



United States Department of the Interior

FISH AND WILDLIFE SERVICE
1875 Century Boulevard
Atlanta, Georgia 30345



In Reply Refer To:
FWS/R4/DH NRDAR

DEC 05 2013

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 *Debra L. McCl*

Subject: Informal Consultation Request for the Proposed Gulf Coast Marine Fisheries Hatchery/Enhancement Center Project, Pensacola, 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, the 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 will be proposed in a draft early restoration plan that will be released for public comment and review. If the Trustees select the project after publication of the plan and consideration of public comment, and a stipulated agreement is reached with BP, the early restoration project will be implemented by the state of Florida (the State). 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 Gulf Coast Marine Fisheries Hatchery/Enhancement Center Project, Pensacola, Florida, 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/conference 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.

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; dmills@stratusconsulting.com

Date: 2013-10-08

PROJECT NAME (Grant Title/Number): Florida Gulf Coast Marine Fisheries Hatchery/Enhancement Center Project

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 and B at the end of this document for a map indicating the project action area.

A. Ecoregion Number and Name: n/a

B. County and State: Escambia County, Florida

C. Section, township, and range (or latitude and longitude): Southeast Region

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

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

The proposed Florida Gulf Coast Marine Fisheries Hatchery/Enhancement Center project would involve constructing and operating a saltwater sportfish hatchery in Pensacola (Escambia County), Florida (see Figure A for a conceptual design, Figure B for facility location) to enhance recreational fishing opportunities. The facility will focus on producing and releasing highly sought-after sportfish species such as red snapper, red drum, and spotted seatrout. Hatchery production (with a potential for up to 5,000,000 fish released annually) will be based on the use of intensive (i.e., indoor, tank-based) recirculating aquaculture systems that reduce water usage and effluent discharge (i.e., most of the water is re-used). Production waters not being reused will flow through a small constructed filtration marsh, composed of native coastal wetland plant species, to recycle nutrients from the aquaculture facility as plant biomass which can be used to support ongoing regional coastal habitat restoration efforts.

Critical project elements identified within Figure A include:

- **Broodstock rooms:** Where adult fish would be held in a 115,000-gallon tank for spawning in order to produce the fertilized eggs the hatchery would grow out until they are large enough for release.
- **Live Feed room:** This room contains smaller tanks that grow food to feed the cultured sport fish. Depending on the species, this may include various species of phytoplankton and zooplankton.
- **Phase 1 Tank Rooms:** These rooms are where the hatchery-raised fish would complete their grow-out to the Phase I size of approximately 1.25 inches in length, at which point they would be ready for release. The Phase I tanks would be 95,000-gallon capacity.
- **Stormwater pond:** A retention pond would be developed to capture rainwater flowing from impervious surfaces on the site during storm events. This pond would be used to settle solids and allow for some groundwater recharge. Discharge from the pond would be integrated into the waters being directly returned to Pensacola Bay from the site. Exact size of the pond and conditions and mechanisms of the return flow to Pensacola Bay would be defined in the development of the final engineering plans for the hatchery project (e.g., size of pond related to the amount of impervious surface in the final design).
- **Storage pond:** In rearing the fish, a lined storage pond up to an acre would be used to store effluent after initial filtration for solids within the facility. The pond would allow for additional settling of solids entrained in the hatchery's fish production water, and the liner would facilitate removal of fish waste and other biological material. Water from the storage pond would flow into the plant production pond.
- **Plant production pond/filtration marsh:** This approximately 2-acre created pond or marsh would receive discharge from the storage pond and be planted with native wetland species, including *Spartina alterniflora*, to uptake nutrients that improve water quality before water would be returned to Pensacola Bay as sheet flow. The wetland plants would be harvested to remove nutrients from the marsh and used to support other coastal restoration projects. To the maximum extent possible, this constructed marsh will be integrated with the existing wetland and marsh mitigation

areas that are on and adjacent to the proposed hatchery location. However, no negative impacts to existing wetlands are anticipated. In addition, the marsh would serve as a wetland plant supply for restoration projects.

