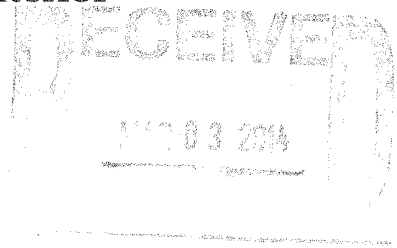




## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

1875 Century Boulevard  
Atlanta, Georgia 30345



In Reply Refer To:  
FWS/R4/DH NRDAR

FEB 24 2014



#### Memorandum

To: Field Supervisor, Panama City Ecological Services Office

From: Deputy Deepwater Horizon, Department of the Interior Natural Resource Damage Assessment and Restoration (NRDAR), Case Manager *Deborah L. McClellan*

Subject: Informal Consultation and Conference Request for the Proposed Perdido Key Dune Restoration and Perdido Key State Park Beach Boardwalk Improvements, Florida

As you are no doubt aware, on or about April 20, 2010, the mobile offshore drilling unit *Deepwater Horizon* experienced an explosion, leading to a fire and its subsequent sinking in the Gulf of Mexico (the Gulf). These events resulted in the discharge of millions of barrels of oil into the Gulf over a period of 87 days. In addition, various response actions were undertaken in an attempt to minimize impacts from spilled oil. These events are hereafter collectively referred to as the Oil Spill.

The Department of the Interior (DOI), acting through the U.S. Fish and Wildlife Service (the Service) and other Bureaus, is a designated natural resource trustee agency authorized by the Oil Pollution Act of 1990 (OPA) and other applicable federal laws to assess and assert a natural resource damages claim for this Oil Spill. DOI is only one of several Trustees, including agencies of the State of Florida, so authorized. Consistent with their federal and state authorities, the Trustees are investigating the resource injuries and losses that occurred as a result of the Oil Spill and have initiated restoration planning to identify the actions that will be needed or appropriate to restore injured resources and to make the public whole for the injuries and losses that occurred. This process is known as a Natural Resource Damage Assessment (NRDA).

On April 20, 2011, DOI, National Oceanic and Atmospheric Administration, and the Trustees for the five Gulf states affected by the Oil Spill entered into an agreement with BP, a responsible party for the Oil Spill, under which BP agreed to provide \$1 billion for early restoration projects in the Gulf to address injuries to natural resources caused by the Oil Spill. The subject project is being evaluated by the Trustees as a potential early restoration project. The early restoration project has been proposed in a draft early restoration plan that was released for public comment and review on December 6, 2013. If the Trustees select the project after consideration of public comment and a stipulated agreement is reached with BP, the early restoration project will be implemented by the State of Florida. DOI, acting through the Service, will be a co-Trustee for the project, if it is selected and implemented.

The above facts lead us to the conclusion that consultation and conference under Section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*), is required for the

proposed project and we wish to engage in such consultation. Accordingly, we have reviewed the proposed Perdido Key Dune Restoration and Perdido Key State Park Beach Boardwalk Improvements, Florida, project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. We determined the proposed project may affect, but is not likely to adversely affect, five species of sea turtles (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), Perdido Key beach mouse, piping plover, and red knot (if listed) and have provided our analysis in the attached Biological Evaluation. We also determined that the proposed project will not adversely modify or destroy critical habitat for Perdido Key beach mouse or loggerhead sea turtle (if designated). We have also reviewed the proposed project for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-712), respectively. All work is above the high tide line therefore, consultation with National Marine Fisheries Service for species where ESA regulatory authority is shared and in regards to Marine Mammal Protection Act (MMPA) of 1972, as amended (16 U.S.C. 1461 *et seq.*) is not necessary.

We request your review of and concurrence with the attached intra-Service Section 7 Biological Evaluation form describing the proposed project, potential effects, conservation measures and justifications for our determinations. If you have questions or concerns regarding this request for consultation, please contact Holly Herod, Fish and Wildlife Biologist, at 404-679-7089 or [holly\\_herod@fws.gov](mailto:holly_herod@fws.gov).

Attachment

**SOUTHEAST REGION  
INTRA-SERVICE SECTION 7  
BIOLOGICAL EVALUATION FORM**

**Originating Person:** Holly Herod; prepared by David Mills (representing the State of Florida Natural Resource Trustees – The Florida Department of Environmental Protection and the Florida Fish and Wildlife Conservation Commission)

**Telephone Number:** Holly Herod: 404-679-7089; Dave Mills 303-381-8248

**E-Mail:** [holly\\_herod@fws.gov](mailto:holly_herod@fws.gov); [dmills@stratusconsulting.com](mailto:dmills@stratusconsulting.com)

**Date:** February 19, 2014

**PROJECT NAME (Grant Title/Number):** Perdido Key Dune Restoration and Perdido Key State Park Beach Boardwalk Improvements

**I. Service Program:**

- NRDAR**
- Ecological Services**
- Federal Aid**
  - Clean Vessel Act**
  - Coastal Wetlands**
  - Endangered Species Section 6**
  - Partners for Fish and Wildlife**
  - Sport Fish Restoration**
  - Wildlife Restoration**
- Fisheries**
- Migratory Birds**
- Refuges/Wildlife**

**II. State/Agency:** Florida Department of Environmental Protection (DEP) and Florida Fish and Wildlife Conservation Commission (FWC)

**III. Station Name:** DOI Deepwater Horizon Case Management Team, USFWS Southeast Regional Office, Atlanta, Georgia 30345

**IV. Location (attach map):** See Figure A at the end of this document for a map indicating the proposed project area.

**A. Ecoregion Number and Name:** Southeast Region

**B. County and State:** Escambia County, Florida

**C. Section, township, and range (or latitude and longitude):** See Figure A (Figure A for general location of the Perdido Key Dune Restoration and Figure B for location of the Perdido Key State Park Beach Boardwalk Improvements. The Perdido Key State Park Beach Boardwalk Improvements project is contained within the area defined in Figure A).

**D. Distance (miles) and direction to nearest town:** see map in Figure A.

**V. Description of Proposed Action (attach additional pages as needed):**

There are two related actions being evaluated as part of this review. The first consists of activity associated with the restoration of dune habitat in Perdido Key (Perdido Key Dune Restoration). The second component consists of activity associated with replacing existing dune crossovers/boardwalks at Perdido Key State Park (Perdido Key State Park Beach Boardwalk Improvements). These actions are being evaluated together because they share the same general project area (the exact location of the dune restoration work has not been defined within a general project area). Each of these actions is summarized independently in the rest of this section.

***Perdido Key Dune Restoration***

The proposed Perdido Key Dune Restoration project will restore appropriate dune vegetation to approximately 20 acres of degraded beach dune habitat in Perdido Key, Florida, including habitat used by the federally endangered Perdido Key Beach Mouse. This project will maximize the habitat quality of non-developed areas, within the Perdido Key State Park, and connect the habitats by landscaping with native dune plants. The landscaping plan will be reviewed and approved as appropriate for trust resource protection by the Service prior to implementation.

