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REFERENCE OR OFFICE SYMBOL	SUBJECT
LMVDC-A	Response by DoD to GAO Report MASA-82-39, Pontchartrain Hurricane Protection Project

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1. Response by DoD to the final GAO report on Pontchartrain Hurricane Protection Project is furnished for your information (Incl 1).

2. Position taken by DoD reflects concurrence with recommendations contained in the GAO report. Additional comments have been included which provide an update on information subsequent to completion of the GAO report.

3. Further action regarding this audit is not contemplated.

1 Incl
as

WILLIAM G. MATTHEWS
Comptroller

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☆U. S. G.P.O. 1982—386-545

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, DC 20310

2 NOV 1983

Mr. J. Dexter Peach
Director, Resources, Community,
and Economic Development Division
General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

This is the Department of Defense response to your final report to the Secretary of the Army dated August 17, 1982, "Improved Planning Needed by the Corps of Engineers to Resolve Environmental, Technical, and Financial Issues on the Lake Pontchartrain Hurricane Protection Project," MASAD-82-39 (OSD Case No. 6048). On October 8, 1982, an interim response to that report was provided.

The current status and the Army Corps of Engineers' plans for implementing the remainder of the subject project have been reviewed. Based on this review, the Department of Defense concurs with the recommendations contained in the report. The Army Corps of Engineers is proceeding with its evaluation of the high level plan of protection. A decision on this aspect is not expected until the latter part of Fiscal Year 1984. Regardless of which plan is finally selected, project construction of common features for either the high level plan or the barrier plan is continuing.

Also enclosed are detailed comments on the relevant findings, conclusions, and recommendations contained in your report. In several instances, these comments provide updated information subsequent to the completion of your report.

Sincerely,

Signed

William R. Gianelli
Assistant Secretary of the Army
(Civil Works)

Enclosure

cf: SACW (read, signer, File)
SASG
DAIG-PA
DAEN-RMA
DAEN-CWR-R
LMVDC-A

DEPARTMENT OF DEFENSE RESPONSE
GAO FINAL REPORT MASAD-82-39
"IMPROVED PLANNING NEEDED BY THE CORPS OF ENGINEERS
TO RESOLVE ENVIRONMENTAL, TECHNICAL, AND
FINANCIAL ISSUES ON THE LAKE PONTCHARTRAIN
HURRICANE PROTECTION PROJECT"

OSD CASE NO. 6048

* * * * *

FINDINGS

FINDING A: Engineering and environmental concerns have caused delays in project completion. (p. 1, GAO Final Report).

RESPONSE: DOD concurs. However, the following observations are offered. When evaluating construction progress, it is essential to examine the barrier and levee portions of the project separately. The barrier structures have created extremely complex issues of public policy which raised strong emotions and ultimately spawned legal action. Thus no construction has been performed on these structures. Progress on the remainder of the project (levees and floodwalls) has been influenced by factors such as funding and rate of resolution of technical engineering problems. While progress on the barriers has been agonizingly slow for reasons which are both obvious and set forth in the General Accounting Office report, the remainder of the project (exclusive of the barriers) has moved well and is now about 70 percent complete.

The most far reaching engineering problems faced on this project relate to the foundation conditions in the area. They have been further aggravated by changes in the parameters which comprise the standard project hurricane. These changes have increased the levee heights required for protection. Construction of levees on soft foundations must be accomplished in successive lifts and significant time intervals must be allowed between levee lifts to accommodate settlement of embankments and foundations. The foundations on which the levees are being constructed have been found, in the main, to be poorer than anticipated. Thus the number of lifts and the invervals which must be allowed between successive lifts required to achieve final levee grades in some areas have been in excess of those anticipated.

Since authorization of the project, it has, as alluded to above, become necessary to reevaluate the design hurricane due to revisions in the parameters comprising the standard project hurricane as developed by the U.S. Weather Service. These revisions had the effect of increasing the intensity of the design hurricane, and hence the height of the hurricane surge. The higher levees needed to protect against these higher surges require more lifts and hence more time to be brought to final grades.

Corrective actions on these concerns are being taken with reevaluation of the authorized protection plan.

