A-3: Coastal Zone Management Act Compliance

Texas Coastal Management Plan
Consistency Determination

TEXAS GENERAL LAND OFFICE
GEORGE P. BUSH, COMMISSIONER

September 19, 2018

Department of the Army
Galveston District, Corps of Engineers
PO Box 1229
Galveston, Texas 77553
ATTN: Melinda Fisher

Re: Jefferson County Ecosystem Restoration Feasibility Study
Texas CMP#: 18-1254-F2

Dear Applicant:

Based on information provided to the Texas Coastal Management Program (TCMP) on the above project, it has been determined that it will likely not have adverse impacts on coastal natural resource areas (CNRAs) in the coastal zone and is consistent with the goals and policies of the TCMP. However, siting and construction should avoid and minimize impacts to CNRAs. If a U. S. Army Corps of Engineers permit is required, it will be subject to consistency review under the Texas Coastal Management Program.

Please forward this letter to applicable parties. If you have any questions or concerns, please contact me at (409) 741-4057 or at federal.consistency@glo.texas.gov.

Sincerely,

Allison Buchtien

Allison Buchtien
Coastal Resources
Texas General Land Office

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

June 5, 2018

Texas General Land Office
Coastal Protection Division
1700 North Congress Avenue, Room 330
Austin, Texas 78701-1495

Dear Sir or Madame:

The U.S. Army Corps of Engineers (USACE) Galveston District, in partnership with Jefferson County and the Sabine Neches Navigation District, is conducting the Jefferson County Ecosystem Restoration (JCER) Feasibility Study. As part of the study process, a Tentatively Selected Plan (TSP) has been selected and the Jefferson County Ecosystem Restoration Draft Integrated Feasibility Study and Environmental Assessment (DR-EA) Report is being prepared for public release.

Pursuant to the Coastal Zone Management Act of 1972 (Public Law 92-583, 15 CFR §930.34(a)), the USACE has prepared a consistency determination report for the proposed alternative, which includes restoration of approximately 8,421 acres of marsh habitat and 1.25 miles of Gulf Intracoastal Waterway shoreline armoring around Keith Lake in Jefferson County (Enclosure). The report documents no adverse impacts to the Coastal Natural Resource Areas, of which only seven occur in the project area. Additionally, the project's consistency with the five applicable policies has been demonstrated.

The USACE has concluded that the project complies with the Texas Coastal Management Program and will be conducted in a manner consistent with all rules and regulations of the program. Please accept this letter and enclosed report as a formal request to initiate the consistency review process.

If you have any question or need additional information to conduct your review, please contact Ms. Melinda Fisher, Biologist, Environmental Compliance Branch, Regional Planning and Environmental Center at 918-669-7423 or Melinda.Fisher@usace.army.mil.

Sincerely,

Douglas C. Sims, PMP, RPA
Chief, Environmental Compliance Branch
Regional Planning and Environmental Center

Enclosure

Jefferson County Ecosystem Restoration Feasibility Study

Texas Coastal Management Plan Consistency Determination

June 2018

Prepared by:

United States Army Corps of Engineers
Regional Planning and Environmental Center

US Army Corps of Engineers ®
Galveston District

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INTRODUCTION

The U.S. Army Corps of Engineers, Galveston District (USACE), in partnership with Jefferson County and Sabine Neches Navigation District, is reviewing restoration opportunities in the study area, which incorporates all of Jefferson County and focuses in on coastal marsh habitats along the Gulf of Mexico. The study will help contribute to larger ongoing efforts to improve, preserve, and sustain ecological resources along the Texas coast by stakeholder groups, non-governmental organizations, and government agencies at the local, state, and federal level.

Alternative 4Abu was chosen as the tentatively selected plan (the plan) based on preliminary analyses because it meets the study objectives, reasonably maximizes benefits for the associated costs, and includes key restoration features to restore and sustain the form and function of the coastal system in a portion of the study area. This plan incorporates marsh and Gulf Intracoastal Waterway (GIWW) shoreline restoration features which are critical to the stabilization and sustainment of the critical marsh resources now and into the future. Marsh measures consist of marsh restoration and/or nourishment to increase land coverage in the area and improve terrestrial wildlife habitat, hydrology, water quality, and fish nurseries. Shoreline measures include construction of rock breakwater features that would mitigate some effects of ship wake induced erosion along the GIWW. The structures dissipate wave energies, stabilize shorelines, reduce land loss, reduce saltwater intrusion, and support reestablishment of emergent marsh along the GIWW shoreline through retention of sediments.

Measures for this alternative would be constructed on lands owned by Texas Parks and Wildlife Department (TPWD) JD Murphree Wildlife Management Area (WMA), US Fish and Wildlife Service McFaddin National Wildlife Refuge (NWR), and private lands (Table 1).

Table 1. Scale and scope of 4Abu measures in Comparison to Land Ownership

Ownership	Marsh Measures (acres)	Shoreline Measures (linear feet)
JD Murphree WMA	5,365	6,592
McFaddin NWR	683	0
Private	2,373	0

Alternative 4Abu measures and the accompanying Monitoring and Adaptive Management Plan have been developed to a feasibility level of design (i.e. estimates, design level that is not detailed enough for construction) based on currently available data and information developed during plan formulation. There is significant institutional knowledge regarding the construction of the restoration measures; therefore, there is minimal uncertainty from a construction standpoint. Uncertainties relating to measure design and performance are mainly centered on site specific, design-level details (e.g. exact sediment quantities, invasive species removal needs, extent of erosion control needs, construction staging area locations, pipeline pathways, timing and duration of construction, engineering challenges, etc.), which would be addressed during the pre-engineering and design phase (PED).

A Monitoring and Adaptive Management Plan has also been developed for 4Abu which provides a coherent process for making decisions in the face of uncertainty and increases the likelihood of achieving desired project outcomes based on the identified monitoring program. The Monitoring and Adaptive Management Plan addresses uncertainties associated with ecosystem function and how the ecosystem components of interest will respond to the restoration efforts in light of changing conditions (e.g. sea-level change is different than anticipated) or new information (e.g. surveys indicate the design needs modification in order to function properly).

