United States Department of the Interior

FISH AND WILDLIFE SERVICE
1875 Century Boulevard
Atlanta, Georgia 30345

In Reply Refer To:
FWS/R4/DH NRDAR

JAN 13 2014

Memorandum

To: Field Supervisor Mississippi Field Office

From: Deputy Deepwater Horizon Department of the Interior Natural Resource Damage Assessment and Restoration (NRDAR) Case Manager

Subject: Informal Consultation Request for the proposed Popp's Ferry Causeway Park, Mississippi

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 the state of Mississippi, Mississippi Department of Environmental Quality, 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 above-referenced 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 Mississippi Department of Environmental Quality. 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 this project and we wish to engage in such consultation. Accordingly, we have reviewed the proposed Popp's Ferry Causeway Park, Mississippi for potential impacts to listed, proposed and candidate species and proposed and designated critical habitats in accordance with section 7 of the ESA. We have determined that the proposed project may affect, but is not likely to adversely affect, West Indian manatee (*Trichechus manatus*). 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 Stephen Parker (representing MS DEQ)
Telephone Number: Holly Herod: 404-679-7089; Stephen Parker 228-224-9057
E-Mail: holly_herod@fws.gov; sparker@adaptivemngmt.com
Date: December 31, 2013

Note: All information presented herein is preliminary and subject to revision.

PROJECT NAME (Grant Title/Number): Popp's Ferry Causeway Park

I. Service Program:

_X_ **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: Mississippi Department of Environmental Quality

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

IV. Location (attach map):

A. **Ecoregion Number and Name:** 4/Southeast

B. **County and State:** Harrison County, Mississippi

C. **Section, township, and range (or latitude and longitude):** Centroid = -88.877, 30.418. See location map for more detail.

D. **Distance (miles) and direction to nearest town:** Within City of Biloxi limits

V. Description of Proposed Action and Habitats in the Action Area (attach additional pages as needed):

Introduction and Background

The proposed project would enhance the interactive nature of the existing Popp's Ferry Causeway Park (Figure 1) by constructing new amenities and updating existing features. These enhancements would replace lost recreational opportunities by providing improved access to the adjacent coastal estuarine habitats. Local residents have used the mostly undeveloped Popp's Ferry Causeway for fishing, shrimping, boating, walking, jogging, biking, and other shoreline activities for many years. The City of Biloxi purchased the property in 2000 and the Popp's Ferry Causeway Park Master Plan was developed. Partially constructed in the early 2000's, the property and infrastructure sustained damage from Hurricane Katrina in 2005. The proposed project enhances coastal recreational access and opportunities. Improvements such as boardwalks, nature trails, an Interpretive Center, fishing piers, and other amenities intend to provide access to shoreline habitats and replacement opportunities for coastal-based recreation that was lost during the *Deepwater Horizon* oil spill and response activities.

Concrete Walkway and Wooden Boardwalk

Along the western edge of the park, south of the boat launch, the project proposes the construction of an 8-foot wide concrete walkway and wooden boardwalk that would extend approximately 1,313 linear feet along the shoreline (Figure 2). To make this shoreline walkway more enjoyable, benches, low impact lighting, and shoreline viewing landings would be installed.

Shoreline Stabilization (Riprap)

The placement of approximately 1,326 linear feet of riprap water edge treatment would extend along the western boundary of the park for shoreline stabilization. Riprap placement would begin immediately south of the boat launch.

Fishing Piers

Four fishing piers are proposed for construction on the western shoreline of the project area. Two piers would have an area of 20 x 30 feet and two piers would have an area of 40 x 40 feet. Currently, there are limited locations for fishing within the park and these would greatly increase those opportunities especially for visitors that do not have access to a boat.

Interpretive Center

An Interpretive Center would be constructed just to the east of a new parking area to provide new amenities for further enjoyment of the shoreline. This facility would be constructed in an open air style and would provide exhibits on the park and its natural resources, as well as restrooms. This building would be surrounded by appropriate landscaping and connect to other parts of the park through a network of nature trails.