FINDING B: Costly project work at the drainage canals has not been reported to the Congress, and technical and financial concerns which may impede project completion remain unresolved. (p. 1, GAO Final Report).

RESPONSE: DOD concurs. At the date of the General Accounting Office audit, the finding was accurate. However, the following events render the finding out-of-date.

The need for project work at the three drainage outfall canals in Orleans Parish was identified subsequent to project authorization, as a result of the aforementioned adoption by the U.S. Weather Service of more severe hurricane parameters. This work was not presented to Congress prior to 1983 because a plan mutually acceptable to both the Corps and the local interests could not be developed, and costs for the identified plans varied widely. The difficulty in achieving Corps/local interest consensus on a plan reflected the fact that the Corps saw a responsibility to accommodate the requirements for hurricane protection only, while local interests believed that the Corps should underwrite drainage improvements as well. The fact that several local interest entities were involved further complicated an already difficult technical issue, and contributed significantly to the delay in obtaining a solution.

The Corps has now developed a conceptual plan for protection at the outfall canals which local interests agree deserves further study. The project cost estimate has been revised to include the estimated cost and a construction schedule for the conceptual plan. Congress will be formally apprised of the proposed work at the outfall canals in the FY 1985 budget submission. Model studies of the conceptual plan are underway and scheduled for completion in the spring of 1984. If the model studies confirm the validity of the conceptual plan, formal concurrence of local interests will be sought, and detailed designs and construction pursued to conclusion.

FINDING C: Current project financing by the local sponsors has not been assured because of limited resources. (p. 1, GAO Final Report)

RESPONSE: DOD nonconcurs. The Department does not agree that this part of the report accurately reflects the actual situation. In 1976 when the local sponsors executed the current assurances for the barrier project, it was determined from appropriate analysis that the sponsors were financially capable. Since that time, the sponsors have met all obligations, financial and otherwise, and nothing has occurred to indicate that this will not continue to be the case. Estimates of costs to local sponsors are updated annually and the local sponsors are advised of all revisions.

FINDING D: Project cost estimates are understated, and a project plan has not been formally adopted. (p. 1, GAO Final Report).

RESPONSE: DOD concurs. At the time of the General Accounting Office audit, the project cost estimate was understated by reason of the fact that costs for the outfall canals were not included. As previously noted in response to Finding B, this is being rectified. With respect to the absence of an estimate for the high level plan inclusive of future inflation (fully funded cost estimate), at the time of the General Accounting Office audit, estimates for that plan were needed only as a basis for comparison with the barrier plan. Such comparison was better achieved through incremental rather than fully funded costs. If the high level plan is adopted, a fully funded cost estimate will be developed.

CONCLUSIONS

CONCLUSION 1: Construction at the drainage canals represents an essential project feature which should have been considered earlier. (pp. 9-10, Appendix I, GAO Final Report).

RESPONSE: DOD nonconcurs. The solution for hurricane protection at the outfall canals has been under study ever since the need was identified. As explained in the response to Finding B, it was formulation of a solution which was delayed and not its consideration.

CONCLUSION 2: This feature should be recognized and finalized with local sponsors to ensure effective hurricane protection. (p. 10, Appendix I, GAO Final Report).

RESPONSE: DOD concurs. (See response to Finding B)

CONCLUSION 3: Corps District officials agreed with the intent of the recommendations. (p. 8, Appendix I, GAO final Report).

RESPONSE: DOD partially concurs. DOD agrees in general as summarized in the report, Appendix I pages 8 and 9. However, to the extent that the report implies that the Corps has not prosecuted the project with the vigor and effectiveness that it deserves, DOD does not concur. While it is regreted that progress has not been faster, and it is viewed with deep concern the residual threat to the area after 17 years of work on the project, the Department does not believe that the report - or more importantly - the record, supports such an implication.

The project was authorized and funded for design in the same fiscal year (1966), a rarity among civil works projects. Designs were prepared expeditiously and expedited procedures were used to review and approve these designs to permit the earliest practicable start of construction. The resources of local interests, particularly the Orleans-Levee District, were

pressed into service to permit construction of the project to proceed before Federal construction funds were made available. As a result of these efforts, when Hurricane Camille visited Breton Sound in 1969 - less than four years after project authorization - and generated stages in the critical Industrial Canal MRGO area within six inches of those of Hurricane Betsy in 1965 - no significant flooding occurred. It is estimated that $100 million in damages, or about the total estimated cost of the project at that time, were prevented.

