APPENDIX E
INTERAGENCY COORDINATION

BAY AQUATIC BENEFICIAL USE SITES
GALVESTON BAY, TEXAS

U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
2000 Fort Point Road
Galveston, Texas 77550

US Army Corps of Engineers

E-1
USFWS Section 7

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1229
GALVESTON, TEXAS 77553-1229

REPLY TO
ATTENTION OF

APRIL 11, 2025

Operations Division-Navigation Section

Jan Culbertson, Ph.D.
Fish and Wildlife Biologist
Texas Coastal and Central Plains Ecological Services Field Office
U.S. Fish & Wildlife Service
17629 El Camino Real, Ste 211
Houston, TX 77058

SUBJECT: Bay Aquatic Beneficial Use Site (BABUS) Informal Consultation

The U.S. Army Corps of Engineers (USACE), Galveston District (CESWG), is preparing an Environmental Assessment (EA) to evaluate the potential environmental effects associated with construction of the Bay Aquatic Beneficial Use Site project for the future beneficial placement of dredged material from the Houston Ship Channel maintenance. This letter request is to initiate informal consultation under Section 7(a)(2) of the Endangered Species Act (ESA), as amended (16 U.S.C. 1531 et seq.), for the proposed environmental effects to listed species for the BABUS Project located in Galveston Bay (Chambers County, Texas).

USACE has determined that the project ***may affect, but is not likely to adversely affect*** the West Indian Manatee (*Trichechus manatus*). No other protected species or critical habitat under USFWS jurisdiction are known to potentially be effected by the project. The Corps has made this determination with the agreement to implement species-specific conservation measures and monitoring protocols to reduce all effects to these species and their habitat to insignificant and/or discountable levels. Please refer to Attachment 1 of this document for the prepared Federally Protected Species Assessment.

USACE Galveston District is requesting that the U.S. Fish and Wildlife Service provide concurrence to the ***may affect, but not likely to adversely affect*** determination for the manatee pursuant to Section 7 of the Endangered Species Act.

We appreciate your cooperation in coordinating the proposed project and request that you provide your comments by May 12, 2025. Should you need additional information or have any questions, please call me at (409) 766-3949.

Sincerely,

Lisa Finn
Environmental Project Manager, Navigation

Enclosures
Cc:
Marisa Weber, Lloyd Engineering, Inc.

FEDERALLY PROTECTED SPECIES ASSESSMENT
FOR THE
BAY AQUATIC BENEFICIAL USE SITES
GALVESTON BAY, TEXAS

U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
2000 Fort Point Road
Galveston, Texas 77550

April 2025

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ACRONYMS, ABBREVIATIONS & INITIALISMS

BABUS	Bay Aquatic Beneficial Use Sites
BU	beneficial use
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cy	cubic yards
DMMP	Dredged Material Management Plan
EA	Environmental Assessment
ECIP	Expansion Channel Improvements Project
EIS	Environmental Impact Statement
ESA	Endangered Species Act of 1973
FIFR	Final Integrated Feasibility Report
GCBR	Global Core Biodata Resource
HSC	Houston Ship Channel
iDigBio	integrated digitized biocollections
IGFA	International Game Fish Association
ISED	International Sawfish Encounter Database
MBTA	Migratory Bird Treaty Act
MLLW	mean lower low water
NEPA	National Environmental Policy Act of 1969
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NSED	National Sawfish Encounter Database
ODMDS	ocean dredged material disposal site
O&M	operations and maintenance
PA	placement area
TPWD	Texas Parks and Wildlife Department
UF	University of Florida
USACE	U.S. Army Corps of Engineers
U.S.C.	U.S. Code
USFWS	U.S. Fish and Wildlife Service

1 INTRODUCTION

The U.S. Army Corps of Engineers, Galveston District (USACE) has prepared an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA), Public Law 91–190, and regulations for implementing the procedural provisions of the NEPA, 40 Code of Federal Regulations (CRF) 1500–1508. The EA evaluates potential impacts associated with the Bay Aquatic Beneficial Use Sites (BABUS) project construction and operation. The EA serves to evaluate practicable alternative locations for the BABUS, assess effects anticipated from the proposed project, and recommends avoidance and minimization measures to avoid and minimize adverse effects resulting from the proposed action.

The existing Houston Ship Channel (HSC) spans 52 miles of federal navigation channels through three counties. This important series of federal navigation channels have been modified, starting at least as far back as 1905, to better accommodate vessel traffic. Several additional modifications to these channels have taken place since this time (USACE 2019). The latest modification project, titled the HSC Expansion Channel Improvements Project (ECIP), is the planned deepening, widening, and re-configuration of several portions of these channels. These proposed changes are planned to address existing inefficiencies in accommodating current and projected container and bulk freighter vessel size and fleet size. See the Final Integrated Feasibility Report (FIFR) and Environmental Impact Statement (EIS) for the HSC ECIP by USACE (2019) for more information. There are several placement areas (PAs) and beneficial use (BU) areas adjacent to the HSC for placement of some of the HSC dredged material. New work and maintenance-dredged (operations and maintenance [O&M]) material from several areas of the HSC is also planned to be disposed of at the Galveston Ocean Dredged Material Disposal Site (ODMDS). However, the planned improvements to the HSC will increase the volume of maintenance-dredged material from the HSC. Due to limited capacity of the PAs and BU areas for the increased volume of dredged material, there is a need for a new placement area for this material for the next 50 years of maintenance dredging (USACE 2019).

1.1 Proposed Action & Project Area

The proposed action is the construction of the BABUS for the placement of primarily O&M dredged material (Figure 1-1). Since the BABUS project is in the conceptual stage, the exact configuration of the BABUS, and position within the project footprint, has not yet been determined. The current design of the BABUS project has a footprint that does not exceed approximately 4,500 acres. The project area is in upper Galveston Bay, southeast of Atkinson Island (and its associated BU PAs), north of the Mid Bay Placement Area (Blue Water Atoll), and east of the HSC. Upper Galveston Bay is bordered by Chambers and Harris counties, Texas. The project area is submerged land in Chambers County owned by the State of Texas and managed by the Texas General Land Office. The project area is subtidal and has an average bottom elevation of -8 feet (-2.4 m) mean lower low water (MLLW) (USACE 2022). The area is transected by two recreational boating channels: Five Mile Cut Channel and North Boaters Cut. One or both channels may require dredging to a width and depth sufficient to accommodate bottom-dump scows and (or) hopper dredges for delivery of dredged material to the BABUS.

The project will consist of two types of PAs. The first type is an excavated BU PA created by excavating the bay bottom and using that material to construct confining dikes. These dikes would serve as the outer perimeter of the PA and may be reinforced with riprap or other similar materials as needed to prevent erosion. The current design has the crests of the confining dikes having a maximum elevation of +8 feet (2.4 m) MLLW. The second type of PA will be marsh fill areas for beneficial use of dredged material. The interiors of the BABUS PAs would be filled gradually with material dredged from areas of the HSC north of Morgans Point (mile 26.2) (DMMP [Appendix R

of the FIFR-EIS by USACE 2019]). The placement of the material would occur over the projected 50-year period or until the estimated capacity of approximately 100 million cy is reached.

The beneficial use PA (shown in the center of the project area in Figure 2-1) is anticipated to be excavated to a depth of -70 feet (-21.3 m) MLLW, dependent on the results of further engineering and design work, to maximize dredged material capacity. Following initial excavation, the interior of this PA would temporarily be a deep basin accessible via North Boaters Cut or Five Mile Cut Channel. A gap in the exterior dike will be provided to allow passage of the scows/dredges. Upon completion of the construction of the exterior containment dike and bay bottom excavation to the maximum depth and extent practicable, the gap in the dike will be closed in-between placement events within this PA. The containment dikes have the potential to host a variety of aquatic and emergent habitats, including oyster reef. The types of habitats and their placement along these dikes will be decided based on further engineering and design work.

The marsh fill areas are anticipated to be filled with dredged material. The containment dikes around these areas will be constructed of bay bottom material excavated from within the dredged material PA. The outer slopes of these containment dikes are anticipated to provide habitat benefits that are similar to those to be created on the dikes of the dredged material PA. The details for how the dikes are to be constructed, and the habitats they will support, are dependent on the results of further engineering and design efforts. The elevation of the interior of the marsh fill areas would be raised from the existing bay bottom elevation (averaging -8 feet [2.4 m] MLLW) to intertidal elevations of 0 to +3.5 feet (0–1.07 m) MLLW for the potential to create beneficial use intertidal marsh and bird island habitats. Once the interior of the marsh fill areas have reached the desired elevation, the dike will be cut at strategic locations to allow for tidal exchange of bay water in and out while continuing to provide erosion protection.

Once the excavated beneficial use PA and the marsh fill areas are filled to their desired elevations and the 100 million cy capacity is reached, it is anticipated that new marsh habitat and (or) upland habitats could be created on the upper surface of the BABUS. The habitats would be designed to accommodate various desirable wetland and aquatic species. The BABUS would also be expected to provide refuge for migratory birds along the northern Gulf coast during migrations, and to add to the productivity of bird islands along the Galveston Bay migratory corridor. Thus, the proposed action is intended to aid in the USACE's requirements and directives for increasing BU of dredged material to at least 70% of all dredged material by 2030 (USACE 2023).

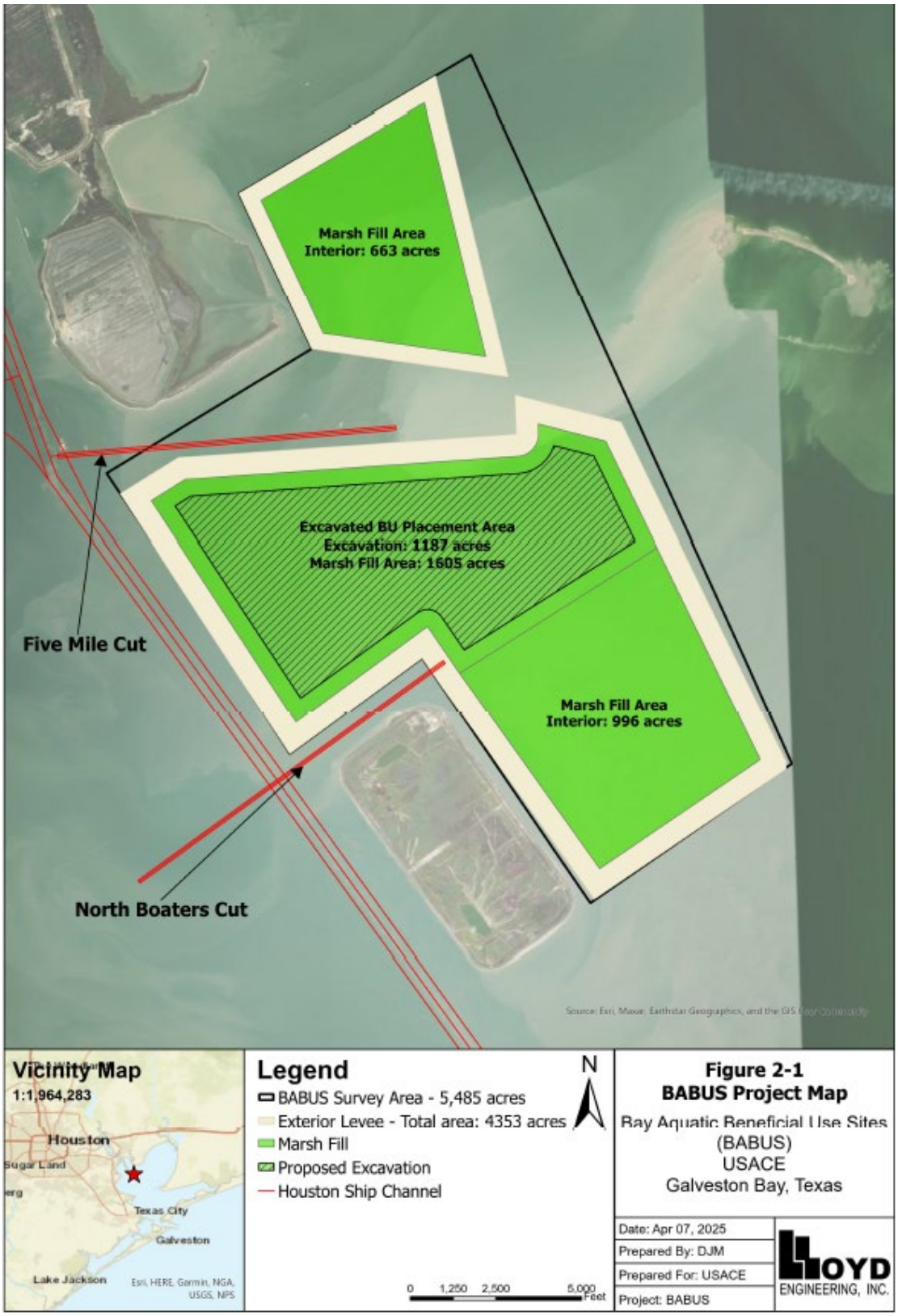

Figure 1-1 Conceptual Design of the Proposed Action: Bay Aquatic Beneficial Use Sites in Upper Galveston Bay

1.2 Regulatory Framework

1.2.1 National Environmental Policy Act of 1969

NEPA is an important part of the decision-making process for actions involving federal lands. The NEPA process mandates federal agencies prepare an EA or an EIS designed to explain possible effects of the proposed actions on the human environment, including alternative actions and no action, and to allow the public to comment. Significant impacts can result from cumulative actions and can affect unique or endangered resources. The EA or EIS is to be prepared as soon as an agency has a proposed goal (Council on Environmental Quality [CEQ] § 1508.23) during the proposal stage of the federal action. An EA is produced if the impacts of a given action are unknown (CEQ § 1507.3 and § 1508.9). The result of drafting an EA may be a Finding of No Significant Impacts (CEQ §1508.13) or a finding of significant impacts, which mandates the production of an EIS (CEQ § 1501.4 and § 1507.3). NEPA is procedural only and is designed to prevent uninformed decisions but does not force any particular action.

1.2.2 Endangered Species Act of 1973

The ESA was designed to protect imperiled species from extinction due to economic growth and development. ESA Section 7, Interagency Coordination, is of interest to this assessment of federally protected species. It regulates all federal agencies to protect endangered and threatened species and their designated critical habitat.

ESA Section 7(a)(2) states that agencies shall, in consultation with the secretary of the interior or the secretary of commerce (depending on the species in question), ensure that any action is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat unless the agency was granted an exception for the action by the Endangered Species Committee (ESA § 7(h)).

A formal consultation with the secretary is conducted to obtain a written Biological Opinion and a summary of information on which the opinion is based showing how the agency action affects the species or its critical habitat (ESA § 7(b)(3)(a)). If the action is found to put the species in jeopardy or to adversely modify critical habitat, the secretary will suggest reasonable and prudent alternatives, which will not violate ESA § 7(a)(2), to be taken by the agency in implementing the action.

An informal consultation with the secretary is conducted if the agency has reason to believe that an endangered or threatened species or designated critical habitat may be present in the area affected by the project and that the implementation of the proposed action is likely to affect such species or habitat (ESA § 7(a)(3)). The results of a literature review on the federally protected species, including ESA-listed species, that may occur within the BABUS project area are incorporated into the ESA § 7 consultation as part of this assessment.

1.2.3 Bald & Golden Eagle Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) has been amended several times since its 1940 enaction (USFWS 2024). This act prohibits anyone from “taking” bald or golden eagles (*Haliaeetus leucocephalus* or *Aquila chrysaetos*) alive or dead, or possessing or selling any parts (including feathers), nest or eggs of these species, unless otherwise permitted by the USFWS. “Take” is defined here as to pursue, shoot, or attempt to shoot, poison, wound, kill, capture, collect, molest, or disturb either of these species (USFWS 2024).

1.2.4 Migratory Bird Treaty Act of 1918

Most bird species native to the United States are protected from anthropogenic harm under the Migratory Bird Treaty Act of 1918 ([MBTA] 16 U.S.C. §§ 703–712). This protection is for all life stages (eggs through adult stages) and includes their nests. The statute makes it unlawful to pursue, hunt, take, capture, kill, or sell (whole or parts, live or dead) any of the over 800 species of birds covered under the act. Migratory birds, as listed in 50 CFR § 10.13, are those species that are ecologically and economically important to the United States and enable various recreational activities such as bird watching, behavioral studies, and photography. Only about 338 species of birds are Nearctic-Neotropical migrants of North America (Shackelford et al. 1999), therefore, the MBTA covers not just those species that are strictly migratory, but also covers many other bird species of ecological and economic importance.

Over 615 species of birds have been documented in Texas, more than any other state (Shackelford et al. 1999), and many of these species are covered under the MBTA. The Galveston area is within the central flyway and the Mississippi flyway—two of the four major migratory flyways of North America (Shackelford et al. 1999).

Executive Order 13186, published in 2001, asserts that the protection of migratory birds is the responsibility of federal agencies. Also, a memorandum of understanding between the Department of Defense and USFWS, signed in September 2014, states that the Department of Defense shall take steps to manage and mitigate potential impacts on migratory birds, such as identifying the species likely to occur in the proposed action and assessing the potential impacts to migratory species using best-available data. Although this memorandum of understanding expired five years after it was signed, it represents the latest agreement between these agencies concerning migratory birds until the newest administration can work on an updated agreement. A complete list of species covered under the MBTA can be found at https://www.govinfo.gov/content/pkg/FR-2023-07-31/pdf/2023-15551.pdf.

1.2.5 Marine Mammal Protection Act of 1972

The Marine Mammal Protection Act of 1972 (16 U.S.C. Chapter 13, §§ 1361–1362, 1371–1389, 1401–1407, 1411–1418, 1421–1421h, and 1423–1423h), and associated amendments and agreements, affords federal protections from anthropogenic actions to all species of marine mammals that occur within U.S. waters. This protection generally addresses incidental and purposeful ‘take’ (to hunt, harass, capture, or kill) (except with a permit) or attempts to take, and prohibits (except with a permit) the import and export of marine mammals and their parts or products (NOAA Fisheries 2024). This act is facilitated by National Oceanic and Atmospheric Administration (NOAA) Fisheries for cetaceans (toothed whales including dolphins/porpoises and baleen whales) and pinnipeds (seals and sea lions). USFWS facilitates Marine Mammal Protection Act protections for walrus, manatees, sea otters, and polar bears. Marine mammals in Alaska are co-managed with native Alaskan tribes. In addition, the Marine Mammal Commission provides science-based oversight of federal policies and actions that may affect marine mammals and the habitats these animals require (NOAA Fisheries 2024).

2 FEDERALLY PROTECTED SPECIES OF INTEREST

Federally protected species under USFWS jurisdiction that may potentially occur within the project area include the insects, fishes, reptiles, birds, and mammals listed in Table 2-1 below. This section lists and discusses federally protected species as they relate to the proposed action. Federally protected species that lead pelagic open-water lifestyles, and terrestrial plant species, are omitted from consideration of possible effects of this estuarine-based proposed action area.

Table 2-1. Summary of Federally Protected Species That May Occur In or Near Galveston Bay

Common Name (Scientific Name)	Status	
	Federal	State (TPWD)
INSECTS		
Monarch butterfly (*Danaus plexippus*)	Candidate (USFWS) (88 FR 41560, 06/27/2023) (no critical habitat designated)	(not listed)
REPTILES		
American alligator (*Alligator mississippiensis*)	Threatened (USFWS) (due to similarity of appearance)* (52 FR 21059, 06/04/1987) (no critical habitat designated)	(not listed)
Alligator snapping turtle (*Macrochelys temminckii*)	Proposed threatened under 4(d) rule of ESA (USFWS) (86 FR 62434, 11/09/2021)	Threatened
Green sea turtle (*Chelonia mydas*)	Threatened (co-managed) (43 FR 32800, 07/28/1978)	Threatened
Hawksbill sea turtle (*Eretmochelys imbricata*)	Endangered (co-managed) (35 FR 8491, 06/02/1970)	Endangered
Kemp's ridley sea turtle (*Lepidochelys kempii*	Endangered (co-managed) (35 FR 18319, 12/02/1970) Critical habitat is proposed (43 FR 45905, 11/29/1978)	Endangered
Leatherback sea turtle (*Dermochelys coriacea*)	Endangered (co-managed) (35 FR 18319, 12/02/1970) Critical habitat is designated (77 FR 4170, 01/26/2012)	Endangered
Loggerhead sea turtle (*Caretta caretta*)	Threatened (co-managed) (43 FR 32800, 07/28/1978) Critical habitat is designated (79 FR 39856, 07/10/2014)	Endangered
BIRDS		
Eastern black rail (*Laterallus jamaicensis jamaicensis*)	Threatened (USFWS) (85 FR 63764, 10/08/2020) (no critical habitat designated)	Threatened

Common Name (Scientific Name)	Status	
	Federal	State (TPWD)
Piping plover (*Charadrius melodus*)	Threatened (USFWS) (50 FR 50726, 12/11/1985) (Atlantic coast and northern Great Plains populations) Critical habitat is designated (74 FR 23476, 05/19/2009)	Threatened
Rufa red knot (*Calidris canutus rufa*)	Threatened (USFWS) (79 FR 73705, 12/11/2014) Critical habitat is designated (88 FR 22530, 04/13/2023)	Threatened
Whooping crane (*Grus americana*)	Endangered (USFWS) (35 FR 8491, 06/02/1970) Critical habitat is designated (43 FR 36588, 08/17/1978)	Endangered
Wood stork (*Mycteria americana*)	Threatened, proposed to be de-listed (USFWS) (47 FR 58454, 02/28/1984) (no critical habitat designated)	Threatened
MAMMALS		
Tricolored bat (*Perimyotis subflavus*)	Proposed endangered (USFWS) (87 FR 56381, 09/14/2022) (no critical habitat designated)	(not listed)
West Indian manatee (Florida manatee) (*Trichechus manatus* [*T. m. latirostris*])	Threatened (USFWS) (82 FR 16668, 04/05/2017) Critical habitat is designated (42 FR 47840, 09/22/1977) Also protected under the Marine Mammal Protection Act (NOAA Fisheries)	Endangered

* SA = Species is listed due to the similarity of appearance with the federally threatened American crocodile, *Crocodylus acutus*.

Sources: National Marine Fisheries Service ([NMFS] 2018b), Seitz and Waters (2018, 2020), USFWS IPaC (https://ipac.ecosphere.fws.gov/) and ESA species (https://www.fws.gov/species) queries on 13 September 2023 and 21 Mar 2025, Texas Parks and Wildlife Department (TPWD) Species of Greatest Conservation Need (https://tpwd.texas.gov/landwater/land/tcap/sgcn.phtml) queries on 14 September 2023 and 21 Mar 2025. North Atlantic right whale occurrence in Texas waters based on Schmidly et al. (1972), Ward-Geiger et al. (2011), and Laist (2017).

2.1 Searches of Available Literature & Databases

Searches were conducted of the available literature, and in online databases, on 3–9 November 2023 and 21 March 2025 for occurrences within the Galveston Bay area for each of the species listed in Table 2-1. The following online databases were used, as appropriate, for each taxon of interest:

- Global Core Biodata Resource (GCBR) database (https://globalbiodata.org/what-we-do/global-core-biodata-resources/)
- The online vertebrate data aggregation web portal Vert Net (http://portal.vertnet.org/search) (includes Texas A&M collections data)
- The integrated digitized biocollections (iDigBio) online portal of vouchered specimens held in public university collections (https://www.idigbio.org/portal/search)
- The following University of Florida (UF) collections databases:
    - UF Lepidoptera Collection (http://specifyportal.flmnh.ufl.edu/leps/)

  - UF Ichthyology Collection (http://specifyportal.flmnh.ufl.edu/fishes/)
  - UF Herpetology Collection (http://specifyportal.flmnh.ufl.edu/herps/)
  - UF Ornithology Collection (http://specifyportal.flmnh.ufl.edu/birds/)
  - UF Mammalogy Collection (http://specifyportal.flmnh.ufl.edu/mammals/)
- The following amateur naturalist observation databases:
  - iNaturalist all-taxa observation database (https://www.inaturalist.org/observations)
  - HerpMapper reptile and amphibian observation database (https://www.herpmapper.org)
  - eBird bird observation database (https://ebird.org/explore)

2.2 Occurrence of Species & Their Critical Habitat

Results of the literature and database searches are summarized here, along with notes on critical habitat, if applicable.

