United States Department of the Interior

FISH AND WILDLIFE SERVICE
Deepwater Horizon Gulf Restoration Office
341 Greeno Road North, Suite A
Fairhope, Alabama 36532

In Reply Refer To:
FWS/R4/DH NRDAR

Memorandum March 31, 2022

To: David Hoth, Texas Coastal Ecological Services Field Office, Houston, TX

From: Assistant Restoration Manager, Deepwater Horizon Gulf Restoration Office

Subject: Coastal Barrier Resources Act Consistency Determination Request for Implementation of Thirteen (13) Restoration Projects proposed in the Texas Trustee Implementation Group's Restoration Plan #2

The Department of the Interior Deepwater Horizon Gulf Restoration Office is working through various environmental compliance consultations on post-settlement proposed restoration alternatives. We are now working on the Coastal Barrier Resources Act consistency determinations for thirteen (13) proposed projects. The Texas Trustee Implementation Group (TX TIG) has evaluated these projects as potential restoration projects under the draft *Texas Trustee Implementation Group Final Restoration Plan #2 and Environmental Assessment*. Public comment for this plan closed on March 28, 2022. If the TX TIG selects these projects, after consideration of public comments, the TX TIG partners would implement the projects.

We used the Coastal Barrier Resources System (CBRS) mapper (https://www.fws.gov/cbra/maps-and-data [accessed March 29, 2022]) to determine if the proposed actions are located within a CBRS Unit or within an Otherwise Protected Area (OPA). If the proposed action occurs outside of a CBRS Unit or within an OPA, no additional analysis was developed. Please refer to Table 1 below for a list of projects, Unit Numbers (if applicable), and consistency determinations.

Project Location

The proposed project is located in coastal Texas. Please see below for project maps (Figures 1-13).

Description of the Proposed Action or Project

The proposed project is designed to restore natural resources injured by the Deepwater Horizon oil spill. Please see below for project description and consistency analysis.

Applicable Exception(s) under 16 U.S.C. 3505(a)
Specific Exceptions

☒ 16 U.S.C. 3505(a)(6)(A): **Projects for the study, management, protection, and enhancement of fish and wildlife resources and habitats**, including acquisition of fish and wildlife habitats, and related lands, stabilization projects for fish and wildlife habitats, and recreational projects.

Justification for Exception
Please see below for Justification for Exception.

Contact Information
Please provide response via email to the following:

Michael Barron
Environmental Compliance Coordinator
Deepwater Horizon Gulf Restoration Office
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michael_barron@fws.gov

Table 1. Proposed Projects and Locations Relative to CBRS Units and OPA Units

Proposed Project	CBRA Consistency Determination
Bahia Grand Channel F Wetland Restoration	Programmatic activities include the following Texas counties: Cameron. Potential actions could occur within the following CBRS units and OPAs: CBRS Units/OPAs: None
Bird Island Cove Habitat Restoration Phase II	Programmatic activities include the following Texas counties: Galveston. Potential actions could occur within the following CBRS units and OPAs: CBRS Units/OPAs: None
Follets Island Coastal Management Area (CMA) Habitat Acquisition Phase II	Programmatic activities include the following Texas counties: Brazoria. Potential actions could occur within the following CBRS units and OPAs: CBRS Units: T04 OPA Units: T04P
Galveston Island Habitat Acquisition	Programmatic activities include the following Texas counties: Galveston. Potential actions could occur within the following CBRS units and OPAs: CBRS/OPA Units: None
Jones Bay Oystercatcher Habitat Restoration	Programmatic activities include the following Texas counties: Galveston. Potential actions could occur within the following CBRS units and OPAs: CBRS/OPA Units: None
Laguna Vista Rookery Island Habitat Protection	Programmatic activities include the following Texas counties: Cameron. Potential actions could occur within the following CBRS units and OPAs: CBRS/OPA Units: None
Lancha Sea Turtle Mitigation Plan	Programmatic activities include the following Texas counties: Cameron, Kenedy, Kleberg, Nueces, Willacy. Potential actions could occur within the following CBRS units and OPAs: CBRS Units: T10, T11, T12 OPA Units: T10P, T12P, TX-15P, TX16-P
Landscape Scale Oyster Restoration in Galveston Bay, TX	Programmatic activities include the following Texas counties: Chambers, Galveston. Potential actions could occur within the following CBRS units and OPAs: CBRS/OPA Units: None

Petronila Creek Constructed Wetlands Planning	Programmatic activities include the following Texas counties: Nueces. Potential actions could occur within the following CBRS units and OPAs: CBRS/OPA Units: None
Petronila Creek Watershed Nutrient Reduction Initiative	Programmatic activities include the following Texas counties: Nueces. Potential actions could occur within the following CBRS units and OPAs: CBRS/OPA Units: None
San Antonio Bay Bird Island	Programmatic activities include the following Texas counties: Calhoun. Potential actions could occur within the following CBRS units and OPAs: CBRS/OPA Units: None
Texas Breeding Shorebird and Seabird Stewardship	Programmatic activities include the following Texas counties: Brazoria, Cameron, Galveston, Matagorda, Nueces. Potential actions could occur within the following CBRS units and OPAs: CBRS Units: T01, T02A, T03A, TX-04, T04, T05, T06, T07, T11, T12, TX-17 OPA Units: T01P, TX-02P, T03AP, T04P, TX-04P, T05P, TX-05P, T07P, T11P, T12P, TX-15P, TX-16P, TX-17P, TX-22P
Upper Texas Coast Sea Turtle Rehabilitation Facility	Programmatic activities include the following Texas counties: Galveston. Potential actions could occur within the following CBRS units and OPAs: CBRS/OPA Units: None

1. Bahia Grand Channel F Wetland Restoration

The proposed project is located within the Laguna Atascosa National Wildlife Refuge between Bahia Grande and Laguna Vista, Texas. The Bahia Grande System is a federally protected 10,000-acre coastal ecosystem estuary and wetland complex consisting of three shallow water basins (i.e., Bahia Grande, Little Laguna Madre, and Laguna Larga. This project proposes to enhance 800 acres of wetlands and shallow open waters by restoring freshwater flow from north of Highway 100 to Laguna Larga in the upper Bahia Grande System.

