

**COMPLIANCE WITH GOALS AND POLICIES – SECTION  
501.25(a)-(f) and 501.26  
MATAGORDA SHIP CHANNEL DEFICIENCY STUDY**

**MATAGORDA COUNTY, TEXAS**

**INTRODUCTION**

This U.S. Army Corps of Engineers (USACE) proposes to remove the bottleneck in the Matagorda Ship Channel (MSC) entrance and designate two placement areas (PA) for the dredged material disposal. The MSC is a deep-draft channel located on the central Texas coast (Figure 1) and connects the Gulf of Mexico and the port of Port Lavaca-Point Comfort. The MSC is about 25 miles long and passes through Matagorda Bay, where it intersects the Gulf Intracoastal Waterway (GIWW). The MSC entrance cuts through the Matagorda Peninsula (Figure 2) for approximately 1 mile and is currently maintained to a depth of -38 feet Mean Low Tide (MLT) which is equal to -40 Mean Low Low Water (MLLW). The distance between the jetties on the Gulf of Mexico side is 2,000 feet. In the landcut, the channel narrows to 950 feet (referred to as the bottleneck), greatly focusing the flow and increasing the current velocity in this area and on the Matagorda Bay side.

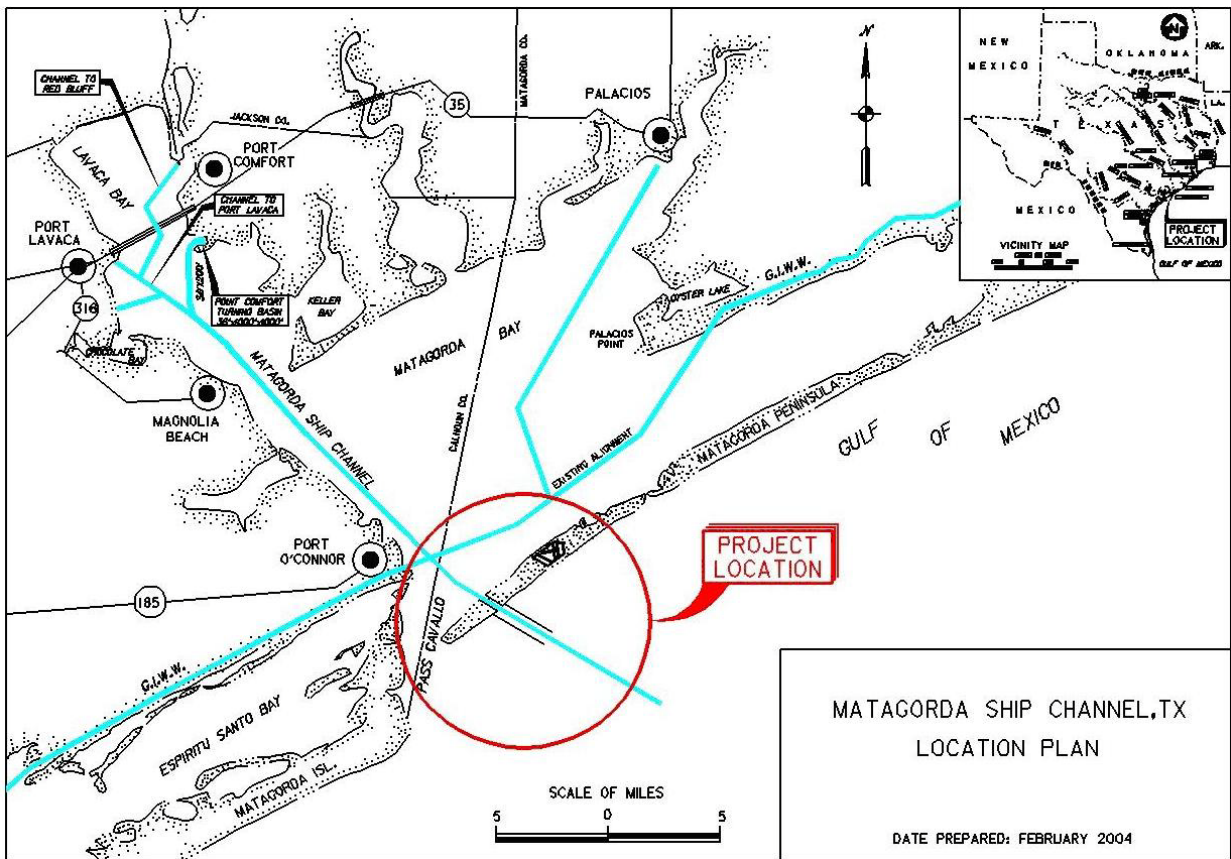


Figure 1: Location of the Matagorda Ship Channel Entrance Channel.



Figure 2. View of Matagorda Ship Channel Entrance and Sundown Island.

Navigation safety is hampered by the effect of the tidal current velocities on the pilots' control of ships. The entrance channel has experienced strong currents that equal or exceed 3 knots more than 60 percent of the time and equal or exceed 5 knots 20 percent of the time. Engineer Manual (EM) 1110-2-1613, Hydraulic design guidance for deep draft navigation projects, dated 2006, classifies a current of 3 knots as strong. The high currents in the channel make it difficult to overcome the cross current effect on the vessels navigating the channel. These currents have caused severe scouring and created difficulty for the users navigating the entrance channel.

Navigation is further altered by crosscurrents passing between Matagorda Peninsula and Sundown Island. Sundown Island is a designated PA used for Matagorda Ship Channel (PA3) and is managed by the National Audubon Society's Texas Coastal Sanctuaries program. Sundown Island is the largest bird sanctuary island along the Gulf Coast and

hosts substantial numbers of nesting Brown Pelicans and other colonial nesting birds. The purpose of the project is to improve navigation safety on the MSC.

