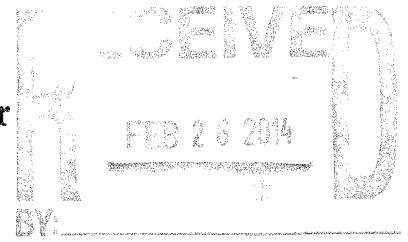




## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
1875 Century Boulevard  
Atlanta, Georgia 30345



In Reply Refer To:  
FWS/R4/DH NRDAR

February 18, 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 *Nobora L. McCl...*

Subject: Informal Consultation Request for the Proposed Northwest Florida Fort Walton Beach Educational Boardwalk

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 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 Northwest Florida Fort Walton Beach Educational Boardwalk 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, West Indian manatee and have provided our analysis in the attached Biological Evaluation. 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. Consultation will also be initiated 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.*).

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:** January 30, 2014

**PROJECT NAME (Grant Title/Number):** Northwest Florida Fort Walton Beach Educational Boardwalk

**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 potential areas of activity for the project.

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

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

**C. Section, township, and range (or latitude and longitude):** See Figure A

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

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

### **Project Overview**

The proposed project, located in the City of Fort Walton Beach, Florida, and within waters of the surrounding Santa Rosa Sound, involves construction of educational and interactive boardwalk structures (also referred to as Brooks Landing Shorewalk) intended to provide access to commercial, residential, and public areas of Santa Rosa Sound that are currently inaccessible, promote environmental education, and increase economic activity along the shoreline. Another component of the proposed project would include oyster reef creation and estuarine salt marsh habitat restoration along the shoreline and in adjacent waters of Santa Rosa Sound. The proposed activity, particularly the boardwalk construction, would connect to earlier phases of a larger initiative begun under the Coastal and Conservation Element in the City of Fort Walton Beach Comprehensive Plan (City of Fort Walton Beach 2000). The general location of the project is provided in Figure A with a draft plan for the location of the project activities provided in Figure B.

Specifically, the proposed boardwalk development element of the project would construct approximately 8,400 feet of new boardwalk infrastructure along Santa Rosa Sound in the city of Fort Walton Beach to increase opportunities for the public to safely access coastal resources including the beach and ocean, which are currently inaccessible in certain locations (see Figures A and B). In addition, the proposed project would create a total of approximately 20,460 square feet (0.4 acre) of salt marsh habitat and approximately 7,200 square feet (0.1 acre) of oyster reefs (approximate locations of this activity are identified in Figure B).

### **Construction and Installation**

Detailed construction methods and plans have not yet been developed for the entire project, as this would be partially determined by the contractor overseeing the construction phase. One component of the proposed project would be construction of new boardwalk structures on the existing public beach, as well as construction in developed areas of the city of Fort Walton Beach. The oyster reef construction and salt marsh restoration portions of the project would occur on the shoreline and in the waters of Santa Rosa Sound.

### ***Boardwalk Construction***

A range of hand tools and mechanized, heavy equipment would likely be used to complete the construction of the new boardwalk and associated amenities (e.g., pier-mounted coin binoculars, wooden markers to identify bird and fish species, life-size bird statues showing wingspan length). Approximately 65% of the boardwalk would be constructed of concrete and 35% would be constructed of wood. Larger equipment such as backhoes with auger capabilities, graders, tractor trailers, or other equipment may be required to prepare the site for construction, as well as delivery of materials and removal of sand or soil to install pilings or other support structures. The depth of ground/sediment that would be disturbed during construction of the boardwalk would vary by section, location, and finalized design plans, but is not likely to be greater than several feet.

Posts would be required for boardwalk construction and would be placed by mechanically auguring holes to place pre-formed pilings or forms that would be filled with pumped concrete to create new pilings. The holes for the pilings are estimated to be approximately 1 to 2 feet in diameter (this is an estimate, final sizes will depend on final design requirements). In addition, as work proceeds, the project area may be isolated by construction fencing to prevent incidental access. This fencing material would be emplaced 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 to 2 feet to secure the fencing. Material that would be placed at the site includes construction materials. Cement and wood would be placed to construct the boardwalk structure while cement, wood, and various other materials would be used to construct educational devices.

The footprint of construction activities for most sections of boardwalk installation would occur within the footprint of existing boardwalks or other developed areas of the Fort Walton Beach. New sections of boardwalk would require some minimal area disturbance, as they would occur outside existing areas developed by the municipality or private landowners, but will be limited to the extent possible given the area available between existing developed areas along Santa Rosa Sound and the shoreline.