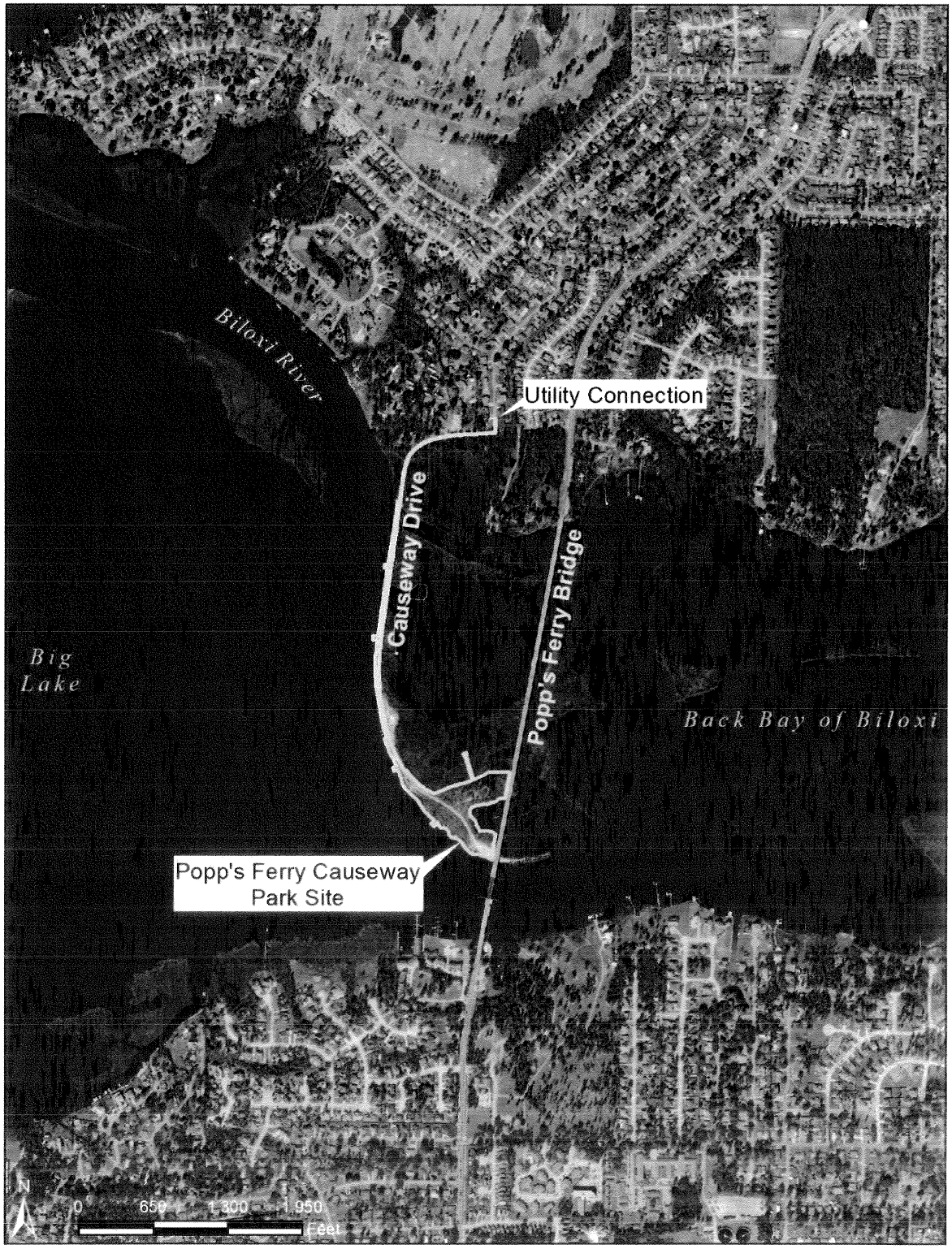

Figure 1 - Popp's Ferry Causeway Park and vicinity.