The Proposed Action (Bottleneck Removal, Beach Restoration, and Sundown Island Expansion) includes removing the existing rock dike on both sides of the channel and reusing the stone to construct a new 2,800-foot dike on the west bank and 3,800-foot dike on the east bank of the MSC (Figure 3). A barge canal would be mechanically dredged to a depth of -14 MLLW from the bay side and material would be placed in the permanent disposal area behind the new dikes and in the temporary disposal areas to be hydraulically dredged later. A 3-foot blanket of stone would be placed for armoring the new channel slopes from elevation +4.0 to -17 feet MLLW. The bottleneck between the jetties would be removed from 950 feet to 2,000 feet. The Proposed Action would remove 82 acres of barrier island habitat. Dredging would be performed using a hydraulic cutterhead dredge to a depth of -40 feet MLLW. Approximately 2,454,000 cy would be dredged on the west channel side and placed in a 344-acre PA (Figure 4). The material would be discharged in the surf zone adjacent to the west jetty for beach restoration. Approximately 2,454,000 cy would be dredged on the eastern channel side; half would be placed in the surf zone adjacent to the west jetty. The other half would be placed adjacent to Sundown Island on the northwestern side creating a 51-acre island expansion with a 73-acre water bottom footprint. (Figure 5). Three areas of existing large jetty stone, 1,950 linear feet (1.4 acres) would be removed and reused for construction of the flare on the bay side. The flare extensions from the foreshore dikes are approximately 850 feet on the west side and 860 feet on the east side. Construction of the Proposed Action is anticipated to reduce currents and allow for a safer channel to navigate.

## **COMPLIANCE WITH GOALS AND POLICIES**

### **Section 501.25 Dredging and Dredged Material Disposal and Placement**

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

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

Compliance: No water quality standards would be violated by this project. Temporary elevations in turbidity may be caused as a result of dredging and placement activities. It is not anticipated the turbidity levels would have a detrimental effect to fish and wildlife resources within the project vicinity. The disturbances would be similar to conditions during maintenance dredging events. As the material is discharged for the beach placement, it would be reworked by wave action, and the deposited sand would

migrate along the seashore with the littoral drift. The proposed project would provide the benefit of reducing the recessional trend of the shoreline, thus preserving the beach and its habitat. The placement of this material has avoided and minimized adverse effects to coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches by placing material in an area that has historically been cut off from long-shore sediment transport when the channel and jetties were constructed. The long-term average (1985–2006) salinity value was 25.9 parts per thousand (ppt) at a Texas Commission on Environmental Quality (TCEQ) station located adjacent to the MSC in the vicinity of Sundown Island. The TCEQ2014 Integrated Report of Surface Water Quality for the Clean Water Act Sections 305(b) and 303(d) has designated water quality segments for individual components of the Matagorda Bay system. Table 2 provides the status of 305(b) and 303(d) within the vicinity of the project area: Segment ID 2451-01 – Northern Matagorda Bay/Powderhorn Lake and Segment ID 2451-02 – Remainder of segment. The designated uses within the water segments, as defined by Texas Surface Water Quality Standards (TSWQS), include uses such as aquatic life, recreation, general, fish consumption, and oyster waters. Table 2 also includes the water segments listed on the 303(d) list (TCEQ 2014).

Table 1: 305(B)/303(D) Water Quality Assessment Status for Matagorda Bay/Powderhorn Lake

Segme	Name	Uses	Level of Use Support	Use Impairment or	303(d) Status
2451-01 and	Northern Matagorda Bay/	Contact Rec	Full	None	None
	Powderhorn Lake	General	Full	None	
2451-02	Remainder of Segment	Oysters	Full	None	
		Aquatic Life	Full	None	

Inventory data from 2014 indicate the quality of water in the vicinity of the project is generally considered to be good; Aquatic Life Use, Fish Consumption Use, Contact Recreation Use and General Use are fully supported or of no concern. USACE has submitted a request for a Water Quality Certification from TCEQ.

*(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: The Matagorda Ship Channel dredged material would be placed in a manner conducive to beach restoration and Sundown Island.

*(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;*

*(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: No practicable alternative exists that would have fewer adverse effects on coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf Beaches. The proposed project dredge footprint was identified as the source creating the navigational hazard. The Proposed Action was chosen out of several channel alternatives evaluated in a report titled "Analysis of Dredged Material Placement Alternatives for Bottleneck Removal, Matagorda Ship Channel, Texas". The dredged material placement areas would restore beach, expand Sundown Island, and reduce erosion rates. All appropriate and practicable steps have been taken to minimize adverse effects on these coastal resources.