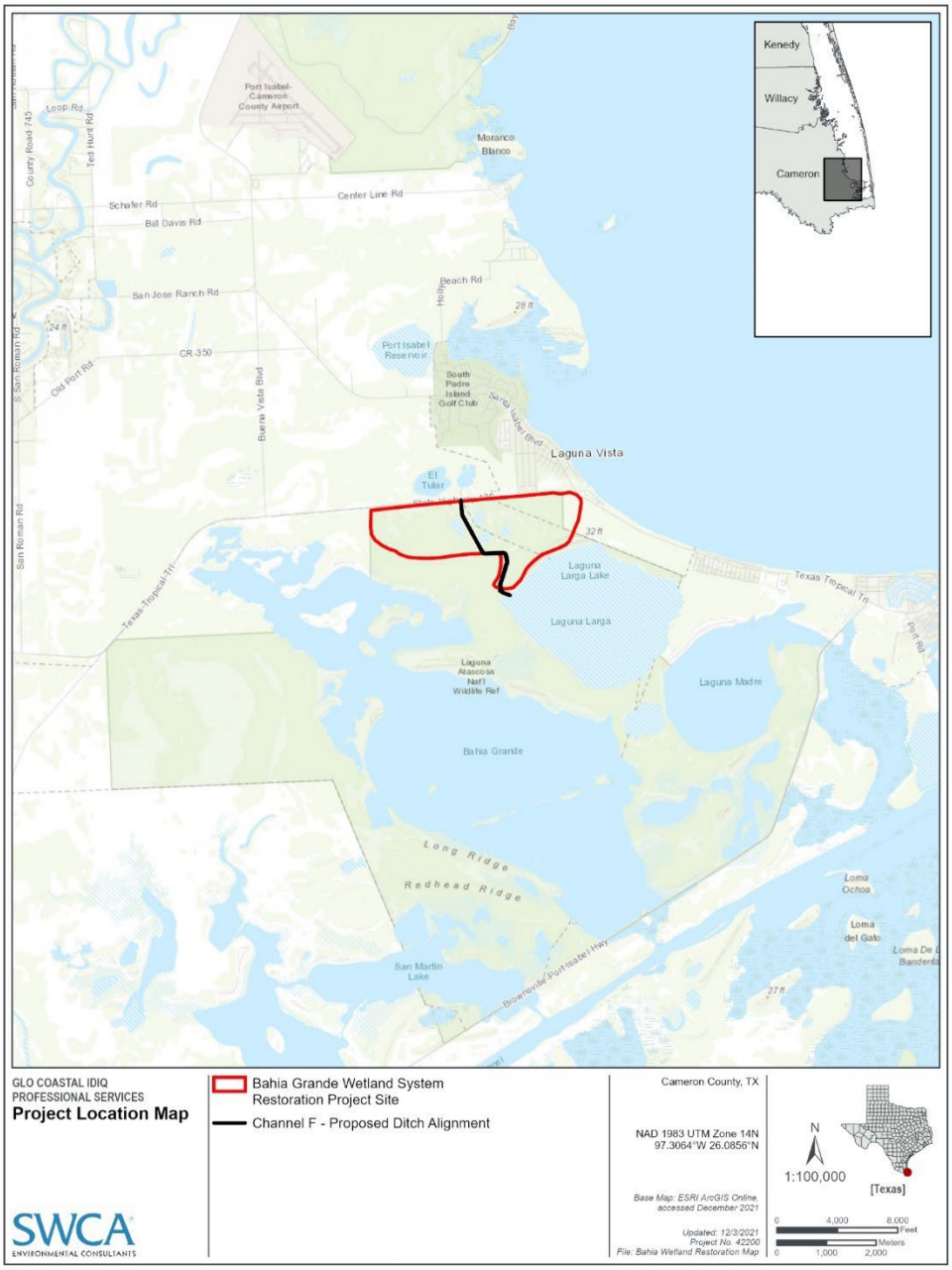
The proposed project will implement the Engineering and Design workplans that have already been in order to restore the flow of freshwater from north of Highway 100 (East Ocean Boulevard) to Laguna Larga in the upper Bahia Grande System. Restoration of natural hydrology to 800 acres of the Bahia Grande System would be accomplished by: 1) the installation of a 4 foot x 3 foot box culvert(s) under Highway 100 with stone rip rap placed at the outfall location to minimize erosion, 2) installation and construction of a conveyance channel (Channel F) to route water flow into Laguna Larga, 3) filling in 870 linear feet of existing ditches and 4) installation of a water control structure where Channel F meets with the north shores of Laguna Larga.

Construction of the concrete culvert(s) will include excavation of the new conveyance channel; excavation of Highway 100; installation of Best Management Practices (BMP) including silt fence, a stabilized construction entrance, and a rock filter dam prior to ground disturbance; installation of the box culvert(s); and repaving of Highway 100. Following the completion of this work, the construction related BMPs will be removed and the site will be restored with a minimum of four inches of topsoil, scarified, and hyrdro-seeded.

The project will include installation of water control structure weirs to control water flow into Laguna Larga. Construction of the new channel system will include grading in uplands and freshwater emergent wetland habitat surrounding the new conveyance channel which is needed to ensure the desired water flow into Laguna Larga. Reestablishing freshwater flow into Laguna Larga would complement the tidal flow restoration between the Brownsville Ship Channel and Bahia Grande.

Consistency Analysis
The proposed action is not within any System Units. Therefore, this project is not subject to a Consistency Analysis under CBRA.

Figure 1. Map showing the Bahia Grand Channel F Wetland Restoration project area.



2. Bird Island Cove Habitat Restoration Phase II

The proposed project is located in West Galveston Bay, at the mouth of Ostermayer Bayou, around and in front of Shell Island Point, Bird Island Cove, and McAllis Point. This project would protect approximately 170 acres of sensitive estuarine marshes from continued erosion via finalization of engineering and design (E&D), planning, and construction and monitoring of breakwater.

The proposed project builds upon the Bird Island Cove Habitat Restoration Engineering project that was approved in the Texas TIG's Final 2017 Restoration Plan/Environmental Assessment: Restoration of Wetlands, Coastal, and Nearshore Habitats and Oysters. Funding of that engineering project provided initial planning and E&D steps to address ongoing issues associated with habitat degradation. The proposed project would take the next step in recovery of sensitive estuarine marshes.

This proposed project would consist of 1) completion of the final engineering design, conduct a coastal boundary survey and any other surveys that need to be updated, develop a monitoring and management (MAM) implementation plan, and prepare a solicitation package; 2) construct approximately 8,820 linear feet (LF) of riprap concrete or limestone breakwaters adjacent to the shoreline of Bird Island Cove, Ostermayer Bayou, and Shell Island Point; and 3) conduct monitoring in accordance with a MAM plan over the course of 5 years.

Consistency Analysis

The proposed action is not within any CBRS System Units but is within OPA Unit T07P. Therefore, this project is not subject to a Consistency Analysis under CBRA.

Figure 2. Map showing the Bird Island Cove Habitat Restoration Phase II project area.

