



United States Department of the Interior

FISH AND WILDLIFE SERVICE

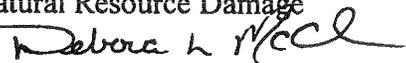
1875 Century Boulevard
Atlanta, Georgia 30345

In Reply Refer To:
FWS/R4/DH NRDAR

February 20, 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 

Subject: Informal Consultation and Conference Request for the Proposed Florida Cat Point Living Shoreline Project, Franklin County, 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 Proposed Florida Cat Point Living Shoreline Project, Franklin County, 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, West Indian manatee, piping plover and red knot (if listed) 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.

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: January 21, 2014

PROJECT NAME (Grant Title/Number): Florida Cat Point (Franklin County) Living Shoreline 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

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

B. County and State: Franklin County, Florida

C. Section, township, and range (or latitude and longitude): See map (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 Cat Point (Franklin County) Living Shoreline project would use living shoreline techniques including natural and/or artificial breakwater material to stabilize shorelines along an area just off the Apalachicola National Estuarine Research Reserve (ANERR) Office Complex and Nature Center in Eastpoint, Florida. This project would expand on an existing breakwater, creating up to 0.3 mile breakwater to dampen wave energy and create salt marsh habitat. This area has been the location of previous successful living shorelines projects that contribute to shoreline protection. The constructed breakwaters would serve to protect approximately 1 acre of salt marsh habitat that would be planted by the project as well as limiting future erosion.

The breakwater/living shoreline method would be employed along approximately 0.3 mile of shoreline. The structures would likely be placed approximately 30 feet from the shoreline and would likely have an approximate 5-foot crest width with a height that falls within the mean high and low water lines of the site. The specific breakwater elevation and technique would be selected during the design and permitting stage to maximize shoreline protection and meet state regulatory requirements.

Construction and Installation

Engineering and Design

Building upon the experience of DEP with similar efforts, such as the original Cat Point Living Shoreline, breakwaters would be constructed along approximately 0.3 mile of selected shoreline in Apalachicola Bay (see areas in Figure A). Construction activities would include placement of linear structures that may use natural rock or shell-based materials, or both. The proposed project depths are approximately 1 to 2 feet below mean lower low water (MLLW) at the existing breakwater. The specific breakwater elevation and technique would be selected during design and permitting to maximize shoreline protection and meet state regulatory requirements.

The structures would be placed approximately 30 feet from the shoreline and have an approximately 5-foot crest width with a height that falls within the mean high and low water lines of the site. Additionally, the project would create and restore approximately 1 acre of salt marsh habitat. One of the breakwater units could be constructed with bagged shell material while the other would probably be constructed of rock riprap. No long-term maintenance is anticipated for the breakwaters after materials are placed and stabilized.

The project area would be accessed by an existing road (Millender Street). Materials and equipment would be staged in the state-owned lands adjacent to the road right-of-way. This area consists of a gravel parking area with an adjacent grassy area with a few trees for picnicking/relaxing behind the marked parking area. The approximate location and nature of this habitat is shown in Figure B.

Preliminary construction details are as follows.

Northern Structure—Riprap Structure

Total project length = 689 feet

Crest width = 5 feet

Assumed bottom elevation = -1.5 feet, MLLW (based upon nautical charts)

Total structure height = 2.5 feet $[(5.24-4.29) - (-1.5) = 2.45 \text{ feet} \rightarrow 2.5 \text{ feet}]$

Bagged shell veneer depth = 0.50 foot

Riprap depth = 1.50 feet

Estimate initial settlement = 0.5 foot

Design side slopes are 2 horizontal to 1 vertical

Breakwater distance from shoreline = 30 feet

Reach of each breakwater = 70 feet

Length of each gap between breakwater = up to 25 feet

Southern Structure—Bagged Shell Structure

Total project length = 750 feet

Crest width = 5 feet

Assumed bottom elevation = -1.5 feet, MLLW (based upon nautical charts)

Total structure height = 2.5 feet $[(5.24-4.29) - (-1.5) = 2.45 \text{ feet} \rightarrow 2.5 \text{ feet}]$

Bagged shell veneer depth = 0.50 foot

Riprap depth = 1.50 feet

Estimate initial settlement = 0.5 foot

Design side slopes are 2 horizontal to 1 vertical

Breakwater distance from shoreline = 30 feet

Reach of each breakwater = 70 feet

Length of each gap between breakwater = up to 25 feet

In addition, native vegetative plantings, on 2- to 3-foot centers, would be installed behind the breakwater structures along the shoreline to achieve approximately 1 acre of marsh creation.

