

**APPENDIX E**

**COMPLIANCE WITH THE  
TEXAS COASTAL MANAGEMENT PROGRAM**

APPENDIX E  
TEXAS COASTAL MANAGEMENT PROGRAM (CMP)  
COMPLIANCE WITH GOALS AND POLICIES

INTRODUCTION

The Texas Coastal Management Program (TCMP) was submitted to NOAA for review pursuant to §306 of the Federal Coastal Zone Management Act of 1972, as amended, 16 U.S.C. 1451 et seq. The Office of Ocean and Coastal Resource Management approved the TCMP in 1996. Federal approval of the TCMP requires that Federal actions occurring within the TCMP boundary be consistent with the goals and policies of the TCMP. To show compliance, Federal agencies responsible for these actions must prepare a consistency determination and submit it to the State for review. This consistency determination for channel improvements was prepared in accordance with the TCMP. Details of the project, as well as environmental impacts, are presented in the FEIS and will be referenced in this determination.

IMPACTS ON COASTAL NATURAL RESOURCE AREAS

Several of the Coastal Natural Resource Areas (CNRAs) listed in 31 TAC §501.3 are found reasonably close to the areas discussed in this FEIS. A short description of each CNRA near the project and of methods to minimize or avoid potential impacts is provided below.

Waters of the Open Gulf of Mexico

Dredged maintenance materials will be placed in the open Gulf of Mexico in PA 1 and dredged construction material will be placed in BU Site ZZ (the designated Navy Homeport ODMDS) and BU Site MM. PA 1 is an open water placement area located southeast of the Gulf end of the Mustang Island Jetty for the Entrance Channel at Port Aransas. This site was officially designated as an ocean PA as required by §103 of the MPRSA of 1972. An EIS that described the alternatives evaluated was prepared for this designation.

Waters Under Tidal Influence

The entire project is located in a region which experiences tidal influence. Dredging and placement activities represent a minimal impact because the release of suspended solids is minimized according to requirements of the State §401 Certification. Current dredging practices are found in the Consistency Determination for La Quinta Channel (USACE and PCCA, 1999a) and Corpus Christi Ship Channel (USACE and PCCA, 1999b). Use of long established, designated PAs will minimize adverse effects on CNRAs in the project area.

Submerged Lands

The areas immediately adjacent to the project alignment, as well as the open water placement areas, are characterized as submerged land. Impacts to these areas are minimized by placement of dredged material into the historically used placement areas. BU sites will cover submerged lands; however, this placement will benefit coastal ecology.

### Coastal Wetlands

No significant expanse of wetlands is located in close proximity to this project except for the uppermost segment of the Inner Harbor reach, and to a lesser extent, some sparse fringing marshes in Redfish Bay. Some scattered saltmarsh and black mangrove marshes exist to the east of Harbor Island, but the most significant wetlands in the vicinity are located near Tule Lake and in the Nueces River delta. These are in close proximity to the channel from the Tule Lake Turning Basin to the Viola Turning Basin. The placement areas in this vicinity are totally confined, and mitigation for any impacts to the wetlands has been completed. Continued use of confined placement areas will prevent further impacts to wetland areas.

### Submerged Aquatic Vegetation

This navigation project is located near areas characterized as having large expanses of seagrasses. Impacts to seagrasses are minimized or avoided by placing dredged material into leveed upland sites or other historically used placement areas in the deeper waters of the bay. Impacts to seagrasses will be mitigated at a 3:1 ratio. Fifteen acres of seagrass will be created for impacts to 5 acres of seagrass.

### Tidal Sand and Mud Flats

Some of the areas adjacent to the project alignment are adjacent to areas of tidal sand or mud flats. These areas may be frequently flooded and may contain algal mats. Impacts to these areas are minimized or avoided by placing dredged material into leveed upland sites or other historically used placement areas in the deeper waters of the bay.

### Oyster Reefs

Several significant oyster reefs exist in Corpus Christi Bay. The nearest is Long Reef, which is approximately 3,000 feet away from PA 13. PA 13 is a confined upland site, and the effluent discharge is returned to La Quinta Channel. Therefore, adverse impacts to oyster resources are not expected to occur as a result of dredging and dredged material placement operations.

### Hard Substrate Reefs

There are no naturally occurring hard substrate formations in the vicinity of the project. The closest rock outcrop is located just north of the City of Aransas Pass and is crossed by the GIWW. The closest serpulid worm reefs are located farther south in the Laguna Madre and Baffin Bay.

### Coastal Barriers

Four coastal barrier areas occur in the vicinity of the project. Two of the areas extend north along San Jose Island (T08 and T08P) and the other two are located on or near the lower part of Mustang Island (TX-15P and TX-17P). San Jose Island and Mustang Island are located north and south, respectively, of Aransas Pass through which the Entrance Channel traverses. San Jose Island is undeveloped while Mustang Island is highly developed for tourism and recreation, including the City of Port Aransas. Neither island currently is experiencing a great deal of erosion. PA 2 is located on San Jose Island adjacent to the north jetty. This PA is partially confined by dunes and levees. The dredged material placed there is

predominately sand, helping to protect and nourish this barrier island. Furthermore, precautions are exercised to preserve existing dunes during dredge pipeline placement and discharge operations. Based on this information, adverse impacts to these coastal barriers are not expected to occur as a result of dredging and dredged material placement operations.

