

1986

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APPROPRIATION TITLE: Construction General - Local Protection (Flood Control) - Construction

PROJECT: Lake Pontchartrain, Louisiana, and Vicinity (Hurricane Protection)(Continuing)

LOCATION: The project is located in St. Charles, Jefferson, Orleans, St. Bernard, and St. Tammany Parishes in southeast Louisiana in the general vicinity of New Orleans adjacent to Lake Pontchartrain.

AUTHORIZATION: Flood Control Act of 1965 and Water Resources Development Act of 1974.

BENEFIT TO COST RATIO: The remaining benefit-remaining cost ratio is 6.7 to 1 at 3-1/8 percent. The benefit to cost ratio for the fiscal year for which Congress appropriated initial construction funds (FY 1967) was 17.6 to 1. The benefit to cost ratio is based on the project functioning independently.

<u>SUMMARIZED FINANCIAL DATA</u>		Accum. % of Est. <u>Fed. Cost</u>	STATUS: (1 January 1985)	PERCENT <u>COMPLETE</u>	COMPLETION <u>SCHEDULE</u>
<u>Estimated Total Appropriation Requirement</u>	<u>\$619,000,000</u>		Entire Project	67	Sep 2006 <u>2/</u>
Future Non-Federal Reimbursement \$ 45,000,000			New Orleans East Unit	81	Dec 1993
Estimated Federal Cost (Ultimate)	574,000,000		New Orleans West Unit	0	Sep 2006
Estimated Non-Federal Cost	246,000,000		Mandeville Unit	0	Indefinite <u>3/</u>
Reimbursement:			Chalmette Unit	89	Sep 1991
Hurricane Protection	\$ 45,000,000		<u>2/</u> Excludes Mandeville Unit which has an		
Cash Contribution	114,860,000		indefinite completion date (See		
Other	86,140,000		"Other Information.")		
Total Estimated Project Cost	<u>\$820,000,000</u>		<u>3/</u> Completion schedule indefinite until		
Allocations to 30 September 1984	150,080,000		financial support is furnished by		
Conference Allowance for FY 1985	17,500,000		local interests. (See "Other		
Allocation for FY 1985	13,768,000 <u>1/</u>	26	Information").		
Allocations to Date	163,880,000	26			
Allocation Requested for FY 1986	25,000,000	31			
Scheduled Balance to Complete After FY 1986	427,619,000				
Unscheduled Balance to Complete After FY 1986	2,533,000				
<u>1/</u> Reflects \$2,400,000 reduction assigned as savings and allipage and transfer of \$1,332,000 from the project.					

Division: Lower Mississippi Valley District: New Orleans Section: Lower Mississippi
Project: Lake Pontchartrain, Louisiana, and Vicinity (Hurricane Protection) 101

Project: Average length: 18 miles Floodwalls: 17.9 miles
Length: 80 miles
Dam Closures: 2 Floodgates: 2
Pumping Plant: 1 Control Valve Structures: 3

JUSTIFICATION: The lowlands in the Lake Pontchartrain tidal basin are subject to tidal overflow. The Greater New Orleans Metropolitan Area which lies in this basin will continue its rapid economic development in the future years even though severe damages have resulted from several hurricanes in the past years. Hurricane damages result from surges entering Lake Pontchartrain from Lake Borgne through natural tidal passes at the Rigolets and Chef Menteur Pass and the Inner Harbor Navigation Canal. The surges are intensified by local wind effects and the combination of waves and surges causing overtopping of the protective works along the shores of Lake Pontchartrain. The eastern portion of the area is also subject to flooding by surges and waves that move directly from Lake Borgne and overtop the existing inadequate protective system seaward of the developed land areas. As a result, residences and industrial and commercial establishments suffer damage, business activities are disrupted, lives are endangered, and hazards to health are created. Hurricanes much more severe than any of record are possible. In the event of the occurrence of such a severe hurricane, catastrophic property damage and loss of human life would be experienced. Local interests have requested protection against these threats to life and property. Hurricane "Betsy," in September 1965, caused extensive damage and flooding of urban areas of the New Orleans area to depths of up to 10 feet. Hurricane "Camille" occurred in the project area in August 1969 and flooded areas along the Inner Harbor Navigation Canal. Extensive flooding and overtopping of levees would have occurred in the project area in September 1974 if hurricane "Carmen" had continued on its predicted course. The Lake Pontchartrain hurricane protection project will provide this necessary protection.

