Can the distribution of groin length additions be altered from the Corps plan to the CSE plan without recalculating the NED and incurring additional expense to the Town given that the total groin length extensions of the two plans are identical? The groin length extensions in the Corps plan are much increased from a previous Corps plan in the Groin 1-24 reach and yet no groin increase is slated for Groins 25-27. This current Corps groin length extension plan appears to be arbitrary vs. the CSE plan which uses as its criteria a constant distance between groin seaward end to house thereby giving equal protection to all houses on the front beach.
2) Does the Corps have a copy of the January 2013 CSE report? The Beachfront Management Committee will be happy to supply a copy. I have here a page containing the CSE recommended groin extensions and marked up with the corresponding BMC recommendations.

The CSE report was forwarded to the Town Council and adopted as the Locally Preferred Plan in the February 14,2013 meeting but the LPP was rescinded in the March 14,2013 Council meeting for fear of incurring additional expense in revising the NED. The BMC was instructed to submit their additional work to serve as a basis to have the NED altered. A meeting of the BMC was not called to consider or submit that information. This explains why the Corps does not have a LLP as stated on page 61 of their August,2013 report.

3) What is the Corps' reasoning for not adding groin length and protection for properties in the Groin Compartment 24-27?

David C. Cannon

Member, Beachfront Management Committee

P. O. Box 370
Edisto Isl, SC 29438
davidccannon@bellsouth.net
843-393-3587

103

David Cannon

From: Iris Hill [ihill@townofedistobeach.com]
Sent: Friday, December 14, 2012 4:41 PM
To: David Cannon; David L. Lybrand ; Doub Bob; K. Patrick Brown ; Roy McLaurin; Roy McLaurin
Subject: FW: Groin Extensions Preliminary Recommendations
Attachments: GroinAnalysis Preliminary Recommendations.pdf

Beachfront Management Committee:

Please review and send me your comments. Thanks

Happy Holidays,

Iris

From: Steven Traynum [mailto:straynum@coastalscience.com]
Sent: Friday, December 14, 2012 4:32 PM
To: Iris Hill
Cc: Tim Kana
Subject: Groin Extensions Preliminary Recommendations

Iris,
I'm attaching a .pdf file that has the preliminary recommendations from our analysis on groin lengthening. We have approached it in two ways. The first (Table A) compares the existing groin lengths to the length of Groin 16 (which is the dominant groin protecting Cell 15). From this analysis, we have provided a table of extension lengths and a rough cost estimate for a project (including nourishment to fill the trapping capacity). This method is similar to what your committee members have done.
The other method is our "recommended" plan (Table B), which establishes a minimum "ideal" beach condition, including a dune which offers 10-yr storm protection according to FEMA criteria. This involves lengthening all groins to ensure a viable beach width exists which can support the dune and maintain a recreational dry beach. It modifies the shape of the groins to a more contemporary design, including a critical low-tide-terrace section (which will have a large impact on retaining sand). It is obviously more involved and costly; however, it will provide storm protection and a much more stable recreational area.
We are finalizing the analysis and will provide the results in a technical report in the next two weeks. Please let me know if you have any questions. Thank you!
Steven

--

Steven Traynum

Coastal Scientist
Coastal Science & Engineering
PO 8056 Columbia SC 29202
O – 803-799-8949
F – 803-799-9481
C – 803-727-3877
straynum@coastalscience.com

12/14/2012

2 of 3

Groin	Groin Station along Baseline	AVG Distance from Baseline to Updrift Houses	Distance from Baseline to +5.5	Design Extension	Profile Method Groin Extension from Existing End BMC *		Nourishment Volume Required in Updrift Cell (cy)	Retrofit Distance
1	0+00		217	80	88	201	-	119
2	6+16	135	234	79	85	201	123,816	119
3	12+00	115	230	62	88	181	90,012	103
4	18+00	107	227	57	87	176	82,383	98
5	24+00	95	233	40	88	155	82,263	80
6	30+00	98	212	64	88	164	79,622	105
7	35+83	95	205	68	88	162	78,165	108
8	42+00	84	207	55	92	163	74,622	95
9	48+00	92	207	63	84	161	70,726	103
10	54+00	88	233	40	84	155	65,864	74
11	60+00	85	228	40	83	153	59,295	76
12	65+60	101	257	40	46	134	38,292	62
13	72+38	114	223	68	80	179	47,236	109
14	77+90	132	253	58	59 66	178	66,353	98
15	84+74	153	314	40	7	140	68,404	57
16	89+89	161	339	0	0	120	37,983	41
17	95+57	161	336	0	0	125	33,598	43
18	102+40	167	315	40	8	150	51,830	71
19	109+42	151	344	0	0	111	57,916	25
~~20~~	~~119+80~~	~~175~~	~~480~~	~~0~~	~~63~~	~~8~~	~~60,936~~	~~-87~~ ?
21	126+86	351	553	0	0	107	47,087	17
22	132+12	362	581	0	0	126	39,397	0
23	137+50	353	603	0	0	128	29,241	-31
24	141+00	362	547	0	10	144	14,443	34
25	143+56	365	512	40	50	192	16,719	71
26	145+82	373	456	94	71	227	30,290	135
27	147+88	375	449	103	60	220	47,996	144
28	150+00	366	582	0	0	150	40,829	2

1,131' 1,409'

* BEACHFRONT MANAGEMENT RECOMMENDATIONS

3 of 3

Corps Response:

1) The methodology used for determining the groin lengthening and locations is detailed in section 9 of the Coastal Appendix. Essentially the groins are lengthened proportionally to the seaward offset of the shoreline compared to the existing conditions within the constructed shore protection project. The goal is to maintain the equilibrium that currently exists between the existing groin field and representative beach profiles along the project shoreline. The project alternative selected is based on maximizing project net benefits and the project dimensions for the selected project alternative dictate which groins would require extensions. There is no justification (in terms of project net benefits) for extending the lengths of the groins beyond what is currently included in the project report. Reducing the groin lengths within the beach fill limits to allow for increased groin lengths within the inlet area would change the beach fill response rate within the project area and would not be reflective of the assumptions used to develop the proposed NED. Constructing groins without a corresponding beach fill could result in downdrift erosion. The Corps approach provides a justifiable means to determine the minimum amount of groin lengthening required to hold the created berm in place. With a federal commitment to renourish the beach, there will be no adverse impacts downdrift from the groins. This analysis was performed in an effort to not be arbitrary. The total length of recommended groin lengthening cannot be altered without introducing bias into the methodology.
2) The Corps received a copy of the January 2013 CSE report via email on October 2, 2013.
3) The proposed project was developed exclusively to maximize net benefits of the project. Groins were only lengthened in areas along the beach where the NED project was proposed. The area between compartment 24 and 27 do not include a beach width extension beyond the existing condition beach width and as a result no groin extension is required. However, the proposed project does include protection throughout the area between these groins through a combination of dune (15’ high and 15’ wide) and beach berm (variable width) construction.

2. Dave Blauch & David Lybrand 26 August 2013

EDISTO BEACH COASTAL STORM DAMAGE REDUCTION STUDY

Please print your comment below: Please format your comment to address the following key points: 1. Issue you are concerned about; 2. Reason for its importance; and 3. Recommendations to address the concern.
For additional information, please visit: http://www.sac.usace.army.mil/Missions/CivilWorks/NEPADocuments.aspx

Issue: Height of Dune - Key protection; Storm Surge from Sandy in New Jersey was 14', is 14 to 15' dune height sufficient based on hurricane data

Issue: Project Schedule - begin construction in 2018 seems late, 2013 to 2018 is 5 hurricane seasons of possible catastrophic loss

Issue: 4 wheel Drive Vehicles should be restricted from dune access / Do not allow driving on beach

Please provide contact information should a clarification and/or further information on your comment be needed (optional):

Dave Blauch - Homeowner
Name / Title / Business / Individual / Organization

608 Palmetto Blvd, EB SC 29438
Mailing Address / Telephone / E-mail address

You can also email comments to Edisto_Comments@usace.army.mil. Please return by September 18.

EDISTO BEACH COASTAL STORM DAMAGE REDUCTION STUDY

Please print your comment below: Please format your comment to address the following key points: 1. Issue you are concerned about; 2. Reason for its importance; and 3. Recommendations to address the concern.
For additional information, please visit: http://www.sac.usace.army.mil/Missions/CivilWorks/NEPADocuments.aspx

QUESTIONS ATTACHED

Please provide contact information should a clarification and/or further information on your comment be needed (optional):

DAVID LYBRAND, INDIVIDUAL, BEACH FRONT MANAGEMENT COMMITTEE
Name / Title / Business / Individual / Organization

1405 PALMETTO BLVD, EDISTO ISLAND SC 29438 - dlybrand@edistorealty.com
Mailing Address / Telephone / E-mail address

843-869-2818

You can also email comments to Edisto_Comments@usace.army.mil. Please return by September 18.

Questions for Corps of Engineers Public Hearing August 26, 2013

1. Are there any projects on the east coast similar to a beach community such as Edisto Beach where "Beach Fx" was used in conjunction with extending existing groins and raising the dune height to 14 to 15 feet above mean sea level?
2. In Appendix D of the Coastal Storm Damage Reduction study on page D-1 it states "between 10 million and 20 million cubic yards of beach quality sand is required" and in Appendix E page 2 "potential dredging of about 7.2 Mcy of beach placement material...maximum of 3.393 Mcy". Which is correct?
3. Has there been any consideration in the Corps of Engineers study for Edisto Beach of the effects on the St Helena sound beach of millions of cubic yards of sand being pumped on the ocean face? In the 2006 project in which 850,000 cubic yards of sand was pumped onto Edisto Beach, the sound shore line at 3128 Palmetto Blvd increased seaward 295 feet in 2007 and in 2013 it is 354 feet. Are we to anticipate the same or similar results from additional millions of cubic yards of sand being pumped on the front beach?
4. When and if funds become available for implementing and permitting of the recommendations of this project as proposed by the Corps of Engineers for Edisto Beach, should the groins and renourishment be constructed at the same time? Is it advisable to just do renourishment without groin extensions, if money is limited?
5. If the USACE and OCRM have issued a permit to construct the improvements as outlined in the study for Edisto Beach and funds are limited can permitted work be performed over time? For example can 30 feet of the first 10 to 12 groins (where most needed) be installed provided that the trapping capacity of the additional groins is satisfied with the calculated quantity of fill material, as it was successfully done in the USACE and OCRM permitted project P/N #96-1T-432-P dated June 3, 1997 here on Edisto Beach?
6. On page V-3-78 of the USACE manual EM 1110-2-1100 (part V) 1 Aug 08 (change 2) states "*Rule 5 – Begin with X/Y = 2-3 where X is the longshore spacing and Y is the effective length of the groin from its seaward tip to the design shoreline for beach fill at time of construction*". Is this formula applicable to the shore line on Edisto Beach?
7. If the answer to number 6 above is yes, why is the USACE proposing to bury the existing groins and the proposed extensions with millions of dollars of offshore dredge material?