This activity would commence once the constructed breakwater material placement is complete and stabilized so the restored areas would be protected to the fullest extent possible.

The current construction plan envisions taking advantage of the extremely low wintertime water levels in the project area that leave the area for the material placement dry much of the time so that materials may be driven into place using heavy equipment from the staging area.

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

The proposed Cat Point Living Shoreline Early Restoration project is located along the northwestern portion of St. George Sound, approximately 6 miles east of Apalachicola in Franklin County, Florida. The site is east of the St. George Island bridge on property owned by the state and managed by the ANERR (Figure A).

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 Florida Cat Point Living Shoreline 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, Kemp's ridley turtle; Leatherback turtle, Loggerhead turtle	<p>The main risk to sea turtles during execution of this project would come from in-water collisions during the placement of the breakwater materials, which could result in harm or mortality. Consultation will be initiated with NMFS, as this agency has jurisdiction to review impacts to sea turtles in the estuarine and marine environments. The planting activity associated with the restoration of the salt marsh habitat should not pose a risk given the limited extent of the acreage involved.</p> <p>No nesting habitat is present on the adjacent shoreline; therefore no effects to sea turtles in terrestrial habitats are anticipated.</p> <p>No designated or proposed critical habitat for sea turtles occurs within the action area; therefore, none will be adversely modified or destroyed.</p>
West Indian manatee	<p>Franklin county is not one 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.</p> <p>The main risk to manatees during implementation of this project would come from collisions with equipment used to place the breakwater materials or the materials themselves which could result in harm or mortality. Implementation of the conservation measures below is expected to minimize the risk of collision of project debris and vessels such that it is insignificant and discountable.</p>
Piping plover	The main risk to Piping plovers is from human disturbance while resting and

SPECIES/CRITICAL	SPECIES/CRITICAL HABITAT IMPACTS
	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 Piping plover critical habitat is not designated in or near the project area.
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.
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.

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

Table 3. Conservation Measures to Minimize Impacts to Species

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Green turtle, Hawksbill turtle, Kemp’s ridley turtle, Leatherback turtle, Loggerhead turtle	To minimize risks in the aquatic 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 to minimize the risk of collisions. Consultation will be initiated with NMFS for in-water effects to turtles.
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.
Piping plover	The presence of additional suitable habitat nearby and the infrequent nature of the project noise or workers and equipment will minimize project risks.
Red knot	The presence of additional suitable habitat nearby and the infrequent nature of the project noise or workers and equipment will minimize project risks.
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. Table 4. Effect Determination and Response Requested:

¹DETERMINATION/ RESPONSE REQUESTED:

Species	Species Impacts					Response Requested*
	NE	NLAA	MAA	JP	JC	
Green turtle	X					Concurrence (terrestrial); Consultation with NMFS (in-water)
Hawksbill turtle	X					Concurrence (terrestrial); Consultation with NMFS (in-water)
Kemp's ridley turtle	X					Concurrence (terrestrial); Consultation with NMFS (in-water)
Leatherback turtle	X					Concurrence (terrestrial); Consultation with NMFS (in-water)
Loggerhead turtle	X					Concurrence (terrestrial); Consultation with NMFS (in-water)
West Indian manatee		X				Concurrence
Piping plover		X				Concurrence
Red knot		X				Conference
Gulf sturgeon ^a	---	---	---	---	---	n/a – see table note a

*Concurrence, Formal Consultation, Formal Conference

^a 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 ___ X ___ Yes

If "Yes," can you implement the conservation measures below? ___ X ___ 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
Shorebirds	Foraging, feeding, resting, nesting	Shorebirds forage, feed, and rest, and in the types of habitats consistent with some of the shoreline areas near proposed actions. As such, foraging, feeding, and resting may be impacted locally and temporarily by the project. No nesting habitat is known in the project area; however, if nesting birds (adults, eggs, chicks) are present impacts will be avoided.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Resting, roosting	Seabirds forage in water and rest/roost in terrestrial habitats. However, the level of project activity in open water could startle foraging or resting birds; however, they would be expected to move to nearby locations and resume activities. Because activities will occur during the day roosting should not be impacted. Nesting is not known in the action area.