The average annual benefits are as follows:

Benefits	Amount (1 October 1984)
Flood Control	\$204,677,000
Total Annual Benefits	\$204,677,000

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FISCAL YEAR 1986: The requested amount of \$25,000,000 will be applied as follows:

<u>New Orleans East Unit</u>	
<u>Initiate:</u>	
New Orleans East Back-Levee Station 770 to 1007	\$ 597,000
<u>Continue:</u>	
New Orleans Lakefront Levee London Ave. to West End	1,290,000
Citrus Lakefront Levee Inner Harbor Navigation Canal to Paris Road	9,450,000
New Orleans East Lakefront Levee Paris Road to South Point	3,000,000
<u>Complete:</u>	
New Orleans Lakefront Levee - Floodwall at American Standard Plant	1,730,000
New Orleans Lakefront Levee - Floodwalls at Marconia, Topaz, and Shelter	450,000
Citrus Back-Levee Station 176 to 574	1,350,000
Engineering and Design	2,000,000
Supervision and Administration	745,000
Subtotal	\$20,612,000
<u>New Orleans West Unit</u>	
Engineering and Design	\$ 1,350,000
Supervision and Administration	150,000
Subtotal	\$ 1,500,000
<u>Chalmette Unit</u>	
<u>Complete:</u>	
Station 65 to 278 (1st Enlarge)	\$ 653,000
Station 355 to 682 (Final)	1,760,000
Engineering and Design	150,000
Supervision and Administration	325,000
Subtotal	\$ 2,888,000
Grand Total	\$ 25,000,000

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Construction of the New Orleans East Back Levee, New Orleans Lakefront Levee, West of Inner Harbor Navigation Canal, Citrus Lakefront Levee, New Orleans East Lakefront Levee, and Citrus Back Levee will provide a higher degree of interim protection to the New Orleans East Unit. Construction of Stations 65 to 278 and 355 to 682 will provide a higher degree of interim protection to the Chalmette Unit.

NON-FEDERAL COST: Local interests are to bear 30 percent of the first cost to include the fair market value of all lands, easements, and rights-of-way, including borrow and disposal areas, necessary for construction of the hurricane features and to accomplish all necessary alterations and relocations to roads, railroads, pipelines, cables, wharves, drainage structures, and other facilities made necessary by the construction works.

Lands and Damages	\$ 58,572,000
Relocations	27,568,000
Cash Contributions:	
Based on 30 percent of total project	114,860,000
Reimbursement: Hurricane Protection	45,000,000
Total	\$246,000,000

Local interests are required to operate and maintain all features of the project works. The annual cost to local interests for operation and maintenance is estimated at \$1,122,000 including \$61,000 for material replacements.

In addition, local interests, through the combined efforts of the State of Louisiana, local levee and drainage districts, and parish police juries, have spent an estimated \$25,366,000 between 1930-1963, based on the best cost records available, to improve and maintain the hurricane protection system existing prior to project authorization. Available costs of record are tabulated below:

Combination of State of Louisiana and Lake Borgne Levee District and Chalmette Back	
Levee District on the Chalmette Back Levee Protection Systems	\$ 4,410,000
Orleans Levee District Board	12,010,000
Port of New Orleans (levees along Industrial Canal)	924,000
Pontchartrain Levee District	5,022,000
Fourth Drainage District of Jefferson Parish	3,000,000
Total	\$25,366,000

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A very severe hurricane, "Betsy," occurred in the project area in September 1965, just prior to the authorization of the project in October 1965. Considerable damage was done to many of the existing levees, and local interests immediately instituted an accelerated rehabilitation program, with the view of restoring and strengthening existing protection prior to succeeding hurricane seasons. Only work performed by local interests after project authorization, which conforms to the project design criteria and alignment, will be accepted by the United States as work-in-kind in lieu of cash contribution.