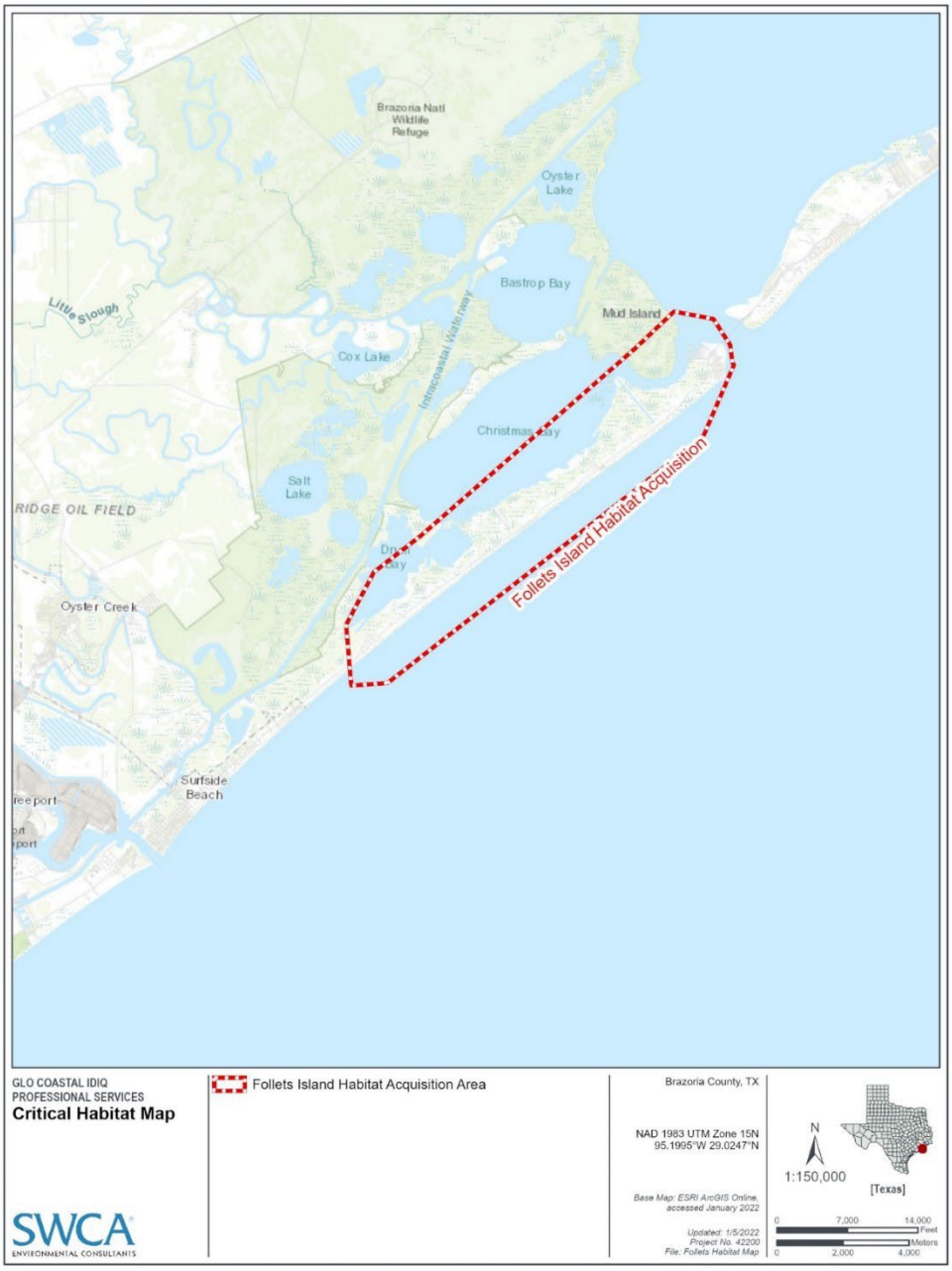
3. Follets Island Coastal Management Area (CMA) Habitat Acquisition Phase II
The proposed project would obtain and conserve up to approximately 350 acres of wetland, coastal, and nearshore habitats on Follets Island, Texas in perpetuity through fee-simple acquisition for inclusion to the existing Follets Island CMA.

The proposed project consists of 1) the completion of due diligence including appraisal, environmental assessment, survey, and title search; 2) securing the property with a purchase contract; and 3) property transfer to Texas Parks and Wildlife Department (TPWD) for inclusion in the Follets Island CMA. Recreational activities such as going to the beach, fishing, and wildlife viewing would be allowed within the current CMA. There would be clear signs to designate the appropriate activities on parcels from these funds brought into the CMA, controls on the use of vehicles to minimize disturbance and comply with state and federal laws. Under current Texas laws and regulations, the beach is a public access area open to vehicular travel. Use of the area by the public is not anticipated to be heavy; however, if necessary, TPWD would provide designated alternative pedestrian access and pedestrian trails to allow access but in a manner designed to avoid or minimize impacts on the island habitats. Other management activities such as the installation of bollards or fencing could occur to protect habitats from unrestricted damage. The area would also be patrolled by law enforcement professionals to enforce regulations that prevent illegal vehicular activity that could damage ecological resources. Any changes to public beach access are subject to the Texas Open Beaches Act, as administered by the Texas General Land Office.

No construction is anticipated at this time.

Consistency Analysis
The proposed action is within System Unit and T04 and OPA Unit T04P. Therefore, this project is subject to a Consistency Analysis under CBRA. Within the System units, the proposed action involves no construction and consists primarily of management, protection, and enhancement of fish and wildlife resources and habitats. Consequently, this activity is consistent with CBRA per exemption 16 U.S.C. 3505(a)(6)(A) for "Projects for the study, management, protection, and enhancement of fish and wildlife resources and habitats, including acquisition of fish and wildlife habitats, and related lands, stabilization projects for fish and wildlife habitats, and recreational projects." The purposes of CBRA are "to minimize the loss of human life, wasteful expenditure of Federal revenues, and the damages to fish, wildlife, and other natural resources associated with the coastal barriers along the Atlantic and Gulf Coasts…" 16 U.S.C. §3501(b). This project is designed to enhance natural resources injured by the Deepwater Horizon oil spill. Accordingly, this project is consistent with the purposes of the CBRA and falls within the CBRA exemption discussed above.

Figure 3. Map showing the Follets Island Coastal Management Area (CMA) Habitat Acquisition Phase project area.



4. Galveston Island Habitat Acquisition

The proposed project is located on Galveston Island adjacent to Starvation Cove and Mentzel Bayou in Galveston County, Texas. This project proposes to acquire and conserve 142 acres of barrier island habitat on Galveston Island, Texas, in perpetuity through a conservation easement. The 142 acre property is currently planned for residential and commercial development. Acquisition of the property would preserve its coastal resiliency benefits by preventing the development and associated degradation of this portion of the barrier island's natural resources. Once under conservation management, the ecological quality of the land is expected to improve surrounding habitat for fish and other wildlife resources and will be protected from development into residential or commercial structures. Signs would be installed and maintained that indicate that the site is under conservation stewardship and has controlled public access. The property would be preserved in perpetuity through a conservation easement held by an approved easement holder.

This proposed project activities would include 1) the completion of due diligence, including appraisal, land surveys, title searches, and an Phase I Environmental Site Assessment audit; 2) realty closing and associated signatures, and transferring ownership to an external partner, Artist Boat (a local nonprofit organization with a mission to promote awareness and preservation of coastal margins and the marine environment, and which has successfully conserved over 600 acres on west Galveston Island); and 3) monitoring in accordance with a Monitoring and Management plan. In addition, a conservation easement would be held by a certified land trust organization.

Consistency Analysis

The proposed action is not within any System Units. Therefore, this project is not subject to a Consistency Analysis under CBRA.

Figure 4: Map showing the Galveston Island Habitat Acquisition project area.

5. Jones Bay Oystercatcher Habitat Restoration

The proposed project would restore up to five remnant nesting islands and six intertidal reef sites in Jones Bay in Galveston County, Texas. Nesting island restoration would be achieved by placing approved cultch material on existing islands to increase their elevation. The combined area footprint is approximately one acre in size. Restoration would raise the current islands to an elevation less susceptible to extreme overwash, wave energy, and erosional force, and restore productive nesting habitat. The elevation of existing small islands would be enhanced to elevations that exceed mean high water (MHW) using graded limestone to raise the elevation to approximately to +4.5 feet NAVD88. Cultch material would also be graded and sized to use larger grain material in high energy locations and to ensure the material remains stable over time. A rock breakwater may be installed at one island site to protect the nesting island from vessels wakes associated with the Gulf Intracoastal Waterway.

Intertidal reef restoration would place cultch-acceptable material near each restored nesting island to provide foraging habitat for nesting oystercatchers and their young as well as other bird species. An area of approximately 1.5 acres total for all intertidal reef sites would be constructed. These would be placed each island on unconsolidated sediments adjacent to existing reef using limestone cultch to create a structural reef that would support aquatic organisms. For the intertidal reef component of the project, geotextile fabric may be placed on the substrate to better support cultch material and reduce settlement. The reef would be constructed to an elevation of approximately +0.20 feet NAVD88 to ensure it would be accessible the majority of the time to foraging oystercatchers.