Since Hurricane Camille, work on all phases of the project except the barrier structures has proceeded expeditiously. To date $182 million has been spent on construction. If this figure is expressed in 1983 dollars, it is over $300 million. In physical terms, the project (including the barriers) is estimated to be about 50 percent complete.

The recommendations of the General Accounting Office report are very broad and contain desirable objectives. Accomplishment of many of those objectives requires procedures which have been ongoing since the authorization of the project. Contrary to the implication in the report, the Corps is, for example, "Working closely with local sponsors to acquire the necessary right-of-way easements, and construction priorities for the remaining portions of the project." Insofar as the high level plan is concerned, this work now involves the explanation to local interests of the impacts inherent in changing from the barrier to the high level plan, exploring with local interests the implications of those impacts, and eliciting their views and concerns. Currently the change in plan is moving forward as rapidly as procedural requirements and sound engineering, economic, and environmental considerations will permit. In the meantime, completion of those features common to both the high level and barrier plans are being pursued, and as the General Accounting Office report notes, preparing design memoranda for those elements of the high level plan which differ from the barrier plan.

RECOMMENDATIONS

RECOMMENDATION 1: The Secretary of the Army should direct the Chief of Engineers to develop an acquisition strategy plan, and after approval, work closely with local sponsors to acquire the necessary rights-of-way, easements, and construction priorities for the remaining portions of the project. (p. 2, GAO Final Report)

RESPONSE: DOD concurs. For the record, DOD wishes to state its understanding of the phrase "develop an acquisition strategy plan" used in the General Accounting Office's RECOMMENDATIONS paragraph. Based upon verbal clarification from the General Accounting Office, it is understood that it means selection of a plan to complete the project, or more specifically, the choice between the barrier plan and the high level plan. Also, the comments relative to Conclusion 3 apply.

RECOMMENDATION 2: The Secretary of the Army should direct the Chief of Engineers to develop an implementable technical approach to construction at the drainage canals that has concurrence from local sponsors. (p. 2, GAO Final Report).

RESPONSE: DOD concurs. (Also see comments under Finding B).

RECOMMENDATION 3: The Secretary of the Army should direct the Chief of Engineers to develop specific milestones for completing the remaining portions of the project. (p. 2, GAO Final Report).

RESPONSE: DOD concurs. The General Accounting Office has recommended that specific milestones be established for accomplishment of the "acquisition strategy plan," and for the subsequent execution of that plan. As noted in the subject report, the study and determination for adopting the high level plan is nearing completion. Subject to satisfying the various procedural and administrative requirements, it is now estimated that construction on the high level plan, if selected, could commence before the end of FY 1984. On this basis, completion of the entire project could be achieved by the year 2000. As set forth earlier herein, the completion date is controlled by the necessity to construct many of the levees in repeated "lifts" because of poor foundations. It is likewise influenced to an extent by national and local priorities which tend to limit the rate of funding. In the meantime, the Corps continues to diligently pursue construction of those levees and floodwalls common to both the high level and barrier plan, and as the General Accounting Office report notes, the Corps is proceeding with designs for features of the high level plan.

RECOMMENDATION 4: The Secretary of the Army should direct the Chief of Engineers to estimate the cost to local sponsors if the high level plan is adopted or the barrier plan is retained and obtain their concurrence on their financial shares. (p. 2, GAO Final Report).

RESPONSE: DOD concurs. Estimates of costs to local sponsors for approved elements of the barrier plan are updated annually and the local sponsors are advised of same. In 1976 when the local sponsors executed the current assurances for the barrier project, the Corps determined that the sponsors were financially capable. Since that time, the sponsors have met all obligations, financial and otherwise, and nothing has occurred to indicate that this will not continue to be the case. For the high level plan, the local sponsors have been advised of their estimated cost responsibilities based on the best available estimate. Upon completion of the final report, the Corps will review the need for new or revised assurance and for a determination of the local sponsors' financial capability.