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GALVESTON DISTRICT, CORPS OF ENGINEERS  
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Policy Analysis Branch

7 March 2019

**MEMORANDUM FOR THE RECORD**

**SUBJECT: Determination of the requirement for an Environmental Impact Statement for Department of the Army Permit SWG-2019-00067**

**1. Purpose:** To make a decision whether to prepare an Environmental Impact Statement (EIS) for the Department of the Army (DA) permit decision on the proposed DA Permit SWG-2019-00067, Port of Corpus Christi Authority. Pursuant to 33 CFR 325, Appendix B and 40 CFR 1500-1508, this Memorandum For the Record (MFR) will document why the subject application, as currently proposed, will necessitate the preparation of an environmental impact statement.

**2. Permit Authority:** This permit action is being taken under authority delegated to the District Engineer from the Secretary of the Army and the Chief of Engineers by Title 33 CFR Part 325.8, pursuant to Sections 10 and 14 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972.

**3. Permit Background:** The Port of Corpus Christi Authority (PCCA) proposes to deepen the Corpus Christi Ship Channel (CCSC) from the Gulf of Mexico to Harbor Island (Deepening Project). From the offshore end of the federally authorized Entrance Channel at Station -330+00 to Station -72+50 (25,750 feet), the CCSC would be deepened beyond the currently authorized project depth of -56 feet MLLW to a depth of -77 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge to a maximum depth of -80 feet MLLW. From Station -72+50 to Station 54+00 (12,650 feet) the CCSC would be deepened from authorized project depths of -56 feet MLLW and -54 feet MLLW to -75 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge to a maximum depth of -78 feet MLLW. The PCCA also proposes to dredge a 29,000-foot entrance channel extension from the authorized Entrance Channel (Station -330+00) to a depth of -77 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge to a maximum depth of -80 feet MLLW at Station -620+00 in the Gulf of Mexico. The overall length of the proposed project is approximately 12.8 miles. The Entrance Channel extension and increased channel depth would accommodate transit of fully laden Very Large Crude Carriers (VLCCs) expected to draft approximately 70 feet.

The proposed project would generate an estimated 38.9 million cubic yards (MCY) of new work material from initial construction, consisting of approximately 39 percent clays (15.1 MCY) and 61 percent sand (23.7 MCY). The clay portion of the new work dredged material located in the offshore reaches (Station -620+00 to -72+50), approximately 13.8 MCY, would be placed at Offshore Dredge Material Disposal Site (ODMDS) No. 1 approximately located approximately 2.9 miles southeast of the Aransas Pass South Jetty and adjacent to the CCSC. The clay portion of new dredged material from Stations -72+50 to Station -54+00 would be used beneficially where possible to create perimeter dikes.

The remaining new work dredged material would be placed partially within existing authorized placement facilities, and partially within several areas in proximity to the proposed project for beneficial use. Dredged material judged to be suitable for beneficial use would be used to create several feeder berms in near-shore areas to nourish eroded beach areas, reestablish sand dune areas on San Jose Island that were breached by Hurricane Harvey, restore

perimeter portions of placement areas that have experienced erosion, place material in areas adjacent to the interior CCSC that were breached by Hurricane Harvey, and enhance/ armor a perimeter berm along Harbor Island that would absorb erosive forces of waves and ship wakes to protect areas of marsh and submerged aquatic vegetation behind the berm. Dredged material judged to be unsuitable for beneficial use would be placed in authorized placement areas.

Although PCCA has not conducted a delineation of wetlands in accordance with the 1987 Corps of Engineers Wetland Delineation Manual and its supplements or provided a seagrass survey using acceptable ecological methodologies, PCCA has estimated that the placement of dredged material will impact 758 acres of estuarine marsh wetlands, 656 acres of seagrass beds, 174 acres of lacustrine water and 51 acres of freshwater emergent wetlands. This is an estimated total of 1,465 acres of special aquatic sites as defined in 40 CFR 230.