Consistency Analysis

The proposed action is not within any System Units. Therefore, this project is not subject to a Consistency Analysis under CBRA.

Figure 5: Map showing the Jones Bay Oystercatcher Habitat Restoration project area.

6. Laguna Vista Rookery Island Habitat Protection

The proposed project would complete engineering and construct approximately 2,250 linear feet (LF) of living shoreline measures to minimize ongoing erosion and restore the shoreline along the perimeter of the 11-acre Spoil Island. The proposed project would enhance portions of the island by adding sediment and protect the island from erosion by constructing a breakwater along the most vulnerable portion of the island's shoreline. This proposed project would protect and restore habitat to benefit colonial waterbirds and wading birds.

This proposed project builds upon the Laguna Vista Spoil Island Shoreline Protection Phase I project that was funded by the USFWS and through the State of Texas Coastal Erosion Planning and Response. During that phase, preliminary engineering, 70% construction design, and submittal of environmental permits were completed.

This proposed project would consist of the following construction activities: 1) construct breakwater and revetment features, 2) regrade and plant the eroded shoreline, 3) elevate portions of the island, 4) removal of derelict pipes located on the island, and 5) monitoring. Initiation of work at this site would take place outside the peak waterbird nesting season, typically between February 14 and September 1.

Channel dredging is required to access the proposed project site via barge. A barge-mounted excavator would mechanically dredge a flotation channel of a width of 50 feet, a depth that provides no more than four feet of water depth, and length of approximately 1,800 LF. It is estimated that 15,000 cubic yards (CY) of dredged sediment may be generated by this excavation. The channel would begin at the abandoned navigation channel adjacent to the east side of the island and continue to the island site through the open waters. Dredged sediments would be temporarily placed beside the access channel in areas of bare bay bottom. Where seagrasses are present, excavated sediments will be placed temporarily on barges. Excavated sediments will be used to enhance the island or returned to the access channel after the access channel is no longer required. Appropriate best management practices, including silt curtains, would be used to minimize turbidity during dredging. Placement of suitable dredged material as upland site fill of low-lying, unvegetated areas within approximately 1.5 acres of the spoil island's interior, above the mean high water (MHW) elevation. These low-lying areas have experienced an increased frequency of overwash events making them unsuitable for nesting birds. Elevating these low-lying areas would provide additional habitat for nesting birds.

Construction of the breakwater would consist of placing riprap material within shallow open water offshore parallel to the shoreline on portions of the islands to provide protection from wave erosion. Construction of the revetment would consist of placing riprap material along approximately 550 LF of the southern shoreline.

Eroded shoreline areas would be regraded to pre-erosion conditions using in-situ sediments. Restoration target elevations would be above the MHW elevation. Native vegetation will be planted to stabilize the regraded shoreline. Approximately 250 CY of shoreline sediments would be regraded to an elevation below the MHW elevation. Two derelict pipe culverts located along the shoreline in the southwestern portion of the island would be removed. Pipe removal would

occur outside the bird nesting season and would be accomplished with a shallow draft barge and excavator.

Consistency Analysis

The proposed action is not within any System Units. Therefore, this project is not subject to a Consistency Analysis under CBRA.

Figure 6: Map showing the Laguna Vista Rookery Island Habitat Protection project area.

7. Lancha Sea Turtle Mitigation Plan

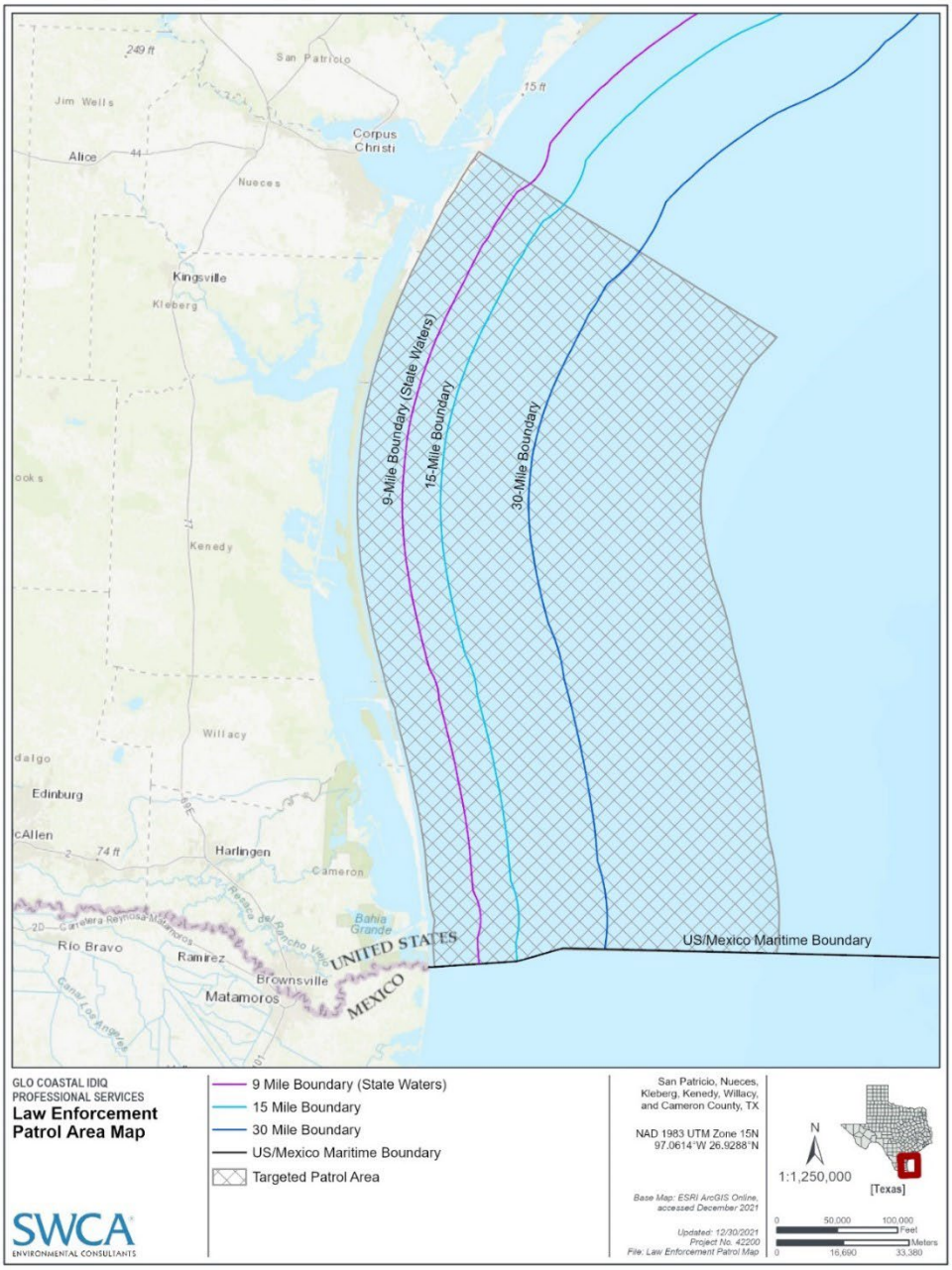
This proposed project would include the purchase of a long-range boat vessel and conducting enhanced enforcement and/or patrols by the Texas Parks and Wildlife Department (TPWD) targeted at apprehending illegal vessels (primarily illegal vessels from Mexico known as lanchas) and remove illegal fishing gear from the water (e.g., gill nets, longline gear). In addition, the project may result in the procurement of dock space for vessel(s) used for this project and the installation of a floating dock for those vessel(s). The floating dock(s) could be anchored in place either in water on the sea floor or on land, via small poles hammered into the ground with sledgehammers. No large pilings would be added, as the existing ones may also be used to anchor the floating dock. The lancha fleet uses illegal longline gear and gill nets to target red snapper (*Lutjanus campechanus*) and sharks, incidentally catching (as bycatch) and killing sea turtles. The illegal gear is most frequently set 15 to 30 miles offshore. Typical violations associated with the apprehension of illegal fishing vessels during patrols include commercial fishing without a license, operation of an unregistered vessel, and possession/use of illegal fishing gear. The primary objective is to reduce sea turtle injuries and mortality caused by use of illegal commercial fishing gear in U.S. waters. It is expected that this project would deter future illegal fishing operations, thus reducing sea turtle injuries and mortalities.

