

**Tier II
401 Certification Questionnaire**

I. Impacts to surface water in the State, including wetlands

A. What is the area of surface water in the State, including wetlands, that will be disturbed, altered or destroyed by the proposed activity?

- *No wetland will be filled.*
- *Approximately 4.13 acres of bay bottom will be temporarily impacted due to dredging operations for the expansion of the Turning Circle No.1 from a diameter of 1,400' to 1,500'. All areas of impact are in excess of -12' MLLW and are considered deepwater habitat.*
- *Three pile mooring dolphins are to be constructed along the south east end of Berth 10. All other improvements will be within the existing footprint of Berth 10. The three mooring dolphins have a combined footprint of 0.2 acres. The existing bay bottom depths in that area range from -10' to -22' MLLW are not anticipated to impact shallow bay bottom habitat.*

B. Is compensatory mitigation proposed? If yes, submit a copy of the mitigation plan. If no, explain why not.

The areas of bay bottom that may potentially be affected are in excess of -10' MLLW and are considered deepwater habitat. The action of deepening these small areas to improve navigational safety and the construction of three mooring dolphins will not convert the existing habitat to another type. Disturbance to the existing flora and fauna is expected to be temporary. Therefore, no mitigation plan is provided.

C. Please complete the attached Alternatives Analysis Checklist.

See attached.

II. Disposal of waste materials

A. Describe the methods for disposing of materials recovered from the removal or destruction of existing structures.

All material removed during the construction at Berth 10 will be stored onshore on Port property. All material that is not re-usable will be disposed of at a properly permitted facility.

Approximately 38,000 cubic yards of medium stiff clays, silts, and sands will be hydraulically dredged during the expansion of Turning Circle No. 1. The dredged material will be placed in the currently authorized confined upland placement areas, the "Todd" Disposal Area, USACE Pelican Island and/or the San Jacinto Placement Area. Galveston Wharves acknowledges and agrees to the 300 mg/l limit for total suspended solids (TSS) in return water from the dredge placement sites as specified and required under an Individual Permit.

B. Describe the methods for disposing of sewage generated during construction. If the proposed work establishes a business or a subdivision, describe the method for disposing of sewage after completing the project.

Sewage will be disposed of using existing sewage facilities at the Port of Galveston.

C. For marinas, describe plans for collecting and disposing of sewage from marine sanitation devices. Also, discuss provisions for the disposing of sewage generated from day-to-day activities.

N/A

III. Water quality impacts

A. Describe the methods to minimize the short-term and long-term turbidity and suspended solids in the waters being dredged and/or filled. Also, describe the type of sediment (sand, clay, etc.) that will be dredged or used for fill.

Approximately 38,000 cubic yards of medium stiff clays, silts, and sands will be hydraulically dredged during the expansion of Turning Circle No. 1. This material will be placed in one of the three authorized dredged material placement areas under the existing USACE Permit No. SWG-2011-00162.

The improvements to Berth 10 does not require any dredging or discharging of materials, the filling of wetlands or other waters. A work platform or barge will be set in place below the construction area to catch any falling debris. A combination of safety netting, silt curtains, and booms will be used as needed to capture falling debris and fine particulates in areas where the platform or barge can not successfully collect all material. The procedures should prohibit debris created during demolition and construction from reaching any of the surrounding waterways and will ensure water quality over the short-term during construction activities.

B. Describe measures that will be used to stabilize disturbed soil areas, including: dredge material mounds, new levees or berms, building sites, and construction work areas. The description should address both short-term (construction related) and long-term (normal operation or maintenance) measures. Typical measures might include containment structures, drainage modifications, sediment fences, or vegetative cover. Special construction techniques intended to minimize soil or sediment disruption should also be described.