Marsh Measures

Marsh restoration measures involve placement of borrow material dredged from the Sabine-Neches Waterway (SNWW) into these locations. Material placed into the marsh would have similar properties to the existing native material. Under the existing and projected future dredging cycles, there is sufficient quantities of suitable material available to meet all restoration needs without seeking other borrow sources (e.g. off-shore, upland placement areas).

4Abu would restore and nourish approximately 8,421 acres of technically significant marsh habitat surrounding Keith Lake in Jefferson County, Texas. Within each of the five marsh restoration units, material dredged from the SNWW would be hydraulically pumped into open water and low lying areas assuming that 65% of the restoration unit will have a post-construction settlement target elevation of +1.2 feet mean sea level (MSL). As necessary, earthen containment dikes would be employed to efficiently achieve the desired initial construction elevation. Dikes would be breached following construction to allow dewatering and settlement to the final target marsh elevation.

All marsh restoration locations would have one future renourishment cycle. For purposes of the study, renourishment is assumed to occur at year 30 based on the intermediate SLC curve; however, actual timing will be part of the adaptive management strategy and dependent on observed local sea level change conditions. Subsequent marsh renourishment would employ similar techniques and specifications as developed for the initial construction except that the target elevation would be +2.2 feet MSL (based on current water levels). Similar to the timing of renourishment, the elevation may be modified depending on observed local sea level change conditions. It is estimated that 6.7 million cubic yards (MCY) of dredged material would be required to initially restore the 8,421 acres of marsh and an additional 3.7 MCY would be required for renourishment.

Following marsh restoration actions, non-native/undesirable species monitoring would be implemented. If species are found, measures would be taken to stop or slow the expansion of the species within the restoration units.

Shoreline Measures

GIWW armoring would involve constructing 6,592 linear feet of breakwater structures. The structures would be built in shallow water (<3 feet deep) along the southern edge of the GIWW, at varying distances from the shoreline and where soils are conducive to supporting the weight of the stone without significant subsidence. The distance from the shoreline would be determined during PED, after site specific surveys have been completed, but sufficiently offset from the boundaries of the GIWW navigation channel to ensure continued safe navigation.

The design would be a trapezoidal structure built of rock up to a height of +3.0 MSL, which will yield approximately 1-1.5 feet of rock exposed above the mean high tide level. Other approximate features of the design include a 5-foot wide crown, a 1.5:1 slope, and a base that is roughly 29 feet wide. The base of the structure would be on filter cloth ballasted to the water bottom to secure placement and prevent displacement of the outboard edges. The number of openings and width of each would be determined during PED and dependent on the location of major channel entrances or access points required for fishery access or circulation. Initially, constructing the 6,592 linear feet of breakwaters would require 672,384 cubic feet of material which equates to about 39,800 tons of rock. It is anticipated that the breakwaters would need to be raised at least two times throughout the 50-year period of analysis to keep up with relative sea level change and remain effective. For purposes of the study materials would need to be added in year 15 (6,000 tons of rock) and year 25 (4,000 tons of rock), but timing and quantities could vary depending on observed local conditions and identified need to continue functioning as designed.

Equipment Needs and Access Routes

Sediment transport equipment would most likely include hopper or cutterhead dredges, pipelines (submerged, floating, and land) and booster pumps. Heavy machinery would be used to move sediment and facilitate construction. Heavy equipment could include bulldozers, front-end loaders, track-hoes, marshbuggy, track-hoes, and backhoes. For GIWW armoring construction, rock would be purchased from a commercial quarry and transported to the site by barge, where it would then be placed by crane or hopper barge. Various support equipment would also be used, such as crew and work boats, trucks, trailers, construction trailers, all-terrain vehicles, and floating docks and temporary access channels to facilitate loading and unloading of personnel and equipment.

Identification of staging areas, temporary access channels, and placement of floatation docks would occur during PED. Each disturbance for access and staging would be placed outside of environmentally sensitive areas to the greatest extent practicable. All ground disturbance for access and staging areas would be temporary and fully restored to result in no permanent loss.