### Coastal Shore Areas

Coastal shore areas are within 100 feet landward of the high water mark on submerged land. These resource areas function as buffers, protecting upland habitats from erosion and storm damage and adjacent marshes and waterways from water quality degradation. This type of area is located at the Entrance Channel, where the channel traverses Aransas Pass to the Gulf of Mexico. PA 2 is located within a coastal shore area on San Jose Island adjacent to the north jetty. This PA is partially confined by dunes and levees. The dredged material placed there is predominately sand, helping to protect and nourish this shore area. Furthermore, precautions are exercised to preserve existing dunes during dredge pipeline placement and discharge operations. Therefore, adverse impacts to coastal shore areas are not expected to occur as a result of dredging and dredged material placement operations.

### Gulf Beaches

Gulf beaches border the Gulf of Mexico and extend inland from the line of mean low tide to the natural line of vegetation. Aransas Pass, through which the Entrance Channel passes, traverses a Gulf beach area. San Jose Island, to the north, is undeveloped. Mustang Island, to the south, is highly developed for tourism and recreation, including the City of Port Aransas. Little erosion is occurring along the beaches in this area; PA 2 is located on San Jose Island adjacent to the north jetty that adds material to this beach. This PA is partially confined by dunes and levees. The dredged material placed there is predominately sand, helping to protect and nourish this beach area. Furthermore, precautions are exercised to preserve existing dunes during dredge pipeline placement and discharge operations. Therefore, adverse impacts are not expected to occur as a result of dredging and dredged material placement operations.

### Critical Dune Areas

The Gulf beaches on both sides of Aransas Pass can be characterized as having active sand dune systems. PA 2 is located on San Jose Island adjacent to the north jetty and is partially confined by dunes and levees. The dredged material placed there is predominately sand, helping to protect and nourish this area. Furthermore, precautions are exercised to preserve existing dunes during dredge pipeline placement and discharge operations. Therefore, adverse impacts to dune areas are not expected to occur as a result of dredging and dredged material placement operations.

### 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. Much of the project area qualifies as special hazard areas on the Flood Insurance Rate Maps. Project dredging and placement activities do not affect these low-lying areas because dredging is within and adjacent to the existing channel and disposal is within contained PAs in upland sites and approved BU sites in open waters.

### Critical Erosion Areas

These areas are those Gulf and bay shorelines that are undergoing erosion and are designated by the Commissioner of the General Land Office under Texas Natural Resources Code, §33.601(b). Only one critical area of erosion is designated in the project vicinity and is located west of Port Aransas on the south side of the CCSC. It extends west from near the Nueces County Fishing Pier for about 5,844 feet to Piper Channel. An evaluation of erosion protection using bank armoring without dredged material for this area is discussed in Section 1.7 of the FEIS.

### Coastal Historic Areas

These areas consist of sites listed or eligible for the NRHP and SALs. Compliance with the TCMP regarding coastal historic areas is accomplished through procedures established by Section 106 of the National Historic Preservation Act of 1965 (NHPA), as amended. These coastal historic sites, as well as non-coastal historic sites, are discussed in Section 3.8 of the FEIS, with impacts discussed in Section 4.7.

### Coastal Preserves

This natural resource includes only State lands and parks. There are no designated Texas Coastal Preserves located in the vicinity of the CCSCIP. However, there are two State-owned lands in the general project area. Mustang Island State Park is located within Coastal Barrier Resource Unit TX-15P, and a small area known as Redhead Pond Wildlife Management Area is located on the mainland side of the Laguna Madre south of the Kennedy Causeway. Based on their distance from the project channel, impacts are not expected to occur from dredging or material placement operations. Although not considered a preserve, Nueces Bay, located adjacent to the Inner Harbor reach, was designated as a State Sanctuary in 1979 by the Texas Legislature (Senate Bill No. 335, 66th Legislature) due to its importance as a shrimp nursery area. All of the placement areas in the immediate vicinity are entirely confined; therefore, this sanctuary is not expected to be impacted by dredging or material placement operations.

## COMPLIANCE WITH GOALS AND POLICIES

The following goals and policies of the TCMP were reviewed for compliance.

§501.14(j) – Dredging and Dredged Material Disposal and Placement

§501.14(h) – Development in Critical Areas

§501.15 – Policy for Major Actions

### Compliance with §501.14(j) – Dredging and Dredged Material Disposal and Placement

Appendix E provides a summary of actions designed to comply with the specific requirements of §501.14(j)(1)-(6). Paragraph (7) of the section discusses emergency dredging procedures and is not applicable to the project at this time. Paragraph (8) discusses the mining of shell, marl, gravel, and mudshell and is not applicable to the Federal navigation project. Paragraph (9) is not applicable to the Corps of Engineers.