The restoration project would consist of planting appropriate dune vegetation (e.g., sea oats, panic grasses, cord grasses, sea purslane, beach elder) approximately 20 to 60 feet seaward of the existing primary dune to provide a buffer to the primary dune and enhance dune habitats. Gaps in existing dunes within the project area will be revegetated to provide a continuous dune structure. The planting shall be patterned after the species composition in native communities adjacent to a project site, if possible. This vegetation would be planted using hand tools to excavate cavities where the root ball from the planting container can be placed and secured with the excavated sand/soil.

No movement of sand is envisioned for the project, but sand fencing will be installed to trap and retain wind-blown sediments and protect the plants for dune restoration purposes. Sand fencing shall be placed in a sea turtle compatible design and be made of biodegradable material. Appropriate signs to designate and indicate the purpose of the conservation area may be used if necessary. If dune vegetation is impacted during the implementation activities, these areas shall be restored by planting the appropriate vegetation in those areas with the same survival performance measures as the other proposed planted areas.

In accordance with Rule 62B-41.007(2)(I), Fla. Admin. Code, all vegetation used for the restoration would be native salt-resistant vegetation suitable for beach and dune stabilization, and grown from seeds or cuttings from the Alabama coast or North Florida to ensure appropriate genetic stocks are used in the project. The seedlings to be planted, shall be at least 1 inch by 1 inch with a 2.5-inch pot. Vegetation shall be planted with an appropriate amount of fertilizer and anti-desiccant material, as appropriate, for the plant size. Planting will generally be on 18-inch centers throughout the created dune; however, 24-inch centers may be acceptable depending on the area to be planted. No material is planned for removal. Sand/soil removed for plantings

would be packed around the planted unit to support regrowth. Only the excavated sand/soil removed to make room for the plantings would be placed on the site and it would be used to anchor the planted vegetation. Incidental trash encountered during project activities will be removed. No irrigation lines or pipes will be installed. Post construction performance monitoring will initially focus on plant survival. Plants that do not survive to 90 days post-planting will be replaced. At least 80% of plants must survive after 6 months or replanting will occur.

The proposed restoration activities are minimally disruptive and would occur over a relatively limited time period (2 months). To protect the dune habitat, most of the proposed work would be done by hand with ATVs potentially used to shuttle plants and other materials to sites of active replanting. Access to the dunes would be established through existing emergency vehicle paths and rights-of-way. Staging areas would be established in existing parking lots. Access to the areas would be primarily through continuous beach access along Perdido Key Drive (Rt 292), which runs adjacent to the length of the project area to the north. This form of construction equipment would have minimal impact on dune resources.

The project would be constructed over a maximum 2 month period and would operate 7 days a week for 8 to 10 hours a day, during daylight hours only. No storage of equipment or materials will occur on the beach or dunes throughout the proposed project. No activity, except as needed to plant and monitor vegetation shall occur on existing dunes during any time of the year.

#### ***Perdido Key State Park Beach Boardwalk Improvements***

The proposed improvements associated with this project include removing and replacing six existing boardwalks leading to the beach from two public access areas (see Figure B). The existing boardwalks need to be replaced after being reconstructed too close to the ground subsequent to Hurricane Ivan in 2004. As a result, the boardwalks are now being constantly covered by sand from the dune system, which is causing access issues.

The existing boardwalks would be removed and replaced. The new structures would be higher above the ground surface but the footprint of the new boardwalk would, to the extent possible, fall within the area defined by the existing boardwalks. Some lengthening of the boardwalk may be required to provide the additional height required to avoid sand coverage issues while still maintaining a design that complies with the requirements of the Americans with Disabilities Act (ADA). The extent of any lengthening would be addressed in the final engineering design and plan development. However, efforts would be made to minimize the lengthening to avoid encroachment into areas on the Gulf side of the dunes where sea turtles might nest. Currently, the boardwalks do not extend beyond the old seaward edge of the dunes, so the possibility of lengthening without extending beyond the seaward edge of the dunes exists in order to comply with ADA requirements and to avoid the new seaward edge of the dunes (dunes have migrated seaward in some areas (see Figures C and D)). Some pilings may need to be replaced or upgraded, and new pilings may be required in some locations. A combination of heavy equipment and hand tools would be used to complete project work, depending on specific design elements and needs.

The project areas would be isolated by construction fencing to prevent incidental access. This fencing material would be erected by hand driving (e.g., with a sledge hammer or post driver) stakes as necessary. These stakes would likely be less than 2 inches in diameter and driven to a depth of 1 foot to 2 feet to secure the fencing. Construction materials would be staged in the parking lot that accesses each of the existing boardwalk complexes (see Figures C and D). Additional materials could be temporarily placed *near but not within* the dune as needed to support the construction of the boardwalk (e.g., ladders, scaffolding, daily construction materials). Access will occur through existing points only (i.e., no new access points will be created).

Full details on construction methods including total size of the boardwalk, depth of placement and method of placement of pilings would be determined as part of the development of final plans and drawings with the award of the contract and different options could be pursued. The project would not be expected to result in a surplus of excavated materials. Excavated sand would be reincorporated at the site. No lighting is associated with the proposed project.

Construction would begin 7 to 12 months after funding is received and take 4-6 months to complete. Construction would likely occur between October and March during the low visitation season which would also avoid the turtle nesting season.

## **VI. Description of the Project Area (attach additional pages as needed):**

The potential project area for both actions is captured by the green shaded area in Figure A. Perdido Key is located primarily in Escambia County, is approximately 15 miles long, and extends from Pensacola Pass in the east to Perdido Pass in the west. The project will restore approximately 20 acres of dune habitat in Perdido Key in an area that begins approximately 2.2 miles east of Perdido Pass at the Florida/Alabama state line and extends approximately 6 miles to the east. In this area the existing dune habitat is generally 50-80 feet wide and has a mix of residential properties and public access points whose dune walkovers and access trails intersect and divide the beach dune habitat.

The project area for the boardwalk work is beach dune habitat (see Figures B and C for details). The existing boardwalks in these areas provide visitors access to the Gulf side beaches while mitigating impacts to the dunes by providing controlled points of access from parking areas behind the dunes to the beaches. Replacing the boardwalks will continue to serve this purpose while increasing their elevation will potentially mitigate the extent to which they currently divide and fragment the habitat.

## **VII. Species and Habitat:**

### **A. Complete the following table:**

Table 1, provided at the end of this document, provides a summary of the different species that were identified and initially considered for the project's potential impacts. The information in

this table was adopted from the U.S. Fish and Wildlife, Panama City office website: <http://www.fws.gov/panamacity/specieslist.html> which provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle.

