DEPARTMENT OF THE ARMY
CHIEF OF ENGINEERS
2600 ARMY PENTAGON
WASHINGTON, DC 20310-2600

DAEN

JAN 7 2013

SUBJECT: Freeport Harbor Channel Improvement Project, Brazoria County, Texas

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on navigation improvements for the Freeport Harbor Channel Improvement Project (FHCIP). It is accompanied by the report of the Galveston District Engineer and the Southwestern Division Engineer. The feasibility study was conducted under the authority of Section 216 of the Flood Control Act of 1970, which authorizes review of completed Corps of Engineers navigation projects when significant changes in physical or economic conditions have occurred, and the submission of a report to Congress on the advisability of modifying the project in the overall public interest. Pre-construction engineering and design activities for this proposed project, if funded, would be continued under the authority provided by the section cited above. The existing Freeport Harbor Channel was authorized by the River and Harbor Acts of May 1950 and July 1958.

2. The report recommends a project that will contribute significantly to the economic efficiency of commercial navigation in the region. The FHCIP is an improvement of the existing Freeport Harbor Channel that provides for a deep-draft waterway from the Gulf of Mexico to the City of Freeport through the original mouth of the Brazos River. A diversion dam about 7.5 miles above the original river mouth, and a diversion channel rerouting the Brazos River from the dam to an outlet into the Gulf about 6.5 miles southwest of the original mouth, now separate the Freeport Harbor Channel from the river system and make the harbor and channels an entirely tidal system. The study evaluated navigation and environmental problems and opportunities for a 70-square mile study area. The study area includes the cities of Freeport, Surfside Beach and Quintana, the Freeport Harbor Channel, the Brazos River Diversion Channel, a portion of the Gulf Intracoastal Waterway, the Gulf of Mexico shoreline on both sides of the Freeport Harbor Channel, and the offshore channel and placement areas 10 miles into the Gulf of Mexico. The entire study area is located within Brazoria County, Texas and adjacent state waters in the Gulf of Mexico.

3. The reporting officers recommend the Locally Preferred Plan (LPP) to modify the existing Freeport Harbor Channel. The LPP consists of the following improvements:

a. Deepen the Outer Bar Channel into the Gulf of Mexico to -58 feet mean lower low water (MLLW);

b. Deepen from the end of the jetties in the Gulf of Mexico to the Lower Turning Basin to -56 feet MLLW;

Printed on Recycled Paper

c. Deepen from the Lower Turning Basin to Station 132+66 near the Brazosport Turning Basin to -56 feet MLLW;

d. Deepen from Station 132+66, above the Brazosport Turning Basin, through the Upper Turning Basin to -51 feet MLLW;

e. Deepen and widen the lower 3,700 feet of the Stauffer Channel to -51 feet MLLW and 300 feet wide;

f. Dredge the remainder of the Stauffer Channel to -26 feet MLLW (its previously authorized depth was -30 feet).

Dredged material placement for this project will be provided in accordance with the Dredged Material Management Plan developed during the study. Deepening of the Freeport Harbor Channel would generate approximately 17.3 million cubic yards of new work material and approximately 176 million cubic yards of maintenance over the 50-year period of economic evaluation. Material from the Channel Extension, Outer Bar Channel, and Jetty Channel would be placed offshore in the existing New Work and Maintenance Material Ocean Dredged Material Disposal Sites (ODMDSs). Material from the inland Freeport Harbor channels and basins would be placed in one existing confined upland Placement Area (PA 1), and two new Placement Areas (PA 8 and PA 9).

Mitigation features will consist of the preservation of approximately 131 acres of riparian forest under a permanent conservation easement and the improvement of its habitat value by establishing 11 acres of riparian forest in place of 11 acres of invasive tree species; the creation of three acres of wetlands and an associated one acre of riparian forest; and required monitoring of mitigation performance and impacts to wetlands and riparian forest for corrective action, if needed.

4. The recommended navigation plan is not the National Economic Development (NED) plan. The recommended LPP is shallower and will be less costly than the NED plan in the main channel portion of the FHCIP. The LPP is supported by the non-Federal, cost sharing sponsor (Port Freeport).