David Lybrand, 1405 Palmetto Blvd, Edisto Island, SC 29438

Corps Response to Dave Blauch card comments:

1. The analysis used to determine the NED plan proposed is a life cycle analysis using a suite of storms randomly applied to the coast line at varying stages of project conditions with the goal of reducing storm damages over a 50 year life cycle. The plan selected is the most efficient plan with respect to dollars invested versus potential damages reduced. The proposed NED plan is not designed to prevent damages from any particular event, rather it is designed to reduce damages over the life of the project.
2. Project schedule-The suggested project schedule includes time for authorization, appropriation, plans, designs, and permits. The 2018 construction start is suggested based on other similar beach nourishment projects that have been constructed in the past. Construction start is influenced by Corps priorities but more so by Congressional authorization and funding.
3. 4 wheel drive access –USACE cannot address these impacts, as they are not a direct result of the federal project. An operations and maintenance plan will be developed for the town. These plans include language to not allow pedestrian or vehicular access across vegetated dune areas.

Corps Response to David Lybrand card comments:

1. Are there similar projects along the east coast that involve Beach-FX and groin extension – To the Project Delivery Team's (PDT) knowledge there are no other projects that involve both of these elements. Beach-FX has been used on other projects along the east coast that are in varying states of the approval process (Bogue Banks, NC; Fort Walton Beach, FL; etc). Beach-FX is currently the only Corps approved software for life cycle analysis of beach nourishment projects and as a result all new projects are required to use the program to determine proposed NED project plans (Engineering Circular 1105-2-412).
2. The quantity in Appendix D is a target amount of material to be identified for use as borrow to assure there is enough material to complete the 50 year project. It is inflated to include placement losses and contingencies. The quantity in Appendix E is the actual quantity required for the project.
3. Corps study of effects on St Helena Sound – The shoreline of the inlet portion of the Town has been accreting over the last few decades. OCRM has documented this accretion at roughly 1-2 feet per year. Certainly, the addition of sand on the Atlantic facing portion of the beach can be transported to the inlet shoreline. However it is difficult to attribute any sand accretion to natural processes or due to increased sand to the system. The amount of littoral transport will remain the same with the project. Because of this it is not anticipated that after construction more sand than historically occurs would move into the inlet shoreline.
4. Timeline for groin construction relative to beach fill – The groin fill is essential to the assumptions made in determining the NED plan through Beach-FX. The timing of the groin field extensions should correspond to initial construction. No decision on the exact sequencing of the construction is available at this time. The timeline and construction methods will be determined by the contractor in consultation with the Corps and the Town.
5. Permit question – There is no permit in question for this project. USACE performs the analysis and gets a coastal zone consistency from OCRM. It is not cost effective to mobilize 2 or more

times to piecemeal the project if funds are limited. Besides not being cost effective, the environmental impacts would increase due to longer construction times at differing times.

6. Is EM1110-2-1100 applicable – This project is extending the existing groin field along Edisto Beach to maintain the equilibrium that currently exists along the Island between the beach profiles and longshore transport, which maintains the initial condition assumptions used to develop the NED plan. Consideration to optimize the longshore spacing of the groin field was not part of this study.
7. Not applicable since response to #6 is no.

3. Joe Mole and Richard Nemes Comment Card 26 August 2013

EDISTO BEACH COASTAL STORM DAMAGE REDUCTION STUDY

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1. Dune height is too high at our property. It is stated as fourteen feet, now I hear is actually 15.7 feet.

2. Difficulty crossing the dune to travel from our house to the ocean and possibly interfering with sight of ocean.

3. Limit the total height of the new dune to 12 feet as measured ~~by~~ from low tide.

Please provide contact information should a clarification and/or further information on your comment be needed (optional):

Joseph E Mole, Jr Retired Chemical Engineer
Name / Title / Business / Individual / Organization

1604 Palmetto Blvd, Edisto Beach, S.C. 29438 843-869-2319
Mailing Address / Telephone / E-mail address

You can also email comments to Edisto_Comments@usace.army.mil. Please return by September 18.

EDISTO BEACH COASTAL STORM DAMAGE REDUCTION STUDY

Please print your comment below: Please format your comment to address the following key points: 1. Issue you are concerned about; 2. Reason for its importance; and 3. Recommendations to address the concern.
For additional information, please visit: http://www.sac.usace.army.mil/Missions/CivilWorks/NEPADocuments.aspx

1) Issues Concerned About - Proposed Edisto Beach Project

2) Reason of my issues importance - without incorporating These 2 simple ideas, the entire project will be A failure & a tremendous loss of money will have been wasted.

3) Recommendations for this projects success:
- Instead of low profile groin extension, the groins need to be a) heightened & b) made impermeable (filled in with concrete). Both of these actions will trap sand & create the beaches. I have owned front beach houses on Edisto for 30+ yrs & the above two steps have proven to work. Contact me for facts.

Please provide contact information should a clarification and/or further information on your comment be needed (optional):

Richard A. Nemes Retired - Front Beach home owner - Edisto Beach
Name / Title / Business / Individual / Organization

4181 Victory Pointe Dr, Mt Pleasant SC 29466 843-606-2084
Mailing Address / Telephone / E mail address
dick.nemes@comcast.net

You can also email comments to Edisto_Comments@usace.army.mil. Please return by September 18.

Corps Response to Joe Mole card comments:

1. Dune height is too high at our property – The dune height was selected to maximize the net benefits along Edisto Island, which are derived from the reduction of potential damages as a result of coastal storms. Reducing the dune height would result in increased damages and would negatively impact the project benefit/cost ratio. USACE understands that there will be some properties that will have a limited view of the beach and ocean from the ground level. This is documented in the Draft Environmental Assessment (EA) and will be expanded in the Final EA, to include aesthetics, noise, and other environmental considerations.
2. Difficulty crossing the dune to access beach – Crossovers may be built by the landowners subject to all Federal, State and Local regulations and permits.
3. Request to limit dune height to 12' – As previously stated in response #1 the selected dune height maximizes the net benefits for the project along Edisto Island.

Corps Response to Richard Nemes card comments:

1. No response required.
2. No response required.
3. The groins need to be a) heightened and b) impermeable – This project is extending the existing groin field along Edisto Island to maintain the equilibrium that currently exists along the Island between the beach profiles and longshore transport, which maintains the initial condition assumptions used to develop the NED plan. The determination of whether groins are constructed to be impermeable or not will need to be made during the engineering and design phase, in consultation with the contractor, Corps, environmental agencies and Town.

4. Joe Mole via Beatty Heaton Comment email 27 August 2013

Mr. Mole asks if USACE is going to grout the rock placed to extend the groins. Previously, this was not done and the rocks washed to either side of the groin.

Corps Response:

See response #3 above. The engineering design of the groin field has not been completed as of yet. The extensions will be designed to replicate the performance of the existing structure within the current regulatory restrictions; however, the exact methods to be used are not available at this time. The rock size will be designed based on the wave climate for the area to ensure stability of the rock.

5. Nancy Newton Comment email 17 September 2013

From: *Nancy Newton*
To: *DLL-CESAC-Edisto_Commments*
Cc: *davidcannon@bellsouth.net*
Subject: *[EXTERNAL] Groin project at Edisto Beach*

Date: *Tuesday, September 17, 2013 5:22:51 PM*

Dear Sir or Madam,

I am writing concerning the proposed groin modifications for Edisto Beach.

I own a house on the front beach at 2704 Point Street. Groin #25 is on the north property line of my house. My father built my house in 1965. Since then, we have experienced two episodes of severe erosion. Both occurred soon after construction or elongation of groins #23 and/or #24. I have extensive documentation of these events and would be happy to share this with you. Based on the historical data, I think we can predict with certainty that if you extend groins #23 and #24 without modification of the southward groins, as called for in your current draft plan, that you will again cause extreme erosive damage to the properties in the point region.

Coastal Science and Engineering has developed a plan with the input of the Beachfront Management Committee of Edisto Beach. This plan takes into consideration past experience with groin construction on Edisto Beach. Their plan includes modification of groins #25-27 which may help protect the point region of the beach. Please refer to this information before finalizing a plan. There is no reason for history to be repeated a third time because of lack of attention to the results of past groin modification projects.

I would be happy to answer any questions you may have or supply any information I have in my extensive files on this matter.

Sincerely,

Nancy Newton

Nancy Newton
1058 Clifton Road,
N.E. Atlanta GA
30307
404-275-2777

Corps Response – Nancy Newton:

Downdrift erosion is likely to occur when groins are built/extended without filling the compartment between groins with sediment. Unfilled groin compartments serve as sediment traps for the sand in the longshore sediment flow. The trapping of this material will result in downdrift erosion. The groin extension proposed by the USACE along Edisto Island includes complete filling of the compartments between the groin extensions. With these compartments full, the longshore sediment transport would be uninterrupted and would not produce downdrift erosion in the area of concern. For additional information, see response to David Cannon's comment #1.

6. Bob Sandifer Comment email 19 September 2013

From: Beverly Sandifer [mailto:sandifeb@bellsouth.net]
Sent: Thursday, September 19, 2013 11:23 AM
To: DLL-CESAC-Edisto_Commments
Subject: [EXTERNAL] Edisto Beach Coastal Storm Damage Reduction Project

I have the following questions on the proposed berm and dune line location and its relation to impact on property owners:

1. Can you confirm where the dune line will be in relation to the seaward property lines?
2. What will be the elevation difference between the native ground and the top of the dune?
3. Will the proposed renourishment restore the native ground level uniformly up and down the beach before the dune line is constructed?
4. How many instances are there of the proposed construction necessarily falling partially on private property?
5. Can you relabel your charts with where the MSL will be as well as the high water mark? It simply is not clear what the dune height will be in front of our beach property.

