



United States Department of the Interior

FISH AND WILDLIFE SERVICE

1875 Century Boulevard
Atlanta, Georgia 30345

In Reply Refer To:
FWS/R4/DH NRDAR

FEB 26 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 *Debra L. McC*

Subject: Informal Consultation and Conference Request for the Proposed Wakulla County Mashas Sands Park Improvements, Florida

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

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

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

The above facts lead us to the conclusion that consultation and conference under Section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*), is required for the proposed project and we wish to engage in such consultation. Accordingly, we have reviewed the proposed Wakulla County Mashas Sands Park Improvements, Florida, project for potential

impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. We determined the proposed project may affect, but is not likely to adversely affect, five species of sea turtles (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), 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: February 24, 2014

PROJECT NAME (Grant Title/Number): Wakulla County Mashas Sands Park Improvements

I. Service Program:

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

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

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

IV. Location (attach map): See Figure 1 at the end of this document for a map indicating the proposed project area.

A. Ecoregion Number and Name: Southeast Region

B. County and State: Wakulla County, Florida

C. Section, township, and range (or latitude and longitude): See Figure 1 for general location and Figure 2 with detail of potential project activity area

D. Distance (miles) and direction to nearest town: see map (Figure 1)

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

The proposed Wakulla County Mashles Sands Park Improvements project involves constructing observation platforms, boardwalks and walking paths, and a canoe/kayak launch site. These activities would occur in the part of the potential project area in Figure 2 located to the North of the East-West running road that generally divides the action area. In addition, the project would involve work to improve the parking area around the existing boat ramp area, and the associated picnic areas and the restroom facility. The parking area and restroom facilities are in the Western portion in the southern part of the action area while the picnic areas would be to the west of the water in this part of the activity area and to the south of the existing boat ramp (See Figure 2).

Pilings would need to be placed for observation platforms and boardwalks. The footprint of ground disturbance would depend on final project design. Much of the work would likely be limited to relatively shallow depths given the nature of improvements (e.g., repairs to existing structures, new observation platforms, boardwalks, and walking paths). Material to be removed would include surface soil, vegetation, debris, and damaged material that would be removed to allow for repairs to existing facilities.

Construction materials would be staged in existing disturbed areas near the work site (e.g., the boat ramp parking lot area in the Southern portion of Figure 2 or the existing dirt road that runs to the North in the Northern portion of the project area). Other material may be placed on the ground in areas where repairs are made to existing facilities. It is not anticipated that the footprint of existing facilities would be expanded as part of this project.

Construction Best Management Practices (BMPs) are as follows:

- All construction would be performed in accordance with all local, state, and federal requirements and all requirements of any permits obtained so as to protect the surrounding vegetation and natural condition.
- The contractor would submit plan for control of surface water runoff in accordance with all local, state, and federal requirements and all requirements of permits obtained so as to protect the surrounding vegetation and natural condition.
- All construction adjacent to open water would be separated and confined by appropriate siltation screens and turbidity barriers so as to protect the quality of such open water.
- Upon completion of construction, the site would be cleared of all construction materials and restored to its natural state as shown on the drawings.
- The contractor would be responsible for assuring compliance with all permit requirements.

In addition to construction BMPs, the contractor would implement BMPs for adequate erosion control. Erosion control is necessary to prevent damage to adjacent properties, natural features, the site property, and work in progress. Erosion control measures would be in place prior to any land alteration and be modified throughout the construction process and until soils are stabilized. Erosion control BMPs are as follows:

1. To protect against wind and stormwater runoff erosion, the contractor would place as appropriate hay bales and silt fencing with wire fence reinforcement with sediment to be removed when it reaches approximately one-half the height of the barrier.
2. Silt fences would be of optimal design and materials for adequate sediment control.
3. Side slopes created during construction would be stabilized at the earliest possible date to avoid erosion with adequate use of compacted soil and staked hay bales.
4. Any disturbed area that would not be paved, sodded, or built upon would have a minimum vegetative cover of 80% and be mature enough to control soil erosion and survive severe weather conditions prior to final inspection.
5. Sod would be sufficiently grown and maintained to secure a dense stand of live grass.
6. Proposed road surface at the entrance would maintain a condition of slope that would prevent tracking or flow of mud onto the existing public roadway (County Road 372).