5. Project Cost Breakdown based on October 2012 prices.

a. Project First Cost. The estimated project first cost of constructing the FHCIP is $237,474,000 which includes the cost of constructing General Navigation Featrures (GNF) and the value of lands, easements, rights-of-way and relocations estimated as follows: $208,079,000 for channel modification and dredged material placement; $165,000 for fish and wildlife mitigation; $1,691,000 for lands, easements, and rights-of-way provided by the

non-Federal sponsor; $18,135,000 for planning, engineering and design efforts; and $9,404,000 for construction management.

b. Estimated Federal and Non-Federal Shares: The estimated Federal and non-Federal shares of the project first cost are $121,132,000 and $116,342,000, respectively, as apportioned in accordance with the cost sharing provisions of Section 101(a) of the Water Resources Development Act (WRDA) of 1986, as amended (33 U.S.C. 2211(a)), as follows:

(1) The costs for deepening the Upper Stauffer Channel will be shared at the rate of 90 percent by the Government and 10 percent by the non-Federal sponsor for dredging depths between 18 and 20 feet and 75 percent by the Government and 25 percent by the non-Federal Sponsor for dredging between 20 and 26 feet. The total cost for this reach is $3,607,000 with $2,782,000 in Federal costs and $825,000 in non-Federal costs.

(2) The cost for deepening the Lower Stauffer Channel will be shared at the rate of 90 percent by the Government and 10 percent by the non-Federal sponsor for dredging depths between 18 and 20 feet and 75 percent by the Government and 25 percent by the non-Federal sponsor for dredging depths between 20 and 45 feet. Dredging depths deeper than 45 feet will be shared at the rate of 50 percent by the Government and 50 percent by the non-Federal sponsor. Costs for deepening this reach total $10,869,000 with $7,693,000 being paid by the Government and $3,176,000 being paid by the non-Federal sponsor.

(3) The costs for the deepening of the Freeport Harbor channels from the existing 46-foot depth to 56 feet (58 feet offshore) will be shared at the rate of 50 percent by the Government and 50 percent by the non-Federal sponsor. Accordingly, the Federal and non-Federal shares of the estimated $221,040,000 cost in this zone will be approximately $110,520,000 being paid by the Government and $110,520,000 being paid by the non-Federal sponsor.

(4) The costs for environmental mitigation will be shared at the prorated share rate of 51.4% by the Government and 48.6% by the non-Federal sponsor. Costs for mitigation total $267,000 with $137,000 being paid by the Government and $130,000 being paid by the non-Federal sponsor.

(5) In addition to payment by the non-Federal sponsor of its share of costs as estimated and described in sub-paragraphs b(1), b(2), b(3) and b(4) above, the estimated non-Federal share of $116,342,000 includes $1,691,000 for the estimated value of lands, easement, and rights-of-way that it must provide pursuant to Section 101(a)(3) of WRDA 1986, as amended (33 U.S.C.2211(a)(3)).

c. Additional 10 Percent Payment. In addition to payment by the non-Federal sponsor of its share of the project first costs determined in sub-paragraphs b(1), b(2) and b(3) above, pursuant to Section 101(a)(2) of WRDA 1986, as amended (33 U.S.C. 2211(a)(2)), the non-Federal sponsor must pay an additional 10 percent of the cost of the general navigation features of the project in cash over a period not to exceed 30 years, with interest. The additional 10% payment without interest is estimated to be $23,578,000. The value of lands, easements, rights-of-way, and relocations, estimated as $1,691,000, provided by the non-Federal sponsor under Section 101(a)(3) of WRDA 1986, as amended, will be credited toward payment of this amount.

d. Operations and Maintenance Costs. The additional annual cost of operation and maintenance for this recommended plan is estimated at $11,371,000. In accordance with Section 101(b) of WRDA 1986, as amended (33 U.S.C. 2211(b)), the non-Federal sponsor will be responsible for an amount equal to 50 percent of the excess of the cost of the operation and maintenance of the project over the cost which would be incurred for operation and maintenance of the project if the project had a depth of 45 feet. The Federal Government would be responsible for $6,254,000 of the incremental operations and maintenance costs and the non-Federal sponsor would be responsible for the remaining $5,117,000.

e. Associated Costs. Estimated associated costs of $58,881,000 include $39,695,000 in non-Federal costs associated with bulkhead modifications, $18,803,000 for dredging of non-Federal berthing areas adjacent to the Federal channel and $1,383,000 for aids to navigation (a U.S. Coast Guard expense).

f. Authorized Project Cost and Section 902 Calculation. The project first cost for the purpose of calculating the maximum cost of the project pursuant to Section 902 of WRDA 1986, as amended, includes the cost of constructing the GNFs and the value of lands, easements, and rights-of-way. Accordingly, as set forth in paragraph 5.a, above,based on October 2012 prices, the total estimated project first cost for these purposes is $237,474,000 with an estimated federal share of $121,132,000 and an estimated non-Federal share of $116,342,000. Based on October 2012 price levels, a discount rate of 3.75 percent, and a 50-year period of economic analysis, the project average annual benefits and costs for the FHCIP are estimated at $48,042,000 and $25,449,000, respectively, with resulting net excess benefits of $22,593,000 and a benefit-to-cost ratio of 1.9 to 1.