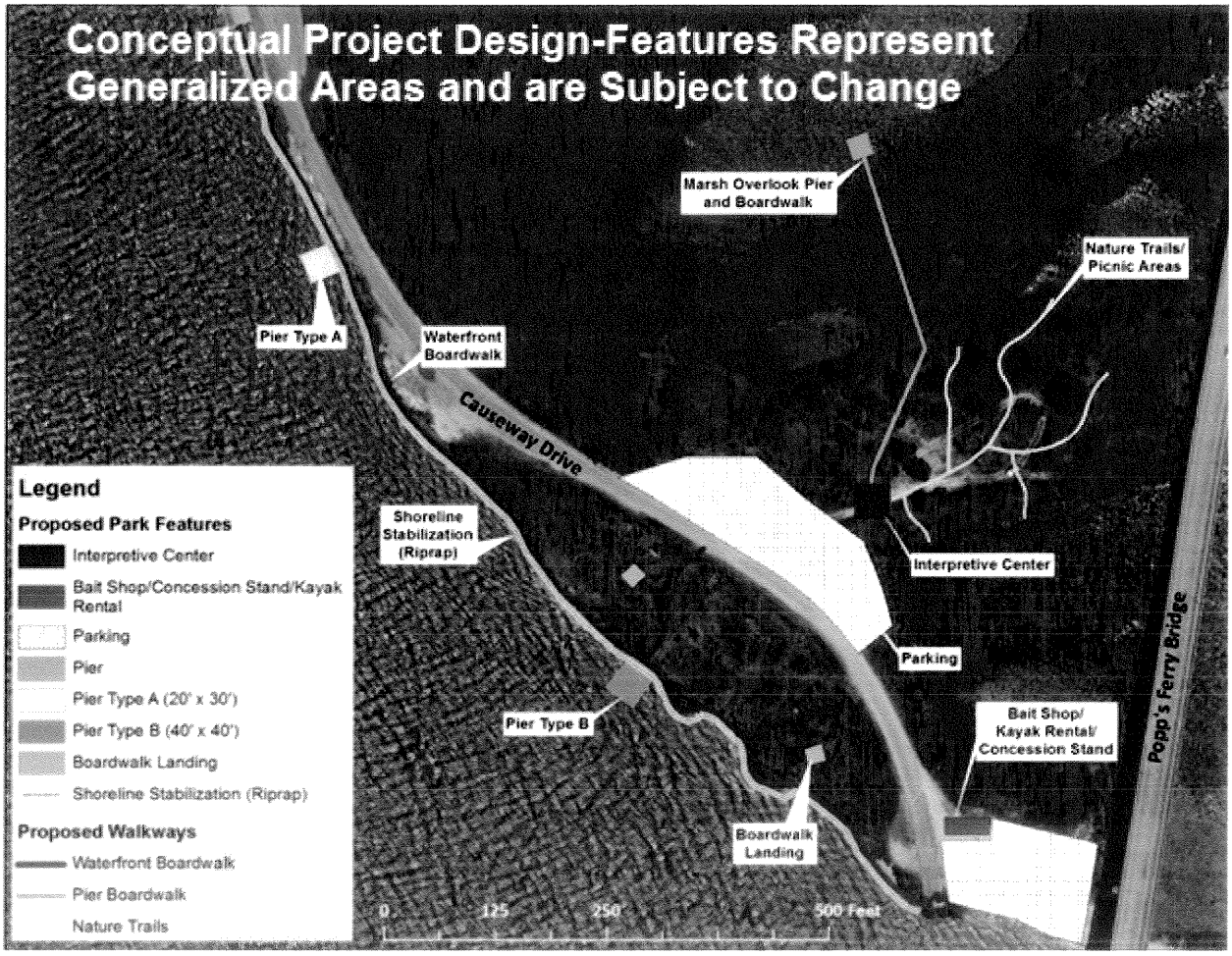

Figure 3- 2 - Popp's Ferry Causeway Park project features-Conceptual Plan.

Road/Parking Areas

Causeway Drive currently connects the mainland to Popp's Ferry Causeway Park and runs the length of the property. Improvement of this two-lane road south of the boat launch would enable easier access to the enhanced park and its amenities. At the southern end of the project area is a larger upland area where most of the new park amenities are to be constructed. A new parking area is proposed for land adjacent to the east side of the road in this upland area. Additionally, a hard-packed gravel and soil area at the very southern end of the park is to be paved. The addition of these parking areas would allow for increased public visitation of the park.

Nature Trails/Picnic Areas

Interconnecting nature trails with several picnic areas are proposed throughout the site. The trails would connect several major amenities within in the park area including the Interpretive Center and parking areas to the outer reaches of the property. These trails are meant to increase public access to, and enjoyment of, nature in general and specifically the surrounding coastal environment.

Marsh Overlook Pier and Boardwalk
A 6-foot wide wooden boardwalk (approximately 390 linear feet) is proposed to extend from the Interpretive Center to the northeast through the estuarine emergent marsh and would end with a marsh overlook pier located on the open water. This allows the public to have access to the wetland habitats for viewing opportunities of the associated wildlife and scenery.

Bait Shop/Concession Stand/Kayak Rental
A facility housing concessions, a bait shop, and kayak rentals is proposed for the southeastern most portion of the project area. This would be located next to the proposed new parking lot.

Landscaping
This proposed project would landscape the degraded and disturbed portions of the park property with native vegetation for a more enjoyable experience. Landscaping would be placed around the Interpretive Center and bait shop/concession stand/kayak rental facility, along Causeway Drive and other appropriate locations.

Utilities
To support the installation of restrooms and the bait shop/concession stand/kayak rental facility, the project would be connected to existing sewer, water, and electric utility infrastructure on Cambridge Drive, located in the residential neighborhood to the north (Figure 1).

