

RECORD OF DECISION

MAINTENANCE DREDGING OF THE GULF INTRACOASTAL WATERWAY LAGUNA MADRE, TEXAS NUECES, KLEBERG, KENEDY, WILLACY, AND CAMERON COUNTIES, TEXAS

I have reviewed the Final Environmental Impact Statement (FEIS) for the Maintenance Dredging of the Gulf Intracoastal Waterway (GIWW) in the Laguna Madre, Texas, as well as correspondence received in response to coordination and public review of the document. The GIWW provides shallow-draft navigation between the Rio Grande Valley adjacent to the border with Mexico and interconnecting waterways with the GIWW along the Gulf Coast to Florida. Maintenance of the GIWW is vital to the economy of the Lower Rio Grande Valley since approximately 75% of all refined petroleum products and large percentages of other bulk commodities, such as sand and gravel, iron and steel, cement, and fertilizer, is carried by barge. It is estimated that the cost of transporting these products by other means would double if the GIWW were closed. This Record of Decision presents my decision to modify the existing maintenance plan for this reach of the GIWW to reduce impacts to the natural resources of the lagoon.

A previous study was conducted under Section 216 of the Flood Control Act of 1970 which provides for a review of completed US Army Corps of Engineers (USACE) projects for modification because of changes in physical or economic conditions. A fundamental purpose of that study was to evaluate a Federal interest in changing the dimensions or location of the channel or in terminating the project. Although this study did not result in a recommendation to change the authorized channel dimensions, it did result in a reaffirmation of the economic benefits provided by the existing channel. The present study found that continued maintenance dredging of the existing channel is economically justified by a project benefit to cost (B/C) ratio of 2.4 to 2.9 when compared to alternative modes of transportation if the GIWW were to be closed.

The section of the GIWW including Laguna Madre was authorized by Congress in 1942 and construction was completed in 1949. Construction of the GIWW was beneficial to the Laguna Madre by increasing circulation, ameliorating hypersaline conditions that occasionally resulted in fish kills, and allowing seagrass to colonize vast areas that were formerly uninhabitable by seagrass. Nevertheless, maintenance operations conducted to keep the GIWW functional have affected seagrass survival locally by burying seagrass in and near placement areas (PAs) and reducing light penetration needed by seagrass for photosynthesis by means of turbidity plumes near PAs.

The EIS was initiated as a result of a 1995 settlement of a lawsuit challenging the adequacy of a 1975 EIS supporting maintenance dredging. In the settlement, USACE

Record of Decision – Laguna Madre

agreed to ‘use their best efforts to complete a Supplemental Environmental Impact Statement (SEIS)¹ for the Corps’ maintenance dredging program in the Laguna Madre section of the Gulf Intracoastal Waterway....²’ Thus, the purpose of this EIS was to evaluate ways the maintenance dredging program can be implemented with less environmental impacts.

The FEIS analyzes and describes a No-Action Alternative (continuing the existing practices) and several dredging and placement alternatives to reduce the environmental impacts associated with maintaining the GIWW. Ten initial dredging and placement alternatives were grouped into four general types as follows:

1. Open Ocean/Offshore Placement
 - a. Hopper Dredge
 - b. Pipeline Dredge and Scow
 - c. Pipeline Dredge and Pipeline
2. Upland Placement
 - a. Confined Upland Placement
 - b. Thin Layer Placement
3. Beneficial Uses
 - a. Beach Nourishment
 - b. Washover Nourishment
4. Open-Bay Placement
 - a. Open-Bay Unconfined
 - b. Open-Bay Confined
 - c. Open-Bay Semiconfined

The GIWW is an existing project that was authorized by Congress and constructed over 50 years ago. The “No-Action” Alternative for this EIS is the base condition with the GIWW in place and maintained by existing dredging and placement methods. Although the EIS did not explicitly contain an alternative identified as stopping all maintenance dredging, it does contain sufficient information to support a conclusion that this alternative is not reasonable. Abandoning an operating waterway with a highly favorable benefit-cost ratio is not a reasonable alternative. As noted later, Congress has specifically provided for the continued use of the placement areas identified in the EIS and the

¹ During the scoping, coordination, and drafting of the NEPA environmental documents it became apparent that supplementing the 1975 EIS for the entire GIWW and Tributary Channels in Texas was not the most appropriate option for various reasons. Therefore an EIS (as opposed to an SEIS) was completed. Since these terms are used synonymously and the technical and legal requirements for each are the same, we have referred to the Final Environmental Impact Statement as an “FEIS.”

² The Corps agreed to consider all reasonable alternatives to the proposed action, including a no action alternative. The no action alternative was continuing to dredge using existing practices. The Corps did not expressly agree to consider an alternative of stopping all maintenance dredging in the EIS.

language of PL-108-137 reaffirms a Congressional intent that the waterway should continue to operate with appropriate environmental safeguards. In NEPA guidance provided by the Council on Environmental Quality (CEQ) NEPA's Forty Most Asked Questions, Question 3 addresses No-action alternatives and what it should include. Since this EIS covers the maintenance-dredging program for an ongoing project, the No-action alternative is no change from the current maintenance program.

