

LMNDD-M

10 September 1982

SUBJECT: Review of GAO Final Report on Lake Pontchartrain Hurricane Protection Project

THRU: Commander, Lower Mississippi Valley Division  
ATTN: LMVDC-A

TO: CDR USACE (DAEN-CWR-W)  
WASH DC 20314

1. Reference: Letter DAEN-CWR-W dated 31 August 1982, SAB.
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 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 pressed with vigor and expedition, and the system was exploited, bent, twisted, and innovatively interpreted to permit the earliest practicable completion of design and 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, and it is estimated that \$100 million in damages, or about the total estimated cost of the project at that time, were prevented.

FACSIMILE HEADER SHEET  
(ER 105-1-5)

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C. Saporito	LMNDD-M	2293	Carolyn Saporito		
TO (Name)	OFFICE SYMBOL	TELEPHONE NO.	# PAGES	PRECEDENCE	OTC
J. CESARE	LMVDC-A	5783	3		
SUBJECT GAO Report - Lake Pontchartrain					

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d. Since Hurricane Camille, work on all phases of the project except the barrier complexes has proceeded expeditiously. To date, \$171 million has been spent on construction. If this figure is expressed in 1982 dollars, it becomes \$300 million. In physical terms, the project is estimated to be about 50% complete.

e. It must be borne in mind that circumstances have influenced design and construction progress in very different ways on the barrier and levee portions of the project. The former has involved extremely complex issues of public policy, issues which raised strong emotions and ultimately spawned legal action. Progress on the remainder of the project has been influenced by those concerns more readily dealt with and solved in technical engineering terms. While progress on the barriers has been agonizingly slow for reasons which are both obvious and set forth in the GAO report, this is not true of the remainder of the project, which remainder is now about 70% complete.

f. Virtually all of the completed works are levees and floodwalls. Levees and floodwalls are constructed in small increments (generally the contracts are valued at under \$5 million each) and, in the case of first lift construction, require intense design effort, and resolution of rights-of-way and relocations matters. Therefore, the early levee and floodwall contracts usually require a disproportionate share of design effort. Contracts subsequent to first lift construction are generally constrained by physical limitations, such as a required time interval between levee lifts to allow for settlement of embankments and foundations. Such constraints do slow the design process, but are in fact design limitations which must be respected.

g. Schedule delays on this project have not, in the main, been driven by factors amenable to amelioration by more intensive management. The predominant cause for schedule changes has, in fact, been an increasing appreciation of the nature of foundation conditions in the area, and the corresponding escalation in the number of lifts and intervals between successive lifts required to achieve final levee grades in some areas. 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. And while litigation has since 1977 foreclosed any advance on the barrier portion of the project, foundation considerations were a major factor in schedule delays for that portion of the project prior to that time.

h. The recommendations of the GAO report are very broad and certainly the objectives they are intended to achieve are desirable. However, many of those objectives comprise procedures which have been ongoing since the authorization

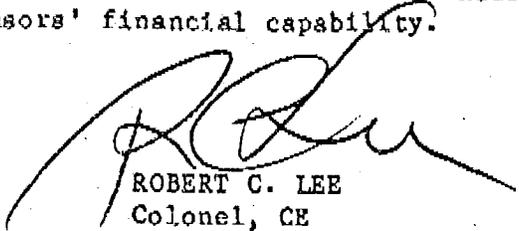
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Protection Project

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 elucidation 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. We expect to provide recommendations regarding a change in plan to higher authority this December. Approval of such recommendations will remove any constraints to project completion in this regard. 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.

i. With respect to the outfall canals, the essence of the problem is to determine which of a number of technically feasible solutions is implementable. In responding to a prior query from GAO we stated the following with respect to the outfall canals, and we believe it is appropriate to repeat now. "The district, with the cooperation of local interests, is continuing to make engineering studies of possible solutions to this difficult problem. The wide disparity between local desires and what can be provided under the project needs to be recognized. The barrier versus high level issue is not expected to have any impact on the decision process for the outfall canals."

j. With respect to the recommendations that the Corps estimate the cost to 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. If the high level plan is approved, the Corps will at that time review the need for new or revised assurances and for a reexamination of the local sponsors' financial capability.