### VIII. Determination of Effects:

#### A. Explanation of effects of the action on species and critical habitats in item VII.A (attach additional pages as needed):

Table 2 presents a summary of the potential species/critical habitat that could be impacted from the proposed Perdido Key Dune Restoration and Perdido Key State Park Beach Boardwalk Improvements actions. The species/critical habitat in Table 2 were identified after considering where there was potential overlap from information on identified natural communities in Table 1 with the potential locations where the project could be implemented and areas adjacent to the immediate project locations.

**Table 2. Potential Impacts to Species/Critical Habitats**

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Green turtle, Hawksbill turtle, Kemp's ridley turtle; Leatherback turtle, Loggerhead turtle	<p>The main risk to sea turtles during implementation of this project would come should work be conducted during the turtle nesting and hatching season from approximately May through October when turtles, and to a greater extent their nests and hatchlings could be harmed or killed as a result of materials being conveyed along the beach and running over nests or hatchlings. Due to the conservation measures below, we expect effects to all life stages of sea turtles to be minimized such that disturbance and potential for harm are minimized such that the effects are insignificant and discountable. Furthermore, it is planned that all boardwalk work (i.e., majority of any heavy equipment use) would occur prior to turtle nesting season, and prior to heavy human use (generally during the late fall, winter, and early spring). No lighting will be installed.</p> <p>No designated critical habitat for the green, leatherback, or hawksbill sea turtles occurs within the action area. No critical habitat has been designated for the Kemp's ridley sea turtle; therefore, none will be adversely affected or modified.</p>
Loggerhead proposed critical habitat	<p>The project area overlaps with the currently proposed critical habitat area LOGG-N-33 encompassing nearshore reproductive habitat in Florida for Northwest Atlantic Distinct Population Segment of the loggerhead sea turtle as these habitats are terrestrial (i.e., beaches and shorelines) ((78 FR 18000 ) Department of the Interior, 2013). Primary Constituent Elements (PCEs) for proposed loggerhead critical habitat include: 1) Suitable nesting beach habitat that: (a) has relatively unimpeded nearshore access from the ocean to the beach for nesting females and from the beach to the ocean for both post-nesting females and hatchlings and (b) is located above mean high water to avoid being inundated frequently by high tides. 2) Sand that: (a) allows for suitable nest construction, (b) is suitable for facilitating gas diffusion conducive to embryo development, and (c) is able to develop and maintain temperatures and moisture content conducive to embryo development. 3) Suitable nesting beach habitat with sufficient darkness to ensure that nesting turtles</p>

SPECIES/CRITICAL	SPECIES/CRITICAL HABITAT IMPACTS
	<p>are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea. Temporary use of heavy equipment to construct walkovers or transport plants during restoration activities could change sand characteristics important to nest construction and embryo development in the immediate area of work. However, conservation measures described below should minimize impacts such that effects to the PCE's in the immediate area are short-term (1 season or less) and wind and storm conditions should restore natural properties with each storm event prior to the next nesting season. Furthermore, the walkovers (i.e., majority of any heavy equipment use) will be constructed prior to the turtle nesting season and prior to the heavy human use period (during the late fall, winter, and early spring) thereby avoiding potential effects during the nesting season which should allow time for the beach to recover prior to the next nesting season. Though engineering designs are not complete, it is likely that walkovers will be extended further on the beach due to migration of the dunes since the old boardwalks were constructed and to meet ADA standards. These short extensions would not impact nearshore access for the turtles as they have a relatively small footprint compared to the nesting area at the project locations. No lighting will be installed. In addition, the relative footprint of all driving and construction will be minimized so that PCE's outside the immediate area of work are unaffected. Dune restoration may enhance beaches for nesting by helping to establish dunes which can block light from adjacent areas. Based upon the implementation of the conservation measures below, no adverse modification of proposed loggerhead critical habitat is anticipated.</p>
Perdido Key beach mouse	<p>The main risk to the Perdido Key beach mouse is the collapse of burrows during construction which can result in abandonment of the burrow by the adults leading to potential harm or mortality and mortality of any young within the burrow, and increased risk of predation on adults. Visitor use is not expected to increase as a result of the proposed project therefore no indirect effects from visitor use (increased predation) are expected due to the proposed project. Because of the conservation measures listed below (including those for critical habitat), we believe effects to beach mice are insignificant and discountable.</p>
Perdido Key beach mouse critical habitat	<p>The project area overlaps with Perdido Key Beach Mouse Critical Habitat Units 2 (West Perdido Key Unit – 114 acres) and 3 (Perdido Key State Park Unit – 238 acres). PCE's are: 1) A contiguous mosaic of primary, secondary scrub vegetation, and dune structure, with a balanced level of competition and predation and few or no competitive or predaceous nonnative species present, that collectively provide foraging opportunities, cover, and burrow sites; 2) Primary and secondary dunes, generally dominated by sea oats that, despite occasional temporary impacts and reconfiguration from tropical storms and hurricanes, provide abundant food resources, burrow sites, and protection from predators; 3) Scrub dunes, generally dominated by scrub oaks, that provide food resources and burrow sites, and provide elevated refugia during and after intense flooding due to rainfall and/or hurricane induced storm surge; 4) Functional, unobstructed habitat connections that facilitate genetic exchange, dispersal, natural exploratory movements, and recolonization of locally extirpated areas; and 5) A natural light regime within the coastal dune ecosystem, compatible with the nocturnal activity of beach mice, necessary for normal behavior, growth and viability of all life stages. The proposed project is not expected to negatively impact PCE's but rather may benefit PCE's. The existing boardwalks and lack of dunes in the area could be limiting the amount of</p>



SPECIES/CRITICAL	SPECIES/CRITICAL HABITAT IMPACTS
	contiguous habitat, food resources, burrow sites, and the boardwalks may be causing obstructions due to their low height. Dune restoration may contribute to building more functionality in PCE's 1,2, 3 and 4; raising of boardwalks should allow for unobstructed movements by mice; and lengthening boardwalks will help prevent dune erosion (pathway "fanning") from general visitor use thereby reducing changes to burrow sites, food resources, and susceptibility to hurricane/storm impacts. No lighting will be installed as a part of the proposed project. Based upon the implementation of the conservation measures below, no adverse modification of critical habitat is anticipated.
Piping plover <i>No high piping plovers or other use less than 5.</i>	The main risk to Piping plovers is from human disturbance while resting and foraging in habitats adjacent to work areas. The proposed project could result in short term increases in noise which could startle individuals, though we would expect normal activity to resume within minutes or cause the plovers to move to a nearby area. Because other foraging/resting habitats are nearby (less than two miles) we would expect this temporary displacement to be within normal movement patterns and consider this effect insignificant and discountable. We do not expect an increase in visitor use from the proposed project; therefore, no indirect effects are expected. Piping plover critical habitat is not designated in or near the action.
Red knot	The main risk to Red knots is from human disturbance while resting and foraging in habitats adjacent to work areas. The proposed project could result in short term increases in noise which could startle individuals, though we would expect normal activity to resume within minutes or cause the red knots to move to a nearby area. Because other foraging/resting habitats are nearby (less than two miles) we would expect this temporary displacement to be within normal movement patterns and consider this effect insignificant and discountable. We do not expect an increase in visitor use from the proposed project; therefore, no indirect effects are expected.