The USACE worked closely with eight State and Federal resource agencies and two advisory members as part of an Interagency Coordination Team (ICT) to identify the least environmentally damaging plan out of the 10 alternatives considered, that is, feasible from an engineering perspective and economically justified. The three offshore alternatives were eliminated because they were not feasible. The reasons for elimination included a lack of enough hopper dredges or scows suitable for work in 12-foot channels to maintain the GIWW, haul or pumping distances too great for efficient operation, and the fact that the National Park Service (NPS) is likely to place substantial restrictions on any special use permit granted to USACE for placement of pipelines across the land it has acquired for the Padre Island National Seashore (PINS). Upland placement and beneficial uses were also eliminated because of long pumping distances, lack of private landowners willing to accept the dredged material or sell land, unacceptable impacts to seagrass and other sensitive resources when bringing pipelines and equipment to uplands in remote areas, and lack of suitable material for beach and washover nourishment. Only the three open-bay placement options proved feasible for further consideration.

The USACE, with the aid of the ICT, identified modifications to the open-bay placement alternatives that met study objectives of reducing environmental impacts and are feasible from an engineering and economic standpoint. As a result of eight years of coordination, study, and report preparation, the environmentally preferred alternative was identified as the recommended plan. This alternative provides significant environmental improvements over the current practices. It is fully described in the Dredged Material Management Plan (DMMP) in Appendix A of the FEIS and Section 2.11 of the FEIS. The recommended plan will reduce placement impacts on the natural resources in the Laguna Madre through a combination of: (1) greater retention of sediments on islands by using training levees or complete confinement within existing PAs where feasible; (2) controlling vegetation and increasing the size of islands to enhance them for colonial waterbird use; and (3) relocation or extension of some PAs to nearby deep, unvegetated areas. It is estimated that about 1,307 fewer acres of seagrass and 49.3 fewer acres of tidal flats will be impacted under the recommended plan compared to the present method of maintaining the GIWW. The recommended plan does not identify the need for any new upland sites for placement of dredged material. A special case for using offshore placement of dredged material from limited areas of the GIWW near two passes using bucket dredges and scows was retained in the DMMP for future consideration if the economics and environmental requirements are satisfied.³

³ See the discussion of PL 108-137, *infra*.

Record of Decision – Laguna Madre

Major factors considered when analyzing the alternatives and selecting the recommended plan included effects on water quality, sediment quality, special aquatic habitat (seagrass and wetlands), finfish and shellfish resources, wildlife resources, threatened and endangered species, cultural and socioeconomic resources, and cumulative impacts. Total suspended solids are of particular concern in the Laguna Madre since the primary nutrient producer in this system is seagrass. Modeling studies indicated that turbidity levels high enough to prevent or reduce photosynthesis enough to affect seagrass survival were short-term, generally about three months or less, and mostly found in an area within one kilometer of the discharge point. This impact was reduced in the recommended plan by fully confining some PAs, using training levees to retain more sediments on the islands, using unvegetated, deep-water sites, and restricting maintenance operations to the late fall-early spring period when seagrass is dormant. The sediment quality of maintenance material was not determined to be a cause for concern by the ICT. Prior to future maintenance events, the channel sediments will be evaluated to insure that no unacceptable impacts will result from dredging operations. The evaluations will be conducted according to guidance jointly developed by EPA and the USACE.

The recommended plan will not adversely affect threatened or endangered species or modify designated critical habitat. In addition, it avoids the placement of dredged material in major seabird rookeries, avoids placement of dredged material on other rookery areas during breeding season, and generally is designed to improve seabird habitat.

No known cultural resource sites, including shipwrecks, will be impacted. Coordination with Texas State Historic Preservation Officer will be conducted if a shipwreck or other site is found at the project site in the future. The recommended plan reduces impacts to the natural resources of the Laguna Madre, and there will be no increase in adverse cumulative impacts.

There has been considerable disagreement over the continued use of 10 PAs located inside the Congressionally authorized boundary of PINS. These PAs have been used since 1949 and their use was examined and approved in the 1975 EIS. PINS has argued the USACE will be required to obtain a special use permit before using these PAs in the future even though the Corps has not obtained such permits in the past and is not currently doing so.

The NPS regional director supported the requirement for a special use permit in a letter to USACE Southwestern Division (SWD). However, the Region took no further action when SWD responded with an explanation of why no special use permit was required. The comments received from NPS headquarters on the FEIS did not raise this issue.

