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July 19, 2005

Colonel Robert M. Carpenter
Regulatory Division, North Permits Section
Pensacola Regulatory Office
Jacksonville District, Corps of Engineers
41 North Jefferson Street, Suite 11
Pensacola, Florida 32502

Attn: Edward Sarfert

Re: FWS No. 4-P-04-244
Public Notice SAJ-2003-10496-IP-EPS
Date Started: July 12, 2005
Project Title: Navarre Beach Restoration
Project, Gulf of Mexico
Ecosystem: NE Gulf
County: Santa Rosa County, Florida

Dear Colonel Carpenter:

The Fish and Wildlife Service (Service) received a verbal request from the applicant's consultant, Coastal Tech. Inc., on July 12, 2005, requesting emergency formal consultation regarding the Navarre Beach Restoration project along the Gulf of Mexico in Santa Rosa County, Florida, and its effects on endangered and threatened nesting sea turtles. Based on the Corps' previous request for consultation, your agency has determined the project would likely adversely affect nesting female adults and hatchlings of the threatened loggerhead sea turtle (*Caretta caretta*), the endangered green sea turtle (*Chelonia mydas*), the endangered leatherback sea turtle (*Dermochelys coriacea*), and the endangered Kemp's ridley sea turtle (*Lepidochely kempii*). The Service concurs with your determination regarding listed sea turtles. The Corps and the Service have determined that the project work would not likely adversely affect wintering piping plover (*Charadrius melodus*) and manatee (*Trichechus manatus latirostris*) and would not adversely modify designated critical habitat for non-breeding piping plover. This letter is provided in accordance with section 7 of the Endangered Species Act of 1973, as amended (ESA) (87 Stat. 884; 16 U.S.C. 1531 et seq.).

Hurricane Dennis passed over Santa Rosa Island at Navarre on July 10, 2005. The hurricane had reported maximum sustained winds of over 125 miles per hour and a storm surge between 8 and 10 feet. President Bush issued three (3) major disaster declarations for Florida, Alabama, and Mississippi as a result of the hurricanes that impacted these states. The declaration for Florida is FEMA-1595-DR-FL. In northwest Florida, the declaration covers Franklin, Wakulla, Bay, Calhoun, Gulf, Escambia, Santa Rosa, Walton, Holmes, Jackson, Washington, and Okaloosa counties.

The Navarre Beach restoration project has been submitted to the Corps for permitting. The Corps requested formal consultation under section 7 of the Endangered Species Act with the Service on June 17, 2005. The Service concurred with the request on June 27, 2005, and was in the process of preparing the biological opinion to assess potential impacts to nesting sea turtles resulting from the project. However, the opinion has not been completed.

The applicant, Santa Rosa County, proposes to restore a 4.1-mile stretch of beach along the Gulf of Mexico shoreline on Navarre Beach and Navarre Beach State Park (NBSP) in Santa Rosa County. The project will be conducted between Florida Department of Environmental Protection (FDEP) reference monuments R-192.5 and R-213.5. Approximately 2,400,000 cubic yards of fill will be placed within the construction template, a total area of 162.8 acres. The beach area covers 2,567,914 square feet (58.95 acres) above the existing mean high water line (MHWL). The subaqueous portion of the project between the mean high water line (MHWL) and the toe of fill covers 4,523,080 square feet (103.8 acres). The borrow area in the Gulf of Mexico is located in a sand ridge approximately 4 miles offshore of Navarre Beach.

The project work will likely begin during the sea turtle nesting season (May 1 through October 31) of 2005 and continue after the nesting/hatching season for sea turtles.

The applicant has incorporated standard manatee conservation measures for the project and has begun the process of adopting a lighting ordinance to minimize impacts of the nourishment project.