### Compliance with §501.14(h) – Development in Critical Areas

Dredging of the La Quinta Channel will result in the loss of five acres of a critical area, submerged aquatic vegetation. This impacted area will be mitigated by the creation of 15 acres of seagrasses.

### Compliance with §501.15 – Policy for Major Actions

This project involves action subject to §505.11 and constitutes a major action. Therefore, a Federal EIS is required under NEPA, 42 USC, §4321, et seq. Both State and Federal agencies involved with the CCSCCIP have met and coordinated on the identification and mitigation of project impacts and beneficial uses of dredged material. The purpose of this appendix to the FEIS is to demonstrate that the CCSCCIP is consistent with the TCMP.

### ENVIRONMENTAL BENEFITS AND POTENTIAL FOR BENEFICIAL USES

The CCSCCIP will provide a safer and more efficient navigation system and provide the materials for creation of beneficial use sites in Corpus Christi Bay and Redfish Bay.

The TCMP considers dredged material from dredging projects in commercially navigable waterways a potentially reusable resource that must be used beneficially when economically feasible (§501.14(j)(4)(A-C)). The CCSCCIP is a dredging project and is being dredged for commercial navigation. The estimated amount of dredged material generated by the project would be 41 mcy of new work material, and approximately 208 mcy of maintenance material over the next 50 years. New work material (16.7 mcy) will be utilized to create two offshore sites, one upland site, and five open-water sites as described in Section 1.7 of the FEIS.

### CONSISTENCY DETERMINATION

The project addressed in this FEIS has been reviewed for consistency with the goals and policies of the TCMP. CNRAs in the project area are identified and evaluated for potential impacts from activities associated with the project. It is determined that these activities will not adversely impact the CNRAs. Based on this analysis, the USACE and PCCA find that the project discussed in the FEIS of the CCSCCIP is consistent with the goals and policies of the TCMP to the maximum extent practicable.

Attached is a summary of actions designed to comply with the specific requirements of §501.14(j)(1)-(6).

ATTACHMENT

COMPLIANCE WITH GOALS AND POLICIES - SECTION 501.14(J)(1)-(6)

**COMPLIANCE WITH GOALS AND POLICIES - SECTION 501.14(J)(1)-(6)  
DREDGING AND DREDGED MATERIAL DISPOSAL AND PLACEMENT  
CORPUS CHRISTI SHIP CHANNEL  
IMPROVEMENT PROJECT, TEXAS  
ENVIRONMENTAL IMPACT STATEMENT**

All new work material will be placed in Beneficial Use areas described in Section 1.7 of the FEIS. Maintenance material will continue to be placed in placement areas described in the Consistency Determination for La Quinta Channel and Corpus Christi Ship Channel for The Texas Coastal Coordination Council, July 10, 1999. Therefore, this appendix refers only to the dredging and placement of new work material in Beneficial Use areas and new work dredging in the Inner Harbor.

**Section 501.14(j) Dredging and Dredged Material Disposal and Placement**

- (1) *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.*

**Compliance:** The Beneficial Use of dredged material to establish high quality fish and wildlife habitat through development of shallow-water, marsh, and submerged aquatic vegetation (SAV) and shoreline and SAV protection may have some effect on submerged lands of the Gulf of Mexico and Corpus Christi Bay, such as temporarily burying benthic organisms and increasing turbidity in the designated placement areas. However, these sites will be created only with new work material that has been tested and found not to contain harmful pollutants.

- (A) *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 subsection (f) of this section.*

**Compliance:** For all sites, adequate dilution and dispersion occurs so as not to violate applicable surface water quality standards (EIS Section 4.1.3).

- (B) *Except as otherwise provided in subparagraph (D) of this paragraph, 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 subsection (h) of this section.*

**Compliance:** No critical areas are affected by the location of the Beneficial Use sites. The Beneficial Use sites are created to enhance habitat for fish and wildlife through the development of SAV, marsh, and other estuarine habitat. Therefore, adverse effects are minimized or avoided at these sites.

- (C) *Except as provided in subparagraph (D) of this paragraph, dredging and the disposal and placement of dredged material shall not be authorized if:*
- (i) *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;*



**Compliance:** Placement of new work material in existing placement areas might have fewer effects, but would offer no enhancement to the environment. Therefore, Beneficial Use sites are practicable alternatives that would have beneficial effects for the estuarine ecosystem.

- (ii) *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*

**Compliance:** All practicable steps have been taken to minimize adverse affects on these resources.

- (iii) *significant degradation of critical areas under subsection (h)(1)(G)(v) of this section would result.*

**Compliance:** No critical areas are affected by the use of the Beneficial Use sites; therefore no significant degradation would result.