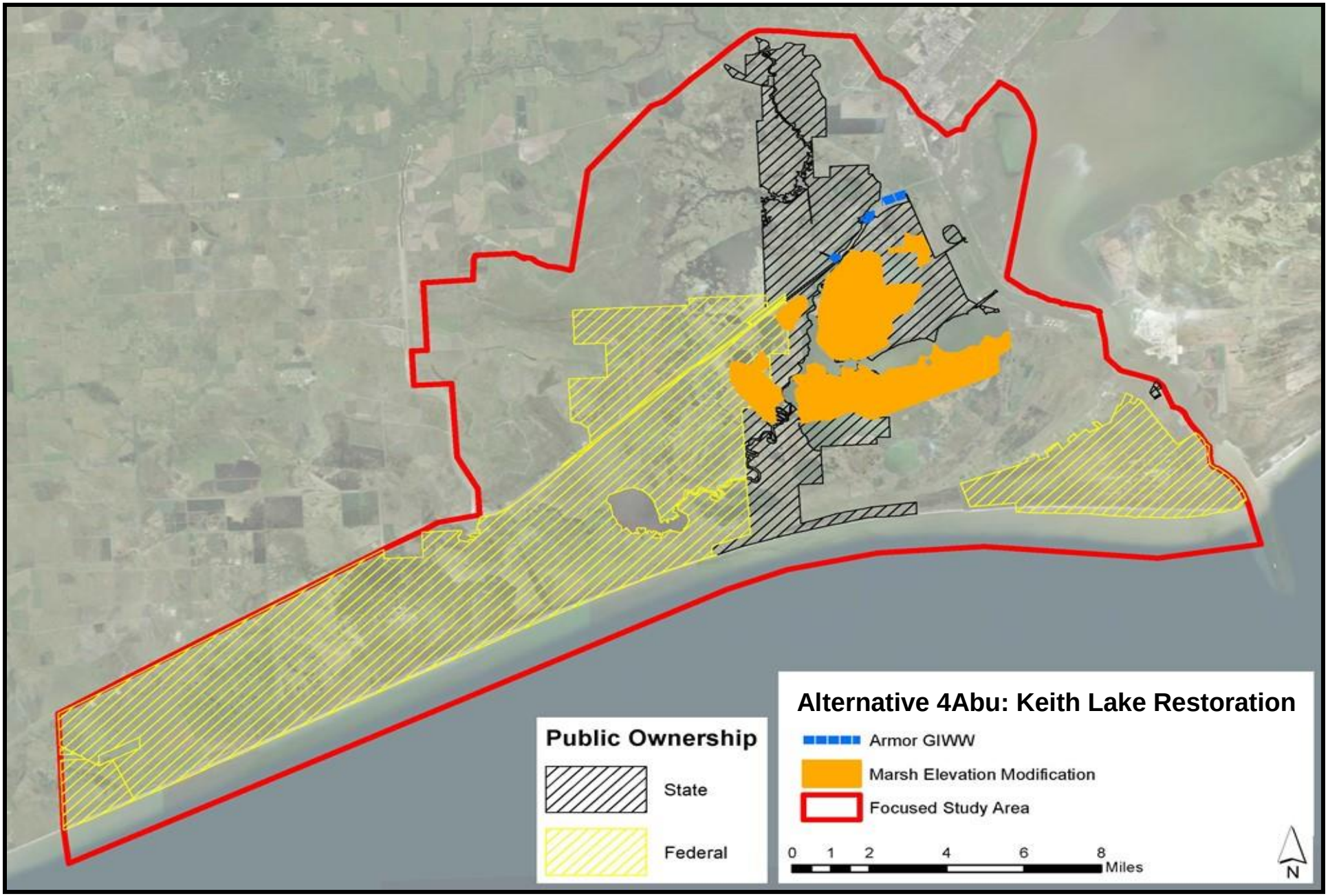
Timing

Timing of initial construction of this project is dependent on a number of factors including: timing of authorization, duration of pre-engineering and design phase, identification of a cost-share sponsor, and Federal- and non-federal funding cycles. It was assumed that construction would take 60 months to complete all restoration actions, in which it was assumed that only one restoration unit would be undertaken at a time. For the GIWW armoring, it was assumed that dune construction and beach nourishment would occur simultaneously.

Implementation of the marsh restoration measures is highly dependent on dredging cycles. Currently, seasonal timing restrictions related to Endangered Species Act compliance includes a seasonal dredging window for hopper dredge use between December 1 and March 31, unless work outside this window cannot be completed, in which NMFS would need to approve the deviation. Hopper dredges would be used for dredging offshore areas of the entrance channel to just inside the jetties. Non-hopper dredges (e.g. cutterhead pipeline dredges) may be used from April to November. This type of dredge would be used anywhere else within the SNWW.

Additional plan details are provided in the Jefferson County Ecosystem Restoration Draft Integrated Feasibility Report and Environmental Assessment (DIFR-EA) and the Engineering Appendix of the DIFR-EA (Appendix D).

Figure 1. Tentatively Selected Plan—4Abu



CONSISTENCY WITH THE TEXAS COASTAL MANAGEMENT PROGRAM

Transportation to and placement of the dredged material in the restoration units and all associated restoration activities will be analyzed in this document for consistency with the policies of the Texas Coastal Management Program (TCMP). Dredging is not assessed in this document as they have been assessed in the SNWW Channel Improvement Plan (CIP) Final Feasibility Report and Final Environmental Impact Statement (USACE 2011). CIP dredging and placement activities have been identified as consistent with the policies of the TCMP. The proposed activities would not include additional dredging needs greater than described in the CIP.

Impacts on Coastal Natural Resource Areas

Potential impacts to Coastal Natural Resource Areas (CNRAs) listed in 31 Texas Administrative Code (TAC) §501.3, and methods to minimize or avoid potential impacts, are discussed below. Nine of the 16 CNRAs would not be temporarily or permanently affected (negatively/adversely or beneficially) by project implementation including: Waters of the Open Gulf of Mexico, Coastal Wetlands, Tidal Sand or Mud Flats, Oyster Reefs, Hard Substrate Surfaces, Gulf Beaches, Critical Dune Areas, Critical Erosion Areas, and Coastal Historic Areas, due to the lack of the resource, as defined in §501.3, in the project area. The following seven CNRAs have the potential to be impacted by implementation of the TSP; however, all impacts would be less than adverse.

Waters under Tidal Influence

Waters under tidal influence are defined as water in the state that is subject to tidal influence according to the Texas Commission on Environmental Quality (TCEQ) stream segment map, which includes coastal wetlands. The entire project area is located in a tidally influenced region. Implementation of the project would result in minimal, temporary localized adverse impacts from dredging and placement activities. Temporary impacts include release of suspended solids and turbidity, both which lead to decreased water quality. In the long-term, restoration activities would be beneficial to waters under tidal influence because proposed activities would restore form and function within the restoration unit, which should allow tidal energies to work as nature designed, including reducing subsidence, increasing sediment inputs into the system and create nursery, foraging, and migrating habitat for a host of freshwater, marine, and terrestrial species, and creating a sustainable and resilient system.

Submerged Lands

Submerged lands are lands located under waters under tidal influence or under waters of the open Gulf of Mexico, without regard to whether the land is owned by the state or a person other than the state. The GLO shapefile for “State Submerged Lands” shows all open water areas of the Sabine-Neches Waterway and Gulf of Mexico as submerged lands.

Placement activities would not occur within submerged lands; however, the dredged material used to restore marshes would come from areas in which dredging activities could impact submerged lands. These impacts were analyzed in the SNWW CIP Final Feasibility Report and Final Environmental Impact Assessment.

Submerged Aquatic Vegetation

Submerged aquatic vegetation (SAV) is defined as rooted aquatic vegetation growing in permanently inundated areas in estuarine and marine systems. Submerged aquatic vegetation exists within the marsh restoration units. No SAV exists within the restoration units, so there would be no impacts from placement of dredged material. The CIP determined that SAV is not likely to be found in the proposed dredging locations due to low salinities and shallow, turbulent water. However, the EIS committed to conducting a water bottom survey of borrow and access channel areas during pre-engineering design phase (PED). Impacts to SAV from dredging activities would be reevaluated if additional information indicates presence of SAV.