Project Location

The proposed Popp's Ferry Causeway Park project would improve approximately 10 acres in Back Bay Biloxi, Mississippi. The parcel is owned by the City of Biloxi, Harrison County, Mississippi, just to the west of the Popp's Ferry Bridge (Figure 1). The project site is located in Section 22, Township 7 South, Range 10 West. The project site is surrounded by the waters of the Biloxi River to the north, Big Lake to the west, and the Back Bay of Biloxi to the south and east. This location provides access to the Gulf of Mexico. However, because the project site is not located directly on Mississippi Sound, it is less vulnerable to damage from hurricanes than sites located directly on Mississippi Sound. In addition to the Popp's Ferry Bridge, other nearby developments include residential neighborhoods approximately 3,250 feet north and 750 feet south of the project. An existing road, Causeway Drive, runs from the residential area to the north along the western boundary of the causeway to the southeastern shoreline. The latitude/longitude of the center of the project area is 30.4177833333333°N, 88.9766833333333°W.

Construction and Installation

The construction and installation of proposed project elements would require the use of small dozers, loaders, excavators, forklifts, backhoes, haul trucks, and track-mounted Bobcats. If heavy equipment is necessary for any construction or installation work in sensitive areas, wetland mats and low ground pressure (LGP) equipment would be used in order to minimize damage. Access for all water-side construction would be from a working barge which would include a crane, vibratory hammer and clamshell bucket, etc. Staging for construction would be confined to the

site and the contractor would be directed to stage equipment in areas that have been previously disturbed and that do not contain wetlands. This project would likely involve some amount of redistribution of fill already present within the project area.

Concrete Walkway and Wooden Boardwalk

Before construction and installation of the concrete walkway and lighted wooden boardwalk, site preparation activities would include demolition of old pilings, concrete slabs, broken asphalt and concrete steps along the shoreline and the subsequent, grading and compaction of the concrete walkway/boardwalk area only. The designs for the shoreline path include two distinct elements: one constructed of concrete and others constructed of wooden materials. Therefore, the final installation would require the placement of concrete (approximately 500 linear feet; approximately 4,000 square feet) and the installation of a wooden piling super structure to be complemented with conventional support framing and composite decking (approximately 813 linear feet; approximately 4,878 square feet) along the upland edge of the shoreline. Using the same approach, lighted, wooden connector boardwalks (approximately 355 linear feet; approximately 2,130 square feet) featuring landings would connect the main shoreline to more landward areas. Pile installation would be accomplished through the use of a vibratory hammer head attached to a track-mounted excavator (trackhoe). All piles used in this project would be wood piles 12 inches in diameter. The boardwalk portions of this feature would require approximately 100 pilings which would take approximately six days to install. The planking would consist of fully recycled composite decking material. Low-impact lighting would be installed along the waterfront shoreline path.

Shoreline Stabilization (Riprap)

Replacing and establishing approximately 1,326 linear feet of clean concrete/conglomerate riprap at the water's edge along the western and southern project boundaries would stabilize the shoreline and protect the walkway. The shoreline to the north of the project has recently been completed using the same treatment (independent project). Both land-based and waterside access via a float barge would be necessary to deploy the riprap from the open water channel west of the shoreline.

Fishing Piers

With the shoreline cleared of existing concrete debris, the construction of four fishing piers would extend out from the concrete walkway or wooden boardwalk and would require the driving of 12 inch diameter wood pilings in open water using the previously mentioned vibratory hammer technique. Using the pilings as a foundation, conventional support framing and decking would be employed to construct all piers to the applicable specifications. Two piers would be 20 X 30 feet and would have a total area of 600 square feet each. Each pier will contain 12 to 15 pilings and would require approximately one day to install. The remaining two fishing piers would be 40 x 40 feet and would have a total area of 1,600 square feet each. These fishing piers would require 25 to 30 pilings and would require approximately 2 days to install.

Interpretive Center* and *Bait Shop/Concession Stand/Kayak Rental

Site preparation for the approximately 1,600 square foot Interpretive Center and the approximately 1,000 square foot bait shop/concession stand/kayak rental includes the clearing

and grubbing of vegetation within the designated upland areas, using the same approach as described above. The Interpretive Center would be constructed on shallow foundations. The bait shop/concession stand/kayak rental facility would be constructed on pilings.

Road/Parking Areas

Improvements to the existing asphalt road and construction of additional parking areas would require minimal clearing, grubbing, and milling and includes reuse of existing asphalt, as well as re-grading and compaction of the natural substrate. The placement of asphalt road and parking areas as well as associated grading work would use equipment such as conventional moto-graders, smooth drum rollers or other compaction equipment, and paving machines. These features would be boarded by concrete curbs in addition to the installation of drainage features and standard 16 inch lighting or low-impact lighting where necessary. Approximately 1.0 acre of upland would be paved for parking lots. Approximately 1,296 linear feet of existing roadway would be improved.

Nature Trails/Picnic Areas

Following any necessary clearing and grubbing work, approximately 3,860 square feet of nature trails and picnic areas would be installed throughout the project area using natural pervious materials such as mulch. No hardened materials or impervious surfaces such as concrete would be used for these trails.