Thanks,

Bob Sandifer

Corps Response:

1. The baseline has been established to avoid structure impact and to minimize impacts to the existing dune system, however the construction baseline does intersect most parcels along the island. Easements will be required from each homeowner and will be acquired by the local project sponsor prior to any construction activities.
2. The elevation distance is variable throughout the island. Within the 4 inlet reaches the average difference is 4.4'. The 2 reaches near the southern point (P1 and P2) have an average difference of 5' increase. The average increase along the Atlantic facing portion of the project in approximately 3.6'.
3. The construction of the berm and dune are typically completed simultaneously with final shaping occurring just behind pumping operations. Refer to Section 7.02 of the Draft EA for additional discussion.
4. No construction will occur on private property that has not been authorized through a proper easement. As stated in the real estate appendix, there are approximately 187 perpetual beach storm damage reduction easements over private property where the landward toe of the beachfill material is placed above the mean high water line.
5. The charts will be clarified. The answer to question 2 above should clarify some of the questions relating to the increase in dune height along the project dimensions.

7. Senator Ronnie Cromer 20 Sep 2013

Senator Ronnie W. Cromer
PO Box 378
Prosperity, SC 29127

September 20, 2013

Commander
USACE---Charleston District (CESAC-PM-PL)
69 A Hagood Avenue
Charleston, SC 29403

Dear Commander:

It has been brought to my attention that the US Army Corps of Engineers has been working on a plan to assist in stopping erosion problems on Edisto Beach, SC by establishing an eight year interval renourishment program with the addition of berms added to the beach areas and also to extend most of the groins which have been in place for many years without any updates. I want to compliment and thank you for addressing this problem on behalf of the many people who own property there, the many people who visit and enjoy the beaches there, and the State of South Carolina which benefits from the revenues derived from tourism all along our coast.

I do want to address one area I have been informed of that might cause some future problems. Specifically, that is excluding the area of the beach between groins 24-29 from the berm and groin expansion. My understanding is that originally, all groins were to be extended and berms were to be created on the entire beach front from groins 1-29. The concern of the residents in the area of 24-29 is that deciding not to address those areas could cause even more damage from erosion in those particular areas.

Being in state government and working with some of the residents of Folly Beach, SC has shown me that anytime you add, take away, or extend groins can cause the water flows to change inadvertently in other areas of where the groins were changed. For instance, I have a constituent in Folly Beach who we have been working with to try and save his house from washing away due to jetty extensions in the Charleston harbor which have apparently caused more wave activity in his area.

I also have these same concerns that are being raised about choosing to leave areas 24-29 on Edisto Beach as is. In full disclosure, I am also a property owner in this area of Edisto Beach and have watched the results of the last renourishment which truly helped many on this stretch of Edisto Beach. However, I feel that not addressing these last several groins could cause irreparable damage to "The Point".

I would like to urge the USACE to please reconsider the current plan and include groin areas 24-29 in the renourishment plan for Edisto Beach.

Again, I truly appreciate the work and effort USACE has put into planning and trying to obtain funds for this very important project.

Sincerely,

Senator Ronnie W. Cromer

cc:
US Senator Lindsey Graham
US Senator Tim Scott
Congressman Mark Sanford
Senator Chip Campsen
Mayor Burley Lyons
Edisto Town Council

Comment: excluding area of beach between groins 24-29 from berm and groin expansion.

Corps Response:

The extension of all groins from 1 through 29 was never part of the NED plan. The amount of groin lengthening of the last few groins (i.e., 22, 23, & 24) is minimal (20ft). This amount of groin lengthening is only needed to hold the newly constructed berm in place. The existing condition in front of the area in question does not necessitate lengthening groins. Additionally, a berm and dune will still be constructed in this area that tapers from around groin 29 up to groin 24 to be 50 feet wide for the berm and the dune will be 15ft high throughout the whole area. This plan offers the most economically beneficial level of protection.

8. From Coastal Conservation League:

RE: Integrated Report and Environmental Assessment for Edisto Beach, Colleton County, South Carolina

Dear Charleston District USACE:

Thank you for the opportunity to comment on the integrated feasibility report and environmental assessment of coastal storm damage reduction for Edisto Beach.

The Coastal Conservation League has several serious concerns about both the scope of review and the tentatively selected plan.

Impact on the immediate environment of the project area is our first concern. Benthos both offshore and onsite, as well as wildlife, are clearly affected by the extension of groins and other hard structures. For instance, there is no definitive way to determine how nesting sea turtles will respond to the altered area. But the limited scope of the project as determined by the Corps neglects the impact on nearby environmental resources. Place Edisto Beach State Park back in the scope of review. The ACE Basin and other pivotal areas are not mentioned at all in the review. There seems to be a bad habit of narrowing the scope of review to the immediate project area, so that potential impacts to nearby areas of ecological significance are not considered. The League encourages the Corps in general to widen scopes of review for projects so that a cumulative impact assessment is done—in an instance like this proposed project, the cumulative assessment is vital to protecting nearby areas of major environmental importance. The federal government has already invested a major amount in the protection of ACE Basin's natural resources—it makes no sense to not include damage to that federal investment in the scope of this review. We also question the efficacy of mining an ebb tidal delta—this type of activity disrupts the natural sand movement systems, causing downdrift shore erosion. The practice is widely recognized as a bad idea and a serious cause of environmental degradation.

The draft assessment examines the project's viability over fifty years, and as mentioned previously, clearly does not properly cover a more cumulative impact review. The Corps has not compared the cost of renourishing this unstable beach beyond fifty years with the cost of acquiring the private properties—thus, the Corps, the project sponsor, the townspeople of Edisto, and ultimately the taxpayers have no real understanding of whether the proposed project is a sensible and successful investment. In fact, the Corps inexplicably places limits on acquiring the beachfront home properties (to reaches E14 and E15), thus providing us with a false conclusion with its proposed "choice."

We are also concerned with the Beach-fx model used to estimate damage and damage reduction. There is no explanation as to how the simulated iterations used to determine damages in the project area actually result in the asserted loss of more than $2 million each year. Based on historical analysis, this conclusion does not sync with the much smaller amount of combined financial loss experienced by Edisto over the past fifty years.

The Corps makes assumptions designed to further the potentially faulty and wasteful process of keeping private development too close to rising sea levels while taxpayers across the nation foot the bill of "protection." Because we are facing sea level rise, as well as increased storm events in both frequency and intensity, to limit the option of buying out owners does not make sense. The conclusion, therefore, shows that a non-structural alternative is not feasible. This stance is hardly surprising when one examines the alternatives comparison in Table 5.6: impacts to marine and terrestrial environments from

non-structural alternatives will allegedly be greater than the option of nourishing the beach and lengthening the groins, yet there is no data presented to reinforce the conclusion. This lack of data places the entire analysis into question.
Thank you for including the League's comments in the administrative record, and please notify me of any future decisions, reports, and public meetings for this project.

Respectfully,

Katie Zimmerman
Program Director
Air, Water, & Public Health

Comment: "Benthos both offshore and onsite, as well as wildlife, are clearly affected by the extension of groins and other hard structures."

Corps Response:

This impact is acknowledged within the report. Direct burial of nearshore benthic invertebrates will occur; however, it is well demonstrated that hard substrate serves as habitat for sessile benthic invertebrates. In addition, hard structures will serve as habitat for nearshore fish species. No new groin is being constructed. Existing groins are being lengthened a relatively minimal amount. Only two groins will be lengthened by 100ft, and the others will be lengthened by lesser amounts.

Comment: "there is no definitive way to determine how nesting sea turtles will respond to the altered area."

Corps Response:

The EA and the BA both address this issue. The shore perpendicular orientation of the lengthened groins will not affect the ingress/egress of nesting sea turtles and hatchlings. Additionally, since the berm is being expanded too, the effective length of the groins past the slope of the beach will not change. The project recommends renourishment of the beach every 8 years (*Revised to 16 years for final report*). This schedule will ensure that there continues to be adequate nesting habitat for turtles. CSE has repeatedly documented that Edisto Beach is a sand starved system. Without a nourishment project, there will eventually be no dry beach habitat for nesting turtles. The report documents that Palmetto Blvd will be protected at all costs by the Town and the State because it is the only evacuation route off the island. The protection of the road will likely be riprap revetments/sea walls/raising the road, all of which will create a hostile environment for nesting turtles.

Comment: "Place Edisto Beach State Park back in the scope of review."

Corps Response:

An effort was made to include the park. The SC State Park Recreation and Tourism Office has been involved in the study process. They indicated that they do not have funds to cost share on a project. Additionally, the lack of economic damageable elements (existing infrastructure) inhibits the ability for the federal government to involve the Park in the study.

Comment: "The ACE Basin and other pivotal areas are not mentioned at all in the review. There seems to be a bad habit of narrowing the scope of review to the immediate project area, so that potential impacts to nearby areas of ecological significance are not considered."

Corps Response:

The impacts on the ACE Basin will be included in the Final EA; however, USACE does not anticipate any adverse impact on ACE Basin. Impacts to Pine and Otter Island (both within ACE Basin) are the only significant resources that may be impacted; however, our document describes the fact that a major river

system (South Edisto River) separates the project from these resources. These areas will be affected more by river dynamics than by more sand placement along Edisto Beach. The only reasonable affect that could occur would be sand transport to the islands. No erosion would occur to these islands as a result of the project (CSE Report January 2013).

Comment: "The League encourages the Corps in general to widen scopes of review for projects so that a cumulative impact assessment is done—in an instance like this proposed project, the cumulative assessment is vital to protecting nearby areas of major environmental importance. The federal government has already invested a major amount in the protection of ACE Basin's natural resources—it makes no sense to not include damage to that federal investment in the scope of this review."

Corps Response:

The EA includes a cumulative effects assessment of nearby areas. Please see the EA to read the cumulative effects assessment.

Comment: "We also question the efficacy of mining an ebb tidal delta—this type of activity disrupts the natural sand movement systems, causing downdrift shore erosion. The practice is widely recognized as a bad idea and a serious cause of environmental degradation."