7. The goals and objectives included in the Campaign Plan of the Corps have been fully integrated into the Freeport Harbor Channel study process. The recommended plan was

developed in coordination and consultation with various Federal, State and local agencies using a systematic and regional approach to formulating solutions and evaluating the benefits and impacts that would result. The feasibility study evaluated navigation and environmental problems and opportunities for the entire study area of about 70 square-miles. Risk and uncertainty were addressed during the study by sensitivity analyses that evaluated the potential impacts of sea level change and economic assumptions as well as cost risk analysis.

8. In accordance with the Corps Engineering Circular on review of decision documents, all technical, engineering, and scientific work underwent an open, dynamic, and vigorous review process to ensure technical quality. This included an Agency Technical Review (ATR), an Independent External Peer Review (IEPR), and a Corps Headquarters policy and legal review. All concerns of the ATR have been addressed and incorporated into the final report. An IEPR was completed by Battelle Memorial Institute in August 2008. A total of 22 comments were documented. The comments were related to plan formulation, vessel fleet analysis, benefits, water quality, and sensitivity analyses. An IEPR back-check was completed in June 2011, which resulted in follow-up comments related to the original 22 comments. In response, sections in the main report and EIS were expanded to include additional information. The IEPR responses were reviewed by the Deep Draft Navigation Planning Center of Expertise in June 2011 with all comments satisfactorily addressed.

9. Washington level review indicates that the plan recommended by the reporting officers is technically sound, environmentally and socially acceptable, and economically justified. The plan complies with all essential elements of the U.S. Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Land Related Resources Implementation Studies. The recommended plan complies with other administration and legislative policies and guidelines. The views of interested parties, including Federal, State and local agencies, have been considered. A Biological Opinion has been received from the National Marine Fisheries Service (NMFS) for potential incidental take of sea turtles during construction. The Biological Opinion has been reviewed and found acceptable.

State and agency comments received during review of the final report/environmental impact statement included comments by the U.S. Coast Guard (USCG) and the U.S. Environmental Protection Agency (USEPA). The USCG requested Corps assistance in obtaining funds for the necessary navigation aid modifications and the Corps response stated that the district would coordinate to request the necessary USCG funding in conjunction with project construction funds. The USEPA expressed concerns on a variety of topics in a letter dated October 5, 2012. The Corps response stated that expanded explanations were provided in the

report and FEIS on the rationale for plan formulation and selection, planned air pollution prevention/reduction measures during construction, dredged material placement procedures at ocean sites, and analyses of socio-economic/health and safety effects based on additional modeling and analyses. The Corps also committed to further USEPA review of sediment data collected during the pre-construction engineering and design phase and continued coordination as needed, depending upon the testing results.

10. I concur in the findings, conclusions, and recommendations of the reporting officers. Accordingly, I recommend that navigation improvements for the Freeport Harbor Channel be authorized in accordance with the reporting officer's recommended plan at an estimated cost of $237,474,000 with such modifications as in the discretion of the Chief of Engineers may be advisable. My recommendation is subject to cost sharing, financing, and other applicable requirements of Federal and State laws and policies, including Section 101 of WRDA 1986, as amended. This recommendation is subject to the non-Federal sponsor agreeing to comply with all applicable Federal laws and policies including that the non-Federal sponsor must agree with the following requirements prior to project implementation.

a. Provide 10 percent of the total cost of construction of the general navigation features (GNF) attributable to dredging to a depth not in excess of 20 feet; plus 25 percent of the total cost of construction of the GNFs attributable to dredging to a depth in excess of 20 feet but not in excess of 45 feet; plus 50 percent of the total cost of construction of the GNFs attributable to dredging to a depth in excess of 45 feet as further specified below:

(1) Provide 25 percent of design costs allocated by the Government to commercial navigation in accordance with the terms of a design agreement entered into prior to commencement of design work for the project;

(2) Provide, during the first year of construction, any additional funds necessary to pay the full non-Federal share of design costs allocated by the Government to commercial navigation;

(3) Provide, during construction, any additional funds necessary to make its total contribution for commercial navigation equal to 10 percent of the total cost of construction of the GNFs attributable to dredging to a depth not in excess of 20 feet; plus 25 percent of the total cost of construction of the GNFs attributable to dredging to a depth in excess of 20 feet but not in excess of 45 feet; plus 50 percent of the total cost of construction of the GNFs attributable to dredging to a depth in excess of 45 feet;

b. Provide all lands, easement, and rights-of-way (LER), including those necessary for the borrowing of material and placement of dredged or excavated material, and perform or assure performance of all relocations, including utility relocations, all as determined by the Government to be necessary for the construction or operation and maintenance of the GNFs;

