

## **Attachment for Consistency Determination for Bayport Terminal**

The following narrative provides explanations for each of the subsections and paragraphs that define *Rule 26.25 Policies for Dredged Material and Placement* in reference to the Consistency with the Texas Coastal Management Program application for Bayport Terminal submitted by Port Houston. Black text indicates references or headings in Rule 26.25. Blue text indicates the explanations given by the applicant, Port Houston, of each subsection and paragraphs.

**Subsection (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 section are supplemental to any further restrictions or requirements relating to the beach access and use rights of the public. In implementing this section, cumulative and secondary adverse effects of dredging and the disposal and 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 dispersion, to violation of any applicable surface water quality standards established under §26.21 of this title (relating to Policies for Discharge of Municipal and Industrial Wastewater to Coastal Waters).

This project is consistent with this applicable policy because routine maintenance dredging operations and ocean disposal of the material in the Galveston ODMDS will not cause nor contribute to violation of the surface water quality standards under §26.21 of this title. As part of the ocean disposal permitting process under Section 103 of the MPRSA, proposed maintenance material will be evaluated to determine its suitability for ocean disposal. As part of this evaluation, marine water quality compliance is determined using a numerical mixing model (e.g., STFATE) to ensure water quality criteria outside the boundaries of the ODMDS is met during disposal operations at the Galveston ODMDS. Port Houston dredging contractors will also comply with best management practices, permit conditions, and guidance from the 2016 Galveston ODMDS Site Management and Monitoring Plan during dredging and transport to minimize impacts on water quality.

(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 §26.23 of this title (relating to Policies for Development in Critical Areas).

This project is consistent with this applicable policy because dredging operations at the Bayport Terminal berths (Docks 1 through 7 and Lay Berth), transit of material to the disposal site via the Houston Ship Channel, and placement of the material at the Galveston ODMDS will not take place in critical areas.

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

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

- (B) all appropriate and practicable steps have not been taken to minimize adverse effects on coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches; or
- (C) significant degradation of critical areas under §26.23(a)(7)(E) of this title would result.

This project is consistent with this applicable policy because an Alternative Analysis report was prepared that examined four alternative types of disposal options. After evaluation and comparison of the alternatives with the selection criteria, the placement of maintenance material from the Bayport Terminal berths into the Galveston ODMDS was identified as the preferred alternative for long-term (50-years) of routine maintenance material. Dredging operations, transit of material to the disposal site, and placement of the material at the Galveston ODMDS will not take place in critical areas. The complete Alternatives Analysis report is provided in Attachment B.

(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.

Explanatory paragraph. Non-applicable.

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

- (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.

This project is consistent with this applicable policy described in the subparagraphs above.

- (A) As discussed in Section 5.4.5.1 of the Alternatives Analysis report (Attachment B), disposal of maintenance material at the Galveston ODMDS would have temporary effects of burying existing benthos during placement operations, but no permanent habitat

conversion would occur. Benthic communities at the ODMDS are expected to recover in a relatively short timeframe following placement of the material, and no long-term impacts are anticipated from the placement of maintenance material. Impacts to fish and wildlife values, including EFH, will be temporary and minor.

- (B) The dredging and disposal operations will not impact water inundation patterns, water circulation, erosion and accretion processes, and other hydrodynamic processes. The Galveston ODMDS is an open-water dispersive site. Prior surveys of the ODMDS following placement of dredged material indicate little to no accumulation within its boundaries; therefore, it is considered a dispersive site; and placement of material from Bayport Terminal berths should not disrupt above-mentioned processes.
  - (C) This project involves routine maintenance dredging operations in existing berths, and dredged material would be placed in the Galveston ODMDS which has been previously used for placement of dredged material.
  - (D) Maintenance dredging within the berths will be limited to permitted project depths including overdepth and within the permitted dredging prism boundaries as depicted in the permit drawings provided in Attachment A.
  - (E) The maintenance material from Bayport Terminal berths is composed of similar material to that historically placed at the Galveston ODMDS. The MPRSA Section 103 evaluation report provides grain size data from samples collected within the project area (Attachment C).
  - (F) STFATE modeling is performed to ensure disposal operations at the Galveston ODMDS meet marine water quality criteria.
  - (G) This project will not impact critical areas.
- (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 physiochemical conditions at discharge sites and limits or reduces the potency and availability of pollutants;
  - (B) limiting the solid, liquid, and gaseous components of material discharged;
  - (C) adding treatment substances to the discharged material; and
  - (D) adding chemical flocculants to enhance the deposition of suspended particulates in confined disposal areas.

This project is consistent with this applicable policy described in the subparagraphs above. The proposed dredged material has been evaluated under MPRSA Section 103 testing requirements which includes evaluation of material to ensure it complies with applicable standards for sediment toxicity. As part of the evaluation, material is evaluated for benthic effect to ensure the material will not cause unreasonable acute or chronic toxicity. Only material that is determined by EPA and USACE to be suitable for ocean disposal will be placed at the Galveston ODMDS. The full MPRSA Section 103 sediment testing report is provided in Attachment C.

- (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.

This project is consistent with this applicable policy described in the subparagraphs. Adverse effects from dredging and dredged material disposal or placement are minimized by only placing material at the Galveston ODMDS that has been evaluated and determined to be suitable for ocean disposal. Disposal operations will comply with permit conditions and requirements outlined in the Galveston ODMDS Site Management and Monitoring Plan (SMMP). Numerical modeling (e.g., STFATE) is also performed to ensure disposal location within the ODMDS and volume of material per load meets marine water quality criteria.