Marsh Overlook Pier and Boardwalk

The construction of the marsh overlook pier (approximately 625 square feet) and boardwalk (approximately 390 linear feet) would require the driving of 12-inch pilings using a vibratory hammer mounted to a trackhoe. All piles used in this project would be wood piles 12 inches in diameter. The construction of this feature would require approximately 125 wood pilings which would take eight days to install. The pier and boardwalk foundation would be graded plank and the decking would be composite decking material.

Landscaping

Landscaping work is intended for areas surrounding the trails and picnic areas as well as around the constructed facilities, parking areas, and roadway. Preparation for landscaping activities would involve the removal of unusable soils, vegetation, trees, stumps, and debris followed by the placement of clean materials such as topsoil, sand, gravel and/or mulch on the proposed surfaces. After clearing and grubbing, trees and shrubs would be planted and seed would be spread along the roadway and around areas disturbed during construction. All landscaping work would use native species to the extent possible.

Utilities

The inclusion of restrooms in the Interpretive Center would require the construction of a new pump station and installation of a sanitary sewer main and new force main. Electrical and water, in addition to sewer and force main utilities, would be installed in trenches of approximately three feet along Causeway Road to a maximum depth of approximately six feet. These utilities would run approximately 4,749 linear feet from both the Interpretive Center and the bait shop/concession stand/kayak rental and tie into existing utilities located within residential

neighborhood to the north (Figure 1).

Construction in Mississippi is required to follow the "Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas" and the "Field Manual for Erosion and Sediment Control on Construction Sites in Mississippi". The construction of the proposed project would follow these guidelines as well as any other best management practices in order to prevent, control, and mitigate for any adverse impacts.

Operations and Maintenance

The constructed Popp's Ferry Causeway Park would be operated by the City of Biloxi Parks and Recreation Department. The City would likely lease the operation of the kayak rental/concession stand/bait rental to an independent entity. This lessee would determine the specifics of the kayak rental/concession stand/bait rental operation including operation hours and products available. The overall park property would remain open and accessible 24 hours a day. The maintenance of the Popp's Ferry Causeway Park and associated features would be controlled by the City of Biloxi. It is anticipated that maintenance activities would include activities such as: replacement of light bulbs for street lighting, trash removal, mowing in grassed areas, and possible noxious/invasive plant removal.

VI. Federally Listed Species in Project County (Harrison, MS species list and habitat descriptions dated Feb 2013 obtained from Mississippi Ecological Services Field Office website)

SPECIES/CRITICAL HABITAT	STATUS[1]	HABITAT PREFERENCE	HABITAT OR PCE'S PRESENT
Alabama red-bellied turtle (*Pseudemys alabamensis)*	E	Fresh and brackish habitats, river banks, submerged and emergent aquatic vegetation; upland habitat for nesting	Nearby
West Indian manatee (*Trichechus manatus*)	E	Fresh, brackish, and salt water in large coastal rivers, bays and estuaries	Yes
Hawsbill turtle (*Eretmochelys imbricata*) **Also Consulting with NOAA NMFS**	E	Coral reefs, open ocean, bays, estuaries, nests on open beaches	Terrestrial – No Aquatic - Yes
Kemp's ridley turtle (*Lepidochelys kempii*) **Also Consulting with NOAA NMFS**	E	Nearshore and inshore coastal waters; neritic zones with muddy or sandy substrate, nests on open beaches	Terrestrial – No Aquatic - Yes
Leatherback turtle (*Dermochelys coriacea*) **Also Consulting with NOAA NMFS**	E	Open ocean, coastal waters, nests on open beaches	Terrestrial – No Aquatic - Yes
Loggerhead turtle (*Caretta caretta*) **Also Consulting with NOAA NMFS**	T	Open ocean; also inshore areas, bays, salt marshes, ship channels, and mouths of large rivers, nests on open beaches	Terrestrial – No Aquatic - Yes
Green turtle (*Chelonia mydas*) **Also**	T	Shallow coastal waters with	Terrestrial – No