Coastal Barriers

Coastal barriers is an undeveloped area on a barrier island, peninsula, or other protected area, as designated by United States Fish and Wildlife Service Maps. There are a total of four units in the focused study area, comprised of 18,798 acres of system unit and 60,390 acres of otherwise protected areas (OPAs) in the focused study area. The project would occur within an OPA, in which there are no restrictions on Federal expenditures. The project would have no adverse effect on the designation.

Coastal Shore Areas

A coastal shore area is defined as areas within 100 feet landward of the high water mark on submerged land. Restoration units closest to the SNWW have coastal shore areas found within them. These areas would not be adversely impacted by project implementation because all restoration efforts seek to improve the form and function of the current coastal system. It is anticipated that the coastal shore areas would improve in form and function after construction is complete.

Special Hazard Areas

Special hazard areas are areas designated by the Administrator of the Federal Insurance Administration under the National Flood Insurance Act as having special flood, mudslide, and/or flood-related erosion hazards and shown on a Flood Hazard Boundary Map or Flood Insurance Rate Map as Zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, V, M, or E. All areas in the focused study area are designated as within the 100-year coastal floodplain and have a V19 or A15 designation on the Federal Emergency Management Agency Flood Maps. Implementation of the project may ease the impacts of flooding under relative sea level change (RSLC), but would not induce development of special hazard areas.

Coastal Preserves

A coastal preserve is defined as any land, including a park or wildlife management area, that is owned by the state and that is subject to Chapter 26, Parks and Wildlife Code, because it is a park, recreation area, scientific area, wildlife refuge, or historic sites; and designated by the TPWD as being coastal in character. Marsh restoration measures would involve placement of dredged material to approximately 5,365 acres of the JD Murphree WMA to restore marsh platforms and decrease the impacts of historic erosion and land loss. Project implementation would result in no net loss of coastal preserve functions and would realize a net increase in quality and quantity of marsh lands within the WMA. Significant coordination with TPWD has been conducted to ensure a quality overall project that aligns with WMA policies, goals, and future desired conditions.

Enforceable Policies

The 20 enforceable policies were reviewed and it was determined that five policies are applicable to this study (Table 2).

Table 2. CMP Enforceable Policies

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

§ 501.23 Policies for Development in Critical Areas

(a) Dredging and Construction of structures in, or the discharge of dredged or fill material into, critical areas shall comply with the policies in this section. In implementing this section, cumulative and secondary adverse effects of these activities will be considered.

(1) The policies in this section shall be applied in a manner consistent with the goal of achieving no net loss of critical area functions and values.

Compliance: There is no net loss of critical area functions and values. The purpose of the plan is to restore critical areas and minimize future loss due to relative sea level change (RSLC) and general critical area degradation from irreversible cultural modifications (e.g. altered hydrologic regimen) to the coastal system.

(2) Persons proposing development in critical areas shall demonstrate that no practicable alternative with fewer adverse effects is available.

Compliance: During plan formulation, all measures that would have greater impacts than others were screened from further inclusion in any of the formulated plans. The recommended TSP takes advantage of sediment from existing dredging cycles from the SNNW which reduces the need for upland placement or offshore disposal of maintenance dredge materials. As well, there is sufficient material, in quantity and quality, from maintenance dredging that there is no demonstrated need to find an offshore borrow source of material. All restoration units were selected based on the critical need for restoration. Units that were identified as not having as great of a need was screened from incorporation into the plans. With incorporation of beneficial use of dredge material (BUDM) and selection of only the most critical units in need of restoration, there is no practicable alternative with fewer adverse effects that also provides the same level of restoration benefits.

(3) In evaluating practicable alternatives, the following sequence shall be applied:

(A) Adverse effects on critical areas shall be avoided to the greatest extent practicable.

(B) Unavoidable adverse effects shall be minimized to the greatest extent practicable by limiting the degree or magnitude of the activity and its implementation

(C) Appropriate and practicable compensatory mitigation shall be required to the greatest extent practicable for all adverse effects that cannot be avoided or minimized.

Compliance: There are no anticipated adverse effects to critical areas. Implementation of the TSP would result in temporary impacts to critical areas that would not rise to the level of adverse per §501.3. All long-term impacts are beneficial in nature and would result in overall higher quality critical areas due to the restoration nature of the project.

(4) Compensatory mitigation includes restoring adversely affected critical areas or replacing adversely affected critical areas by creating new critical areas. Compensatory mitigation should be undertaken, when practicable, in areas adjacent or contiguous to the affected critical areas (on-site)…

(5) Mitigation banking is acceptable compensatory mitigation if use of the mitigation bank has been approved by the agency authorizing the development and mitigation credits are available for withdrawal…

(6) In determining compensatory mitigation requirements, the impaired functions and values of the affected critical area shall be replaced on a one-to-one ratio…

Compliance: There is no net loss of critical areas therefore no mitigation is needed. All negative impacts are temporary in nature occurring only during the construction periods. Long-term permanent impacts are beneficial resulting in a net increase in function and value of the critical areas.

(7) Development in critical areas shall not be authorized if significant degradation of critical areas will occur. Significant degradation occurs is:

(A) The activity will jeopardize the continued existence of species listed as endangered or threatened, or will result in likelihood of the destruction or adverse modification of a habitat determined to be a critical habitat under the Endangered Species Act, 16 United States Code Annotated, §§1531-1544;

(B) the activity will cause or contribute, after consideration of dilution and dispersion, to violation of any applicable surface water quality standards established under §501.21 of this title;

(C) the activity violates any applicable toxic effluent standard or prohibition established under §501.21 of this title;

(D) the activity violates any requirement improved to protect a marine sanctuary designated under the Marine Protection, Research, and Sanctuaries Act of 1972, 33 United States Code Annotated, Chapter 27; or

(E) taking into account the nature and degree of all identifiable adverse effects, including their persistence, permanence, areal extent, and the degree to which these effects will have been mitigated pursuant to subsections (c) and (d) of this section, the activity will, individually or collectively, cause or contribute to significant adverse effects on:

(i) human health and welfare, including effects on water supplies, plankton, benthos, fish, shellfish, wildlife, and consumption of fish and wildlife;

(ii) the life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, or spread of pollutants or their byproducts beyond the site, or their introduction into an ecosystem, through biological, physical, or chemical processes;

(iii) ecosystem diversity, productivity, and stability, including loss of fish and wildlife habitat or loss of the capacity of a coastal wetland to assimilate nutrients, purify water, or reduce wave energy; or

(iv) generally accepted recreational, aesthetic or economic values of the critical area which are of exceptional character and importance.