- (D) *A dredging or dredged material disposal or placement project that would be prohibited solely by application of subparagraph (C) of this paragraph 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:** For all sites, application of subparagraph (C) does not prohibit the use of the sites. Dredging is necessary to prevent economic impacts on navigation and to maintain the commercially navigable CCSC system. Widening and deepening the channel is necessary to increase navigational safety.

- (2) *Adverse effects from dredging and dredged material disposal and placement shall be minimized as required in paragraph (1) of this subsection. Adverse effects can be minimized by employing the techniques in this paragraph where appropriate and practicable.*

**Compliance:** Adverse effects of dredging and disposal as described in this EIS have been minimized as described under "Compliance" for paragraph (1) of this subsection.

- (A) *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:*
  - (i) *locating and confining discharges to minimize smothering of organisms;*
  - (ii) *locating and designing projects to avoid adverse disruption of water inundation patterns, water circulation, erosion and accretion processes, and other hydrodynamic processes;*
  - (iii) *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;*
  - (iv) *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;*

- (v) *discharging materials at sites where the substrate is composed of material similar to that being discharged;*
- (vi) *locating and designing discharges to minimize the extent of any plume and otherwise control dispersion of material; and*
- (vii) *avoiding the impoundment or drainage of critical areas.*

**Compliance:** Creation of Beneficial Use sites will provide high quality fish and wildlife habitat in the form of tidal shallow-water, marsh, SAV, and other estuarine habitats.

- (B) *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:*
- (i) *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;*
  - (ii) *limiting the solid, liquid, and gaseous components of material discharged;*
  - (iii) *adding treatment substances to the discharged material; and*
  - (iv) *adding chemical flocculants to enhance the deposition of suspended particulates in confined disposal areas,*

**Compliance:** Sediments to be dredged from the Corpus Christi Ship Channel have been tested for a variety of chemical parameters of concern to resource agencies since the 1970s. EPA, USFWS, and TNRCC have reviewed these data and have not found any issues of concern except in the Inner Harbor. All material from the Inner Harbor will be placed in upland, confined placement areas. These sediments are fully contained so that contaminants are not reintroduced into the estuarine ecosystem. A summary of these reports are included in the EIS.

- (C) *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:*
- (i) *use of containment levees and sediment basins designed, constructed, and maintained to resist breaches, erosion, slumping, or leaching;*
  - (ii) *use of lined containment areas to reduce leaching where leaching of chemical constituents from the material is expected to be a problem;*
  - (iii) *capping in-place contaminated material or, selectively discharging the most contaminated material first and then capping it with the remaining material;*
  - (iv) *properly containing discharged material and maintaining discharge sites to prevent point and nonpoint pollution; and*
  - (v) *timing the discharge to minimize adverse effects from unusually high water flows, wind, wave, and tidal actions.*

**Compliance:** All sites created by this project have been designed to meet this requirement. Sediments of concern from the Inner Harbor will go to upland, confined placement areas.

- (D) *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:*
- (i) *where environmentally desirable, distributing the material in a thin layer;*
  - (ii) *orienting material to minimize undesirable obstruction of the water current or circulation patterns;*
  - (iii) *using silt screens or other appropriate methods to confine suspended particulates or turbidity to a small area where settling or removal can occur;*
  - (iv) *using currents and circulation patterns to mix, disperse, dilute, or otherwise control the discharge;*
  - (v) *minimizing turbidity by using a diffuser system or releasing material near the bottom;*
  - (vi) *selecting sites or managing discharges to confine and minimize the release of suspended particulates and turbidity and maintain light penetration for organisms; and*
  - (vii) *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 effects to the greatest extent practicable. In addition, the Beneficial Use sites minimize or eliminate any adverse effects by placing rock breakwaters or levees around the dredged materials on site and raising islands to decrease erosion. These sites are also designed to minimize negative effects on circulation patterns and surrounding habitats. Submerged discharge points will be used to disperse the material across the designated area. The offshore site meets this requirement by disposing the material beneficially across the area.

- (E) *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:*
- (i) *using appropriate equipment, machinery, and operating techniques for access to sites and transport of material, including those designed to reduce damage to critical areas;*
  - (ii) *having personnel on site adequately trained in avoidance and minimization techniques and requirements; and*
  - (iii) *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:** All sites in this project meet this requirement. Contracts will be written to ensure compliance with all standards.

- (F) *Adverse effects on plant and animal populations from dredging and dredged material disposal or placement can be minimized by:*
- (i) *avoiding changes in water current and circulation patterns that would interfere with the movement of animals;*
  - (ii) *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;*
  - (iii) *avoiding sites having unique habitat or other values including habitat of endangered species;*
  - (iv) *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;*
  - (v) *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;*
  - (vi) *timing dredging and dredged material disposal or placement activities to avoid spawning or migration seasons and other biologically critical time periods; and*
  - (vii) *avoiding the destruction of remnant natural sites within areas already affected by development.*

**Compliance:** Beneficial use sites meet these requirements. Cutterhead dredging does not affect spawning or migration and is not limited to certain seasons. However, the Beneficial Use of materials at PA 7 and PA 8 is limited to certain seasons to avoid adverse effects on bird nesting. Hopper dredging is also limited to the cooler months, where possible, when sea turtle activity and abundance is lowest. These dredges employ turtle observers to document any turtles that become entrained by the dragheads.