The purpose of the project is to allow for more efficient movement of U.S. produced crude oil to meet current and forecasted demand in support of national energy security and national trade objectives, enhance the Port of Corpus Christi's ability to accommodate future growth in crude oil movement, and construct a channel project that the PCCA can operate and maintain to serve industry needs. Currently, crude oil is exported using Aframax and Suezmax vessels. The Suezmax vessels are sometimes light loaded (lightered) due to the depth restrictions in the existing CCSC, and would continue to be light loaded when the current federally-authorized -54-foot MLLW project is completed. Reverse lightering translates into additional vessel trips, cost, manhours, operational risk, and air emissions. To efficiently and cost effectively move crude oil cargo, oil exporters are increasingly using fully loaded vessels, including VLCCs, with deeper drafts. To fulfill its mission of leveraging commerce to drive prosperity in support of national priorities, the PCCA desires to keep pace with the global marketplace.

**4. Decision Authority:** The following presents the relevant statutes considered in assessing whether to prepare an EIS or an environmental assessment (EA), pursuant to the National Environmental Policy Act (NEPA), for a DA permit SWG-2016-01027 (statutory language in italics below).

**Guidance found in 33 CFR Part 230 describes procedural provisions of NEPA for the Corps' Civil Works Program. Specifically, 33 CFR Part 230.6 identifies actions which normally require an EIS as: (a) feasibility reports for authorization and construction of major projects; (b) proposed changes in projects which increase size substantially or add additional purposes; and (c) proposed major changes in the operation and/or maintenance of completed projects. In addition, 33 CFR Part 230.7 identifies actions that normally require only an EA as: a) regulatory actions; (b) authorized projects and projects under construction; (c) continuing authorities program; (d) construction and operations and maintenance; (e) real estate management and disposal actions.**

Appendix B of 33 CFR Part 325 NEPA Implementation Procedures for the Regulatory Program establishes the procedures for implementing NEPA in processing DA permits. It does not specifically identify the types of proposals which require an EIS or an EA other than to identify categorical exclusions. In regards to determining the appropriate NEPA documentation, Paragraph 7 of Appendix B states that, *"In those cases where it is obvious an EIS is required, an EA is not required. However, the district engineer should document his reasons for requiring an EIS."* For additional guidance in determining the required NEPA documentation, Appendix B recommends, *"the Corps NEPA regulation 33 CFR*

**Part 230 and for general policy guidance, see the Council on Environmental Quality (CEQ) regulations 40 CFR 1500 – 1508.”**

Central to the determination as to whether an EIS is required is the determination that the proposed action may have significant effect(s) on the quality of the human environment. To make this determination, the CEQ's regulations establish criteria requiring considerations of both context and intensity in 40 CFR § 1508.27.

**Establishing the context for this determination requires that the significance of the action “...be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action... Both short- and long-term effects are relevant.” (40 CFR 1508.27(a))**

The CEQ's regulations denote that intensity is the severity of the impacts. When evaluating the severity of the potential impacts to the human environment, the CEQ has highlighted ten factors which the agency may consider to determine the significance of a project's impacts. Those factors, found in 40 CFR § 1508.27(b), are as follows:

1. *Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.*
2. *The degree to which the proposed action affects public health or safety.*
3. *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*
4. *The degree to which the effects on the quality of the human environment are likely to be highly controversial.*
5. *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*
6. *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.*
7. *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.*
8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.*
9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

**5. Discussion:** Central to the decision as to whether an EIS is required is the determination that the proposed action will have significant effect on the quality of the human environment. To make this decision, the list of factors identified in 40 CFR 1508.27(b) regarding intensity were reviewed in the context of the region affected by the project, specifically the Gulf of Mexico, Corpus Christi Bay, Redfish Bay, CCSC, and surrounding area for both short and long-term effects. During this review, 4 of the 10 factors regarding intensity seem to be relevant based on information submitted by the applicant and/or is publicly available. The following lists the relevant factors and a brief statement as to why:

3. *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*

In the context of the geographic area, numerous important resources may be affected. The largest neighboring resource, located 20 miles south of the project site, is the Padre Island National Seashore, the largest stretch of undeveloped barrier island in the world and home to the National Park Service's Division of Sea Turtle Science and Recovery. Immediately to the north of the project site is San Jose Island, a privately-owned undeveloped barrier island known to be occupied by numerous Endangered Species Act (ESA) federal listed threatened and endangered sea turtle and bird species, including Whooping Cranes (*Grus americana*). Immediately behind San Jose Island is Redfish Bay State Scientific Area (RBSSA), a state-designated 14,000-acre area for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value. In addition, the area includes the Mission-Aransas National Estuarine Research Reserve (MANERR), a state and federal partnership that conducts research, education, and stewardship programs funded by the National Oceanic and Atmospheric Administration (NOAA). The MANERR is the third largest National Estuarine Research Reserve (NERR) in the United States and the only NERR in Texas. The placement of dredged material will impact 758 acres of estuarine marsh wetlands, 656 acres of seagrass beds, 174 acres of lacustrine waters and 51 acres of freshwater emergent wetlands within this geographic area. This is an estimated total of 1,465 acres of special aquatic sites, as defined in 40 CFR 230.

In addition to the potential direct, indirect and cumulative effects to these unique aquatic ecosystems, the proposed PCCA project will impact two ESA federally designated critical habitat units, one for Piping Plovers (*Charadrius melodus*) and the other for loggerhead sea turtles (*Caretta caretta*). This impact is in addition proposed impacts to habitat occupied by piping plovers, Red Knot (*Calidris canutus rufa*), West Indian manatee (*Trichechus manatus*) green sea turtle (*Chelonia mydas*) hawksbill sea turtle (*Eretmochelys imbricate*), Kemp's ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), and loggerhead sea turtle that are not designated as critical.

The Corps may incorporate consideration of proposed mitigation measures during various stages of its decision making. For instance, mitigation can play a role in the scope of the EIS, in the alternatives to the proposed action, the consequences to that action, and finally in the explanation of the decision rendered. Included in PCCA's application is the statement that impacts to seagrass or wetlands would be offset by reconfiguring the beneficial use (BU) placement sites to be able to host the impacted habitat. No mention of mitigation for Essential Fish Habitat (EFH) or threatened and endangered species habitat was proposed.

In order for mitigation to be considered in determining significance, the plan must be specific and binding. To date, PCCA has only proposed generalized, non-binding plans for compensatory mitigation of special aquatic resources. No consideration was given to mitigation for open water impacts, EFH, or ESA impacts.

Based on the unique characteristics of the geographic region, and considering the volume of impacts already proposed, the potential for significant effects will be substantial.

*4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.*

In deference to agency decision making, courts generally have adhered to the notion that the presence of some opposition does not transform the proposed project into being highly controversial. On the other hand, if the goal of NEPA of incorporating public opinion into the decision making process is to have meaning, then the relevance of substantial opposition or criticism of a project should play an important role in defining the significance of that project.

Important to this factor is the distinction between a project that will provoke some degree of criticism versus a situation where substantial dispute exists as to the size, nature, or effect of the federal action rather than the existence of opposition. In other words, there must be an objective emphasis on the environmental aspects of the Corps' decision making process.

Prior to the Corps initiating any public coordination, considerable opposition to the PCCA Deepening Project was recognized. In addition to full-page ads published in the Corpus Christi Caller-Times opposing the PCCA Deepening Project, local property owners and residents have begun submitting letters of objection in advance of the public notice. Issues raised in these objection letters include: impacts to the aquatic environment from both dredging and placing the dredged material; changes in siltation and shoaling; and indirect impacts to recreational and business that rely on fishing, birding, and boating. These issues are materially related to the Corps decision.

The environmental impact statement process serves as evidence that the Corps has appropriately considered and weighed the reasonably foreseeable environmental impacts of a proposed major action in a timely fashion before making a decision to authorize that action. In addition to taking the requisite "hard look" at the environmental consequences of the Corps' decision, the publication of drafts of the EIS also serves a larger informational role by giving assurance to the public that the Corps has appropriately considered environmental concerns and reasonable alternatives in its decision making process.