- **Entrance and offices:** A portion of the main facility building would contain offices for the FWC operations staff. An entrance located adjacent to the parking lot will be developed for access by staff and invited visitors. A separate service entrance would be developed for the delivery of hatchery and administrative supplies.
- **Parking lot:** An on-site lot of approximately 90,000 square feet would be developed to provide parking for hatchery staff and scheduled visitors. Access to the lot would be via Clubbs Street, which has minimal traffic and would dead-end at the facility parking lot.

Permitting and construction to complete these hatchery elements would take approximately 12-18 months. Heavy equipment (e.g., excavators, backhoes, graders, lifts, cranes) would be needed to remove existing debris from the project site and to develop the buildings, ponds, and other features of the project described above.

Habitat features associated with the treatment of the hatchery's production waters would be first designed based on a maximum possible production level. Once these features were constructed, remaining funding would be evaluated to adjust the initial scale of the operation according to resource availability. This process would ensure the hatchery's environmental features would be capable of meeting their treatment demands. Subsequently, the size and characteristics of the stormwater pond would be scaled according to the amount of impervious surface (e.g., facility roof, parking lot) in the final design for the hatchery.

Construction equipment and activities would be managed to ensure sensitive and regulated resources, including the existing wetland mitigation areas, would not be disturbed. Specifically, the hatchery project would be designed with the intent of saving live oaks and pecan trees protected by city preservation ordinances (Wetland Sciences, Inc. 2013). In addition, FWC would collaborate with the Florida Department of Environmental Protection (FDEP), a co-Trustee in Florida, to ensure the hatchery project would not affect the existing mitigation areas covered by FDEP permits.

EPA permitting requirements for operating a fish hatchery are detailed in Title 4, Code of Federal Regulations (CFR) Part 122, Sections 1(b)(2)(ii), 24 and Appendix C. Hatcheries producing less than 100,000 pounds of warm water species per year are exempt from obtaining a National Pollutants Discharge Elimination System permit. The hatchery project would be required to obtain an Industrial Wastewater Permit from FDEP. An Aquaculture Certification (Section 597.004, F.S.) would also be required from the Florida Department of Agriculture and Consumer Services, Department of Aquaculture (DOA). Development of the hatchery project would adhere to the DOA's Aquaculture Best Management Practices Rule enacted in 2007 (Chapter 597, F.S. 5L-3). Building construction would use standard methods and follow general state and local permitting requirements regarding hours of activity, noise, site maintenance, and disposal of materials.

Production of reared fish would take place indoors at the hatchery rather than in outdoor holding and rearing ponds common to many facilities. Sea water for the facility operations would be pumped from a bay inlet to a treatment center at the hatchery. The inlet would require construction of a pier that would support the pumping infrastructure. An occlusion devise at the water intake would prevent harm to specific marine organisms (e.g., West Indian Manatees) and to prevent pump malfunction or damage. A pumping station (land-based is preferable) would supply power and protect the pump(s). Details of this structure would be addressed in the development of final site plans. Any proposed structure would comply with relevant city, state, and federal permit requirements. The sea water treatment center may include disinfection either through chlorine or ozone, a settling tank to remove suspended solids, mechanical filtration, and a water distribution system (valves and plumbing) to direct water to specific areas of the hatchery.

Waste water from the hatchery would pass through the filtration marsh/ wetland (described above) to remove suspended solids and nutrients from the waste stream. The marsh or wetland would be designed to distribute water equally to the marsh wetland plants to facilitate uniform growth of plants and nutrient stripping by the plants from the waste stream. Several species would be planted in the marsh at strategic elevations to provide the appropriate water inundation or exposure to the plants. Discharge from the marsh would be controlled seasonally by means of weir boards into a poly-lined ditch that can then lead directly to an open system such as a natural marsh, open bay, or lead to a culvert pipe that drains into the natural system. An elevated culvert pipe minimizes tidal inundation of bay waters into the drainage system that could lead to colonization of encrusting organisms in the culvert such as barnacles and oysters.