(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.

This project is consistent with this applicable policy described in the subparagraphs. As mentioned above, adverse effects from dredging and dredged material disposal or placement are minimized by only placing material at the Galveston ODMDS that has been evaluated and determined to be suitable for ocean disposal. Disposal operations will comply with permit conditions and requirements outlined in the Galveston ODMDS Site Management and Monitoring Plan (SMMP). Numerical modeling (e.g., STFATE), which takes into account current velocity and direction, is also performed to ensure disposal location within the ODMDS and volume of material per load meets marine water quality criteria.

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

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

(B) having personnel on site adequately trained in 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.

This project is consistent with this applicable policy described in the subparagraphs. Adverse effects from dredging and dredged material disposal or placement operations can be minimized by using appropriate and standard dredging equipment (e.g., either mechanical or hopper dredging equipment) with highly trained personnel to operate the equipment. Mechanically dredged material will be placed on a scow or barge and transported to the Galveston ODMDS.

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

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

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

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

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

(E) using techniques that have been demonstrated to be effective in 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.

This project is consistent with this applicable policy described in the subparagraphs. Adverse effects on plant and animal populations from dredging and dredged material disposal are not anticipated. An Alternatives Analysis report was prepared to evaluate the effects of dredging and disposal operations on biological resources (Attachment B). This project has been coordinated with National Marine Fisheries Service and U.S. Fish and Wildlife Service. The ODMDS does not contain critical habitat for any threatened or endangered species. Dredging and disposal operations will comply with environmental windows as included in Gulf Regional Biological Opinion and permit conditions to minimize impacts to species of concern during biologically critical time periods.

(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.

This project is consistent with this applicable policy described in the above subparagraphs. Adverse effects on human use potential from dredging and dredged material disposal are not anticipated. The Galveston ODMDS is already an active disposal site and is located completely underwater. The placement of additional dredged material within the ODMDS would not change the visual quality of the ODMDS area. The Bayport Terminal is an active container terminal and regular maintenance dredging operations occur in the adjacent channel. Minimal impacts to aesthetics would occur because of maintenance dredging operations at the Bayport Terminal berths.

(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 §26.15 of this title (relating to Policy for Major Actions), data and information on minimization of secondary adverse effects need not be produced or evaluated to comply with this paragraph if such data and information is produced and evaluated in compliance with §26.15(b)(1) of this title.

This project is consistent with this applicable policy because this project will not create any new channels nor basins.

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

This project is consistent with the applicable policy because the project proposes placing maintenance dredged material in the already existing and active Galveston ODMDS and complies with the requirements of Subsection (a).

**(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 water disposal areas;
- (I) projects designed to fill private property or upgrade agricultural land, if cost-effective public beneficial uses are not available; and
- (J) projects designed to remediate past adverse impacts on the coastal zone.

This project is consistent with this applicable policy described in the above subparagraphs. The potential for beneficial use of the routine maintenance dredged material was evaluated as part of the Alternative Analysis report (Attachment B). After evaluating several alternatives against the selection criteria, use of new or expanded beneficial use sites did not address the need for Port Houston to be able to perform maintenance dredging in coordination with concurrent USACE maintenance dredging events that transport material to the ODMDs. Based on current maintenance dredging needs and the frequency of the dredging cycle, the construction of expanded or new beneficial use sites would not provide certainty that routine maintenance dredging operations to remove accumulated sediment can occur on the planned dredging cycle since capacity at those sites would not be available in time for upcoming dredging cycles. As a result, it may be infeasible to dredge the Bayport Terminal berths as frequently and cost-effectively as needed to prevent shoaling above the authorized project depth which would impact navigational safety and access to the berths.

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

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

This project is consistent with the applicable policy because based on the Alternatives Analysis report (Attachment B), the preferred alternative is to place maintenance dredged material that has been determined to be suitable for ocean disposal in the Galveston ODMDS which is an existing and active disposal site.

**(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.**

This project is consistent with the applicable policy because suitable dredged material will be placed in the Galveston ODMDS which is an existing and active disposal site.

**(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 CMP coordinator 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 the CMP coordinator 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.

This project is consistent with the applicable policy because the emergency dredging standard will be observed and followed.

**(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.**

This project is consistent with the applicable policy as there will be no mining of sand, shell, marl, gravel, or mudshell.

**(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.

(j) To the extent practicable, agencies and subdivisions should maximize the use of collaborative partnerships between federal and non-federal interests to plan, fund, and implement projects for the beneficial use of dredged material and should further endeavor to coordinate such projects with the U.S. Army Corps of Engineers.

This project is consistent with the applicable policy because opportunities for beneficial use of the maintenance dredged material were evaluated and will continue to be evaluated in cooperation and coordination with federal and non-federal interests.

(k) Notwithstanding the requirements of this policy, all projects for the beneficial use of dredged material proposed under the Coastal Erosion Planning and Response Act (CEPRA), Texas Natural Resources Code, Chapter 33, Subchapter H, shall comply with Chapter 15 of this title and all other statutory and regulatory requirements applicable to CEPRA projects.

This project is consistent with the applicable policy as dredged material from this project area was evaluated for beneficial use in the Alternatives Analysis report (Attachment B).