STATUS OF LOCAL COOPERATION: Assurances are required for the two independently justified plans.

1. Chalmette Area Plan:

- a. Orleans Levee District: New agreements of assurances covering all local cooperation requirements and a deferred payment plan as authorized by Public Law 93-251 were executed on 30 March 1976. These assurances were accepted on behalf of the United States on 7 December 1977.
- b. St. Bernard Parish Police Jury and Lake Borgne Basin Levee District: New joint agreements of assurances covering all local cooperation requirements and a deferred payment plan as authorized by Public Law 93-251 were executed on 2 April 1976. These assurances were accepted on behalf of the United States on 7 December 1977.

2. High Level Plan:

- a. Orleans Levee District: For the Barrier Plan, new agreements of assurances covering all local cooperation requirements and a deferred payment plan as authorized by Public Law 93-251 were executed on 30 March 1976. These assurances were accepted on behalf of the United States on 7 December 1977. Amended assurances for the High Level Plan are required and are currently being prepared.
- b. St. Tammany Parish: The Louisiana Office of Public Works executed an act of assurance dated 8 November 1976 agreeing to fulfill all local cooperation requirements for that portion of the project in St. Tammany Parish. These assurances were accepted on behalf of the United States on 7 December 1977. Amended assurances for the High Level Plan are required and are currently being prepared.

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c. Pontchartrain Levee District: New agreements of assurances covering all local cooperation requirements and a deferred payment plan as authorized by Public Law 93-251 were executed on 20 September 1976. On 8 November 1976, the Louisiana Office of Public Works agreed to lend financial assistance above \$100,000 to the Pontchartrain Levee District for that portion of the Barrier Plan which is the responsibility of that levee district. These assurances were accepted on behalf of the United States on 7 December 1977. Amended assurances are under review for the St. Charles Parish portion of the project.

d. Jefferson Levee District: As of 1 January 1979, the State of Louisiana formed the Jefferson Levee District and assigned to it responsibility for Jefferson Parish levees on the east bank of the Mississippi River. These levees were previously the responsibility of the Pontchartrain Levee District. Amended assurances are under review for the Jefferson Parish portion of the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$619,000,000 is an increase of \$162,000,000 over the latest estimate (\$457,000,000) submitted to Congress. This change includes increases of \$83,020,000 for adjustments in the estimated inflation allowance through the construction period, \$62,000 for contract modifications, \$260,000 due to a new item of work, and \$299,958,000 for the High Level Plan of protection; which includes \$243,431,000 for construction, \$33,205,000 for Engineering and Design and \$23,322,000 for Supervision and Administration. These increases are partially offset by decreases of \$193,453,000 associated with the Barrier Plan of Protection, \$3,112,000 for actual cost of completed work, \$735,000 due to contract awards and \$24,000,000 due to reanalysis of Federal cost-sharing requirements.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT AND COMPLIANCE WITH CLEAN WATER ACT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 17 January 1975. By Court Order dated 30 December 1977, a revised Environmental Impact Statement was ordered. A draft revised Environmental Impact Statement for the High Level Plan and reevaluation report which documents the proposal to adopt that plan instead of the barrier plan was released to the public and filed with the Environmental Protection Agency on 16 December 1983. The final revised Environmental Impact Statement was filed with the Environmental Protection Agency on 7 December 1984.