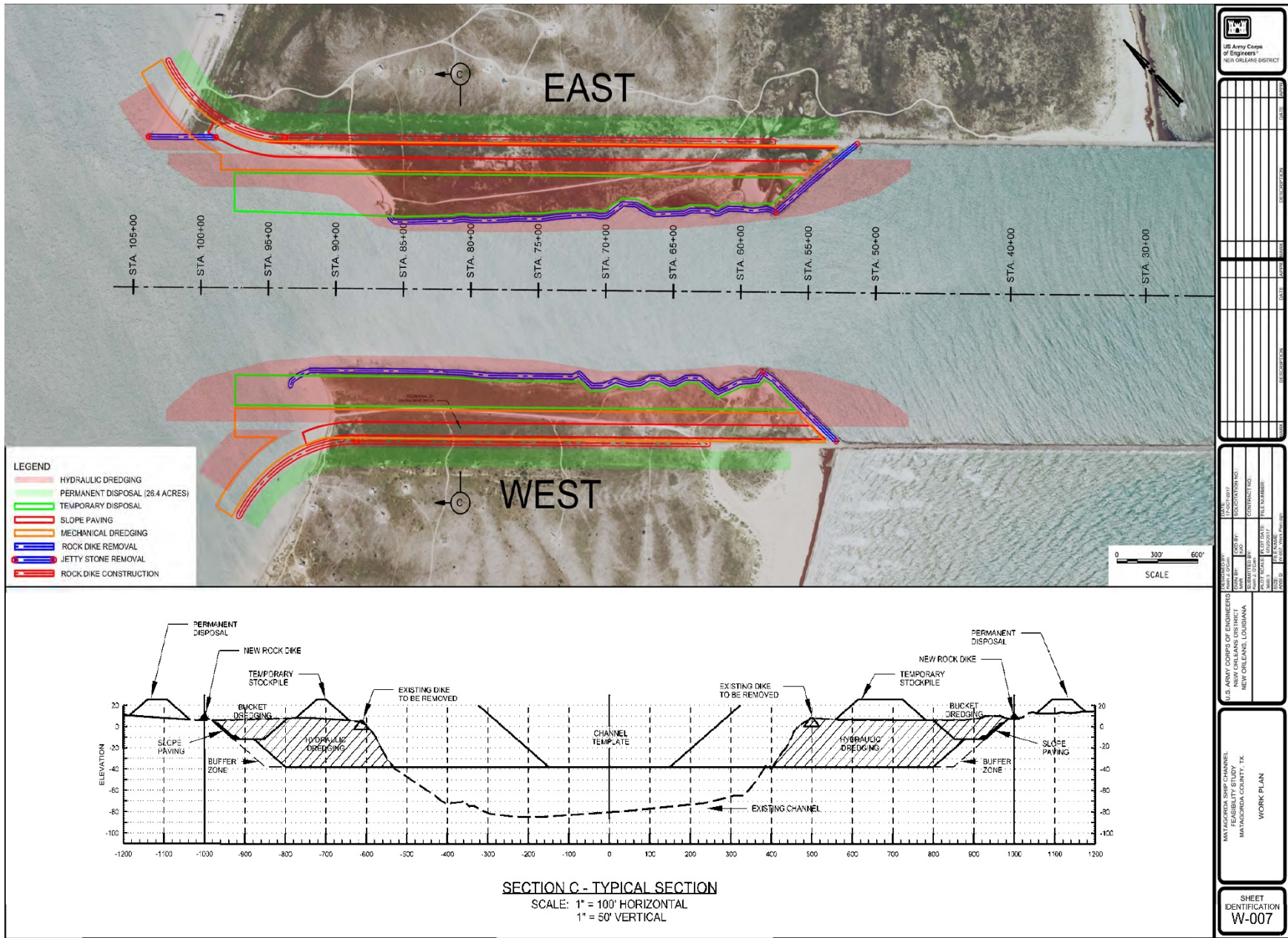


Figure 3 - Plan for Removal of Bottleneck.



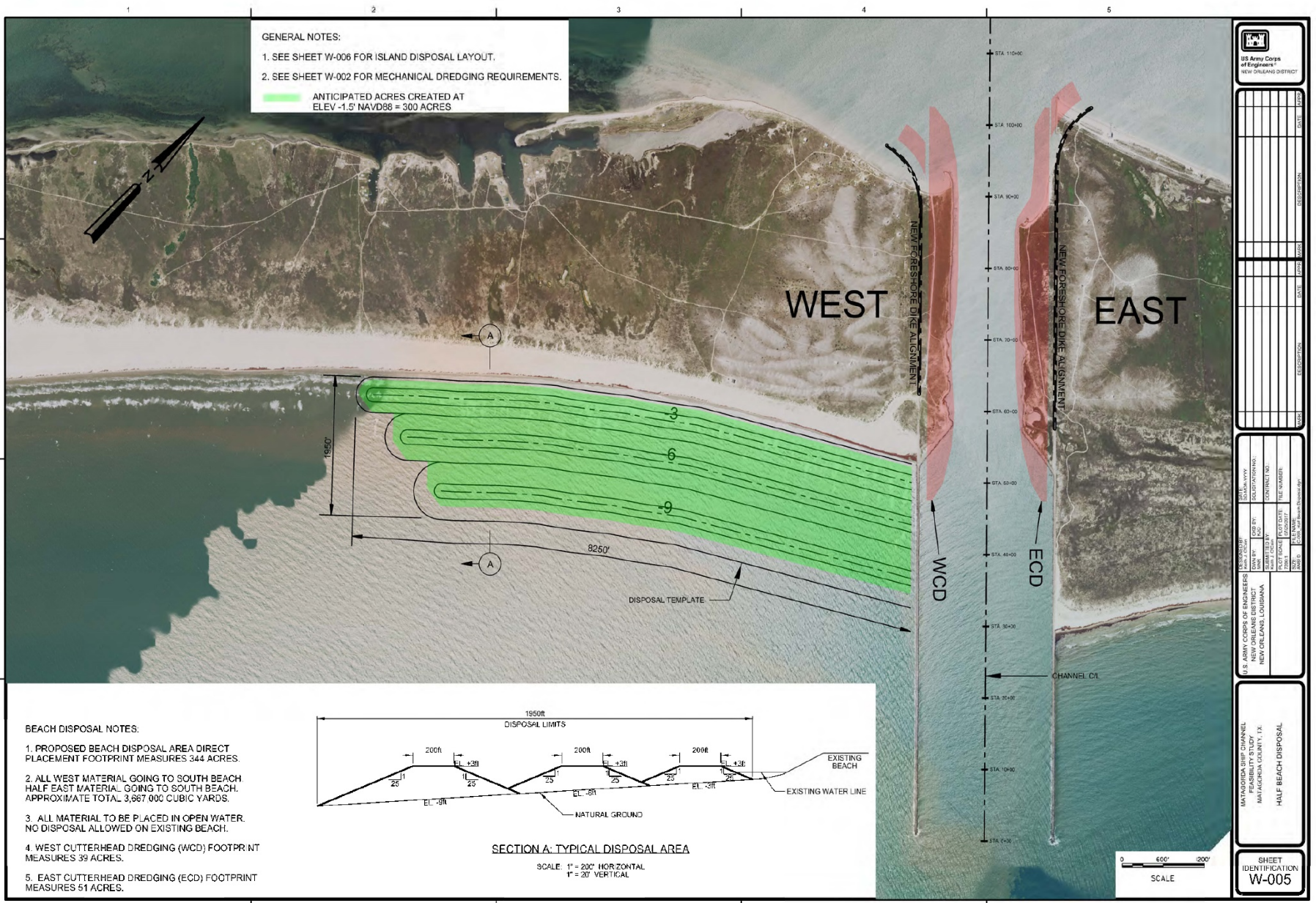
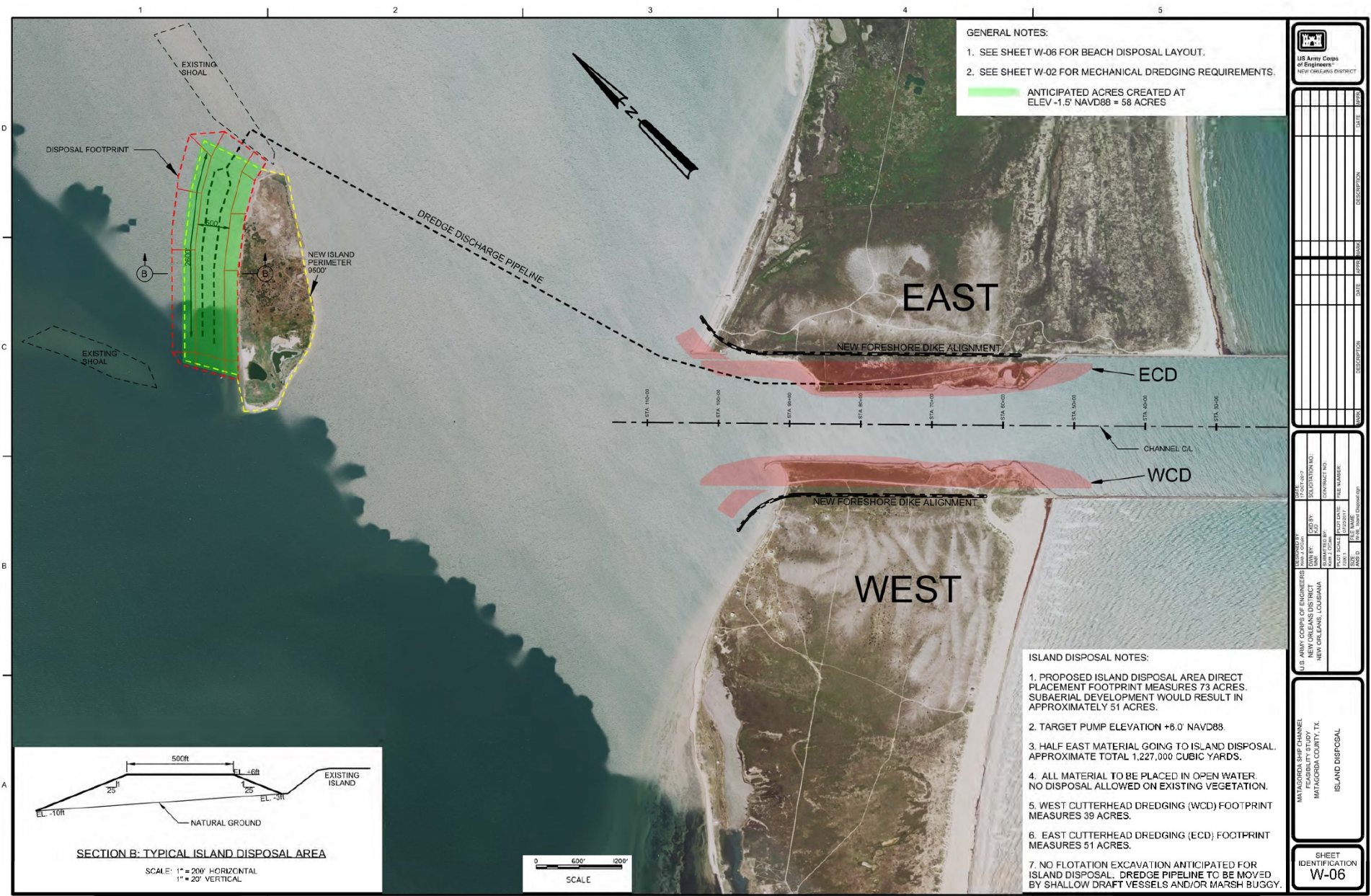


