

Levees: Average Height - 13 feet
Length - 80 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 lift gates.

Orleans Parish - 4 structures as follows: 5-48 in. diameter, 3-42 in. diameter, 3-48 in. diameter, and 4-54 in. diameter CMP culverts with flap and vertical lift gates.

Channels:	Size	Length Miles
Bayou Bienvenue Navigation Channel	10 ft. by 125 ft.	0.5
Bayou Dupre Navigation Channel	10 ft. by 125 ft.	0.2
GIWW Relocation	12 ft. by 125 ft.	7.0
Chef Menteur Navigation Channel	16 ft. by 125 ft.	2.3
Chef Menteur Approach Channel;	Depth-25 ft. @ struct.	1.2
	Width-400 ft. @ struct.	
Rigolets Approach Channel	Depth-30 ft. @ struct.	1.0
	Width-800 ft. @ struct.	
Rigolets Navigation Channel	14 ft. by 110 ft @ str.	1.1

Dam Closures:		
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 -	4700 ft. long
GIWW East	- Earthen -	500 ft. long
GIWW West	- Earthen -	700 ft. long

PHYSICAL DATA

Control Structures:

Chef Menteur - 1,200 ft. total width structure; Sill El. -25 ft., 8 Gate Bays, Vertical Lift Steel Gates, 2 stacked per bay, 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. ea.
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 Highway 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
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
New Orleans East Back Levee - I and/or T type wall - 2.0 miles

Floodgates:

Chef Menteur - Sector Gated - 64 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 -110 ft. by 800 ft. Chamber, Sector Gated

LAKE PONTCHARTRAIN & VICINITY, LOUISIANA

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-purpose 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 \$146,884,000.

FISCAL YEAR 1975: The requested amount of \$3,300,000 will be applied to:

Initiate:

New Orleans East Unit

Citrus Lakefront Levee, IHNC to Paris Road \$ 60,000

Chalmette Unit

Florida Ave. to Sta 8, 1st lift and 8 to 65, 2d lift levee	10,000
Sta. 65 to 274, 2d lift and Old Paris Rd. Closure, 1st lift levee	10,000
Sta. 705 to 1119, 2d lift and Pipeline Failure Area, 1st lift levee	20,000
Sta. 1121 to 1560, Shaping	10,000
Vicinity of Verrat, Floodwall	10,000
Vicinity of Caernarvon, Floodwall	10,000
Creedmore Canal drainage structure	10,000

Continue:

Engineering and Design	\$1,800,000
Supervision and Administration	591,900

Complete:

New Orleans East Unit	
South Point to GIWW Levee	768,100

Total	\$3,300,000
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The funds requested for Fiscal Year 1975 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; and 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	\$16,035,000
Relocations	9,510,000
Cash Contributions:	
Based on 30% of total project cost	
less Seabrook Lock	55,915,000
Based on 15/85 ratio for Seabrook Lock	3,740,000
Capitalization of O&M for Rigolets Lock	7,800,000
Total	\$93,000,000

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 \$331,300 and material replacements \$202,700; a total of \$534,000.

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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 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

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: Assurances are required for the two independently justified plans authorized by Congress. Chalmette Area Plan: Full assurances have been accepted. Assurances from the St. Bernard Parish Police Jury and the Board of Commissioners of the Lake Borgne Basin Levee District were accepted on 28 September 1968. Assurances from the Board of Commissioners of the Orleans Levee District were accepted on 10 October 1966.

Lake Pontchartrain Barrier Plan: Assurances from the Board of Commissioners of the Orleans Levee District were accepted on 10 October 1966.