Corps Response:

The ebb tidal delta is the best source of beach compatible sand for Edisto Beach. SCDNR indicates that these sites, if mined appropriately, will fill in with beach quality material quicker than other locations. This is based on extensive monitoring over the last couple decades paid for by USACE. See: South Carolina Department of Natural Resources. 2009. Characteristics of the borrow area impacted by the 2007 Folly Beach emergency renourishment project. Final Report, Prepared by: Derk Bergquist, Stacie Crowe, and Martin Levisen. Submitted to US Army Corps of Engineers. SCDNR Technical Report Number 104. March 2009. This is cited in the main report.

Comment: "The Corps has not compared the cost of renourishing this unstable beach beyond fifty years with the cost of acquiring the private properties—thus, the Corps, the project sponsor, the townspeople of Edisto, and ultimately the taxpayers have no real understanding of whether the proposed project is a sensible and successful investment. In fact, the Corps inexplicably places limits on acquiring the beachfront home properties (to reaches E14 and E15), thus providing us with a false conclusion with its proposed 'choice'".

Corps Response:

The 50 year period is considered the project economic life in which any alternative plan would have significant beneficial or adverse effects. For planning purposes, the project life does not exceed 50 years in comparing alternative plans to the without project condition according to the USACE Planning Guidance Notebook.

As stated in the draft feasibility Main Report section 5.6.2 and the Economic Appendix, section 7.0, the non-structural measure, property acquisition, was considered as a hurricane and storm damage reduction measure. Property acquisition would take place in the northern most reaches only because they are the most erosion- and damage-prone reaches in the study area. The reaches evaluated were E14 and E15, it was determined that additional reaches would be evaluated if these two reaches yielded the highest net benefits.

A total of 19 shorefront houses located within reaches E14 and E15 were evaluated for the nonstructural alternative. The goal of this screening level evaluation was to estimate if a non-structural measure or plan would a) be economically feasible and b) if it was economically feasible, the magnitude of net benefits would be comparable to those derived from a structural plan. A more refined non-structural analysis would only be conducted if *a* and *b* were found to be true through the initial analysis.

The benefits from the non-structural alternative were calculated based on the assumption that the average future without project condition structure/content damages to these 19 structures (taken from the earlier Future Without Projects (FWOP) Beach-*fx* run) as well as emergency nourishment costs in reaches E14 and E15 would be reduced to zero when the plan is implemented. Costs for the non-structural plan were based on an acquisition cost using the actual land and structure value taken from the Structure Inventory Analysis for each structure, and a demolition cost for each structure. For simplification, an identical demolition/removal and land value acquisition cost was used for every structure and lot. The benefits were then compared to the cost for the two reaches and the result was negative benefits. The thought was if these two reaches where erosion prevailed were justified then the other reaches would be further analyzed to determine if the non-structural plan was viable. Therefore, net benefits of a nourishment project outweighed the benefits of property acquisition.

Comment: "We are also concerned with the Beach-fx model used to estimate damage and damage reduction. There is no explanation as to how the simulated iterations used to determine damages in the project area actually result in the asserted loss of more than $2 million each year. Based on historical analysis, this conclusion does not sync with the much smaller amount of combined financial loss experienced by Edisto over the past fifty years."

Corps Response:

The damage reduction and cost avoidance monetized benefits resulting from implementing a Federal project are accumulated and discounted using the FY13 discount rate to express the benefits as a single total benefit figure. Although the analysis shows $2 million per year in benefits, it is recognized that $2 million in damages will not be incurred every year; the purpose is to measure project justification and optimization for economic purposes. For additional information, reference comment response number 2 (comment 1 from David Lybrand).

Comment: "The Corps makes assumptions designed to further the potentially faulty and wasteful process of keeping private development too close to rising sea levels while taxpayers across the nation foot the bill of "protection." Because we are facing sea level rise, as well as increased storm events in both frequency and intensity, to limit the option of buying out owners does not make sense. The

conclusion, therefore, shows that a non-structural alternative is not feasible. This stance is hardly surprising when one examines the alternatives comparison in Table 5.6: impacts to marine and terrestrial environments from non-structural alternatives will allegedly be greater than the option of nourishing the beach and lengthening the groins, yet there is no data presented to reinforce the conclusion. This lack of data places the entire analysis into question."

Corps Response:

The Corps' analysis is based on existing infrastructure. No additional development was assumed. Additionally the no action alternative has adverse impacts to the environment. As stated in the report, the impacts of doing nothing will have greater consequences to the dry beach environment than any of the alternatives. This is because the road will serve as a sea wall when erosion gets to that point. The Town and State will make all efforts to protect the road, most likely by rip rap placement and/or raising the elevation of the road. Palmetto Blvd. is the only evacuation route off the island. These points are made in the report.. The above clarifications will be incorporated in the final integrated feasibility study/environmental assessment.

9. Mike Farrar Email Comment 20 September 2013

From: MikeFarra@aol.com [mailto:MikeFarra@aol.com]
Sent: Friday, September 20, 2013 9:34 AM
To: DLL-CESAC-Edisto_Commments
Subject: [EXTERNAL] 2nd Email regarding questions on Edisto Beach Rernourishment Proposal

I was not able to attend the meeting at Edisto Town Hall regarding the beach renourishment project and had a question regarding the addition of the dunes in the "Inlet Reach" section of the proposal.

Do you have topographical maps to get a better understanding on actually how high the dunes will need to be built and how wide and how much possible encroachment into private properties?

Specifically, our address is 3206 Palmetto Blvd Edisto Beach, SC....if you could be specific to that property would be great. It is an old beach house, I think built in the 40's or 50's, so not built on the taller piers like the newer homes, but also not ground level either...my concern is tall dunes would take away any views we may have of the Sound and the Atlantic. Also we have been noticing more sand/vegetation our way between the high tide mark and the actual beach, since the last renourishment...

Also if the new dunes go into place, who pays for the new boardwalk to get over those dunes or how do people travel over the dunes?

I appreciate any answers you can offer.

Best Regards,

Mike Farrar

Corps Response:

The proposed dune at 3206 Palmetto Blvd is 14’ high and 15’ wide. This property is located in inlet reach 1 where the typical existing conditions were measured to show a 7’ high natural dune with no measurable width at the peak. The proposed project will have the same landward dune tie in position and will be built seaward from that point. Views may be blocked as a result, however without knowing the elevation of the subject property living area it is difficult to estimate.

Crossovers may be built by the land owner subject to all Federal, State and Local regulations and permits. Public crossovers may be built by the Local Project Sponsor subject to the same regulations and permitting process.

10. Patrick Sheehan Email Comment 21 September 2013

From: Patrick Sheehan [mailto:patricksheehan@bellsouth.net]
Sent: Saturday, September 21, 2013 2:07 PM
To: DLL-CESAC-Edisto_Commments
Subject: [EXTERNAL] GROIN LENGTHENING

Patrick H. Sheehan
Elizabeth C. Sheehan
2805 Point St.
Edisto Beach , S.C. 29438
843-869-2714 home
803-640-0419 cell

patricksheehan@bellsouth.net

Dear Sir or Madam,
As a home owner at 2805 Point St.,Edisto Beach , I am adamantly opposed to the plan to lengthen groins 23 and 24.
My wife and I lost our home and lot in 1971 due to erosion caused by groin 23 . Again in the 90's our home was threatened because groin 23 was lengthened once again. To lengthen groins 23 and 24 without modifying 25 to 27 would be a catastrophe.
I urge you to adopt the Costal Science and Engineering plan for erosion control as recommended by Edisto Beachfront Management Committee.

Sincerely,

Patrick H. Sheehan
Elizabeth C. Sheehan

Corps Response:

The proposed groin lengthening within this project will be accompanied by a beach and dune construction project that will fill the littoral cells of all groins lengthened. As a result of the beach fill placement of material between the lengthened groins, there is no anticipated downdrift erosion associated with the project. Groins outside the project area that are not lengthened will continue to function similarly to pre-project conditions.

11. Jerry Hansen Public Comments 19 September 2013

Corp: USAC-Charleston District
69A Hagood Ave
Charleston, SC 29403
c/o Edisto_comments@usace.army.mil September 19, 2013

Corp of Engineers Representatives,

I understand an Edisto Beach sand replacement and dune extension, and groin fabrication project is nearing design completion and perhaps is close to detailed planning and implementation. I also understand that several aspects of the project have either been changed or altered recently in opposition to recognized professional engineering and technical evaluation conclusions. In summary it appears that extensive sand/dune re-nourishment and groin modifications are still reasonably close to originally recommended and proposed approach for groin areas 1 through 24, but are not now planned for implementation as originally recommended and proposed for beach/dune and groin modification for groin areas beyond groin 24. The dropping of those areas beyond groin 24 were only recently recommended for non-actions by local Edisto Beach town representatives, in opposition to their own contracted engineering evaluations and recommendations.

Although I am not an engineer by profession I am a physicist and perhaps offer some unique and beneficial technical and professional input to your decision process. The dilemmas of eroding beaches and proposed solutions having successful application and long term benefit are not new and are accompanied by relatively high uncertainty, especially where tides, water level, wind and energetic storms combine in constant variability. Edisto history and beach replenishment/groin construction are well known, as indicated in a recent missive to the Corp, dated September 4, from long-time resident Dave Cannon (retired Professional Engineer and member of the Edisto Beach "Beachfront Management Committee). I would like to present my personal perspective, for what it is worth.

My concern is, in part, based on the period about 35 years ago when groin 24 was built (and no groins further towards the point) and the resulting catastrophic erosion that took much of the point area beach (are we to repeat the blunder and learn nothing?). And also that, for the last 25 years, most of the significant (e.g., greater than 100' of dune) erosion has occurred between groins 24 and 31, as I would expect from the perpendicular shore directed water/mass tidal forces provided with flow around the groin 24 extended configuration and the relative short and low profile of what now exists of groins 25 – 31. (My evaluation does not address the river-based shore, as it has its own technical erosion dilemma, which is not being addressed in this project.) Certainly an extended groin 24 without the deflection and mitigative actions (for inbound tidal flow shore directed forces) that could be provided by extending (and elevating) groins 25 -29, and some dune replacement provides fertile conditions for extensive erosion. This condition only increases very significant erosion probability in the Point area dunes. The outbound tide (secondary erosion) would increase the erosion probability due to shore based forces caused by the dynamic and high velocity flows into groin 24 causing backflow and setting up circular shore directed currents during both high and low tidal activities. Because of the low profile (basically non-existent) flow perturbation from no groins 25-31, there is almost laminar outbound shore (hugs the shore) flow with maximum velocity (maximum erosion potential) until abruptly altered by groin 24. Tidal flow perturbation and mitigation provided by extended and elevated (at least 1-2 groins very close to groin 24) groins and outward sand dune/berm buildup would greatly reduce this erosion probability. In addition, the recent significant (> 100') dune erosion at the point, without new replenishment) leaves at some high tides only a few feet from house decks to the water (essentially 0' dune) at high tide and

subsequently ensures the vulnerability of the Point area houses, roads, and ultimately the entire island from energetic storms moving from the southeast (normal hurricane directed winds).