Compliance: The project would not cause significant adverse effects on human health and welfare or any of the natural resources or systems listed above. It would not reduce ecosystem diversity, productivity, or the capacity of the wetland systems to assimilate nutrients, purify water, or reduce wave energy. In fact, the project would improve ecosystem diversity and productivity, while increasing the capacity of the wetland systems to function.

(b) The TCEQ and the RRC shall comply with the policies in this section when issuing certifications and adopting rules under Texas Water Code, Chapter 26, and the Texas Natural Resources Code, Chapter 91, governing certification of compliance with surface water quality standards for federal actions and permits authorizing development affecting critical areas; provided that activities exempted from the requirement for a permit for the discharge of dredge or fill material, described in Code of Federal Regulations, Title 33, §323.4 and/or Code of Federal Regulations, Title 40, §232.3, including…shall not be considered activities for which a certification in required. The GLO and the SLB shall comply with the policies in this section when approving oil, gas, or other mineral lease plans of operation or granting surface leases, easements, and permits and adopting rules under the Texas Natural Resources Code, Chapters 32, 33, and 51-53, and Texas Water Code, Chapter 61, governing development affecting critical areas on state submerged lands and private submerged lands, and when issuing approval and adopting rules under Texas Natural Resources Code, Chapter 221, for mitigation banks operated by subdivisions of the state.

Compliance: A 404(b)(1) analysis has been prepared and will be submitted to TCEQ for approval.

(c) Agencies required to comply with this section will coordinate with one another and with federal agencies when evaluating alternatives, determining appropriate and practicable mitigation, and accessing significant degradation. Those agencies' rules governing authorizations for development in critical areas shall require a demonstration that the requirements of subsection (a)(1)-(7) of this section have been satisfied.

Compliance: Extensive coordination has been conducted with U.S. Fish and Wildlife Service, National Marine Fisheries Service, Texas Parks and Wildlife Department, and GLO. Other agencies, such as the Environmental Protection Agency, Natural Resource Conservation Service, TCEQ, TWDB, and THC, were involved in the beginning phases of project development but have been less involved since this is an ecosystem restoration study.

(d) For any dredging or construction of structures in, or discharge of dredge or fill material into, critical areas that is subject to the requirements of §501.15 of this title (relating to Policy for Major Actions), data and information on the cumulative and secondary adverse affects of the project need not be produced or evaluated to comply with this section if such data and information is produced and evaluated in compliance with §501.15(b)-(c) of this title.

Compliance: The project complies with §501.15(b) – (c).

§501.25 Policies for Dredging and Dredged Material and Placement

(a) Dredging and the disposal and placement of dredge material shall avoid and otherwise minimize adverse effects to coastal waters, submerged land, critical areas, coastal shore areas, and Gulf beaches to the greatest extent practicable. The policies of this section are supplement to any further restrictions or requirements relating to the beach access and use rights of the public. In implementing this section, cumulative and secondary adverse effects of dredging and the disposal and the placement of dredge material and the unique characteristics of affected sites shall be considered.

Compliance: Dredged material would be beneficially used to restore coastal marshes. Placement in each of the restoration units would have some effects on tidally influenced areas, coastal shore areas and coastal preserves. Effects include but are not limited to: burying benthic organisms, temporary increase in turbidity in the area, and temporary restrictions to specific areas. Restoration activities would result in a net increase in CNRAs and overall quality of existing CNRAs (see Wetland Value Assessment [WVA] Appendix A-6 in the Integrated Feasibility Report and Environmental Assessment).

(1) Dredging and dredged material disposal and placement shall not cause or contribute, after consideration of dilution and dispersion, to violation of any applicable surface water quality standards established under §501.21 of this title.

Compliance: Placement of dredge material would not violate any applicable surface water quality standards.

(2) Except as otherwise provided in paragraph (4) of this subsection, adverse effects on critical areas from dredging and dredged material disposal or placement shall be avoided and otherwise minimized, and appropriate and practicable compensatory mitigation shall be required, in accordance with §501.23 of this title.

Compliance: Project implementation would not result in any long-term, permanent, or irreversible adverse effects on CNRAs and would realize a net increase in some critical areas; therefore, no compensatory mitigation is needed. Placement of beneficial use of dredge material into critical areas would restore function to the affected CNRAs and improve the overall system.

(3) Except as provided in paragraph (4) of this subsection, dredging and the disposal and placement of dredged material shall not be authorized if:

(A) there is a practicable alternative that would have fewer adverse effects on coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches, so long as that alternative does not have other significant adverse effects;

(B) all appropriate and practicable steps have not been taken to minimize adverse effects on coastal waters submerged lands, critical areas, coastal shore areas, and Gulf beaches; or

(C) significant degradation of critical areas under §501.23(a)(7)(E) of this title would result.

Compliance: Critical areas would be temporarily affected by the project during construction, but not result in a net loss of any of the critical areas. The project has net environmental benefits that would result from restoration activities. Construction activities have been minimized to the greatest extent practicable, including reducing overall construction footprint to only what is absolutely necessary and seasonal timing restrictions to avoid breeding/spawning and migrating fish and wildlife impacts.

(4) A dredging or dredged material disposal or placement project that would be prohibited solely by application of paragraph (3) of this subsection may be allowed if it is determined to be of overriding importance to the public and national interest in light of economic impacts on navigation and maintenance of commercially navigable waterways.

Compliance: Placement is not precluded by paragraph (3), as noted above.

(b) Adverse effects from dredging and dredged material disposal and placement shall be minimized as required in subsection (a) of this section. Adverse effects can be minimized by employing the techniques in this subsection where appropriate and practicable.

(5) Adverse effects from dredging and dredge material disposal and placement can be minimized by controlling the location and dimensions of the activity. Some of the ways to accomplish this include:

Compliance: Placement of material into the restoration unit does not induce adverse effects. Temporary impacts associated with placement have been minimized to the greatest extent possible. See compliance discussions found in section (a) above.