The project proposal also provides for five years of Trustee operation and maintenance which will provide for regular facility maintenance and repair (electrical, plumbing, physical facility, etc.) as well as periodic maintenance and repair of aquaculture systems (including tanks, filtration systems, and specialized instrumentation). After five years, upkeep and repair of facility buildings as well as maintenance of stormwater and effluent retention ponds, and filtration marsh will be provided by FWC and its governmental, university, or non-profit partners.

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

A biological survey of the proposed project site was completed in August, 2013 (Wetland Sciences Inc., 2013). Results from this assessment are presented throughout this section.

The proposed project area for the hatchery is in Pensacola, Florida in Escambia County at the southeast corner of Main Street and Clubbs Street (See figure A). A bulk petroleum storage facility is located immediately west of the proposed project site (Transmontaigne Product Services., FDEP Facility ID No. 178508201), Bruce Beach mitigation area is located to the south and the City of Pensacola Southern Bulkhead Mitigation Area to the east. Historical records suggest the property is man-made land, created in the early 1900's by filling in a portion of Pensacola Bay. Documented industrial activities have been ongoing on this property since 1910.

There are three areas either immediately adjacent to or within the subject property that have been developed as wetland mitigation areas (See Figure C).

Records indicate the Bruce Beach marsh was planted in 1991 by the Florida Department of Environmental Protection's Ecosystem Restoration Section. This mitigation area was formed by the construction of an L-shaped breakwater and infill of submerged lands of Pensacola Bay. Originally, smooth cordgrass (*Spartina alterniflora*) was established on one-meter centers throughout the entire created area. Hydrology within the site was established through tidal ebb and flow whose influences are manifested by a gap in the constructed breakwater which effectively connected the mitigation site to Pensacola Bay.

The Southern Bulkhead Mitigation Area site was designed to compensate for wetland losses incurred with the construction of the southern bulkhead along the waterfront of what is now the Community Maritime Park. This mitigation site was once a channelized canal formerly used to discharge treated effluent from a now decommissioned wastewater treatment plant. The mitigation site is comprised of a meandering tidal channel and low/high marsh areas planted with smooth cordgrass and marsh hay (*Spartina patens*).

The Community Maritime Park (CMP) wetland mitigation area was established in 2012 to compensate for loss of wetland functions that were eliminated by the construction of the Pensacola Community Maritime Park. The wetland mitigation plan included the creation of a salt marsh consisting of 0.86 acres of oyster reef habitat/breakwaters, 1.96 acres of planted salt marsh, and 1.72 acres of tidal creeks and pools which serve as a waterward extension of the existing Bruce Beach mitigation area. The mitigation plan also included modifications to the existing Bruce Beach Mitigation Area. These modifications included the re-grading of adjacent uplands to intertidal elevations for additional marsh creation and opening the southern end of the site to enhance tidal exchange between Bruce Beach and the CMP mitigation areas. This mitigation site is protected via a conservation easement recorded in OR Book 6417 Pages 1666-1680 in the official records of Escambia County (Figure 4).

These three mitigation areas will not be affected by the construction activities and should benefit from the improved quality of the water returned to the bay through the hatchery's treatment processes relative to the uncontrolled nature of the current surface water runoff from the site.

The subject property is highly disturbed. Excess material including earth fill and limestone riprap is stockpiled within the subject property. Additionally, the site is strewn with other historic debris from previous industrial land uses including creosote treated timbers, concrete pilings, concrete culverts, bricks, abandoned rail spur, etc.