**B. Table 3. Explanation of actions (Conservation Measures) to be implemented to reduce adverse effects:**

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Green turtle, Hawksbill turtle, Kemp's ridley turtle, Leatherback turtle, Loggerhead turtle	<p>No lighting will be installed on the boardwalks.</p> <p>Should work be undertaken between May 1 and October 31 the following conservation measures will be followed: Work completed outside of this time period should not require these measures.</p> <ul style="list-style-type: none"> <li>• All construction personnel will be notified of the potential presence of sea turtles and reminded of the criminal and civil penalties associated with harassing, harming, or killing sea turtles (all life stages).</li> <li>• The local sea turtle nesting surveyor will conduct daily sea turtle nesting surveys will assess the need for the relocation of sea turtle nests that could be affected by the project construction prior to project implementation each day</li> <li>• If a sea turtle (either adult or hatchling) is observed, maintain at least 200 feet between the turtle and personnel.</li> <li>• All actions shall observe a 10-foot buffer from marked sea</li> </ul>

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Loggerhead proposed critical habitat	<p>turtle nests. Between May 1 and August 31<sup>1</sup>, actions with mechanized equipment or vehicles shall not begin prior to 9:00 am to ensure sea turtle monitoring surveys are completed for the day.</p> <ul style="list-style-type: none"> <li>• If altered, beach topography shall be restored in all areas to the natural beach profile by 20:00 hours each day. Restoring beach topography includes raking of tire ruts, filling pits or holes.</li> <li>• Avoid driving over the wrack line or areas of dense seaweed, as these habitats may contain sea turtle hatchlings or baby birds that are difficult to see.</li> </ul> <p>To maintain PCE's for proposed loggerhead critical habitat, the following measures shall be implemented (regardless of seasonality):</p> <ul style="list-style-type: none"> <li>• All construction personnel will be notified of the presence of proposed critical habitat and reminded to avoid impacting it otherwise additional restoration may be necessary.</li> <li>• The nearest, existing staging, access and egress areas, travel corridors, pathways, and roadways shall be used (including those provided by the State, local governments, land managers, trustee, or private property owner, with proper permissions).</li> <li>• No new staging areas, access or egress, or travel corridors shall be created.</li> <li>• Minimize vegetation removal.</li> <li>• If driving equipment or vehicles on the beach, enter at designated access, proceed directly to the hard-packed sand near or below the high tide line and stay below the tide line when driving long distances.</li> <li>• Avoid driving on the upper beach whenever possible, and never drive over any dunes or beach vegetation.</li> <li>• Use the smallest footprint possible to complete the proposed project.</li> <li>• If altered, beach topography shall be restored in all areas to the natural beach profile by 20:00 hours each day. Restoring beach topography includes raking of tire ruts, filling pits or holes.</li> <li>• No lighting will be installed.</li> </ul>
Perdido Key beach mouse	<p>Conservation measures that will be implemented to avoid impacts to the Perdido Key Beach Mouse include:</p> <ul style="list-style-type: none"> <li>• All construction personnel will be notified of the potential presence of Perdido Key Beach Mice and reminded of the criminal and civil</li> </ul>

<sup>1</sup> Turtle *nesting* season is May 1 to August 31, while turtle *hatching* continues until October 31. The remaining turtle BMPs will be implemented May 1 through October 31 and BMPs for proposed critical habitat will be implemented all year.

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
	<p>penalties associated with harassing, injuring, or killing Perdido Key Beach Mice.</p> <ul style="list-style-type: none"> <li>• To minimize impacts to Perdido Key beach mice in burrows, a qualified, permitted, biologist will survey the project site before work commences and flag potential burrows and tracks so that they can be avoided.</li> <li>• Construction noise will be kept to the minimum feasible.</li> <li>• Construction will occur during the day to minimize disturbance to nocturnal patterns.</li> <li>• Equipment, vehicles, and project debris will not be stored in a manner or location where it could be colonized by mice.               <ul style="list-style-type: none"> <li>○ Prior to bringing any equipment (including personal gear, machinery, vehicles or vessels) to the work site, inspect each item for mud or soil, seeds, and vegetation. If present, the equipment, vehicles, or personal gear shall be cleaned until they are free from mud, soil, seeds, and vegetation. This inspection will occur each time equipment, vehicles, and personal gear are being prepared to go to a site or prior to transferring between sites to avoid spreading exotic, nuisance species.</li> <li>○ Inspect sites periodically to identify and control new colonies/individuals of an invasive species not previously observed prior to construction.</li> <li>○ Remove trash or anything that would attract nuisance wildlife to work areas daily.</li> </ul> </li> <li>• Project related trash or debris shall not be allowed to blow into open water, onto beaches or in the dunes.</li> <li>• Appropriate waste/trash receptacles will be installed and maintained at boardwalks so that predators are not attracted to the area.</li> </ul>
Perdido Key beach mouse critical habitat	<p>Conservation measures that will be implemented to avoid impacts to the Perdido Key Beach Mouse critical habitat include:</p> <ul style="list-style-type: none"> <li>• The project will occur in very localized locations for very short periods of time, allowing the mosaic of primary, secondary scrub vegetation and dune structure to remain unchanged or increase after implementation.</li> <li>• If native dune plants are destroyed during the project, appropriate native plants will be planted in the same location to minimize effects to the vegetative composition of the area. The Panama City Field Office will be contacted regarding dune plantings to balance habitat for listed and migratory birds and beach mouse.</li> <li>• If necessary (due to food source removal during construction and growing periods for replacement plants), supplemental beach mouse food sources will be provided.</li> <li>• Project work will only occur during daylight hours, as such it will not alter the natural light regime of the area.</li> </ul>

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Piping plover and red knot	<p>If construction occurs within the period from August to May: shorebird surveys will be conducted in the project area; and within the project area a 300-foot wide buffer zone where either species congregates will be established. Any and all construction will be prohibited in the buffer zone until the individuals move from the area of their own volition.</p> <p>The Panama City Field Office will be contacted regarding dune plantings to balance habitat for listed and migratory birds and beach mouse.</p>
All	In addition to the species specific measures identified in Table 3, the new dune walkovers associated with the Perdido Key State Park Beach Boardwalk Improvements action will be constructed in a manner consistent with the recent guidance for such work issued by the USFWS Panama City field office (USFWS, 2013).

