

1973

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

PROJECT: Lake Pontchartrain and Vicinity, Louisiana (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: 1965 Flood Control Act

BENEFIT-COST RATIO: 11.5 to 1

SUMMARIZED FINANCIAL DATA			Accumulated % of Est. Fed. Cost	STATUS (1 January 1972)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost		\$178,000,000		Locks	0	Sep. 1976
Estimated Non-Federal Cost		77,000,000	1/2/	Roads	0	June 1977
Cash Contribution	\$47,259,000	1/		Channels and Canals	14	June 1977
Other Costs	29,741,000			Levees and Floodwalls:		
Total Estimated Project Cost		\$255,000,000		New Orleans East Unit	17	Dec. 1981
Allocations to 30 June 1971		31,793,000		New Orleans West Unit	0	Dec. 1981
Allocation for FY 1972		10,946,000		Mandeville Unit	0	June 1975
Allocations to Date		42,739,000	24	Chalmette Unit	19	June 1978
Appropriations Requested for FY 1973		20,000,000	35	Flood Control & Diversion Structures	0	June 1976
Balance to Complete after FY 1973		\$115,261,000		Entire Project	18	Dec. 1981

1/ Includes \$3,816,000 capitalized cost of O&M for Rigolets Lock.

2/ In addition, local interests, through the combined efforts of the State of Louisiana, local levee and drainage districts and parish police juries have spent, through the years, an estimated \$25,000,000 to effectuate and maintain the hurricane protection systems existing prior to project authorization.

DIVISION: LOWER MISSISSIPPI VALLEY

DISTRICT: NEW ORLEANS

REGION: LOWER MISSISSIPPI
LAKE PONTCHARTRAIN AND VICINITY, LOUISIANA

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PHYSICAL DATA

Levees: Average Height - 13 feet
Length - 74 miles

Drainage Structures: St. Charles Parish-544 ft. wide with
eight 5.0 ft. high by 9.0 ft. wide
combination flap & vertical lift gates.
Sill elevation -5.5 m.s.l.
St. Bernard Parish-two 72 in. dia. CMP
culverts with flap and vertical slide
gates.

<u>Channels:</u>	<u>Size</u>	<u>Length (Mi.)</u>
Bayou Bienvenue Navigation Channel	10 ft.by 125 ft.	0.5
Bayou Dupre Navigation Channel	10 ft.by 125 ft.	0.2

Floodgates: Chef Menteur - Sector-Gated - 84 ft.wide
Bayou Bienvenue - Sector-Gated - 56 ft.wide
Bayou Dupre - Sector-Gated - 56 ft. wide

Locks: Seabrook - 84 ft. by 800 ft.Chamber, Sector-Gated
Rigolets - 84 ft. by 800 ft.Chamber, Sector-Gated

<u>Dam Closures:</u>		
Bayou Bienvenue - Earthen	-	500 ft. long
Bayou Dupre - Earthen	-	500 ft. long
Bayou Villere - Earthen	-	500 ft. long
Pipeline Canal - Earthen	-	200 ft. long
Seabrook - Rock	-	1040 ft. long
Chef Menteur - Earthen	-	1600 ft. long
Rigolets - Earthen	-	3000 ft. long
GIWW East - Earthen	-	500 ft. long
GIWW West - Earthen	-	700 ft. long

Railroad Gate Structures:

New Orleans East Unit:

Southern Railway at Seabrook, New Orleans East, IHNC West
Southern Railway at Seabrook, Citrus Area, IHNC East
Louisville and Nashville RR, New Orleans East, IHNC West

<u>Channels:</u>	<u>Size</u>	<u>Length (Mi.)</u>
GIWW Relocation	12 ft. by 125 ft.	7.0
Chef Menteur Navigation Channel	12 ft. by 125 ft.	2.3
Chef Menteur	Depth: -25 ft. structure	2.1
Approach Channel	Width: 400 ft. structure	
Rigolets Approach	Depth: -30 ft. structure	
Channel	Width: 800 ft. structure	1.0
Rigolets Navigation Channel	14 ft. by 100 ft.	0.9

Control Structures:

Chef Menteur - 1,200 ft. total width structure; Sill El.
-25 ft., 8 Gate Bays, Vertical Lift Steel Gates, 14 ft.
by 46 ft. each.

Rigolets - 1,100 ft. total width structure; Sill El.

-30 ft. 16 Gate Bays, Vertical Lift Steel Gates, 3
stacked per bay, 11.5 ft. by 46 ft. each.

Seabrook - 116 ft. total width structure; Sill El. -15.8
ft.; 3 Gate Bays, Vertical Lift Steel Gates, 20 ft. by
32 ft. each.