Monarch Butterfly (*Danaus plexippus*)

The monarch butterfly is currently a candidate species for future federal protection under the ESA. No critical habitat has been designated as of this writing. This species occurs throughout North America, including Texas, along with areas of Central and South America. Some migrating populations fly through Texas on their way to and from overwintering sites in Mexico (Heppner 2005).

The literature search did not locate specific occurrences within the Galveston Bay area. The database search resulted in 204 records of monarch butterflies in the GCBR for the Galveston area from 2019 to present. A search of iNaturalist produced 221 observations of this species in the Galveston area from 2022 to present. Observations were for all land surrounding Galveston Bay. No records were found in the UF Lepidoptera Collection for the Galveston Bay area.

American Alligator (*Alligator mississippiensis*)

The American alligator is federally threatened due to similarity of appearance to the American crocodile (*Crocodylus porosus*). Alligators range across the southeastern U.S. including eastern and southern Texas (Powell et al. 2016). Alligators occur in inland and coastal water bodies, including estuarine bays (Dundee et al. 1989). Chambers County is among the 'core counties', consisting of the prime historical habitat for this species in Texas, according to the TPWD (2019). No critical habitat is designated for this species.

A total of 426 sightings within Galveston Bay and surrounding areas of the City of Galveston, from 2022 to present, were recorded in iNaturalist and many of these sightings included photographic evidence. A total of 75 records were found in HerpMapper for Chambers, Galveston, and Harris counties, mostly from 2024 but as far back as 2015. Alligators were observed in and around Galveston Bay during most months of the year, but sightings peaked in April and May based on a search of these amateur naturalist sites.

Alligator Snapping Turtle (*Macrochelys temminckii*)

Although this species is not currently federally protected, the species is under review for possible inclusion as a threatened species under the 4(d) rule of ESA (USFWS 2021c). The alligator snapping turtle has been documented to occur in Chambers, Galveston, and Harris counties as recently as 2022 according to Gordon et al. (2023a, b). The species is well known to occur in the

Trinity River (Pritchard 1989), and more recently in Buffalo Bayou (Munscher et al. 2020, 2023) and in the San Jacinto River (Rosenbaum et al. 2023) (Figure 2-3), and all these water bodies flow into Galveston Bay. However, although this species is known to occur in estuaries at least occasionally, and occurs in certain waterways of Houston (e.g., Munscher et al. 2020), no records were found of occurrences within Galveston Bay. This species prefers aquatic habitats that have submerged structures (Sloan and Taylor 1987, Harrel et al. 1996, Howey and Dinkelacker 2009) and the relative lack of such structures within the project area may make this area unattractive to this species.

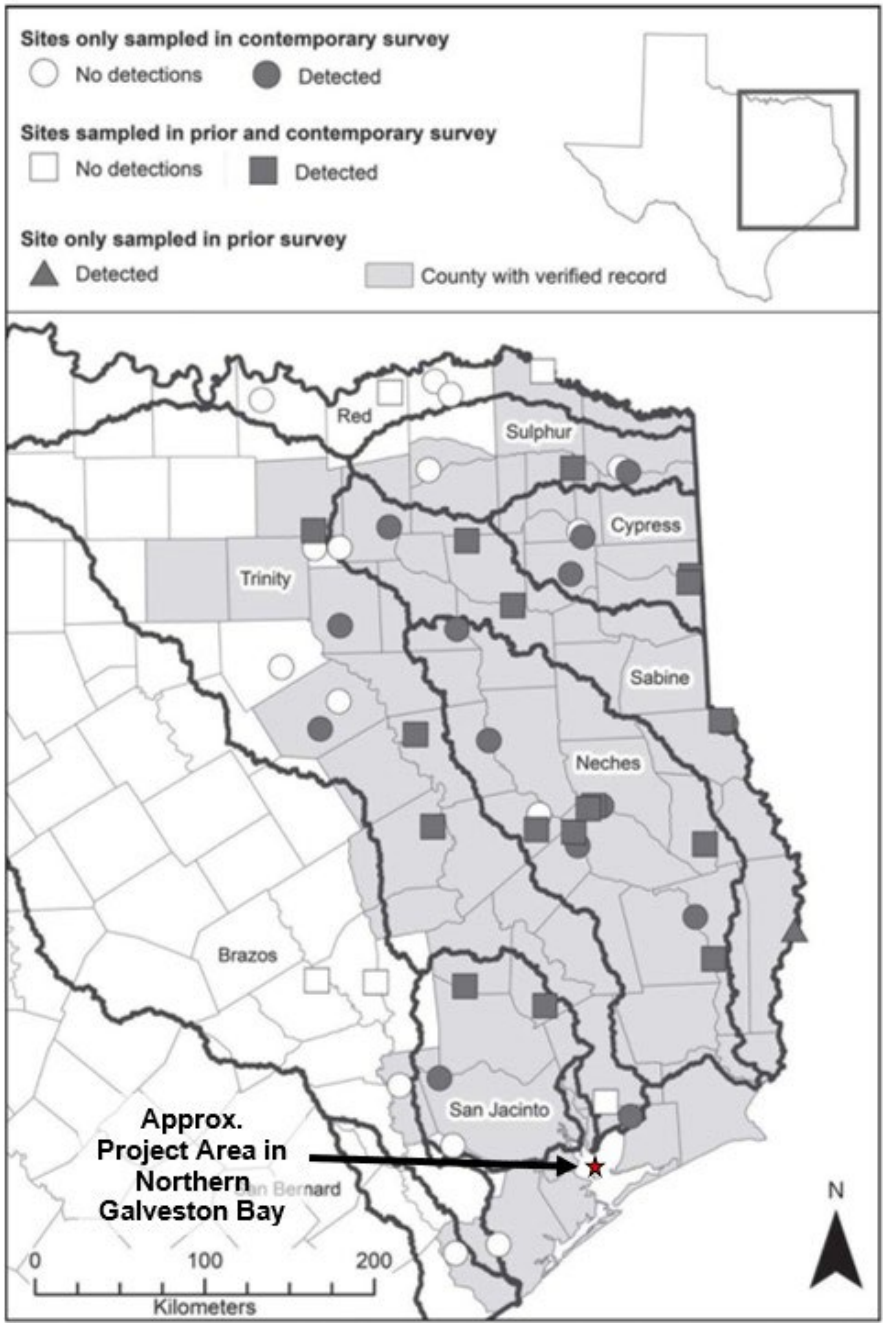

Figure 2-1. Known Occurrences of the Alligator Snapping Turtle (*Macrochelys temminckii*) in Water Basins that Surround Galveston Bay

Source: Modified from Figure 1 of Rosenbaum et al. (2023)

Sea Turtles (Cheloniidae & Dermochelyidae)

Five species of federally threatened or endangered sea turtles occur in coastal Texas waters (Girondot 2015, Witherington and Witherington 2015). Three species, Loggerhead, Green, and Kemps ridley, could potentially be found Galveston Bay waters. NMFS (2023a) stated that Galveston Bay supports a resident population of green turtles. NMFS also stated that the bay 'provides moderate conservation value because it supports moderate density benthic foraging/resting' (page 46584 in NMFS 2023b).

The database search resulted in 4 loggerhead sea turtle (*Caretta caretta*) observations, 17 green sea turtle (*Chelonia mydas*) observations, and 11 Kemp's ridley sea turtle (*Lepidochelys kempii*) observations in Galveston Bay or nearshore waters off Galveston Island. These records were primarily from 2023, but as far back as 2012, as reported to iNaturalist and HerpMapper. In addition, a Kemp's ridley nest was documented in 2022 within the Gulf-side dunes at Galveston Island State Park, with a reported 107 eggs within the clutch (TPWD 2022). No records were found for hawksbill sea turtle (*Eretmochelys imbricata*) or leatherback sea turtle (*Dermochelys coriacea*) within Galveston Bay or nearby waters.

Critical habitat has been designated for all five species. Critical habitat for the North Atlantic distinct population segment of green sea turtle was proposed in July 2023 for along the Texas coastline by NMFS (2023b). Proposed critical habitat unit 'TX01' includes the project area and throughout Galveston Bay along with Gulf waters along the continental slope (NMFS 2023a, b) (Figure 2-2). No other sea turtle critical habitat occurs in Galveston Bay (USFWS IPaC [https://ipac.ecosphere.fws.gov/]).

USFWS holds jurisdiction over sea turtles in inland waters and nesting on beaches. Sea turtles are known to nest on beaches around Galveston Island.

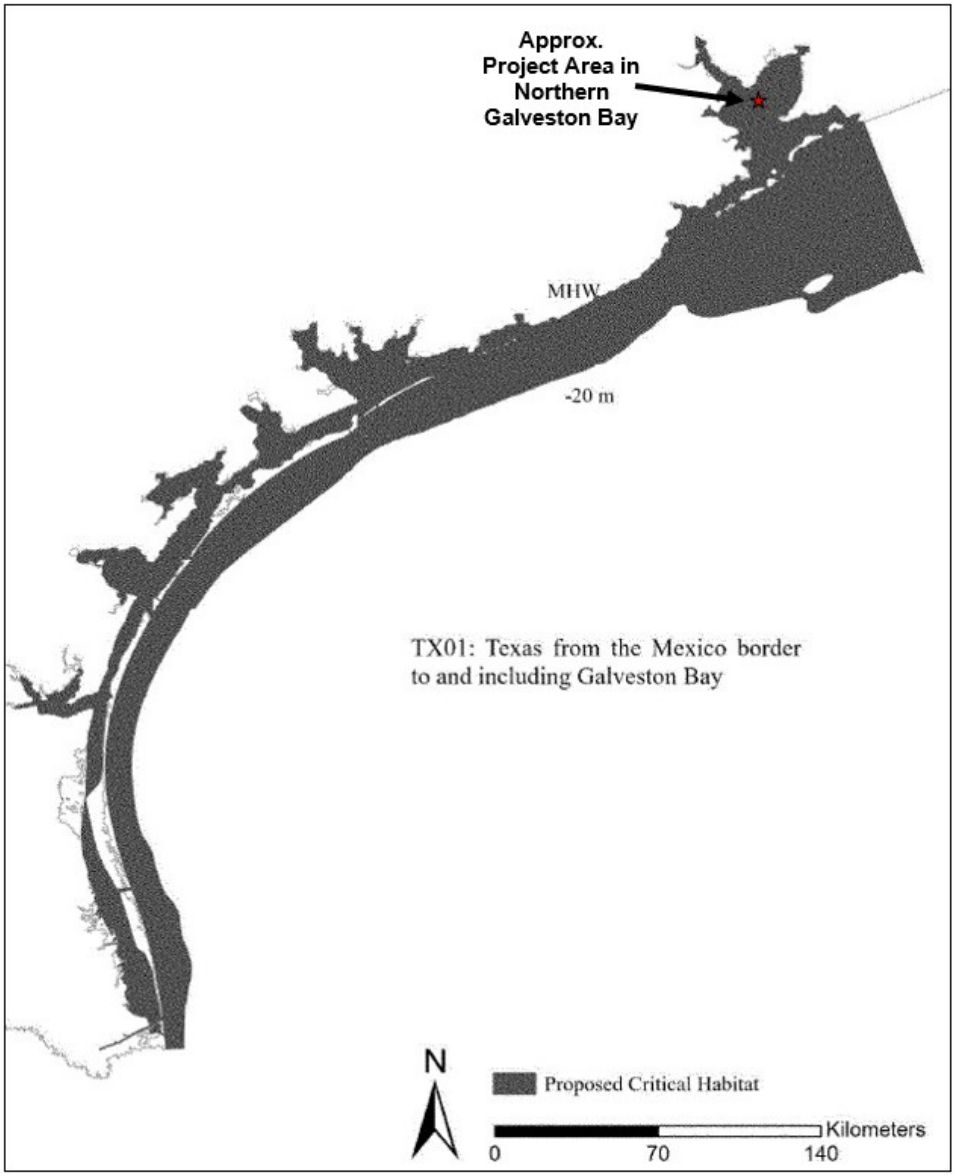

Figure 2-2. Green Sea Turtle (*Chelonia mydas*) Proposed Critical Habitat in Texas Includes Galveston Bay

Note: Proposed critical habitat includes nearshore and bays from the mean high water line out to the 20 m isobath.
Source: Modified from Figure 1c of NMFS (2023b)

Eastern Black Rail (*Laterallus jamaicensis jamaicensis*)

Coastal habitats of Texas are used year-round by the federally threatened eastern black rail (Figure 2-3) and the species is thought to breed in the state (Oberholser 1974, USFWS 2019) (Figure 2-4). Evidence of breeding in Texas includes nests and (or) pairs of adults observed in May and June in Galveston County (Oberholser 1974). Texas is estimated to have 100–500 breeding pairs, although there is a high degree of uncertainty (USFWS 2019). Suitable coastal habitats used by the eastern black rail include coastal prairie habitats having emergent grasses, rushes, or other herbaceous plant species (Figure 2-5) (USFWS 2019). Microhabitats preferred by this species include dense mats of dead grass blades in herbaceous coastal areas (Bent 1963),

such as where fire has been suppressed (Pough 1951). Isopods appear to be the principal prey item according to Pough (1951).

This subspecies of black rail is considered by the USFWS to be a permanent resident within the Galveston Bay watershed, where it inhabits wet prairies and freshwater and saltwater marshes, although it is considered rare in these habitats (Wolfe and Drew 1990, USFWS 2019). Breeding occurs from mid-March through September in Texas, typically in large coastal marshes where they make their nests out of grasses (Maehr and Kale 2005, USFWS 2019). Current threats to the eastern black rail were identified by USFWS (2019) to include loss and degradation of wetland habitat resulting from land development, conversion of coastal prairie habitat to incompatible land use (e.g., cattle grazing, agriculture), incompatible or poorly timed land management techniques (e.g., grazing, prescribed fire, mechanical treatment), and stochastic events such as floods and hurricanes. Sea level rise is considered a future risk factor.

During the 2014 Texas breeding season, 57 individuals were detected during surveys (USFWS 2019). During the 2016 and 2017 breeding seasons, 239 individuals were detected during surveys (USFWS 2019). Black rail observations in eBird from 2014 to present numbered 603 in the Galveston area, including four photographs and 62 audio files of this species. Observations of black rail in the Galveston area occurred in every month of the year but were highest during March through August. Observations in iNaturalist numbered 13 from 11 observers during 2014 to present, with most records being from 2022 through 2024. No records were found for black rail in the Avian Knowledge Network database or UF Ornithology Collection database for Chambers, Galveston, or Harris counties. The project area lacks prairie or marsh habitat typically used for nesting by coastal populations of this subspecies. The black rail is unlikely to inhabit the project area although the number of observations in the area around the bay suggest that the species occurs in the region.

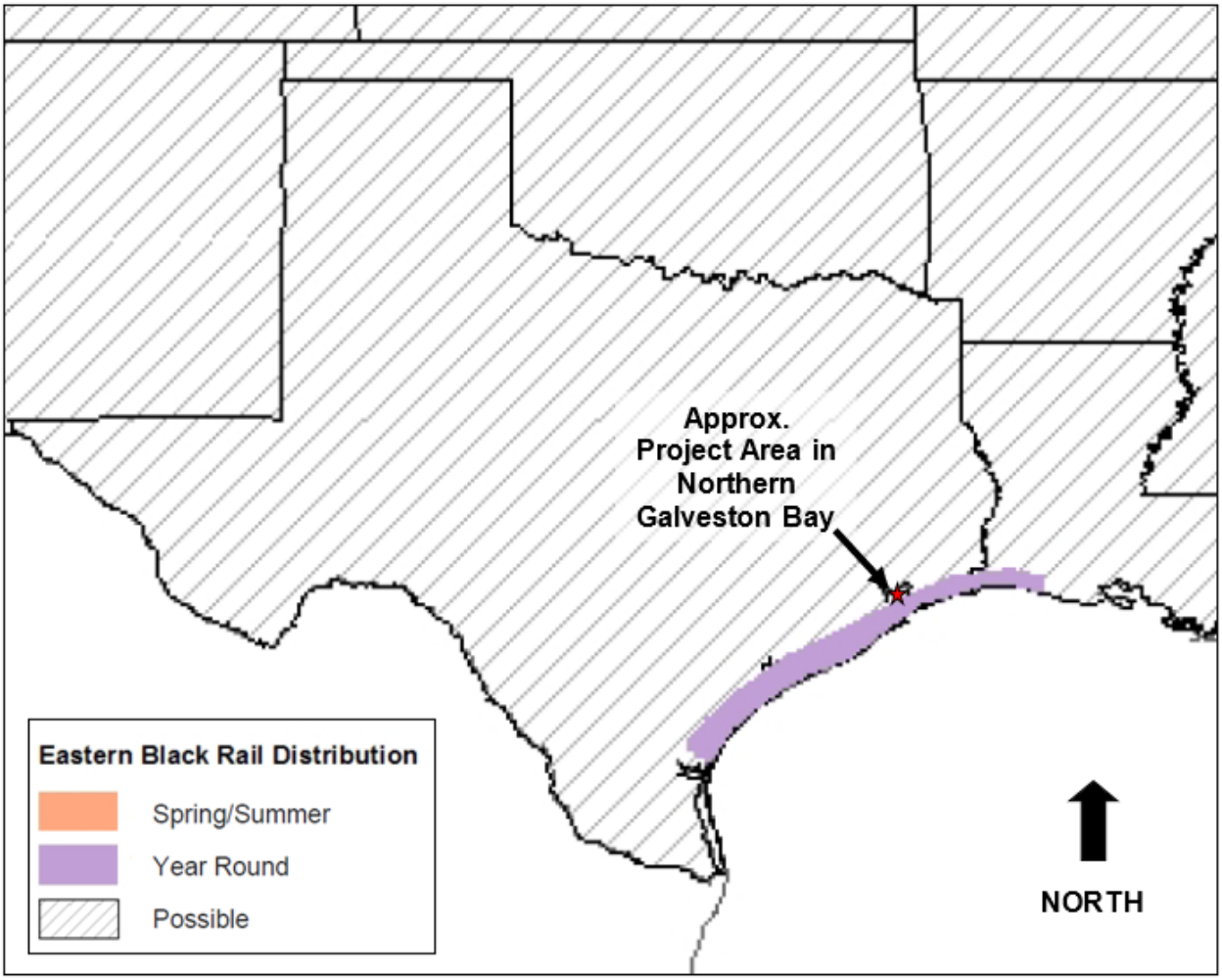

Figure 2-3. Eastern Black Rail (*Laterallus jamaicensis jamaicensis*) Distribution within Texas

Notes: The species is known to occur year-round in the solid purple area, but occurrence is also possible anywhere within the gray hatched area. The approximate project location is shown with a red star.

Source: Modified from Figure 2-6 of USFWS (2019)

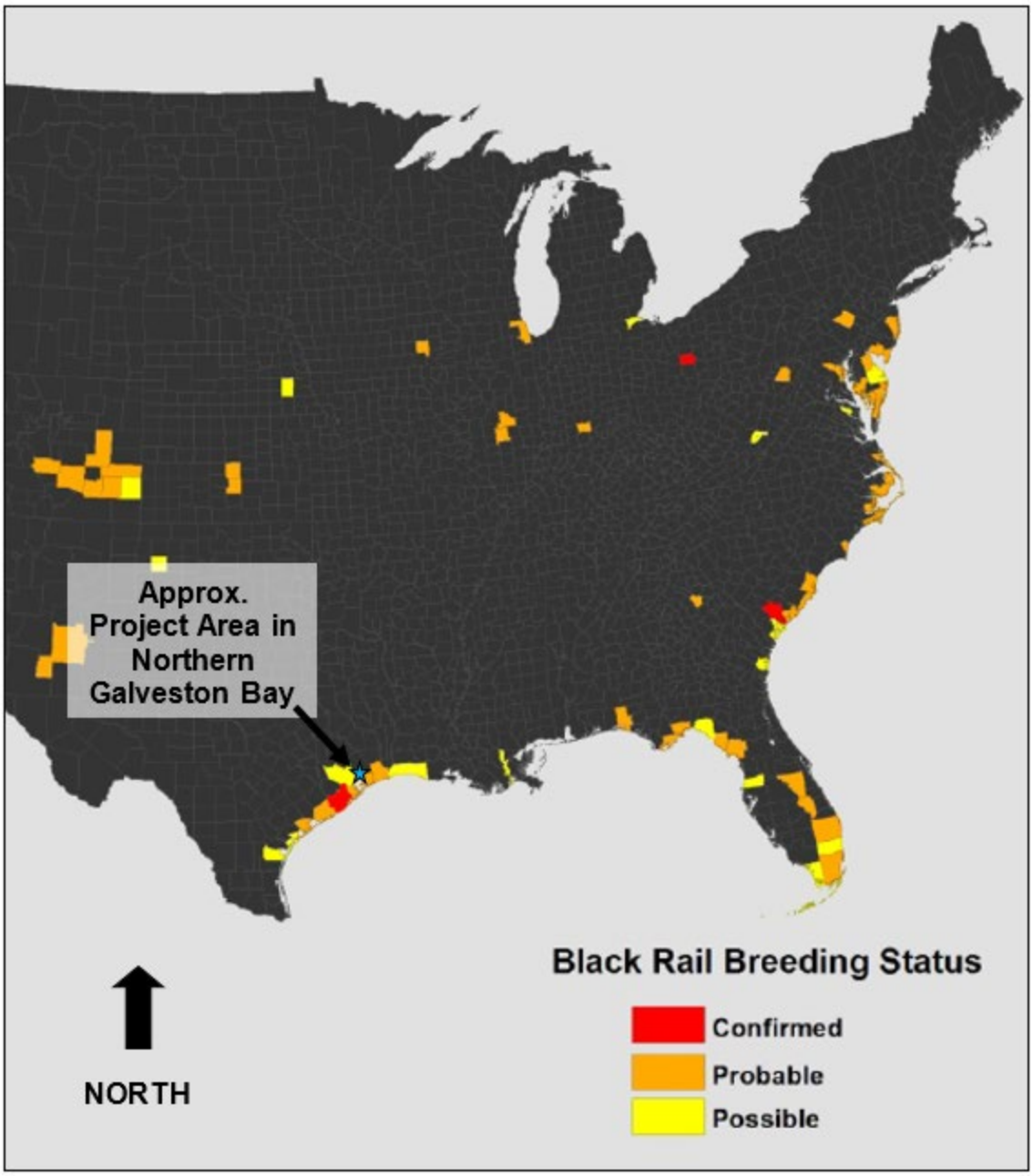

Figure 2-4. Eastern Black Rail (*Laterallus jamaicensis jamaicensis*) Breeding Status per County During 2011–2016

Notes: Confirmed = record of a nest with eggs or young observed; probable = record occurred during 15 May through 31 August; possible = record occurred during 1 April through 15 May. The approximate project location is shown with a blue star.

Source: Modified from Figure 2-7 of USFWS (2019)

Figure 2-5. Examples of Habitats Typically Used by the Eastern Black Rail (*Laterallus jamaicensis jamaicensis*)

Notes: Habitat photos were taken in South Carolina (A), Texas (B), Kansas (C), and Honduras (D). Photos taken by C. Hand (A), W. Woodrow (B), R. Laubhan (C), and R. Gallardo and A. Vallely (D).

Source: Modified from Figure 2-5 of USFWS (2019)

Piping Plover (*Charadrius melodus*)

The range of the federally threatened Atlantic Coast and northern Great Plains populations of piping plover includes Texas. Critical habitat has been designated for this species and includes 37 coastal areas of Texas, including the 395-acre Bolivar Flats area (critical habitat unit 'TX-36') and two smaller areas in Galveston County ('TX-35' and 'TX-37') (USFWS 2001). See Figure 2-7 for a map of the three critical habitat units adjacent to Galveston Bay. These and other coastal areas of Texas are used primarily as overwintering and stopover areas by migrating populations (Bent 1929, Hall 1960, National Geographic Society 1987). These habitat areas are primarily composed of tidal flats that are only infrequently inundated. The upland habitat areas of TX-35 through TX-37 are used for roosting by piping plover, while lower elevation areas of these habitat units are used for foraging (USFWS 2001). Threats to piping plover populations include habitat destruction, disturbance by people and pets (especially dogs), high levels of predation, and contaminants (USFWS 2001). Dredging-related threats to the species that were identified by USFWS (2001), including shoreline manipulation that results in habitat loss, disturbing the prey base for piping plover, and direct disturbance of individual birds (USFWS 2001).