Figure 4. Beach Restoration Placement Area





**GENERAL NOTES:**

1. SEE SHEET W-06 FOR BEACH DISPOSAL LAYOUT.
2. SEE SHEET W-02 FOR MECHANICAL DREDGING REQUIREMENTS.

ANTICIPATED ACRES CREATED AT ELEV -1.5' NAVD88 = 58 ACRES

**ISLAND DISPOSAL NOTES:**

1. PROPOSED ISLAND DISPOSAL AREA DIRECT PLACEMENT FOOTPRINT MEASURES 73 ACRES. SUBAERIAL DEVELOPMENT WOULD RESULT IN APPROXIMATELY 51 ACRES.
2. TARGET PUMP ELEVATION +6.0' NAVD88.
3. HALF EAST MATERIAL GOING TO ISLAND DISPOSAL. APPROXIMATE TOTAL 1,227,000 CUBIC YARDS.
4. ALL MATERIAL TO BE PLACED IN OPEN WATER. NO DISPOSAL ALLOWED ON EXISTING VEGETATION.
5. WEST CUTTERHEAD DREDGING (WCD) FOOTPRINT MEASURES 39 ACRES.
6. EAST CUTTERHEAD DREDGING (ECD) FOOTPRINT MEASURES 51 ACRES.
7. NO FLotation EXCAVATION ANTICIPATED FOR ISLAND DISPOSAL. DREDGE PIPELINE TO BE MOVED BY SHALLOW DRAFT VESSELS AND/OR MARSH BUGGY.