Floodwalls:

Rigolets	- I and/or T type wall - 170 ft.long
Chef Menteur	- I and/or T type wall - 590 ft.long
Bayou Dupre	- I and/or T type wall - 320 ft.long
Bayou Bienvenue	- I and/or T type wall - 375 ft.long
Verret Highway No. 46-	I and/or T type wall - 255 ft.long
Caernarvon Hwy.No. 39-	I and/or T type wall - 275 ft.long
Inner Harbor Navigation	
Canal, Westside	- I and/or T type wall - 5.8 miles

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Railroad Gate Structures: (Cont'd)
New Orleans East Unit: (Cont'd)

Louisville and Nashville RR, Citrus Area, IHNC East
Southern Railway at Florida Avenue, New Orleans East.
IHNC West

Chalmette Unit:

Southern Railway at Florida Avenue, Chalmette.
IHNC East

Floodwalls: (Cont'd)

Inner Harbor Navigation
Canal, Eastside - I and/or T type wall - 4.1 miles
Citrus Back Levee - I and/or T type wall - 3.2 miles

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 recent past. Hurricane damages result from surges entering Lake Pontchartrain from Lake Borgne through natural tidal passes at the Rigolets and Chef Menteur Pass and through improved channels of the Mississippi River-Gulf Outlet and Inner Harbor Navigation Canal. The surges are intensified by local wind effects and the combination of waves and surges causes 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 endangered, and hazards to health 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. The Lake Pontchartrain hurricane protection project will provide the necessary protection. The Mississippi River-Gulf Outlet (MR-GO) via the Inner Harbor Navigation Canal (IHNC) provides a direct tidal route from the Gulf of Mexico to Lake Pontchartrain. Consistent with the rationale that lake levels can be controlled by limiting tidal inflow to the lake, a lock and control structure complex is to be constructed at the junction of the IHNC and Lake Pontchartrain at Seabrook. The complex will provide the multi-purposes of flood control, salinity control, and navigational benefit. The cost of the Seabrook Complex is allocated 50% to the hurricane protection project and 50% to the MR-GO project.

The average annual benefits, all flood control, are estimated at \$117,296,300.

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FISCAL YEAR 1973: The requested amount of \$20,000,000 will be applied to:

Initiate:

New Orleans East Unit

N. O. East Lakefront Levee (Paris Road to South Point) 1st lift levee	\$ 800,000
Chef Menteur Barrier Control Structure	300,000
Rigolets Barrier Control Structure	400,000

Initiate and Complete:

New Orleans East Unit

Citrus Back Levee, Station 176 to 196, 1st lift levee	10,000
N. O. East Back Levee, Station 874 to 882, floodwall	400,000

Continue:

New Orleans East Unit

New Orleans East Back Levee, Station 775 to 1007, 1st lift levee	2,100,000
Chef Menteur Barrier, East and West, 1st lift levee	1,900,000
Rigolets Barrier, North, 1st lift levee	1,190,000

New Orleans West Unit

St. Charles Levee, Station 0 to 121, 1st lift levee	1,500,000
St. Charles Levee, Station 129 to 294, 1st lift levee	1,400,000

Chalmette Unit

Bayou Bienvenue Control Structure	1,400,000
Bayou Dupe Control Structure	400,000
Station 370 to 775, not continuous, 2d lift levee and Pipeline Canal Closure, 2d lift	100,000

Engineering and Design

Supervision and Administration	1,200,000
	1,300,000

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Complete:

New Orleans East Unit

LNHC, West Station 206 to 238, floodwall	\$ 350,000
Citrus Back Levee, Station 136 to 582, 2d lift levee	690,000
Citrus Back Levee, Station 582 to 665, floodwall	485,000
New Orleans East Back Levee, Station 665 to 775, floodwall	1,700,000
Rigolets Barrier, South, 1st lift levee	575,000

Chalmette Unit

Vicinity Paris Road Bridge, floodwall	70,000
Vexret to Caernarvon, Station 1121 to 1560, 1st lift levee	1,730,000

Total	\$20,000,000
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The funds requested for Fiscal Year 1973 are required to meet the scheduled completion date.

NON-FEDERAL COSTS: Local interests are to bear 30% of the first cost to consist of the fair market value of all lands, easements, and rights-of-way, including borrow and spoil 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. They are required to share in only 1/2 the cost of Seabrook Lock; the other half being constructed for navigation purposes at Federal expense. In addition, local interests are required to contribute the capitalized cost of operation and maintenance for Rigolets Lock. The current estimate of project costs to be borne by local interests follows:

Lands and Damages	\$25,153,000
Relocations	4,588,000
Cash Contributions:	
Based on 30% of total project cost less Seabrook Lock	40,305,000
Based on 15/85 ratio for Seabrook Lock	3,138,000
Capitalization of O&M for Rigolets Lock	3,816,000
Total	\$77,000,000

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Local interests are required to operate and maintain all features of the project works, excluding the Rigolets Navigation Lock and channel and modified dual-purpose Seabrook Lock. The annual cost to local interests for maintenance and operation is estimated at \$299,000 and material replacements \$167,600; a total of \$466,600.