The piping plover fall migration arrives in Texas as early as mid-August and the spring migration from Texas to northern climes start as early as late March (Bent 1929). Hundreds of observations

of piping plover for the Galveston area were uncovered from Avian Knowledge Network, eBird, and iNaturalist. The timing of these observations reflects the arrival of these birds in late summer to early fall and their departure in early spring. Searches of the UF Ornithology Collection database and other databases held no additional records for this area.

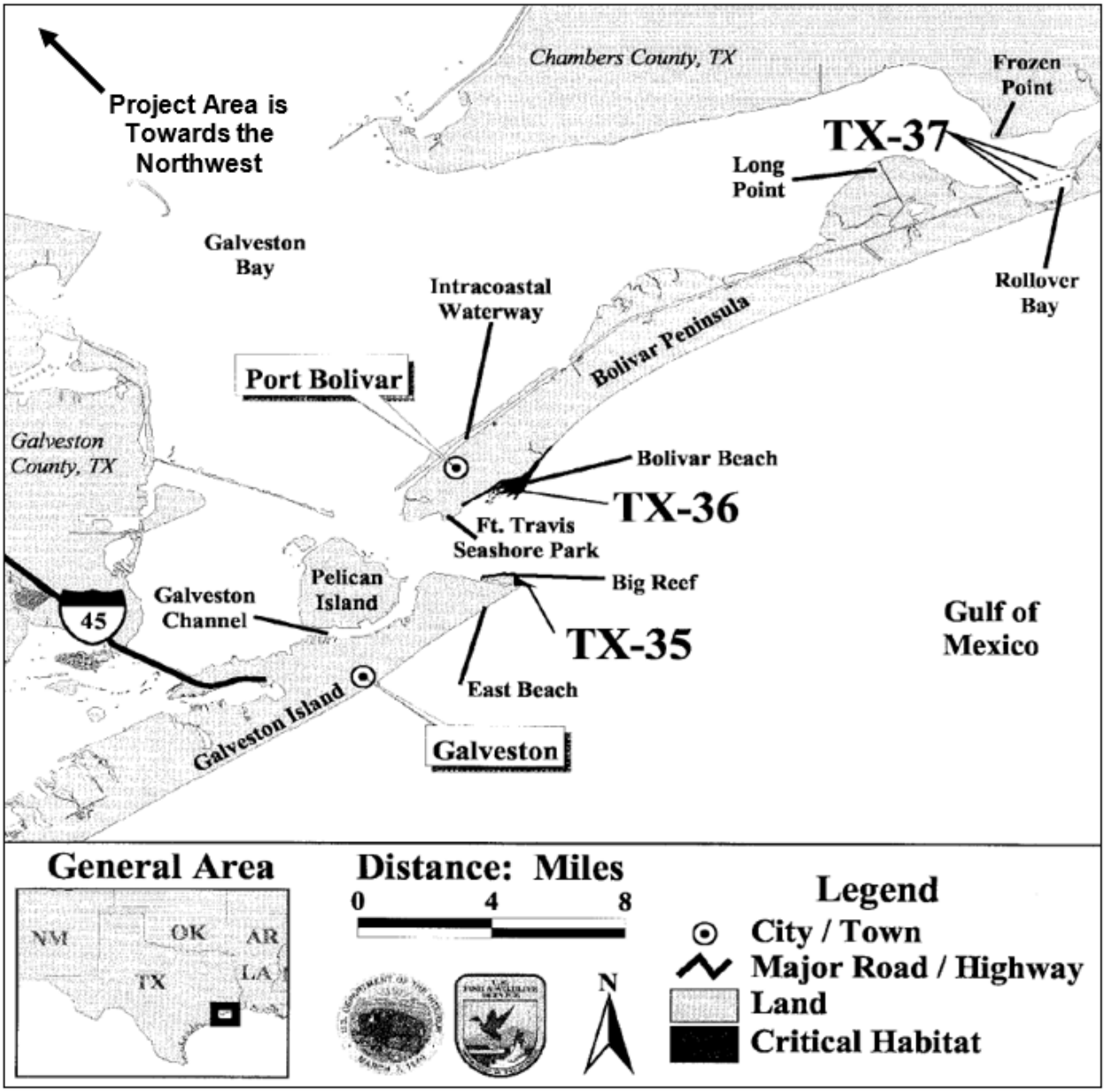

Figure 2-6. Critical Habitat for the Piping Plover (*Charadrius melodus*) Includes Bolivar Beach (TX-36) and Two Other Areas (TX-35 and TX-37) Adjacent to the Project Area

Source: Modified from a figure on page 36143 of USFWS (2001)

Rufa Red Knot (*Calidris canutus rufa*)

Texas is part of the winter (non-breeding) range of the red knot. The *rufa* red knot is one of six subspecies of red knot and is the only subspecies to be afforded federal protection as a threatened species. A total of 1,264 acres of habitat along 17 miles of Gulf shoreline of the Bolivar Peninsula, and Bolivar Flats, is included as critical habitat TX-1 for the rufa red knot (Figure 2-7)

(USFWS 2021a). The western portion of this critical habitat overlaps with the critical habitat of the piping plover. Specific habitat types within TX-1 include subtidal mudflats and sandflats having seagrass, and sandy shoreline (beach) (USFWS 2021a). Oberhalser (1974) listed habitats used by red knots in Texas as sandy and shelly beaches and to a lesser extent, bays and lagoons. Threats identified within critical habitat unit TX-1 include disturbance from vehicle use, modification of habitat resulting from development, beach maintenance and beach nourishment activities, sea level rise, predation by raptors, and natural and anthropogenic disasters (e.g., oil spills, hurricanes) (USFWS 2021a). A total of 590 acres of habitat along the Gulf side of Galveston Island is included as critical habitat TX-2 for this species (Figure 2-8). Specific habitat types within TX-2 are like those of TX-1, as are the threats within this critical habitat unit (USFWS 2021a). Both critical habitat units provide important foraging and roosting habitat for this species during the winter months (USFWS 2021a).

Bolivar Flats is among the most important areas of Texas for overwintering red knot (Niles et al. 2008). This area is managed by the Houston Audubon Society and is part of a peninsula that frames the southeastern edge of Galveston Bay. Although bird-counts for this species in Bolivar Flats have numbered around 3,000 individuals during 1985–1996, more recent counts in that area have recorded only a fraction of that number, with a count in January 2003 estimated at only 300 birds. Knots in Texas feed on bivalves, such as dwarf surf clam (*Mulinia lateralis*) and coquina (*Donax variabilis*) that they forage for in sandy and muddy intertidal zones (Niles et al. 2008). Habitats used by red knot at Bolivar Flats, and elsewhere in Texas, consist of sandy beach, tidal mudflat, and marsh. Such habitats are used during spring and fall migrations as well as while overwintering (Niles et al. 2008).

It is very difficult to discern between subspecies of red knot while in the field and at least two subspecies occur along the northern Gulf Coast. Observations in Texas of banded and marked individuals from areas known to have *rufa* subspecies suggest that the Texas red knot population includes the *rufa* subspecies. However, the Texas population may contain either or both *C. c. rufa* and *C. c. roselaari* subspecies (e.g., Niles et al. 2008).

Hundreds of observations of red knot were uncovered for the Galveston area (especially the Bolivar Flats area) from searching the Avian Knowledge Network, eBird, and iNaturalist. Searches of the UF Ornithology Collection database and other databases held no additional records for this area.

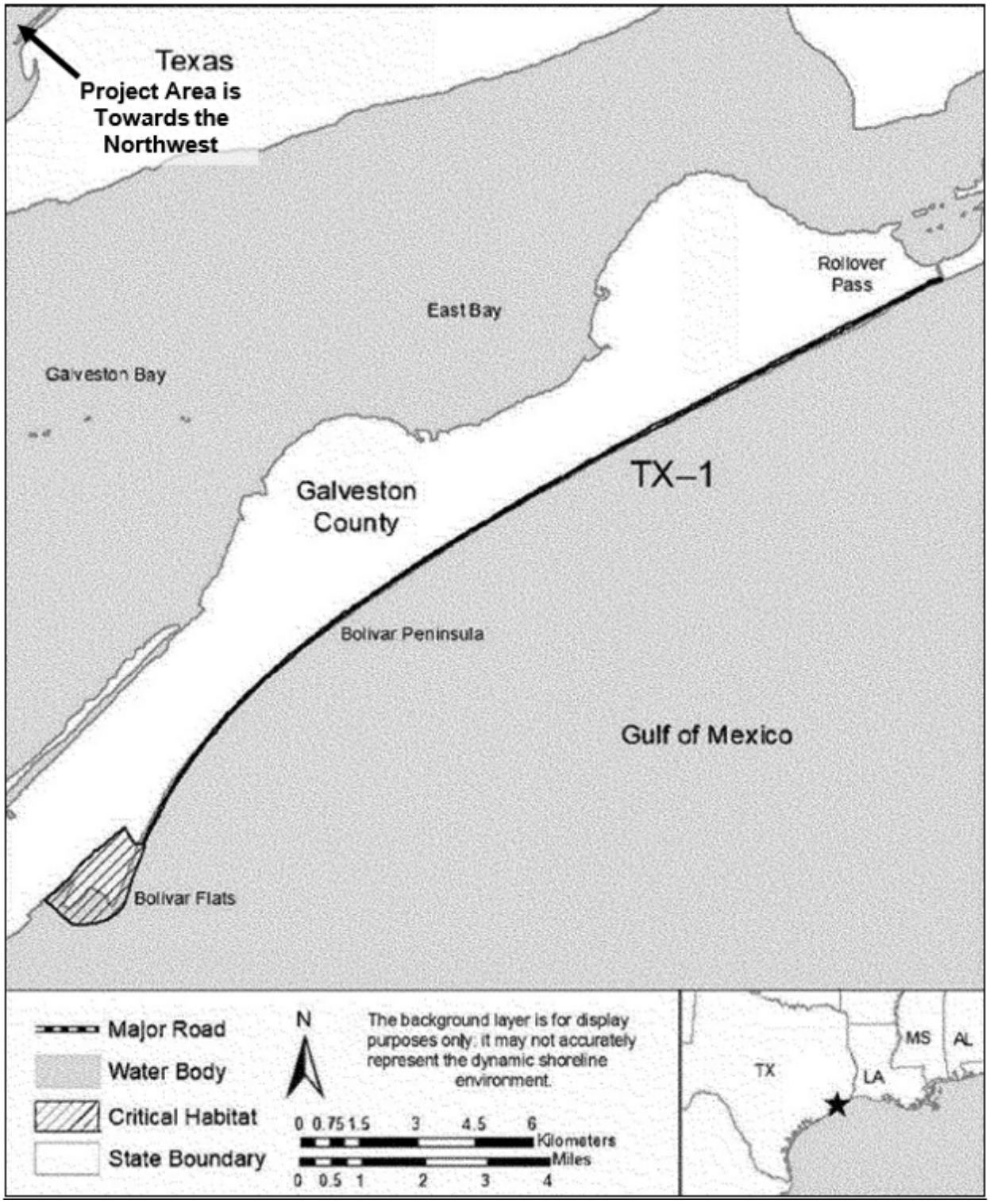

Figure 2-7. Critical Habitat for the Rufa Red Knot (*Calidris canutus rufa*) Includes the Gulf Side of the Bolivar Peninsula (TX-1) Adjacent to the Project Area

Source: Modified from Figure 94 on page 37650 of USFWS (2021a)

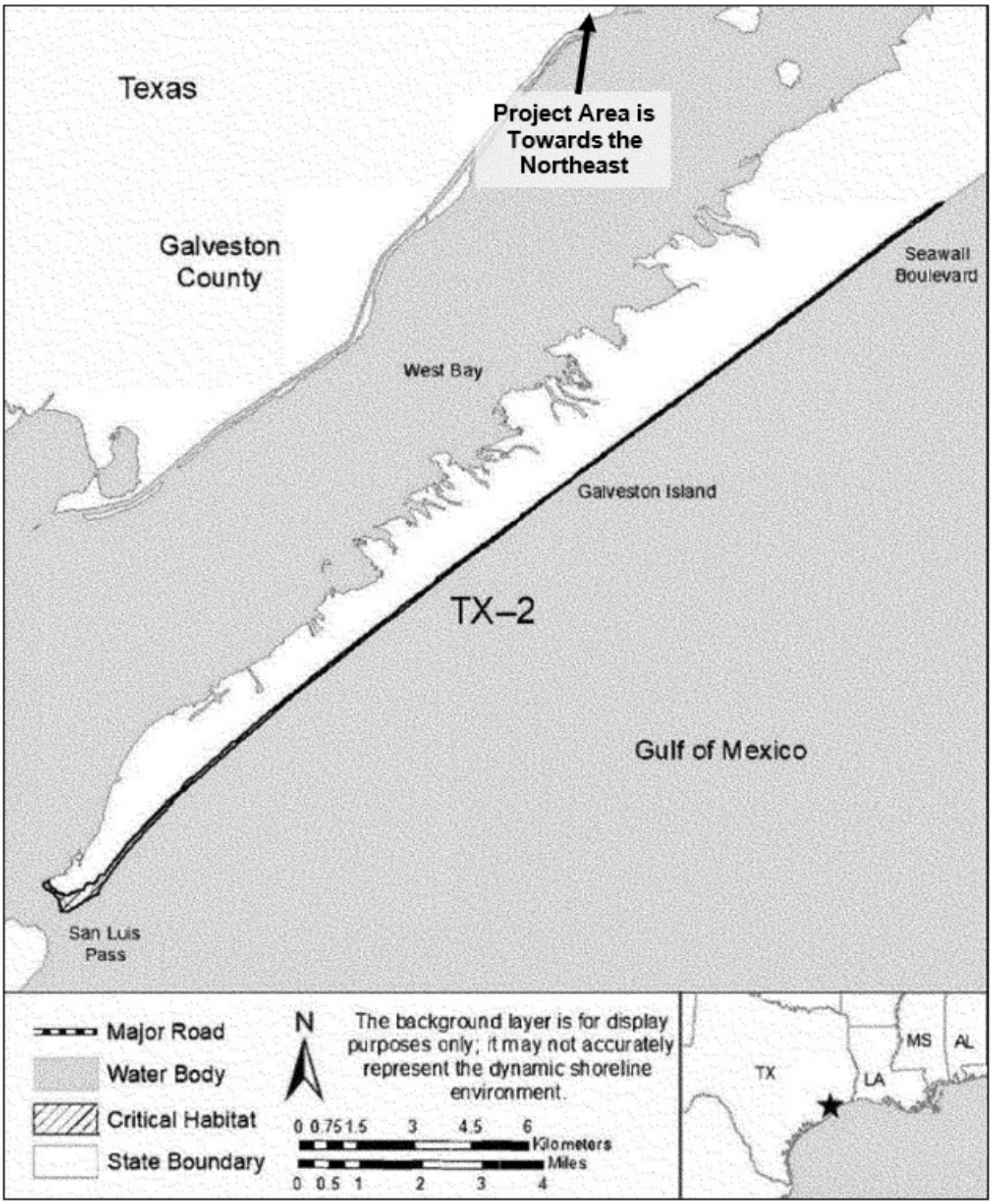

Figure 2-81. Critical Habitat for the Rufa Red Knot (*Calidris canutus rufa*) Includes the Gulf Side of Galveston Island (TX-2) Adjacent to the Project Area

Source: Modified from Figure 95 on page 37652 of USFWS (2021a)

Whooping Crane (*Grus americana*)

The federally endangered whooping crane includes Texas in its historic range (USFWS 2021b). Critical habitat has been designated in seven states including Texas. Critical habitat in Texas

consists of an area in Aransas, Calhoun, and Refugio counties and does not include any area around Galveston Bay (USFWS 1978). Aransas National Wildlife Refuge is included as part of the critical habitat. Texas is within the wintering area of migratory whooping crane. Nesting occurs at Aransas National Wildlife Refuge, where 50 nesting pairs were recorded in 2002, out of 185 whooping crane wintering in Texas (TPWD [no date]). Major threats to whooping cranes include pollution from industrial and agricultural chemicals and oil spills (Oberholser 1974).

Three observations of whooping crane were revealed in the Avian Knowledge Network west of Galveston Bay, near West Bay, and several observations east of Galveston Bay, north of Interstate 10. These records were first reported to eBird. No additional records of this species were found in iNaturalist or the UF Ornithology Collection database for the Galveston Bay area.

Wood Stork (*Mycteria americana*)

The southeastern U.S. distinct population segment of the wood stork was, until recently, afforded federal protection as a threatened species. The USFWS proposed on 15 Feb 2023 for the de-listing of this distinct population segment (the only population to have been protected under the ESA) (USFWS 2023). There is no critical habitat designated for this species (USFWS 2023).

Wood storks spend spring and summer in Texas, where they forage for prey in ponds and lakes having reduced water levels, where prey is concentrated and can be more easily captured by the stork's tactile-feeding methods. The species breeds in southeastern coastal states (Florida, Georgia, South Carolina, and North Carolina). Nesting has not been recorded in Texas in decades according to the Texas Breeding Bird Atlas (https://txtbba.tamu.edu/species-accounts/wood-stork/). Nesting records in Texas are from Chambers County (1930), Jefferson County (1960), and Harris County (date not recorded). Although Chambers and Harris counties border Galveston Bay, the fact that nesting hasn't been recorded in decades makes the project area unlikely to negatively impact wood stork nesting.

Hundreds of observations of wood stork in the Galveston area were uncovered from the Avian Knowledge Network, eBird, and iNaturalist online databases. Searches of the UF Ornithology Collection database and other databases held no additional records for this area.

Tricolored Bat (*Perimyotis subflavus*)

The tricolored bat has been proposed for listing as an endangered under the ESA since 14 Sep 2022. The species has a wide distribution that includes eastern and coastal Texas. The species utilizes wide assortment of natural materials and man-made structures for roosting, including Spanish moss (*Tillandsia usneoides*), palm fronds, pine needles, roofs, bridges, roadside culverts, in caves, and (rarely) in buildings (Davis and Schmidly 1994, Marks and Marks 2006, USFWS 2022). Tricolored bats do not appear to use bat houses (Marks and Marks 2006). Roosting is done singly or in pairs; only rarely in larger groups (Marks and Marks 2006). Foraging is done in forested areas and over water and the species feeds on insects including ants, beetles, flies, moths, and leafhoppers (Davis and Schmidly 1994). In southern states such as Texas, the species may be active through the winter; however, the species hibernates in caves (either singly or in small groups) within its northern range (Davis and Schmidly 1994). Natural and anthropogenic threats to the tricolored bat include white-nose syndrome disease, caused by the fungal pathogen *Pseudogymnoascus destructans*, mortality associated with wind turbines, habitat loss and disturbance, and (potentially) climate change (USFWS 2022). A search of available literature, and online databases, turned up a photo-documented observation, dated Oct 2023, of a tricolored bat roosting on a rock-walled building in Harris County, Texas.

West Indian Manatee (*Trichechus manatus* [Florida manatee *T. m. latirostris*])

The West Indian manatee is afforded federal protection as a threatened species under the ESA and well as under the Marine Mammal Protection Act. Manatee occur primarily in peninsular Florida and southeastern Georgia (Wynne and Schwartz 1999), but have been recorded as far west in the U.S. as Texas although the species is very rare in the state (O'Shea et al. 1995). Texas occurrences include records from the Bolivar Peninsular, Copano Bay, Cow Bayou, near Sabine Lake, San Hose Island, and the mouth of the Rio Grande River (Davis and Schmidly 1994, Schmidly and Bradley 2016). Critical habitat has been designated in several coastal and riverine areas of Florida (https://ecos.fws.gov/ecp/species/4469) but no such habitat has been designated in Texas. Single manatees have been recorded in Galveston waters, including near the Texas City Dike and as far north as Buffalo Bayou on rare occasion.

3 EFFECTS ANALYSIS OF PROPOSED ACTION

3.1 Effects to Monarch Butterfly

The monarch butterfly has not yet gained protection under the ESA and it lacks designated critical habitat. Over 200 observations of this species within the Galveston Bay area were found in online databases for the period 2019 to present. Members of this species likely fly across Galveston Bay while migrating to and from overwintering sites in Mexico, although there are multiple flyways used during migration. However, the project area does not offer habitat or resources important to the species' life history. Measures to avoid and minimize impacts to monarch butterflies are summarized in Subsection 4.1. For these reasons, the proposed action is expected to have **no effect** on the monarch butterfly.

3.2 Effects to the American Alligator & Alligator Snapping Turtle

The American alligator is well managed in Texas by the TPWD (2019), including determining population trends, assessing alligator habitat, and establishing sustainable hunting for this species. Most life stages of alligators can swim strongly and are likely to be able to quickly move out of the project area to avoid equipment or burial by dredged material. The alligator is listed as threatened due to similarity of appearance to crocodiles. Crocodiles are not known to exist in Galveston Bay. Therefore the proposed action will have **no effect** to the American alligator.

No evidence was found of the occurrence of alligator snapping turtles in Galveston Bay, either past or present. The nearest population(s) of this species to the project area are in rivers upstream of Galveston Bay, and these upstream habitats would not be affected by the proposed action.

Because the AST is listed as a proposed threatened species, the effect determination is based on whether or not the action is expected to appreciably reduce the reproduction, numbers, or distribution of the species. Since the action is expected to have a low potential for encounter of the AST and conservation measures are in place to avoid take, the action would have no measurable impact on the status of the species and therefore is ***not likely to jeopardize the continued existence of the species***. If the species is listed prior to project completion, the effects of the proposed action would be ***no effect*** to the AST.

3.3 Effects to Sea Turtles & Their Critical Habitat

The project will not impact any sandy beaches or dune habitats that would be utilized by nesting sea turtles. Therefore, in regard to USFWS protection jurisdiction of sea turtles, **no effect** to any species of sea turtles is anticipated.

3.4 Effects to Birds & Their Critical Habitat

The habitat characterization and results of the literature and database searches indicate that some bird species probably utilize the project area at least occasionally and in low numbers. The low numbers of any one species of bird minimize the chances of disturbance to foraging or roosting birds during the construction and maintenance-dredged material placement phase of the proposed BABUS project. Also, no critical habitat occurs in or near the project area, although some critical habitat occurs in the nearby Bolivar Peninsula and in other areas of Galveston County. Measures designed to minimize and avoid disturbance to bird species are summarized in Subsection 4.3.

Piping plover and rufa red knots are known to utilize intertidal beaches, flats, dune systems, and upland flats. The project does not include the construction of any of these habitat features and

therefore is not expected to attract these bird species following construction. Due to lack of available habitat at the project area, and distance of the project to any designated critical habitat areas, the project is anticipated to have **no effect** to piping plover and rufa red knot.

No effect to the wood stork or whooping crane is expected. The proposed action area is currently devoid of suitable habitat for wood storks or whooping cranes and this species would not be expected to utilize the project area for any reason.

No effect to the eastern black rail is expected. The proposed action area is currently devoid of suitable habitat for rails and this species would not be expected to utilize the project area for any reason.

However, it is possible that the rail may experience a net positive effect resulting from the proposed action. The constructed intertidal marsh habitat may possibly be used by the eastern black rail for nesting and foraging, as marsh habitat has declined in and around Galveston Bay in recent decades. Black rails may adopt and use the generated marsh habitat once it is established.

The project is ***not likely to jeopardize*** bald eagles. The proposed action area is suitable for foraging but is small relative to the size of the Galveston Bay complex as a whole. The proposed action is expected to have a net benefit to several fish species of the bay by providing marsh habitat where none currently exist. Marsh habitat is widely known to be used as nursery habitat for larger fishes and provides habitat for forage fishes on which a wide variety of species rely on. Thus, the proposed action may increase the prey base for eagles and other predators that include fish in their diet.

No effect is expected for the whooping crane. The project area is devoid of critical habitat, or other habitat, used by this species. Dredging activities are not listed among the known threats to the whooping crane.

3.5 Effects to Aquatic & Avian Mammals

Tricolored Bat

Although this bat appears to occur in the Galveston Bay area, the project area lacks roosting areas or hibernacula. Although the species may forage over-water in Galveston Bay, the project area amounts to only a small fraction of the over-water area within the bay complex. No critical habitat has been designated as of this writing. The proposed action does not appear to include a component that could potentially affect this species. Since the action is expected to have a low potential for encounter of the TCB, the action would have no measurable impact on the status of the species and therefore is ***not likely to jeopardize the continued existence of the species***.