As stated above, all material removed during the construction at Berth 10 will be stored onshore on Port property and materials not reused will be disposed of at a properly permitted facility. A work platform or barge will be set in place below the construction area to catch any falling debris. A combination of safety netting, silt curtains, and booms will be used as needed to capture falling debris and fine particulates in areas where the platform or barge can not successfully collect all material. The procedures should prohibit debris created during demolition and construction from reaching any of the surrounding waterways and will ensure water quality over the short-term during construction activities. Dredged materials from the expansion and maintenance of Turning Circle No. 1 will be placed within the confines of three USACE permitted upland dredged material facilities along the Galveston Harbor.

C. Discuss how hydraulically dredged materials will be handled to ensure maximum settling of solids before discharging the decant water. Plans should include a calculation of minimum settling times with supporting data (Reference: Technical Report, DS-7810, Dredge Material Research Program, GUIDELINES FOR DESIGNING, OPERATING, AND MAINTAINING DREDGED MATERIAL CONTAINMENT AREAS). If future maintenance dredging will be required, the disposal site should be designed to accommodate additional dredged materials. If not, please include plans for periodically removing the dried sediments from the disposal area.

Dredged material from the expansion and maintenance of Turning Circle No. 1 will be placed in the already approved "Todd" Disposal Area under Permit No. SWG-2011-00162. The existing permit allows for dredged materials to be placed in three confined upland placement areas: 1) The Pelican Island Placement Area; 2) the "Todd" Disposal Area; and/or 3) The San Jacinto Placement Area. Water is discharged from the upland confined placement areas under Nationwide Permit 16. The Port of Galveston acknowledges and agrees to the 300 mg/L limit for TSS in the return water from the placement areas as specified and required under Nationwide Permit 16. Maintenance material over the permit life may be placed in either of these three facilities pending approval of USACE SWG Regulatory and Operations Division, on a case by case basis.

D. Describe any methods used to test the sediments for contamination, especially when dredging in an area known or likely to be contaminated, such as downstream of municipal or industrial wastewater discharges.

Port of Galveston
SWG-2011-00162 Permit Amendment

Tier II Permit Submittal
March 03, 2020

Dredged materials from the Port of Galveston Wharves are not known or likely to be contaminated and are not downstream of municipal or industrial wastewater discharges. The Galveston Harbor is periodically tested and maintained in accordance with USACE sediment testing guidelines.

**Tier II
Alternatives Analysis Checklist**

I. Alternatives

A. How could you satisfy your needs in ways which do not affect surface water in the State?

The expansion of Turning Circle No. 1 at Station 9+000 north of the Galveston Yacht Basin and improvements to Berth 10 will provide the navigational safety and structural requirements necessary for larger cruise ships to begin service to the Port in 2021, resulting in increased commerce to the Galveston Island economy. The project design is already minimizing the impact to surface waters by expanding on an existing turning circle and making modifications to an existing structure. Activities may affect water quality within the project area by temporarily increasing turbidity and suspended sediment load in the estuarine water column. However, these temporary conditions are not expected to adversely impact marine mammals, essential fish habitat or other aquatic resources in the project area.

B. How could the project be re-designed to fit the site without affecting surface water in the State?

As stated above, the project has been designed to minimize the impact on surface waters by expanding on an existing turning circle and making modifications to an existing structure. The expansion of Turning Circle No. 1 will temporarily affect surface waters during initial dredging. This could potentially affect 4.13 acres and will require 38,000 CY of dredging. All areas of impact are in excess of -12' MLLW and are considered deepwater habitat. To improvements to Berth 10 have for the most part been limited to the footprint of the existing structure. Three mooring dolphins with a combined footprint of 0.2 acres will be constructed along the backside of Berth 10. The existing bay bottom depths in that area range from -10' to -22' MLLW are not anticipated to impact shallow bay bottom habitat. All best management practices will be utilized during demolition and construction to prohibit debris from reaching any of the surrounding waterways and will ensure water quality over the short-term during construction activities.

C. How could the project be made smaller and still meet your needs?

Reducing the turning circle or not allowing for the improvements to Berth 10 would compromise the safety of the Port to accommodate the intended cruise ships that wish to begin service in 2021.