**VIII. Table 4. Effect Determination and Response Requested:**

Species	Species Impacts					Response Requested
	NE	NLAA	MAA	JP	JC	
Green turtle		X				Concurrence (terrestrial)
Hawksbill turtle		X				Concurrence (terrestrial)
Kemp's ridley turtle		X				Concurrence (terrestrial)
Leatherback turtle		X				Concurrence (terrestrial)
Loggerhead turtle		X				Concurrence (terrestrial)
Loggerhead turtle proposed critical habitat	No Adverse Modification or Destruction					Conference
Perdido Key beach mouse		X				Concurrence
Perdido Key beach mouse critical habitat	No Adverse Modification or Destruction					Concurrence
Piping plover		X				Concurrence
Red knot		X				Conference

**X. Bald Eagles**

Are bald eagles present in the action area?  No  Yes

If “Yes,” can you implement the conservation measures below? \_\_\_\_ Yes \_\_\_\_ No

1. If bald eagle breeding or nesting behaviors are observed or a nest is discovered or known, all activities (walking, camping, cleanup, use of a UTV, ATV, or boat) should avoid the nest by a minimum of 660 feet. If the nest is protected by a vegetated buffer where there is *no* line of sight to the nest, then the minimum avoidance distance is 330 feet. This avoidance distance shall be maintained from the onset of breeding/courtship behaviors until any eggs have hatched and eaglets have fledged (approximately 6 months).
2. If a similar activity (like driving on a roadway) is closer than 660 feet to a nest, then you may maintain a distance buffer as close to the nest as the existing tolerated activity.
3. If a vegetated buffer is present and there is no line of sight to the nest and a similar activity is closer than 330 feet to a nest, then you may maintain a distance buffer as close to the nest as the existing tolerated activity.
4. In some instances activities conducted within 660 feet of a nest may result in disturbance, particularly for the eagles occupying the Mississippi barrier islands. If an activity appears to cause initial disturbance, the activity shall stop and all individuals and equipment will be moved away until the eagles are no longer displaying disturbance behaviors.

If not, contact the Service’s Migratory Bird Permit Office to determine how to avoid impacts or if a permit may be needed.

#### **XI. Migratory Birds**

- A. Identify the species anticipated in the project area and behaviors (breeding, roosting, foraging) anticipated during project implementation.**

<b>SPECIES</b>	<b>BEHAVIOR</b>	<b>SPECIES/HABITAT IMPACTS</b>
Shorebirds	Foraging, feeding, resting, nesting	Shorebirds nest, forage, feed, and rest in the types of habitats consistent with some of the shoreline areas near the proposed project. As such, they may be impacted locally and temporarily by the project.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Resting, roosting, nesting	Seabirds forage in water and rest/roost in terrestrial habitats including dunes. Project activity could startle resting birds; however, impacts to roosting birds are not expected because activities will occur during the day.

- B. If species or habitat impacts could occur, identify avoidance and minimization measures to prevent incidental take. Incidental take of Migratory Birds cannot be authorized.**

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Shorebirds	We expect foraging and resting birds would be able to move to another nearby location to continue foraging and resting. If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented. The Panama City Field Office will be contacted regarding dune plantings to balance habitat for listed and migratory birds and beach mouse.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. All disturbances will be localized and temporary. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only. Nesting should not be impacted because the project will not occur near nesting habitats.

**XII. Signatures from the station preparing the Intra-Service Biological Evaluation:**

/s/ Holly N. Blalock-Herod

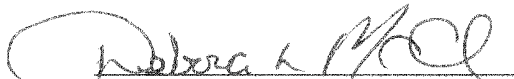
Signature (originating station - preparer)

February 19, 2014

date

DOI Case Management Office, ESA Coordinator

Title

  
Signature (originating station)

Deputy Case Manager

2/24/14  
date

This analysis resulted in a determination that no “take” of a federally listed species would occur. If any of the following occur, then there must be reinitiation on this action:

- (1) any unforeseen circumstances arise or incidental take occurs
- (2) new information reveals effects of the Service’s action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion;
- (3) the Service’s action is later modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or
- (4) a new species is listed or critical habitat designated that may be affected by the action.

In instances where any incidental take occurs, the operations causing such take must cease until reinitiation.

If reinitiation is required, contact the Panama City Ecological Services Field Office about the action.

US Fish and Wildlife Service  
1601 Balboa Avenue  
Panama City, FL 32405  
Tel: 850-769-0552