Implementation of these activities may result in releasing live marine resources, counting dead marine resources, and/or transporting carcasses for necropsy or disposal. In the case of sea turtle discovery, specimens (alive or dead) would be turned over to the Texas Sea Turtle Salvage and Stranding Network (STSSN) for evaluation and necropsy or a sea turtle rehabilitation facility. Stranding reports would be completed for sea turtles that are encountered during patrols.

Consistency Analysis

The proposed action is within System Units T10, T11, T12 and OPA Units T10P, T12P, TX-15P, TX16-P. Therefore, this project is subject to a Consistency Analysis under CBRA. Within the System units, the proposed action involves no construction and consists primarily of management, protection, and enhancement of fish and wildlife resources and habitats. Consequently, this activity is consistent with CBRA per exemption 16 U.S.C. 3505(a)(6)(A) for "Projects for the study, management, protection, and enhancement of fish and wildlife resources and habitats, including acquisition of fish and wildlife habitats, and related lands, stabilization projects for fish and wildlife habitats, and recreational projects." The purposes of CBRA are "to minimize the loss of human life, wasteful expenditure of Federal revenues, and the damages to fish, wildlife, and other natural resources associated with the coastal barriers along the Atlantic and Gulf Coasts…" 16 U.S.C. §3501(b). This project is designed to enhance natural resources injured by the Deepwater Horizon oil spill. Accordingly, this project is consistent with the purposes of the CBRA and falls within the CBRA exemption discussed above.

Figure 7: Map showing the Lancha Sea Turtle Mitigation Plan project area.



8. Landscape Scale Oyster Restoration in Galveston Bay, TX

The project would involve construction of a network of intertidal and subtidal reef complexes totaling approximately 50 acres within unidentified locations within Trinity Bay and Upper Galveston Bay. The specific sites for oyster reef restoration would be determined as part of the site suitability analysis. Site selection would be based on several biotic and abiotic factors and involve the use of models and tools to evaluate the suitability of each site for oyster reef construction. Texas Parks and Wildlife Department's site degradation index, which uses information on oyster populations and live oyster abundance on each reef, would be used to prioritize oyster reef restoration based on a reef's level of degradation and therefore need for restoration.

The network of reef complexes would include subtidal, high vertical relief reefs, and lower elevation reefs in both intertidal and subtidal zones. High vertical relief reefs would serve as sanctuary reefs for oyster recruitment and broodstock sources. The low-elevation reefs in the subtidal area would be designed to increase substrate availability while supporting sustainable oyster harvests outside the project area. These reefs would be positioned so that the predominant currents would transport larvae between reef complexes.

The subtidal reef complexes would consist of high vertical relief reefs and lower elevation reefs. The intertidal reef complexes would only include lower elevation reefs. The number and dimensions of the reef mounds/ridges have not yet been determined but would be dependent on the selected sites' geophysical characteristics and hydrological characteristics. Reef design would include intermittent breaks between reef segments to avoid impeding movement between marine habitat and shoreline/freshwater spawning and rearing habitats and prevent entrapment.

The size and type of cultch material would vary among reefs constructed in the subtidal zone and the intertidal zone. The reefs constructed in the subtidal zone would use cultch material that is larger than 4-inch median-sized. The cultch material in the intertidal zones would use smaller diameter cultch, and reefs would be constructed with enough vertical relief to increase resiliency and longevity by protecting them from sedimentation and erosion from storm surges. All cultch would be clean and free of hazardous materials and debris and could consist of river rock; limestone; shell; clean, crushed concrete; or any other material approved by TPWD. If fresh shell is used, the shell would be properly aged or quarantined before being deployed. If natural recruitment does not meet the success criteria during monitoring, seeding may be used as a corrective action or adaptive management measure. Alternative seeding options include shell recycling programs or purchasing seed. If seeding were to occur, all required introduction permits would be obtained, and seed source would conform to TPWD's biosecurity protocols for oyster genetics and diseases.

Construction activities would include the transportation of the cultch material via barges to the site locations. Mounds would then be placed using an excavator from a deck barge to place the cultch material on the selected locations. Construction is not anticipated to involve dredging activities for site access. Following placement, any debris placed beyond the boundary of the reef would be removed by hand or excavator. Construction activities would be confined to daylight hours. The U.S. Coast Guard would be consulted to determine requirements of signage and navigational aids. In the event that construction activities would occur adjacent to bird nesting