ROBERT C. LEE  
Colonel, CE  
Commanding

# POSITION FORM

of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL

SUBJECT

LMNED-DG

Review of GAO Final Report on Lake Pontchartrain Hurricane Protection Project

TO C/OMA

FROM C/Engr Div

DATE 8 Sep 82

CMT 1

Mr. Guizerix/dml/2692

1. Reference is made to your multiple DF of 31 Aug 82, subject as above. By mutual agreement of Planning Division, Real Estate Division, Program Development Office and Engineering Division, we are herein submitting consolidated review comments to the GAO report.

2. Our comments follow:

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.

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 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 don't believe that the report--or more importantly--the record, supports such findings.

The project was authorized and funded for design in the same fiscal year (1966), a rarity among civil works projects. Designs were pressed with vigor and expedition, and the system was exploited, bent, twisted, and innovatively interpreted to permit the earliest practicable completion of design and 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, and 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 complexes has proceeded expeditiously. To date, \$171 million has been spent on construction. If this figure is expressed in 1982 dollars, it becomes \$300 million. In physical terms, the project is estimated to be about 50% complete.

It must be borne in mind that circumstances have influenced design and construction progress in very different ways on the barrier and levee portions of the project. The former has involved extremely complex issues of public policy, issues which raised strong emotions and ultimately spawned legal action. Progress on the remainder of the project has been influenced by those concerns more readily dealt with and solved in technical engineering terms. While progress on the barriers has been agonizingly slow for reasons which are both obvious and set forth in the GAO report, this is not true of the remainder of the project, which remainder is now about 70% complete.

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Virtually all of the completed works are levees and floodwalls. Levees and floodwalls are constructed in small increments (generally the contracts are valued at under \$5 million each) and, in the case of first lift construction, require intense design effort, and resolution of rights-of-way and relocations matters. Therefore, the early levee and floodwall contracts usually require a disproportionate share of design effort. Contracts subsequent to first lift construction are generally constrained by physical limitations, such as a required time interval between levee lifts to allow for settlement of embankments and foundations. Such constraints do slow the design process, but are in fact design limitations which must be respected.

Schedule delays on this project have not, in the main, been driven by factors amenable to amelioration by more intensive management. The predominant cause for schedule changes has, in fact, been an increasing appreciation of the nature of foundation conditions in the area, and the corresponding escalation in the number of lifts and intervals between successive lifts required to achieve final levee grades in some areas. 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. And while litigation has since 1977 foreclosed any advance on the barrier portion of the project, foundation considerations were a major factor in schedule delays for that portion of the project prior to that time.

The recommendations of the GAO report are very broad and certainly the objectives they are intended to achieve is desirable. However, many of those objectives comprise 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 elucidation 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. We expect to provide recommendations regarding a change in plan to higher authority this December. Approval of such recommendations will remove any constraints to project completion in this regard. 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.

LMNED-DG

8 Sep 82

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FREDERIC M. CHATRY \*  
Chief, Engineering Division

CF:  
LMNPD  
LMNRE  
LMNBC

*\* Final w/bo signed by Col Lee*

AR 340.15: the proponent agency is TAGO.

OFFICE OR OFFICE SYMBOL  
LMVDC-A

SUBJECT

GAO Report on Lake Pontchartrain Hurricane Protection Project

TO SEE DISTRIBUTION

FROM Comptroller

DATE 10 Sep 82

CMT 1

CESARE/km/5783

1. Reference GAO Report, MASAD-82-39, 17 Aug 82, "Improved Planning Needed by the Corps of Engineers to Resolve Environmental, Technical, and Financial Issues on the Lake Pontchartrain Hurricane Protection Project." Distribution of the report was made by this office on 26 Aug 82.

2. The New Orleans District has furnished a draft response to position taken by GAO (Incl 1).

3. It is requested that comments addressing the contents of the report, and the response of the New Orleans District, be furnished this office NLT 13 Sep 82. An early submission date is essential to meet the deadline of 14 Sep 82 imposed by OCE. Negative replies are requested.

*William C. Daines*  
DAVID McQUEEN

1 Incl  
as

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LMVPD-P

TO Comptroller

FROM Act C/Plng Div

DATE 13 Sep 82

CMT 2

Campbell/ea/5838

Concur in the District response.

1 Incl  
nc

NOEL D. CALDWELL