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

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
	shorebirds or rookeries and their recommendations will be implemented.
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

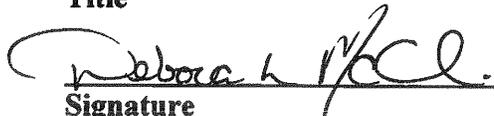
January 30, 2014

Signature (originating station - preparer)

date

DOI Case Management Team, ESA Coordinator

Title



Signature



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):

Signature **date**

Field Supervisor **office**

References

NOAA. 2006. Sea Turtle and Smalltooth Sawfish Construction Conditions.

<http://sero.nmfs.noaa.gov/pr/endangered%20species/Sea%20Turtle%20and%20Smalltooth%20Sawfish%20Construction%20Conditions%203-23-06.pdf> Accessed July 16, 2013.

U.S. Department of the Interior. 2011. Biological Opinion: Permitted actions for watercraft access facilities. FWS Log No. 41910-2-11-FC-0195. March, 21.

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 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

Figure A. Location of envisioned Florida Cat Point (Franklin County) Living Shoreline Project.

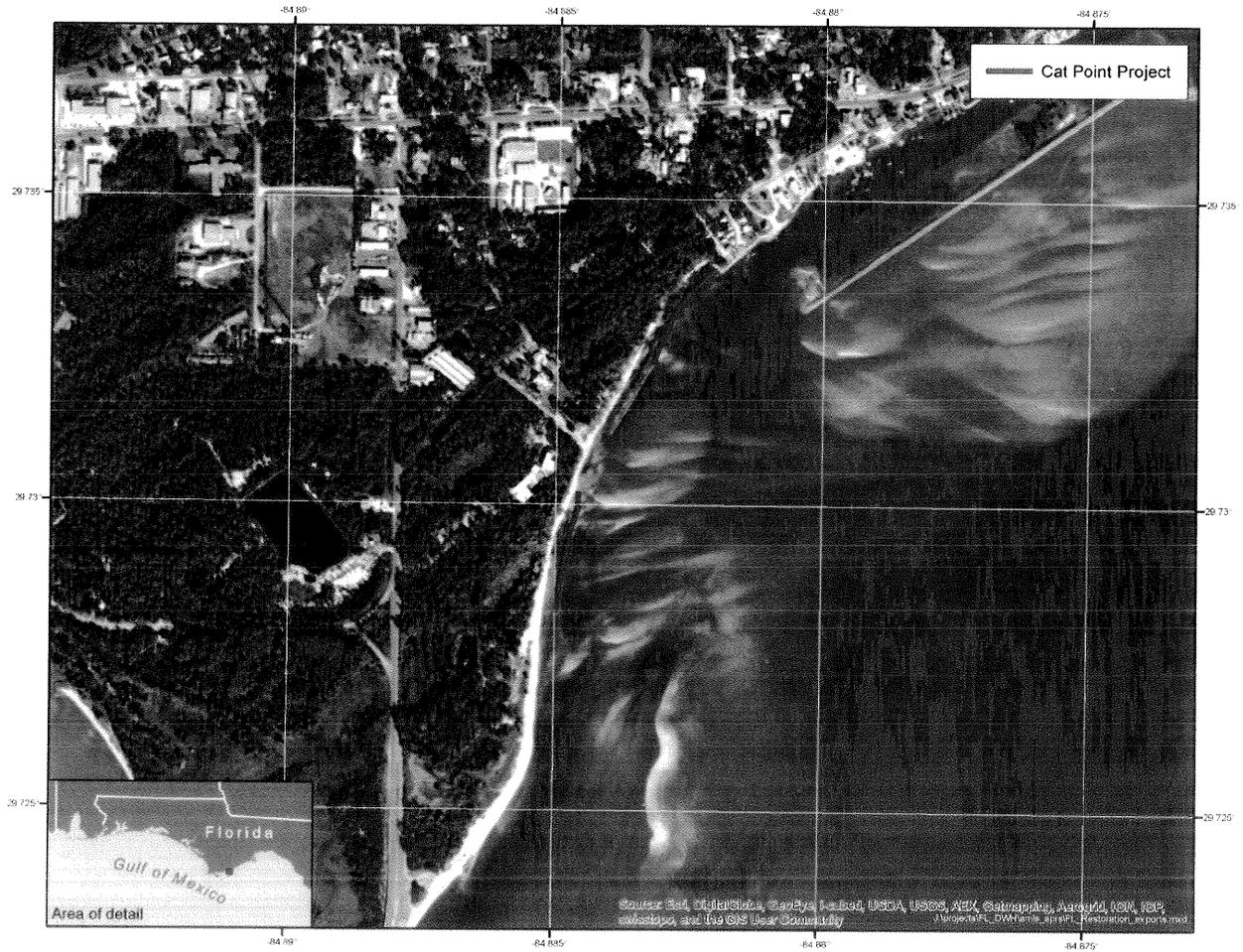


Figure B. Approximate area for equipment staging to be used during construction of the Florida Cat Point (Franklin County) Living Shoreline Project.



Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
Amphibians	Frosted flatwoods salamander	T (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
Amphibians	Gopher frog	SSC	ce	Terrestrial: sandhill, scrub, scrubby flatwoods, xeric hammock (reproduces in ephemeral wetlands within these communities).	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.	See Section X	See Section X
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	Reddish egret	ce	SSC	Estuarine: tidal swamp, depression marsh, bog, marl prairie, wet prairie Lacustrine: flatwoods/prairie lake, marsh lake Marine: tidal swamp.	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	Wakulla seaside sparrow	ce	SSC	Estuarine: tidal marsh Marine: tidal marsh.	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	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 and Marine: sandy sediments for foraging and resting; Riverine: alluvial and blackwater streams.	-----	See Table 2, 3, and 4
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	Florida mouse	ce	SSC	Terrestrial: scrub, sandhill, scrubby flatwoods.	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
Mussels	Fat threeridge	E (CH)		Riverine: main channels of small to large rivers in slow to moderate currents; fine to medium silty sand, also mixtures of sand, clay, and gravel. Panhandle drainages: Chipola and Apalachicola Rivers.	NE	Listed natural community is inconsistent with the project habitat
Mussels	Gulf moccasinshell	E (CH)		Riverine: medium-sized creeks to large rivers with sand and gravel substrates in slow to moderate currents. Panhandle drainages: Econfina Creek and Chipola River.	NE	Listed natural community is inconsistent with the project habitat
Mussels	Oval pigtoe	E (CH)		Riverine: medium-sized creeks to small rivers; various substrates; slow to moderate currents.	NE	Listed natural community is inconsistent with the project habitat
Mussels	Purple bank climber	T (CH)		Riverine: small to large rivers in sand, sand mixed with mud, or gravel substrates with slow to moderate currents. Panhandle drainages: Chipola, Apalachicola, and Ochlockonee Rivers.	NE	Listed natural community is inconsistent with the project habitat
Mussels	Shinyrayed pocketbook	E (CH)		Riverine: medium-sized creeks to mainstem rivers in a range of substrates including sand, clay, and gravel with slow to moderate current. Panhandle drainages: Econfina (Creek), Chipola, and Ochlockonee (upstream of Lake Talquin) Rivers.	NE	Listed natural community is inconsistent with the project habitat
Plants	Apalachicola dolls daisy	ce		Palustrine: Floodplain 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	Bent golden aster	ce	E	Terrestrial: pine forest, ruderal.	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	Carolina grass-of-parnassus	ce	E	Palustrine: seepage slope Terrestrial: mesic flatwoods.	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	Chapman's crownbeard	ce	T	Palustrine: seepage slope Terrestrial: mesic flatwoods with wiregrass (<i>Aristida stricta</i>).	NE	Listed natural community is inconsistent with the project habitat
Plants	Corkwood		T	Estuarine: tidal marsh Palustrine: freshwater tidal swamp, hydric hammock.	NE	Listed natural community is inconsistent with the project habitat
Plants	Curtiss' loosestrife	ce	E	Palustrine: wet Flatwoods edges, floodplain swamp, seepage slope, dome swamp edges Terrestrial: seepage slope.	NE	Listed natural community is inconsistent with the project habitat
Plants	Florida bear-grass	ce	T	Terrestrial: mesic flatwoods grassy areas.	NE	Listed natural community is inconsistent with the project habitat
Plants	Florida skullcap	T	E	Palustrine: seepage slope, wet flatwoods, grassy openings Terrestrial: mesic flatwoods.	NE	Listed natural community is inconsistent with the project habitat