West Indian Manatee

West Indian manatees are very rare in Texas due mainly to the cooler winter water temperatures there compared to Florida and southeastern Georgia, where this warm water species finds the water temperatures more favorable. No recent records were found during the literature and database searches. Texas lacks designated critical habitat for this species. Nonetheless, avoidance and minimization measures will be employed during the construction phase of the proposed action (see Subsection 4.4 for specified measures). For these reasons, and taking into account the key to effects determinations for the manatee in USACE (2013), the proposed action **may affect, but is not likely to adversely affect** the West Indian manatee.

4 AVOIDANCE & MINIMIZATION MEASURES

Stakeholder involvement through agency coordination during project development aided in the development of avoidance and minimization measures that would be implemented in the specific BABUS placement areas to protect federally protected species as discussed below.

4.1 Monarch Butterfly

Use of construction lighting at night shall be minimized, directed toward the construction activity area, and shielded from view outside of the project area to the maximum extent practicable. This will help reduce confusion to migrating monarch butterflies and prevent collisions with equipment due to excessive lighting. This considers the use of ultraviolet polarized light (among other cues) that monarchs use as a compass for navigating during migrations (Guerra et al. 2014).

4.2 Sea Turtles

USACE will comply with applicable windows and protective measures for protection of sea turtles as stated in the Gulf of Mexico Regional Biological Opinion by NOAA Fisheries (2003) through revision 2 of NMFS (2007) (or more recent revision). USACE will also comply with the construction conditions for protected species that are outlined in NOAA Fisheries (2021).

In general, to minimize the potential for collisions, vessels transporting dredged materials to the BABUS are expected to implement protective measures, where feasible, to avoid interactions with sea turtles, including maneuvering away from the animal or slowing the vessel. During transport of dredged material from the HSC to the BABUS cells and when returning to the HSC, vessels would use caution and proceed at a speed such that the vessel can safely take proper and effective action to avoid a potential collision with a sea turtle; this preventative action would significantly reduce the potential for a vessel strike with a sea turtle. Any known collision or sighting of an injured or dead sea turtle shall be reported immediately to the NOAA Fisheries Southeast Regional Office, Protected Resources Division, and the local authorized sea turtle stranding/rescue organization.

Despite these precautions, turtles may prove very difficult to spot from a moving vessel when they are resting below the water surface, during nighttime, and during periods of inclement weather. It is assumed, however, that a collision between a sea turtle and moving vessel is unlikely. Adult, subadult, and perhaps juvenile turtles are mobile enough to actively avoid dredge-related vessels in transit, especially when the vessels operate within predictable areas (federal navigation channels mainly) and at slow speeds.

4.3 Birds

There is a risk that birds may take up residence and be disturbed during the latter stages of construction of the BABUS cells. This is because constructed habitat may attract shorebirds and other types of birds. The following measures are planned with the intent to avoid or otherwise minimize impacts to birds to the extent possible:

- Project equipment and vehicles transiting between the dredging area and the BABUS will be minimized to the extent practicable, including but not limited to using designated routes and confining vehicle access to the immediate needs of the project.
- Use of construction lighting at night shall be minimized, directed toward the construction activity area, and shielded from view outside of the project area to the maximum extent practicable. This will help reduce confusion to night-flying or crepuscular bird species and prevent collisions with equipment due to excessive lighting.

- Construction crews should avoid working in important shorebird habitats when winter winds above 20 miles per hour co-occur with temperatures below 40 degrees Fahrenheit. These conditions can cause the birds to roost for energy conservation, often in available ruts. If placement is not able to be avoided during nesting season, all efforts will be made to avoid placement of material within emergent shell hash areas along the shoreline to the best extent practicable.
- Material will be placed from the back of the marsh area first, working towards the bay, to allow for birds and other species to seek refuge or vacate the area prior to dredged material placement within the open-water area.
- The following conservation measures would be implemented to avoid or minimize potential effects to eastern black rail:
    - Avoid marsh placement of dredged material from March 1 through September 30 (breeding, nesting, chick rearing, and molting season).
        - If this timing restriction cannot be achieved, then the following will take place: No material for marsh restoration will be placed in high marsh dominated by dense overhead cover that meets the target marsh elevation for black rail habitat.
    - A biological monitor should ensure a sufficiently slow pace of all equipment moving through potential habitat to allow birds to escape ahead of equipment.
    - A biological monitor will have authority to stop work immediately upon discovery of any eastern black rail (alive, injured, or dead). The Texas Coastal Ecological Services Field Office will be contacted immediately at 361-533-6765 upon discovery of a black rail.
    - Minimize traffic in temporary access routes, pipeline routes, or staging areas that occur within identified black rail habitat, and suitable eastern black rail habitat will not be completely removed in a single day. Pockets of eastern black rail habitat (refugia) approximately 10 by 20 feet will be left for 2 days and (or) a biological monitor will ensure dense herbaceous covered pathways are maintained into unaffected areas.
    - Placement of material will avoid covering existing consolidated vegetated marsh areas to the best extent practicable. This will help protect any black rails that may have taken up residence within the constructed marsh vegetation.
    - Temporary impacts from the hydraulic pipeline, or vehicles, used within vegetated wetland areas would be restored as closely as practicable to pre-project elevations utilizing dredged material following the removal of the temporary pipeline from the placement area.
- The following conservation measures would be implemented to minimize the potential for adverse effects to the whooping crane:
    - Seasonal timing restriction from November 1 through April 30 in which construction will be avoided to the extent possible.
    - If proposed actions cannot be avoided during this timeframe, then the following measures will be employed: tall structures, including buildings, construction equipment 15 feet high or higher, fences, and antennas in the area should be marked/flagged or laid down on the ground at night or when not in use to provide higher visibility and avoid/minimize potential whooping crane collisions.
    - Workers should be educated, with approved USFWS materials, to recognize whooping cranes, their habitat, and their federally endangered status.

- A biological monitor with authority to stop work immediately should be present from start to finish of the project in the event a whooping crane appears on the work site. If a whooping crane does appear near the site and is within 1,000 feet of the construction area, work should cease until it has moved beyond that distance or left the area.
- Report sightings of whooping cranes to the Texas Coastal Ecological Services Field Office in Corpus Christi at 361-533-6765.

4.4 Manatees

The following conservation measures would be implemented to minimize the potential for adverse effects to manatees:

- Qualified biologists trained to identify manatees (has completed training requirements previously identified), with stop work authority, will monitor for the presence of manatee during phases which involve open water work. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s) and notifying the biological monitor if identified in the project area.
- Before activities occur in open water areas, a 50-foot radius of the work area should be delineated. If a manatee(s) is observed within the 50-foot radius, the biological monitor shall halt all in-water operations, including vessels. Activities shall not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30minutes' elapses if the manatee(s) has not reappeared within 50 feet of the operation.
- Animals must not be herded away or harassed into leaving.
- If a manatee is sighted within 100 yards of the active work zone, vessels will operate at no wake/idle speeds. All personnel associated with the project shall be instructed about the presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees.
- 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.
- 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 USFWS must be used. One sign which reads "Caution: Boaters" must be posted. A second sign measuring at least 8.5" by 11" explaining the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.
- If siltation or turbidity barriers are used, they will be made of material in which manatees cannot become entangled, should be properly secured, and regularly monitored to avoid entrapment or entanglement. Barrier should not impede manatee movement.
- Any manatee sightings will be immediately reported to the U.S. Fish and Wildlife Service Houston Ecological Services Office. Any collision with or injury to a manatee shall be reported immediately to the Texas Marine Mammal Stranding Network Hotline at 888-9-MAMMAL and the Texas Coastal Ecological Services Field Office at 281-286-8282, extension 26504.

5 SUMMARY OF EFFECTS

Table 5-1 below presents the summary of effects determined for the proposed BABUS project for all species with potential occurrence in or around Galveston Bay

.

Table 5-1. Summary of Effects to Federally Protected Species

Common Name (Scientific Names)	Federal Protection	Proposed Action: Effects Determination Under ESA Section 7	Summary of Effects
INSECTS			
Monarch butterfly (*Danaus plexippus*)	C	NE	No effects to terrestrial foraging or nesting habitats
REPTILES			
American alligator (*Alligator mississippiensis*)	T*	NE	No presence of crocodiles in project area,
Alligator snapping turtle (*Macrochelys temminckii*)	P	No Jeopardy	No effects to terrestrial foraging or nesting habitats
Green sea turtle (*Chelonia mydas*)	T	NE	No effect to nesting habitat.
Hawksbill sea turtle (*Eretmochelys imbricata*)	E	NE	No effect to nesting habitat.
Kemp's ridley sea turtle (*Lepidochelys kempii*	E	NE	No effect to nesting habitat.
Leatherback sea turtle (*Dermochelys coriacea*)	E	NE	No effect to nesting habitat.
Loggerhead sea turtle (*Caretta caretta*)	T	NE	No effect to nesting habitat.
BIRDS			
Bald eagle (*Haliaeetus leucocephalus*)	BGEPA	No Jeopardy	No to terrestrial foraging or nesting habitats
Eastern black rail (*Laterallus jamaicensis jamaicensis*)	T	NE	No effects to terrestrial foraging or nesting habitats
Piping plover (*Charadrius melodus*)	T	NE	No effects to terrestrial foraging or nesting habitats
Rufa red knot (*Calidris canutus rufa*)	T	NE	No effects to terrestrial foraging or nesting habitats
Whooping crane (*Grus americana*)	E	NE	No effects to terrestrial foraging or nesting habitats
Wood stork (*Mycteria americana*)	T	NE	Known habitat does not occur in project area
MAMMALS			
Tricolored bat (*Perimyotis subflavus*)	P	No Jeopardy	No effects to terrestrial foraging or nesting habitats

Common Name (Scientific Names)	Federal Protection	Proposed Action: Effects Determination Under ESA Section 7	Summary of Effects
West Indian manatee (Florida manatee) (*Trichechus manatus* [*T. m. latirostris*])	T	NLAA	Possibly occurs in project area, effects would be minimal as individuals are mobile and will avoid project area. Conservation measures will be applied.

*Due to similarity of appearance to American crocodile

P- Proposed, E- Endangered, T- Threatened, C- Candidate, MMPA- Marine Mammal Protection Act, BGEPA – Bald and Golden Eagle Protection Act, NE- No Effect, NLAA- Not likely to adversely affect.

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Texas Coastal & Central Plains Esfo
17629 El Camino Real, Suite 211
Houston, TX 77058-3051
Phone: (281) 286-8282 Fax: (281) 488-5882

In Reply Refer To: 04/11/2025 20:12:16 UTC
Project Code: 2025-0082490
Project Name: BABUS

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The U.S. Fish and Wildlife Service (Service) field offices in Clear Lake, Corpus Christi, Fort Worth, and Alamo, Texas, have combined administratively to form the Texas Coastal Ecological Services Field Office. All project related correspondence should be sent to the field office address listed below responsible for the county in which your project occurs:

Project Leader; U.S. Fish and Wildlife Service; 17629 El Camino Real Ste. 211; Houston, Texas 77058
Angelina, *Austin*, *Brazoria*, *Brazos*, *Chambers, Colorado, Fayette, Fort Bend, Freestone, Galveston, Grimes, Hardin, Harris, Houston, Jasper, Jefferson, Leon, Liberty, Limestone, Madison, Matagorda, Montgomery, Newton, Orange, Polk, Robertson, Sabine, San Augustine, San Jacinto, Trinity, Tyler, Walker, Waller, and Wharton.*

Assistant Field Supervisor, U.S. Fish and Wildlife Service; 4444 Corona Drive, Ste 215; Corpus Christi, Texas 78411
Aransas, Atascosa, Bee, Brooks, Calhoun, De Witt, Dimmit, Duval, Frio, Goliad, Gonzales, Hidalgo, Jackson, Jim Hogg, Jim Wells, Karnes, Kenedy, Kleberg, La Salle, Lavaca, Live Oak, Maverick, McMullen, Nueces, Refugio, San Patricio, Victoria, and Wilson.

U.S. Fish and Wildlife Service; Santa Ana National Wildlife Refuge; Attn: Texas Ecological Services Sub-Office; 3325 Green Jay Road, Alamo, Texas 78516
Cameron, Hidalgo, Starr, Webb, Willacy, and Zapata.

For questions or coordination for projects occurring in counties not listed above, please contact arles@fws.gov.

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your

proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/media/endangered-species-consultation-handbook.

Non-Federal entities may consult under Sections 9 and 10 of the Act. Section 9 and Federal regulations prohibit the take of endangered and threatened species, respectively, without special exemption. “Take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. “Harm” is further defined (50 CFR § 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. “Harass” is defined (50 CFR § 17.3) as intentional or negligent actions that create the likelihood of

injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Should the proposed project have the potential to take listed species, the Service recommends that the applicant develop a Habitat Conservation Plan and obtain a section 10(a)(1)(B) permit. The Habitat Conservation Planning Handbook is available at: https://www.fws.gov/library/collections/habitat-conservation-planning-handbook.

Migratory Birds:
In addition to responsibilities to protect threatened and endangered species under the Act, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts visit: https://www.fws.gov/program/migratory-birds.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable National Environmental Policy Act (NEPA) documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Marine Mammals
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Texas Coastal & Central Plains Esfo
17629 El Camino Real, Suite 211
Houston, TX 77058-3051
(281) 286-8282

PROJECT SUMMARY

Project Code: 2025-0082490
Project Name: BABUS
Project Type: Disposal - Beneficial Use
Project Description: Construction of the Bay Aquatic Beneficial Use Sites
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@29.6000583,-94.91527080533413,14z

Counties: Chambers County, Texas

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
West Indian Manatee *Trichechus manatus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. ***This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.*** Species profile: https://ecos.fws.gov/ecp/species/4469	Threatened

BIRDS

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Rufa Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

REPTILES

NAME	STATUS
Green Sea Turtle *Chelonia mydas* Population: North Atlantic DPS There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
Hawksbill Sea Turtle *Eretmochelys imbricata* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3656	Endangered
Kemp's Ridley Sea Turtle *Lepidochelys kempii* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/5523	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.	Proposed Threatened

NAME	STATUS

Species profile: https://ecos.fws.gov/ecp/species/9743

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA). Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The data in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the Supplemental Information on Migratory Birds and Eagles document to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Black Scoter *Melanitta nigra* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10413	Breeds elsewhere
Black-legged Kittiwake *Rissa tridactyla* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10459	Breeds elsewhere
Brown Pelican *Pelecanus occidentalis* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/6034	Breeds Jan 15 to Sep 30
Common Loon *gavia immer* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/4464	Breeds Apr 15 to Oct 31
Double-crested Cormorant *phalacrocorax auritus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/3478	Breeds Apr 20 to Aug 31

NAME	BREEDING SEASON
Red-breasted Merganser *Mergus serrator* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10693	Breeds elsewhere
Ring-billed Gull *Larus delawarensis* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10468	Breeds elsewhere
Royal Tern *Thalasseus maximus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10471	Breeds Apr 15 to Aug 31
Surf Scoter *Melanitta perspicillata* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10463	Breeds elsewhere
White-winged Scoter *Melanitta fusca* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10462	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

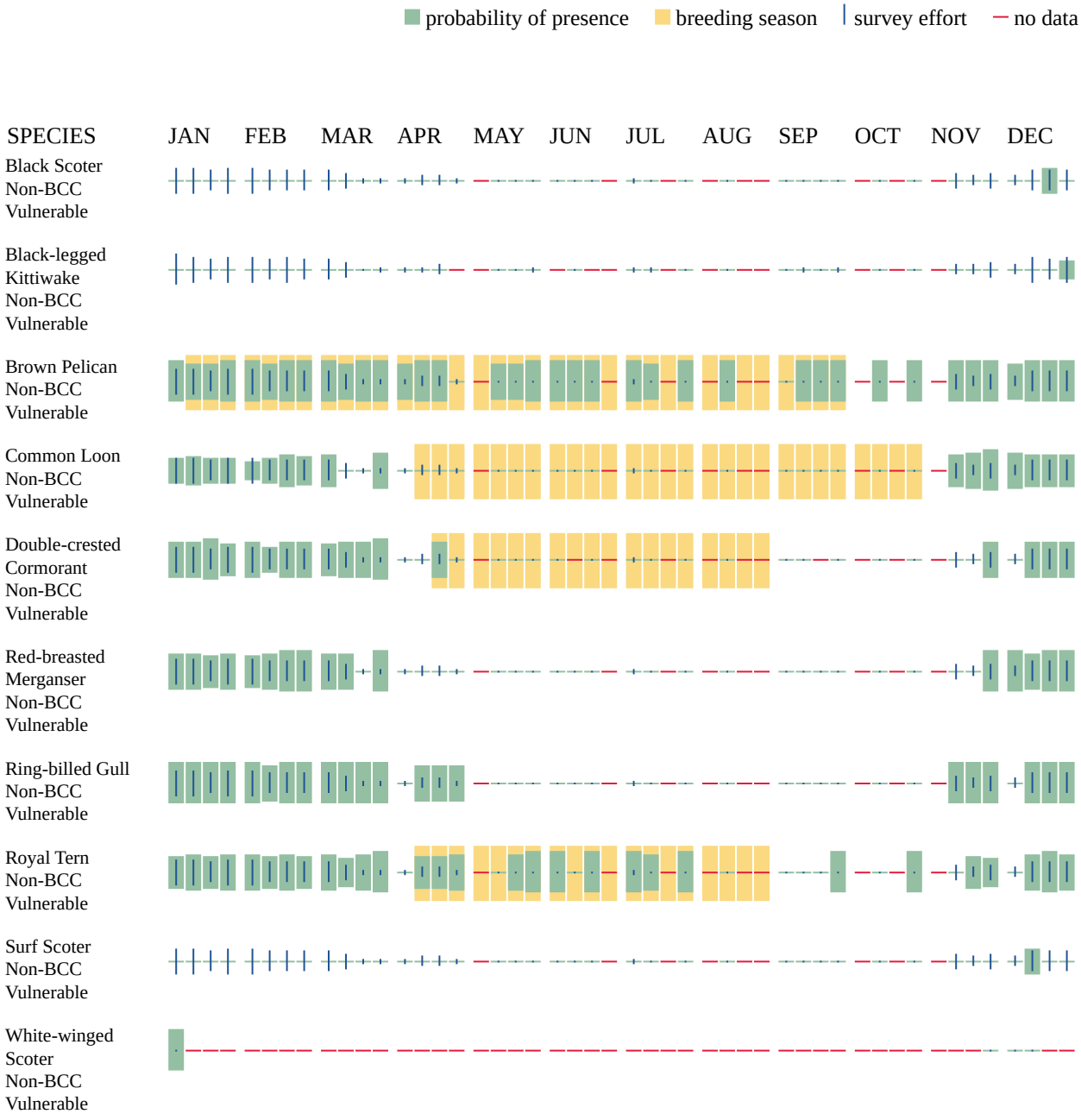
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MARINE MAMMALS

Marine mammals are protected under the Marine Mammal Protection Act. Some are also protected under the Endangered Species Act[1] and the Convention on International Trade in Endangered Species of Wild Fauna and Flora[2].

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries[3] [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the Marine Mammals page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

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1. The Endangered Species Act (ESA) of 1973.
2. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NAME

West Indian Manatee *Trichechus manatus*
Species profile: https://ecos.fws.gov/ecp/species/4469

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: Army Corps of Engineers
Name: Courtney Gerken
Address: 6565 West Loop S
City: Bellaire
State: TX
Zip: 77401
Email courtney@lloydeng.com
Phone: 7134137342

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Texas Coastal and Central Plains Ecological Services Office
Houston Sub-Office
17629 El Camino Real, Suite 211
Houston, Texas 77058
PHONE: 281/286-8282
FAX: 281/488-5882

In Reply Refer To:
2025-0082490

April 16, 2025

Ms. Lisa Finn
Environmental Program Manager
Operations Division, Navigation
U.S. Army Corps of Engineers
Galveston District
2000 Fort Point Road
Galveston, Texas 77550

Dear Colonel Blackmon:

This letter is in response to the U.S. Army Corps of Engineers' (Corps) request for initiation of informal consultation under Section 7(a)(2) of the Endangered Species Act (Act), as amended (16 U.S.C. 1531 et seq.), for the Bay Aquatic Beneficial Use Sites (BABUS). This proposed project is associated with U.S. Army Corps of Engineers (Corps) placement of operation and maintenance dredged material for the Houston Ship Channel in Galveston Bay, Chambers County, Texas. The U.S. Fish and Wildlife Service (Service) received the Corps' request for informal consultation with associated Biological Assessment (BA) on April 7, 2025.

The Corps is requesting concurrence with its determination that the proposed action *may affect is not likely to adversely affect* the West Indian Manatee (*Trichechus manatus*). The Corps made this determination based on implementation of species-specific conservation measures and monitoring protocols to reduce all effects to these species and their habitats to insignificant and/or discountable levels. Although suitable habitat for this species exists within the action area, no critical habitat for this species is designated within the action area; therefore, critical habitat is not discussed further.

The Service concurs with the Corps may affect is not likely to adversely affect determination regarding the project's effects on the West Indian Manatee. This concurrence is based on the Service's review of the BA, supporting documents, information in Service files, and implementation of the following species-specific conservation measures. Our concurrence is contingent upon implementation of the following species-specific conservation measures:

West Indian Manatee

- A qualified biological monitor, with training on West Indian Manatee and stop work authority will be employed to oversee all phases of the pipeline installation within open water habitat.
- The monitor will continuously assess the waters surrounding the installation and will advise crews to stop work if a manatee is observed.
- All on-site project personnel will be responsible for observing water-related activities for the presence of manatee(s) and notifying the biological monitor if one is observed.
- Before construction activities occur in open water areas, a 50-foot radius of the work area will be delineated. If a manatee(s) is observed within the 50-foot radius, the biological monitor will halt all in-water operations, including vessels from entering the work area. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes has elapsed and the manatee(s) has not reappeared within 50 feet of the operation.
- West Indian Manatees must not be herded away or harassed into leaving the work area.
- All personnel associated with the project will be instructed about the presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees.
- All vessels associated with the project will operate at "Idle Speed/No Wake" at all times while in the immediate construction area and while in the water where the draft of the vessel provides less than a four-foot clearance from the bottom.
- All vessels associated with the project will follow access routes of deep water whenever possible.
- Temporary signs, already approved by TCCPESFO, which make vessels aware of potential presence of manatees and vessel restrictions will be posted prior to and during all in-water project activities. One sign which reads “Caution: Boaters” must be posted. A second sign measuring at least 8.5-inch by 11-inch, explaining the requirements for "Idle Speed/No Wake," and the shutdown of in-water operations, must be posted in a location prominently visible to all personnel engaged in water-related activities (see Enclosure).
- All temporary signs will be removed by the permittee upon completion of the project.
- If siltation or turbidity barriers are used, they will be made of material in which manatees cannot become entangled, will be properly secured, and will be regularly monitored to avoid manatee entanglement or entrapment.
- Construction barriers will not impede manatee movement.
- Any manatee sightings within project workspaces or within 100 yards of the active work zone will be immediately reported to the TCCPESFO at 281-286-8282, extension 26504 or email to HoustonESFO@fws.gov.
- Any collision with or injury to a manatee will be reported immediately to the Texas Marine Mammal Stranding Network (TMMSN) Hotline at 1-888-9-MAMMAL and the TCCPESFO.

The Corps also determined the project will have no effect on Green Sea Turtle *(Chelonia mydas)*, Hawksbill Sea Turtle (*Eretmochelys imbricata*), Kemp's Ridley Sea Turtle (*Lepidochelys kempii*), Leatherback Sea Turtle (*Dermochelys coriacea*), Loggerhead Sea Turtle (*Caretta caretta*), Eastern Black Rail (*Laterallus jamaicensis jamaicensis*), Piping Plover (*Charadrius melodus*), Rufa Red Knot (*Calidris canutus rufa*), Whooping Crane (*Grus americana*), Wood stork (*Mycteria americana*). There is no designated critical habitat for these species in the action area. While these species are noted in our Information for Planning and Consultation database (IPaC; https://ipac.ecosphere.fws.gov/) to be present in the project area, the Corps does not expect them to be affected by the proposed project due to lack of suitable habitat in the action area and/or their use of the action area. The Service does not concur on "no effect" determinations therefore, we will not comment further on these species. The Service recommends that the applicant recognize the potential of sea turtles to be present in the water and to contact the National Marine Fisheries Service for best management practices and or consultation if needed. If dead, injured or cold stunned turtles are encountered in the project area, immediately report them to the Texas Sea Turtle Stranding and Salvage Network at 866-877-8535 (866-Turtle5).