 U.S. Army Corps of Engineers NEW ORLEANS DISTRICT	
PROJECT NO. 17-CA-0017 DRAWN BY: [blank] CHECKED BY: [blank] DATE: [blank]	CONTRACT NO. [blank] DATE: [blank]
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	PROJECT TITLE ISLAND DISPOSAL
MATAGORDA SHIP CHANNEL FEASIBILITY STUDY MATAGORDA COUNTY, TX	
SHEET IDENTIFICATION <b>W-06</b>	

Figure 5. Sundown Island 73-acre Placement Area



*(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.*

*(b) Compliance: The project has overriding importance to the public and national interest because it would allow for the uninterrupted safe commercial navigation conditions within the Matagorda Ship Channel. 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 paragraph where appropriate and practicable.*

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

- (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 control dispersion of material; and*
- (G) avoiding the impoundment or drainage of critical areas.*

Compliance: Adverse effects of dredging from the Proposed Action described in this determination have been minimized as described under "Compliance" for Paragraph (a2) of this section. The project has been sited and sized to optimize plan performance while minimizing environmental impacts and cost. The disposal sites have been designated just west of the Matagorda Ship Channel western jetty and adjacent to Sundown Island. The discharge pipe would be positioned adjacent to the beach in the surf zone and moved as needed to restore the beach. No permanent or long-term impacts to benthic communities are anticipated from either site. The project is not anticipated to have adverse effects to water inundation patterns, water circulation, erosion and accretion processes, or other hydrodynamic processes. Dredging activities will occur to remove the bottleneck in the Matagorda Ship Channel. The channel narrows from 2,000 feet to 950 feet and creates a bottleneck. Two land spurs would be removed to fix the deficiency. The proposed project would be dredged to -40 MLLW the same as the existing channel. Placement of dredge material adjacent to the

western jetties will restore 300 acres of beach and 58 acres of Sundown Island expansion for colonial nesting bird habitat. Material would be discharged at a site of comparable substrate. Placement has been designed to minimize environmental impacts. No impoundment or draining of critical areas would occur.

*(2) 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 physicochemical 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: An Environmental Site Assessment is being prepared to identify any potential hazardous, toxic and radioactive waste. The dredged material complies with applicable standards for sediment toxicity.

*(3) 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 resist 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: Fine sand material would be pumped from a hydraulic cutterhead dredge through a combination of fully submerged and floating hydraulic pipelines. Dredged material will be discharged in the surf zone as shown in Figure 4. As the material is discharged, it would be reworked by wave action, and the deposited sand would migrate along the seashore with the littoral drift. Dredged material will also be placed adjacent to Sundown Island Figure 5. Additionally, the timing of pumping/placement would be planned in a manner to reduce or avoid adverse impacts from unusually high water flows, wind, wave, and tidal actions.

*(4) 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: Sundown Island has been disposed on multiple times since its construction. The flow out of the discharge pipe would be controlled to minimize the introduction of total suspended solids (TSS) into the receiving water. Temporary and localized impacts to benthic organisms and coastal marine open water and associated bottom habitats would occur; however, benthic organisms are expected to recover quickly and impacts of dredged material placement are anticipated to be short term and temporary in nature.

*(5) Adverse effects from dredging and dredged material disposal or placement operations can be minimized by adopting 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 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 would be pumped from the dredge through a combination of fully submerged and floating hydraulic pipelines. Best management practices would be implemented during construction of the permanent disposal. This would include the use of silt fencing or similar materials to contain placed material to minimize impacts. Additionally, personnel will be properly trained in dredging and dredged material placement operations.

*(6) Adverse effects on plant and animal populations from dredging or 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 values 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 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: Changes to water current and circulation patterns would be localized, minimal, and would not adversely interfere with the movement of animals. Dredged material from the Matagorda Ship Channel bottleneck removal and placement would not promote the establishment of invasive species as a result of the proposed project. The proposed project would impact approximately 0.85 acres of piping plover designated critical wintering habitat. A biological assessment is being prepared for the proposed project and the Corps is coordinating with the USFWS. The proposed project would offset the 0.85 acres impacted by creating approximately 300 acres of beach habitat that would provide additional habitat for the piping plover and reduce erosion rates along the west Matagorda Island piping plover critical habitat Unit 22. The Matagorda Ship Channel dredged material would be beneficially used to restore 300 acres of beach. A barge mounted dragline would dredge the construction access channel from the bay sides and a cutterhead dredge would remove the bottleneck in the Matagorda Ship Channel. The proposed project is in an area that was previously disturbed when the channel was constructed. Recreational and commercial vessels navigate the channel daily. If construction occurs during a biologically critical time period, additional resource agency coordination of construction would be undertaken, especially to ensure compliance with the Federal law.

*(7) 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: There will be no aesthetic impacts from the proposed project. Impacts to water quality would be temporary and minimal in nature. The proposed project is in an



area already disturbed as well as years of maintenance dredging work. Recreational and commercial vessels navigate the channel daily. The proposed project is located in a commercial navigation channel that is subject to traffic of large cargo ships and tankers. However, recreational boating or fishing do occur within the Matagorda Ship Channel. It is possible, that limited water-based recreational and guide fishing activities may occur in the project area. Dredge placement activities will not impact the minimal amount of water-based recreational activities that may occur. The project would not increase incompatible human activity or require frequent dredge or fill maintenance activities in remote fish and wildlife areas.

*(8) 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 crossings, 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 subparagraph if such data and information is produced and evaluated in compliance with §501.15(b)(1) of this title (relating to Policy for Major Actions).*

Compliance: No new channels or basins would be constructed as part of the proposed project.

*(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 paragraph (a) of this subsection unless modified in design, size, use, or function.*

Compliance: The beach disposal plan is not an existing disposal site. Sundown Island is an existing placement area. A Draft Environmental Assessment is being prepared and will go out for public review.

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

*(1) If the costs of the beneficial use of dredged material are 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, flood 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 waste 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 paragraph (a) of this subsection, preference will be given to the greatest extent practicable to disposal in:*

- (1) contained upland sites;*
- (2) other contained sites; and*
- (3) open water areas of relatively low productivity or low biological value.*

Compliance: The MSC bottleneck dredging is a desirable source of material for beneficial use and would be used for beach restoration and colonial nesting bird island creation. The project would enhance the beach, benefit the sediment budget, and improve wildlife habitat.

*(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 defines the location of the boundary or boundaries affected by the deposition of the dredged*



*material.*

Compliance: The Galveston District Real Estate Division is coordinating this effort would handle any real estate agreements if needed for dredged material disposal on submerged lands as a result of this project. Lisa Mairs 409-766-3913 is the POC.