- (G) *Adverse effects on human use potential from dredging and dredged material disposal or placement can be minimized by:*
- (i) *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;*
  - (ii) *selecting sites which are not valuable as natural aquatic areas;*
  - (iii) *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*

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

**Compliance:** Beneficial use sites will contribute significantly to the human use potential and enjoyment of Corpus Christi Bay. The sites will create an estuarine environment of high habitat quality for fish and wildlife. This will attract recreational fisherman and bird watchers.

- (H) *Adverse effects from new channels and basins can be minimized by locating them at sites:*
  - (i) *that ensure adequate flushing and avoid stagnant pockets; or*
  - (ii) *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*
  - (iii) *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;*
  - (iv) *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:** The La Quinta Channel extension and turning basin and the Entrance Channel extension are the only new channels and basins proposed in this EIS. All identifiable adverse effects have been minimized and unavoidable impacts have been mitigated. All other new work dredging will be in existing ship channels.

- (3) *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 (1) of this subsection unless modified in design, size, use, or function.*

**Compliance:** No existing upland, confined placement areas are being modified with new work material, except for some levee enhancement.

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

**Compliance:** All new work material from this project, except from parts of the Upper Bay and all of the Inner Harbor, is being used beneficially for aquatic, shoreline protection, and upland wildlife habitat creation.

- (A) *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.*
- (B) *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:*

- (i) environmental benefits, recreational benefits, flood or storm protection benefits, erosion prevention benefits, and economic development benefits;*
- (ii) the proximity of the Beneficial Use site to the dredge site; and*
- (iii) the quantity and quality of the dredged material and its suitability for Beneficial Use.*

*(C) Examples of the Beneficial Use of dredged material include, but are not limited to:*

- (i) projects designed to reduce or minimize erosion or provide shoreline protection;*
- (ii) projects designed to create or enhance public beaches or recreational areas;*
- (iii) projects designed to benefit the sediment budget or littoral system;*
- (iv) projects designed to improve or maintain terrestrial or aquatic wildlife habitat;*
- (v) projects designed to create new terrestrial or aquatic wildlife habitat, including the construction of marshlands, coastal wetlands, or other critical areas;*
- (vi) projects designed and demonstrated to benefit benthic communities or aquatic vegetation;*
- (vii) projects designed to create wildlife management areas, parks, airports, or other public facilities;*
- (viii) projects designed to cap landfills or other waste disposal areas;*
- (ix) projects designed to fill private property or upgrade agricultural land, if cost-effective public Beneficial Uses are not available; and*
- (x) projects designed to remediate past adverse impacts on the coastal zone.*

**Compliance:** All new work dredged material, except from parts of the Upper Bay and all of the Inner Harbor, covered under this EIS will be used beneficially.

*(5) If dredged material cannot be used beneficially as provided in paragraph (4) (B) of this subsection, to avoid and otherwise minimize adverse effects as required in paragraph (1) of this subsection, preference will be given to the greatest extent practicable to disposal in:*

- (A) contained upland sites;*
- (B) other contained sites; and*
- (C) open water areas of relatively low productivity or low biological value.*

**Compliance:** All new work dredged material, except from parts of the Upper Bay and all of the Inner Harbor, covered under this EIS will be used beneficially.

- (6) *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: Construction of Beneficial Use sites is designed to prevent impacts to adjoining private lands.**



REPLY TO  
ATTENTION OF.

**DEPARTMENT OF THE ARMY**  
**GALVESTON DISTRICT, CORPS OF ENGINEERS**  
**P.O. BOX 1229**  
**GALVESTON, TEXAS 77553-1229**  
June 28, 2002

Environmental Section

Ms. Diane Garcia  
Council Secretary  
Coastal Coordination Council  
P.O. Box 12873  
Austin, Texas 78711-2873

Dear Ms. Garcia:

Pursuant to §506.20, Consistency Determination for Federal Agency Activities and Development Projects of the Texas Coastal Management Program (TCMP), I am submitting the enclosed Consistency Determination for improving the Corpus Christi Ship Channel and extending the La Quinta Ship Channel in Nueces and San Patricio Counties, Texas. Also, please incorporate by reference the Draft Environmental Impact Statement (EIS) for this project titled, "Corpus Christi Ship Channel – Channel Improvements Project, Corpus Christi and Nueces Bays, Nueces and San Patricio Counties, Texas," that was enclosed separately. The consistency determination may also be found in the Draft EIS as Section 6.0.