The Corps also determined the proposed project is *not likely to jeopardize* the proposed endangered Tricolored Bat (*Perimyotis subflavus*), the proposed threatened Alligator Snapping Turtle (*Macrochelys temminckii*), and the proposed threatened Monarch Butterfly (*Danaus plexippus*). The Corps made this determination due to the wide range and distribution of these species. While consultations are required when the proposed action may affect listed species, a conference is required only when the proposed action is likely to jeopardize the continued existence of a proposed species or destroy or adversely modify proposed critical habitat. Therefore, conferencing is not required at this time.

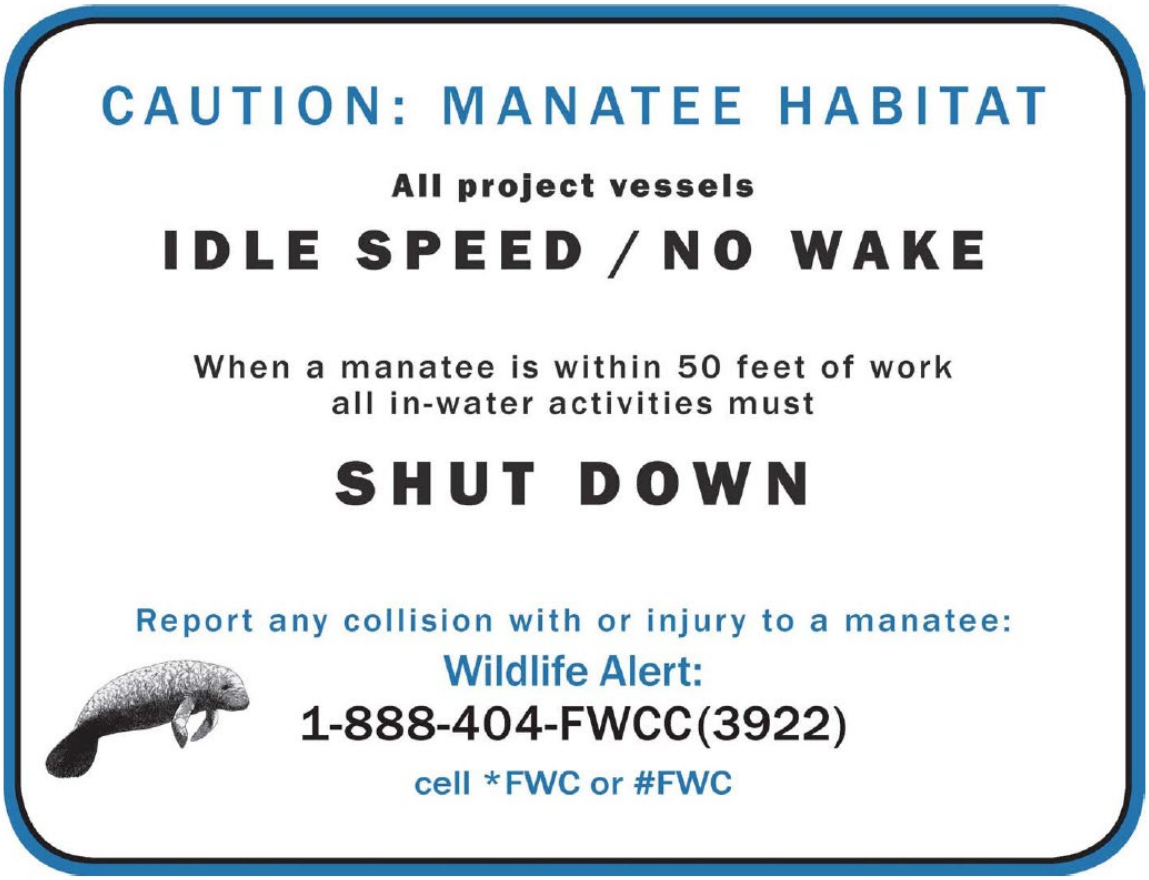
In the event the project changes or additional information on listed or proposed species becomes available, the project should be reanalyzed for effects not previously considered. Our response is provided in accordance with Section 7(a)(2) and provisions of Act of 1973, as amended (16 U.S.C. 1513 et seq.). Please refer to the Service's consultation number 2025-0082490 in future correspondence. If you need further guidance, or have any questions concerning this letter, please contact Dr. Jan Culbertson at 281-720-8439 or jan_culbertson@fws.gov.

Sincerely,

For
Catherine Yeargan
Field Supervisor

Ms. Lisa Finn

Enclosure


CAUTION: MANATEE HABITAT
All project vessels
IDLE SPEED / NO WAKE
When a manatee is within 50 feet of work
all in-water activities must
SHUT DOWN
Report any collision with or injury to a manatee:
Wildlife Alert:
1-888-404-FWCC(3922)
cell *FWC or #FWC

E-2
NMFS Section 7

From: nmfs ser esa consultations - NOAA Service Account
To: Courtney Gerken
Cc: Finn, Lisa M SWG; Marisa Weber
Subject: Re: Expedited Informal Consultation, USACE BABUS, Galveston Texas
Date: Monday, April 14, 2025 2:01:38 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png

National Marine Fisheries Service, Southeast Regional Office, Protected Resources Division has received your request for Endangered Species Act Section 7 consultation. Your consultation request will be logged in and assigned to a Consultation Biologist in the order it was received. Consultation requests are assigned to the next available Consultation Biologist as workload allows. Once it is assigned you will receive an email from the Consulting Biologist notifying you of their contact information.

Please note that we are running between 4-6 weeks between receiving the consultation request and assigning it to staff due to incompatible workload and staffing levels.

The project has been assigned a tracking number in our NMFS Environmental Consultation Organizer (ECO), **SERO-2025-01048**. Please refer to the ECO tracking number if you should have any future inquiries regarding this project. ECO does not have current project status at this time.

If you have any questions about the status of your request, please reply to this email.

On Fri, Apr 11, 2025 at 4:25 PM Courtney Gerken <courtney@lloydeng.com> wrote:

> To whom it may concern,
>
> Please refer to the attached letter for request for expedited informal consultation under section 7(a)(2) of the ESA for the USACE proposed BABUS Project, located in Galveston Bay Texas. Please contact me if any additional information is needed to proceed with this request.
>
> Thank you,

Courtney Gerken | Environmental Project Manager
LLOYD ENGINEERING, INC.
LinkedIn
6565 West Loop South, Ste. 708
Bellaire, Texas 77401
832.426.4656 x1029 | 713.413.7342
courtney@lloydeng.com

recipient, please contact the sender and delete the message and attachments from your computers or other devices.

From: Sarah Garvin - NOAA Federal <sarah.garvin@noaa.gov>
Sent: Tuesday, May 20, 2025 12:29 PM
To: Finn, Lisa M CIV USARMY CESWG (USA) <Lisa.M.Finn@usace.army.mil>
Subject: Re: [Non-DoD Source] EXP RAI: SERO-2025-01048 BABUS Project

NMFS cannot concur with your request without the inclusion of Giant Manta Ray. This species is likely to be present in the action area and may be affected by the proposed action. Farmer et al. 2022 shows verified observation of GMR at the mouth of Galveston Bay. GMR is included in a raft of past and current consultations between NMFS and USACE Galveston. As you know, the GRBO reinitiation also includes GMR in its effects analysis. NMFS position has not changed on the likelihood of GMR being present within inshore locations throughout the Gulf coast region, including in Texas.

Please add a row to Table 1 for "Giant Manta Ray" with an NLAA determination and include GMR in the effects analysis. When these revisions are complete, please provide a new PDF of your request letter on letterhead that is signed and is dated with the new signature date.

Sarah Garvin
Section 7 Biologist, Southeast Regional Office
NOAA Fisheries | U.S. Department of Commerce
PH: (727) 342-0249
www.fisheries.noaa.gov

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1229
GALVESTON, TEXAS 77553-1229

REPLY TO
ATTENTION OF

Operations Division-Navigation Section

REVISED June 23, 2025

Request to NOAA Fisheries Southeast Regional Office for Initiation of Expedited Informal Consultation

Mr. Dennis Klemm
Acting Assistant Regional Administrator for Protected Resources
National Marine Fisheries Service
Southeast Regional Office
St. Petersburg, Florida

Re: Request for Initiation of Expedited Informal Consultation under section 7(a)(2) of the Endangered Species Act for Bay Aquatic Beneficial Use Site

Dear Mr. Klemm:

The U.S. Army Corps of Engineers (USACE) proposes the proposed project as described below. We request initiation of informal consultation under section 7(a)(2) of the Endangered Species Act (ESA) for the BABUS Project. We have determined that the proposed activity may affect, but is not likely to adversely affect, the ESA-listed species and critical habitat included in the table(s) below. Our supporting analysis is provided below. We request your written concurrence with our determinations.

Pursuant to our request for expedited informal consultation, we are providing, enclosing, or otherwise identifying the following information:

- A description of the action to be considered;
- A description of the action area;
- A description of any listed species or critical habitat that may be affected by the action; and
- An analysis of the potential routes of effect on any listed species or critical habitat.

Proposed Action

In order to meet capacity needs for future maintenance dredging of the Houston Ship Channel Navigation System, the Bay Aquatic Beneficial Use Sites (BABUS) was identified in the 50 year Dredged Material Management Plan as part of the 2020 Final Integrated Feasibility Report and Environmental Impact Statement. The BABUS project was outlined in the HSC Dredged Material Management Plan as a PA for primarily HSC O&M material into the future. The construction of BABUS within Galveston Bay and the beneficial use of dredged material from

the HSC was outlined and discussed beginning with the FIFR-EIS for the HSC ECIP by USACE (2019) as a Future Without-Project condition.

The proposed action is the construction of the BABUS for the placement of primarily O&M dredged material (Figure 2-1). Since the BABUS project is in the conceptual stage, the exact configuration of the BABUS, and position within the project footprint, has not yet been determined. The current design of the BABUS project has a footprint that does not exceed approximately 4,500 acres. The project area is in upper Galveston Bay, southeast of Atkinson Island (and its associated BU PAs), north of the Mid Bay Placement Area (Blue Water Atoll), and east of the HSC. Upper Galveston Bay is bordered by Chambers and Harris counties, Texas. The project area is submerged land in Chambers County owned by the State of Texas and managed by the Texas General Land Office. The project area is subtidal and has an average bottom elevation of -8 feet (-2.4 m) mean lower low water (MLLW) (USACE 2022). The area is transected by two recreational boating channels: Five Mile Cut Channel and North Boaters Cut. One or both channels may require dredging to a width and depth sufficient to accommodate bottom-dump scows and (or) hopper dredges for delivery of dredged material to the BABUS.

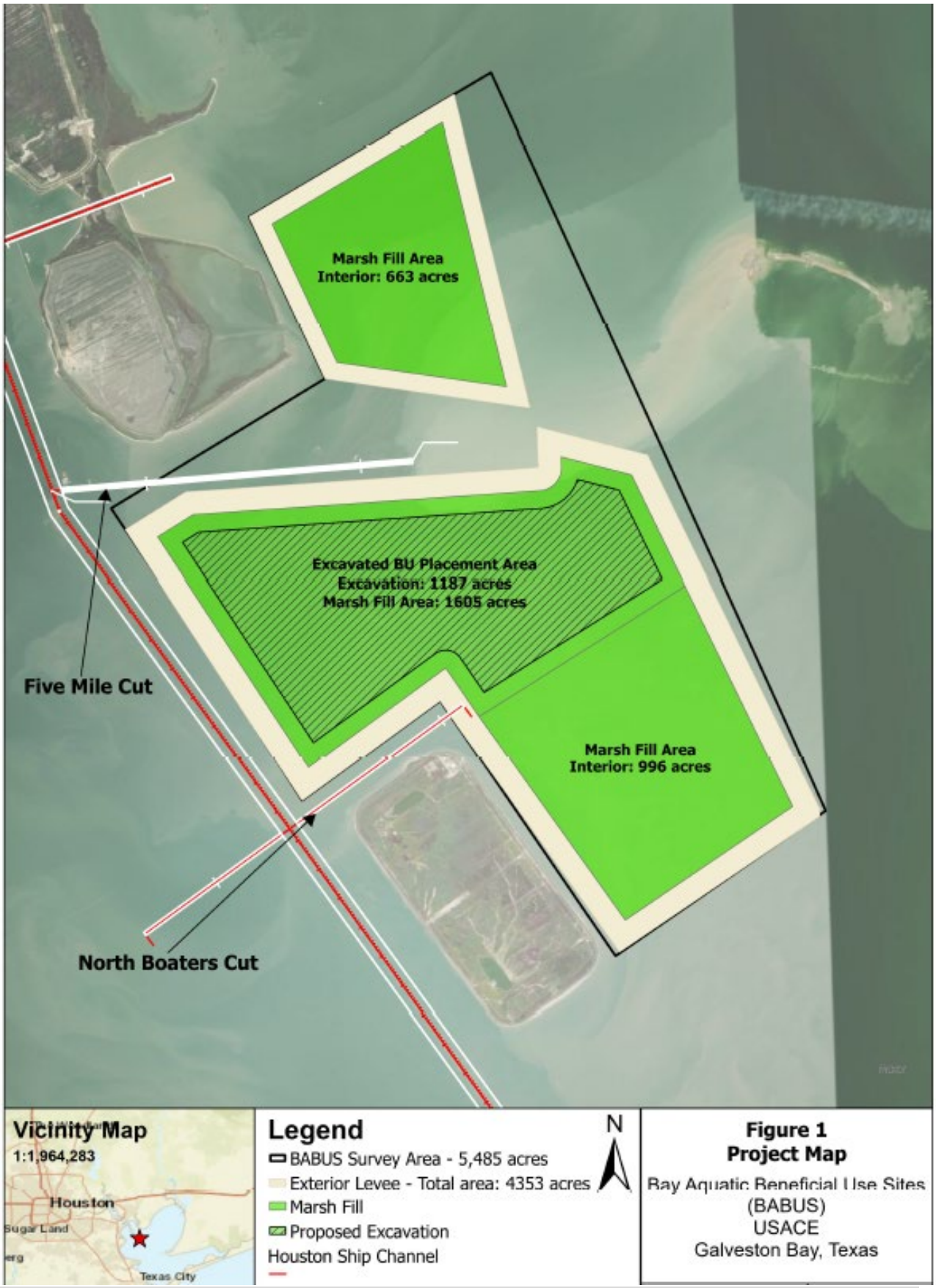
It is anticipated that the BABUS will be constructed in phases. The project will consist of two types of PAs. The first type is an excavated BU PA created by excavating the bay bottom and using that material to construct confining dikes. These dikes would serve as the outer perimeter of the PA and may be reinforced with riprap or other similar materials as needed to prevent erosion. The current design has the crests of the confining dikes having a maximum elevation of +8 feet (2.4 m) MLLW. The second type of PA will be marsh fill areas for beneficial use of dredged material. The interiors of the BABUS PAs would be filled gradually with material dredged from areas of the HSC north of Morgans Point (mile 26.2) (DMMP [Appendix R of the FIFR-EIS by USACE 2019]). The placement of the material would occur over the projected 50-year period or until the estimated capacity of approximately 100 million cy is reached.

The beneficial use PA (shown in the center of the project area in Figure 2-1) is anticipated to be excavated to a depth of -70 feet (-21.3 m) MLLW, dependent on the results of further engineering and design work, to maximize dredged material capacity. Following initial excavation, the interior of this PA would temporarily be a deep basin accessible via North Boaters Cut or Five Mile Cut Channel. A gap in the exterior dike will be provided to allow passage of the scows/dredges. Upon completion of the construction of the exterior containment dike and bay bottom excavation to the maximum depth and extent practicable, the gap in the dike will be closed in-between placement events within this PA. The containment dikes have the potential to host a variety of aquatic and emergent habitats, including oyster reef. The types of habitats and their placement along these dikes will be decided based on further engineering and design work.

The marsh fill areas are anticipated to be filled with dredged material. The containment dikes around these areas will be constructed of bay bottom material excavated from within the dredged material PA. The outer slopes of these containment dikes are anticipated to provide habitat benefits that are similar to those to be created on the dikes of the dredged material PA. The

details for how the dikes are to be constructed, and the habitats they will support, are dependent on the results of further engineering and design efforts. The elevation of the interior of the marsh fill areas would be raised from the existing bay bottom elevation (averaging -8 feet [2.4 m] MLLW) to intertidal elevations of 0 to +3.5 feet (0–1.07 m) MLLW for the potential to create beneficial use intertidal marsh and bird island habitats. Once the interior of the marsh fill areas have reached the desired elevation, the dike will be cut at strategic locations to allow for tidal exchange of bay water in and out while continuing to provide erosion protection.

Once the excavated beneficial use PA and the marsh fill areas are filled to their desired elevations and the 100 million cy capacity is reached, it is anticipated that new marsh habitat and (or) upland habitats could be created on the upper surface of the BABUS. The habitats would be designed to accommodate various desirable wetland and aquatic species. The BABUS would also be expected to provide refuge for migratory birds along the northern Gulf coast during migrations, and to add to the productivity of bird islands along the Galveston Bay migratory corridor. Thus, the proposed action is intended to aid in the USACE's requirements and directives for increasing BU of dredged material to at least 70% of all dredged material by 2030 (USACE 2023).


Marsh Fill Area
Interior: 663 acres
Excavated BU Placement Area
Excavation: 1187 acres
Marsh Fill Area: 1605 acres
Five Mile Cut
Marsh Fill Area
Interior: 996 acres
North Boaters Cut
Vicinity Map
1:1,964,283
Houston
Sugar Land
Texas City
Legend
BABUS Survey Area - 5,485 acres
Exterior Levee - Total area: 4353 acres
Marsh Fill
Proposed Excavation
Houston Ship Channel
N
Figure 1
Project Map
Bay Aquatic Beneficial Use Sites
(BABUS)
USACE
Galveston Bay, Texas

- Dredging:
    - Hydraulic cutter head and/or mechanical dredging
    - New Work Dredging (excavation of BU area)
    - 13 million cubic yards. Material is sand and clay
    - Current depth -10ft
    - Excavation/dredge depth is -70ft MLT
    - Material used onsite for containment levees and/or marsh fill
    - No maintenance, dredged area will be filled over 50 year period with material from Houston Ship Channel, as authorized in the HSC Improvement Project FIFR-EIS
    - Start of construction date and duration is determined by final engineering and design (would span several months)

- No Pile Driving

- Work Vessels:
    - Approximate size and type of vessel (i.e., deep draft, cargo, barge etc.)
        - 130' x 54' Construction Barges and 40' Tugboats (for constructing exterior containment levees and placing revetment/armoring if needed)
        - Dredge boat: examples of two sizes below
            - Length: 270 ft / 82.3 m
              Suction Diameter: 30 in /.76 m
              Discharge Diameter: 30 in /.76 m
            - Length: 74 ft / 22.5 m
              Beam: 26 ft / 7.9 m
              Suction Diameter: 20 in / .5 m
              Discharge Diameter: 18 in / .4 m
        - Scow and Scow tugs
            - Draft is 13 to 16 ft (empty vs loaded)
    - Available information on speed: Speeds will vary and are dependent on contractor selection and type of vessel being used based on construction plan. Vessel speeds will be reduced while maintaining sufficient maneuverability and navigation. Dredge will be stationary while in operation within a localized area.
    - Travel routes will be restricted to the immediate project area during dredging and placement, and to Houston Ship Channel and the project area during placement of BU material during operation of the site
    - Number of trips: initial dredge will occur on site within the project area. Placement of maintenance BU material from HSC will take multiple trip to and from the BABUS area if using scows, or a temporary pipeline will be used according to federal navigation channel maintenance dredging standard operations.
    - Presence of lookout: All construction personnel will be responsible for observing water-related activities to detect the presence of Threatened and/or Endangered Species.
    -

- Submerged revetment:
    - rock rip rap or armoring of levees may occur on portions of the containment dike
    - riprap and/or oyster shell to be used as hard structure oyster habitat mitigation
    - design and location of revetment to be determined based on final engineering and oyster mitigation plan
    - Will be mechanically placed by construction barge with crane or crane operated on top of upland levee
    - Material sourced from local supplier, local oysters relocated
    - Substrate is sand and clay bay bottom and side slope of containment levees constructed from sand and clays from excavated area

There are no land-based activities.

Conservation Measures and BMPs

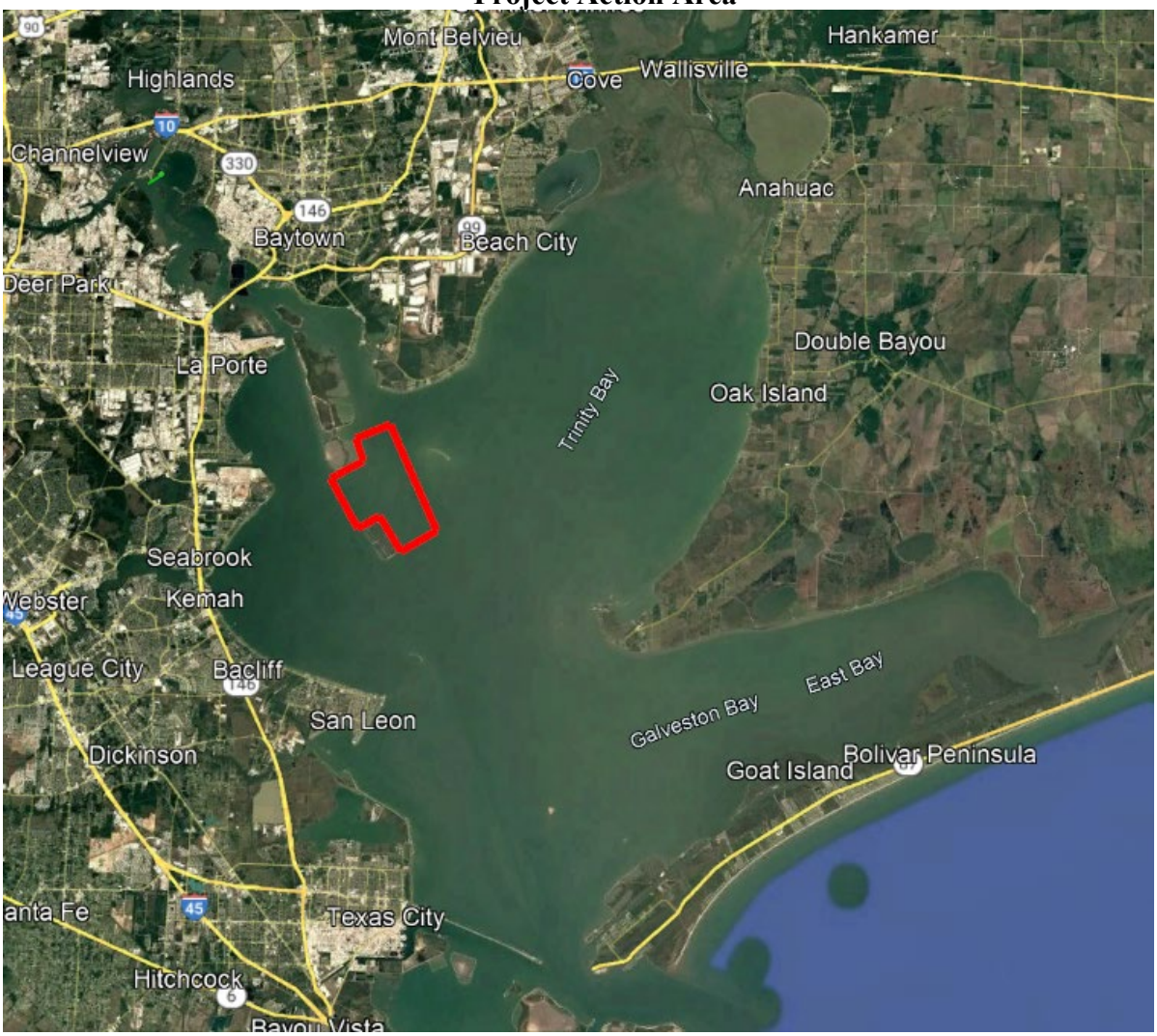
- The project will adhere to and follow all Protected Species Construction Conditions (as described in https://media.fisheries.noaa.gov/2021-06/Protected_Species_Construction_Conditions_1.pdf).