*6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.*

The Corps' NEPA implementation regulations and guidance, specifically 33 CFR Part 230.6 and ER 200-2-2, state that actions will require an EIS when a Feasibility Report is required to authorize and construct a major project or when changes in a project are proposed which increases size substantially or add additional purposes or the proposal results in major changes in operation and/or maintenance of the completed project. The current federal project, the *Corpus Christi Ship Channel, Texas Channel Improvement Project* (Improvement Project), includes deepening of the CCSC from Viola Basin in the Inner Harbor to the end of the jetties in the Gulf of Mexico to -52 feet, deepening of the remainder of the channel into the Gulf of Mexico to -54 feet, widening of the Upper Bay and Lower Bay reaches to 530 feet, construction of parallel, -12 feet deep, barge shelves across the Upper Bay portion of the CCSC, and extending the La Quinta Channel approximately 7,400 feet at a depth of -39 feet. The new work dredging will create 41 MCY of material. The Corps Improvement Project required an EIS.

In addition to the PCCA Improvement Project EIS, other channel expansion projects in coastal Texas also required an EIS. Both the *Calhoun County Navigation District Matagorda Ship Channel Improvement Project EIS* and the *Brazos River Harbor Navigation District Widening of the Freeport Harbor Ship Channel EIS* evaluated the impacts to widening and/or deepening federal channels resulting from the Corps' permitting process. Currently, the Corps is

developing an EIS for the *Houston Ship Channel Expansion Channel Improvement Project*, a federal project.

The PCCA has proposed a project that substantially increases the depth of 12.8 miles of the CCSC to up to -80 feet MLLW, deeper than any other channel in the Gulf of Mexico, and changes its purpose to accommodate fully laden VLCCs. These proposed changes are also expected to cause major changes in the Corps operation and/or maintenance of the authorized channel. Therefore, the project meets the requirements for an EIS as described in 30 CFR 230.6 and ER 200-2-2. A decision to forego an EIS for a major port expansion project would set a precedent for future actions that may have significant effects and may represent a decision in principle not to adhere to the Corps' NEPA implementation regulations and subsequent guidance.

*7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.*

NEPA and the CEQ's regulations define a cumulative effect as an impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. The range of actions that must be considered includes not only the project proposal but all connected and similar actions that could contribute to cumulative effects.

As currently proposed, PCCA's Deepening Project will provide VLCCs access to a single location on Harbor Island that has not been constructed and is not included in the project plans. There are no other facilities or potential locations along the proposed 12.8-mile deepened channel that a facility could be constructed other than on Harbor Island. To serve the Harbor Island Terminal Facility, the Corps has received a permit application from Axis Midstream Holdings to construct a series of pipelines and tank facilities to transport crude oil for loading onto marine transport vessels at the proposed Harbor Island Terminal Facility.

Setting aside the interdependent nature of the seemingly single and complete project described above, the cumulative effect of these three projects in combination with the current projects such as the Federal Improvement Project and the re-construction of the Harbor Bridge as well as past projects like the existing federal channel and Lydia Ann Mooring Barge Fleeting facility, plus future projects such as Occidental Petroleum Corporation VLCC site or the proposed Buckeye Partners VLCC facility, both located in Ingleside, Texas, the accumulation of potentially significant environmental effects becomes evident.

**CONCLUSION:** I have reviewed and evaluated the factors concerning this permit application relative to the proposed work in waters of the United States. Based on my review, when considering both context and intensity, I am reasonably able to arrive at a conclusion that the project, as proposed, may have a significant effect(s) on the human environment in the Corpus Christi area.

Further investigation into these areas of potential significant impacts on the human environment will allow the Galveston District to be able to address these issues so that the proper permit decision will be made and should help the applicant better address these problems in the design of their project.

Therefore, in accordance with Title 33 CFR 325 Appendix B paragraph 7, I have determined that the project requires the preparation of an Environmental Impact Statement.



LARS N. ZETTERSTROM  
COL, EN  
Commanding