The provisions of Section 404 of the Clean Water Act have been met by a Statement of Findings signed by the District Engineer on 20 August 1975 for the majority of the project. The provisions of Section 404 of the Clean Water Act for work after 1 October 1981 have been met for the Chalmette Unit by a Supplemental Section 404(b)(1) Evaluation Report signed by the District Engineer on 15 November 1982; for the New Orleans East Unit by a Supplemental Section 404(b)(1) Evaluation Report signed by the District Engineer on 18 November 1983, and for the New Orleans West/Mandeville Unit by a Supplemental Section 404(b)(1) Evaluation Report signed by the District Engineer on 18 November 1983. A Public Notice was issued for the High Level Plan on 21 March 1984 and certification from the State of Louisiana was received on 29 June 1984.

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OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1966 and for construction in FY 1967.

Save our Wetlands, Inc., filed suit on 8 December 1975 in United States District Court for the Eastern District of Louisiana against the New Orleans District Engineer, the Secretary of the Army, the Administrator of the Environmental Protection Agency and the President of the Orleans Levee Board. The Clio Sportsman's League joined the suit on 21 June 1976. The St. Tammany Parish Police Jury joined the suit on 30 March 1977. The suit alleges the following: (1) that a regional cumulative Environmental Impact Statement should be accomplished prior to proceeding with the project; (2) that the Corps has not complied with the conditions of final approval by the Environmental Protection Agency of Section 404 requirements of the Federal Water Pollution Control Act; (3) that the Corps has not completely eliminated the St. Charles Parish Lakefront Levee as required by the Environmental Protection Agency. The suit also seeks to have the New Orleans East Lakefront Levee removed and to have three openings for tidal interchange provided under the Southern Railroad embankment.

The Government moved to dismiss the lawsuit based on an unexcusable delay in forwarding a claim and the contention that the allegations of the plaintiffs were not liable to trial in a court of justice under the National Environmental Policy Act. A hearing was held on 5 November 1976 and the court denied the motion on 7 December 1976. In addition, a hearing was held on 15 December 1976 on the Orleans Levee District's (a codefendant) motion to dismiss issues regarding assurances for the project. The court denied the motion.

On 30 December 1977, Judge Charles Schwartz of the Federal District Court in New Orleans issued an order enjoining any further construction of the Chef Menteur and Rigolets Complexes, the New Orleans East Area (east of Paris Road) and the Chalmette Area of the project until a revised Environmental Impact Statement has been prepared.

On 8, 10, and 27 March 1978, Judge Schwartz lifted the injunction on the New Orleans East Area (east of Paris Road) and on 10 March 1978 he lifted the injunction on the Chalmette Area Plan.

A group of individuals in St. Charles Parish filed suit on 12 April 1977, asking that the court direct the Corps to construct the St. Charles Parish portion of the project which has been deferred. At a 17 May 1978 hearing, Judge Charles Schwartz declared that the suit was premature and deferred further consideration until completion of the revised Environmental Impact Statement.

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As a result of legal actions, a reevaluation of the authorized Barrier Plan was conducted and determined that a plan consisting of higher levees, in lieu of the barrier structures, was economically superior to the authorized plan. The High Level Plan would eliminate the barrier complexes at Rigolets Pass, Chef Menteur Pass and Seabrook, and substitute in their place, higher levees along the south shore of Lake Pontchartrain. The public response is heavily in favor of the High Level Plan.

The draft Reevaluation Report (including a draft Environmental Impact Statement) was submitted to the Environmental Protection Agency and the public on 19 December 1983. The final coordinated Reevaluation Report and Environmental Impact Statement was filed with the Environmental Protection Agency on 7 December 1984. Data relative to the High Level Plan is presented in this Justification Sheet.

A special election was held in St. Tammany Parish on 22 October 1983 to authorize the levy of a special tax to repair or replace the seawall at Mandeville. This tax proposition did not pass, therefore, the completion date for the Mandeville Seawall is now indefinite.

