



UNITED STATES DEPARTMENT OF COMMERCE
 National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
 Southeast Regional Office
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<http://sero.nmfs.noaa.gov>

F/SER31:MT

MEMORANDUM FOR: F/HC3 – Leslie Craig

FROM: *for* F/SE – Roy E. Crabtree, Ph.D.

DEC 12 2017

SUBJECT: Endangered Species Act Informal Consultation for the Bahia Grande Hydrologic Restoration Project, Proposed for Funding under the Deepwater Horizon Oil Spill Natural Resource Damage Assessment in the Texas Trustee Implementation Group Restoration Plan #1 and Environmental Assessment

Project Name	Applicants	SER Number	Project Type
Bahia Grande Hydrologic Restoration Project	National Oceanic and Atmospheric Administration (NOAA) Restoration Center (RC) and Texas Parks and Wildlife Department (TPWD)	SER-2017-18817	Dredging and Shoreline Armoring

This memorandum responds to NOAA RC's July 28, 2017, memorandum requesting concurrence from the National Marine Fisheries Service (NMFS) Protected Resources Division (PRD) under Section 7 of the Endangered Species Act (ESA) with NOAA RC's project-effects determination for the Bahia Grande Hydrologic Restoration Project in Bahia Grande and the Brownsville Ship Channel, Texas. You determined that the proposed project may affect, but is not likely to adversely affect, green, Kemp's ridley, leatherback, and loggerhead sea turtles.

Consultation History

We received your memorandum requesting consultation on July 28, 2017, and initiated consultation on that day. NMFS PRD's determinations regarding the effects of the proposed action are based on the description of the action in this informal consultation. Any changes to the proposed action may negate the findings of the present consultation and may require reinitiation of consultation with NMFS PRD.

Project Location

Address	Latitude/Longitude	Water body
State Highway 48, Cameron County, Texas	26.014847°N, 97.276267°W; (North American Datum 1983)	Bahia Grande, Laguna Madre, Gulf of Mexico

The proposed project is located between Bahia Grande and the Brownsville Ship Channel (BSC), approximately 6.7 miles southwest of Port Isabel in Cameron County, Texas.



Project Description

The applicant proposes to widen and deepen an existing pilot channel between Bahia Grande and the BSC and install rip rap scour protection along portions of the enlarged channel and the Bahia Grande shoreline (Figure 1). The project is designed to increase tidal flow into Bahia Grande, restoring the system's tidal exchange and reducing salinities. Bahia Grande is currently hypersaline and the project is expected to help reduce salinities and improve habitat conditions for estuarine species.

The enlarged channel would be 2,200 feet long and would increase the current channel from 34 feet wide to 250 feet wide at the water surface level, and from 15 feet to 150 feet wide at the channel bottom. Channel depth would be increased from -3.25 feet mean sea level (MSL) to -9 feet MSL. The rip rap scour protection would be installed using land-based heavy equipment such as dump trucks and backhoes along the shoreline of Bahia Grand for approximately 400 feet in both directions from the State Highway (SH) 48 Bridge, and approximately 1,000 feet along the banks of the enlarged channel (Figure 1).

Approximately 220,000 cubic yards of fill would be dredged from the existing pilot channel, adjacent land, the BSC, and Bahia Grande. Both mechanical and hydraulic dredging methods would be used. The dredged material would be transported via land, pipeline, barge, or other method across the BSC to one of the US Army Corps of Engineer's existing dredged material placement areas (DMPAs) in the vicinity of the construction site where the material would be de-watered and deposited. If a pipeline is used to cross the BSC, it would be submerged to avoid impeding vessel traffic or impacting marine species. Approximately 25,000 feet of pipeline may be used to transport the dredged material to the DMPAs.

A temporary construction access route would be created through the placement of dredged material on approximately 1 acre within Bahia Grande. Upon completion of the construction process, the access route would be returned to pre-construction contours. The total estimated period of construction is 12 months or less and NMFS' [*Sea Turtle and Smalltooth Sawfish Construction Conditions*](#), dated March 23, 2006,¹ and [*Measures for Reducing Entrapment Risk to Protected Species*](#) dated May 22, 2012,² would be followed throughout all construction activities.

The project area covers approximately 47 acres and the proposed dredging and placement of riprap would impact several different habitat types including 10.48 acres of unvegetated open water, 7.46 acres of unvegetated tidal mud flats, 2.31 acres of seagrasses, 0.46 acre of emergent wetlands, 0.45 acre of oysters, and 0.14 acre of mangrove marsh.

Restoring natural tidal hydrological patterns to these areas is expected to result in the beneficial inundation of approximately 6,500 acres in Bahia Grande, 4,000 permanently, and 2,500 tidally. In addition, about 1,700 acres in Laguna Larga would be flooded, either by freshwater from

¹http://sero.nmfs.noaa.gov/protected_resources/section_7/guidance_docs/documents/sea_turtle_and_smalltooth_sawfish_construction_conditions_3-23-06.pdf, accessed June 2, 2017.

²http://sero.nmfs.noaa.gov/protected_resources/section_7/guidance_docs/documents/entrapment_bmps_final.pdf, accessed December 8, 2017.

diversions under SH100, or by saltwater from Bahia Grande. Another 1,400 acres would be inundated in Little Laguna Madre. Therefore, a total of approximately 9,600 acres of essential estuarine habitat would be restored, either through permanent inundation (6,800-plus acres) or periodic inundation by lunar and wind tidal effects (2,800-plus acres).