Description of the Action Area

The *action area* is all areas to be affected by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02). *Effects of the action* are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. The action area is distinct from and can be larger than the project footprint because some elements of the project may affect listed species or critical habitat some distance from the project footprint. The action area, therefore, extends out to a point where no effects from the project are expected to occur.

For this project, the action area includes the BABUS Site area and surrounding waters of Galveston Bay

Figure 2
Project Action Area



The Project action area includes a portion of Galveston Bay that was surveyed for the BABUS project location and immediate surrounding waters that could be impacted by the project's construction. The Houston Ship Channel will be used for all transits of maintenance dredge material and supporting vessels. Impacts to the Houston Ship Channel due to maintenance dredging are not included in this project analysis as they have been previously addressed as part of the consultation undertaken for the Houston Ship Channel Improvement Project FIFR-EIS.

Potentially Affected NMFS ESA-Listed Species and Critical Habitat

We have assessed the listed species that may be present in the action area and our determination of the project's potential effects to them as shown in Table 1 below.

Please note abbreviations used in *Table 2*: E = endangered; T = threatened; NLAA = may affect, not likely to adversely affect; NE = no effect; N/A = not applicable

Table 1. ESA-listed Species in the Action Area and Effect Determination(s)

Species	ESA Listing Status	Listing Rule/Date	Most Recent Recovery Plan/Outline Date	Effect Determination (Species)
Sea Turtles				
Green (North Atlantic [NA] distinct population segment [DPS])	T	81 FR 20057/ April 6, 2016	October 1991	NLAA
Kemp's ridley	E	35 FR 18319/ December 2, 1970	September 2011	NLAA
Loggerhead (Northwest Atlantic [NWA] DPS)	T	76 FR 58868/ September 22, 2011	December 2008	NLAA
Fish				
Giant manta ray	T	83 FR 2916/ January 22, 2018	2019	NLAA

Critical Habitat

We have assessed the critical habitats that overlap with the action area and our determination of the project's potential effects to them as shown in Table 3 below.

Please note abbreviations used in Table **3**: NLAA = may affect, not likely to adversely affect; NE = no effect

Table 1. Critical Habitat(s) in the Action Area and Effect Determination(s)

No Critical Habitats in the AA.

Effects of the Action

Sea Turtles

These species include the Green sea turtle (*Chelonia mydas*, Kemp's ridley sea turtle (*Lepidochelys kempii*), and the Loggerhead sea turtle (*Caretta caretta*).

Green Sea Turtle

Along the coast of Texas, green sea turtles are known to nest on barrier islands on the middle coast and lower coast, especially at PINS (USFWS 2019b). Hatchling green sea turtles eat a variety of plants and animals, but adults feed almost exclusively on seagrasses and marine algae. The species is generally found in reefs, bays, inlets and estuaries, especially dominated by sea grasses (submerged aquatic vegetation) and algae. The green sea turtle migrates in deeper marine waters; open beaches with gradual slopes and minimal disturbance are required for nesting (USFWS 2019b). This species is common to inshore waters of Texas foraging on seagrass and algae (Dixon 2014).

Kemp's ridley Sea Turtle

The Kemp's ridley is one of the rarest sea turtles in the world. In Texas, known nesting areas include the Padre Island National Seashore (PINS), as well as the Gulf-side of San Jose and Mustang Islands (Landry n.d.; Peterson 2014; USFWS 2019c). Outside of nesting, turtles are usually found in the nearshore and inshore waters of the northern GOM. Adults and sub-adults primarily occupy nearshore habitats that contain muddy or sandy bottoms where prey can be found. Hatchlings and small juveniles enter the water and quickly swim offshore to open ocean developmental habitat where they associate with floating Sargassum (*Sargassum sp*.) seaweed. They passively drift within the Sargassum, feeding on a wide variety of floating items. Some of these juvenile turtles remain within the GOM while others are swept out of the Gulf and into the Atlantic Ocean by the Gulf Stream (USFWS 2019c). This developmental period is estimated to last for a few years, at which time these sub-adult turtles return to shallow-water zones of the northern GOM or northwestern Atlantic Ocean where they feed and continue growing until they reach adulthood.

Loggerhead Sea Turtle

The loggerhead is widely distributed within its range. It may be found hundreds of miles out to sea. Coral reefs, rocky places, and shipwrecks are often used as feeding areas. Nesting occurs mainly on open beaches or along narrow bays having suitable sand, and it is often in association with other species of sea turtles. Most loggerhead hatchlings originating from United States' beaches are believed to lead a pelagic existence in the North Atlantic gyre for an extended period of time, perhaps as long as 7 to 12 years, and are best known from the eastern Atlantic near the Azores and Madeira (USFWS 2019d). Post-hatchlings have been found floating at sea in association with *Sargassum* rafts. Critical habitat for the Northwest Atlantic Ocean DPS was designated in 2014 to protect both marine and terrestrial habitats. Terrestrial critical habitat is restricted to the Florida coast and critical marine habitat includes *Sargassu*m habitats, for the protection of post-hatchlings and juveniles. As *Sargassum* forms floating mats and travels with the Loop Current in the GOM, critical habitat was established to account for the edge of the Loop Current (NOAA 2014).

Routes of Effect

The Green sea turtle, Kemp's ridley sea turtle, and loggerhead sea turtle could potentially be located in the Action Area and inshore ship channel areas looking for foraging or resting area, although unlikely and scarce due to the lack of shallow water areas and submerged vegetation. The leatherback sea turtle and the hawksbill sea turtle are pelagic species in this part of the GOM and would not be expected to occur within the vicinity of inshore Action Area.

No impacts to nesting activities or habitat is anticipated as a result of the proposed Project as no sandy beaches or dune systems are located within the vicinity of the proposed construction activities. Impacts on sea turtles from collision with barges or other construction and operation vessels associated with construction could result in sea turtle injury or mortality. However, sea turtles are known to have excellent eyesight and hearing and are normally able to avoid oncoming boats and barges by diving and/or swimming away (Hazel et al. 2007; DeRuiter and Doukara 2012). Sea turtles on or near the water surface are known to dive in response to

perceived threats, including air guns (DeRuiter and Doukara 2012) as well as approaching boats (Hazel et al. 2007). Green sea turtles are capable of avoiding boats in both deep and shallow water up to a speed of 2.5 miles per hour (Hazel et al. 2007). Therefore, as long as the turtles are able to see and hear, they will be able to detect and avoid the relatively slow-moving construction boats and barges in the inshore Action Areas.

Foraging or resting individuals (juvenile or adult) may be exposed to increased turbidity in the Action Area due to construction of the project. As highly mobile species' they have the ability to relocate to adjacent areas where turbidity is at ambient conditions. Direct effect pathways would include construction vessel traffic. These direct effect pathways are dependent upon the actual presence of an individual of those species at the location during the activity, which is unlikely due to near continuous presence of vessel activity during construction and lack of aquatic vegetation. The conservative approach with respect to these species is to assume their potential presence within suitable habitat for foraging, resting, or traveling, although it recognized that their presence would be unlikely and they would be transient in the area and would avoid areas of activity. Based on the analysis conducted, the proposed construction activities **may affect, but is not likely to adversely affect** green sea turtles, Kemp's Ridley sea turtles, and loggerhead sea turtles.

Giant Manta Ray

This migratory pelagic species prefers sparse, highly fragmented habitats within tropical, subtropical, and temperate marine waters. Populations within the Gulf of Mexico (GOM) are small and sparely distributed; however, a population of this species occurs within the Flower Garden Banks National Marine Sanctuary. These filter feeders are known near the Yucatan Peninsula as well as other areas of the GOM (NOAA 2025.) World-wide, this species has been known to utilize estuarine habitats including natural bays and inlets for foraging, especially by juveniles. Galveston Bay is included in the potential habitat area of the Giant Manta Ray (GMR), although there are no recorded observations of individuals of this species within the bay. There has been one individual observed in offshore waters of Galveston Island, however it was outside the Galveston jetty entrance to the HSC (Farmer et al. 2022). In the Gulf, the highest nearshore occurrence was predicted around the Mississippi River delta (Farmer et al. 2022).

Routes of Effect

Based on the giant manta ray's preferred habitat, the most likely occurrence associated with Project related activities would be during construction or dredge material placement operations during the construction of BABUS within Galveston Bay by increased turbidity of the water column during material placement. However, manta rays are highly mobile and expected to temporarily avoid areas of active dredge material placement. Furthermore, no mooring, anchor lines, or cables are proposed to be used during dredge material placement operations at the BABUS. The GMR could be impacted by vessel strikes, and turbidity during aquatic construction phases of the proposed Project. Giant manta rays can be injured or killed by boat strikes as they travel through maritime shipping lanes and can also become entangled in mooring, anchor lines, cables, and other underwater obstructions associated with construction in

marine waters. The potential for Project related impacts is dependent upon the actual presence of an individual of this species within the Action Area.

The identified potential Project related impacts are dependent upon the actual presence of an individual of this species inshore during construction of the BABUS or during material disposal within the BABUS area, which is extremely unlikely because the habitat found within Galveston Bay does not provide preferred habitat of the manta ray. Individuals present in the Action Area would likely be juveniles or adults that have strayed from their typical habitat at Flower Garden Banks National Marine Sanctuary which is over 100 miles southeast of the Action Area, or strayed inshore from the offshore environment through the HSC entrance located 20 miles from the project area. However, their potential presence in the waters of Galveston Bay cannot completely be discounted and therefore, it has been determined that the proposed Project **may affect, but is not likely to adversely** affect the Giant Manta Ray.

Conclusion

The USACE has reviewed the proposed project for its effects to ESA-listed species and their critical habitat. Based on the analysis above, we have determined that the BABUS Project is not likely to adversely affect any listed species or critical habitat under NMFS's jurisdiction. We have used the best scientific and commercial data available to complete this analysis. We request your concurrence with this determination.

Sincerely,

DATE: 06/23/2025

Lisa Finn

Environmental Program Manager,
Operations Division-Navigation Section

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
https://www.fisheries.noaa.gov/region/southeast

07/17/2025

F/SER31:SG
SERO-2025-01048

Lisa Finn
Environmental Program Manager, Operations Division-Navigation Section
Galveston District Corps of Engineers
Department of the Army
Post Office Box 1229
Galveston, Texas 77553-1229

Ref.: Bay Aquatic Beneficial Use Site (BABUS), Galveston Bay, Texas – EXPEDITED TRACK

Dear Lisa Finn,

This letter responds to your June 23, 2025, request pursuant to Section 7 of the Endangered Species Act (ESA) for consultation with the National Marine Fisheries Service (NMFS) on the subject action.

We reviewed the action agency's consultation request document and related materials. Based on our knowledge, expertise, and the action agency's materials, we concur with the action agency's conclusions that the proposed action is not likely to adversely affect the NMFS ESA-listed species and/or designated critical habitat.

Updates to the regulations governing interagency consultation (50 CFR part 402) were effective on May 6, 2024 (89 Fed. Reg. 24268). We are applying the updated regulations to this consultation. The 2024 regulatory changes, like those from 2019, were intended to improve and clarify the consultation process, and, with one exception from 2024 (offsetting reasonable and prudent measures), were not intended to result in changes to the Services' existing practice in implementing section 7(a)(2) of the Act. 84 Fed. Reg. at 45015; 89 Fed. Reg. at 24268. We have considered the prior rules and affirm that the substantive analysis and conclusions articulated in this letter of concurrence would not have been any different under the 2019 regulations or pre-2019 regulations.

This concludes your consultation responsibilities under the ESA for species and/or designated critical habitat under NMFS's purview. Reinitiation of consultation is required and shall be requested by the action agency where discretionary Federal action agency involvement or control over the action has been retained or is authorized by law and: (a) take occurs; (b) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in this consultation; (c) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not previously considered in this consultation; or (d) if a new species is listed or critical habitat designated that may be affected by the action.

We look forward to further cooperation with you on other projects to ensure the conservation of our threatened and endangered marine species and designated critical habitat. If you have any

questions on this consultation, please contact Sarah Garvin, Consultation Biologist, at (727) 342-0249 or by email at Sarah.Garvin@noaa.gov.

Sincerely,

for

Dennis Klemm
Acting Assistant Regional Administrator
for Protected Resources

File: 1514-22.f.8

E-3
Texas Historical Commission

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1229
GALVESTON, TEXAS 77553-1229

REPLY TO
ATTENTION OF
Operations Division-Navigation Section

JUNE 23, 2025

Amy Borgens
State Marine Archeologist
Texas Historical Commission
PO Box 12276
Austin, TX 78711

SUBJECT: Bay Aquatic Beneficial Use Sites (BABUS) Project

Ms. Borgens,

The U.S. Army Corps of Engineers (USACE), Galveston District (CESWG), has prepared a Draft Environmental Assessment (EA) to evaluate potential impacts associated with the construction and use of the Bay Aquatic Beneficial Use Sites (BABUS) for the beneficial placement of maintenance dredged material from the authorized dredging of the Houston Ship Channel (HSC).

As part of the EA, USACE conducted a submerged archaeological survey and assessment of proposed project area, located between Atkinson Island and the Mid-Bay Placement Area, on the east side of the Houston Ship Channel, in Galveston Bay. The archeological investigation was conducted by Robert Gearhart, BOB Hydrographics,, LLC, under Antiquities Permit No. 31570. The draft report of findings and recommendations was submitted by BOB for THC concurrence on May 21, 2025.

USACE Galveston District is requesting that the THC provide concurrence with the report findings and recommendations and conclude the consultation requirements in compliance with Section 106 of the National Historic Preservation Act (Public Law 89-665; 16 U.S.C. 470) and the Antiquities Code of Texas (Texas Natural Resource Code, Title 9, Chapter 191).

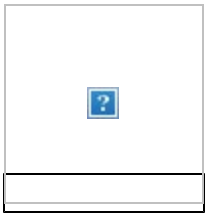
We appreciate your cooperation in coordinating the proposed project. Should you need additional information or have any questions, please call me at (409) 766-3949.

Sincerely,

Lisa Finn
Environmental Program Manager, Navigation

From: Finn, Lisa M CIV USARMY CESWG (USA)
To: Courtney Gerken
Cc: Marisa Weber
Subject: FW: [Non-DoD Source] Bay Aquatic Beneficial Use Sites
Date: Tuesday, July 1, 2025 12:11:02 PM
Attachments: ~WRD3107.jpg

From: noreply@thc.state.tx.us <noreply@thc.state.tx.us>
Sent: Thursday, June 26, 2025 1:37 PM
To: Finn, Lisa M CIV USARMY CESWG (USA) <Lisa.M.Finn@usace.army.mil>; reviews@thc.state.tx.us; Androy, Jerry L CIV USARMY CESWG (USA) <Jerry.L.Androy@usace.army.mil>
Subject: [Non-DoD Source] Bay Aquatic Beneficial Use Sites



Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas
THC Tracking #202511783
Date: 06/26/2025
Bay Aquatic Beneficial Use Sites (Permit 31570)
Galveston Bay Baytown

Description: SHPO consultation letter for the Bay Aquatic Beneficial Use Sites Project

Dear Lisa Finn:
Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas.

The review staff, led by Amy Borgens, has completed its review and has made the following determinations based on the information submitted for review:

Archeology Comments

- THC/SHPO concurs with information provided for the underwater project area.

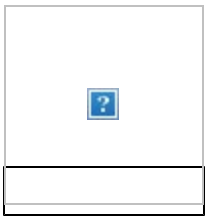
We have the following comments: The Texas Historical Commission reviewed the draft report submitted by BOB Hydrographics, LLC, for the Bay Aquatic Beneficial Use Sites Project on 18 June 2025. As part of the underwater investigation conducted under Antiquities Permit No. 31570, 28 magnetic anomalies were recommended for avoidance. Probing of the seafloor demonstrated that the sources of the 28 magnetic anomalies are not buried shipwreck sites.

The THC concurs with these results and with the recommendation that archeological monitoring occur for levee construction that uses material sourced from the San Jacinto or Trinity River paleo-valleys.

Consultation with the Texas State Historic Preservation Officer does not constitute consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public, nor does it conclude the Federal Section 106 consultation process. If you have not already done so, please contact the U.S. Army Corps of Engineers as the responsible Federal agency regarding their Section 106 compliance. We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: amy.borgens@thc.texas.gov.

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit http://thc.texas.gov/etrac-system.

Sincerely,



for Joseph Bell, State Historic Preservation Officer
Executive Director, Texas Historical Commission

Please do not respond to this email.

cc: Jerry.L.Androy@usace.army.mil

E-4
NMFS EFH

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1229
GALVESTON, TEXAS 77553-1229

REPLY TO
ATTENTION OF
Operations Division-Navigation Section

APRIL 28, 2025

Ms. Charrish Stevens
Habitat Conservation Division
NOAA National Marine Fisheries Service
4700 Ave U
Galveston, TX 77551

SUBJECT: Bay Aquatic Beneficial Use Sites (BABUS) Project Draft Environmental Assessment

Ms. Stevens,

The U.S. Army Corps of Engineers (USACE), Galveston District (CESWG), has prepared a Draft Environmental Assessment (EA) to evaluate potential impacts associated with the construction and use of the Bay Aquatic Beneficial Use Sites (BABUS) for the beneficial placement of maintenance dredged material from the authorized dredging of the Houston Ship Channel (HSC).

The BABUS Project's purpose is to establish a beneficial use placement area (BU PA) in Galveston Bay for future O&M material, as well as material from modifications to areas adjacent to the HSC, over a 50-year period. Dredged material will be used beneficially to create intertidal wetland marsh areas and other upland and sub-tidal habitats.

A public notice has been issued for this project to inform interested parties that the USACE has prepared the draft EA in accordance with the National Environmental Policy Act (NEPA), Public Law 91-190, and regulations for implementing the procedural provisions of the NEPA, 40 Code of Federal Regulations 1500-1508.

Refer to the public notice of the project under the CESWG Regional Planning and Environmental Center (RPEC) Planning and Environmental Documents for Public Review: https://www.swg.usace.army.mil/Business-With-Us/Planning-Environmental-Branch/Documents-for-Public-Review/

USACE Galveston District is requesting that the National Marine Fisheries Service provide comments regarding the proposed project pursuant to the Magnuson-Stevens Fishery Conservation and Management Act and the Fish and Wildlife Coordination Act.

Our determination is that the proposed action would not have a substantial adverse impact on Essential Fish Habitat or federally managed fisheries in Galveston Bay or the Gulf of Mexico. We request your concurrence with this determination upon review of the Draft EA and EFH Assessment.

Agencies or persons or desiring to provide comments on the project are requested to submit their comments in writing within 30 days of the date of the notice to:

U.S. Army Corps of Engineers, Galveston District
Attention: Ms. Lisa M. Finn
P.O. Box 1229
Galveston, TX 77553

or by email: Lisa.M.Finn@usace.army.mil The comments should make specific reference to BABUS, Public Notice No. HSC-M-6.

We appreciate your cooperation in coordinating the proposed project and request that you provide your comments by May 28, 2025. Should you need additional information or have any questions, please call me at (409) 766-3949.

Sincerely,

Lisa Finn
Environmental Program Manager, Navigation

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
https://www.fisheries.noaa.gov/region/southeast
May 27, 2025

Colonel Rhett Blackmon
District Commander, Galveston District
Department of the Army, Corps of Engineers
2000 Fort Point Road
Galveston, Texas 77550

Attn: Navigation Branch

Dear Colonel Blackmon:

NOAA's National Marine Fisheries Service (NMFS), Habitat Conservation Division, has reviewed the public notice dated April 25, 2025, from the Galveston District regarding the Draft Environmental Assessment (Draft EA) and its associated appendices for the Bay Aquatic Beneficial Use Sites (BABUS) in Galveston Bay in Harris and Chambers Counties, Texas. The following comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

The U.S. Army Corps of Engineers (USACE) has prepared the Draft EA to identify, evaluate, and disclose all impacts from work associated with the construction and use of the BABUS that were not previously evaluated or disclosed in the Houston Ship Channel (HSC) Improvement Project, Project 11 – 2019 Final Integrated Feasibility Report and Environmental Impact Statement (FIFR-EIS). The purpose and need of the proposed BABUS is to establish beneficial use (BU) placement areas (PA) for future operations and maintenance material, as well as material from modifications to areas adjacent to the HSC, over a 50-year period or until the estimated capacity of approximately 100 million cubic yards is reached. The Draft EA represents the USACEs initiation of essential fish habitat (EFH) consultation under the Magnuson-Stevens Act.

The current BABUS project footprint is not to exceed approximately 4,500 acres and consist of two types of BU PAs – excavated and marsh fill. The excavated BU PA will be created by excavating approximately 1,187 acres of the bay bottom to a depth of -70 feet mean lower low water (MLLW) to maximize dredge capacity and using the excavated material to construct the confining dikes for the project to an elevation of +4 and +8 feet MLLW. The marsh fill BU PAs will be filled with dredge material to raise elevations from -8 feet MLLW to an intertidal elevation of 0 to +3.5 feet MLLW for the potential to create approximately 1,659 acres of BU intertidal marsh, sub-tidal, and bird island habitats. Once the interior of the marsh fill PAs have reached desired elevations, the dike will be cut at strategic locations to allow for tidal exchange of bay water. The outer slopes of the containment dikes around the PAs are anticipated to provide habitat benefits by creating intertidal marsh and oyster reefs. These types of habitats and their

placement along the dikes will be decided based on further engineering and design work.

The proposed actions will have direct impacts on existing EFH through the conversion of estuarine open water, estuarine mud substrate, and estuarine shell substrate/oyster reef habitats from the creation of the BABUS PAs. More specifically, approximately 23.9 acres of scattered oysters over mud bottom and 64.3 acres of live oyster reef habitats will be impacted as a result of the proposed PAs. Mitigation for the oyster impacts is expected to be at a 1:1 ratio of acres impacted to acres relocated and created. The applicant is considering oyster relocation efforts onsite and/or utilizing the candidate sites for oyster reef mitigation identified previously from Appendix P-1 of the 2019 FIFR-EIS for potential relocation areas elsewhere within the Galveston Bay. The NMFS agrees the selected proposed action would impact EFH resources and we also concur the relocation and/or mitigation strategies coupled with the subsequent BU placement would offset those impacts. These mitigating actions would produce important intertidal habitat for aquatic species and provide important bird island nesting habitat along the Galveston migratory corridor, thus having a net benefit to the Galveston Bay estuary ecosystem.

At this time NMFS is unable to complete our review of this public notice and initiate consultation because the minimum information required for an EFH consultation is incomplete; 50 CFR 600.920(e)(3) states the assessment must contain:

> (i) A description of the action.
> (ii) An analysis of the potential adverse effects of the action on EFH and the managed species.
> (iii) The Federal agency's conclusions regarding the effects of the action on EFH.
> (iv) Proposed mitigation, if applicable.

During the course of our review the NMFS noted statements made in both the Draft EA and the Appendix C: EFH Assessment in sections 4.9 and 2.0 respectively which state, "Oyster reef habitat is not directly addressed by NOAA Fisheries management councils as EFH." The Gulf Council has identified and described oyster reef habitat (in eco-region 4) as EFH for brown shrimp, a federally managed fishery under the Magnuson-Stevens Act. We refer you to the 2004 Final Environmental Impact Statement and the associated Generic Essential Fish Habitat Amendment prepared by the Gulf Council for their fishery management plans.

We also recommend the EFH Assessment be revised to reflect the HSC Expansion Channel Improvement Project FIR-EIS, Appendix L EFH Assessment dated 2019. The BABUS project is an extension of the HSC Channel Improvement Project and is occurring in the same waterbody. In particular, the applicant needs to describe the following habitats found within the proposed BABUS PAs: estuarine open water, estuarine water column, estuarine mud bottom, estuarine shell substrate/oyster reef and follow the same format found throughout the 2019 Appendix L – EFH Assessment.

We appreciate your consideration of our comments. If you wish to discuss this project further or have questions concerning our recommendations, please contact charrish.stevens@noaa.gov.