During the 2004 and 2005 hurricane season, non-breeding piping plover habitats were created and/or altered. Areas used by migrating and wintering piping plovers are ephemeral habitats that due to their nature change over time. Hurricanes and episodic storm events increase overwash processes that transport sediment (sand) across barrier islands and form inlets and sand and mud flats. Washover areas are created by the flow of water through the primary dune line with deposition of sand on the barrier flats, marsh, or into a lagoon, depending on the storm magnitude and the width of the beach. On developed beaches, structures may prevent or minimize this occurrence. Washover passes are used by migrating and wintering piping plovers for feeding and roosting. Dredging projects and shoreline manipulations in wintering areas can have an effect on the piping plovers food base, and result in habitat loss and direct disturbance of individual birds. The Navarre State Park contains a portion of designated critical habitat

for piping plover. The critical habitat is located on the Santa Rosa Sound shoreline such that the proposed project would not have impacts to the critical habitat. Observations of non-breeding piping plover on Santa Rosa Island have been located on the Sound shoreline and not the Gulf of Mexico. Thus, we have not included non-breeding piping plover in the consultation.

REASONABLE AND PRUDENT MEASURES

The following reasonable and prudent measures are necessary and appropriate to minimize take of sea turtles in the proposed beach restoration Action Area.

The Navarre Beach and Dune Restoration project may be conducted during the sea turtle nesting season (May 1 through October 31), provided the following reasonable and prudent measures are incorporated as conditions of the Corps permit.

1. Beach quality sand suitable for sea turtle nesting, successful incubation, and hatchling emergence must be used for the beach restoration project.
2. Surveys for nesting sea turtles must be conducted. If the beach restoration project will be conducted during the sea turtle nesting season and nests are laid in the area of beach restoration, the eggs must be relocated.
3. Immediately after completion of the beach restoration project and prior to the next three nesting seasons, beach compaction must be monitored and tilling must be conducted as required to reduce the likelihood of impacting sea turtle nesting and hatching activities.
4. Immediately after completion of the beach restoration project and prior to the next three nesting seasons, monitoring must be conducted to determine if escarpments are present, and if present, must be leveled as required to reduce the likelihood of impacting sea turtle nesting activities.
5. The applicant must ensure that contractors doing the beach restoration work fully understand the sea turtle protection measures detailed in this incidental take statement.
6. During the sea turtle nesting season, construction equipment and materials must be stored in a manner that will minimize impacts to sea turtles to the maximum extent practicable.
7. During the sea turtle nesting season, lighting associated with the project must be minimized to reduce the possibility of disrupting and disorienting nesting and/or hatchling sea turtles.
8. All dune restoration and planting must be designed and conducted to minimize impacts to sea turtles.

9. A lighting ordinance to minimize the effects of artificial lighting within Navarre on Santa Rosa Island must be adopted and implemented.
10. The Manatee Construction Conditions must be incorporated into the project plans.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the Endangered Species Act, the Corps must assure that the applicant complies with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

Proposed Work

All fill material placed must be sand that is similar to a native beach in the vicinity of the site that has not been affected by prior restoration or restoration activities. The fill material must be similar in both coloration and grain size distribution to the native beach. All such fill material must be free of construction debris, rocks, or other foreign matter and must not contain, on average, greater than 10 percent fines (i.e., silt and clay) (passing the #200 sieve) and must not contain, on average, greater than 5 percent coarse gravel or cobbles, exclusive of shell material (retained by the #4 sieve).

Protection of Sea Turtles

1. Daily early morning surveys will be required from May 1 through October 31. If the restoration project will occur between May 1 and October 31, nesting surveys will be initiated 70 days prior to restoration activities or by May 1, whichever is later. Nesting surveys must continue through the end of the project or through September 1, whichever is earlier. Hatching and emergence success monitoring will involve checking nests beyond the completion date of the daily early morning nesting surveys. If nests are laid in areas where they may be affected by restoration activities, eggs must be relocated per the following requirements.
 - 1a. Nesting surveys and egg relocations will only be conducted by personnel with prior experience and training in nest survey and egg relocation procedures. Surveyors must have a valid Florida Fish and Wildlife Conservation Commission permit. Nest surveys must be conducted daily between sunrise and 9 a.m. Surveys must be performed in such a manner so as to ensure that construction activity does not occur in any location prior to completion of the necessary sea turtle protection measures.
 - 1b. Only those nests that may be affected by construction activities will be relocated. Nests requiring relocation must be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling

orientation. The relocation sites must be approved by the Fish and Wildlife Service prior to usage. Nest relocations in association with construction activities must cease when construction activities no longer threaten nests. Any nests left in the active construction zone must be clearly marked, and all mechanical equipment must avoid nests by at least 10 feet.