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

*(1) there is an unacceptable hazard to life or navigation;*

*(2) there is an immediate threat of significant loss of property; or*

*(3) an immediate and unforeseen significant economic hardship is likely if corrective action is not taken within a time period less than the normal time needed under standard procedures. The council secretary shall be notified at least 24 hours prior to commencement of any emergency dredging operation by the agency or entity responding to the emergency. The notice shall include a statement demonstrating the need for emergency action. Prior to initiation of the dredging operations the project sponsor or permit-issuing agency shall, if possible, make all reasonable efforts to meet with council's designated representatives to ensure consideration of and consistency with applicable policies in this subchapter. Compliance with all applicable policies in this subchapter shall be required at the earliest possible date. The permit-issuing agency and the applicant shall submit a consistency determination within 60 days after the emergency operation is complete.*

Compliance: The project does not involve emergency dredging.

*(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 on coastal water quality or terrestrial and aquatic wildlife habitat within any CNRA.*

Compliance: The project would reuse existing stone from the rock dikes and existing jetty stone to prevent additional erosion from the barrier island (Figure 3).

*(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, Chapters 32, 33, and 51 - 53, and Texas Water Code, Chapter 61, for dredging and dredged 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. The 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 pertain to oil, gas, and other mineral lease plans of operation and granting surface leases, easements, and permits; *section (i)* is not applicable. The Galveston District Real Estate Division is coordinating this effort and would handle any real estate actions if needed for the project. Lisa Mairs 409-766-3913 is the POC.

### **Section 501.26 Policies for construction in the beach/dune system**

*(a) Construction in critical dune areas or areas adjacent to or on Gulf beaches shall comply with the following policies:*

*(1) Construction within a critical dune area that results in the material weakening of dunes and material damage to dune vegetation shall be prohibited.*

*(2) Construction within critical dune areas that does not materially weaken dunes or materially damage dune vegetation shall be sited, designed, constructed, maintained, and operated so that adverse "effects" (as defined in §15.2 of this title (relating to Coastal Area Planning) on the sediment budget and critical dune areas are avoided to the greatest extent practicable. For purposes of this section, practicability shall be determined by considering the effectiveness, scientific feasibility, and commercial availability of the technology or technique. Cost of the technology or technique shall also be considered. Adverse effects (as defined in Chapter 15 of this title (relating to Coastal Area Planning) that cannot be avoided shall be:*

*(A) minimized by limiting the degree or magnitude of the activity and its implementation;*

*(B) rectified by repairing, rehabilitating, or restoring the adversely affected dunes and dune vegetation; and (C) compensated for on-site or off-site by replacing the resources lost or damaged seaward of the dune protection line.*

*(3) Rectification and compensation for adverse effects that cannot be avoided or minimized shall provide at least a one-to-one replacement of the dune volume and vegetative cover, and preference shall be given to stabilization of blowouts and breaches and on-site compensation.*

Compliance: Construction would not result in dune weakening. The bottleneck removal will permanently impact 82 acres of barrier island dune habitat. The proposed project would create a 300-acre beach placement area on the Gulf of Mexico side of the dune and a 51-acre Sundown Island expansion for colonial nesting bird habitat.

*(4) The ability of the public, individually and collectively, to exercise its rights of use of and access to and from public beaches shall be preserved and enhanced.*

Compliance: Access to and from public beaches will be preserved.

*(5) Non-structural erosion response methods such as beach nourishment, sediment bypassing, nearshore sediment berms, and planting of vegetation shall be preferred*



*instead of structural erosion response methods. Subdivisions shall not authorize the construction of a new erosion response structure within the beach/dune system, except as provided by subsection (b) of this section or a retaining wall located more than 200 feet landward of the line of vegetation. Subdivisions shall not authorize the enlargement, improvement, repair or maintenance of existing erosion response structures on the public beach. Subdivisions shall not authorize the repair or maintenance of existing erosion response structures within 200 feet landward of the line of vegetation except as provided in §15.6(d) of this title (relating to Concurrent Dune Protection and Beachfront Construction Standards).*

*(b) Construction of structural shore protection projects, including geotextile shore protection projects, in critical dune areas or areas adjacent to or on Gulf Beaches shall comply with the following policies:*

*(1) The size and the length of a shore protection project shall be determined as part of a site-specific construction and maintenance plan, taking into account both technical requirements and policy issues as described under this subsection, and shall be limited to the minimum size necessary to fulfill the project's goals and purposes.*

*(2) A shore protection project shall only be used to protect community developments, public infrastructure, and for other lawful public purposes and shall not be used solely to protect individual structures or properties. A community development may include a neighborhood or aggregation of residences or commercial structures.*

*(3) A shore protection project located parallel to the shore shall be located landward of the boundary of state-owned submerged land as determined by a coastal boundary survey conducted in accordance with Texas Natural Resources Code §33.136, and shall avoid and otherwise minimize adverse effects to dunes and dune vegetation.*

*(4) To maximize the protection offered by a shore protection project, to enhance the survivability of the project, and to minimize adverse effects to natural resources, a shore protection project shall be located according to the following preferred order:*

*(A) In an area where a foredune ridge is present, where practicable, a shore protection project shall be located landward of the foredune ridge;*

*(B) Where there is no foredune ridge, a project shall be located landward of the line of vegetation, where practicable;*

*(C) Where it is not practicable to locate a shore protection project landward of the line of vegetation, a project shall be located at the line of vegetation; or*

*(D) Where there is no other practicable location, a shore protection project shall be located at the most landward point of the public beach provided that the project sponsor has provided financial assurance that the pre-project beach width will be maintained through beach nourishment.*

Compliance: Non-structural erosion methods would be used where practicable.

*(5) A shore protection project shall not adversely affect sea turtle nesting areas or an endangered species.*

Compliance: The project will not adversely affect sea turtle nesting areas. The project would remove .85 acres of piping plover critical wintering habitat on the bay and Gulf side of the MSC in Unit 22. Coordination with the USFWS and Texas Parks and Wildlife

Division is ongoing.