Because of the rising non-Federal cost of participation and the widespread benefits to be derived by surrounding Parishes, the Orleans Levee District has requested assistance in carrying out the assurances. On 5 March 1971, the Governor of the state of Louisiana, by executive order, designated the State of Louisiana, Department of Public Works as the local coordinating agency for the Lake Pontchartrain Barrier Plan. The U.S. Army Corps of Engineers on behalf of the United States Government, has contacted the Department of Public Works and requested that agency to obtain the necessary assurances for cooperation and cost sharing from local interests. To date, formal assurances have been received from the Board of Levee Commissioners of the Orleans Levee District, the Board of Commissioners of the Pontchartrain Levee District, the Lake Borgne

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Levee District, and the St. Bernard Parish Police Jury. The St. Tammany Parish Police Jury is reluctant to grant the assurances providing for its participation in the project. However, on 8 May 1972, Governor John J. McKeithen executed formal assurances covering all requirements of local cooperation on behalf of the Police Jury by virtue of his authority under Section 81 of title 38 of Louisiana Revised Statutes of 1950, as amended. Such assurances are binding on the St. Tammany Parish Police Jury. Acceptance of replacement assurances are pending receipt of pertinent supporting documents.

The Orleans Levee District and the Pontchartrain Levee District were requested to execute Supplemental Assurances covering the provisions of PL 91-646 (Uniform Relocations Act) on 10 September 1973. On 2 January 1973, a joint Supplemental Assurance covering the requirements of PL 91-646 was sent to the Louisiana Department of Public Works to coordinate between Lake Borgne Levee District and St. Bernard Police Jury.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$203,000,000 is an increase of \$9,000,000 over the latest estimate (\$194,000,000) submitted to Congress. This change is due to higher price levels.

BENEFIT TO COST RATIO: The benefit to cost ratio last presented to Congress (FY 1974) was 11.9 to 1. The current benefit to cost ratio is 12.3 to 1. The benefit to cost ratio is based on the project functioning independently.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The draft Environmental Statement was submitted to CEQ on 17 August 1972. The final statement is scheduled for submission to CEQ in the third quarter of FY 1974.

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

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APPROPRIATION TITLE: CONSTRUCTION GENERAL		CLASSIFICATION: LOCAL PROTECTION (FLOOD CONTROL PROJECT)				
SUMMARY CONSTRUCTION PROGRAM (PB-1)						
FISCAL YEARS 1974, AND 1975.						
ITEM	PROJECT COST ESTIMATE	TOTAL TO 30 JUNE 1973	CURRENT FISCAL YEAR 1974	BUDGET FISCAL YEAR 1975	BALANCE TO COMPLETE AFTER FY 1975	
(1)	(2)	(3)	(4)	(5)	(6)	
LANDS AND DAMAGES	16,035,000	11,710,000	840,000	2,045,000	1,440,000	
RELOCATIONS	9,510,000	3,154,300	3,195,000	336,000	2,824,700	
LOCKS	31,545,000				31,545,000	
ROADS	110,000				110,000	
CHANNELS AND CANALS	3,020,000	764,800			2,255,200	
BREAKWATERS AND SEAWALLS	2,120,000				2,120,000	
LEVYES AND FLOODWALLS	160,515,000	36,465,100	9,706,500	6,790,000	107,553,400	
FLOOD CONTROL AND DIVERSION STRUCTURES	35,000,000				35,000,000	
PERMANENT OPERATING EQUIPMENT	30,300	2,600	17,700		10,000	
ENGINEERING AND DESIGN	23,506,000	9,306,100	2,840,000	1,800,000	9,559,900	
SUPERVISION AND ADMINISTRATION	14,608,700	2,931,500	828,900	591,900	10,256,400	
TOTAL APPLIED COST (Fed. and Non-Fed.)	296,000,000	64,334,400	17,428,100	11,562,900	202,674,600	
Undistributed Cost (None)						
TOTAL PROJECT COST (Fed. & Non-Fed.)	296,000,000	64,334,400	17,428,100	11,562,900	202,674,600	
Pending Adjustments						
TOTAL COST (Fed. & Non-Fed.)	296,000,000	64,334,400	17,428,100	11,562,900	202,674,600	
Undelivered Orders		+7,075,800	-1,193,900	-5,881,900		
TOTAL OBLIGATIONS		71,410,200	16,234,200	5,681,000	202,674,600	
TOTAL APPLIED COST (Fed. Funds Only)	203,000,000	41,764,000	12,593,100	9,181,900	139,461,000	
Undistributed Cost (None)						
TOTAL PROJECT COST (Fed. Funds Only)	203,000,000	41,764,000	12,593,100	9,181,900	139,461,000	
Pending Adjustments						
TOTAL COST (Fed. Funds Only)	203,000,000	41,764,000	12,593,100	9,181,900	139,461,000	
Undelivered Orders		+7,075,800	-1,193,900	-5,881,900		
TOTAL OBLIGATIONS		48,839,800	11,399,200	3,300,000	139,461,000	
1/ Includes \$146,000 for Real Estate Activities.						
EFFECTIVE DATE	DIVISION LOWER MISS. VALLEY	REGION LOWER MISSISSIPPI		PROJECT LAKE PONTCHARTRAIN AND VICINITY, LOUISIANA (HURRICANE PROTECTION)		
1 JAN 74	DISTRICT NEW ORLEANS	BASIN COASTAL LOUISIANA				