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

The potential project area is identified in Figures 1 and 2. Mashas Sands is the collective name for a larger park complex of low dunes, sandy beach, and a shallow offshore flat of rippled, sandy shoals. The area of the project construction activity is limited to upland sand road and parking area, a marsh system with channels in the Northern portion, including the area identified in Northern portion of the project area identified in Figure 2 and a developed boat ramp and picnic area in the southern part of the project area in Figure 2. The park and project area is surrounded by three bodies of water: Apalachee Bay, Dickerson Bay, and Ochlockonee Bay, offering both salt and fresh water access. There is no habitat within the construction area that supports endangered and threatened species. However, sandy shorelines nearby that could be accessed by boats, canoes/kayaks may support listed species.

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 Wakulla County, Florida.

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 Mashas Sands Park Improvements 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>Effects to any sea turtles using estuarine or marine habitats will be evaluated in consultation with NMFS and are not addressed in this consultation.</p> <p>No nesting habitat is present within the construction area. Therefore, no effects from construction are anticipated. Sea turtles may nest in areas north and east of the proposed project and these areas could be accessed by users of the facilities proposed in this project. Visitors could accidentally trample nests/hatchlings, or increase predation through inadequate trash disposal. Conservation measures described below are expected to minimize any visitor impacts to an insignificant and discountable level.</p>
West Indian manatee	<p>Wakulla County is 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).</p> <p>However, manatees are unlikely to be using the marsh channel habitats therefore no effects from construction are expected. Implementation of conservation measures below will ensure no effects to manatees occur. This work will not increase motorized boating in the area, so the risks to West Indian manatees are discountable.</p>
Piping plover and Red knot.	<p>No habitat for piping plover or red knot is present in the construction area. Therefore, no effects from construction are anticipated. Piping plover and red knot may rest and forage in areas north and east of the proposed project and these areas could be accessed by users of the facilities proposed in this project. Visitors could accidentally startle birds or increase predation through inadequate trash disposal. Human disturbance could startle individuals, though we would expect normal activity to resume within minutes or cause individuals 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. The proposed project will not result in any changes to shoreline habitats where these species could be feeding or resting. Conservation measures described below are expected to minimize any visitor impacts (including the potential for increased predation) to an insignificant and discountable level.</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>

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

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
All species	<p>Educational signage/Kiosks will be posted at various locations at the project site including the existing boat ramp and the new canoe/kayak launch. The signage will be developed in coordination with NMFS, FWC, and the Panama City Ecological Services Field Office and will discuss various trust resources (listed species below and migratory birds) and means to protect species and habitats while enjoying the park. If necessary, signage may identify areas to avoid in order to prevent effects to species.</p> <p>Predator-proof waste receptacles will be placed and maintained in strategic locations at each of the new facilities proposed in this project to prevent an increase in predator abundance.</p>
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.
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. We anticipate these conservation measures will avoid any risk of adverse effects to manatees from the proposed project.
Piping plover and red knot	No additional measures are necessary
Gulf sturgeon	See note in Table 2 about the review of potential Gulf sturgeon impacts being coordinated through NMFS instead of through the USFWS.

VIII. Effect Determination and 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)

Species	Species Impacts					Response Requested*
	NE	NLAA	MAA	JP	JC	
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 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
Oystercatchers and Wilson's plovers	Nesting, foraging, feeding, resting	These species are known to nest, feed, and rest within Mashes Sands (though not within the construction area).
Shorebirds/marsh	Foraging, feeding, resting, nesting	Shorebirds nest, forage, feed, and rest, and in the types of habitats consistent with some of the shoreline areas near the proposed project. As such, they may be impacted locally and temporarily by the project.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Resting, roosting, nesting	Seabirds forage in water and rest/roost in terrestrial habitats including dunes. However, project activities could startle resting birds and because activities will occur during the day roosting should not be impacted.
Passerines		Passerines could be foraging, resting, or nesting in nearby grasses, shrubs, or trees.

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
Oystercatchers and Wilson's plovers	Educational signage/Kiosks will be posted at various locations at the project site including the existing boat ramp and the new canoe/kayak launch. The signage will be developed in coordination with NMFS, FWC, and the Panama City Ecological Services Field Office and will discuss various trust resources (listed species below and migratory birds) and means to protect species and habitats while enjoying the park. Signage may identify areas to avoid in order to prevent effects to species. If necessary, breeding areas will be posted (during breeding season) for avoidance to further identify sensitive areas that visitors must avoid.
Shorebirds/Marsh birds	Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. We expect foraging and resting birds would be able to move to another nearby location to continue foraging and resting. If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds/marsh birds or rookeries and their recommendations will be implemented.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown	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

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
pelican)	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.
Passerines	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. Roosting should not be impacted because the project will occur during daylight hours only. Limited vegetation removal may be necessary. If vegetation removal is necessary during the nesting season, FWC will be contacted for guidance to protect any nesting birds.