#### ***Oyster Reef Construction***

Expansion of an existing oyster reef at the project site is proposed (see Figure B for proposed location). Construction plans/designs for the oyster reef have yet to be finalized. Construction activities would likely include placement of a linear structure that may use artificial and/or shell-based materials. Materials such as riprap and fossilized oyster shell would be considered. The specific oyster reef elevation and technique design would be selected to maximize shoreline protection and meet state regulatory requirements. Oyster cultch would be deployed in Santa Rosa Sound in areas that currently support oyster production with the goal of expanding an existing reef. Prior to construction, an oyster presence survey would be completed that identifies suitable areas. There are two methods in which oyster cultch is typically deployed: 1) using a barge-mounted crane with a clam shell bucket combined with a material barge loaded with oyster shells moored to the crane barge or 2) using a water cannon to jet loose shell from a material barge. The latter method is used in areas with water depth constraints. Upon completion, the deployment area would be surveyed to delineate expanded portions of the oyster reef.

#### ***Salt Marsh Restoration***

Placement and plans/designs of the salt marsh restoration have yet to be finalized. Possible restoration techniques would include local, native marsh vegetation planted in sediment in areas adjacent to the newly constructed boardwalk and along Santa Rosa Sound shoreline. The created marsh areas would be monitored for natural revegetation and to determine success and identify any corrective action needed.

#### ***Best Management Practices***

Standard best management practices (BMPs) for this type of construction with limited in-water work would be used to minimize impacts (e.g., silt fencing, staging of materials in already developed areas such as parking lots, vehicle staging and refueling away from waterways).

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

The potential project area is identified in Figures A and B. The proposed project is located in the city of Fort Walton Beach and adjacent Santa Rosa Sound, Okaloosa County, Florida. Newly constructed boardwalk structures will extend the length of the city of Fort Walton Beach from Alconese Pier, east of Brooks Bridge, to Liza Jackson Park following alongside the Santa Rosa Sound shoreline and portions of U.S. Highway 98. Estuarine salt marsh enhancement will occur along the shoreline adjacent to the newly installed boardwalk structure, while oyster reef construction and enhancement actions would be completed in Santa Rosa Sound in areas where living shoreline structures have already been placed.

This area is already highly developed with numerous manmade features along the waterfront in the proposed project area including boat slips, docks, marinas, and areas of armored shoreline. Access to the waterfront in this area is mainly provided through side roads off of the main state route 98 in the area or through facilities with parking on the sound side of this road.

**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 Fort Walton Beach Educational Boardwalk project. 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 <sup>d</sup> , Kemp's ridley turtle; Leatherback turtle <sup>a</sup> , Loggerhead turtle	Sea turtle nesting is not expected in the project area because of its shoreside location within the Santa Rosa Sound and lack of suitable nesting habitat. Rather the turtles use the beaches directly along the Gulf Coast for nesting. Therefore, no effects to sea turtles in terrestrial habitats are expected.  No proposed or designated critical habitat for sea turtles occurs within the action area; including the limited area of in-water work, therefore, none will be adversely

SPECIES/CRITICAL	SPECIES/CRITICAL HABITAT IMPACTS
	<p>modified or destroyed.</p> <p>Any potential affects to in-water sea turtles will be evaluated by National Marine Fisheries Service.</p>
West Indian manatee	<p>The counties in the project area are not part of the 36 Florida counties that are identified as being counties where manatees regularly occur in coastal and inland waters (U.S. Department of the Interior, 2011). However, manatees could be present in the project waters and would potentially seek out shallow seagrass areas as they are preferred feeding habitat (U.S. Department of the Interior, 2011).</p> <p>The main risk to manatees during implementation of this project would come from in-water construction activities which could result in harm or mortality.</p>
Gulf sturgeon	NMFS is providing consultation for Gulf sturgeon and its Critical Habitat in the estuarine environment. As a result, Gulf Sturgeon will not be considered in the consultation with the USFWS.

<sup>a</sup> Critical habitat areas for these species are identified at <http://sero.nmfs.noaa.gov/pr/GISDataandMaps.htm>

**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	No actions needed to minimize impacts in the terrestrial environment. All construction conditions identified in the <i>Sea Turtle and Smalltooth Construction Conditions</i> (NOAA, 2006) would be implemented and adhered to during project construction associated with in-water work to minimize the risk of collisions. Any potential affects to in-water sea turtles will be evaluated by National Marine Fisheries Service.
West Indian manatee	All construction conditions identified in the <i>Standard Manatee Conditions for In-water Work</i> (USFWS, 2011) would be implemented and adhered to during project construction associated with in-water work. We anticipate these conservation measures will avoid any risk of adverse effects to manatees from proposed project.
Gulf sturgeon	NMFS is providing consultation for Gulf sturgeon and its Critical Habitat in the estuarine environment. As a result, Gulf Sturgeon will not be considered in the consultation with the USFWS.