The project has been extensively coordinated with the public and State and Federal resource agencies throughout the planning phase and during preparation of the Draft EIS. The agencies, Port of Corpus Christi Authority, and Corps of Engineers have reviewed the project for consistency with the goals and policies of the TCMP. Coastal Natural Resource Areas in the project area are identified and evaluated for potential impacts from project activities, including development of shallow-water estuarine habitats in beneficial use sites created with new-work dredged material.

Based on this analysis and comments received during public coordination and resource agency review of several early versions of the Draft EIS, no changes to the Consistency Determination are deemed necessary. Therefore, the enclosed Consistency Determination and the duplicate copy in Section 6.0 is considered to be the final version.



Please take the appropriate action concerning this determination. If you have any questions, please contact Dr. Terrell Roberts at (409) 766-3035.

Sincerely,

  
Lloyd H. Saunders, Ph.D.  
Chief, Planning, Environmental  
and Regulatory Section

Enclosures

## 1.0 COMPLIANCE WITH TEXAS COASTAL MANAGEMENT PROGRAM

### 1.1 INTRODUCTION

The Texas Coastal Management Program (TCMP) was submitted to NOAA for review pursuant to §306 of the Federal Coastal Zone Management Act of 1972, as amended, 16 U.S.C. 1451 et seq. The Office of Ocean and Coastal Resource Management approved the TCMP in 1996. Federal approval of the TCMP requires that Federal actions occurring within the TCMP boundary be consistent with the goals and policies of the TCMP. To show compliance, Federal agencies responsible for these actions must prepare a consistency determination and submit it to the State for review. This consistency determination for channel improvements (see Section 2.0) was prepared in accordance with the TCMP, Final EIS, dated August 1996. Details of the project, as well as environmental impacts, are presented in previous sections of this DEIS and will be referenced in this determination.

### 1.2 IMPACTS ON COASTAL NATURAL RESOURCE AREAS

Several of the Coastal Natural Resource Areas (CNRAs) listed in 31 TAC §501.3 are found reasonably close to the areas discussed in this DEIS. A short description of each CNRA near the project and of methods to minimize or avoid potential impacts is provided below.

#### 1.2.1 Waters of the Open Gulf of Mexico

Dredged maintenance materials will be placed in the open Gulf of Mexico in PA 1 and dredged construction material will be placed in BU Site ZZ (the designated Navy Homeport ODMS) and BU Site MM. PA 1 is an open water placement area located southeast of the Gulf end of the Mustang Island Jetty for the Entrance Channel at Port Aransas. This site was officially designated as an ocean PA as required by §103 of the MPRSA of 1972. An EIS that described the alternatives evaluated was prepared for this designation.

#### 1.2.2 Waters Under Tidal Influence

The entire project is located in a region which experiences tidal influence. Dredging and placement activities represent a minimal impact because the release of suspended solids is minimized according to requirements of the State §401 Certification. Current dredging practices are found in the Consistency Determination for La Quinta Channel (USACE and PCCA, 1999a) and Corpus Christi Ship Channel (USACE and PCCA, 1999b). Use of long established, designated PAs will minimize adverse effects on CNRAs in the project area.

#### 1.2.3 Submerged Lands

The areas immediately adjacent to the project alignment, as well as the open water placement areas, are characterized as submerged land. Impacts to these areas are minimized by placement of dredged material into the historically used placement areas. BU sites will cover submerged lands; however, this placement will benefit coastal ecology.

#### 1.2.4 Coastal Wetlands

No significant expanse of wetlands is located in close proximity to this project except for the uppermost segment of the Inner Harbor reach, and to a lesser extent, some sparse fringing marshes in Redfish Bay. Some scattered saltmarsh and black mangrove marshes exist to the east of Harbor Island, but the most significant wetlands in the vicinity are located near Tule Lake and in the Nueces River delta. These are in close proximity to the channel from the Tule Lake Turning Basin to the Viola Turning Basin. The placement areas in this vicinity are totally confined, and mitigation for any impacts to the wetlands has been completed. Continued use of confined placement areas will prevent further impacts to wetland areas.

#### 1.2.5 Submerged Aquatic Vegetation

This navigation project is located near areas characterized as having large expanses of seagrasses. Impacts to seagrasses are minimized or avoided by placing dredged material into leveed upland sites or other historically used placement areas in the deeper waters of the bay. Impacts to seagrasses will be mitigated at a 3:1 ratio. Fifteen acres of seagrass will be created for impacts to 5 acres of seagrass.

#### 1.2.6 Tidal Sand and Mud Flats

Some of the areas adjacent to the project alignment are adjacent to areas of tidal sand or mud flats. These areas may be frequently flooded and may contain algal mats. Impacts to these areas are minimized or avoided by placing dredged material into leveed upland sites or other historically used placement areas in the deeper waters of the bay.