(A) locating and confining discharges to minimize smothering of organisms;

(B) locating and designing projects to avoid adverse disruption of water inundation patterns, water circulation, erosion and accretion processes, and other hydrodynamic processes;

(C) using existing or natural channels and basins instead of dredging new channels or basins, and discharging materials in areas that have been previously disturbed or used for disposal or placement of dredged material;

(D) limiting the dimensions of channels, basins, and disposal and placement sites to the minimum reasonably required to serve the project purpose, including allowing for reasonable overdredging of channels and basins, and taking into account the need for capacity to accommodate future expansion without causing additional adverse effects;

(E) discharging materials at sites where the substrate is composed of material similar to that being discharged;

(F) locating and designing discharges to minimize the extent of any plume and otherwise dispersion of material; and

(G) avoiding the impoundment or drainage of critical areas.

Compliance: Open water impacts are minimized by placing dredge material in marshes. All dredged material requirements to implement the project can be provided through existing maintenance dredging cycles, so no modifications to the channel are required to ensure sufficient quantity of sediment to implement. The project's restoration features were designed to improve ecological functions of CNRAs, including proper drainage and suitable substrate material for species composition, and increase resiliency and sustainability to future conditions. Discharges would be confined with reinforced levees where applicable.

(6) Dredging and disposal and placement of material to be dredged shall comply with applicable standards for sediment toxicity. Adverse effects from constituents contained in materials discharged can be minimized by treatment of or limitations on the material itself. Some ways to accomplish this include;

(A) disposal or placement of dredged material in a manner that maintains physiochemical conditions at discharge sites and limits or reduces the potency and availability of pollutants;

(B) limiting the solid, liquid, and gaseous components of material discharged;

(C) adding treatment substances to the discharged material; and

(D) adding chemical flocculants to enhance the deposition of suspended particulates in confined disposal areas.

Compliance: Sediments dredged from the SNWW have been tested for a variety of chemical parameters of concern. Samples yielded no cause for concern and sediments are safe for beneficial use.

(7) Adverse effects from dredging and dredged material disposal or placement can be minimized through control of the materials discharged. Some ways of accomplishing this include:

(A) use of containment levees and sediment basins designed, constructed, and maintained to resists breaches, erosion, slumping, or leaching;

(B) use of lined containment areas to reduce leaching where leaching of chemical constituents from the material is expected to be a problem;

(C) capping in-place contaminated material or, selectively discharging the most contaminated material first and then capping it with the remaining material;

(D) properly containing discharged material and maintaining discharge sites to prevent point and nonpoint pollution; and

(E) timing the discharge to minimize adverse effects from unusually high water flows, wind, wave, and tidal actions.

Compliance: Small, temporary containment/exclusion dikes may be created during marsh restoration efforts to limit movement of sediments outside the placement site. After all ground disturbing activities are complete and the site has sufficiently dewatered and settled, the dike would be mechanically breached if sufficient natural degradation has not occurred. Marsh nourishment measures may have some temporary and local impacts by increasing turbidity; however, material to be generated from construction activities has been tested and found not to contain harmful concentrations of pollutants. Discharges would not occur during conditions involving high water flows, waves, or tidal actions.

(8) Adverse effects from dredging and dredged material disposal or placement can be minimized by controlling the manner in which material is dispersed. Some ways of accomplishing this include:

(A) where environmentally desirable, distributing the material in a thin layer;

(B) orienting material to minimize undesirable obstruction of the water current or circulation patterns;

(C) using silt screens or other appropriate methods to confine suspended particulates or turbidity to a small area where settling or removal can occur;

(D) using currents and circulation patterns to mix, disperse, dilute, or otherwise control the discharge;

(E) minimizing turbidity by using a diffuser system or releasing material near the bottom;

(F) selecting sites or managing discharges to confine and minimize the release of suspended particulates and turbidity and maintain light penetration for organisms; and

(G) setting limits on the amount of material to be discharged per unit of time or volume of receiving waters.

Compliance: All of the sites minimize or avoid adverse dispersal effects to the greatest extent practicable during construction. Material to be used for restoration would be hydraulically discharged at specific discharge points in low elevation areas. Material would then be mechanically moved into place with heavy equipment, which should reduce dispersal of material into undesirable areas. Additionally containment/exclusion dikes would be constructed around marsh restoration units to limit movement of sediments outside of the intended placement area. After all ground disturbing activities are complete and the site has sufficiently dewatered and settled, the dike would be mechanically breached if sufficient natural degradation has not occurred. There are no sediments of concern.

(9) Adverse effects from dredging and dredged material disposal or placement operations can be minimized by adapting technology to the needs of each site. Some ways of accomplishing this include:

(A) using appropriate equipment, machinery, and operating techniques for access to sites and transport of material, including those designed to reduce damage to critical areas;

(B) having personnel on site adequately trained in the avoidance and minimization techniques and requirements; and

(C) designing temporary and permanent access roads and channel spanning structures using culverts, open channels, and diversions that will pass both low and high water flows, accommodate fluctuating water levels, and maintain circulation and faunal movement.

Compliance: Dredged material placement into the restoration areas would minimize impacts to the greatest extent practicable including, but not limited to: siting pumps and pipes outside of critical areas where possible; utilizing existing access roads and channels to move material, equipment and personnel; and employing Best Management Practices (BMPs) to avoid adverse impacts. During the pre-engineering design phase (PED), ways to further reduce environmental impacts to all areas and resources will be considered and employed to the greatest extent practicable.

(10) Adverse effects on plant and animal populations from dredging and dredged material disposal or placement can be minimized by:

(A) avoiding changes in water current and circulation patterns that would interfere with the movement of animals;

(B) selecting sites or managing discharges to prevent or avoid creating habitat conducive to the development of undesirable predators or species that have a competitive edge ecologically over indigenous plants or animals;

(C) avoiding sites having unique habitat or other value, including habitat of endangered species;

(D) using planning and construction practices to institute habitat development and restoration to produce a new or modified environmental state of higher ecological value by displacement of some or all of the existing environmental characteristics;

(E) using techniques that have been demonstrated to be effective in the circumstances similar to those under consideration whenever possible and, when proposed development and restoration techniques have not yet advanced to the pilot demonstration stage, initiating their use on a small scale to allow corrective action if unanticipated adverse effects occur;

(F) timing dredging and dredged material disposal or placement activities to avoid spawning or migration seasons and other biologically critical time periods; and

(G) avoiding the destruction of remnant natural sites within areas already affected by development.