SPECIES/CRITICAL HABITAT	STATUS[1]	HABITAT PREFERENCE	HABITAT OR PCE'S PRESENT
Consulting with NOAA NMFS		SAV and algae, nests on open beaches	Aquatic - Yes
Gulf sturgeon (*Acipenser oxyrhynchus desotoi*) **Consulting with NOAA NMFS**	T	Migrates from large coastal rivers to coastal bays, estuaries, and barrier islands	No
Critical Habitat Gulf sturgeon	CH	No Gulf sturgeon critical habitat is designated in the action area	No
Piping plover (*Charadrius melodus*)	T	Beaches and mudflats in southeastern coastal areas	No
Critical Habitat Piping plover	CH	No piping plover critical habitat designated in the action area	No
Red knot (*Calidris canutus rufa*)	P	Sandy beaches, tidal mudflats, salt marshes, and peat banks. May forage along beaches, oyster reefs, and exposed bay bottoms while roosting on high sand, flats, reefs, and other sites protected from high tides.	No
Dusky gopher frog (*Rana sevosa*)	E	Temporary pools for breeding and sandy upland foraging sites with subterranean refuge	No
Critical Habitat dusky gopher frog	CH	No dusky gopher frog critical habitat designated in the action area	No
Red-cockaded woodpecker (*Picoides borealis*)	E	Open, mature pine woodlands (60 + years old) with few or no hardwood trees present.	No
Louisiana quillwort (*Isoetes louisianensis*)	E	Mineral soil, usually light gray in color, in bottomlands that are periodically washed free of leaves and debris	No
Louisiana black bear (*Ursus americanus luteolus*)	T	Bottomland Hardwood and flooplain Forest; habitats must contain hard mast, soft mast, escape cover, denning sites, forested dispersal corridors, and limited human access	No
Black pine snake (*Pituophis melanoleucus lodingi)*	C	Mature longleaf pine forest with sandy soil, an open canopy and thick, grassy understory	No
Gopher tortoise (*Gopherus polyphemus)*	T	Open canopy longleaf pine/scrub oak habitats with well-drained sandy soils	No

[1]STATUS: E=endangered, T=threatened, PE=proposed endangered, PT=proposed threatened, CH=critical habitat, PCH=proposed critical habitat, C=candidate species

VII. Determination of Effects:

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

SPECIES/ CRITICAL HABITAT	IMPACTS TO SPECIES/CRITICAL HABITAT
Critical habitat for Gulf sturgeon, piping plover, dusky gopher frog	No critical habitat is designated in the action area; therefore, none will be adversely modified or destroyed.
Hawsbill turtle; Kemp's ridley turtle; Leatherback turtle; Loggerhead turtle; Green turtle	NMFS will consult on potential impacts to sea turtles in the estuarine and marine environments. The five sea turtles species on the list are rarely observed in Mississippi waters (MDWFP 2001). Most of these species nest in locations far from Mississippi although it is possible that both Kemp's ridley and loggerhead sea turtles could use the offshore barrier islands for nesting (NOAA Fisheries 2012; NOAA Fisheries 2013a; NOAA Fisheries 2013b; NOAA Fisheries 2013c). Both the Kemp's ridley and loggerhead have been caught close to the shoreline by land-based fishermen indicating use of the Mississippi nearshore areas for foraging and/or movement (MDWFP 2001). The shoreline habitat in the action area is unsuitable for sea turtle nesting (i.e., no sandy beach above high tide) and we do not expect nesting in the action area. Therefore, we anticipate no effects to sea turtles in terrestrial habitats from the proposed project.
Gulf sturgeon (*Acipenser oxyrhynchus desotoi*)	Impacts to Gulf sturgeon in the estuarine and marine environments will be analyzed by National Marine Fisheries Service (NMFS) in coordination with the USFWS. Information presented in this consultation is meant to facilitate NMFS review. Gulf sturgeon are not known to transit the action area (Ross et al. 2009) and do not migrate into the Biloxi and Tchoutacabouffa rivers (68 FR 13370). Therefore, no effects to this species are anticipated.
Piping plover (*Charadrius melodus*)	No suitable habitat is present in or near the action area and this species is not known to occur within the action area. Therefore, no effects to this species are anticipated.
Red knot (*Calidris canutus rufa*)	No suitable habitat is present in or near the action area and this species is not known to occur within the action area. Therefore, no effects to this species are anticipated.
Dusky gopher frog	No suitable habitat is present in or near the action area and this species is not known to occur within the action area. Therefore, no effects to this species are anticipated.
Red-cockaded woodpecker	No suitable habitat is present in or near the action area and this species is not known to occur within the action area. Therefore, no effects to this species are anticipated.
Louisiana quillwort	No suitable habitat is present in or near the action area and this species