As indicated in the Cannon missive, if the length of groin extensions in the CSE plan, 1,130 feet, is identical to the Corps plan, and the quantity of sand required is very similar, what is the driving factor for leaving the most vulnerable area of the island untouched and at high risk if no erosion prevention or mitigation is applied, as the condition is now?

Let us approach this with reason. Thank you for your time and consideration.

Jerry L. Hansen
URS Engineer [Safety Analyst] (not representing URS at this time)
Aiken, SC 29803
803-215-1686

Cc;
Joe Wilson
Toole and Associates

Corps Response:

Concerns are noted. Mr. Cannon's comment 1 is addressed within this document for your review.

12. Elizabeth Penfield Public Comment 28 September 2013

From: Elizabeth Penfield
To: DLL-CESAC-Edisto_Commments
Cc: davidccannon@bellsouth.net
Subject: [EXTERNAL] Groin Projet at Edisto Beach
Date: Saturday, September 28, 2013 1:09:47 PM
Dear Sir or Madam,
As one of the owners of 2804 Point Street, which lies between groins 26 and 27, I urge the Corps to hold a discussion of all the proposals for renourishing the Beach at Edisto and then protecting it by lengthening groins 1-23. Such a meeting will show why groins 24-29 should be included in the Corps plan.
For over the 25 years I have enjoyed the house and beach, I have seen the sand in front come and go, mostly go. In the past, lengthening groins 23 and 24 caused substantial erosion between groins 25-29. Under the present Corps plan, that would happen again, a conclusion reached by two recent studies: one by Coastal Science and Engineering and the other by The Beachfront Management Committee of Edisto Beach.
While an argument can be made that the continuing renourishment and protection of the beach is a waste of taxpayers' money (a view I do not share), it is true that protecting a substantial part of the beach at the expense of The Point is ecologically and fiscally unwise.
Please reconsider the plans for protecting Edisto Beach and include groins 24-29.
Sincerely,
Elizabeth F. Penfield
95 Skidaway Island Park Road, #34
Savannah, GA 31411

Corps Response:

The proposed groin lengthening within this project will be accompanied by a beach and dune construction project that will fill the littoral cells of all groins lengthened. As a result of the beach fill placement of material between the lengthened groins, there is no anticipated downdrift erosion associated with the project. Groins outside the project area that are not lengthened will continue to function similarly to pre-project conditions. The previous lengthening projects you refer to were not accompanied by a beach fill of the impacted groins and as a result they acted as sediment sinks until the groin cell had reached an equilibrium state. This is the main contributor to the downdrift erosion observed following the previous lengthening.

13. Alester Spears Public Comment 18 September 2013

From: ALESTER SPEARS
To: DLL-CESAC-Edisto_Commments
Subject: [EXTERNAL] Edisto Beach Renourishment Project
Date: Wednesday, September 18, 2013 5:41:01 PM

To Whom It May Concern,

I was just recently copied on some information regarding the Renourishment Project at Edisto Beach. My family and extended family have multiple lots and properties on the beach.

Seems renourishment will need to happen every eight years. As a suggestion, perhaps you could tackle two issues with this project. The Yacht Basin on the beach has been filling in continuously for the past several decades as a result of inadequate water flow from the poorly built causeway (the original bridge was washed away in a prior hurricane but replaced with a causeway) going to the beach from the island. Consequently, the property owners on the Yacht basin have had to deal with decreased property values, less water sport activities and water that gets more and more shallow every year. This area use to be considered deep water. However, I am not sure that is still the case today.

Since this Renourishment Project requires dredging, I suggest the Town of Edisto Beach and Corps of Engineers utilize a mixture of sand and mud from the Yacht Basin. The combination of sand and mud should make for a longer lasting replenishing project on the front beach. Many beaches along the South Carolina coast have this type of naturally occurring mixture. By dredging the Yacht Basin and replenishing the front beach, you will be assisting two types of Edisto Homeowners, those who utilize the front beach and those who utilize the Yacht Basin. Both want to protect their property values and pay taxes, therefore both should be assisted.

Thank you in advance for your consideration.

Alester Spears

Corps Response:

The borrow area selected for the Edisto Beach Project is the closest match to the material presently on the beach. The beach material contains very little fine grained soil and the sand is coarser than most beaches on the southeast coast.

The material in the area of the yacht basin has not been sampled to determine the amount of fine grained material or the distribution of the sand sizes. Typically material in a location such as this contains too much fine grained soil to match the beach material. The best match possible is important for the beach environment. Also the Corps does not consider using material that contains more than 10% fine grained soils. The fine material does not last as long on the beach and would require more frequent renourishment, therefore increasing the cost of the project. Dredging in this area would also require a different dredge than the one used offshore to perform the work. The use of this additional dredge would also increase the cost to perform the work. Overall the use of the yacht basin material is not believed to be a benefit to the project.

14. Grace Sanders Public Comment 18 September 2013

EDISTO BEACH COASTAL STORM DAMAGE REDUCTION STUDY

Please print your comment below: Please format your comment to address the following key points: 1. Issue you are concerned about; 2. Reason for its importance; and 3. Recommendations to address the concern.
For additional information, please visit: http://www.sac.usace.army.mil/Missions/CivilWorks/NEPADocuments.aspx

Have you thought about what the Kids will do to the berm. When we have a drop off in front of our cottage, Kids push down 3-4 feet for the water to take out at high Tide. I went to town Hall wanting to put up signs to stop it. Even though it is my property, I was told NO NOR CAN I ask them to stop. Told to call police - After about 8 Times and seeing the Kids come right Back - I gave up and it is not only Kids but parents, my question is how will we stop people pushing berm down. ? ? in N.J. - on two barrier Islands - corp completed some dunes before Hurricane Sandy - Not mentioned at meeting at Edisto Beach

Please provide contact information should a clarification and/or further information on your comment be needed (optional):

Grace C. Sanders - Owner

Name / Title / Business / Individual / Organization

P.O. Box 316 - Walterboro, SC 29488 - 843-830-4701 gracesanders@yahoo.com

Mailing Address / Telephone / E-mail address

You can also email comments to Edisto_Comments@usace.army.mil. Please return by September 18.

Corp Response: If the project is constructed the Town of Edisto Beach has the responsibility of monitoring and maintaining the dune.

15.John Eady Public Comment 26 August 2013

Sent: Monday, August 26, 2013 1:19 PM
To: Iris Hill
Subject: Re: Corps of Engineers report and recommendations about management of storm damage.
Ms. Hill,
After I sent my E-Mail I reviewed the Corps of Engineers data. It is very complete and I agree with it. What can I do to help convince fellow property owners to support this project? John Eady

Corps Response: Noted.

Agency Comments

16. SCDNR Letter dated 9 Sep 2013

South Carolina Department of
Natural Resources
PO Box 12559
Charleston, SC 29422
843.953.9003 Office
843.953.9399 Fax
Daviss@dnr.sc.gov

September 9, 2013

Mr. Mark Messersmith
U. S. Army Corps of Engineers
69-A Hagood Avenue
Charleston, SC 29403-5107

Re: Draft Feasibility Report, Draft Environmental Assessment (DEA) and Finding of No Significant Impact (FONSI) for the Edisto Beach Coastal Storm Damage Reduction General Investigation Study, Charleston County

Dear Mr. Messersmith:

Personnel with the South Carolina Department of Natural Resources have reviewed the above referenced documents and offer the following comments.

The above referenced documents present the results of studies to examine the feasibility of federal coastal storm damage reduction for the Town of Edisto Beach, South Carolina. As an integrated report, it includes all elements that are required for a U.S. Army Corps of Engineers (USACE) Feasibility report, as well as an Environmental Assessment (EA) per the National Environmental Policy Act (NEPA). The proposed project was selected after a detailed alternatives analysis. The tentatively selected plan will require an estimated 924,000 cubic yards of borrow material during initial construction, and about 220,400 cubic yards during each renourishment cycle, which would occur every 8 years. In total, it is estimated that 2.25 million cubic yards of material are needed for initial construction and subsequent renourishments during the 50 year project. The use of an offshore borrow area is proposed using either a Hydraulic Cutterhead or Hopper dredge. The project also includes approximately 1,130' of groin lengthening across 23 existing groins.

The DEA includes an assessment of the potential environmental effects of the project. With a few minor exceptions, we find this assessment to be adequate in evaluating the environmental consequences associated with the selected project. The selected project includes options for the use of either a Hydraulic Cutterhead or Hopper dredge to obtain borrow materials. The DEA does not address the environmental effects on sea turtles resulting from Hopper Dredge use during periods when sea turtles are concentrated in offshore waters (April 1 – November 30), nor does it outline measures to be taken

to minimize these potential impacts. We recommend the Final Environmental Assessment (FEA) address these issues.

We understand the USFWS will be initiating a formal Section 7 consultation under the Endangered Species Act and will be preparing a biological opinion that will address the potential impacts of the proposed project on the loggerhead sea turtle. This biological opinion will include specific terms and conditions as well as a number of conservation measures that will address the protection of this species. We recommend that all conservation measures outlined in the biological opinion are incorporated into the FEA.

Based on numerous studies conducted by our department on offshore borrow areas, we know that the degree of change to borrow site bathymetry and sediment type and rate of recovery is largely dependent on the location, configuration and cut depth of the proposed dredging operation. Improperly located and designed borrow areas can result in significant and persistent changes in sediment characteristics and biological communities in the borrow area. In an effort to minimize these impacts and ensure sustainable use of these borrow areas for future projects, hydrologic and sediment transport modeling studies should be conducted to determine the appropriate borrow pit depth to minimize the accumulation of fine sediments. Dredging should be limited to those depths where beach compatible sands re-accumulate. The USACE is proposing to dredge to a maximum depth of 10.3 feet. Monitoring results for a number of previous projects has shown significant changes in sediment type and slow recovery rates at comparable dredging depths. We recommend the FEA address the potential impacts of dredging to these depths and identify measures to be taken to avoid and minimize long-term impacts to borrow areas.