- 1c. Nests deposited within areas where restoration activities have ceased or will not occur for 70 days must be marked and left *in situ* unless other factors threaten the success of the nest. The turtle permit holder must install an on-beach marker at the nest site and a secondary marker at a point landward as possible to assure that future location of the nest will be possible should the on-beach marker be lost. A series of stakes and highly visible survey ribbon or string must be installed to establish an area of 10 feet radius surrounding the nest. No activity will occur within this area nor will any activities occur which could result in impacts to the nest. Nest sites must be inspected daily to assure nest markers remain in place and the nest has not been disturbed by the restoration activity.
2. Immediately after completion of the beach restoration project and prior to May 1, for 3 subsequent years, sand compaction must be monitored in the area of beach restoration in accordance with a protocol agreed to by the Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission, and the applicant. At a minimum, the protocol provided below under 2a. and 2b. must be followed. If required, the area shall be tilled to a depth of 36 inches. All tilling activity must be completed prior to May 1. If the project is completed during the nesting season, tilling will not be performed in areas where nests have been left in place or relocated. A report on the results of compaction monitoring shall be submitted to the Fish and Wildlife Service prior to any tilling actions being taken. An annual summary of compaction surveys and the actions taken must be submitted to the Fish and Wildlife Service. (NOTE: If the restoration is completed within 30 days of May 1, the compaction monitoring/tilling accomplished will be considered as one of the 3 years. The requirement for compaction monitoring can be eliminated if the decision is made to till regardless of post-construction compaction levels. Also, out-year compaction monitoring and remediation are not required if placed material no longer remains on the dry beach.)
 - 2a. Compaction sampling stations must be located at 500-foot intervals along the project area. One station must be at the seaward edge of the dune/bulkhead line (when material is placed in this area); and one station must be midway between the dune line and the high water line (normal wrack line).

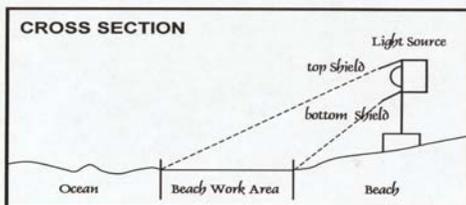
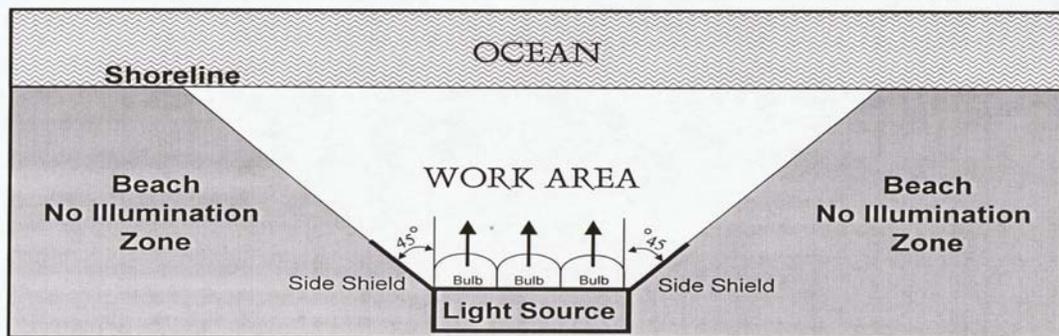
At each station, the cone penetrometer will be pushed to a depth of 6, 12, and 18 inches three times (three replicates). Material may be removed