SPECIES/ CRITICAL HABITAT	IMPACTS TO SPECIES/CRITICAL HABITAT
	is not known to occur within the action area. Therefore, no effects to this species are anticipated.
Louisiana black bear	No suitable habitat is present in or near the action area and this species is not known to occur within the action area. Therefore, no effects to this species are anticipated.
Black pine snake	No suitable habitat is present in or near the action area and this species is not known to occur within the action area. Therefore, no effects to this species are anticipated.
Gopher tortoise	No suitable habitat is present in or near the action area and this species is not known to occur within the action area. Therefore, no effects to this species are anticipated.
West Indian manatee	Manatees are known to migrate to Mississippi estuarine and river mouth habitats, though there have been sightings near barrier islands and offshore as well (Fertl et al. 2005). Manatees have been sighted within the Back Bay of Biloxi on multiple occasions over the course of decades (Fertl et al. 2005). Manatees typically migrate from Florida to other areas when water temperatures exceed 68°F (USFWS 2001). Seagrasses are the typical manatee forage material, however they also can consume other aquatic vegetation and algae. There are no submerged aquatic vegetation (SAV) habitats at or near the project area. Given the lack of food source at the project site, we expect any manatee in the area to be transitory during warmer months (April – October). We are not aware of any manatee populations that overwinter in Back Bay of Biloxi nor are we aware of any potential wintering habitat (either natural or man-man warm-water refugia with forage and freshwater sources) in the area; therefore we do not expect manatees to be present during cooler months (generally November – March). Project activities will not impede transitory routes. Noise, use of vessels, and human presence during pier construction could harass manatees, if present. With the conservation measures below, we do not expect noise, the use of vessels, and increased human presence either during construction or after implementation to result in any behavioral changes (i.e., feeding, breeding, or sheltering) to any manatee transiting the area. If manatees were present, project debris or vessels could strike a manatee. Striking a manatee generally results in injury or mortality. We expect conservation measures listed below to minimize risk of strike to an insignificant level.
Alabama red-bellied turtle	These turtles inhabitat freshwater and brackish streams, rivers, and shallow bays along with fresh, brackish, and saltwater bayous or oxbows and feed on freahwater SAV and emergent vegetation. (Nelson et al. 2009; Leary et al. 2008). The Alabama red-bellied turtle has been found to nest in open or sparsely vegetated sandy soils in uplands flanking marshes or smaller bayous, patchy forests, and areas with partial shade. Nesting occurs between April to early August, generally peaking in July

SPECIES/ CRITICAL HABITAT	IMPACTS TO SPECIES/CRITICAL HABITAT
	(Mirarchi, et al., 2004). In Mississippi, the turtle has been observed along the Pascagoula River and Back Bay of Biloxi, Mississippi Sandhill Crane National Wildlife Refuge, Grand Bay National Wildlife Refuge and in the Grand Bay Estuarine Research Preserve (Leary et al. 2008). There have been no observations (from State Heritage data) of the species in the project area. The proposed project will have temporary impacts in-water (water quality, noise) and to emergent marsh and permanent impact to marsh on outer upland boundaries. Though habitat for this species could be present in the proposed project area, the area is generally considered unsuitable for the turtle as the species does not typically inhabitat emergent marsh or rip-rap shoreline. In addition there is no suitable emergent and/or submerged vegation for foraging and the adjacent upland habitat is disturbed with impervious surfaces, invasive species, and degraded wetlands. We consider this species extremely unlikely to be present in the action area. Therefore, no effects to this species are anticipated.

B. Explanation of actions to be implemented to reduce adverse effects:

SPECIES/ CRITICAL HABITAT	ACTIONS TO MINIMIZE IMPACTS
West Indian manatee (*Trichechus manatus*)	If possible complete the in-water work when manatees are not expected to be present, i.e., when water temperatures are below 68F. If timing restrictions are not feasible, then conditions A-D of the Standard Manatee Conditions for In-Water Work (USFWS 2011) shall be followed when operating vessels or doing in-water construction (appended to this form).

VIII. Effect Determination and Response Requested:

SPECIES/ CRITICAL HABITAT	DETERMINATION[1]			RESPONSE REQUESTED
	NE	NLAA	LAA	
West Indian manatee		X		concurrence
Alabama red-bellied turtle	X			concurrence
Kemp's ridley turtle	X			Concurrence for terrestrial; consulting with NOAA NMFS for aquatic
Leatherback turtle	X			Concurrence for terrestrial; consulting with NOAA NMFS for aquatic

SPECIES/ CRITICAL HABITAT	DETERMINATION[1]			RESPONSE REQUESTED
	NE	NLAA	LAA	
Loggerhead turtle	X			Concurrence for terrestrial; consulting with NOAA NMFS for aquatic
Green turtle	X			Concurrence for terrestrial; consulting with NOAA NMFS for aquatic
Gulf sturgeon	___	___	___	Consulting with NOAA NMFS
Critical Habitat Gulf sturgeon	___	___	___	Consulting with NOAA NMFS
Piping plover	X			concurrence
Critical Habitat Piping plover	X			concurrence
Red knot	X			conference
Dusky gopher frog	X			concurrence
Critical Habitat dusky gopher frog	X			concurrence
Red-cockaded woodpecker	X			concurrence
Louisiana quillwort	X			concurrence
Louisiana black bear	X			concurrence
Black pine snake	X			conference
Gopher tortoise	X			concurrence

IX. Bald Eagles

Are bald eagles present in the action area? **X** 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.