#### 1.2.7 Oyster Reefs

Several significant oyster reefs exist in Corpus Christi Bay. The nearest is Long Reef, which is approximately 3,000 feet away from PA 13. PA 13 is a confined upland site, and the effluent discharge is returned to La Quinta Channel. Therefore, adverse impacts to oyster resources are not expected to occur as a result of dredging and dredged material placement operations.

#### 1.2.8 Hard Substrate Reefs

There are no naturally occurring hard substrate formations in the vicinity of the project. The closest rock outcrop is located just north of the City of Aransas Pass and is crossed by the GIWW. The closest serpulid worm reefs are located farther south in the Laguna Madre and Baffin Bay.

#### 1.2.9 Coastal Barriers

Four coastal barrier areas occur in the vicinity of the project. Two of the areas extend north along San Jose Island (T08 and T08P) and the other two are located on or near the lower part of Mustang Island (TX-15P and TX-17P). San Jose Island and Mustang Island are located north and south, respectively, of Aransas Pass through which the Entrance Channel traverses. San Jose Island is

undeveloped while Mustang Island is highly developed for tourism and recreation, including the City of Port Aransas. Neither island currently is experiencing a great deal of erosion. PA 2 is located on San Jose Island adjacent to the north jetty. This PA is partially confined by dunes and levees. The dredged material placed there is predominately sand, helping to protect and nourish this barrier island. Furthermore, precautions are exercised to preserve existing dunes during dredge pipeline placement and discharge operations. Based on this information, adverse impacts to these coastal barriers are not expected to occur as a result of dredging and dredged material placement operations.

#### 1.2.10 Coastal Shore Areas

Coastal shore areas are within 100 feet landward of the high water mark on submerged land. These resource areas function as buffers, protecting upland habitats from erosion and storm damage and adjacent marshes and waterways from water quality degradation. This type of area is located at the Entrance Channel, where the channel traverses Aransas Pass to the Gulf of Mexico. PA 2 is located within a coastal shore area on San Jose Island adjacent to the north jetty. This PA is partially confined by dunes and levees. The dredged material placed there is predominately sand, helping to protect and nourish this shore area. Furthermore, precautions are exercised to preserve existing dunes during dredge pipeline placement and discharge operations. Therefore, adverse impacts to coastal shore areas are not expected to occur as a result of dredging and dredged material placement operations.

#### 1.2.11 Gulf Beaches

Gulf beaches border the Gulf of Mexico and extend inland from the line of mean low tide to the natural line of vegetation. Aransas Pass, through which the Entrance Channel passes, traverses a Gulf beach area. San Jose Island, to the north, is undeveloped. Mustang Island, to the south, is highly developed for tourism and recreation, including the City of Port Aransas. Little erosion is occurring along the beaches in this area; PA 2 is located on San Jose Island adjacent to the north jetty that adds material to this beach. This PA is partially confined by dunes and levees. The dredged material placed there is predominately sand, helping to protect and nourish this beach area. Furthermore, precautions are exercised to preserve existing dunes during dredge pipeline placement and discharge operations. Therefore, adverse impacts are not expected to occur as a result of dredging and dredged material placement operations.

#### 1.2.12 Critical Dune Areas

The Gulf beaches on both sides of Aransas Pass can be characterized as having active sand dune systems. PA 2 is located on San Jose Island adjacent to the north jetty and is partially confined by dunes and levees. The dredged material placed there is predominately sand, helping to protect and nourish this area. Furthermore, precautions are exercised to preserve existing dunes during dredge pipeline placement and discharge operations. Therefore, adverse impacts to dune areas are not expected to occur as a result of dredging and dredged material placement operations.

### 1.2.13 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. Much of the project area qualifies as special hazard areas on the Flood Insurance Rate Maps. Project dredging and placement activities do not affect these low-lying areas because dredging is within and adjacent to the existing channel and disposal is within contained PAs in upland sites and approved BU sites in open waters.

### 1.2.14 Critical Erosion Areas

These areas are those Gulf and bay shorelines that are undergoing erosion and are designated by the Commissioner of the General Land Office under Texas Natural Resources Code, §33.601(b). Only one critical area of erosion is designated in the project vicinity and is located west of Port Aransas on the south side of the CCSC. It extends west from near the Nueces County Fishing Pier for about 5,844 feet to Piper Channel. An evaluation of erosion protection using bank armoring without dredged material for this area is discussed in Section 1.6.

### 1.2.15 Coastal Historic Areas

These areas consist of sites listed or eligible for the NRHP and SALs. Compliance with the TCMP regarding coastal historic areas is accomplished through procedures established by Section 106 of the National Historic Preservation Act of 1965 (NHPA), as amended. These coastal historic sites, as well as non-coastal historic sites, are discussed in Section 3.8 of this DEIS, with impacts discussed in Section 4.7.