D. What other sites were considered?

Only the existing Port of Galveston property and facilities were considered. Other sites would require additional development and would affect additional surface water of the state to meet the same purpose.

1. What geographical area was searched for alternative sites?

Alternative sites would require new development and were not considered. The project serves to expand upon existing facilities that will allow for larger cruise ships to call on the Port resulting in increased commerce to the Galveston island economy.

2. How did you determine whether other non-wetland sites are available for development in the area?

There are minimal undeveloped non-wetland sites suitable for Port operations in the area. Available non-wetland sites are currently developed and in use by the Port. The project will improve existing facilities and will not impact wetlands.

3. In recent years, have you sold or leased any lands located within the vicinity of the project? If so, why were they unsuitable for the project?

Yes. The Port of Galveston has sold and leased lands located in the vicinity of the project. These lands are unsuitable for this project as the proposed project serves to upgrade existing facilities to meet the future cruise ship needs of the Port.

E. What are the consequences of not building the project?

The expansion of Turning Circle No. 1 and the improvements to Berth 10 will allow for larger cruise ships to call on the Port. The benefit from growth and development along the Channel is not limited to the Port, but extends to the City of Galveston, surrounding areas, and the State of Texas. The Port of Galveston and its associated private and public facilities currently provides employment of approximately 13,892 personnel and provides over \$2.3 Billion in revenue to the State of Texas. Without these improvements to the Port facilities the larger cruise ships planned to begin service in 2021 will be directed to other ports that can accommodate these larger ships.

II. Comparison of alternatives

A. How do the costs compare for the alternatives considered above?

The only alternative would be to not expand Turning Circle No.1 and to not construct the improvements to Berth 10. Without the proper facility, this will direct business to other ports that can accommodate these larger cruise ships. This loss of jobs and industry would directly affect the local Galveston Island economy. These projects were already designed to minimize the impact on surface waters by expanding on an existing turning circle and making modifications to an existing structure.

B. Are there logistical (location, access, transportation, etc.) reasons that limit the alternatives considered?

Yes. The turning circle needs to be in close proximity to the cruise terminal with sufficient width and depth that provide for navigational safety.

C. Are there technological limitations for the alternatives considered?

No.

D. Are there other reasons certain alternatives are not feasible?

No.

III. If you have not chosen an alternative which would avoid impacts to surface water in the State, please explain:

A. Why your alternative was selected, and

No alternative would avoid impacts to surface water in the State. The expansion of Turning Circle No. 1 and the improvements to Berth 10 will allow for larger cruise ships to call on the Port. Without these improvements to the Port facilities the larger cruise ships planned to begin service in 2021 will be directed to other ports that can accommodate these larger ships. This loss of jobs and industry would directly affect the local Galveston Island economy. Repairing existing facilities and expanding on an existing turning circle allows for sustainable modernized development of the Port of Galveston.

B. What you plan to do to minimize adverse effects on the surface water in the State impacted.

All material removed during the construction at Berth 10 will be stored onshore on Port property and materials not reused will be disposed of at a properly permitted facility. A work platform or barge will be set in place below the construction area to catch any falling debris. A combination of safety netting, silt curtains, and booms will be used as needed to capture falling debris and fine particulates in areas where the platform or barge can not successfully collect all material. The procedures should prohibit debris created during demolition and construction from reaching any of the surrounding waterways and will ensure water quality over the short-term during construction activities. Dredged materials from the expansion and maintenance of Turning Circle No. 1 will be placed within the confines of three USACE permitted upland dredged material facilities along the Galveston Harbor. Effluent from the contained disposal area shall not exceed a TSS concentration of 300 mg/L.

IV. Please provide a comparison of each criteria (from Part II) for each site evaluation in the alternatives analysis.

Only one existing site was considered. The remaining undeveloped acreage owned by the Port does not have sufficient access for a cruise ship terminal and services development. This would require significant infrastructure development such as new roads and services impacting much more than the existing footprint and 4.33 acres of expansion of deep water habitat.