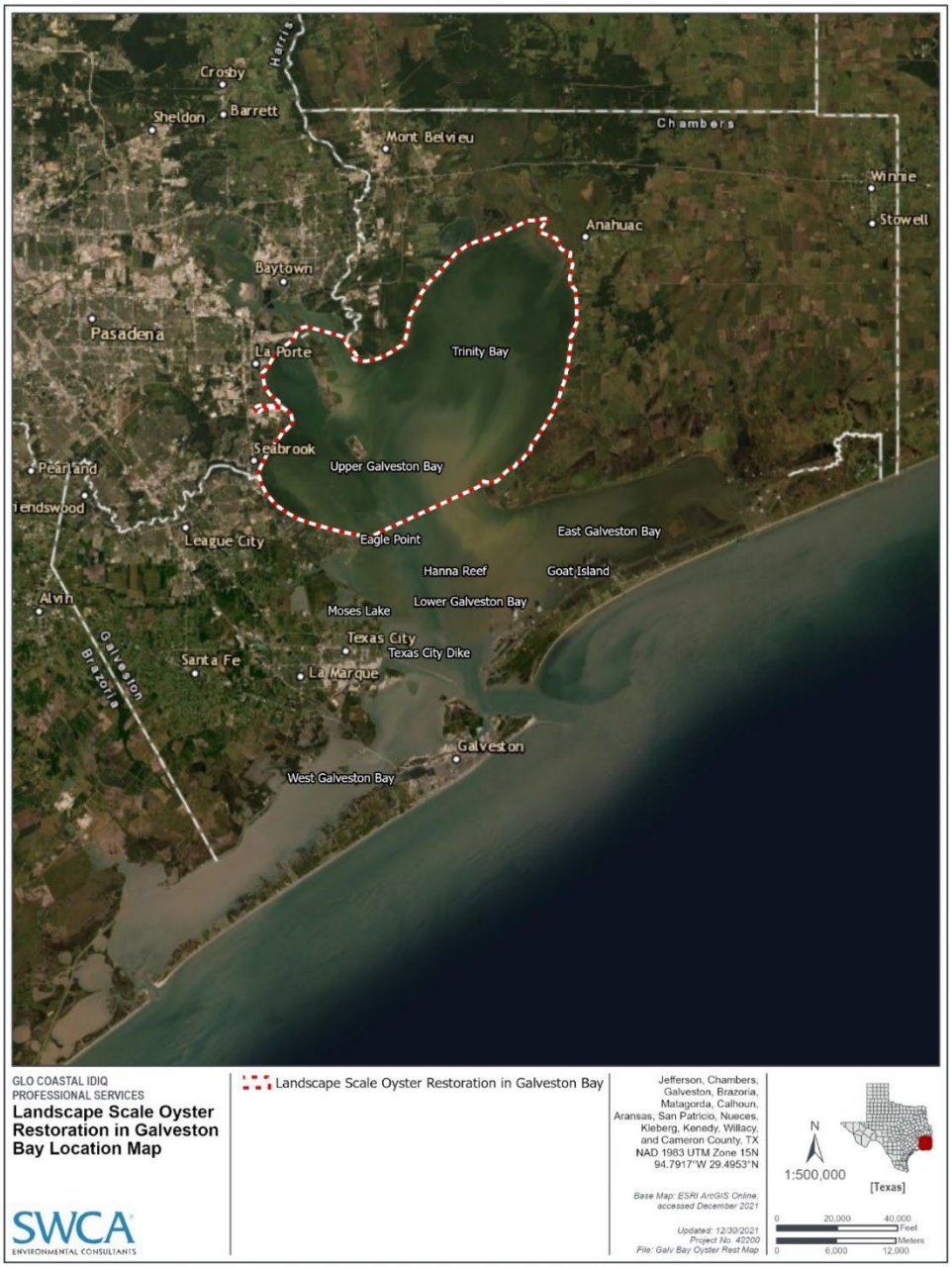
locations, construction activities would be scheduled to avoid bird nesting season.

TPWD would conduct post-restoration monitoring to evaluate the success of the project that would include bathymetric side scan sonar surveys and biannual sampling of oyster reef densities at each site. Monitoring would be conducted for 5 years post-restoration.

Consistency Analysis

The proposed action is not within any System Units. Therefore, this project is not subject to a Consistency Analysis under CBRA.

Figure 8: Map showing Landscape Scale Oyster Restoration in Galveston Bay, TX project area.



9. Petronila Creek Constructed Wetlands Planning

The proposed project would include a feasibility study and, if determined to be feasible, development of 30% engineering and design (E&D) components and completion of the planning stages necessary to convert a 240-acre agricultural tract to constructed wetlands through which Petronila Creek would be diverted. The site is ideally suited to intercept and treat nutrient-rich agricultural runoff, thereby reducing water quality impacts to Baffin Bay. Water would be drawn from Petronila Creek and passed through the wetlands for water quality improvements before being returned to the creek. The goal of the alternative would be to treat up to 15,000 acre-feet of water per year.

Before conducting E&D, an engineering firm would evaluate project feasibility for nutrient reduction potential and efficacy and verify the estimated costs of the proposal, including: modeling to assess the efficacy of nutrient reduction and other water quality improvements from implementation of the project; determine the feasibility of obtaining permits, including the need and potential for obtaining a water use permit; evaluation of the cost of the estimates in the proposal; appropriate environmental compliance reviews; a long-term management plan, including a conservation easement and long-term stewardship strategy to ensure perpetual maintenance; a conceptual postconstruction monitoring and adaptive management plan to quantify impacts to nutrient and sediment loads and water quality health of Petronila Creek

The proposed project would include design of a series of wetlands and wet ponds as a comprehensive ecosystem design. Design would take into consideration forebays and sediment traps, as well as deeper pools for sediment accumulation, to reduce maintenance and volume loss over time. A secondary benefit of the proposed project includes preservation of existing riparian habitats. Due to variable salinity levels in Petronila Creek, a range of natural wetland areas could be incorporated into the design, including tidal salt marsh, brackish and intermediate marsh, and non-tidal freshwater marsh. The design could also address whether soils from the constructed channels, wetlands, and pond excavations may remain on-site and be used to create higher ground to further modify the site and retain water. The design would incorporate biomimicry; human-made replications of natural processes; and natural processes involving wetland vegetation, soils, and their associated microbial assemblages to decrease nitrogen, phosphorus, and sediment pollutant loads to Petronila Creek and the Baffin Bay watershed. Results of this proposed project would be used to determine feasibility of potential future construction actions.

Consistency Analysis

The proposed action is not within any System Units. Therefore, this project is not subject to a Consistency Analysis under CBRA.

Figure 9: Map showing the Petronila Creek Constructed Wetlands Planning project area.

10. Petronila Creek Watershed Nutrient Reduction Initiative

The proposed project would focus on cropland within the highest priority of the Petronila Creek watershed hydrologic unit codes (HUCs) (Tier 1 watershed): City of Concordia-Petronila Creek, Gertrude Lubby Lake-Petronila Creek, and Chapman Ranch Lake-Petronila Creek. The project proposes to implement conservation practices on agricultural lands within 12-digit HUC watersheds to improve water quality conditions at the watershed level. Outreach and financial and technical assistance would be provided to voluntary participants to develop and implement conservation practices on agricultural land that is vulnerable to nutrient and sediment runoff.