Intact plant communities at the site are effectively limited to three stands of trees and a fringing marsh, see figure D (trees located in polygons 1-3) (Wetland Sciences, 2013). The rest of the site is characterized by ruderal plant communities with a large number of invasive species present throughout the site reflecting past disturbances.

VII. Species and Critical 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 Marine Fisheries Hatchery/Enhancement Center 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 would 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
West Indian manatee	<p>The county in the project area is 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). Though manatees are not commonly known from the action area, manatees could be present in the project waters (U.S. Department of the Interior, 2011).</p> <p>The main risk to manatees during execution of this project would come from pier construction and operation of an in-take pipe which could result in harm or mortality.</p>
Gulf sturgeon	<p>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.</p>

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

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

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
West Indian manatee	<p>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. We anticipate these conservation measures will avoid any</p>

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
	risk of adverse effects to manatees from implementation of the proposed project. Operation of the proposed sea water withdrawal device (i.e., pump) should not pose a risk to manatees as it will be designed to avoid entrapment or entrainment of manatees. Because of the low likelihood of presence and these conservation measures we consider the possible risks to manatees to be insignificant and discountable.
Gulf sturgeon	See note in above table about the review of potential Gulf sturgeon impacts being coordinated through NMFS instead of through the USFWS.

VIII. Effect Determination and Response Requested:

¹DETERMINATION/ RESPONSE REQUESTED:

Species	Species Impacts					Response Requested*
	NE	NLAA	MAA	JP	JC	
West Indian manatee		X				Concurrence
Gulf sturgeon and its Critical Habitat	—	—	—	—	—	Consultation with NMFS

*Concurrence, Formal Consultation, Formal 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.**

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Songbirds, wading birds, marsh birds	Foraging, resting, nesting	Migratory birds may be foraging and resting in terrestrial or aquatic habitats on site. However the only nesting likely would be songbird nesting in the large trees on site.

- 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
Nesting songbirds	The large oak and pecan trees on site will be avoided during site grading and project construction.
Resting and feeding birds	Care will be taken to minimize noise and vibration 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. Roosting should not be impacted because the project will occur during daylight hours only.

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

/s/ Holly N. Blalock-Herod

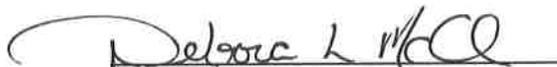
Signature (originating station - preparer)

December 4, 2013

date

DOI Case Management Team, ESA Coordinator

Title


Signature (originating station)

12/5/13
date

Deputy Case Manager

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 Nonconcurrence _____
- B. Formal consultation required _____
- C. Conference required _____
- D. Informal conference required _____

E. Remarks (attach additional pages as needed):

<i>Cath J. P.</i>	12-23-13
Signature	date
<i>Cath J. P.</i>	Panama City FO
Field Supervisor	office

TAILS # 04EF3000-2014-I-0046

References

Florida Fish and Wildlife Conservation Commission. 2011. Saltmarsh topminnow biological status review report. Tallahassee, Florida. 14 pp.

U.S. Fish and Wildlife Service. 2011. Standard Manatee Conditions for In-Water Work. http://www.fws.gov/northflorida/Manatee/Manate_Key_Programmatic/20130425_gd_Appendix%20B_2011_Standard%20Manatee%20Construction%20Conditions.pdf

Wetland Sciences, Inc. 2013. Biological Assessment: Pensacola Fish Hatchery Site, NRDA ERP Project, City of Pensacola. August 19, 2013.

Figure A. Location of envisioned Florida Gulf Coast Marine Fisheries Hatcher/Enhancement Center Project.



Figure C. Location for the Florida Gulf Coast Marine Fisheries Hatchery/Enhancement Center Project.