XIII. Reviewing Ecological Services Office Evaluation:

A. Concurrence  Nonconcurrency

B. Formal consultation required

C. Conference required

D. Informal conference required

E. Remarks (attach additional pages as needed):

RECEIVED  
7/12/14  
HOB



Signature

DONALD IMM

Field Supervisor

4/4/14

date

PCFO

office

**References**

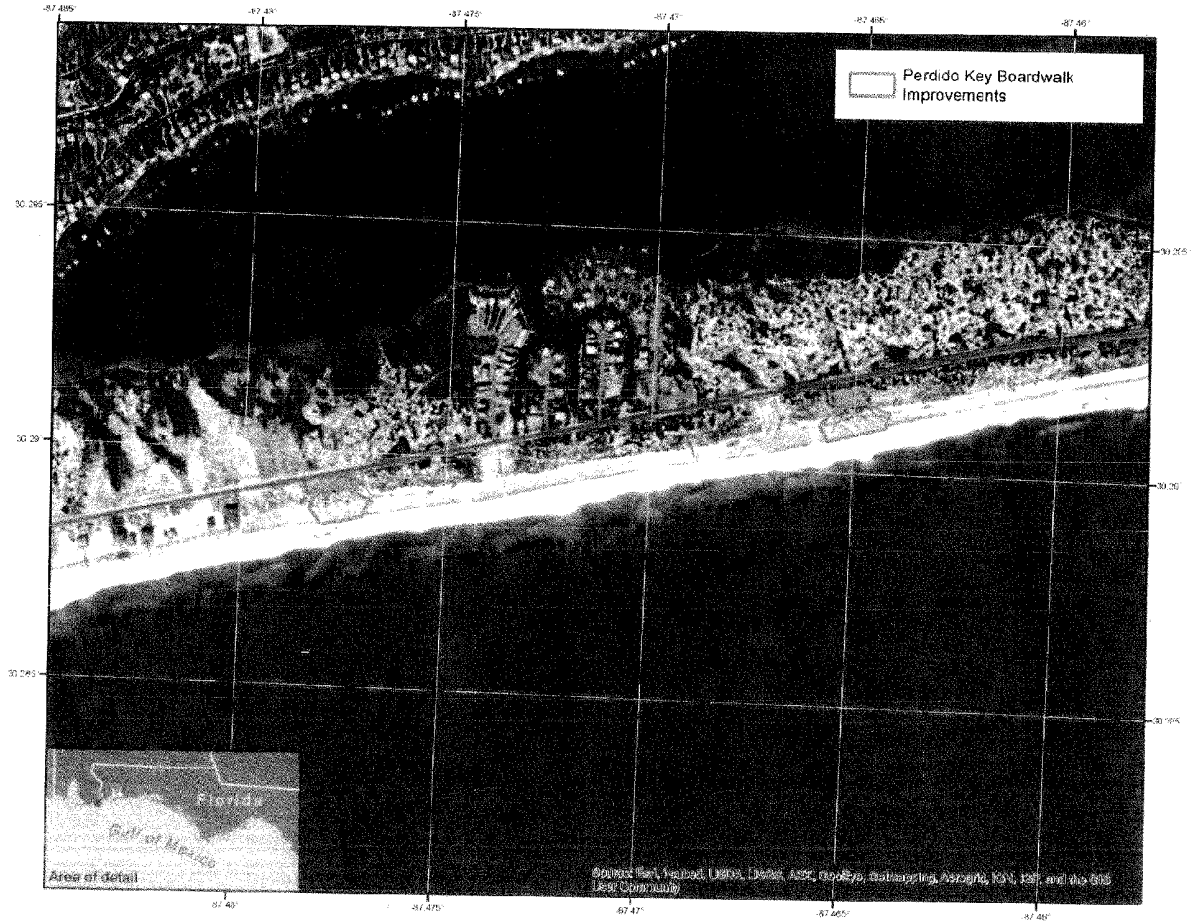
U.S. Department of the Interior. 2013. 50 CFR Part 17: Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Northwest Atlantic Ocean District Population Segment of the Loggerhead Sea Turtle (*Caretta caretta*). Proposed Rule. Federal Register p. 18000-18082. March 25.

USFWS. 2013. Conservation Measures for Dune Walkover Construction. Unpublished Guidance prepared by Panama City Ecological Services Field Office.





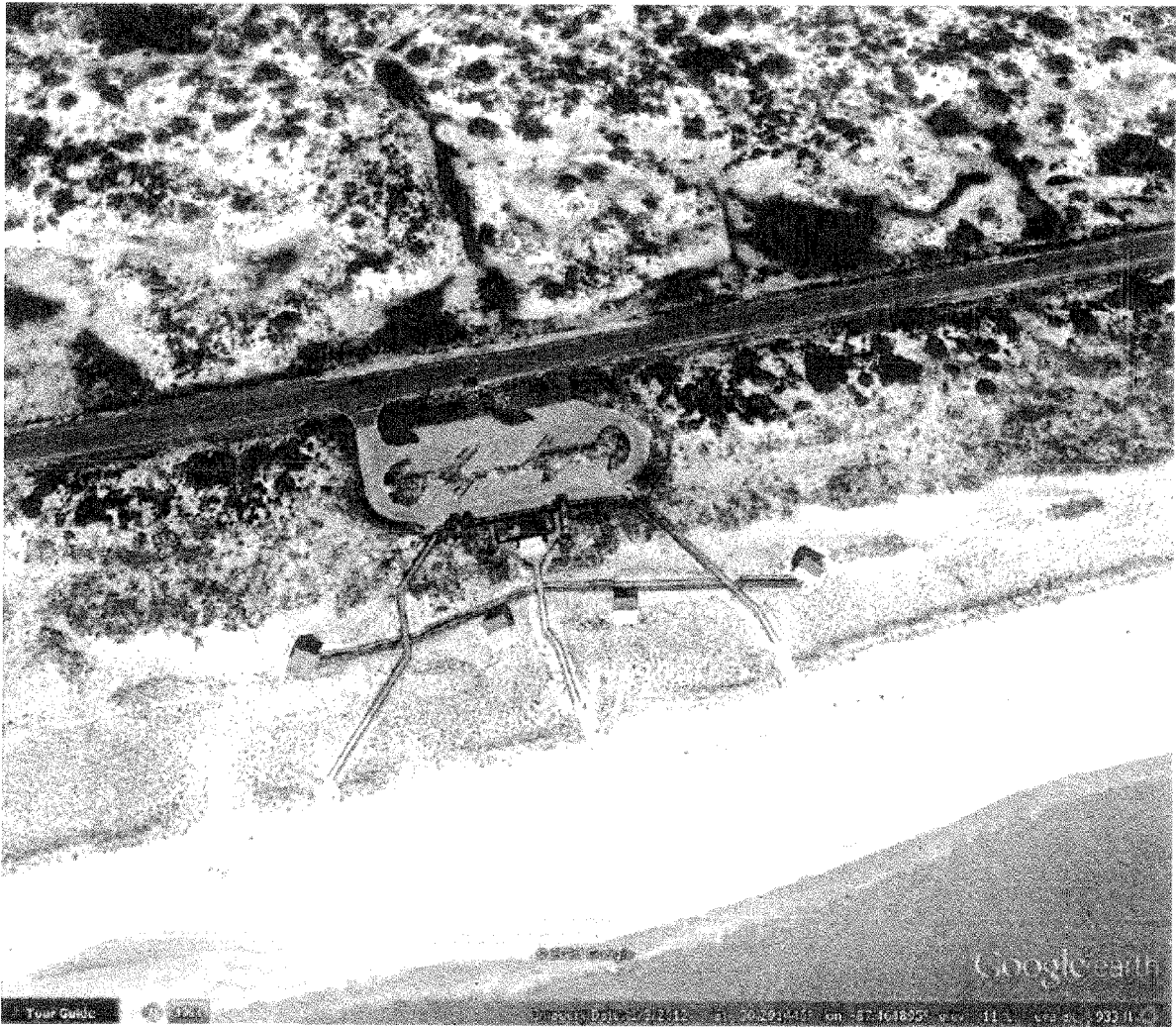
**Figure A. Location of envisioned Perdido Key Dune Restoration Project.**