We appreciate the opportunity to provide these comments and ask that you consider the above recommendations in the preparation of a FEA for this project.

Sincerely,
Susan F. Davis
Susan F. Davis
Coastal Environmental Coordinator
Cc: SCDHEC/Padgett
OCRM/Trumbull
USEPA
USFWS
NMFS

Comment: The DEA does not address the environmental effects on sea turtles resulting from Hopper Dredge use during periods when sea turtles are concentrated in offshore waters (April 1 – November 30), nor does it outline measures to be taken to minimize these potential impacts. We recommend the Final Environmental Assessment (FEA) address these issues.

Corps Response:

The DEA does address impacts from hopper dredges on sea turtles (see quoted text below), albeit minimally. The draft BA addresses these impacts in more detail. The FEA will be revised to include more info on hopper dredging impacts to sea turtles taken from the BA.

7.01.2 – "In order to minimize the risk of incidental takes of sea turtles, the USACE requires the use of sea turtle deflecting dragheads on all hopper-dredging projects where the potential for sea turtle interactions exist."

7.15.1 - "Therefore, the proposed dredging activity will have no effect on sea turtles if performed by a cutterhead dredge and is likely to adversely affect several species of sea turtle (i.e., loggerheads, greens, and Kemp's ridleys) if performed by a hopper dredge. Since all in water dredging activities are addressed and covered by reference in the 1997 NMFS SARBO, no additional sea turtle consultation with NMFS is required."

Comment: "We recommend that all conservation measures outlined in the biological opinion are incorporated into the FEA."

Corps Response:

We make every effort to implement all reasonable and prudent measures (RPM).

Comment: "Based on numerous studies conducted by our department on offshore borrow areas, we know that the degree of change to borrow site bathymetry and sediment type and rate of recovery is largely dependent on the location, configuration and cut depth of the proposed dredging operation. Improperly located and designed borrow areas can result in significant and persistent changes in sediment characteristics and biological communities in the borrow area. In an effort to minimize these impacts and ensure sustainable use of these borrow areas for future projects, hydrologic and sediment transport modeling studies should be conducted to determine the appropriate borrow pit depth to minimize the accumulation of fine sediments. Dredging should be limited to those depths where beach compatible sands re-accumulate. The USACE is proposing to dredge to a maximum depth of 10.3 feet. Monitoring results for a number of previous projects has shown significant changes in sediment type and slow recovery rates at comparable dredging depths. We recommend the FEA address the potential impacts of dredging to these depths and identify measures to be taken to avoid and minimize long-term impacts to borrow areas."

Corps Response:

Impacts to the borrow area are adequately addressed in the DEA. USACE has invested years of effort in working with DNR to monitor impacts to borrow area ecology. The selection of this borrow area and the inclusion of a 1 foot vertical buffer and the inclusion of the ability to use a hopper dredge

are all minimization measures recommended by SCDNR in the past. A trade-off must occur if shallower depths are to be mined. USACE and SCDNR staff has discussed this tradeoff in the past, which is basically that if you dredge shallower you have a larger area of impact and a higher cost. The DEA only addresses the depth of usable material. During the design phase we will look at your valid point. USACE continues to use adaptive management in the use of our borrow sites and will continue to work with DNR to ensure these practices are working and getting better over time.

17. USFWS Comments Sep 11, 2013

United States Department of the Interior

FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

September 11, 2013

Lt. Colonel John T. Litz, PMP
District Engineer
U.S. Army Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

Attn: Bret Walters

Re: Edisto Beach Coastal Storm Damage Reduction, Draft Environmental Analysis
Colleton County, SC
FWS Log No. 2013-CPA-0173

Dear Colonel Litz:

The U.S. Fish and Wildlife Service (Service) has received the draft Environmental Analysis (EA), Finding of No Significant Impact, and associated appendices for the proposed Edisto Beach Coastal Storm Damage Reduction Project. The U.S. Army Corps of Engineers (USACE) has submitted this information as a part of the coordination between our agencies in fulfillment of the policies set forth in the Fish and Wildlife Coordination Act (FWCA). Briefly, the EA provides a review of multiple alternatives examined by the USACE. Five alternatives were considered; no action, removal of at risk structures, renourishment with sand fencing, renourishment without groin extensions, and renourishment with groin extensions. With submission of the EA, you requested that the Service provide any conservation recommendations regarding this project. The Service is pleased to provide this Planning Aid Letter for your consideration.

A Biological Assessment (BA) is included in the EA and addresses potential impacts on the piping plover (*Charadrius melodus*), West Indian manatee (*Trichechus manatus*), and the loggerhead sea turtle (*Caretta caretta*). We offer the following comments and recommendation regarding these three species as well as other aspects of the project.

Piping Plover

Due to the lack of critical habitat or suitable wintering habitat for the piping plover, the USACE concluded the project will not affect this species. The Service does not agree with this finding. Although the current beach profile is not optimal for use by plovers, the possibility exists that

they may be found foraging or roosting on Edisto Beach during the migration or winter season (July 15 – May 1). In addition, upon completion of the first renourishment action, Edisto Beach may attract plovers in the future.

The proposed project plans for maintenance renourishment activities after defined trigger points based on remaining sand volumes. Maintenance activities will most likely occur during the winter months increasing the potential for impact to migrating or wintering plovers. The Service finds that the entire project, as proposed, may have an effect upon the piping plover. As such, the Service recommends that the USACE revise the BA to reconsider the initial project and all subsequent maintenance actions in their determination of impact upon the piping plover. We further recommend that the USACE reassess the biological impacts prior to each maintenance fill action. Each revised BA must be submitted to the Service for review.

Manatee

The proposed project includes provisions for manatee protection measures if renourishment activities are to occur between the months of May to September. In 2012, manatee sightings from the general public, obtained through the South Carolina Department of Natural Resources (SCDNR) online reporting system, began in April and lasted into late October. In order to minimize potential impacts to the manatee, the Service recommends expanding time frame for implementation of manatee guidelines to include the months of April and October.

Loggerhead Sea Turtle

The Service recognizes that the erosional state of Edisto Beach currently provides poor habitat suitable for loggerhead sea turtle nesting. Regardless, the USACE addressed potential impacts to sea turtle nesting activities and hatchlings in the BA. It is the USACE's intent to perform the renourishment during the winter months, outside of the loggerhead sea turtle nesting season, which would significantly minimize impacts. In the event of a delay in the schedule caused by dredge availability or storms, renourishment may take place during the nesting season. Therefore the Service recommends the following measures (in addition to those listed in the BA) to further avoid impacts to the sea turtle.

- Prohibit renourishment activities from May 1st through October 31st.
- Limit heavy equipment access to the area undergoing renourishment or dune building and shaping.
- Access points for heavy equipment must be closed and restored to contours as the renourishment activity moves to a point where the access is no longer useful.
- Removal of existing derelict debris from the beach and dune area prior to filling. Such debris includes old seawalls, rocks, building foundations or infrastructure.
- Use of predator proof trash receptacles to minimize presence of species that prey upon hatchlings.
- Cease fill activities if a sea turtle is sighted on an area of the beach scheduled for fill. Renourishment may resume after the turtle returns to ocean.
- The Service or SCDNR must be notified immediately if a sea turtle, nest, or hatchings are impacted.

- The USACE hold an agency preconstruction meeting between the contractor, Service, and SCDNR prior to the project's initiation.
- Beach tilling should be performed to a depth of 24 inches (two feet).
- Do not extend the beach fill more than 500 feet along the shoreline between dusk and the following day and until the daily nesting survey has been completed and any new nest(s) within the area are relocated.

Groins

The Service considers groins to be hazardous to sea turtles during the nesting season. Groins can cause significant injury to sea turtles when approaching a nesting beach. For that and other reasons, the Service typically objects to the use of groins that accompany a renourishment project. This project does not propose to construct new groins but does entail the lengthening of the majority of the existing groins. The additional rock in the surf zone and below mean low water will only serve to exacerbate the hazards that already exist for turtles. To minimize such hazards the Service recommends the following:

- Placement of rocks to lengthen the groins must occur during the winter months outside the sea turtle nesting season.
- The seaward ends of each groin should be tapered down to the bottom.
- If the groin extensions are deemed to be ineffective at holding sand, the extensions should be removed. Such removal should occur outside of the turtle nesting season.

General Comments

Impacts to the red knot (*Calidrus canutus rufa*) should be considered in the EA. The red knot is a shorebird that uses the beaches and mudflats of South Carolina during winter migration for foraging and roosting. The red knot is not currently listed as threatened or endangered by the Endangered Species Act of 1973 (ESA); however, it is a candidate for listing. The red knot is scheduled to be listed before the start of the proposed project. Therefore, the Service recommends the BA consider the impacts to the red knot. Once it is listed as a threatened or endangered species it will be fully protected by the ESA and the USACE will be required to consult with the Service regarding this project's impacts.

Non-structural alternatives to the placement of sand on Edisto Beach included the removal or relocation of oceanfront structures. Such action would not negate the need for sand, but would reduce damages that may be caused by coastal storm events. Even though this alternative was not selected, the Service recommends the USACE and the Town of Edisto Beach continue efforts to acquire and remove structures from the oceanfront in combination with the renourishment project. We recommend that upon completion of the project no existing structure be allowed to be rebuilt closer to the coastline if it is destroyed during a coastal storm. In addition, seaward additions to existing structures should be prohibited.

The Service recommends that nighttime lighting be limited to the immediate construction area if the project occurs anytime during the nesting season. Lighting on all equipment must be

minimized through reduction, shielding, lowering and appropriate placement to avoid excessive illumination of the water's surface and nesting beach.

The Service finds that our continued coordination and submission of necessary documentation or assessments will ensure that potential resource concerns will be adequately addressed. We appreciate the opportunity to provide these conservation recommendations and look forward to continued coordination with the USACE in the development of this project.

If you have any questions or need clarification on Service comments, please contact Mr. Mark Caldwell at 843-727-4707 ext. 215, and reference FWS Log No. 2013-CPA-0173.