Compliance: The project would be designed and implemented in such a way to avoid adverse impacts to plant and animal populations and their habitat to the greatest extent practicable including, but not limited to: seasonal timing restrictions, using existing access roads and channels, employing construction BMPs, siting pumps and pipes in areas that would have the least disturbance on the overall system, and utilizing the smallest construction footprint possible. The project is intended to restore the natural form and function of the coastal system; therefore, all long-term impacts are expected to be beneficial to the overall ecosystem by increasing suitable habitat and increasing resiliency and sustainability.

(11) Adverse effects on human use potential from dredging and dredged material disposal or placement can be minimized by:

(A) selecting sites and following procedures to prevent or minimize any potential damage to the aesthetically pleasing features of the site, particularly with respect to water quality;

(B) selecting sites which are not valuable as natural aquatic areas;

(C) timing dredging and dredged material disposal or placement activities to avoid the seasons or periods when human recreational activity associated with the site is most important; and

(D) selecting sites that will not increase incompatible human activity or require frequent dredge or fill maintenance activity in remote fish and wildlife areas.

Compliance: Placement of dredged material into restoration sites may adversely impact the human environment in and around the placement sites by visually disturbing the scenic view with construction equipment and activity, increasing noise, and reducing the amount of recreational opportunities. All of these impacts would be temporary, only lasting as long as it takes for the material to be appropriately placed and for the restoration area to stabilize. Timing of construction is entirely dependent on dredging cycles; however, during PED it would be advised to avoid the peak recreational seasons (fall/winter) if at all possible. After construction is complete and vegetation has grown within the restoration sites, recreation and scenic value is expected to increase through increased recreational areas and opportunities (i.e. more wetlands=more hunting).

(12) Adverse effects from new channels and basins can be minimized by locating them at sites:

(A) that ensure adequate flushing and avoid stagnant pockets; or

(B) that will create the fewest practicable adverse effects on CNRAs from additional infrastructure such as roads, bridges, causeways, piers, docks, wharves, transmission line crossing, and ancillary channels reasonably likely to be constructed as a result of the project; or

(C) with the least practicable risk that increased vessel traffic could result in navigation hazards, spills or other forms of contamination which could adversely affect CNRAs;

(D) provided that, for any dredging of new channels or basins subject to the requirements of §501.15 of this title (relating to Policy for Major Actions), data and information on minimization of secondary adverse effects need not be produced or evaluated to comply with this paragraph if such data and information is produced and evaluated in compliance with §501.15(b)(1) of this title.

Compliance: The project does not include constructing new channels or basins, therefore §501.25(8)(A)-D) does not apply.

(c) Disposal or placement of dredged material in existing contained dredge disposal sites identified and actively used as described in an environmental assessment or environmental impact statement issued prior to the effective date of this chapter shall be presumed to comply with the requirements of subsection (a) of this section unless modified in design, sign, use, or function.

(d) Dredged material from dredging projects in commercially navigable waters is a potentially reusable resource and must be used beneficially in accordance with this policy.

(1) If the costs of beneficial use of dredged material area reasonably comparable to the costs of disposal in a non-beneficial manner, the material shall be used beneficially.

(2) If the costs of the beneficial use of dredged material are significantly greater than the costs of disposal in a non-beneficial manner, the material shall be used beneficially unless it is demonstrated that the costs of using the material beneficially are not reasonably proportionate to the costs of the project and benefits that will result. Factors that shall be considered in determining whether the costs of the beneficial use are not reasonably proportionate to the benefits include but are not limited to:

(A) environmental benefits, recreational benefits, floor or storm protection benefits, erosion prevention benefits, and economic development benefits;

(B) the proximity of the beneficial use site to the dredge site; and

(C) the quantity and quality of the dredged material and its suitability for beneficial use.

(3) Examples of the beneficial use of dredged material include, but are not limited to:

(A) projects designed to reduce or minimize erosion or provide shoreline protection;

(B) projects designed to create or enhance public beaches or recreational areas;

(C) projects designed to benefit the sediment budget or littoral system;

(D) projects designed to improve or maintain terrestrial or aquatic wildlife habitat;

(E) projects designed to create new terrestrial or aquatic wildlife habitat, including the construction of marshlands, coastal wetlands, or other critical areas;

(F) projects designed and demonstrated to benefit benthic communities or aquatic vegetation;

(G) projects designed to create wildlife management areas, parks, airports, or other public facilities;

(H) projects designed to cap landfills or other water disposal areas;

(I) projects designed to fill private property or upgrade agricultural land, if cost-effective public beneficial uses are not available; and

(J) projects designed to remediate past adverse impacts on the coastal zone.

(e) If dredged material cannot be used beneficially as provided in subsection (d)(2) of this section, to avoid and otherwise minimize adverse effects as required in subsection (a) of this section, preference will be given to the greatest extent practicable to disposal in…

Compliance: Dredged material would be beneficially used to restore marsh habitat throughout the project area; therefore, the project is consistent with §501.25(d)(1) –(3) and §501.25(c) and §501.25(e)(1) –(3) do not apply to this project.

(f) For new sites, dredged materials shall not be disposed of or placed directly on the boundaries of submerged lands or at such location so as to slump or migrate across the boundaries of submerged lands in the absence of an agreement between the affected public owner and the adjoining private owner or owners that defined the location of the boundary or boundaries affected by the deposition of the dredged material.

Compliance: Placement of dredged materials would not be placed directly on submerged lands. If during PED, it is identified that placement would occur on submerged lands, appropriate real estate agreements would be drafted and in place prior to construction to ensure all land owners are appropriately notified and compensated for any loss or impacts.