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

Species	Species Impacts					Response Requested
	NE	NLAA	MAA	JP	JC	
Green sea turtle	X					Concurrence – terrestrial; Consultation with NMFS in water
Hawksbill sea turtle	X					Concurrence – terrestrial; Consultation with NMFS in water
Kemp's ridley sea turtle	X					Concurrence – terrestrial; Consultation with NMFS in water
Leatherback sea turtle	X					Concurrence – terrestrial; Consultation with NMFS in water
Loggerhead sea turtle	X					Concurrence – terrestrial; Consultation with NMFS in water
West Indian Manatee		X				Concurrence
Gulf sturgeon <sup>a</sup>	---	---	---	---	---	n/a -- see table note a

<sup>a</sup> NMFS is providing consultation for Gulf sturgeon and its CH in the estuarine environment so this species will not be considered in the consultation with the USFWS.

### 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	Loafing/Foraging	Construction noise and increased human disturbance during construction may cause birds to temporarily stop foraging or loafing or cause them to temporarily relocate. We expect that birds in the project area are likely habituated to human activity and would not experience more than short-term impacts. No nesting is known to occur within the project site due to a lack of habitat.
Seabirds	Resting, roosting, nesting	Seabirds forage in water and rest/roost in terrestrial habitats. However, the level of project activity is unlikely to disturb roosting as all construction 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.**

<b>SPECIES/SPECIES GROUP</b>	<b>CONSERVATION MEASURES TO MINIMIZE IMPACTS</b>
Shorebirds	We expect foraging and resting birds would be able to move to another nearby location to continue foraging and resting. Shorebird nesting is not expected. However, 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.

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Seabirds	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                      February 18, 2014  
**Signature** (originating station - preparer)      **date**

DOI Case Management Team, ESA Coordinator  
**Title**

  
**Signature** (originating station)                      2/18/14  
**Deputy Case Manager**                                      **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



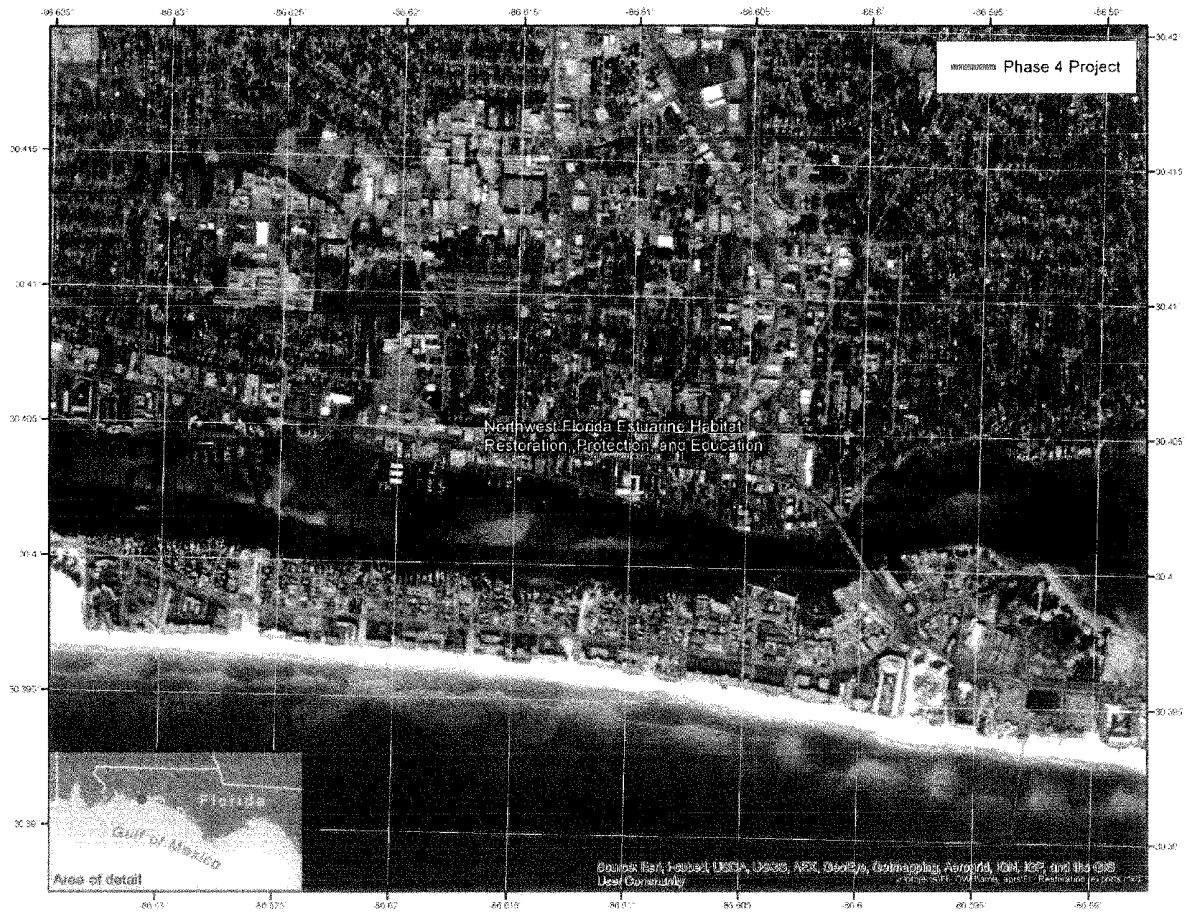
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USFWS 2011. Standard Manatee Conditions for In-Water Work. [http://www.fws.gov/northflorida/Manatee/Manatee\\_Key\\_Programmatic/20130425\\_gd\\_Appendix%20B\\_2011\\_Standard%20Manatee%20Construction%20Conditions.pdf](http://www.fws.gov/northflorida/Manatee/Manatee_Key_Programmatic/20130425_gd_Appendix%20B_2011_Standard%20Manatee%20Construction%20Conditions.pdf)