Sincerely,

/for

Pace Wilber, Ph.D.
Acting Assistant Regional Administrator
Habitat Conservation Division

cc: F/SER4, nmfs.ser.hcdconsultations@noaa.gov

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1229
GALVESTON, TEXAS 77553-1229

REPLY TO
ATTENTION OF
Operations Division-Navigation Section

JUNE 3, 2025

Charrish Stevens
Fishery Biologist
Habitat Conservation Division
NOAA National Marine Fisheries Service
4700 Ave U, Galveston, TX 77551

RE: USACE BABUS Project Coordination - EFH

Ms. Stevens,

The U.S. Army Corps of Engineers (USACE), Galveston District (CESWG), received your review and comment letter dated May 27, 2025 regarding the Draft Environmental Assessment (EA) and Essential Fish Habitat (EFH) Assessment provided in accordance with provisions of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Your letter stated "At this time NMFS is unable to complete our review of this public notice and initiate consultation because the minimum information required for an EFH consultation is incomplete; 50 CFR 600.920(e)(3) states the assessment must contain:
(i) A description of the action.
(ii) An analysis of the potential adverse effects of the action on EFH and the managed species.
(iii) The Federal agency's conclusions regarding the effects of the action on EFH.
(iv) Proposed mitigation, if applicable."

The EFH Assessment has been revised to reflect the required information. The EA has also been revised accordingly and will be published as a Final EA with all comments addressed.

USACE Galveston District is requesting that the NMFS Habitat Conservation Division initiate consultation for EFH with the revised EFH Assessment (attached).

We appreciate your cooperation in coordinating the proposed project and request that you provide your comments by May 28, 2025. Should you need additional information or have any questions, please call me at (409) 766-3949.

Sincerely,

Lisa Finn
Environmental Program Manager, Navigation

From:	charrish stevens - NOAA Federal
To:	Finn, Lisa M CIV USARMY CESWG (US); Courtney Gerken
Cc:	_NMFS ser HCDconsultations
Subject:	Re: [Non-DoD Source] Re: USACE BABUS Project Coordination - EFH
Date:	Tuesday, June 17, 2025 4:54:11 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png Response Letter_NMFS EFH 06032025.docx Appendix C - Essential Fish Habitat Assessment_REVISED 06032025.pdf

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Dear Ms. Lisa Finn,

NOAA's National Marine Fisheries Service (NMFS) Habitat Conservation Division has received the U.S. Army Corps of Engineers Galveston District June 3, 2025, response letter regarding the Draft Environmental Assessment and its associated appendices and the Revised May 2025 Essential Fish Habitat (EFH) Assessment for the Bay Aquatic Beneficial Use Sites (BABUS) in Galveston Bay in Harris and Chambers Counties, Texas. The following comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Based on our review of the revised EFH assessment, we concur with the applicant's determination that the impacts to EFH will be minimal and temporary in nature provided the applicant adheres to the proposed relocation and mitigation requirements for unavoidable oyster reef habitat impacts. Therefore, NMFS does not have EFH conservation recommendations to provide and has no objection to the issuance of the project permit, provided the final draft of the Environmental Assessment reflects the changes made in the revised EFH Assessment. Assuming the project is not further revised, this satisfies the consultation procedures outlined in 50 CFR Section 600.920, the regulation to implement the EFH provisions of the Magnuson-Stevens Act.

We appreciate your coordination with our office on this project. If you have any additional questions or require additional information, please feel free to contact me via email.

Thank you for your coordination,

Charrish Stevens
Fishery Biologist
Habitat Conservation Division
NOAA National Marine Fisheries Service
4700 Ave U, Galveston, TX 77551

Office Ph: (409) 766-3697
Fax: (409) 766-3575
Email: charrish.stevens@noaa.gov

On Tue, Jun 10, 2025 at 3:35 PM Courtney Gerken <courtney@lloydeng.com> wrote:

> Hi Charrish,

E-5
TX GLO CZMP

CONSISTENCY WITH THE TEXAS COASTAL MANAGEMENT PROGRAM

THE APPLICANT SHOULD SIGN THIS STATEMENT AND RETURN WITH APPLICATION PACKET TO:

TEXAS GENERAL LAND OFFICE
COASTAL RESOURCES-FEDERAL CONSISTENCY
1700 NORTH CONGRESS AVENUE, ROOM 330
AUSTIN, TEXAS 78701-1495
federal.consistency@glo.texas.gov

FOR USACE USE ONLY:

PERMIT #:_____

PROJECT MGR:_____

APPLICANT'S NAME AND ADDRESS (PLEASE PRINT):

Title | First: Lisa | Last: Finn | Suffix

Mailing Address: P.O. Box 1229

Home:

Work: 4097663949

City: Galveston | State: TX | Zip Code: 77553

Mobile:

Country | Email: lisa.m.finn@usace.army.mil

Fax:

The Texas Coastal Management Program (CMP) coordinates state, local, and federal programs for the management of Texas coastal resources. Activities within the CMP boundary must comply with the enforceable policies of the Texas Coastal Management Program and be conducted in a manner consistent with those policies. The boundary definition is contained in the CMP rules (31 TAC §503.1).

- To determine whether your proposed activity lies within the CMP boundary, please contact GLO Federal Consistency Staff at federal.consistency@glo.texas.gov

PROJECT DESCRIPTION:

Is the proposed activity at a waterfront site or within coastal, tidal, or navigable waters? ☑ Yes ☐ No

If Yes, name affected coastal, tidal, or navigable waters: Galveston Bay

Is the proposed activity water dependent? ☑ Yes ☐ No (31 TAC §501.3(a)(14))

http://tinyurl.com/CMPdefinitions

Please briefly describe the project and all possible effects on coastal resources:

The Bay Aquatic Beneficial Use Site (BABUS) project is a beneficial use placement area to provide for the beneficial use placement of maintenance material from the Houston Ship Channel and the creation of inter-tidal oyster, marsh, aquatic and upland bird habitats within the Galveston Bay area.
See Attachment 1 for description and map of project.

Indicate area of impact: 4353 ☑ acres or ☐ square feet

ADDITIONAL PERMITS/ AUTHORIZATIONS REQUIRED:

- ☐ Coastal Easement - Date application submitted:
- ☐ Coastal Lease - Date application submitted:
- ☐ Stormwater Permit- Date application submitted:
- ☑ Water Quality Certification - Date application submitted: Prefiling submitted 3/31/25
- ☐ Other state/federal/local permits/authorizations required:

The proposed activity must not adversely affect coastal natural resource areas (CNRAs).

PLEASE CHECK ALL COASTAL NATURAL RESOURCE AREAS THAT MAY BE AFFECTED:

- ☐ Coastal Barriers
- ☐ Coastal Historic Areas
- ☐ Coastal Preserves
- ☐ Coastal Shore Areas
- ☐ Coastal Wetlands
- ☐ Critical Dune Areas
- ☐ Critical Erosion Areas
- ☐ Gulf Beaches
- ☐ Hard Substrate Reefs
- ☑ Oyster Reefs
- ☐ Special Hazard Areas
- ☑ Submerged Lands
- ☐ Submerged Aquatic Vegetation
- ☐ Tidal Sand or Mud Flats
- ☐ Waters of Gulf of Mexico
- ☑ Waters Under Tidal Influence

The applicant affirms that the proposed activity, its associated facilities, and their probable effects comply with the relevant enforceable policies of the CMP, and that the proposed activity will be conducted in a manner consistent with such policies.

PLEASE CHECK ALL APPLICABLE ENFORCEABLE POLICIES:

http://tinyurl.com/CMPpolicies

☑	§501.15 Policy for Major Actions
☐	§501.16 Policies for Construction of Electric Generating and Transmission Facilities
☐	§501.17 Policies for Construction, Operation, and Maintenance of Oil and Gas Exploration and Production Facilities
☐	§501.18 Policies for Discharges of Wastewater and Disposal of Waste from Oil and Gas Exploration and Production Activities
☐	§501.19 Policies for Construction and Operation of Solid Waste Treatment, Storage, and Disposal Facilities
☐	§501.20 Policies for Prevention, Response and Remediation of Oil Spills
☐	§501.21 Policies for Discharge of Municipal and Industrial Wastewater to Coastal Waters
☐	§501.22 Policies for Nonpoint Source (NPS) Water Pollution
☐	§501.23 Policies for Development in Critical Areas
☐	§501.24 Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands
☑	§501.25 Policies for Dredging and Dredged Material Disposal and Placement
☐	§501.26 Policies for Construction in the Beach/Dune System
☐	§501.27 Policies for Development in Coastal Hazard Areas
☐	§501.28 Policies for Development Within Coastal Barrier Resource System Units and Otherwise Protected Areas on Coastal Barriers
☐	§501.29 Policies for Development in State Parks, Wildlife Management Areas or Preserves
☐	§501.30 Policies for Alteration of Coastal Historic Areas
☐	§501.31 Policies for Transportation Projects
☐	§501.32 Policies for Emission of Air Pollutants
☐	§501.33 Policies for Appropriations of Water
☐	§501.34 Policies for Levee and Flood Control Projects

Please explain how the proposed project is consistent with the applicable enforceable policies identified above. Please use additional sheets if necessary. *For example: If you are constructing a pier with a covered boathouse, then the applicable enforceable policy is: §501.24 Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands. The project is consistent because it will not interfere with navigation, natural coastal processes, and avoids/minimizes shading.*

The project is consistent with §501.15 Policy for Major Actions. The policy states that "(b) Prior to taking a major action, the agencies and subdivisions having jurisdiction over the activity shall meet and coordinate their major actions relating to the activity. The agencies and subdivisions shall, to the greatest extent practicable, consider the cumulative and secondary adverse effects, as described in the federal environmental impact assessment process, of each major action relating to the activity. and
(c) No agency or subdivision shall take a major action that is inconsistent with the goals and policies of this chapter. In addition, an agency or subdivision shall avoid and otherwise minimize the cumulative adverse effects to coastal natural resource areas of each of its major actions relating to the activity."
The project has coordinated the action with agencies and considered the cumulative and secondary adverse effects of the action as documented in the Environmental Analysis made available to GLO through inter agency joint public notice.

The project is consistent with 501.25 Policies for Dredging and Dredged Material Disposal and Placement because it will a) not lead to adverse effects to coastal waters, submerged lands, critical areas, or shore or beach areas. The proposed project provides beneficial use of dredged material that will create valuable coastal habitat. The proposed project will b) minimize adverse effects during construction using BMPs to reduce turbidity in the water and contain dispersal of sediments to the immediate project area where they will be utilized beneficially to create coastal and aquatic habitat.

All oyster reef impacted by the project are proposed to be relocated or habitat created at a mimimum 1:1 ratio. Additionally the project will be creating over 3,200 acres of intertidal marsh habitat to replace any oyster habitat that is impacted.

The project is consistent with these policies because as a Beneficial Use project, the dredged material is being used according to subsection "(d) Dredged material from dredging projects in commercially navigable waterways is a potentially reusable resource and must be used beneficially in accordance with this policy." According to and consistent with the policy, this project proposes to utilize dredged materiel beneficially for "environmental benefits, recreational benefits, flood or storm protection benefits, erosion prevention benefits, and economic development benefits" For this reason, the project is consistent with the policy.
For all supporting documentation, please refer to the fforthcoming published Environmental Assessment and appendices for the BABUS Project. Agency consultations and correspondence, and opportunity for comments will be provided during a 30-day comment period following the publication of the Joint Public Notice for the BABUS Project.

BY SIGNING THIS STATEMENT, THE APPLICANT IS STATING THAT THE PROPOSED ACTIVITY COMPLIES WITH THE TEXAS COASTAL MANAGEMENT PROGRAM AND WILL BE CONDUCTED IN A MANNER CONSISTENT WITH SUCH PROGRAM

FINN.LISA.MARIE.1300636043 Digitally signed by FINN.LISA.MARIE.1300636043
Date: 2025.03.31 16:42:07 -05'00'

Signature of Applicant/Agent

Date

Any questions regarding the Texas Coastal Management Program should be referred to:

Texas General Land Office
Coastal Resources Division
1700 North Congress Avenue, Room 330
Austin, Texas 78701-1495
Phone: (512) 475-0773
Toll Free: 1-800-998-4GLO
federal.consistency@glo.texas.gov

Print Form

ATTACHMENT 1
BABUS PROJECT DESCRIPTION

In order to meet capacity needs for future maintenance dredging of the Houston Ship Channel Navigation System, the Bay Aquatic Beneficial Use Sites (BABUS) was identified in the 50 year Dredged Material Management Plan as part of the 2020 Final Integrated Feasibility Report and Environmental Impact Statement. The BABUS project was outlined in the HSC Dredged Material Management Plan as a PA for primarily HSC O&M material into the future. The construction of BABUS within Galveston Bay and the beneficial use of dredged material from the HSC was outlined and discussed beginning with the FIFR-EIS for the HSC ECIP by USACE (2019) as a Future Without-Project condition.

The proposed action is the construction of the BABUS for the placement of primarily O&M dredged material (Figure 2-1). Since the BABUS project is in the conceptual stage, the exact configuration of the BABUS, and position within the project footprint, has not yet been determined. The current design of the BABUS project has a footprint that does not exceed approximately 4,500 acres. The project area is in upper Galveston Bay, southeast of Atkinson Island (and its associated BU PAs), north of the Mid Bay Placement Area (Blue Water Atoll), and east of the HSC. Upper Galveston Bay is bordered by Chambers and Harris counties, Texas. The project area is submerged land in Chambers County owned by the State of Texas and managed by the Texas General Land Office. The project area is subtidal and has an average bottom elevation of -8 feet (-2.4 m) mean lower low water (MLLW) (USACE 2022). The area is transected by two recreational boating channels: Five Mile Cut Channel and North Boaters Cut. One or both channels may require dredging to a width and depth sufficient to accommodate bottom-dump scows and (or) hopper dredges for delivery of dredged material to the BABUS.

It is anticipated that the BABUS will be constructed in phases. The project will consist of two types of PAs. The first type is an excavated BU PA created by excavating the bay bottom and using that material to construct confining dikes. These dikes would serve as the outer perimeter of the PA and may be reinforced with riprap or other similar materials as needed to prevent erosion. The current design has the crests of the confining dikes having a maximum elevation of +8 feet (2.4 m) MLLW. The second type of PA will be marsh fill areas for beneficial use of dredged material. The interiors of the BABUS PAs would be filled gradually with material dredged from areas of the HSC north of Morgans Point (mile 26.2) (DMMP [Appendix R of the FIFR-EIS by USACE 2019]). The placement of the material would occur over the projected 50-year period or until the estimated capacity of approximately 100 million cy is reached.

The beneficial use PA (shown in the center of the project area in Figure 2-1) is anticipated to be excavated to a depth of -70 feet (-21.3 m) MLLW, dependent on the results of further engineering and design work, to maximize dredged material capacity. Following initial excavation, the interior of this PA would temporarily be a deep basin accessible via North Boaters Cut or Five Mile Cut Channel. A gap in the exterior dike will be provided to allow passage of the scows/dredges. Upon completion of the construction of the exterior containment dike and bay bottom excavation to the maximum depth and extent practicable, the gap in the dike will be closed in-between placement events within this PA. The containment dikes have the potential to host a variety of aquatic and emergent habitats, including oyster reef. The types of habitats and their placement along these dikes will be decided based on further engineering and design work.

The marsh fill areas are anticipated to be filled with dredged material. The containment dikes around these areas will be constructed of bay bottom material excavated from within the dredged material PA. The outer slopes of these containment dikes are anticipated to provide habitat benefits that are similar to those to be created on the dikes of the dredged material PA. The details for how the dikes are to be constructed, and the habitats they will support, are dependent on the results of further engineering and design efforts. The elevation of the interior of the marsh fill areas

would be raised from the existing bay bottom elevation (averaging -8 feet [2.4 m] MLLW) to intertidal elevations of 0 to +3.5 feet (0–1.07 m) MLLW for the potential to create beneficial use intertidal marsh and bird island habitats. Once the interior of the marsh fill areas have reached the desired elevation, the dike will be cut at strategic locations to allow for tidal exchange of bay water in and out while continuing to provide erosion protection.

Once the excavated beneficial use PA and the marsh fill areas are filled to their desired elevations and the 100 million cy capacity is reached, it is anticipated that new marsh habitat and (or) upland habitats could be created on the upper surface of the BABUS. The habitats would be designed to accommodate various desirable wetland and aquatic species. The BABUS would also be expected to provide refuge for migratory birds along the northern Gulf coast during migrations, and to add to the productivity of bird islands along the Galveston Bay migratory corridor. Thus, the proposed action is intended to aid in the USACE's requirements and directives for increasing BU of dredged material to at least 70% of all dredged material by 2030 (USACE 2023).

Marsh Fill Area
Interior: 663 acres

Excavated BU Placement Area
Excavation: 1187 acres
Marsh Fill Area: 1605 acres

Marsh Fill Area
Interior: 996 acres

Five Mile Cut

North Boaters Cut

Maxar

Vicinity Map

1:1,964,283

Legend

- BABUS Survey Area - 5,485 acres
- Exterior Levee - Total area: 4353 acres
- Marsh Fill
- Proposed Excavation
- Houston Ship Channel

N

0 1,250 2,500 5,000 Feet

Figure 1
Project Map

Bay Aquatic Beneficial Use Sites (BABUS)
USACE
Galveston Bay, Texas

Date: Mar 28, 2025	LLOYD ENGINEERING, INC.
Prepared By: DJM	
Prepared For: USACE	
Project: BABUS	

TEXAS GENERAL LAND OFFICE
COMMISSIONER DAWN BUCKINGHAM, M.D.

June 12, 2025

U. S. Army Corps of Engineers
Galveston District
2000 Fort Point Road
Galveston, Texas 77550
Attn: Lisa Finn

Re: Bay Aquatic Beneficial Use Sites
Draft Environmental Assessment
Galveston, County, Texas
Texas CMP#: 25-1166-F2

Dear Applicant:

The project referenced above has been reviewed for consistency with the Texas Coastal Management Program (CMP) pursuant to 31 Texas Administrative Code §30.20. It has been determined that the project, as proposed, is consistent with the CMP goals and enforceable policies.

Please note that this letter does not authorize the use of Coastal Public Land. No work may be conducted or structures placed on State-owned land until you have obtained all necessary authorizations, including any required by the General Land Office and the U.S. Army Corps of Engineers.

If you have any questions or concerns, please contact me at (512) 463-7497 or at federal.consistency@glo.texas.gov.

Sincerely,

Leslie Koza

Leslie Koza
Federal Consistency Coordinator
Texas General Land Office

E-6
TCEQ WQC

Texas Commission on Environmental Quality
401 State Certification Prefiling Meeting Request Form

Why is this Pre-Filing Meeting Request Required? The U.S. Environmental Protection Agency published its Clean Water Act Section 401 Certification Rule in the Federal Register on July 13, 2020.1 It took effect on September 11, 2020. The federal rule requires all project applicants to submit a Pre-filing Meeting Request to the state certifying authority, the Texas Commission on Environmental Quality (TCEQ), at least 30 days prior to submitting a Section 401 Water Quality Certification Request (Certification Request). The TCEQ has prepared this pre-filing meeting request form to help project applicants comply with the new 401 Certification Rule requirements.

Next Steps: The TCEQ will review your request for a pre-filing meeting to determine whether it is necessary or appropriate for a specific project. Completing this form will help with the TCEQ's determination. Thank you for using this form.

1. Please submit this request form and, a project location map to 401Certs@tceq.texas.gov.

2. If a pre-filing meeting is determined to be necessary by either the applicant or the TCEQ, the meeting will be scheduled to discuss the project.

3. If you do not receive a response to your request for a pre-filing meeting and after at least 30 days, you may submit the certification request to the TCEQ if a Section 401 certification is required for your project. Projects that require state certification are 1) all individual permit U.S. Army Corps of Engineer 404 permit applications and, 2) individual conditional certifications for the return water of Nationwide Permit 16.

For more information: EPA's 401 rule: https://www.epa.gov/cwa-401/final-rule-clean-water-act-section-401-certification-rule

Project Information

Project Name: South Texas Gateway Terminal Maintenance Dredging		
Project Applicant		
Name: Lisa Finn	Organization: US Army Corps Engineers	
Phone #: 409-766-3949	Email: lisa.m.finn@usace.army.mil	
Consultant		
Name: Courtney Gerken	Organization: Lloyd Engineering, Inc.	
Phone #: 713-413-7342	Email: courtney@lloydeng.com	
Project Location *(Note: Please attach a project location map when submitting this form)*		
Address:	City:	County: Chambers
Lat: 29.605213	Long: -94.9262026	
Brief Project Description and Scope:		
In order to meet capacity needs for future maintenance dredging of the Houston Ship Channel Navigation System, the Bay Aquatic Beneficial Use Sites (BABUS) was identified in the 50 year Dredged Material Management Plan as part of the 2020 Final Integrated Feasibility Report and Environmental Impact Statement. The BABUS project was outlined in the HSC Dredged Material Management Plan as a PA for primarily HSC O&M material into the future. The construction of BABUS within Galveston Bay and the beneficial use of		

dredged material from the HSC was outlined and discussed beginning with the FIFR-EIS for the HSC ECIP by USACE (2019) as a Future Without-Project condition.

The proposed action is the construction of the BABUS for the placement of primarily O&M dredged material (Figure 2-1). The current design of the BABUS project has a footprint that does not exceed approximately 4,500 acres. The project area is in upper Galveston Bay, southeast of Atkinson Island (and its associated BU PAs), north of the Mid Bay Placement Area (Blue Water Atoll), and east of the HSC. The project area is subtidal and has an average bottom elevation of -8 feet (-2.4 m) mean lower low water (MLLW) (USACE 2022).

The beneficial use PA (shown in the center of the project area in Figure 2-1) is anticipated to be excavated to a depth of -70 feet (-21.3 m) MLLW, dependent on the results of further engineering and design work, to maximize dredged material capacity. Following initial excavation, the interior of this PA would temporarily be a deep basin accessible via North Boaters Cut or Five Mile Cut Channel. A gap in the exterior dike will be provided to allow passage of the scows/dredges. Upon completion of the construction of the exterior containment dike and bay bottom excavation to the maximum depth and extent practicable, the gap in the dike will be closed in-between placement events within this PA. The containment dikes have the potential to host a variety of aquatic and emergent habitats, including oyster reef. The types of habitats and their placement along these dikes will be decided based on further engineering and design work.

The marsh fill areas are anticipated to be filled with dredged material. The containment dikes around these areas will be constructed of bay bottom material excavated from within the dredged material PA. The outer slopes of these containment dikes are anticipated to provide habitat benefits that are similar to those to be created on the dikes of the dredged material PA. The details for how the dikes are to be constructed, and the habitats they will support, are dependent on the results of further engineering and design efforts. The elevation of the interior of the marsh fill areas would be raised from the existing bay bottom elevation (averaging -8 feet [2.4 m] MLLW) to intertidal elevations of 0 to +3.5 feet (0–1.07 m) MLLW for the potential to create beneficial use intertidal marsh and bird island habitats. Once the interior of the marsh fill areas have reached the desired elevation, the dike will be cut at strategic locations to allow for tidal exchange of bay water in and out while continuing to provide erosion protection.

Once the excavated beneficial use PA and the marsh fill areas are filled to their desired elevations and the 100 million cy capacity is reached, it is anticipated that new marsh habitat and (or) upland habitats could be created on the upper surface of the BABUS. The habitats would be designed to accommodate various desirable wetland and aquatic species. The BABUS would also be expected to provide refuge for migratory birds along the northern Gulf coast during migrations, and to add to the productivity of bird islands along the Galveston Bay migratory corridor.

Please provide the type of federal permit for which the applicant is seeking state 401 certification. Please include a federal permit number if available.