**Figure B. Location of envisioned Perdido Key State Park Beach Boardwalk Improvements Project.**



**Figure C. Parking lot adjacent to Perdido Key State Park Beach Boardwalk Improvements - western project site.**



**Figure D. Perdido Key State Park Beach Boardwalk Improvements – Eastern project site (lat 30.29168, lon -87.46517).**

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
Amphibians	Reticulated flatwoods salamander	E (CH)		Palustrine: wet Flatwoods, dome swamp, basin swamp, Terrestrial: mesic flatwoods (reproduces in ephemeral wetlands within this community).	NE	Listed natural community is inconsistent with the project habitat
Birds	Arctic peregrine falcon	ce	E	Terrestrial: various, ruderal; winters along coasts	NE	Listed natural community is inconsistent with the project habitat
Birds	Bald eagle	BGEPA		Estuarine: marsh edges, tidal swamp, open water Lacustrine: swamp lakes, edges Palustrine: swamp, floodplain Riverine: shoreline, open water Terrestrial: pine and hardwood forests, clearings.	NE	Listed natural community is inconsistent with the project habitat
Birds	Least tern		T	Terrestrial: beach dune, ruderal. Nests common on rooftops.	NE	Listed natural community is inconsistent with the project habitat
Birds	Piping plover	T (CH)	T	Estuarine: exposed unconsolidated substrate Marine: exposed unconsolidated substrate Terrestrial: dunes, sandy beaches, and inlet areas. Mostly wintering and migrants.	NLAA	See Table 2, 3, and 4
Birds	Red knot	P		Estuarine: exposed unconsolidated substrate Marine: exposed unconsolidated substrate Terrestrial: dunes, sandy beaches, and inlet areas. Mostly wintering and migrants.	NLAA	See Table 2, 3, and 4
Birds	Red-cockaded woodpecker	E		Terrestrial: mature pine forests.	NE	Listed natural community is inconsistent with the project habitat
Birds	Southeastern kestrel	ce	T	Terrestrial: open pine forests, clearings, ruderal, various.	NE	Listed natural community is inconsistent with the project habitat
Birds	Southeastern snowy plover	ce	T	Estuarine: exposed unconsolidated substrate Marine: exposed unconsolidated substrate Terrestrial: dunes, sandy beaches, and inlet areas.	NE	Listed natural community is inconsistent with the project habitat
Birds	Stoddard's yellow-throated warbler	ce		Terrestrial: wooded habitats with Spanish moss, various.	NE	Listed natural community is inconsistent with the project habitat

**Table 1. Listed species of concern in the counties where activity for the Perdido Key Dune Restoration project could occur**

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
Birds	Wood stork	E	E	Estuarine: marshes Lacustrine: floodplain lakes, marshes (feeding), various Palustrine: marshes, swamps, various.	NE	Listed natural community is inconsistent with the project habitat
Fish	Crystal darter	ce	T	Riverine: alluvial stream.	NE	Listed natural community is inconsistent with the project habitat
Fish	Gulf sturgeon	T (CH)	SSC	Estuarine and Marine: sandy sediments for foraging and resting; Riverine: alluvial and blackwater streams.	NE	Listed natural community is inconsistent with the project habitat
Mammals	Florida black bear	ce	T	Palustrine: titi swamps, floodplains Terrestrial: pine and hardwood forests.	NE	Listed natural community is inconsistent with the project habitat
Mammals	Perdido Key beach mouse	E (CH)	E	Terrestrial: beach dune, coastal scrub.	NLAA	See Table 2, 3, and 4
Mammals	Santa Rosa beach mouse	ce		Terrestrial: beach dune, coastal scrub.	NE	Listed natural community is inconsistent with the project habitat
Mussels	Choctaw bean	E (CH)		Riverine: Small to large creeks and rivers in sand to silty-sand substrates with moderate current. Panhandle drainages: Escambia, Yellow, and Choctawhatchee Rivers.	NE	Listed natural community is inconsistent with the project habitat
Mussels	Fuzzy pigtoe	T (CH)		Riverine: small to medium-sized creeks and rivers with slow to moderate currents in sand and sand with some silt. Panhandle drainages: Escambia, Yellow, and Choctawhatchee Rivers.	NE	Listed natural community is inconsistent with the project habitat
Mussels	Narrow pigtoe	T (CH)		Riverine: small to medium-sized creeks and rivers in stable substrates of sand, sand and gravel, or silty sand, with slow to moderate current. Panhandle drainages: Escambia and Yellow Rivers.	NE	Listed natural community is inconsistent with the project habitat
Mussels	Round ebonyshell	E (CH)		Riverine: medium-size drivers in stable substrates of sand, small gravel, or sandy mud in slow to moderate current. Panhandle drainages: restricted to the main channel of the Escambia River.	NE	Listed natural community is inconsistent with the project habitat

**Table 1. Listed species of concern in the counties where activity for the Perdido Key Dune Restoration project could occur**

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
Mussels	Southern sandshell	T (CH)		Riverine: found in small to medium-sized creeks and rivers in sandy substrates sometimes with some silt in slow to moderate current. Panhandle drainages: Escambia, Yellow, and Choctawhatchee Rivers.	NE	Listed natural community is inconsistent with the project habitat
Plants	Baltzell's sedge	ce	T	Terrestrial: slope forest, moist sandy loam; moist sandy loam.	NE	Listed natural community is inconsistent with the project habitat
Plants	Buckthorn	ce	E	Palustrine: hydric hammock, floodplain swamp.	NE	Listed natural community is inconsistent with the project habitat
Plants	Chapman's butterwort	ce	T	Palustrine: wet flatwoods, seepage slopes, bog, dome swamp, ditches; in water.	NE	Listed natural community is inconsistent with the project habitat
Plants	Cruise's golden-aster	ce	E	Terrestrial: coastal dunes, coastal strand, coastal grassland; openings and blowouts.	NE	Listed natural community is inconsistent with the project habitat
Plants	Curtiss' sandgrass	ce	T	Palustrine: mesic and wet flatwoods, wet prairie, depression marsh Terrestrial: mesic flatwoods.	NE	Listed natural community is inconsistent with the project habitat
Plants	Decumbant pitcher plant		T	Palustrine: Bogs.	NE	Listed natural community is inconsistent with the project habitat
Plants	Florida anise		T	Palustrine: floodplain forest, baygall Riverine: seepage stream bank Terrestrial: slope forest, seepage slope.	NE	Listed natural community is inconsistent with the project habitat
Plants	Florida pondweed	ce		Riverine: blackwater stream.	NE	Listed natural community is inconsistent with the project habitat
Plants	Gulf coast lupine	ce	T	Terrestrial: beach dune, scrub, disturbed areas, roadsides, blowouts in dunes.	NE	Listed natural community is inconsistent with the project habitat
Plants	Harper's yellow-eyed grass	ce	T	Palustrine: seepage slope, wet prairie, bogs.	NE	Listed natural community is inconsistent with the project habitat
Plants	Heartleaf		T	Riverine: seepage stream bank Terrestrial: slope forest.	NE	Listed natural community is inconsistent with the project habitat

**Table 1. Listed species of concern in the counties where activity for the Perdido Key Dune Restoration project could occur**