Source: Wetland Services Inc., 2013

Figure D. Intact plant communities at proposed Florida Gulf Coast Marine Fisheries Hatcher/Enhancement Center



WETLAND SCIENCES
INCORPORATED

ENVIRONMENTAL CONSULTANTS
1829 BAINBRIDGE AVENUE
PENSACOLA, FLORIDA 32507
TEL: 850.453.4700
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PROJECT NAME: FISH HATCHERY	
APPENDIX D	
PROJECT NO.: 2013-233	
BY: KDJ	DATE: 08/19/13
SHEET: 1 OF 1	



Source: Wetland Services Inc., 2013

Table 1. Species of concern in Escambia County.

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. No critical habitat is present in the action area.
Birds	Arctic peregrine falcon	ce	E	Estuarine: winters along coasts Lacustrine: various Palustrine: various Terrestrial: various, ruderal.	NE	Listed natural community is inconsistent with the project habitat and species has not been documented using the area in recent biological surveys
Birds	Bachman's sparrow	ce		Terrestrial: various, ruderal.	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	Estuarine: various Lacustrine: various Riverine: various Terrestrial: beach dune, ruderal. Nests common on rooftops.	NE	Listed natural community is inconsistent with the project habitat

Table 1. Species of concern in Escambia County.

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
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	No suitable habitat is present for this species in the action area and the species is not expected to be present and has not been documented using the area. No critical habitat is present in the action area.
Birds	Red knot	P		Estuarine: exposed unconsolidated substrate Marine: exposed unconsolidated substrate Terrestrial: dunes, sandy beaches, and inlet areas. Mostly wintering and migrants.	NE	No suitable habitat is present for this species in the action area and the species is not expected to be present and has not been documented using the area.
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
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

Table 1. Species of concern in Escambia County.

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
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: various Marine habitats Riverine: alluvial and blackwater streams.	See Table 2	See Table 2
Fish	Saltmarsh Topminnow	ce	T	Saltmarsh habitats from Galveston Bay, Texas to Pensacola/Escambia Bay, Florida - specifically Perdido Bay and Pensacola/Escambia estuaries in Florida.	NE	Listed natural community is inconsistent with the project habitat (see habitat map FWC 2011)
Mammals	West Indian manatee	E		Freshwater, brackish, estuarine, and marine environments in water of sufficient depth (generally 5 feet to less than 20 feet)	NLAA	See Table 2
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	Southeastern big-eared bat	ce		Palustrine: various, floodplains Terrestrial: pine and hardwood forests, ruderal, various.	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

Table 1. Species of concern in Escambia County.

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
Mussels	Fuzzy pigtoe	T (CH)		Riverine: small to medium-sized creeks and rivers with slow to moderate currents in sand and silt 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. No critical habitat is present in the action area.
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. No critical habitat is present in the action area.
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. No critical habitat is present in the action area.
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

Table 1. Species of concern in Escambia County.

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
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
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

Table 1. Species of concern in Escambia County.

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
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

Table 1. Species of concern in Escambia County.

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
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
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 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 fringed 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

Table 1. Species of concern in Escambia County.

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
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.	NE	No nesting habitat present at site. Separate review with NMFS is being undertaken to review any potential in-water impacts
Reptiles	Hawksbill turtle	E	E	Marine: open water; no nesting.	NE	No nesting habitat present at site. Separate review with NMFS is being undertaken to review any potential in-water impacts
Reptiles	Kemp's ridley turtle	E	E	Terrestrial: sandy beaches; nesting.	NE	No nesting habitat present at site. Separate review with NMFS is being undertaken to review any potential in-water impacts

Table 1. Species of concern in Escambia County.

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
Reptiles	Leatherback turtle	E	E	Terrestrial: sandy beaches; nesting.	NE	No nesting habitat present at site. Separate review with NMFS is being undertaken to review any potential in-water impacts
Reptiles	Loggerhead turtle	T	T	Terrestrial: sandy beaches; nesting.	NE	No nesting habitat present at site. Separate review with NMFS is being undertaken to review any potential in-water impacts

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.

Source: This table reflects the information available 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. Information downloaded March 13, 2013.