DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160

REPLY TO
ATTENTION OF:

LMNED-PF 29 Jul 83

SUBJECT: Engineering and Design Cost Estimates, Lake Pontchartrain, Louisiana and Vicinity, Hurricane Protection Project

Commander, Lower Mississippi Valley Division
ATTN: LMVED-T

1. Reference:

a. LMVED-TD letter, 3 Feb 82, subject: Annual Review of E&D and S&A Requirements.

b. LMVED-TD 1st Ind, 27 Apr 83 to LMNED-DG dated 22 Dec 82, subject: Lake Pontchartrain, Louisiana and Vicinity, Hurricane Protection Project - Permission to Change Project Cost Estimate.

2. As a result of a Dec 77 ruling by the U.S. Fifth District Court, New Orleans District undertook several costly study efforts relative to the subject project. A number of these studies such as the Environmental Baseline Study, Benefit Reanalysis, and Tidal Passes Studies were formally approved by LMVD and included in the project cost estimate. However, a number of other studies are lacking the proper approval letters required for increasing the project E&D.

3. The following items have been accomplished and are listed with the supporting justification and actual cost.

a. The Ecological Characterization of the Benthic Community of Lake Pontchartrain - The U.S. Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency and the Louisiana Department of Wildlife and Fisheries requested an expanded benthic study which relates to the barrier structures and the shell dredging in Lake Pontchartrain. Approval was granted by Major General Marshall on 11 Sep 78 to enter into a contract with LSU as a sole source up to $500,000. Although approved this item is not included the current PB-3. The actual cost of the study was $443,569.42.

	Amount of Proposed E&D Increase
(Rounded)	$ 443,600

b. Draft Reevaluation Study - This study was prepared as a response to the court's injunction. Pertinent portions of the court's opinion are as follows. "... It is clear from the evidence in this case that the final environmental impact study for the Lake Pontchartrain, Louisiana, and Vicinity Hurricane Protection Project prepared by the United States Army Corps of Engineers dated August 1974 does not comply with the requirements of Title 43 United States Code Section 4332 which provides in pertinent part: ... all agencies in the Federal government shall - utilize a systematic, interdisciplinary approach in decision making ... include in every recommendation or report or proposals for legislation ... a detailed statement by the responsible official on the environmental impact of the proposed action ... alternatives to the proposed action ... As written the EIS actually precludes both public and governmental parties from the opportunity to fairly and adequately analyze ... the proposed plan and any alternatives to it ... the court's opinion is limited strictly to the finding that the environmental impact statement of August, 1974 for the project was legally inadequate. Upon proper compliance with the law with regard to the impact statement this injunction will be dissolved and any hurricane plan thus properly presented will be allowed to proceed ...." The study was submitted in Dec 82. The total cost of the study to date is $3,372,300, with a breakdown of cost as follows.

			Amount of Proposed E&D Increase
In-house Labor			$ 2,397,900

A-E Contracts			Amount of Proposed E&D Increase
United Aerial Mapping	$158,965.08	(Rounded)	$ 159,000
Lowe	284,087.04	(Rounded)	284,100
RPH	289,186.88	(Rounded)	289,200
MSM	542,093.79	(Rounded)	542,100
		Subtotal	$ 3,672,300

c. Seabrook Breakwater - The E&D expended on the Seabrook Breakwater included several design alternatives for a breakwater in-front of the lock to provide a safe approach for navigation in adverse weather conditions. This study was done as an appendix to the Seabrook DDM, and was 75 percent complete when the design effort was terminated. The study will be reconsidered when a decision is reached on the Reevaluation Report. The total cost of the study was $119,548.22.

		Amount of Proposed E&D Increase
	(Rounded)	$ 119,500

4. The draft EIS and reevaluation report which documents the proposal to abandon the barrier plan and adopt a high level plan is being retained within the Corps in accordance with instructions from ASA (CW). Assuming the eventual release and approval, an additional $160,000 will be required to complete and submit the final report to EPA.

Amount of Proposed E&D Increase
$ 160,000

5. The following items are remaining E&D not included in the original estimate, and are listed with supporting justification and the current estimated cost.

a. Outfall Canals - The Survey Report considered the existing parallel flood protection at the Orleans Parish Drainage Outfall Canals to be fully acceptable towards hurricane protection, therefore, no cost was included in the current budget estimate for these protection works. Subsequent revisions in the definitions of SPH storm parameters by the U.S. Weather Service resulted in higher design levee grades and thus rendered the existing parallel protection inadequate. The estimate to be included in the project cost estimate is $53,479,000 which reflects the cost for gravity drainage structures with vertically-pinned control valves at the lakefront end of each of the canals. This work will be entered under a separate line item from the New Orleans Lakefront Levee - West of IHNC, in that a final plan of protection for the outfall canals has not been determined and revisions to the cost estimates for hurricane protection alternatives at these canals will be easier to identify. The breakdown of E&D cost is as follows.

	Amount of proposed E&D Increase
Model Studies	$ 1,000,000
GDM (to contain all three canals)	2,000,000
DDMs (a separate DDM per canal)	1,500,000
P&S (a separate set per canal)	1,500,000
Subtotal	$ 6,000,000

b. New Orleans Lakefront Levee - West of IHNC - As described in NOD letter of 22 Dec 82, the cost estimate for this levee reach included in the current budget estimate ($4,974,000 in PB-3, Oct 82) reflects the preliminary

estimate presented in the Survey Report in 1962. The estimate anticipated only the construction of an earthen levee enlargement and 12 road crossings. The revised lakefront cost estimate also takes into consideration the extensive recreational, residential and commercial developments in this area. The estimate also includes the cost for floodwalls at the West End Blvd. extension of the Orleans Marina Floodwall, at the Pontchartrain Beach Amusement Park, at the American Standard Plant, and for a floodwall in the vicinity of the Seabrook Bridge. The number of road crossings increased from 12 to 17. Additionally, the cost for Lands and Damages not previously identified were added to the cost estimate. The breakdown of the E&D cost is as follows:

	Amount of Proposed E&D Increase
GDM	$ 1,500,000
Levees P&S (six separate items)	900,000
Floodwalls P&S (six separate items)	1,661,000
Subtotal	$ 4,061,000

c. Jefferson Parish Lakefront Levee - The Jefferson Parish Lakefront Levee is at elevation 10 which is adequate for the Barrier Plan. However, an additional $262,000 is needed to do a foreshore protection DM, and to review local credits after completion.

	Amount of Proposed E&D Increase
Subtotal	$ 262,000

Total amount of proposed E&D increase $14,400,000

6. It is recommended that the additional of $14,400,000 be approved.

FOR THE COMMANDER:

FREDERIC M. CHATRY
Chief, Engineering Division

Mr Campbell

DISPOSITION FORM

#23

For use of this form, see AR 340-15; the proponent agency is TAGO. S: 24 Aug 83

REFERENCE OR OFFICE SYMBOL	SUBJECT
LMVED-TD	Engineering and Design Cost Estimates, Lake Pontchartrain, Louisianan and Vicinity, Hurricane Protection Project

TO SEE DISTRIBUTION FROM Mr. Miskelley DATE 10 Aug 83 CMT 1

Morgan/dp/5928

Please review the inclosed letter and furnish your comments by 24 Aug 83.

1 Incl
LMNED-PE, 29 Jul 83,
ltr

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TO C/Eng Div FROM Act C/Plng Div DATE 16 Aug 83 CMT 2

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Satisfactory to Planning Division.

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