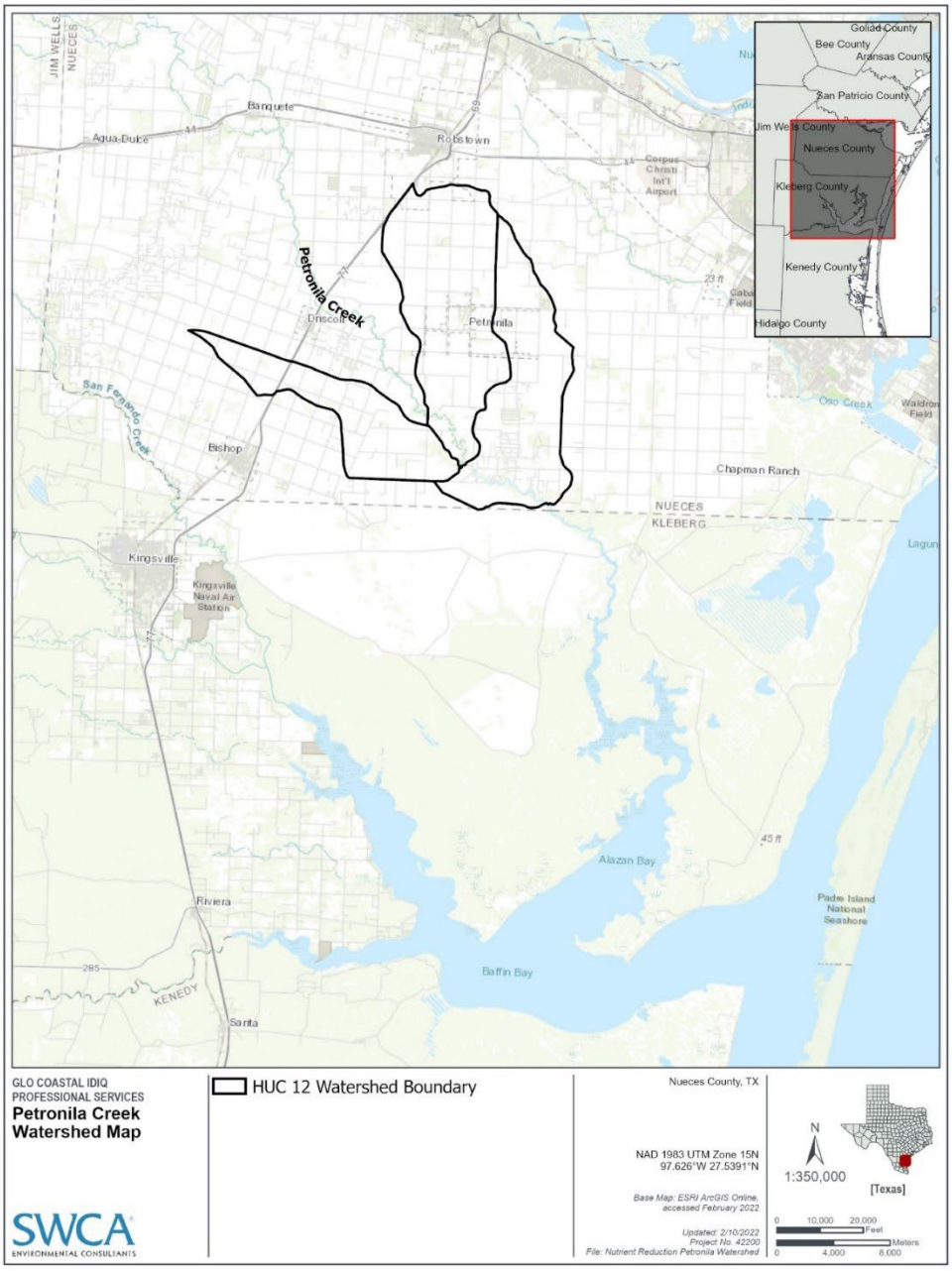
Conservation practices would be designed to reduce erosion, slow runoff velocities, and increase hydraulic residence time within the field or tract and/or edge of the field, all which are imperative to the physical, chemical, and biological processes that decrease nutrient and sediment loadings. These conservation practices would be targeted into small watershed areas to produce measurable decreases in nutrients and sediments from the field itself as well as within the downstream receiving waterbody.

This project would consist of 1) landowner outreach and education, 2) conservation planning, 3) engineering and design (E&D) and environmental compliance, and 4) conservation practice implementation. Participating landowners would be responsible for maintenance and operation of structural measures and application of non-structural measures.

Consistency Analysis

The proposed action is not within any System Units. Therefore, this project is not subject to a Consistency Analysis under CBRA.

Figure 10: Map showing the Petronila Creek Watershed Nutrient Reduction Initiative project area.



11. San Antonio Bay Bird Island

The island was designed to capture a full range of desired bird nesting and foraging habitats, and mimic habitats previously observed on Seadrift Rookery Island. The proposed island would measure approximately 920-feet long by 450-feet wide with a total footprint of approximately 8.0 acres, including 4.0 acres of habitat above the shoreline and 1.0 acre of submerged reef habitat. The island would be oriented northwest-southeast based on predominant wind direction from the southeast. The island will slope from +3.5 feet to +4.5 feet at the southeast end to +1.0 feet to +2.5 feet NAVD at the northwest end, where the island transitions to a shoreline and shallow lagoon for shorebird habitat.

The island would be constructed using a containment berm and rock revetment. In-situ sediment from the center of the proposed rookery island footprint would be excavated and sidecast around the proposed perimeter to create a containment berm with a crest elevation of approximately +6.5 feet NAVD (temporarily) and a crest-width of approximately 5 feet. The containment berm would contain loose sediments and reduce potential impacts to surrounding natural resources.

Once the containment berm is constructed, the outside of the berms would be armored with revetment type shoreline protection. This shoreline protection feature would contain fill material protected with armoring of stone, concrete or an acceptable substitute. The revetment would be constructed with a 2:1 slope, and the crest of the final containment berms would be reduced so that the top of the rock is at +6.0 feet NAVD. A five foot wide toe would be constructed at the base of the revetment. The toe would be constructed to an elevation of approximately +2.5 feet above the bay bottom. An approximately 120-foot wide shallow water beach opening would be included at the northwestern side of the island. A reef would be constructed on the northwestern side of the island at the beach opening. The reef would be constructed with graded riprap to an elevation of approximately -1.0 foot NAVD. The reef would reduce wave energy into the beach, provide oyster reef habitat, and provide foraging habitat for several bird species.

Fill material for placement inside the berm will be provided from an outside source. Sediments would be analyzed prior to construction and no contaminated sediments would be use. Rock material would be stone, concrete or an acceptable substitute from an outside source. Equipment, fill, and rock would be transported to the site via existing channels on barges. No new channels or dredging to access the site would be required.

Consistency Analysis

The proposed action is not within any System Units. Therefore, this project is not subject to a Consistency Analysis under CBRA.

Figure 11: San Antonio Bay Bird Island project area.

12. Texas Breeding Shorebird and Seabird Stewardship

The proposed project would implement a stewardship program that would protect breeding bird habitat and reduce human disturbance to nesting shorebirds and other bird species. The program would build upon successful previous work that began in 2012. Stewardship activities would reduce the effects of disturbance and predation on nest success and chick survival through the use of intervention techniques (e.g., symbolic fencing, nest patrols, etc.), which would facilitate improved nest production (i.e., more fledglings). These methods support additional recruitment into the population that would not take place otherwise. These intervention methods work by enhancing the production of individual birds at a particular site on an annual basis. Conditions at each site may change annually due to natural processes and for other purposes by site managers. At the onset of the breeding season, birds may choose different areas to use for nesting based on these changes. Therefore, intervention methods must be seasonal, and the expected benefits accrued on an annual basis. Each year, it is anticipated that once a project team has been established, activities in preparation for the upcoming breeding season would begin in January. Depending on the species targeted and their nesting locations field activities may begin as early as February and continue through the end of breeding each year. The program would continue for at least five consecutive breeding seasons.

The proposed project would include: 1) project team development, 2) site selection and management, and 3) implementation of stewardship activities, as follows:

Activity 1: Project team development. A project team would be developed for the alternative and would include organizations that specialize and focus on bird conservation nationally, state-wide, and regionally and have established relationships with site managers along the coast. The project team would meet annually prior to nesting season to review the previous season's data and adaptively manage and strategize activities for each site for the current season to best reach alternative goals and objectives.

Activity 2: Site selection and set project schedule, goals, and methods. Sites and methods would be selected based on a variety of factors including focusing the effort on the most important sites where intervention would yield the greatest benefits to nesting birds. Site managers are voluntary participants interested in balancing natural resource needs with recreational needs. Site managers for the project would include city, county, state, and non-governmental organizations who are responsible for coastal sites that are used for natural resource conservation and public recreation. Relationships with most existing site managers have been established during previous stewardship efforts. However, new site managers could be added based on available resource allocations and site needs. The project team members would work closely with each site manager to develop approaches to accommodate the needs of breeding birds, public recreation, and site management operations. At the onset of each year's breeding season, site managers would be made aware of the schedule and target goals identified in project team yearly meetings, and field staff would begin to identify nesting territories targeted for protection.