X. 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
Wading birds (herons, egrets, ibises)	Foraging, feeding, resting, roosting	Wading birds primarily forage and feed at the water's edge. As such, they may be impacted locally and temporarily by the project. It is expected that they would be able to move to another nearby location to continue foraging, feeding and resting. These birds primarily roost in trees or shrubs (e.g. pines, *Baccharis*), but project components will not impact these habitats.
Seabirds (terns, gulls, double-crested cormorant, brown pelican)	Foraging, feeding, resting, roosting,	Seabirds forage and rest in the project area. As such, they may be impacted locally and temporarily by the project. It is expected that they would be able to move to another nearby location to continue foraging, feeding and resting. Nesting habitat does not exist in the project area; therefore it is not anticipated to impact nesting.
Waterfowl (ducks, loons, and grebes)	Foraging, feeding, resting, roosting,	Waterfowl may forage, feed, rest, and roost in the project area. As such, they may be impacted locally and temporarily by the project. It is expected that they would be able to move to another nearby location to continue foraging, feeding and resting. These birds primarily roost and nest in low vegetation, which is not near the project area; therefore it is not anticipated to impact nesting.
Raptors (osprey, hawks, owls)	Foraging, feeding, resting, roosting	Raptors forage, feed, and rest in the project area. As such, they may be impacted locally and temporarily by the project. It is expected that they would be able to move to another nearby location to continue foraging, feeding and resting. Most raptors are aerial foragers and soar long distances in search of food. Locations where these birds roost and nest are not within the project area.
Rails and coots	Foraging, feeding,	Rails and coots forage, feed, and rest, or roost in the

	resting, roosting,	project area. As such, they may be impacted locally and temporarily by the project. However they are most likely to favor marshy areas outside of the project area, but nearby. It is expected that they would be able to move to another nearby location to continue foraging, feeding and resting if disturbed by the project. These birds primarily roost and nest in marshes, which are not directly within the project area; therefore it is not anticipated to impact nesting.
Landbirds (white-eyed vireo, great crested flycatcher, indigo bunting)	Breeding, foraging, feeding, roosting	Various species of migratory birds in Mississippi use upland and freshwater wetland habitats including disturbed and human influenced areas. Breeding locations for these species could include open areas, open deciduous woodlands, shrub thickets, and forest edges especially near freshwater wetlands and waterbodies. The project area includes open disturbed areas with trees, grasses, shrubs, and other low vegetation as well as freshwater wetland depressions.
Doves and Pigeons	Foraging, feeding, roosting, resting	These species may use the upland habitat where trees and shrubs are available. It is expected that they would be able to move to another nearby location to continue foraging, feeding and resting.

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
Landbirds (white-eyed vireo, great crested flycatcher, indigo bunting)	Care will be taken to minimize noise and vibration near areas where foraging or resting birds are encountered. All disturbance 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. Nesting habitat could be adjacent to the action area. If tree or shrub removal is necessary during breeding season, pre-construction surveys would be conducted to ensure either no nesting birds are present in habitat adjacent to construction areas or to develop meaningful avoidance measures.
Wading birds (herons, egrets, ibises)	Care will be taken to minimize noise and vibration near areas where foraging or resting birds are encountered. All disturbance 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.
Seabirds (terns, gulls, skimmers, double-crested cormorant, brown pelican)	Care will be taken to minimize noise and vibration near areas where foraging or resting birds are encountered. All disturbance 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.

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Raptors (osprey, hawks, owls)	No work will occur within 660 feet of any bald eagle nests. All disturbance 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, and because the areas where these birds nest are not within the project area. Nesting is unlikely in the project area due to a lack of nesting trees.
Waterfowl (geese, ducks, loons, and grebes)	Care will be taken to minimize noise and vibration near areas where foraging or resting birds are encountered. All disturbance 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.
Rails and coots	Care will be taken to minimize noise and vibration near areas where foraging or resting birds are encountered. All disturbance 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.
Doves and pigeons	These species may use the upland habitat where trees and shrubs are available. It is expected that they would be able to move to another nearby location to continue foraging, feeding and resting.

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

/s/ Holly N. Blalock-Herod 12/31/13
Signature (originating station - preparer) **date**
DOI Case Management Team, ESA Coordinator

Deborah L McCall 1/9/14
Signature (originating station) **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 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 Mississippi Ecological Services Field Office **about the action.**
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213
(p) 601-965-4900
(f) 601-965-4340

XII. 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**

_____ _____
Title **office**

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STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission may be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8½ " by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at http://www.myfwc.com/WILDLIFEHABITATS/manatee_sign_vendors.htm.