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JUSTIFICATION: The project area is of great economic importance to the State of Louisiana, and includes lands and improvements having an aggregate value approaching \$69,000,000 (1973 prices). In 1970, the population of the area was 18,300 and increasing steadily. While oil and gas production and commercial fishery, along with related service industries, dominate the economy of the area, a wide spectrum of economic activity finds expression within the overall economic complex.

Situated within a region of high hurricane incidence (on the average two hurricanes make landfall on the Louisiana coast every three years), the project area is highly vulnerable to overflow from the tidal surges which accompany hurricanes. Should a hurricane similar to that of 1915 visit the area, damages in excess of \$3,200,000 (1973 prices) could be expected. Should a major hurricane approaching the standard project hurricane in intensity move through the area, the entire project area would be submerged in the tidal surge and monetary damages would likely amount to \$26,200,000 (1973 prices). This damage would include minor crop losses, but the bulk of the damage would consist of physical damage to residences, commercial, and industrial establishments.

The project will provide total protection against flooding for all hurricanes of lesser magnitude than one having a frequency of occurrence of once in 100 years. The average annual benefits are as follows:

Flood Control	\$4,205,000
Area Redevelopment	55,000
Total Annual Benefits	\$4,260,000

FISCAL YEAR 1973: The requested amount of \$1,200,000 will be applied to:

Continues:	
Levee, First Lift - Section A	\$ 880,000
Engineering and Design	240,000
Supervision and Administration	80,000
Total	\$1,200,000

The requested amount is required to meet the scheduled completion date.

NON-FEDERAL COSTS: Local interests are required to provide without cost to the United States all lands, easements and rights-of-way, including borrow areas and spoil disposal areas; accomplish alterations to roads, pipelines, cables, wharves, oil wells and any other facilities necessary for construction of the project; bear 30 percent of the total project cost, a sum presently estimated at \$7,400,000 to consist of the items listed above including a cash contribution presently estimated

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at \$4,130,000 or equivalent work after authorization; maintain and operate all the works after completion in accordance with regulations prescribed by the Secretary of the Army, and prevent any encroachment on ponding areas unless substitute storage capacity or equivalent pumping capacity is provided promptly without cost to the United States.

The current estimate of project costs to be borne by local interests follows:

Lands and Damages	\$1,210,000
Relocations	2,060,000
Cash contributions	4,130,000
Total	\$7,400,000

The estimated annual cost to local interests for maintenance and operation is \$184,900, which includes \$83,100 for replacements.

STATUS OF LOCAL COOPERATION: Assurances of local cooperation by the Lafourche Parish Police Jury were accepted on 28 June 1967.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$17,300,000 is an increase of \$5,600,000 over the latest estimate (\$11,700,000) presented to Congress. This change includes \$1,078,000 for higher price levels; \$3,413,000 in Levees and Floodwalls due to more detailed design and additional cost of levee extension to include a larger area; and \$543,000 in Engineering and design and \$566,000 in Supervision and Administration based on reanalysis of requirements.

BENEFIT TO COST RATIO: The benefit to cost ratio last presented to Congress (FY 1974) was 1.5 to 1. The current benefit to cost ratio is 3.6 to 1. The benefit to cost ratio is based on the project functioning independently.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The draft Environmental Statement was submitted to CEQ on 3 October 1972. The final statement is scheduled for submission in the third quarter of FY 1974.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1967 and for construction in FY 1972. Construction has been delayed due to planning, but is scheduled to start in the fourth quarter FY 1974.

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