**Figure A. General location of envisioned Fort Walton Beach Educational Boardwalk Project.**





Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
Amphibians	Florida bog frog	SSC	ce	Palustrine: seepage slope, baygall Riverine: seepage slope, seepage stream.	NE	Listed natural community is inconsistent with the project habitat
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.	NE	Listed natural community is inconsistent with the project habitat
Birds	Red knot	P		Estuarine: exposed unconsolidated substrate Marine: exposed unconsolidated substrate Terrestrial: dunes, sandy beaches, and inlet areas. Mostly wintering and migrants.	NE	Listed natural community is inconsistent with the project habitat
Birds	Red-cockaded woodpecker	E		Terrestrial: mature pine forests.	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
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
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	Gulf sturgeon	T (CH)	SSC	Estuarine: various Marine: various habitats Riverine: alluvial and blackwater streams.	---	See Table 2, 3, and 4
Fish	Okafoosa darter	T	E	Riverine: seepage stream.	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	Santa Rosa beach mouse	ce		Terrestrial: beach dune, coastal scrub.	NE	Listed natural community is inconsistent with the project habitat
Mammals	West Indian manatee	E	E	Estuarine: submerged vegetation, open water Marine: open water, submerged vegetation Riverine: alluvial stream, blackwater stream, spring-run stream.	NLAA	See Table 2, 3, and 4



Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
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	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	Ashe's magnolia		E	Terrestrial: slope and upland hardwood forest, ravines.	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	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

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
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	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	Heartleaf		T	Riverine: seepage stream bank Terrestrial: slope forest.	NE	Listed natural community is inconsistent with the project habitat
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	Karst pond xyris		E	Lacustrine: sandhill upland lake margins.	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	Meadow beauty	ce	E	Palustrine: dome swamp margin, seepage slope, depression marsh; on slopes; with hypericum.	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

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
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	Panhandle Meadow-beauty	ce		Palustrine: Wetland obligate with moist sandy or peaty soils in full sunlight .	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	Perforate reindeer lichen	E	E	Terrestrial: coastal strand, rosemary scrub; full sun. Sites: Eglin AFB Santa Rosa/Okaloosa Island.	NE	Listed natural community is inconsistent with the project habitat
Plants	Pondspice	ce	E	Palustrine: hydric hammock, baygall, dome swamp; on peaty soils.	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	Pyramid magnolia		E	Terrestrial: slope forest.	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	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

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
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
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	West's flax	ce	E	Palustrine: dome swamp, depression marsh, wet flatwoods, wet prairie, pond margins.	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 butterwort		T	Palustrine: flatwoods, bogs.	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

<b>Resource category</b>	<b>Common name</b>	<b>FWS status</b>	<b>State status</b>	<b>Natural communities</b>	<b>Species impacts (NE, NLAA, MAA)</b>	<b>Justification</b>
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	Marine: open water; Terrestrial: sandy beaches; nesting.	NE	See Table 2, 3, and 4
Reptiles	Hawksbill turtle	E	E	Marine: open water; no nesting.	NE	See Table 2, 3, and 4
Reptiles	Kemp's ridley turtle	E	E	Marine: open water; Terrestrial: sandy beaches; nesting.	NE	See Table 2, 3, and 4
Reptiles	Leatherback turtle	E	E	Marine: open water; Terrestrial: sandy beaches; nesting.	NE	See Table 2, 3, and 4
Reptiles	Loggerhead turtle	T	T	Marine: open water; Terrestrial: sandy beaches; nesting.	NE	See Table 2, 3, and 4