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 \$25,000,000 between 1930-1963, based on the best cost records available, to effectuate and maintain the hurricane protection system existing prior to project authorization. Available costs of record are tabulated below:

Combination of State of Louisiana Lake Borgne Levee District and Chalmette Back Levee District on the Chalmette Back Levee Protection System	\$ 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

A very severe hurricane, "Betsy," occurred in the project area in September 1965 just prior to 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.

Hurricane "Camille" occurred in the project area in August 1969 and flooded areas along the Inner Harbor Navigation Canal.

STATUS OF LOCAL COOPERATION: Formal request for assurances for the Barrier Plan was made by the Federal Government on 27 July 1966 and furnished by the Board of Commissioners of the Orleans Levee District on 28 July 1966. By executive order dated 5 March 1971, the Governor of the State of Louisiana designated the Louisiana Department of Public Works as the local coordinator for the Barrier Plan. Full assurances for the Barrier Plan have not yet been forwarded to the Government by that agency. Formal assurances for the Chalmette Area Plan and its modification were requested on 8 February 1966 and 6 June 1967, respectively, and were furnished jointly by the St. Bernard Parish Police Jury and the Board of Commissioners of the Lake Borgne Levee District on 16 August 1966 and 6 July 1967, respectively.

COMPARISON OF FEDERAL COST ESTIMATES: No change from the previous estimate (\$178,000,000) presented to Congress in connection with the Supplemental Appropriations Act, 1972.

LAKE PONTCHARTRAIN AND VICINITY, LOUISIANA

APPROPRIATION TITLE: CONSTRUCTION GENERAL		CLASSIFICATION: LOCAL PROTECTION / FLOOD CONTROL PROJECT				
SUMMARY CONSTRUCTION PROGRAM (PB-1)						
FISCAL YEARS 1972 AND 1973.						
ITEM	FUNDING COST ESTIMATE	TOTAL TO JUNE 1973 (c)	CURRENT FISCAL YEAR 1972 (d)	BUDGET FISCAL YEAR 1973 (e)	BALANCE TO COMPLETE AFTER FY 1973 (f)	
TOTAL AFFILIATE COST (C of B Funds Only)	178,000,000	22,713,100	20,026,000	20,000,000	15,280,900	
Undistributed Cost (None)						
TOTAL PROJECT COST (C of B Funds Only)	178,000,000	22,713,100	20,026,000	20,000,000	15,280,900	
Pending Adjustments						
TOTAL COST (C of B Funds Only)	178,000,000	22,713,100	20,026,000	20,000,000	15,280,900	
Undelivered Orders		15,079,100	5,079,100			
TOTAL OBLIGATIONS		28,792,200	13,846,900	20,000,000	15,280,900	
NON-FEDERAL CONTRIBUTION						
LANDS AND DAMAGES	25,153,000	12,846,000	4,577,000	1,900,000	6,421,000	
MILITATIONS	4,338,000	2,930,000	242,000	455,000	201,000	
LOCKS	6,488,000			6,388,000	6,388,000	
BOARS	6,000				6,000	
CHANNELS AND CANALS	201,000				201,000	
SEAWALLS	261,000				261,000	
LEVEES AND FLOODWALLS	28,211,000	4,289,200		6,125,000	17,796,800	
FLOOD CONTROL AND DIVERSION STRUCTURES	5,715,000			5,715,000	5,715,000	
PERMANENT OPERATING EQUIPMENT	1,000				1,000	
ENGINEERING AND DESIGN	3,351,000	97,400		15,000	3,247,800	
SUPERVISION AND ADMINISTRATION	2,339,000	42,000			2,297,000	
TOTAL AFFILIATE COST (Non-Federal Only)	77,000,000	19,615,000	4,819,000	8,505,000	44,061,000	
Undistributed Cost (None)						
TOTAL PROJECT COST (Non-Federal Only)	77,000,000	19,615,000	4,819,000	8,505,000	44,061,000	
Pending Adjustments (None)						
TOTAL COST (Non-Federal Only)	77,000,000	19,615,000	4,819,000	8,505,000	44,061,000	
Undelivered Orders (None)						
TOTAL OBLIGATIONS		19,615,000	4,819,000	8,505,000	44,061,000	
EFFECTIVE DATE 1 JAN 72	DIVISION LONG BEACH VALLEY DISTRICT NEW ORLEANS	REGION LOWER MISSISSIPPI BASIN COASTAL LOUISIANA	PROJECT LAKE FORECHARTAIN & VICINITY (HURRICANE PROTECTION)			
ANG FORM 700 2200	ER 11-2-101 PREVIOUS EDITION IS OBSOLETE		RECEIVED 1 JAN 72			