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

- 2b. If the average value for any depth exceeds 500 pounds per square inch (psi) for any two or more adjacent stations, then that area must be tilled prior to May 1. If values exceeding 500 psi are distributed throughout the project area, but in no case do those values exist at two adjacent stations at the same depth, then consultation with the Fish and Wildlife Service will be required to determine if tilling is required. If a few values exceeding 500 psi are randomly present within the project area, tilling will not be required.
3. Visual surveys for escarpments along the project area must be started immediately upon completion of each section of beach if within the time period May 1 through October 31, and prior to April 1, for 3 subsequent years. Results of the surveys must be submitted to the Fish and Wildlife Service prior to any action being taken. Escarpments that interfere with sea turtle nesting as determined by the nesting surveyors or that exceed 18 inches in height for a distance of 100 ft must be leveled to the natural beach contour by April 15. If the project is completed during the sea turtle nesting and hatching season, escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place. The Fish and Wildlife Service must be contacted immediately if subsequent reformation of escarpments that interfere with sea turtle nesting as determined by the nesting surveyors or that exceed 18 inches in height for a distance of 100 ft occurs during the nesting and hatching season to determine the appropriate action to be taken. If it is determined that escarpment leveling is required during the nesting or hatching season, the Fish and Wildlife Service will provide a brief written authorization that describes methods to be used to reduce the likelihood of impacting existing nests. An annual summary of escarpment surveys and actions taken must be submitted to the Fish and Wildlife Service. To ensure compliance with this condition, turtle nesting surveys must be conducted for 3 years following beach restoration. (NOTE: Out-year escarpment monitoring and remediation are not required if placed material no longer remains on the beach.)
4. The applicant must arrange a meeting between representatives of the contractor, the Service, the Florida Department of Environmental Protection, Bureau of Beaches and Coastal Systems, and the Florida Fish and Wildlife Conservation Commission, Bureau of Imperiled Species, and the permitted person responsible for egg relocation at least 30 days prior to the commencement of work on this project. At least 10 days

advance notice must be provided prior to conducting this meeting. This will provide an opportunity for explanation and/or clarification of the sea turtle protection measures.

5. From May 1 through October 31, staging areas for construction equipment must be located off the beach to the maximum extent practicable. Nighttime storage of construction equipment not in use must be off the beach to minimize disturbance to sea turtle nesting and hatching activities. In addition, all construction pipes that are placed on the beach must be located as far landward as possible without compromising the integrity of the existing or reconstructed dune (berm) system. Temporary storage of pipes must be off the beach to the maximum extent possible. Temporary storage of pipes on the beach must be in such a manner so as to impact the least amount of nesting habitat and must likewise not compromise the integrity of the dune systems (placement of pipes perpendicular to the shoreline is recommended as the method of storage).
6. From May 1 through October 31, direct lighting of the beach and near shore waters must be limited to the immediate construction area and must comply with safety requirements. Lighting on offshore or onshore equipment must be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the waters surface and nesting beach while meeting all Coast Guard, EM 385-1-1, and OSHA requirements. Light intensity of lighting plants must be reduced to the minimum standard required by OSHA for General Construction areas, in order not to mis-direct sea turtles. Shields must be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area (see below schematic).