Sincerely,

for Jay B. Herrington
Field Supervisor

JBH/MAC

cc: Mr. Mark Messersmith, U.S. Army Corps of Engineers, Charleston, SC

Comment: include a may affect, likely to adversely affect determination for piping plovers

Corps Response:

USACE will adjust the Biological Assessment (BA) to reflect a determination of "may affect, not likely to adversely affect". Edisto Beach has been nourished three times in the past and is still not recognized as supporting wintering piping plovers. There is no reason to think that this project will do so. USACE agrees that a reevaluation/resubmittal of a BA will be necessary for each renourishment, especially on the order of every 8 years. A full BA will not be needed, but rather a document that presents new information and new findings for the study area. Upon these future BA's, we may revisit the determination for piping plovers.

Comment: Expand timeframe for manatee watch.

Corps Response:

Recognizing the recent sightings of manatees in April and October, USACE will expand our manatee watch to include these months as per this recommendation.

Comment: Add conditions for sea turtles

Corps Response:

Most of these will be added, except for:

1. The prohibition of construction from May 1 through Oct 31. This is because sometimes the way funding falls and the availability of suitable dredging contractors, it is not feasible.
2. Regarding the removal of derelict structures. USACE understands the concern.

Comment: groin construction conditions

Corps Response:

Agree. However, USACE doesn't agree that the lengthened groins cause more of an impact to nesting turtles. This is because the effective length of the groin will not be increased. See engineering analysis and response to Nancy Newton comment on page 12 in this document.

Comment: include red knot in BA

Corps Response:

The red knot was proposed for listing on Sept 30, 2013 and will be included in the BA. The effect determination will be coordinated with USFWS staff.

Comment: lighting concerns.

Corps Response: All lighting issues are addressed in the BA.

18. OCRM Letter:

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

September 5, 2013

Bret L. Walters
Chief, Planning and Environmental Branch
Department of the Army
Charleston District Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

Re: USACE Storm Damage Reduction Project Draft EA, FONSI, FCZC for the Town of Edisto Beach

Dear Mr. Walters:

This is in response to your letter dated August 20, 2013, (received August 22) for the U.S. Army Corps of Engineers (ACOE) Draft Environmental Assessment (EA), Draft Finding of No Significant Impact (FONSI) and Coastal Zone Consistency determination for a Federal Development Project for the re-nourishment for the Town of Edisto Beach.

As stated in your letter, the re-nourishment project will consist of placing sand on 16,530 linear feet of shoreline from the southern end of Edisto Beach State Park on the east end to Yacht Club Road at Big Bay Creek on the north west end of the island. The above referenced documents did not specifically list the quantity of sand expected to be placed on the beach, however the letter did provide berm heights (7ft. to 15ft.) and widths (15ft. to 75ft.), as well as 23 groins would be lengthened a total of 1,130 feet.

South Carolina supports the efforts to maintain healthy and vibrant beaches for the benefit of the citizens of not only the state but also from a local perspective as Edisto Beach. However, we have a concern with the time provided (30 days) to comment and with the level of connectivity with the accessible information found in the Draft EA/FONSI that would specifically detail the regulatory impacts related to the re-nourishment.

First, we believe that when considering the nature of the project (Federal Development Project) under the provisions of the Federal Consistency regulations, 60 days is afforded to the State Coastal Zone Management Program (CZMP) under 15 CFR 930.41(a). 15 CFR 930.41(a) states the 60 day review period would begin once the missing information (ref. 15 CFR 930.39) is received by the State agency. We believe the 60 day review period would begin once missing information is received though it is our intention to review the request in an expeditious manner and not take the entire 60 days as we fully appreciate the situation on Edisto Beach.

Finally, in review of the submitted information and online resources, we are unable to completely determine if an analysis of the CZMP enforceable policies was conducted which would connect the information in the Draft EA/FONSI with our policies. We must be able to consider the project with policies specific to wildlife management, dredging, and the erosion control program as well as effects to activities in areas of special resource significance (including barrier islands and navigation channels) and other potentially applicable policies. Much of the analysis of the policies could easily be pulled from the Draft EA/FONSI when specifically looking at Chapters III, IV of the CZMP. You may produce an independent analysis of the policies or use the applicable CZC policy based checklists found at www.scdhec.gov/environment/ocrm/czc.htm and the CZMP can be found at www.scdhec.gov/environment/ocrm/czmp.htm. We would be willing to meet with you or your staff to assist with completing the forms.

We stand ready to meet with you and in the interim please do not hesitate to contact me at 843-953-0200 should there be any questions.

Sincerely,

Carolyn Boltin-Kelly

Carolyn Boltin-Kelly
Deputy Director
DHEC-OCRM
1362 McMillan Avenue, Suite 400
Charleston, SC 29405
843-953-0205

cc: Rheta DiNovo, SCDHEC OCRM
Kerry Kehoe, NOAA OCRM

Comment: Submit a Coastal Zone consistency determination document

Corps Response: USACE will send this assessment to OCRM for concurrence.

19. OCRM Coastal Zone Consistency Determination, 23 Dec 2013

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

December 23, 2013

Mr. Mark Messersmith
Charleston District Army Corps of Engineers
Planning and Environmental Branch
69A Hagood Avenue
Charleston, S. C. 29403

Re: Federal Consistency certification review of integrated General Investigative Study, Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Edisto Beach Coastal Storm Damage Reduction project;
CZC project ID # CZC-13-0982

Dear Mr. Messersmith:

This is in response to the Army Corps of Engineer's (ACOE) October 24, 2013, consistency determination of the integrated General Investigative Study, Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Edisto Beach Coastal Storm Damage Reduction project for Edisto Beach, Colleton County, S. C.

The integrated project, as presented, consists of an analysis of the eventual re-nourishment of approximately 16,530 linear feet (~3.13 linear miles) of shoreline from southern end of Edisto Beach State Park on the east end to an area of beach near the end of Palmetto Boulevard at Big Bay Creek on the west end of Edisto Beach. As part of the study, the ACOE evaluated multiple alternatives ranging from:

- Hard solutions consisting of emergent breakwaters, submerged artificial reefs, new groins, groin lengthening, seawalls, revetments, sand fencing;
- Soft solutions consisting of beach fill, dune vegetation planting;
- Avoidance measures consisting of coastal structure retreat, relocation, demolition, floodproofing structures, elevating structures, and regulatory changes.

The proposed project was chosen based upon a detailed alternatives analysis documented within the study and the preferred alternative consists of re-nourishment and groin lengthening.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
2600 Bull Street • Columbia, SC 29201 • Phone: (803) 898-3432 • www.scdhec.gov

The quantity of sand that will be placed on the beach during re-nourishment is estimated at approximately 924,000 cubic yards of beach quality sand to be placed (on the beach) seaward of existing dunes, sea walls, and revetments. The borrow area is located approximately 1.5 to 2.5 miles offshore of the midpoint of the island. It is estimated the borrow site contains 7.2 million cubic yards of beach compatible sand. Additionally, the project entails the lengthening of 23 groins ranging from 20 to 80 feet for a total of 1,130 feet and an average of 49 feet per groin.

The planned dune height will range from 14 feet to 15-feet with a width ranging from 15 feet beginning at the northern end of the project and extending southward along the beach for 16,530 feet. This dune would be fronted by a 7-foot high berm. The first 7,740 feet of berm length would have a width of 75 feet. The width would then taper to a 50-foot width for the remaining length of the berm. The width of each end of the berm would taper to tie into the existing beach profile. On the Edisto River portion, the dune would transition into a 14-foot high (elevation), 15-foot wide dune that extends for 5,290 feet. No berm would be constructed in front of this dune because the existing beach profile provides an adequate berm.

The lengthening of the groins will be commensurate with the re-nourishment that is, the effective length of the groins will increase in proportion to the beach re-nourishment causing the shoreline to be displaced seaward by the same amount of the groins. If results of beach profile monitoring determine that the lengthened groins have increased erosion on downdrift beaches, the ACOE is committed to removing the lengthened section of groins.

DHEC staff agrees with the consistency determination that the project is consistent to the maximum extent practible as required by 15 CFR § 930, Subpart C with the following provisions:

- given the integrated nature (Investigative Study, EA and FONSI) of the request, this review constitutes DHEC's final Federal Consistency certification for the project. However, DHEC reserves the right to require additional review (for consistency) of any modification as the project will require additional internal (federal) approvals. Staff should be kept abreast of project meetings, scoping sessions, etc. to ensure continued project compliance.

- if annual monitoring shows negative effects on downdrift properties linked to the groin lengthening, the ACOE must address the issue to the satisfaction of DHEC within an agreed upon timeframe.

DHEC staff's concurrence referrs to the following policies contained within the South Carolina's Coastal Zone Management Program (CZMP): Coastal Industries (*Mining*); Dredging (*Dredging and Spoil Disposal*); Erosion Control (*Funding and General Erosion Control*), the policies associated with Activities in Areas of Special Resource Significance (Barrier Islands, Dune Areas), and the priority of uses associated with Geographic Areas of Particular Concern (GAPC's).

Please do not hesitiate to contact me should you have any questions.

Sincerely,

Curtis M. Joyner
Manager, Coastal Zone Consistency Section
Regulatory Division – DHEC OCRM
1362 McMillan Avenue, Suite 400
Charleston, S. C. 29405
843-953-0205
joynercm@dhec.sc.gov

Cc: Carolyn Boltin - Kelly
Rheta DiNovo
Blair Williams

USACE Response:

Thank you for your comments and Coastal Zone Consistency conditions. The Charleston District concurs.