Plants	Godfrey's (violet) butterwort	T	E	Palustrine: wet flatwoods, wet prairie, bog; in shallow water Riverine: seepage slope; in shallow water. Also, roadside ditches and similar habitat.	NE	Listed natural community is inconsistent with the project habitat
Plants	Godfrey's blazing star	ce	E	Terrestrial: sandhill, scrub, coastal grassland; disturbed areas.	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 beauty	E	E	Palustrine: wet prairie, seepage slope, roadsides, edges of titi swamps.	NE	Listed natural community is inconsistent with the project habitat
Plants	Harper's grooved yellow flax	ce		Palustrine: wet Flatwoods Terrestrial: mesic flatwoods; in site-prepped areas.	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	Hooded pitcher plant		T	Palustrine: wet flatwoods, wet prairie, seepage slope.	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	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-flowered-grass-of-parmassus		E	Palustrine: dome swamp margins, seepage slope Riverine: spring-run stream edge Terrestrial: mesic flatwoods.	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	Panhandle spiderlily	ce	E	Palustrine: dome swamp edges, wet prairie, wet flatwoods, baygall edges, swamp edges Terrestrial: wet prairies and flatwoods.	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	Pine-woods aster	ce	E	Palustrine: seepage slope Terrestrial: sandhill, scrubby and mesic flatwoods.	NE	Listed natural community is inconsistent with the project habitat
Plants	Scare-weed	ce	T	Terrestrial: mesic flatwoods, sand hill; on disturbed sites.	NE	Listed natural community is inconsistent with the project habitat
Plants	Southern milkweed	ce	T	Palustrine: wet prairie, seepage slope edges Riverine: seepage stream banks Terrestrial: mesic flatwoods, drainage ditches.	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
Plants	Telephus spurge	T	E	Terrestrial: mesic flatwoods; disturbed wiregrass (Aristida stricta) areas, coastal scrub. All known sites are within 4 miles of Gulf of Mexico.	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	Thick-leaved water willow	ce	E	Palustrine: dome swamp, seepage slope mesic flatwoods.	NE	Listed natural community is inconsistent with the project habitat
Plants	Tropical waxweed	ce		Palustrine: wet prairie, seepage slope mesic flatwoods.	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 birds-in-a-nest	T	E	Palustrine: seepage slope Terrestrial: grassy mesic pine flatwoods, savannahs, roadsides, and similar habitat.	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	Wiregrass gentian	ce	E	Palustrine: seepage slope, wet prairie, roadside ditches Terrestrial: mesic flatwoods, planted slash pine.	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 fringeless orchid	ce	E	Palustrine: wet prairie, seepage slope 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	Barbour's map turtle	ce	SSC	Palustrine: floodplain stream, floodplain swamp Riverine: alluvial 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	Marine/Estuarine: open water, feeding migrating; Terrestrial: sandy beaches, nesting.	NE	See Table 2, 3, and 4

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Justification
Reptiles	Hawksbill turtle	E	E	Marine/Estuarine: open water, feeding migrating; Terrestrial: sandy beaches, nesting.	NE	See Table 2, 3, and 4
Reptiles	Kemp's ridley turtle	E	E	Marine/Estuarine: open water, feeding migrating; Terrestrial: sandy beaches, nesting.	NE	See Table 2, 3, and 4
Reptiles	Leatherback turtle	E	E	Marine/Estuarine: open water, feeding migrating; Terrestrial: sandy beaches, nesting.	NE	See Table 2, 3, and 4
Reptiles	Loggerhead turtle	T	T	Marine/Estuarine: open water, feeding migrating; Terrestrial: sandy beaches, nesting.	NE	See Table 2, 3, and 4