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
Plants	Hummingbird flower		E	Palustrine: seepage slope, dome swamp edges, floodplain swamps Riverine: seepage stream banks Terrestrial: seepage slopes.	NE	Listed natural community is inconsistent with the project habitat
Plants	Large-leaved jointweed	ce	T	Terrestrial: scrub, sandpine/oak scrub ridges.	NE	Listed natural community is inconsistent with the project habitat
Plants	Mountain laurel		T	Riverine: seepage stream bank Terrestrial: slope forest, seepage stream banks.	NE	Listed natural community is inconsistent with the project habitat
Plants	Orange azalea		E	Palustrine: bottomland forest Riverine: seepage stream bank Terrestrial: slope forest, upland mixed forest.	NE	Listed natural community is inconsistent with the project habitat
Plants	Panhandle lily	ce	E	Palustrine: baygall, dome swamp edges, mucky soil, seepage slope, edges of titi bogs, Riverine: banks.	NE	Listed natural community is inconsistent with the project habitat
Plants	Parrot pitcher plant		T	Palustrine: wet flatwoods, wet prairie, seepage slope.	NE	Listed natural community is inconsistent with the project habitat
Plants	Primrose-flower butterwort		E	Palustrine: bogs, pond margins, margins of spring runs.	NE	Listed natural community is inconsistent with the project habitat
Plants	Red-flowered pitcher plant		T	Palustrine: bog, wet prairie, seepage slope, wet flatwoods Riverine: seepage stream banks.	NE	Listed natural community is inconsistent with the project habitat
Plants	Silky camellia		E	Palustrine: baygall Palustrine: slope forest, upland mixed forest, Terrestrial: slope forest, upland mixed forest; acid soils.	NE	Listed natural community is inconsistent with the project habitat
Plants	Southern red lily		T	Palustrine: wet prairie, wet flatwoods, seepage slope Terrestrial: mesic flatwoods, seepage slope; usually with grasses.	NE	Listed natural community is inconsistent with the project habitat
Plants	Spoon-leaved sundew		T	Lacustrine: sinkhole lake edges Palustrine: seepage slope, wet flatwoods, depression marsh Riverine: seepage stream banks, drainage ditches.	NE	Listed natural community is inconsistent with the project habitat
Plants	Sweet shrub		E	Terrestrial: upland hardwood forest, slope forest, bluffs Palustrine: bottomland forest, stream banks, floodplains.	NE	Listed natural community is inconsistent with the project habitat



Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
Plants	Trailing arbutus		E	Terrestrial: bluff, slope forest, mixed hardwood forest.	NE	Listed natural community is inconsistent with the project habitat
Plants	West Florida cow-lily	ce		Riverine: shallow, clear, or tannic-acid tinted (blackwater) waters, often rooted in sandy substrate.	NE	Listed natural community is inconsistent with the project habitat
Plants	White-top pitcher plant	ce	E	Palustrine: wet prairie, seepage slope, baygall edges, ditches.	NE	Listed natural community is inconsistent with the project habitat
Plants	Yellow fringed orchid		T	Palustrine: bogs, wet flatwoods Terrestrial: Bluff.	NE	Listed natural community is inconsistent with the project habitat
Plants	Yellow fringeless orchid	ce	E	Palustrine: wet prairie, seepage slope Terrestrial: mesic flatwoods.	NE	Listed natural community is inconsistent with the project habitat
Reptiles	Alligator snapping turtle	ce	SSC	Estuarine: tidal marsh Lacustrine: river floodplain lake, swamp lake Riverine: alluvial stream, blackwater stream.	NE	Listed natural community is inconsistent with the project habitat
Reptiles	Eastern indigo snake	T	T	Estuarine: tidal swamp Palustrine: hydric hammock, wet Flatwoods Terrestrial: mesic flatwoods, upland pine forest, sand hills, scrub, scrubby flatwoods, rockland hammock, ruderal.	NE	Listed natural community is inconsistent with the project habitat
Reptiles	Florida pine snake	ce	SSC	Lacustrine: ruderal, sandhill upland lake Terrestrial: flatwoods, xeric hammock, ruderal.	NE	Listed natural community is inconsistent with the project habitat
Reptiles	Gopher tortoise	C	SSC	Terrestrial: sandhills, scrub, scrubby flatwoods, xeric hammocks, coastal strand, ruderal.	NE	Listed natural community is inconsistent with the project habitat
Reptiles	Green turtle	E	E	Terrestrial: sandy beaches; nesting.	NLAA	See Table 2, 3, and 4
Reptiles	Hawksbill turtle	E	E	Marine: open water; no nesting.	NLAA	See Table 2, 3, and 4
Reptiles	Kemp's ridley turtle	E	E	Terrestrial: sandy beaches; nesting.	NLAA	See Table 2, 3, and 4
Reptiles	Leatherback turtle	E	E	Terrestrial: sandy beaches; nesting.	NLAA	See Table 2, 3, and 4
Reptiles	Loggerhead turtle	T	T	Terrestrial: sandy beaches; nesting.	NLAA	See Table 2, 3, and 4

Table 1. Listed species of concern in the counties where activity for the Perdido Key Dune Restoration project could occur						
Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
<p>BGEPA = Bald and Golden Eagle Protection Act, C = candidate, ce = consideration encouraged, CH = critical habitat, E = endangered, P = proposed, SSC = species of special concern, T = threatened.</p> <p>Source: This table reflects the information available from the U.S. Fish and Wildlife, Panama City office website: <a href="http://www.fws.gov/panamacity/specieslist.html">http://www.fws.gov/panamacity/specieslist.html</a> which provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.</p>						

# NRDA ROUTING SLIP

Comments: \_\_\_\_\_

Date: \_\_\_\_\_

	Received	Due
Imm, Don		
Phillips, Catherine		
Ambrose, Lydia		
✓ Kelly, Patty	4/2/14	4/2/14
✓ Lehnhoff, Lisa	3/10/2014	OK
Mitchell, Harold		
Negron-Ortiz, Vivian		
Pursifull, Sandy		
✓ Yanchis, Kristi		4/2/14

concern Lisa Lehnhoff

concern KFY

(Judicious sand fencing)  
we want to know who will be contacting

Should mimic natural dunes to be classified as restoration. Dune is swale and veg is no veg. Also in swale supports using a fertilizer. Dune is swale from initial shock of being planted. Also in papers should be moved up regularly as dunes grow and removed as dune and plants are large enough to use, if process typical mixed w/ the capture and larger plants w/ the would naturally size larger plants and would grow smaller plants. Rope should also trap sand around the dune. Should be used/maintained to keep people out. ATVs should stay out of dunes and as low as possible. ATVs should be walked up to planting area from ATU travel path. Construction of dune path should be consistent w/ our existing path inside the...

low piping plan s. Lehn use area, u.s.  
Concerns of overplanting and any plantings of least ten nesting areas. Implementing P. Measum contacting PCFO prior to plantings to discuss alleviates concerns.  
ATVs should be walked up to planting area from ATU travel path. Construction of dune path should be consistent w/ our existing path inside the...