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

/s/ Holly N. Blalock-Herod

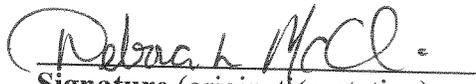
February 24, 2014

Signature (originating station - preparer)

date

ESA Coordinator, DWH Case Management Office

Title


Signature (originating station)

Deputy Case Manager

2/26/14
date

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

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

In instances where any incidental take occurs, the operations causing such take must cease until reinitiation. If reinitiation is required, contact the Panama City Ecological Services Field Office about the action.

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

XIII. Reviewing Ecological Services Office Evaluation:

A. Concurrence _____ 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.
- NOAA. 2013. Coastal Ecosystem Restoration.
<http://www.csc.noaa.gov/archived/coastal/implementation/implementation.htm>. Accessed September 6, 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.
- 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 1. General location of envisioned Mashes Sands Park Improvements Project and Mashes Sands Park.

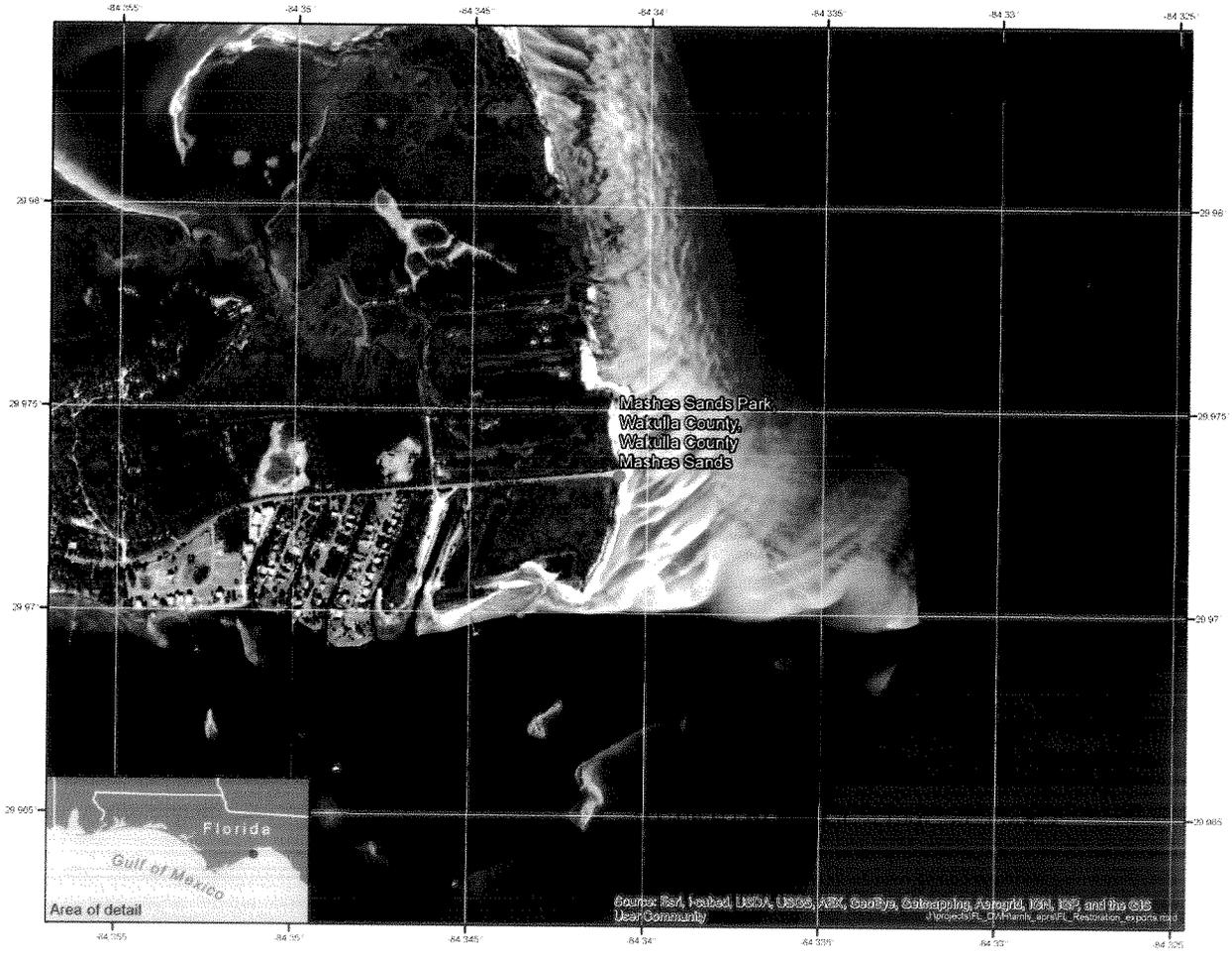


Figure 2. Detail of envisioned project activity area for Mashes Sands Park Improvements Project.