*(6) Shore protection projects shall not be constructed on stable or accreting beaches.*

Compliance: Change in shoreline position on the beach adjacent to the south jetty was small and indicated advance of about 3-4 feet/year near the south jetty and recession of about 6-7 feet/year about 2 miles south of the jetty (Rosati et al, 2011). There is an overall recessional trend of the Matagorda Island west of the jetties (Figure 6).

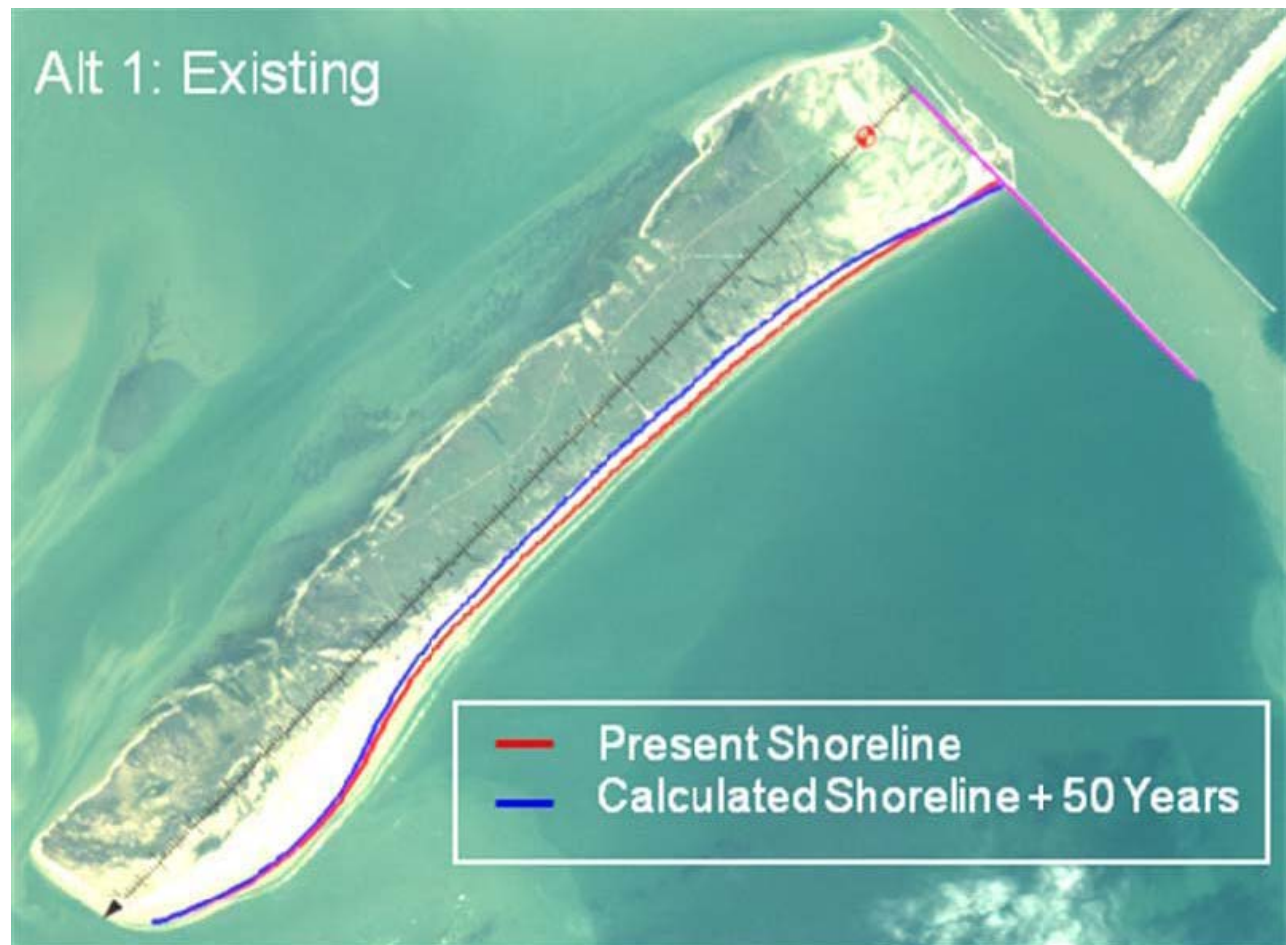


Figure 6 shows the calculated shoreline change from year 2011-2061 without the project.

*(7) A shore protection project shall be designed to avoid and otherwise minimize any adverse effects to adjacent beaches or properties at either end of a project.*

Compliance: The project is designed to minimize adverse effects to adjacent beaches.

*(8) To the extent allowed by law, a dune protection permit is required to authorize the construction of a shore protection project in the beach/dune system.*

Compliance: Acknowledged.

*(9) A mitigation plan shall be submitted for any adverse effects to critical dune areas as a result of the construction and presence of a shore protection project.*

Compliance: The bottleneck removal will permanently impact 82 acres of barrier island dune habitat. The proposed project would create a 300-acre beach placement area on the Gulf of Mexico side of the dune and 51-acre Sundown Island expansion for colonial nesting bird habitat.

*(10) Public input shall be incorporated into a local government's review and approval of a shore protection project. Methods to obtain public input include public meetings, notices by mail to affected property owners, publication of notices in local newspapers, the Texas Register, and web sites.*

Compliance: Public input will be a part of the NEPA process and the EA will go out for a 30-day public review.

*(11) The success criteria for a shore protection project shall be developed by a project sponsor with consideration for the health and maintenance of the beach/dune system.*

Compliance: Acknowledged. This is a navigation project and the dredged material is proposed to be used beneficially instead of using an existing offshore disposal site. These PAs could be used for future maintenance dredging placement.

*(12) The sponsor of a shore protection project shall be responsible for the ongoing maintenance of the project and, if necessary, beach nourishment and/or removal of the project.*

Compliance: Acknowledged.

*(13) Sand from the beach/dune system shall not be used to fill or cover a shore protection project. Where appropriate, a shore protection project shall remain covered with sand and dune vegetation with a preference for natural dune vegetation. The sand and vegetation used to cover a shore protection project shall conform to the standards for dune restoration projects as described in §15.4 (relating to Dune Protection Standards) and §15.7, (relating to Local Government Management of the Public Beach) of this title.*

Compliance: Acknowledged.