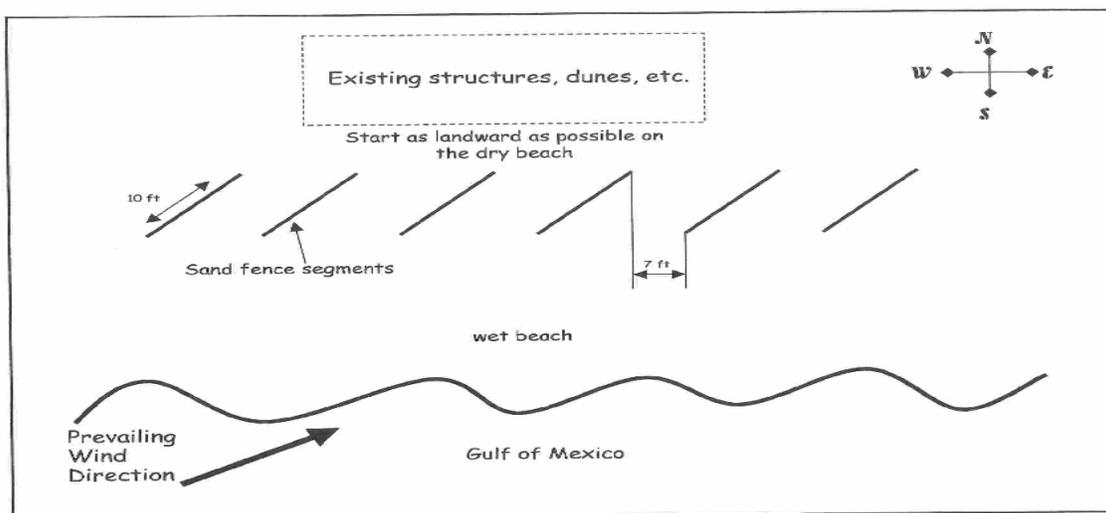
BEACH LIGHTING SCHEMATIC

Dune Creation and Protection

1. All reconstructed or new dune walkovers must be constructed at a height sufficient to allow the created dune to grow and natural dune formation to occur (3 feet above grade).
2. Planting of dune vegetation may occur during the turtle nesting season (May 1 through October 31) provided the following conditions are implemented:
 - 2a. Daily early morning nesting surveys will be required during the period from May 1 through October 31. Nest surveys must only be conducted by personnel with prior experience and training in nest surveys. Surveyors must have a valid Florida Fish and Wildlife Conservation Commission permit. Nest surveys must be conducted daily between sunrise and 9 a.m. No dune planting activity will occur until after the daily turtle survey and nest conservation and protection efforts have been completed.
 - 2b. Nesting surveys must be initiated 70 days prior to dune planting activities or by May 1, whichever is later. Nesting surveys must continue through the end of the project or through September 1, whichever is earlier. Hatching and emerging success monitoring will involve checking nests beyond the completion date of the daily early morning nesting surveys.
 - 2c. Any nests deposited in the dune planting area not requiring relocation for conservation purposes shall be left *in situ*. The turtle permit holder must install an on-beach marker at the nest site and a secondary marker at a point as far landward as possible to assure that future location of the nest will be possible should the on-beach marker be lost. A series of stakes and highly visible survey ribbon or string must be installed to establish an area of 3 ft radius surrounding the nest. No planting or other activity will occur within this area nor will any activities occur which could result in impacts to the nest. Nest sites must be inspected daily to assure nest markers remain in place and the nest has not been disturbed by the planting activity.
 - 2d. If a nest is disturbed or uncovered during planting activity, the permittee must cease all work and immediately contact the responsible turtle permit holder. If a nest(s) cannot be safely avoided during planting, all activity within the affected project site must be delayed until hatching and emerging success monitoring of the nest is completed.
 - 2e. All dune planting activities must be conducted during daylight hours only.
 - 2f. All dune vegetation must consist of plant species native to the Action Area (enclosed native plant species list). If seedlings are to be planted they

must be at least 1 inch by 1 inch with a 2.5-inch “pot.” Vegetation must be planted with an appropriate amount of fertilizer and moisture retention material as appropriate for the plant size. Planting must be on 18-inch centers throughout the created dune. Success criteria must be in accordance with Florida Department of Environmental Protection guidelines (enclosed).

- 2g. No use of heavy equipment (trucks) will occur on the dunes or seaward. A lightweight (ATV type) vehicle, with tire pressures of 10 psi or less may be operated on the beach.
- 2h. All irrigation, if used, must be installed by hand labor or tools and entrenched 1 to 3 inches below grade so as not to pose a barrier to hatchling turtles and to allow for easy removal. The irrigation system must be designed and maintained so that watering of the adjacent sandy beach does not occur. If a turtle nest is deposited within the newly established planted dune area, the applicant must modify the irrigation system so that no watering occurs within 10 ft of the nest. Daily inspection of the irrigation system must be conducted to assure the irrigation system is properly working and meets the above conditions. The irrigation system must be completely removed once watering is no longer needed or before May of the next year.
- 3. Installation of sand fencing or other dune restoration material may only be accomplished outside of the sea turtle nesting season (November 1 through April 30) and must be installed as follows:
 - 3a. A maximum of 10 foot-long spurs of parallel fence spaced at a minimum of 7 ft apart must be installed on a northeast-southwest (diagonal) alignment (below schematic).