Table 1. Federally listed species in Wakulla County, Florida

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Reason for impact
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
Amphibians	Striped newt	C	SSC	Terrestrial: sandhills, scrub, scrubby flatwoods, xeric hammocks, coastal strand.	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

Table 1. Federally listed species in Wakulla County, Florida

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Reason for impact
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	Wakulla seaside sparrow	ce	SSC	Estuarine: tidal marsh Marine: tidal marsh.	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 and Marine: sandy sediments for foraging and resting; Riverine: alluvial and blackwater streams.	-	See Table 2, 3, and 4
Mammals	Choctawhatchee beach mouse	E (CH)	E	Terrestrial: beach dune, coastal scrub.	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	Round-tailed muskrat	ce		Estuarine: tidal marsh Lacustrine: marsh lake, flatwoods/prairie lake Palustrine: floodplain marsh, swale, depression marsh, basin marsh.	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
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

Table 1. Federally listed species in Wakulla County, Florida

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Reason for impact
Mussels	Ochlockonee moccasin shell	E (CH)		Riverine: large creeks to medium-sized rivers in substrates of sand with some gravel in moderate current. Panhandle drainages: Ochlockonee River (upstream of Lake Talquin).	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: Econfinn (Creek), Chipola, and Ochlockonee (upstream of Lake Talquin) 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	Bent golden aster	ce	E	Terrestrial: pine forest, ruderal.	NE	Listed natural community is inconsistent with the project habitat
Plants	Buckthorn		E	Palustrine: bottomland forest, dome swamp, floodplain forest Terrestrial: upland hardwood forest.	NE	Listed natural community is inconsistent with the project habitat
Plants	Chapman's sedge	ce		Palustrine: hydric hammock, floodplain forest Terrestrial: slope forest.	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

Table 1. Federally listed species in Wakulla County, Florida						
Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Reason for impact
Plants	Florida anise		T	Palustrine: floodplain forest, baygall Riverine: seepage stream bank slope forest, seepage slope.	NE	Listed natural community is inconsistent with the project habitat
Plants	Flyr's brickellbush	ce	E	Terrestrial: upland hardwood forest, near streams.	NE	Listed natural community is inconsistent with the project habitat
Plants	Godfrey's spiderlily	ce		Estuarine: Brackish Marshes.	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	Green adder's mouth		E	Palustrine: floodplain forest Terrestrial: slope forest, upland mixed forest.	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
Plants	Large-leaved jointweed	ce	T	Terrestrial: scrub, sandpine/oak scrub ridges.	NE	Listed natural community is inconsistent with the project habitat
Plants	Panhandle Meadow-beauty	ce		Terrestrial: 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	Scare-weed	ce	T	Terrestrial: mesic flatwoods, sand hill; on disturbed sites.	NE	Listed natural community is inconsistent with the project habitat

Table 1. Federally listed species in Wakulla County, Florida

Resource category	Common name	FWS status	State status	Natural communities	Species impacts (NE, NLAA, MAA)	Reason for impact
Plants	Snowy orchid		T	Palustrine: bogs.	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	Washington thorn		E	Palustrine: basin swamp, basin marsh, edges of wet areas.	NE	Listed natural community is inconsistent with the project habitat
Plants	Wild coco	ce	T	Terrestrial: pine Rockland, upland hardwood forest, scrubby flatwoods, mesic flatwoods; on moist sand.	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 Terrestrial: mesic flatwoods.	NE	Listed natural community is inconsistent with the project habitat
Reptiles	Alligator snapping turtle	ce	SSC	Estuarine: tidal marsh Palustrine: river floodplain lake, swamp lake Riverine: alluvial stream, blackwater stream.	NE	Listed natural community is inconsistent with the project habitat
Reptiles	Eastern indigo snake	T	T	Estuarine: tidal swamp Palustrine: hydric hammock, wet Flatwoods Terrestrial: mesic flatwoods, upland pine forest, sand hills, scrub, scrubby flatwoods, rockland hammock, ruderal.	NE	Listed natural community is inconsistent with the project habitat
Reptiles	Florida pine snake	ce	SSC	Lacustrine: ruderal, sandhill upland lake Terrestrial: flatwoods, xeric hammock, ruderal.	NE	Listed natural community is inconsistent with the project habitat

Table 1. Federally listed species in Wakulla County, Florida

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