8/18/83
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(Prepared with assistance from Mr Kaufman)
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Redone

Mr. W. H. Sheley, Jr.
Director
Mission Analysis and
Systems Acquisition Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Sheley:

1. This is in further response to your final report to the Secretary of the Army dated August 17, 1982 concerning the Lake Pontchartrain Hurricane Protection Project MASAD-82-39 (OSD Case #6048).

2. The following comments are furnished:

a. For the record, we wish to state our understanding of the phrase "develop an acquisition strategy plan" used in the GAO's RECOMMENDATIONS paragraph. Based upon verbal clarification from the GAO, we understand that it means selection of a plan to complete the project, or more specifically, selection of a barrier plan of protection or a high level plan of protection.

b. The GAO report suggests that the Corps has not prosecuted the project with the vigor and effectiveness that it deserves, and that as a result, the metropolitan New Orleans area does not presently enjoy the degree of hurricane protection that it should. While we regret that the progress has not been faster, and view with deep concern the residual threat to the area after 17 years of work on the project, we do not believe that the report--or more importantly--the record, supports such findings.

c. The project was authorized and funded for design in the same fiscal year (1966), a rarity among civil works projects. Designs were prepared with vigor and expedition, and expedited procedures were used to review and approve these design 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 4 years after project authorization--and generated stages in the critical Industrial Canal-MRGO area within 6 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.

d. 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 is estimated to be about 50 percent complete.

e. When evaluating construction progress, it is desirable 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 GAO report, the remainder of the project is now about 70 percent complete.

f. Schedule delays on this project have not, in the main, been driven by factors amenable to amelioration by more intensive management. Instead, the delays are due principally to a combination of factors such as funding problems, complex engineering problems, environmental issues, and litigation.

g. Construction of levees on soft foundations require lift construction in which a significant time interval is allowed between levee lifts to allow for settlement of embankments and foundations. At this project the poor behavior of the very soft foundation soils has caused an increase in the number of lifts and time intervals which must be allowed between successive lifts required to achieve final levee grades in some areas. Our experience now shows that the original design was not quite as conservative as it should have been.

h. Since authorization of the project, it also has become necessary to reevaluate the design hurricane due to revisions in the parameters comprising the standard project hurricane which were made by the Weather Service. The revisions had the effect of increasing the intensity of the design hurricane, requiring higher levee grades. The higher levees require more lifts and hence more time to bring them to final grades. As the GAO report and the record reflect, other factors which caused schedule delays include non-receipt of rights-of-way and insofar as the barrier portion of the project is concerned, environmental matters and litigation. But insofar as the

non-barrier portions of the project--and particularly those portions exclusive of the St. Charles Parish levee--are concerned, these factors were not important drivers of schedule delays.

i. The recommendations of the GAO report are very broad and contain desirable objectives. Accomplishment of many of those objectives require procedures which have been ongoing since the authorization of the project. We are, for example, "working closely with local sponsors to acquire the necessary rights-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. We are currently moving forward on the change in plan as rapidly as procedural requirements and sound engineering, economic, and environmental considerations will permit. In the meantime, we are pursuing completion of those features common to both the high level and barrier plans, and as the GAO report notes, preparing design memoranda for those elements of the high level plan which differ from the barrier plan.

j. With respect to the outfall canals, lack of a mutually acceptable plan precluded prior identification of the outfall canals in the budget process. The Corps has now developed a conceptual plan for protection at the outfall canals which local interests agree deserves further study. Congress, through the normal budget process, will be apprized of the proposed work at the outfall canals. The project cost estimate has been revised to include the estimated cost and the construction schedule of the conceptual plan. 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 detail designs and construction pursued to conclusion.

k. The GAO has recommended that specific milestones be established for accomplishment of the "acquisition strategy plan," and for the subsequent execution of that plan. Subject to satisfying the various procedural and administrative requirements, the Corps intends to construct the high level

plan. We now estimate that these requirements can be satisfied in time to permit construction on the high level plan to commence before the end of FY 1984, provided that the appropriate committees of Congress concur in the foregoing intent and the necessary funds are made available. On this basis, completion of the entire project could be achieved by the year 2000. The completion data is controlled by the necessity to construct many of the levees in repeated "lifts" because of poor foundations, and to an extent by those 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 plans, and as the GAO report notes, the Corps is proceeding with designs for features of the high level plan.

1. With respect to the recommendations that the Corps estimate the cost fo local sponsors and obtain their concurrences on same, we offer the following: 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, under the project, 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 assurances and for a reexamination of the local sponsors' financial capability.

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