### 1.2.16 Coastal Preserves

This natural resource includes only State lands and parks. There are no designated Texas Coastal Preserves located in the vicinity of the CCSCIP. However, there are two State-owned lands in the general project area. Mustang Island State Park is located within Coastal Barrier Resource Unit TX-15P, and a small area known as Redhead Pond Wildlife Management Area is located on the mainland side of the Laguna Madre south of the Kennedy Causeway. Based on their distance from the project channel, impacts are not expected to occur from dredging or material placement operations. Although not considered a preserve, Nueces Bay, located adjacent to the Inner Harbor reach, was designated as a State Sanctuary in 1979 by the Texas Legislature (Senate Bill No. 335, 66th Legislature) due to its importance as a shrimp nursery area. All of the placement areas in the immediate vicinity are entirely confined; therefore, this sanctuary is not expected to be impacted by dredging or material placement operations.

### 1.3 COMPLIANCE WITH GOALS AND POLICIES

The following goals and policies of the TCMP were reviewed for compliance.

- §501.14(j) – Dredging and Dredged Material Disposal and Placement
- §501.14(h) – Development in Critical Areas
- §501.15 – Policy for Major Actions

#### 1.3.1 Compliance with §501.14(j) – Dredging and Dredged Material Disposal and Placement

Appendix E provides a summary of actions designed to comply with the specific requirements of §501.14(j)(1)-(6). Paragraph (7) of the section discusses emergency dredging procedures and is not applicable to the project at this time. Paragraph (8) discusses the mining of shell, marl, gravel, and mudshell and is not applicable to the Federal navigation project. Paragraph (9) is not applicable to the Corps of Engineers.

#### 1.3.2 Compliance with §501.14(h) – Development in Critical Areas

Dredging of the La Quinta Channel will result in the loss of five acres of a critical area, submerged aquatic vegetation. This impacted area will be mitigated by the creation of 15 acres of seagrasses.

#### 1.3.3 Compliance with §501.15 – Policy for Major Actions

This project involves action subject to §505.11 and constitutes a major action. Therefore, a Federal EIS is required under NEPA, 42 USC, §4321, et seq. Both State and Federal agencies involved with the CCSCCIP have met and coordinated on the identification and mitigation of project impacts and beneficial uses of dredged material. The purpose of this portion of the DEIS is to demonstrate that the CCSCCIP is consistent with the TCMP.

### 1.4 ENVIRONMENTAL BENEFITS AND POTENTIAL FOR BENEFICIAL USES

The CCSCCIP will provide a safer and more efficient navigation system and provide the materials for creation of beneficial use sites in Corpus Christi Bay and Redfish Bay.

The TCMP considers dredged material from dredging projects in commercially navigable waterways a potentially reusable resource that must be used beneficially when economically feasible (§501.14(j)(4)(A-C)). The CCSCCIP is a dredging project and is being dredged for commercial navigation. The estimated amount of dredged material generated by the project would be 41 mcy of new work material, and approximately 208 mcy of maintenance material over the next 50 years. New work material (16.7 mcy) will be utilized to create two offshore sites, one upland site, and five open-water sites as described in Section 1.7.

1.5

CONSISTENCY DETERMINATION

The project addressed in this DEIS has been reviewed for consistency with the goals and policies of the TCMP. CNRAs in the project area are identified and evaluated for potential impacts from activities associated with the project. It is determined that these activities will not adversely impact the CNRAs. Based on this analysis, the USACE and PCCA find that the project discussed in the DEIS of the CCSCCIP is consistent with the goals and policies of the TCMP to the maximum extent practicable.

Appendix E provides a summary of actions designed to comply with the specific requirements of §501.14(j)(1)-(6).

17 Jun 02

Date

Leonard D. Waterworth

Leonard D. Waterworth  
Colonel, U.S. Army Corps of Engineers  
District Engineer



# Coastal Coordination Council

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November 25, 2002

Colonel Leonard D. Waterworth  
District Engineer, Galveston District  
U. S. Army Corps of Engineers  
P.O. Box 1229  
Galveston, Texas 77553-1229

## RE: Consistency Agreement, Corpus Christi Ship Channel – Channel Improvement Project

Dear Colonel Waterworth:

Pursuant to 31 TAC §506.28(b), the Coastal Coordination Council (Council) issues this Consistency Agreement for the Corpus Christi Ship Channel – Channel Improvements Project (Project), a federal development project by the U.S. Army Corps of Engineers (COE).

The COE established an interagency coordination group whose duties included advising the COE on the consistency of the Project. The interagency coordination group included among its members a minimum of three Council members from natural resource agencies or their representatives. The COE adopted the interagency coordination group's consensus position on consistency and submitted it to the Council on September 25, 2002, incorporating by reference the consistency determination for the Project that had been prepared and circulated for public comment along with the draft environmental impact statement for the Project.

Therefore, the Council accepts and adopts the consistency determination for the Project as submitted by the COE and issues this Consistency Agreement under 31 TAC §506.28(b), in lieu of Council review under 31 TAC §506.26.

Sincerely,

A handwritten signature in black ink that reads "David Dewhurst".

David Dewhurst  
Commissioner, General Land Office  
Chair, Coastal Coordination Council