(g) Emergency dredging shall be allowed without a prior consistency determination as required in the applicable consistency rule when…

Compliance: An emergency situation does not exist with implementation of the project. Consistency of the project with program policy would be determined prior to project authorization.

(h) Mining of sand, shell, marl, gravel, and mudshell on submerged lands shall be prohibited unless there is an affirmative showing of no significant impact on erosion within the coastal zone and no significant adverse effect of coastal water quality or terrestrial and aquatic wildlife habitat within a CNRA.

Compliance: Project activities do not involve mining for shell, marl, gravel or mudshell; however, sand would be dredged from submerged lands of the SNWW for use in restoration units. Dredging sand from this location has already been addressed in other documents.

(i) The GLO and the SLB shall comply with the policies in this section when approving oil, gas, and other mineral lease plans of operation and granting surface leases, easements, and permits and adopting rules under the Texas Natural Resources Code, Chapter 32, 33, and 51 – 53, and Texas Water Code, Chapter 61, for dredging and dredge material disposal and placement TxDOT shall comply with the policies in this subchapter when adopting rules and taking actions as local sponsor of the Gulf Intracoastal Waterway under Texas Transportation Code, Chapter 51. The TCEQ and the RRC shall comply with the policies in this section when issuing certifications and adopting rules under Texas Water Code, Chapter 26, and the Texas Natural Resources Code, Chapter 91, governing certification of compliance with surface water quality standards for federal actions and permits authorizing dredging or the discharge or placement of dredged material. The TPWD shall comply with the policies in this section when adopting rules at Chapter 57 of this title (relating to Fisheries) governing dredging and dredged material disposal and placement. TPWD shall comply with the policies in subsection (h) of this section when adopting rules and issuing permits under Texas Parks and Wildlife Code, Chapter 86, governing the mining of sand, shell, marl, gravel, and mudshell.

Compliance: This project does not involve oil, gas, and other mineral lease plans of operation or granting of surface leases, easements, or permits; therefore, §501.25(i) does not apply.

§501.28 Policies for Development within Coastal Barrier Resource System Units and Otherwise Protected Areas on Coastal Barriers

(a) Development of new infrastructure or major repair of existing infrastructure within or supporting development within Coastal Barrier Resource System Units and Otherwise Protected Areas designated on maps dated October 24, 1990, as those maps may be modified, revised, or corrected, under the Coastal Barrier Resources Act, 16 United States Code Annotated, §3503(a), shall comply with the policies in this section.

(1) Development of publicly funded infrastructure shall be authorized only if it is essential for public health, safety, and welfare, enhances public use, or is required by law.

(2) Infrastructure shall be located at sites at which reasonably foreseeable future expansion will not require development in critical areas, critical dunes, Gulf beaches, and washover areas within Coastal Barrier Resource System Units or Otherwise Protected Areas.

(3) Infrastructure shall be located at sites that to the greatest extent practicable avoid and otherwise minimize the potential for adverse effects on critical areas, critical dunes, Gulf beaches, and washover areas within Coastal Barrier Resource System Units or Otherwise Protected Areas from:

(A) construction and maintenance of roads, bridges, and causeways; and

(B) direct release to coastal waters, critical areas, critical dunes, Gulf beaches, and washover areas within Coastal Barrier Resource System Units or Otherwise Protected Areas of oil, hazardous substances, or stormwater runoff.

(4) Where practicable, infrastructure shall be located in existing rights-of-way or previously disturbed areas to avoid or minimize adverse effects within Coastal Barrier Resource System Units or Otherwise Protected Areas.

(5) Development of infrastructure shall occur at sites and times selected to have the least adverse effects practicable within Coastal Barrier Resource System Units or Otherwise Protected Areas on critical areas, critical dunes, Gulf beaches, and washover areas and on spawning or nesting areas or seasonal migrations of commercial, recreational, threatened, or endangered terrestrial or aquatic wildlife.

Compliance: Although the project would be constructed within OPAs, ecosystem restoration measures are not considered infrastructure and do not support or encourage development within System Units or OPAs. Ecosystem restoration activities would contribute to the improvement of hurricane prone and biologically rich coastal barriers thereby improving the OPAs in which work would be completed.

(b) TCEQ rules and approvals for the creation of special districts and for infrastructure projects funded by issuance of bonds by water, sanitary sewer, and wastewater drainage districts under Texas Water Code, Chapters 49, 50, and 59; water control and improvement districts under Texas Water Code, Chapter 50; municipal utility districts under Texas Water Code, Chapter 54; regional plan implementation agencies under Texas Water Code, Chapter 54; special utility districts under Texas Water Code, Chapter 65; stormwater control districts under Texas Water Code, Chapter 66; and all other general and special law districts subject to and within the jurisdiction of the TCEQ, shall comply with the policies in this section. TxDOT rules and approvals under Texas Transportation Code Chapter 201, et seq., governing planning, design, construction, and maintenance of transportation projects, shall comply with the policies in this section.

Compliance: The project does not involve creation of special district or construction of infrastructure projects.

§501.29 Policies for Development in State Parks, Wildlife Management Areas or Preserves

Development by a person other than the Parks and Wildlife Department that requires the use or taking of any public land in such areas shall comply with the Texas Parks and Wildlife Code, Chapter 26 Protection of Public Parks and Recreational Lands.

Compliance: The project proposes restoration within JD Murphree Wildlife Management Area (WMA). WMA staff have been involved in the planning and development process and support all proposed actions. Restoration efforts are in line with the purpose, goals, and management plans of the WMA. The non-federal sponsor would be responsible for securing easements and/or rights to restored lands prior to implementation.

§501.32 Policies for Emission of Air Pollutants

TCEQ rules under Texas Health and Safety Code, Chapter 382, governing emissions of air pollutants, shall comply with regulations at Code of Federal Regulations, Title 40, adopted pursuant to the Clean Air Act, 42 United States Code Annotated, §§7401, et seq, to protect and enhance air quality in the coastal area so as to protect CNRAs and promote the public health, safety, and welfare.

Compliance: The project is fully compliant with the Clean Air Act as documented in the DIFR-EA.

CONCLUSION

The project complies with the Texas Coastal Management Program and will be conducted in a manner consistent with all rules and regulations of the program.