The proposed special use permits apparently would describe the limitations on the amount of dredged material to be placed, the exact placement location within the PAs, and the season and frequency of use of the PAs. Briefly stated, the USACE has determined that we are not required to apply for such permits because: (1) USACE has been using its authority under the Constitution's Commerce Clause to maintain the

GIWW since long before the PINS was established. Congress did not indicate any intent to limit this practice in specific language in the PINS authorizing legislation or legislative history; (2) the Arroyo Colorado Navigation District of Cameron and Willacy Counties had granted a perpetual easement in 1947 to use these placement areas to USACE and to date has not ceded these lands to PINS although it had been authorized to do so by both the federal government and the state; and (3) the USACE has not relinquished its right to use the perpetual easement granted in 1947 by transferring them to PINS, although the legislation creating PINS authorizes, but did not require USACE to do so.

To the extent that there could have been any remaining dispute over the need for a special use permit, Congress authoritatively resolved it in Public Law 108-137, 117 Stat 1832.⁴ This provides that the USACE may not use placement areas other than those specified in Section 2.11 of the final EIS for Maintenance Dredging of the GIWW in Laguna Madre dated September 2003. In addition, it provides that other disposal areas may be used only if failing to do so will result in a closure of the GIWW and the use of those other areas is supported by another EIS. The language of PL 108-137 clearly expresses Congressional intent that USACE use the PAs within PINS and that the Federal Project continue in operation using the DMMP listed in Section 2.11 of the EIS.

Despite the disagreement over the need for Special Use Permits, the USACE has worked closely with PINS, which is an advisory member of the ICT, throughout the EIS process. Their recommendations, to the extent possible, were included in the recommended plan. The DMMP generally follows the PINS management plans for the 10 existing PAs; each use of the PAs will be coordinated with PINS; and the USACE will adopt all reasonable practices to protect PINS resources in accordance with the recommendations of the ICT, which were included in the final EIS and the DMMP.

The USACE stated its commitment in the FEIS to monitor the impacts of the DMMP and make revisions, if necessary, based on recommendations of the ICT. The ICT will continue to function as long as needed to advise the USACE on modifications that may be needed in the DMMP.

⁴ That the Corps of Engineers shall not allocate any funds to deposit dredged material along the Laguna Madre portion of the Gulf Intracoastal Waterway except at the placement areas specified in the Dredged Material Management Plan in section 2.11 of the Final Environmental Impact Statement for Maintenance Dredging of the Gulf Intracoastal Waterway, Laguna Madre, Texas, Nueces, Kleberg, Kenedy, Willacy, and Cameron Counties, Texas, prepared by the Corps of Engineers dated September 2003; Provided further, That nothing in the above proviso shall prevent the Corps of Engineers from performing necessary maintenance operations along the Gulf Intracoastal Waterway if the following conditions are met: if the Corps proposes to use any placement areas that are not currently specified in the Dredged Material Management Plan and failure to use such alternative placement areas will result in the closure of any segment of the Gulf Intracoastal Waterway, then such proposal shall be analyzed in an Environmental Impact Statement (EIS) and comply with all other applicable requirements of the National Environmental Policy Act, 42 U.S.C. 4321, et seq., and all other applicable State and Federal laws, including the Clean Water Act, 33 U.S.C. 1251 et seq., the Endangered Species Act, 16 U.S.C. 1531 et seq., and the Coastal Zone Management Act, 16 U.S.C. 1451 et seq..

Record of Decision – Laguna Madre

The majority of the comments on the FEIS pertained to the continued potential environmental impacts of the project on seagrass and wildlife, in general, and to Emmord's Hole, specifically. Many of the comments were against any disposal in the Laguna Madre and suggested taking the material offshore or using it to fill in low-lying housing areas or eroded beaches, others wanted disposal only on existing islands in the Laguna, some were against any upland disposal, and others wanted the dredged material placed in uplands on PINS property or private property on the mainland. Most of the comments opposed placing any dredged material in Emmord's Hole. There were no new substantive issues raised in the responses to the FEIS and all comments were provided a response.

The recommended plan is the continued maintenance of the GIWW using the management plans in the DMMP which utilizes the 10 existing PAs inside PINS boundaries. It includes management plans to protect seagrass beds near existing PAs, and to restore or enhance many of the islands inside the PAs for colonial waterbird use. It does not require the establishment of new upland PAs on private lands. This plan will reduce the environmental impacts caused by current practices for the disposal of dredged material in the Laguna Madre. It is the plan recommended by the ICT, which thoroughly evaluated all potential alternatives for the disposal of dredged material. It also is the plan which minimizes adverse environmental impacts from the continued operation of the GIWW. No practical means to further reduce these environmental impacts, while still maintaining the GIWW, have been identified.

I have reviewed and evaluated the documents concerning the proposed action, views of other interested agencies, and the various practicable means to avoid or minimize environmental harm resulting from maintaining the GIWW in the Laguna Madre. Based on these considerations, I conclude that all practical means to avoid or minimize adverse environmental effects have been incorporated into the recommended plan. I find the recommended plan to be economically justified, in compliance with environmental statutes, and in the public interest. The public interest will best be served by implementing, as soon as possible, the revisions in the maintenance operations as described in the FEIS and DMMP. Implementing this plan as soon as possible will reduce the environmental impacts caused by current operations.

13 April 04

Date



ROBERT CREAR
Brigadier General, USA
Commanding