USACE Action

Texas Commission on Environmental Quality
401 State Certification Prefiling Meeting Request Form

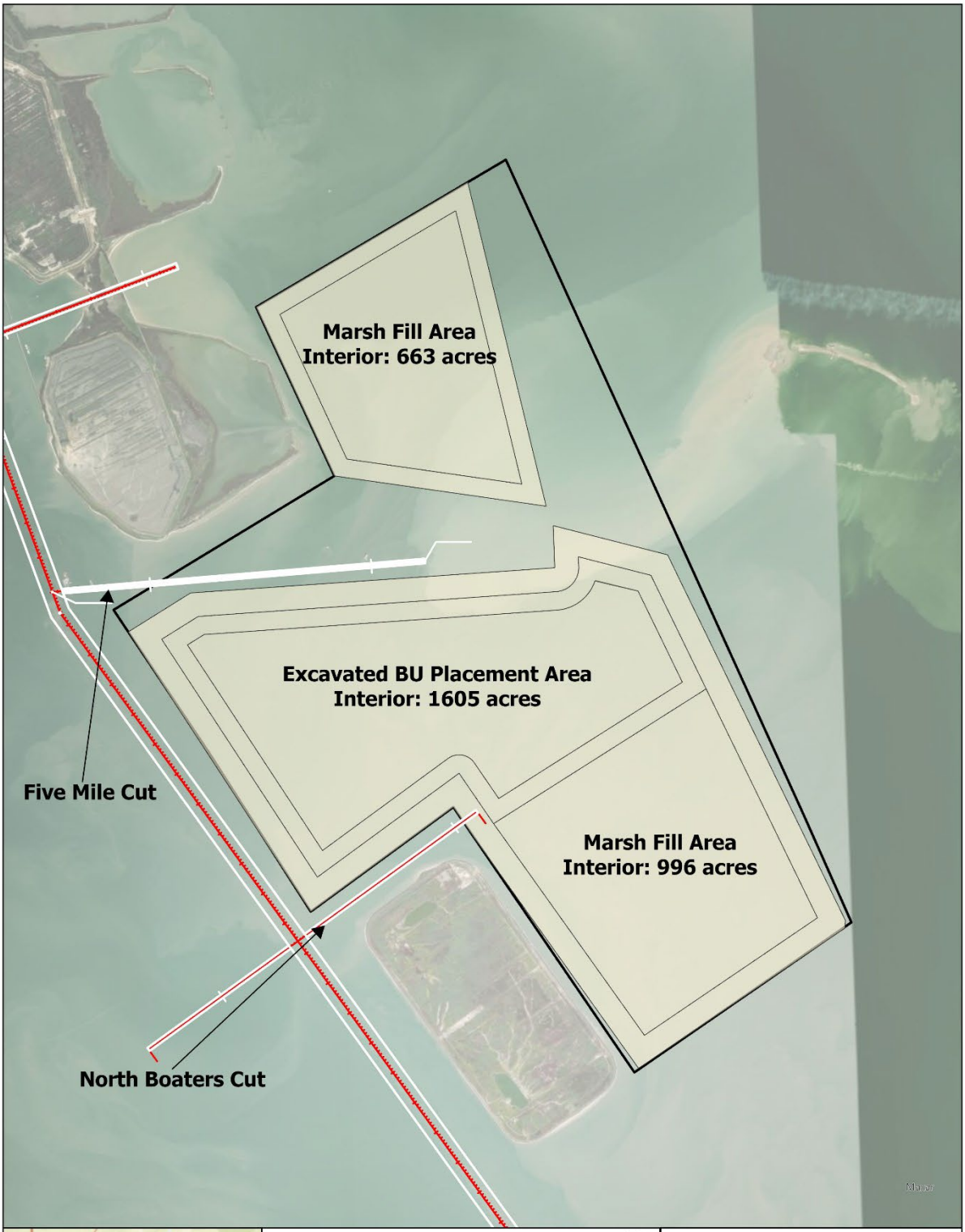
Jurisdictional Impacts

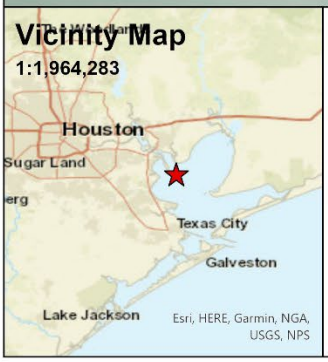
Fill/Excavate	Wetland (Cowardian Class), Seagrass, Oyster	Acres	Stream (linear feet)		
			intermittent	*perennial*	*tidal*
Excavate	Mud bottom	1187			
Fill	Open bottom	4353			
Impact	Viable Oyster Habitat	75.5			

Best Management Practices (BMPs)

Oyster relocation or habitat replacement will be provided at minimum 1:1 ratio using the projects constructed levees and natural living shorelines. Intertidal marsh habitat will be created totaling over 3200 acres. Dredging best management practices will be utilized to minimize temporary turbidity impacts to water quality.

During construction, temporary water quality impacts are anticipated due to increased turbidity. Standard BMPs will be utilized during placement to minimize turbidity over ambient conditions. Placement of maintenance material during the operation of the project will occur within area bounded by levees and therefore turbidity impacts are anticipated to be limited to the immediate project area and settling will occur within the boundaries of the placement area.





Legend

- BABUS Survey Area - 5,485 acres
- BABUS Current Design - 4,353 acres
- Houston Ship Channel

N

0 1,250 2,500 5,000 Feet

Figure 2-1
Site Vicinity Map
Bay Aquatic Beneficial Use Sites (BABUS)
USACE
Galveston Bay, Texas

Date: Mar 28, 2025	
Prepared By: DJM	
Prepared For: USACE	
Project: BABUS	

LLOYD ENGINEERING, INC.

Texas Commission on Environmental Quality

Tier II

401 Certification Questionnaire

Applicant and Project	Contact Information
Lisa Finn – USACE Galveston District	lisa.m.finn@usace.army.mil

I. Impacts to surface water in the state, including wetlands

A. What is the area of surface water in the state, including wetlands, that will be disturbed, altered, or destroyed by the proposed activity?

Waters of the State as defined under §26.001 of the Texas Water Code include "*groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.*"

The project will impact up to 4500 acres of open water in Galveston Bay. The project will be converting the BABUS area from open water shallow bay habitat to intertidal wetland marsh area with beneficial use dredged material.

B. Is compensatory mitigation proposed? If yes, submit a copy of the mitigation plan. If no, explain why not.

No. Compensatory mitigation will not be required as the project is for beneficial use, including habitat creation.
Oyster relocation or habitat replacement will be provided at minimum 1:1 ratio using the projects constructed levees and natural living shorelines. Intertidal marsh habitat will be created totaling over 3200 acres.

C. Please complete the attached Alternatives Analysis Checklist

Refer to Attachment A for the Alternatives Analysis checklist.

II. Disposal of waste materials

A. Describe the methods for disposing of materials recovered from the removal or destruction of existing structures.

The proposed Project includes the beneficial use of dredged materials from the authorized Houston Ship Channel maintenance dredging. Oil and gas structures or infrastructure located in the project area that requires removal will be removed and disposed of in upland locations.

B. Describe the methods for disposing of sewage generated during construction. If the proposed work establishes a business or a subdivision, describe the method for disposing of sewage after completing the project.

All sanitary waste generated during construction would be collected from portable units as necessary or as required by local regulation by a licensed sanitary waste management contractor. It will be the responsibility of each contractor for the disposal of waste generated on barges to ensure compliance with all local, state, and federal regulations.

C. For marinas, describe plans for collecting and disposing of sewage from marine sanitation devices. Also discuss provisions for the disposing of sewage generated from day-to-day activities.

The facility will not be a marina; therefore, no sewage collection or disposal plan is required.

III. Water quality impacts

A. Describe the methods to minimize the short-term and long-term turbidity and suspended solids in the waters being dredged and/or filled. Also, describe the type of sediment (sand, clay, etc.) that will be dredged or used for fill.

The Best Management Practices (BMPs) will be used, where possible during the placement of the beneficial use material, to minimize temporary impacts to water quality to the maximum extent practicable. The proposed activities will be completed in a manner consistent with the goals and policies of the Texas Coastal Management Program.

- Containment during open water placement at the BABUS will be created with material berms/dikes constructed from excavated material from the BABUS project area.

Dredged material is anticipated to originate from the HSC

B. Describe measures that will be used to stabilize disturbed soil areas, including: dredge material mounds, new levees or berms, building sites, and construction work areas. The description should address both short-term (construction-related) and long-term (normal operation or maintenance) measures. Typical measures might include containment structures, drainage modifications, sediment fences, or vegetative cover. Special construction techniques intended to minimize soil or sediment disruption should also be described.

BMPs will be used where possible to minimize temporary impacts to coastal resources to the maximum extent practicable. The proposed activities will be completed in a manner consistent with the goals and policies of the Texas Coastal Management Program. There

are no proposed disturbed soil areas with the project other than the BABUS submerged project area. All work will be conducted with aquatic vessels and barges

Examples of BMPs that the project contractors will follow include:

- Refueling and maintenance of vehicles and equipment in designated areas to prevent accidental spills and potential contamination of water sources and the surrounding soils.
- Limiting idling of vehicles and equipment to reduce emissions.
- Minimizing project equipment and vehicles transiting between the staging area and BABUS site to the greatest extent practicable, including but not limited to using designated routes, confining vehicle access to the immediate needs of the project, and coordinating and sequencing work to minimize the frequency and density of vehicular traffic.
- Minimizing use of construction lighting at night and when in use, directing lighting toward the construction activity area and shielding from view outside of the project area to the maximum extent practicable.

C. Discuss how hydraulically dredged materials will be handled to ensure maximum settling of solids before discharging the decant water. Plans should include a calculation of minimum settling times with supporting data. (Reference: Technical Report, DS-7810, Dredge Material Research Program, GUIDELINES FOR DESIGNING, OPERATING, AND MAINTAINING DREDGED MATERIAL CONTAINMENT AREAS). If future maintenance dredging will be required, the disposal site should be designed to accommodate additional dredged materials. If not, please include plans for periodically removing the dried sediments from the disposal area.

The proposed BABUS will receive beneficial use material dredged from the HSC. The material will be hydraulically dredged and transported to the BABUS utilizing dump scows where depth allows. When depths of the BU PA preclude the use of scows, the material will be hydraulically pumped and placed with a temporary dredge material pipe. Regardless of placement method, the material would be placed in a levee-confined BU placement area within the BABUS footprint and water from Galveston Bay. Water from the HSC pumped or dumped from a scow with the dredged material would be discharged back into Galveston Bay within the BABUS project area. While settling times have not been calculated; BMPs would be used to prevent uncontrolled release of material outside the BABUS marsh fill area.
As the site reaches the target elevation, the material will be allowed to naturally settle and create intertidal habitat. The material may or may not be mechanically shaped after placement.

D. Describe any methods used to test the sediments for contamination, especially when dredging in an area known or likely to be contaminated, such as downstream of municipal or industrial wastewater discharges.

Material from the HSC is routinely tested for suitability for offshore open water placement according to the Inland Testing Manual and federal regulations. All maintenance dredged material will be tested for contamination prior to placement at the BABUS according to the Federal requirements.

ATTACHMENT A

Tier II
Alternatives Analysis Checklist

I. Alternatives

A. How could you satisfy your needs in ways which do not affect surface water in the state?

The Project's defined purpose and need is to provide the BAUBS for the beneficial placement of maintenance dredged material from the authorized dredging of the Houston Ship Channel. Due to the nature and needs of the proposed dredging, effects to surface water are unavoidable. As such, USACE has selected least damaging, most safe and practicable alternatives of Beneficial Use placement (BU) that fulfilled the goals and objective of the Project. The project in nature is designed to fill open water areas to elevations of intertidal marsh habitat to provide beneficial habitat.

B. How could the project be redesigned to fit the site without affecting surface water in the state?

Due to the nature of the Project, temporary and permanent impacts to waters of the state are unavoidable. Temporary impacts to waters of the state will be minimized through the use of BMPs during construction activities. The dredging of material will be completed using BMPs, where practicable, to minimize the potential of adverse effects to waters of the state.

C. How could the project be made smaller and still meet your needs?

Various alternatives were investigated to identify the most beneficial and least damaging practical alternative that satisfied the needs of the project. Refer to the EA for the full alternatives analysis conducted for the project.

D. What other sites were considered?

Refer to the EA for the full alternatives analysis conducted for the project.

1. What geographical area was searched for alternative sites?

The detailed Environmental Assessment conducted for the Project concentrates on alternatives within 10 miles from the HSC area above Morgans Point.

2. How did you determine whether other non-wetland sites are available for development in the area?

The BABUS is proposed as a beneficial use placement area with marsh fill, therefore will be creating wetland habitats out of open water areas.

3. In recent years, have you sold or leased any lands located within the vicinity of the project? If so, why were they unsuitable for the project?

In recent years, USACE has not sold or leased any lands located within the vicinity that would be suitable for the development of the proposed Project.

E. What are the consequences of not building the project?

The consequence of not proceeding with the Project as planned would constrain the ability of the HSC to provide continued safe and operable conditions as well as prevent the USACE from beneficially utilizing dredged material that would otherwise be disposed of in confined placement areas or offshore. The no action alternative was considered as a part of the detailed alternatives analysis conducted for the project.

II. Comparison of alternatives

A. How do the costs compare for the alternatives considered above?

Cost was not considered a deciding factor when determining the most suitable beneficial use placement sites for the project. The project encourages competitive bidding of dredging contracts, and minimizes dredging costs, by allowing the use of a variety of equipment types for dredge material transport and placement.

B. Are there logistical (location, access, transportation, etc.) reasons that limit the alternatives considered?

The project location should be within a 10-mile radius of the area to be dredged to further minimize transport costs. Dredging to be addressed by this project is expected to occur primarily upstream of Morgans Point (HSC mile 26.2), and so the location should be within 10 miles of this point.

C. Are there technological limitations for the alternatives considered?

The design that would best satisfy this criterion is one constructed with accessible points of entry for various types of dredging equipment into the PA while allowing for the competitive bidding of dredging contractors based on their available equipment and cost estimates. The project design should not limit the ability to choose from dredging equipment best suited for the conditions within Galveston Bay or from providing the most economical cost possible.

D. Are there other reasons certain alternatives are not feasible?

The following selection criteria were used in the analysis:
1. The project would provide capacity for approximately 100 million cy of dredged material.
2. The project would allow for the beneficial use of dredged sediment through the creation and establishment of aquatic habitat and (or) bird island habitat.
3. The project encourages competitive bidding of dredging contracts, and minimizes dredging costs, by allowing the use of a variety of equipment types for dredge material transport and placement.
4. The project would minimize the transport distance for dredged material placement to within 10 miles of Morgans Point (mile 26.2 of the HSC).
5. The project uses an area with sediment composition that is comparable with dredged material proposed for placement and is suitable for dike construction.
6. The project would utilize an area of the bay that is available for construction and would be compatible with surrounding land use(s).
7. The project would minimize impacts to existing resources to the extent practicable.
8. The project would minimize impacts to other federal projects and navigation.
9. The project would minimize risk of interference with major active oil and gas related infrastructure.

III. If you have not chosen an alternative that would avoid impacts to surface water in the state, explain:

A. Why your alternative was selected.

An extensive alternatives analysis was conducted as part of the Environmental Assessment. The analysis considered alternatives which were evaluated to determine which resulted in the least amount of potential impacts to special aquatic sites and other resources while fulfilling the project purpose and need and maximizing the beneficial impacts of the beneficial use material placement.

B. What do you plan to do to minimize adverse effects on the surface water in the state impacted?

BMPs will be employed to limit adverse impacts to the maximum extent practicable. Due to the proposed design configuration, unavoidable temporary impacts to state waters would occur as a result of the proposed Project. BMPs will be employed to limit adverse temporary impacts to surface waters of the state during construction and dredging and placement operations.

- Placement of dredged material will adhere to the standards of the Texas Council on Environmental Quality's Water Quality Certification.
- Material would be placed within the BABUS until target elevations are reached with natural gradual sloping to existing grade and effluent channels naturally form to create the marsh area(s) desired.
- Temporary impacts from the hydraulic pipeline, or vehicles, used within vegetated wetland areas would be restored as closely as practicable to pre-project elevations utilizing dredged material following the removal of the temporary pipeline from the placement area.
- Project equipment and vehicles transiting between the dredging area and the BABUS will be minimized to the extent practicable, including but not limited to using designated routes and confining vehicle access to the immediate needs of the project.
- Containment during open water placement will be created with material dikes to minimize sediment suspension in Galveston Bay.

IV. Please provide a comparison of each criteria (from Part II) for each site evaluation in the alternatives analysis.

Refer to the EA for the full alternatives analysis conducted for the project.

The proposed action was designed as the alternative to best meet the selection criteria listed above. The proposed action is carried forward for further environmental analysis using the current design. The proposed action design best satisfies the selection criteria in Subsection 3.4 (Table 3-1). It fulfills selection criterion 1 by providing capacity for 100 million cy of dredged material as set forth in the FIFR-EIS by USACE (2019). Selection criterion 2 (maximize BU) is satisfied with the proposed action by allowing the establishment of protected bird rookery habitat, encouraging oyster reef colonization, and providing sheltered intertidal habitat that benefits desirable fishes and other aquatic species. Selection criterion 3 (encouraging competitive bidding through compatibility with dredging equipment) and criterion 4 (minimize transport distance) would also be satisfied by the project area of the proposed action. The BABUS design, sited within upper Galveston Bay adjacent to the HSC, allows optimal access by dredging equipment and a short transit distance from the dredging area. The ease of access and the relatively short transit distance (and reduced fuel costs) would allow competitive bidding amongst contractors and encourage cost-effectiveness for construction and long-term placement. The proposed action will also fulfill

criterion 5 (sediment suitability for construction and BU and compatibility with land use) as excavated bay bottom material will allow for the construction of dikes while having a grain size distribution comparable to that of dredged material from the HSC. All these objectives would be met while reducing vessel traffic along approximately half of the 52-mile-long HSC, meeting criterion 8 (minimize impacts to navigation). While the proposed action has greater potential for impacts to environmental resources (criterion 7), relocation and (or) mitigation strategies, coupled with the subsequent potential for BU, would help ameliorate impacts and produce important intertidal habitat for aquatic species along with providing bird island habitat along the Galveston migratory corridor. Any potential impacts to navigation at Five Mile Cut or North Boaters Cut (criterion 8) would be minimized where possible through further engineering and design along with stakeholder engagement with recreational fishermen. Any potential impacts to active oil/gas pipelines (criterion 9) within the BABUS footprint would be avoided thorough analysis/implementation of BMPs and stakeholder engagement with local Port authorities. The proposed action described in Section 2 is carried forward for analysis in Section 4.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 10, 2025

Lisa M. Finn
U.S. Army Corps of Engineers, Galveston District
P.O. Box 1229
Galveston, TX 77553

Re: USACE Public Notice No. HSC-M-6, Bay Aquatic Beneficial Use Sites EA

Dear Ms. Finn:

This letter supersedes the certification letter dated July 3, 2025.

This letter is in response to the 401 Certification Request dated April 30, 2025, for the Public Notice dated April 25, 2025, on the U.S. Army Corps of Engineers, Galveston District Draft Environmental Assessment for the proposed construction and use of the Bay Aquatic Beneficial Use Sites (BABUS). The purpose of the project is to create beneficial use placement areas primarily for maintenance dredged material from the authorized dredging of the Houston Ship Channel. The dredged material will be used to create intertidal wetland marsh areas and other habitat types.

The project's current design encompasses a footprint not to exceed approximately 4,500 acres. The concept of constructing BABUS and beneficially using dredged material in Galveston Bay was discussed as early as the 2019 Final Integrated Feasibility Report and Environmental Impact Statement for the Houston Ship Channel Expansion Channel Improvement Project as a Future Without-Project condition. The project is located in upper Galveston Bay, southeast of Atkinson Island, north of the Mid Bay Placement Area, and east of the Houston Ship Channel, in Chambers County, Texas.

The Texas Commission on Environmental Quality (TCEQ) has reviewed the Public Notice and related application information along with the 401 Certification Request. On behalf of the Executive Director and based on our evaluation of the information contained in these documents, the TCEQ certifies that there is reasonable assurance that the project will be conducted in a way that will not violate water quality standards.

The project's mitigation plan involves creating over 3,200 acres of intertidal marsh habitat and providing at least a 1:1 ratio for oyster relocation or habitat replacement. Best Management Practices will be implemented, as described in the 401 Certification Request, to minimize temporary turbidity impacts during construction and dredged material placement activities.

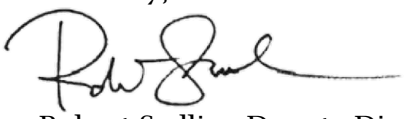
The TCEQ has reviewed this proposed action for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with the CMP regulations (Title 31, Texas Administrative Code (TAC), Section (§)505.30) and has determined that the action is consistent with the applicable CMP goals and policies.

This certification was reviewed for consistency with the CMP's development in critical areas policy (31 TAC §501.23) and dredging and dredged material disposal and placement policy (31 TAC §501.25). This certification complies with the CMP goals (31 TAC §501.12(1, 2, 3, 5)) applicable to these policies.

No review of property rights, location of property lines, nor the distinction between public and private ownership has been made, and this certification may not be used in any way with regard to questions of ownership.

If you require additional information or further assistance, please contact Mr. Jeff Paull, Water Quality Assessment Section, Water Quality Division (MC-150), at (512) 239--1649 or by email at jeff.paull@tceq.texas.gov.

Sincerely,



Robert Sadlier, Deputy Director
Water Quality Division
Texas Commission on Environmental Quality

RS/JP

ccs: Lisa Finn, U.S. Army Corps of Engineers via email at Lisa.M.Finn@usace.army.mil
Courtney Gerken, Lloyd Engineering via email at courtney@lloydeng.com
Ms. Leslie Koza, Texas General Land Office via e-mail at Federal.Consistency@GLO.TEXAS.GOV

E-7
Tribal Coordination Letters

From:	Courtney Gerken
Cc:	Finn, Lisa M SWG
Bcc:	jwaffle@tonkawatribe.com; dakotajohn@coushatta.org; johnson.delvin@actribe.org; THPO@kiowatribe.org; ahill@kiowatribe.org; Martina.minthorn@comanchenation.com; holly@mathpo.org
Subject:	Federal Project Coordination Request - BABUS - Galveston Bay, TX
Date:	Thursday, May 1, 2025 12:07:00 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png BABUS Coordination Letter_Native American Tribes 04292025.pdf

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To whom it may concern,

Please see the attached letter for request of coordination with Native American Tribes and the USACE-SWG-Navigation proposed project, Bay Aquatic Beneficial Use Sites (BABUS) located in Galveston Bay, Texas. The project has been posted for public review and comment at the following link: https://www.swg.usace.army.mil/Business-With-Us/Planning-Environmental-Branch/Documents-for-Public-Review/

On behalf of USACE, Ms. Lisa Finn, we request your review and comment of the project's Draft Environmental Assessment should you have any interest in the proposed project.

Thank you for your time and consideration,

Courtney Gerken | Environmental Project Manager

LLOYD ENGINEERING, INC.
LinkedIn

6565 West Loop South, Ste. 708
Bellaire, Texas 77401
832.426.4656 x1029 | 713.413.7342
courtney@lloydeng.com

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1229
GALVESTON, TEXAS 77553-1229

REPLY TO
ATTENTION OF
Operations Division-Navigation Section

APRIL 28, 2025

SUBJECT: Bay Aquatic Beneficial Use Sites (BABUS) Project Draft Environmental Assessment

To whom it may concern,

The U.S. Army Corps of Engineers (USACE), Galveston District (CESWG), has prepared a Draft Environmental Assessment (EA) to evaluate potential impacts associated with the construction and use of the Bay Aquatic Beneficial Use Sites (BABUS) for the beneficial placement of maintenance dredged material from the authorized dredging of the Houston Ship Channel (HSC).

The BABUS Project's purpose is to establish a beneficial use placement area (BU PA) in Galveston Bay for future O&M material, as well as material from modifications to areas adjacent to the HSC, over a 50-year period. Dredged material will be used beneficially to create intertidal wetland marsh areas and other upland and sub-tidal habitats.

A public notice has been issued for this project to inform interested parties that the USACE has prepared the draft EA in accordance with the National Environmental Policy Act (NEPA), Public Law 91-190, and regulations for implementing the procedural provisions of the NEPA, 40 Code of Federal Regulations 1500-1508.

Refer to the public notice of the project under the CESWG Regional Planning and Environmental Center (RPEC) Planning and Environmental Documents for Public Review: https://www.swg.usace.army.mil/Business-With-Us/Planning-Environmental-Branch/Documents-for-Public-Review/

There are no known or expected impacts to Native American historic or cultural resources due to the proposed project.

Agencies or persons or desiring to provide comments on the project are requested to submit their comments in writing within 30 days of the date of the notice to:

U.S. Army Corps of Engineers, Galveston District
Attention: Ms. Lisa M. Finn
P.O. Box 1229
Galveston, TX 77553

or by email: Lisa.M.Finn@usace.army.mil The comments should make specific reference to BABUS, Public Notice No. HSC-M-6.

We appreciate your cooperation in coordinating the proposed project and request that you provide your comments by May 28, 2025. Should you need additional information or have any questions, please call me at (409) 766-3949.

Sincerely,

Lisa Finn
Environmental Program Manager, Navigation