c. Pay with interest, over a period not to exceed 30 years following completion of the period of construction of the GNFs, an additional amount equal to 10 percent of the total cost of construction of GNFs less the amount of credit afforded by the Government for the value of the LER and relocations, including utility relocations, provided by the non-Federal sponsor for the GNFs. If the amount of credit afforded by the Government for the value of LER, and relocations, including utility relocations, provided by the non-Federal sponsor equals or exceeds 10 percent of the total cost of construction of the GNFs, the non-Federal sponsor shall not be required to make any contribution under this paragraph, nor shall it be entitled to any refund for the value of LER and relocations, including utility relocations, in excess of 10 percent of the total costs of construction of the GNFs;

d. Provide, operate, and maintain, at no cost to the Government, the local service facilities in a manner compatible with the project's authorized purposes and in accordance with applicable Federal and State laws and regulations and any specific directions prescribed by the Government;

e. Provide 50 percent of the excess cost of operation and maintenance of the project over that cost which the Government determines would be incurred for operation and maintenance if the project had a depth of 45 feet;

f. Give the Government a right to enter, at reasonable times and in a reasonable manner, upon property that the non-Federal sponsor owns or controls for access to the project for the purpose of completing, inspecting, operating and maintaining the GNFs;

g. Hold and save the United States free from all damages arising from the construction or operation and maintenance of the project, any betterments, and the local service facilities, except for damages due to the fault or negligence of the United States or its contractors;

h. Keep and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project, for a minimum of 3 years after completion of the accounting for which such books, records, documents, and other evidence is required, to the extent and in such detail as will properly reflect total cost of construction of the project, and in accordance with the standards for financial management systems set forth in the

Uniform Administrative Requirements for Grants and Cooperative Agreements to State and local governments at 32 CFR, Section 33.20;

i. Perform, or ensure performance of, any investigations for hazardous substances as are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601–9675, that may exist in, on, or under LER that the Government determines to be necessary for the construction or operation and maintenance of the GNFs. However, for lands, easements, or rights-of-way that the Government determines to be subject to the navigation servitude, only the Government shall perform such investigation unless the Government provides the non-Federal sponsor with prior specific written direction, in which case the non-Federal sponsor shall perform such investigations in accordance with such written direction;

j. Assume complete financial responsibility, as between the Government and the non-Federal sponsor, for all necessary cleanup and response costs of any hazardous substances regulated under CERCLA that are located in, on, or under LER that the Government determines to be necessary for the construction or operation and maintenance of the project;

k. To the maximum extent practicable, perform its obligations in a manner that will not cause liability to arise under CERCLA;

l. Comply with Section 221 of PL 91-611, Flood Control Act of 1970, as amended, (42 U.S.C. 1962d-5b) and Section 101(e) of the WRDA 86, Public Law99-662, as amended, (33 U.S.C. 2211(e)) which provides that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until the non-Federal sponsor has entered into a written agreement to furnish its required cooperation for the project or separable element;

m. Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, PL 91-646, as amended, (42 U.S.C. 4601-4655) and the Uniform Regulations contained in 49 CFR 24, in acquiring lands, easements, and rights-of-way, necessary for construction, operation and maintenance of the project including those necessary for relocations, the borrowing of material, or the placement of dredged or excavated material; and inform all affected persons of applicable benefits, policies, and procedures in connection with said act;

n. Comply with all applicable Federal and State laws and regulations, including, but not limited to, Section 601 of the Civil Rights Act of 1964, PL 88-352 (42 USC 2000d), and

Department of Defense Directive 5500.11 issued pursuant thereto; Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army"; and all applicable Federal labor standards requirements including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive changes the provision of the Davis-Bacon Act (formerly 40 U.S.C. 276a et seq.), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 et seq.), and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c);

o. Provide the non-Federal share of that portion of the costs of mitigation and data recovery activities associated with historic preservation that are in excess of 1 percent of the total amount authorized to be appropriated for the project;

p. Not use funds from other Federal programs, including any non-Federal contribution required as a matching share therefore, to meet any of the non-Federal sponsor's obligations for the project costs unless the Federal agency providing the Federal portion of such funds verifies in writing that such funds are authorized to be used to carry out the project; and

q. Complete the first phase of the Velasco Container Terminal (800-foot berth and 35 acres of supporting backland) on the Stauffer Channel prior to the initiation of construction of the Stauffer Channel portion of the project.

11. The recommendation contained herein reflects the information available at this time and current departmental policies governing formulation of individual projects. It does not reflect program and budgeting priorities inherent in the formulation of a national civil works construction program or the perspective of higher review levels within the Executive Branch. Consequently, the recommendation may be modified before it is transmitted to the Congress as a proposal for authorization and implementation funding. However, prior to transmittal to the Congress, the State of Texas, Port Freeport (the non-Federal sponsor), interested Federal agencies, and other parties will be advised of any significant modifications and will be afforded an opportunity to comment further.

THOMAS P. BOSTICK
Lieutenant General, USA
Chief of Engineers