- 3b. All fence material must be repositioned as necessary to facilitate dune building and must be removed when 30 percent of the fence is covered with sand.
- 3c. Upon site inspection by the Fish and Wildlife Service, Florida Department of Environmental Protection, Bureau of Beaches and Wetland Resources, or the Florida Fish and Wildlife Conservation Commission, Bureau of Protected Species Management, if it is determined that the fence adversely impacts nesting or hatchling turtles, the fence must be removed or repositioned as appropriate.

4. Artificial Lighting.

The lighting ordinance proposed by the applicant for Navarre Beach must be adopted by May of 2006 with implementation of the ordinance for new construction to be May of 2006 and existing lighting conversion by May of 2007. The ordinance must contain the recommendations the Service provided to the applicant's consultant on May 20, 2005, via e-mail. Significant changes include the following:

- 4a. The ordinance coverage area must cover all of Navarre Beach from the Gulf to the Sound.
- 4b. Roadway lighting must consist of full cut off fixtures with low pressure sodium lamps.
- 4c. The definition of lighting requirements concerning light bulb wattages must be changed to lumens.
- 4d. The ordinance must be enforceable.

Reporting

1. Report contents. A report describing the actions taken to implement the terms and conditions of this incidental take statement must be submitted to the Project Leader, U.S. Fish and Wildlife Service, 1601 Balboa Avenue, Panama City, Florida, 32405, within 60 days of completion of the work. This report will include (1) project location; (2) project description; (3) date of construction; (4) sand source and beach compatibility analysis; and (5) a description of how the Reasonable and Prudent measures and Terms and Conditions were implemented. This information is necessary to complete the consultation and determine the potential and documented adverse effects of the completed construction projects on nesting loggerhead sea turtles, green sea turtles, leatherback sea turtles, Kemps Ridley sea turtles.

Specific information about the sea turtle nesting surveys will be required and include, names and qualifications of marine permit holders involved in surveys and relocation activities, descriptions and locations of self-release beach sites, nest survey and relocation results, hatching and emerging success of nests and any documented impacts of the project activities on sea turtles. The results of the daily piping plover surveys must be submitted with maps documenting the locations of piping plovers (with GPS points or latitude and longitude coordinates) if seen during the survey period. Post construction maps are required documenting optimal piping plover habitat pre-berm construction and the acreage of optimal (washover/inlet) area pre and post berm construction as well as mapped estimates of where loss of habitat might have occurred.

2. Nest discovery. In the event a sea turtle nest is excavated during project work activities, the permitted person responsible for egg relocation for the project must be notified so the eggs can be moved to a suitable relocation site.
3. Injury to species. Upon locating a dead or injured sea turtle, beach mouse, or piping plover as a direct or indirect result of the project, notification must be made to either the Florida Fish and Wildlife Conservation Commission Stranding and Salvage Network by pager: 1-800-241-4653, ID#274-4867 (make sure you input your area code with your telephone number) or the FWC Division of Law Enforcement at 1-888-404-FWCC; and the U.S. Fish and Wildlife Service Office located in Panama City, Florida at (850) 769-0552. Care should be taken in handling injured animals to ensure effective treatment or disposition and in handling dead specimens to preserve biological materials in the best possible state for later analysis.

Once the projects are completed, we will conclude the consultation process within 90 days. A biological opinion will be issued 45 days thereafter. These are our regulatory time frames; however, the majority of consultations are completed in a much shorter time.

If you have any questions regarding this consultation, please contact Ms. Lorna Patrick at ext. 229.

Sincerely yours,

Janet Mizzi
Deputy Project Leader

Enclosures:

Native Plant List for Coastal Beaches and Dune for Santa Rosa County, FL
Florida Panhandle Sea Turtle Programs 2005

cc:

AnnMarie Maharaj, FWS, Jacksonville, FL (w/ copy of PN)

Riley Hoggard, GINS, Gulf Breeze, FL

NMFS, Protected Species, St. Pete., FL

John Himes, FWC, Non-game program, Panama City, FL

Robbin Trindell, FWC, Imperiled Species Mgt., Tallahassee, FL

Phil Flood, FDEP, Office of Beaches and Coastal Systems, Tallahassee, FL

George Gray, The Stranding Center, Destin, FL

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