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HISTORICAL CHANGES IN BASELINE FEDERAL COST ESTIMATE:

Division: Lower Mississippi Valley
District: New Orleans

Project: Lake Pontchartrain, Louisiana, and Vicinity
(Hurricane Protection)

Item	Estimates Presented to Congress (\$1,000)				
	Original Baseline (1)	Cumulative Changes (2)	Last (3)	Incremental Change (4)	Current (5)
Federal Cost (Price Level)	65,784 (Oct 1965)		457,000 2/		619,000 1/ 2/
Reason for Change		(391,216) 2/		(+162,000) 1/	
a. Price Escalation		304,808		+83,020	
b. Design Changes		61,743			
c. Additional Function Added Under General Authorization		0		0	
d. Authorized Modification		34,094		+106,505 4/	
e. Post-Contract Award and Other Estimating Adjustments		-11,398		-27,525 3/	
f. Schedule Changes		0		0	
g. Sundry		1,969		0	
h. Real Estate		0		0	

- 1/ Includes an increase of \$83,020 for adjustments in the estimated inflation allowance through the construction period.
- 2/ Includes an allowance for estimated inflation through the construction period.
- 3/ Reflects increases of \$62 for contract modifications, and \$260 due to a new item of work; and decreases of \$3,112 based on actual cost of completed work, \$735 due to contract awards, and \$24,000 due to a reanalysis of Federal cost sharing requirements.
- 4/ Reflects \$299,958 for the high level plan of protection (\$243,431 for construction, \$33,205 for Engineering and Design, and \$23,322 for Supervision and Administration). These increases are partially offset by a decrease of \$193,453 associated with the barrier plan of protection.

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APPROPRIATION TITLE		CLASSIFICATION, FISCAL CONTROL-LOCAL PROTECTION			
CONSTRUCTION, GENERAL		BUDGETARY			
		CONSTRUCTION PROGRAM (FD-1)			
		PROJECT ESTIMATE	TOTAL COST TO 30 SEP 1984	CURRENT FISCAL YEAR 1985	BUDGET FISCAL YEAR FY 1985
					BALANCE TO COMPLETE AFTER FY 1985
BARRIER UNIT		18,817,000	18,883,000	0	34,000
LANDS & SURFACES		728,000	728,000	0	0
STRUCTURES & CHANNELS		1,888,000	1,888,000	0	0
LEVEES & FLOODWAYS		14,242,000	14,242,000	0	30,000
ENGINE & DESIGN		478,000	478,000	0	4,000
SUPERVISION & ADMIN		0	0	0	0
NEW ORL. EAST UNIT		430,042,000	108,832,000	87,213,000	22,000,000
LANDS & SURFACES		28,891,000	28,891,000	27,710,000	1,181,000
STRUCTURES & CHANNELS		28,891,000	28,891,000	27,710,000	1,181,000
LEVEES & FLOODWAYS		278,000,000	68,872,000	18,404,000	17,867,000
ENGINE & DESIGN		18,750,000	14,889,000	1,817,000	2,932,000
SUPERVISION & ADMIN		24,200,000	4,280,000	740,000	17,963,000
NEW ORL. WEST UNIT		288,335,000	3,905,000	1,800,000	1,500,000
LANDS & SURFACES		2,320,000	1,140,000	0	1,180,000
STRUCTURES & CHANNELS		218,000,000	0	0	218,000,000
LEVEES & FLOODWAYS		218,000,000	0	0	218,000,000
ENGINE & DESIGN		21,015,000	2,175,000	1,000,000	1,175,000
SUPERVISION & ADMIN		0	100,000	0	0
MOBILEVILLE UNIT		2,000,000	140,000	0	0
LANDS & SURFACES		2,000,000	0	0	2,000,000
STRUCTURES & CHANNELS		0	127,000	0	127,000
ENGINE & DESIGN		0	13,000	0	13,000
SUPERVISION & ADMIN		0	0	0	0
CHALMETTE UNIT		100,318,000	89,388,000	3,283,000	3,388,000

EFFECTIVE DATE: 01 JAN 85
BY: DIST. NEW ORLEANS DISTRICT
OFFICE: NEW ORLEANS DISTRICT
PROJECT: LA PONTCH & VIC NEW ORL
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