*(14) Long-term monitoring of a shore protection project shall be required to determine the project's effect on the beach/dune system and the project's effectiveness. Prior to the construction of a shore protection project, a project sponsor shall collect scientifically valid baseline data for monitoring the line of vegetation, the extent of the dry beach, a beach profile, and any other characteristics necessary for evaluating the project's effectiveness.*

Compliance: Acknowledged.

*(15) Existing public access in the area of a shore protection project shall be replicated if*

*not enhanced. A local government shall not impair or close an existing public access point or close a public beach to pedestrian or vehicular traffic without prior approval of the GLO as required under the Open Beaches Act, Texas Natural Resource Code Annotated, Chapter 61, and the Beach/Dune rules, Chapter 15 of this title.*

Compliance: Acknowledged

*(c) The GLO shall comply with the policies in this section when certifying local government dune protection and beach access plans and adopting rules under the Texas Natural Resources Code, Chapters 61 and 63. Local governments required by the Texas Natural Resources Code, Chapters 61 and 63, and Chapter 15 of this title (relating to Coastal Area Planning) to adopt dune protection and beach access plans shall comply with the applicable policies in this section when issuing beachfront construction certificates and dune protection permits.*

Compliance: Acknowledged.

## **IMPACTS ON COASTAL NATURAL RESOURCE AREAS**

Potential impacts to Coastal Natural Resource Areas (CNRAs) listed in 31 Texas Administrative Code (TAC) §501.3, and of methods to minimize or avoid potential impacts, are discussed below.

### *Waters of the Open Gulf of Mexico*

The beach placement area is located in the Open Gulf of Mexico; however, the existing jetties hindered long-shore sediment transport at the PA. The beach PA would restore 300 acres and provide sand to migrate down the shoreline and reduce erosion of the current beach.

### *Waters Under Tidal Influence*

The entire project is located in a region that experiences tidal influence. The Proposed Action, dredging and placement activities is overall beneficial but would have a minimal impact because the release of suspended solids. This release of fine sand is a short-term impact. A state 401 Water Quality Certification would be obtained prior to any construction.

### *Submerged Lands*

Work conducted in the Proposed Action would affect water bottoms adjacent to Sundown Island. However, this area has been used for placement of dredged material in the past.

### *Coastal Wetlands*

The Proposed Action would impact 82 acres of barrier island habitat but the impacts would be offset by the beneficial placement of dredged material.

### *Submerged Aquatic Vegetation*

No submerged aquatic vegetation occur in the project area.



### *Tidal Sand and Mud Flats*

A total of 457 acres of tidal sands would be impacted for the dredge and placement of material.

### *Oyster Reefs*

No oyster reefs occur in the project area.

### *Hard Substrate Reefs*

The 4.6 acres of existing rock dike and 1.4 acres of jetty stone lining the channel are the only hard substrates. No reefs occur in the project area.

### *Coastal Barriers*

The Proposed Action would impact 82 acres of barrier island habitat but the impacts would be offset by the beneficial placement of dredged material. The following Coastal Barrier Resources Act (CBRA) exception (16 U.S.C. § 3505(a)(2)) would be applied for: The maintenance or construction of improvements of existing federal navigation channels (including the Intracoastal Waterway) and related structures (such as jetties), including the disposal of dredge materials related to such maintenance or construction. A federal navigation channel or a related structure is an existing channel or structure, respectively, if it was authorized before the date on which the relevant System unit or portion of the System unit was included within the Coastal Barrier Resources System.

### *Coastal Shore Areas*

The beach placement area would beneficially affect 8,250 feet of coastal shoreline and would benefit the Matagorda Island shoreline east of the channel.

### *Gulf Beaches*

The beach placement area would beneficially affect approximately 300 acres and 8,250 feet of coastal shoreline and would benefit the Matagorda Island shoreline east of the channel.

### *Critical Dune Areas*

The Proposed Action would impact 82 acres of barrier island habitat but the impacts would be offset by the beneficial placement of dredged material.

### *Special Hazard Areas*

The entire project area is mapped as Zone V10 (coastal flood zone with wave velocity hazard). Approximately 82 acres of land within Zone V10 would be impacted by the project. However this impact would not change the floodplain designation or increase flooding in the project area. A Phase 1 Environmental Site Assessment was prepared and there is a low probability of encountering munitions and explosives of concern or hazardous, toxic, and radioactive waste.

HTRW at this site.

### *Critical Erosion Areas*

The beach placement would help reduce the recessional trend. Change in shoreline position on the beach adjacent to the south jetty was small and indicated advance of about 3-4 feet/year near the south jetty and recession of about 6-7 feet/year about 2 miles

south of the jetty. Sand deposited within the Pass Cavallo ebb shoal complex would be frequently reworked with passage of winter cold fronts and the inlet would maintain its present-day equilibrium width. (Rosati et al, 2011).

#### *Coastal Historic Areas*

No coastal historic areas (sites in the National Register of Historic Places on public land or State Archeological Landmarks that are identified by the Texas Historical Commission as being coastal in character) occur in the project area.

#### *Coastal Preserves*

Matagorda Island Wildlife Management Area (WMA) is located to the west of the project site. The WMA is an offshore barrier island with bayside marshes. The WMA is jointly owned by the Texas GLO and the USFWS and cooperatively managed by TPWD as the Matagorda Island National Wildlife Refuge and State Natural Area.

## **CONCLUSION**

The Consistency Determination concludes that the Proposed Action is fully consistent to the maximum extent practicable with the Texas Coastal Management Program.

## **References:**

Rosati, et al., 2011. Analysis of Dredged Material Placement Alternatives for Bottleneck Removal, Matagorda Ship Channel, Texas. TR-11-2.

Texas Commission on Environmental Quality. 2014. *2014 Texas Integrated Report of Surface Water Quality for the Clean Water Act Sections 305(b) and 303(d)*. Accessed June 2017 from <https://www.tceq.texas.gov/waterquality/assessment/14twqi/14txir>. (accessed October 27, 2017)