Figure 1. Aerial photo of project area showing project elements and current habitat types (Figure 2 in TPWD's Biological Evaluation Form for the Bahia Grande Hydrologic Restoration Project).

Effects Determinations for Species the Action Agency or NMFS Believes May Be Affected by the Proposed Action

Species	ESA Listing Status	Action Agency Effect Determination	NMFS Effect Determination
Sea Turtles			
Green (North and South Atlantic distinct population segments [DPS])	T	NLAA	NLAA
Kemp's ridley	E	NLAA	NLAA
Loggerhead (Northwest Atlantic Ocean DPS)	T	NLAA	NLAA
Leatherback	E	NLAA	NE
Hawksbill	E	NE	NE
E = endangered; T = threatened; NLAA = may affect, not likely to adversely affect; NE = no effect			

We believe the project will have no effect on hawksbill and leatherback sea turtles, due to the species' very specific life history strategies, which are not supported in the action area. There are no known nesting beaches or nursery habitat near the action area. Leatherback sea turtles have pelagic, deepwater life history, where they forage primarily on jellyfish. Hawksbill sea turtles typically inhabit inshore reef and hard bottom areas where they forage primarily on encrusting sponges. These habitat types do not occur anywhere near the project site.

Critical Habitat

The project is not located in designated critical habitat, and there are no potential routes of effect to any designated critical habitat.

Analysis of Potential Routes of Effects to Species

NMFS PRD has identified the following potential effects to sea turtles from implementing the proposed project and concluded that these species are not likely to be adversely affected.

1. Sea turtles may be injured if struck by construction equipment or materials (e.g. pipe-laying equipment, pipeline materials or rock placed for scour protection). The risk of this adverse effect occurring is discountable because these species are highly mobile and are expected to avoid the noise and disturbance associated with construction activities. The applicant's implementation of NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions* will further reduce the risk by requiring all construction workers watch for sea turtles. Operation of any mechanical construction equipment will cease immediately if a sea turtle is seen within a 50-ft radius of the equipment. Activities will not resume until the protected species has departed the project area of its own volition.
2. Sea turtles may be injured if struck by construction related vessels (dredging or pipe-laying barges and workboats). Due to the species' mobility and the applicant's compliance with the *Sea Turtle and Smalltooth Sawfish Construction Conditions* including the requirement that all vessels maintain slow transit speed (5 knots or less), the

risk of a vessel-strike injury is discountable.

3. Sea turtles may be temporarily unable to use the construction site for forage or refuge habitat due to the effects of construction activities (noise, increased turbidity, etc.). However, the construction site does not provide high quality habitat for sea turtles and the affected area is relatively small compared to the surrounding areas of more suitable habitat. For these reasons, any potential effects to sea turtles from temporary avoidance/exclusion from construction area will be insignificant.

Sea turtles may become entrapped within areas that are enclosed by riprap or other materials. It is extremely unlikely that sea turtles will be entrapped due to the implementation of NMFS's *Measures for Reducing Entrapment Risk to Protected Species*, dated May 22, 2012. Thus, we believe that the risk of entrapment is discountable.

4. Sea turtles may be affected by direct interaction with dredging equipment. The applicant proposes to use only mechanical (clamshell and bucket dredging) or hydraulic (suction) cutterhead/pipeline dredging. The potential for impacts to sea turtles from these dredging methods is discountable, as the equipment used advances very slowly, enabling sea turtles to safely move away.³
5. The quality of habitat for sea turtle foraging and sheltering may be impacted by the alteration of biological and physical conditions that results from dredging. Dredging removes the top layer of material from an area, including vegetation, sediment, topographic features and any sessile or slow moving benthic organisms. Dredging can also create noise and turbidity and contribute to the formation of localized anoxic or hypoxic conditions depending on the depth and location of the dredged area. The aquatic areas proposed for dredging have been previously disturbed and the formation of a channel between two water bodies will create significant daily flow through the dredged area, ensuring that anoxic or hypoxic conditions will not form. Given these project features and the relatively small area to be dredged compared to the extensive habitat areas that will be created by the project, any effects to sea turtles from the alteration of biological and physical conditions in dredged areas will be insignificant.

Conclusion

Because all potential project effects to listed species were found to be discountable or insignificant, we conclude that the proposed action is not likely to adversely affect listed species under NMFS's purview. This concludes your consultation responsibilities under the ESA for species under NMFS's purview. Consultation must be reinitiated if a take occurs or if new information reveals effects of the action not previously considered, or if the proposed action is subsequently modified in a manner that causes an effect to listed species or critical habitat in a

³ NMFS. 2007. Revision 2 to the National Marine Fisheries Service (NMFS) November 19, 2003, Gulf of Mexico Regional Biological Opinion (GRBO) to the U.S. Army Corps of Engineers (COE) on Hopper Dredging of Navigation Channels and Borrow Areas in the U.S. Gulf of Mexico. National Marine Fisheries Service, Southeast Regional Office, Protected Resources Division, St. Petersburg, Florida. January 9, 2007. 15 pp.

manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the proposed action.

We look forward to further cooperation on other projects to help ensure the conservation of our threatened and endangered marine species and designated critical habitat. If you have any questions about this consultation, please contact Mike Tucker, Consultation Biologist, at (727) 209-5981, or by email at michael.tucker@noaa.gov.

File: 1514-22C.