20. NOAA Fisheries EFH letter

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
http://sero.nmfs.noaa.gov

October 28, 2013 F/SER47:JD/pw

(Sent via Electronic Mail)

Lt. Col. John Litz, Commander
Charleston District, Corps of Engineers
69A Hagood Avenue
Charleston, South Carolina 29403-5107

Attention: Mark Messersmith

Dear Lt. Colonel Litz:

NOAA's National Marine Fisheries Service (NMFS) reviewed the *Draft Integrated Feasibility Report and Environmental Assessment, Coastal Storm Damage Reduction, Edisto Beach, Colleton County,* dated August 2013. Appendix G of the Environmental Assessment is an Essential Fish Habitat (EFH) Assessment. The Tentatively Selected Plan (TSP) is to nourish 4.5 miles (21,820 linear feet) of Edisto Beach, with approximately 924,000 cubic yards of sand from an offshore borrow site and then nourish the beach with approximately 220,400 cubic yards of sand at 8-year intervals. Initial construction is anticipated to occur in 2018. The District lists four purposes for the project: provide coastal storm damage reduction, reduce the risk of damage to SC Hwy 174, preserve sea turtle nesting habitat, and protect shorebird nesting foraging and roosting habitat. The District's initial determination is the impacts to EFH would be temporary and would not result in significant effects on managed fishery species. As the nation's federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, the following comments and recommendations are provided pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Proposed Project Description
The TSP (Environmental Assessment Alternative 4) would require an estimated 924,000 cubic yards of borrow material to be placed on the beach during initial construction, followed by 220,400 cubic yards during subsequent nourishment cycles, which are estimated to occur at 8-year intervals. During the 50-year project, this equates to six nourishment events totaling 2.25 million cubic yards. Initial construction is anticipated to require 120 to 150 days, and subsequent nourishment events are expected to require 30 days. The project design for 2018:

1) Construction of a 15-foot high (elevation), 15-foot wide dune beginning at the northern end of the project (i.e., the southern end of the State Park) and extending southward along the beach for 16,530 feet. This dune would be fronted by a 7-foot high (elevation) berm. The first 7,740 feet of berm length would have a width of 75 feet tapering to a 50-foot width for the remaining length of the berm. The width of each end of the berm would taper to match the existing beach profile.

2) The dune would then transition into a 14-foot high (elevation), 15-foot wide dune that extends around the end of the island for 5,290 feet. No berm would be constructed in front of this dune because the existing beach profile provides an adequate berm.
3) Approximately 1,130 feet of total groin lengthening across 23 existing groins.

The proposed borrow area is within an ebb-tidal shoal 1.5 miles to 2.5 miles southeast of the southern point of Edisto Beach and has approximately 7.2 million cubic yards of beach quality material within 649 acres. While the grain-size distributions of borrow and beach material differ, the District concludes borrow and beach sediments are compatible based on mean grain size and the low concentration of fine material within borrow sediments. A survey conducted in March 2013 showed no hardbottom habitat in the borrow area or within a quarter mile buffer surrounding the borrow area.

A hydraulic cutterhead dredge or a hopper dredge would be used to transport the sand from the borrow site through a pipeline to the beach. The average dredging depth would be approximately 6.4 feet with a maximum of 10.3 feet. The pipeline would run adjacent to the groins and parallel to the beach. A slurry of beach compatible material would be pumped onto the beach behind temporary training dikes, and bulldozers, articulated front-end loaders, and similar machinery would grade the material into the construction profile. To the "maximum extent practicable," construction would occur November 1 through April 30 to minimize impacts to benthic communities and larval fishes migrating into nursery areas.

Essential Fish Habitat
While the EFH Assessment describes several habitats designated as EFH or as an HAPC, surf zone habitat is not discussed, and the South Atlantic Fishery Management Council designates this habitat as EFH for mackerels and cobia in the fishery management plan for coastal migratory pelagic fishes. In addition, estuarine emergent vegetation is list as present within the action area; however, it is unclear if any would be impacted by the project. While NMFS believes this is not the case, it should be clearer in the final Environmental Assessment which habitats would be impacted by the project and which habitats simply occur in the vicinity.

Impacts to Essential Fish Habitat
The Environmental Assessment notes the principal impact to EFH from the project would be destruction of the benthic communities, which serve as prey for fishery species, within the borrow and fill areas from the physical disturbance created by dredging and sand placement. The Environmental Assessment concludes the benthic communities within borrow and beach areas are expected to recover within two years. The basis for this conclusion is not clear. The EFH Assessment does not review relevant sediment and biological monitoring conducted by the South Carolina Department of Natural Resources (SCDNR) at Folly Beach and at Hilton Head Island. For example, Bergquist et al. (2008) and Bergquist et al. (2009) examined the response and recovery of borrow and beach area following the 2005 and 2007 nourishments of Folly Beach and concluded dredging significantly and persistently changed sediment characteristics and biological communities within the borrow areas. Sediments in the Folly Beach borrow areas shifted from sand towards fine and organically-enriched material (i.e., mud) and did not show recovery after one year. Silt and clay content of the borrow area sediments was 3.4 times higher and sand phi size was twice as large following the 2005 project. During the 2007 project, silt/clay content and organic matter increased, calcium carbonate decreased, and sand phi size

increased (became finer) significantly following dredging and had not recovered twelve months later when the formal monitoring ceased. Informal monitoring of the surficial sediments indicates mud is still present in these borrow areas four and six years after dredging stopped (pers. comm., Denise Sanger, SCDNR, August 21, 2013). This sediment shift is consistent with changes documented in other borrow areas in South Carolina excavated deeper than 1 meter by hydraulic dredge and located close to a sources of fine terrigenous and estuarine sediments, such as tidal rivers like the Edisto (Bergquist and Crowe 2009).

Focusing on biological impacts, SCDNR concluded both the 2005 and 2007 Folly Beach projects led to significant declines in benthic macrofaunal density and species richness and substantial changes in benthic community structure (Bergquist et al. 2008, Bergquist et al. 2009). For example, between pre- and post-dredging time frames, total infaunal density decreased 84% at one borrow area with little to no evidence of recovery one year later. Species evenness and diversity were also negatively impacted by dredging. These impacts likely reflect the shift from sand to muddy substrates decrease the value of the borrow areas as fishery foraging habitat. The final Environmental Assessment should provide a complete review of the impacts to benthic communities from dredging and sand placement and conclusions about recovery rates should be tempered to note the recovery rate is based on the borrow area filling with sediments similar to those currently present. On page 96 (Table 9.1), the draft Environmental Assessment states a monitoring program developed with SCDNR would be implemented to determine impacts to and recovery of the macroinvertebrate community within the borrow site. There is no discussion of this monitoring plan in the EFH Assessment. Because the benthic community includes prey for federally managed fishery species, the monitoring should be discussed in the EFH Assessment.

The Environmental Assessment notes that, as a result of these studies, SCDNR now recommends restrictions on dredge pit depths and locations. Specifically, mining of ebb-tidal shoals for sand should occur on the downdrift end of beaches to promote faster recovery of the benthic community impacted by the dredging. The borrow area proposed for the Edisto Beach nourishment meets this recommendation; however, SCDNR also recommends dredging depths be limited to avoid creating deep pits where fine grain material can settle. The Charleston District is proposing to dredge to 10.3 feet below grade. This is approximately the same depth to which the Folly Beach borrow areas were dredged in 2005, and those borrow areas filled with fine grained, muddy sediments and remain in that state today. Due to the location of the proposed Edisto borrow site, NMFS expects the influx of muddy sediment to be limited; however, the depth to which the dredging is proposed remains a concern.

Finally, NMFS expects this EFH consultation to be valid only for the initial construction. Forecasting of EFH impacts from subsequent nourishment events should be based on new information develop by the Edisto monitoring program and similar projects.

Conservation Recommendations
Section 305(b)(4)(A) of the Magnuson-Stevens Act requires NMFS to provide EFH conservation recommendations when an activity is expected to adversely impact EFH. Based on this requirement, NMFS provides the following:

EFH Conservation Recommendations

- The Charleston District shall limit dredge depths within the borrow area to depths shown by modeling or empirical studies to fill with beach compatible material.
- The borrow area monitoring plan shall be provided to NMFS for review and approval prior to commencement of the project. The plan components should be similar to the 2005 Folly Beach borrow area study.

Finally, in accordance with section 7 of the Endangered Species Act of 1973, as amended, it is the responsibility of the lead federal agency to review and identify any proposed activity that may affect endangered or threatened species and their habitat. Determinations involving species under NMFS jurisdiction (e.g., sea turtles in-water, sturgeon) should be reported to our Protected Resources Division at the letterhead address.

We appreciate the opportunity to provide these comments. Please direct related correspondence to the attention of Ms. Jaclyn Daly-Fuchs at our Charleston Area Office. She may be reached at (843) 762-8610 or by e-mail at Jaclyn.Daly@noaa.gov.

Sincerely,

Pete Willer

/ for

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

cc:

COE, Mark.J.Messersmith@usace.army.mil
DHEC, trumbumt@dhec.sc.gov
SCDNR, DavisS@dnr.sc.gov
SAFMC, Roger.Pugliese@safmc.net
EPA, Laycock.Kelly@epa.gov
FWS, Karen_Mcgee@fws.gov
F/SER4, David.Dale@noaa.gov
F/SER47, Jaclyn.Daly@noaa.gov

Literature Cited

Bergquist, D., S. Crowe, M. Levisen, R. VanDolah. 2008. Change and recovery of physical and biological characteristics of the borrow area impacted by the 2007 Folly Beach Emergency Renourishment Project. Final Report prepared for the U.S. Army Corps of Engineers, Charleston District. 111 pages

Bergquist, D., S. Crowe, M. Levisen, and R. Van Dolah. 2009. Change and recovery of physical and biological characteristics of the borrow area impacted by the 2007 Folly Beach emergency renourishment project. Final Report prepared by the South Carolina Marine Resources Research Institute, South Carolina Marine Resources Division, Charleston, South Carolina, for the U.S. Army Corps of Engineers, Charleston District. 70 pages

Bergquist, D. and S. Crowe. 2009. Using Historical Data and Meta-analyses to Improve Monitoring and Management of Beach Nourishment in South Carolina. Final Report prepared by the South Carolina Marine Resources Research Institute, South Carolina Marine Resources Division for the South Carolina Department of Health and Environmental Control. 99 pages

USACE Response:

Thank you for your comments. Additional information has been added to the Final EFH on surf zone EFH and estuarine emergent vegetation. Also, the final EFH includes your conservation recommendations and the USACE revised conservation measures based on your expert analysis.

21. Catawba Indian Nation Letter:

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427
Fax 803-328-5791

September 11, 2013

Attention: Bret Walters
Charleston District, Corps of Engineers
69 A Hagood Avenue
Charleston, SC 29403-5107

Re. THPO #	TCNS #	Project Description
2013-1-80		Town of Edisto Beach feasibility study to examine alternatives for the reduction of coastal storm damages

Dear Mr. Walters,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Totherow at 803-328-2427 ext. 226, or e-mail caitlinh@ccppcrafts.com.

Sincerely,

Caitlin Totherow for

Wenonah G. Haire
Tribal Historic Preservation Officer

Comment: The Catawba are to be notified if Native American artifacts and/or human remains are located during the ground disturbance phase of the project.

Corps Response:

Acknowledged.