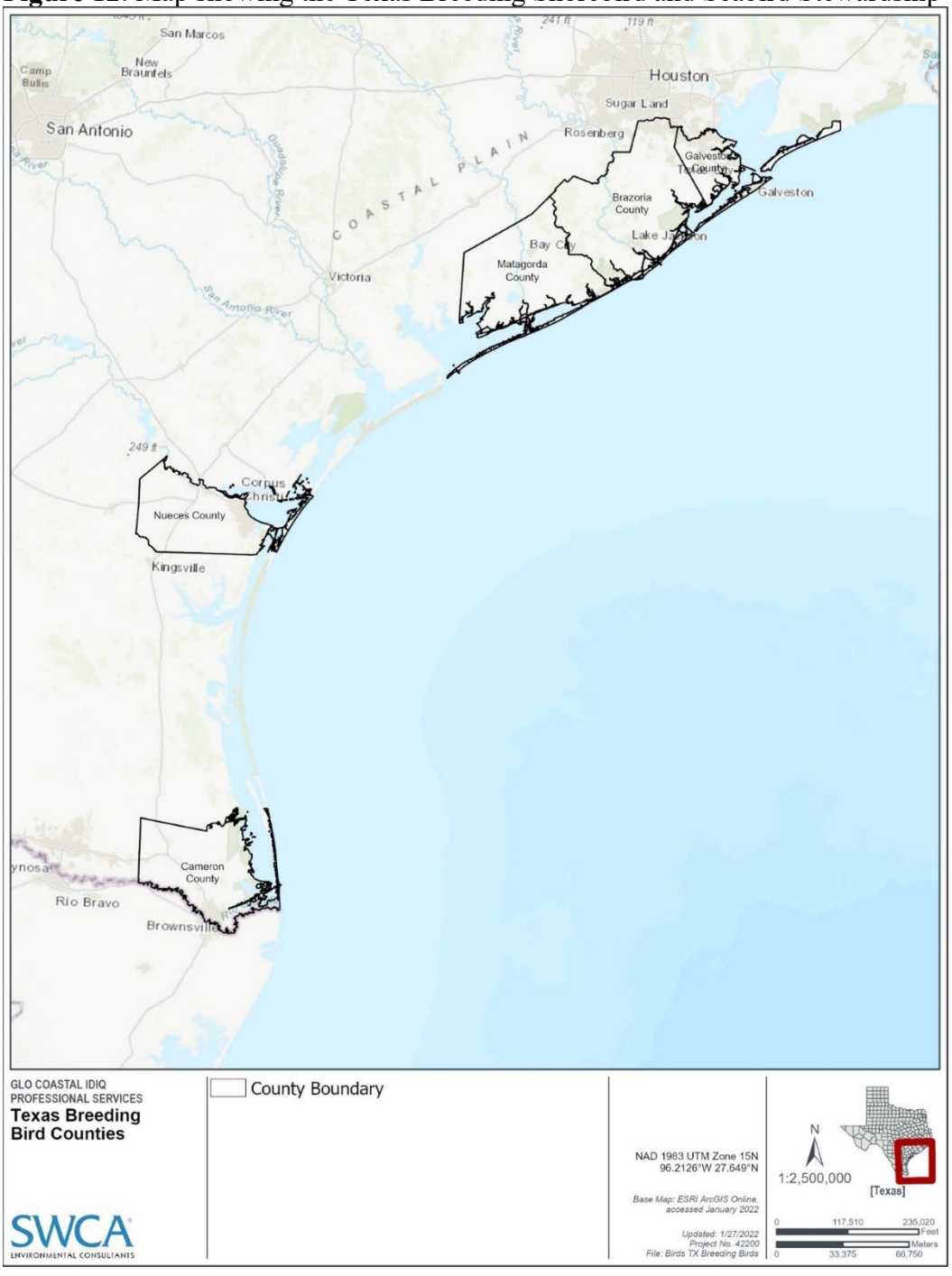
Activity 3: Implementation. Program implementation would include a combination of methods that include targeted outreach and education to site owners and managers, the general public on beaches, symbolic fencing and signage to protect high-use bird nesting areas, steward patrols, and collection of breeding bird and nesting success data at each designated site. Additional

intervention methods may include predator proof fencing, live trapping, or other techniques specific to the predator threat. Each designated site would also be monitored to document activities that may affect reproductive success and help guide adaptive management. Site fidelity is a biological behavior that site managers can use for planning future activities at their sites. Given the importance of such information, at the appropriate time, young and adult birds could be banded by a qualified bander holding US Geological Survey banding permits, US Fish and Wildlife Service migratory bird permits, and Texas Parks and Wildlife Department scientific permits to document migration and nesting site fidelity. Impacts to nesting habitat from vehicles, site management activities, and pedestrian traffic would be managed by site managers to ensure human activities (such as wildlife viewing or other recreation opportunities) can continue while allowing nesting success of breeding birds. Additional activities could include holding events to engage visitors about nesting birds and increase awareness, which may be stand-alone events or associated with larger events hosted by the site manager.

Consistency Analysis

The proposed action is within System Units T01, T02A, T03A, TX-04, T04, T05, T06, T07, T11, T12, TX-17 and OPA Units T01P, TX-02P, T03AP, T04P, TX-04P, T05P, TX-05P, T07P, T11P, T12P, TX-15P, TX-16P, TX-17P, TX-22P. Therefore, this project is subject to a Consistency Analysis under CBRA. Within the System units, the proposed action involves no construction and consists primarily of management, protection, and enhancement of fish and wildlife resources and habitats. Consequently, this activity is consistent with CBRA per exemption 16 U.S.C. 3505(a)(6)(A) for "Projects for the study, management, protection, and enhancement of fish and wildlife resources and habitats, including acquisition of fish and wildlife habitats, and related lands, stabilization projects for fish and wildlife habitats, and recreational projects." The purposes of CBRA are "to minimize the loss of human life, wasteful expenditure of Federal revenues, and the damages to fish, wildlife, and other natural resources associated with the coastal barriers along the Atlantic and Gulf Coasts…" 16 U.S.C. §3501(b). This project is designed to enhance natural resources injured by the Deepwater Horizon oil spill. Accordingly, this project is consistent with the purposes of the CBRA and falls within the CBRA exemption discussed above.

Figure 12: Map showing the Texas Breeding Shorebird and Seabird Stewardship project area.



13. Upper Texas Coast Sea Turtle Rehabilitation Facility

The proposed project would consist of 1) planning, 2) construction, and 3) monitoring. Following the initial planning step, which consists of securing project funding and engineering and design, construction activities would include clearing and grading a two acre upland area located within the existing dredge placement area and construction of the facility, parking area, and driveways (i.e., the construction footprint). Areas outside the immediate construction footprint may be used to stage equipment and materials (e.g., fill); however, this would be temporary. The addition of impervious surfaces within the construction footprint would result in the permanent modification of approximately two acres of the site, although pervious materials could also be incorporated if feasible. Access to the facility would be provided by existing access roads; no additional access roads would be constructed. Any areas disturbed by construction activities that are not within the construction footprint would be revegetated with native species following construction. A stormwater pollution prevention plan would be prepared according to Texas Commission on Environmental Quality standards.

Consistency Analysis

The proposed action is not within any System Units. Therefore, this project is not subject to a Consistency Analysis under CBRA.

Figure 13: Map showing the Upper Texas Coast Sea Turtle Rehabilitation Facility project area.