

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

1978

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-COST RATIO: 13.5 to 1

SUMMARIZED FINANCIAL DATA

		Accum. % of Estimated Federal Cost
Estimated Federal Cost	\$260,000,000	
Estimated Non-Federal Cost	118,000,000	1/
Cash Contribution	\$88,490,000	
Other	29,510,000	
Total Estimated Project Cost	\$378,000,000	
Allocations to 30 September 1976	74,139,000	
Conference Allowance for FY 1977	12,000,000	
Allocation for FY 1977	10,700,000	2/
Allocations to Date	84,839,000	33
Appropriation Requested for FY 1978	12,400,000	37
Balance to Complete After FY 1978	162,761,000	

- 1/ Includes \$9,900,000 capitalized cost of operation and maintenance for Rigolets Lock.  
2/ Reflects \$1,300,000 reduction assigned as Savings and Slippage.

PHYSICAL DATA

Levees: Average Height: 13 feet  
Length: 80 miles  
Drainage Structures: 7  
Channels: 13.3 miles  
Dam Closures: 9  
Locks: Seabrook: 84 feet by 800 feet  
Rigolets: 110 feet by 800 feet  
Control Structures:  
Chef Menteur: 1,200 feet wide  
Rigolets: 1,100 feet wide  
Seabrook: 116 feet wide  
Floodwalls: 15.5 miles  
Floodgates: 3  
Pumping Plant: 1

Division: Lower Mississippi Valley

District: New Orleans  
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Region: Lower Mississippi

STATUS: (1 January 1977)

	PERCENT COMPLETE	COMPLETION SCHEDULE		PERCENT COMPLETE	COMPLETION SCHEDULE
Barrier Unit	4	Jul 1992	New Orleans West Unit	5	Indefinite 2/
Locks	0	Mar 1983	Levees and Floodwalls	0	Indefinite 2/
Roads, Railroads and Bridges	0	Jul 1992	Mandeville Unit	4	Indefinite 3/
Channels and Canals	19	Mar 1983	Levees and Floodwalls	0	Indefinite 3/
Breakwaters and Seawalls	0	Mar 1982	Chalmette Unit	46	Sep 1989
Levees and Floodwalls	0	Jul 1992	Levees and Floodwalls	40	Sep 1989
Flood Control and			Permanent Operating		
Diversion Structures	0	Dec 1982	Equipment	100	
Permanent Operating Equipment	0	Oct 1982	Entire Project	26	Jul 1992 4/
New Orleans East Unit	47	Sep 1985			
Levees and Floodwalls	52	Sep 1985			
Pumping Plants	0	Indefinite 1/			

- 1/ Completion schedule indefinite due to construction to be done by local interests.  
2/ Completion schedule indefinite pending completion of additional detailed environmental studies.  
3/ Completion schedule indefinite pending resolution of objections by local interests to construction of this feature.  
4/ Except New Orleans West and Mandeville Units.

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 via the Inner Harbor Navigation Canal 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 Inner Harbor

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Hurricane "Camilla" occurred in the project area in August 1969 and flooded areas along the Inner Harbor Navigation Canal. In September 1974, if hurricane "Garmen" had continued on its predicted course, extensive flooding would have occurred in the project area. The National Weather Service rated this storm as more dangerous than hurricane "Betsy."

Benefits	Amount	Redevelopment Areas (PL 89-136)		
		Parish/County and State	Title	Subsection
Flood Control	\$208,351,000	Louisiana		
Area Redevelopment	3,304,000	Jefferson	IV	(8)
		Orleans	IV	(7,8)
		St. Bernard	IV	(8)
		St. John the Baptist	IV	(8)
		St. Tammany	IV	(8)
		Tangipahoa	IV	(1)
Total Annual Benefits	\$211,655,000			

<u><b>Barrier Unit</b></u>			<u><b>New Orleans East Unit (Continued)</b></u>		
Initiate:	Chef Menteur Barrier, East of Chef Menteur, 1st Lift Levee	\$2,220,000	Initiate:	New Orleans East Back Levee, Station 773 to 1006, 2nd Lift Levee	\$ 20,000
Complete:	Chef Menteur Barrier, West of Chef Menteur, 1st Lift Levee	1,680,000	Continue:	Citrus Back Levee, Station 176 to 574, Floodwall and 2nd Lift Levee	1,700,000
Engineering and Design		892,100		Citrus Lakefront Levee, Inner Harbor Navigation Canal to Paris Road, Floodwall	1,200,000
Supervision and Administration		306,000		Engineering and Design	337,900
	Subtotal	<u>\$5,098,100</u>		Supervision and Administration	<u>242,000</u>
				Subtotal	<u>\$4,109,900</u>
<u><b>New Orleans East Unit</b></u>					
Initiate:	Inner Harbor Navigation Canal, West Side, Florida Avenue Complex	10,000			
	Citrus Lakefront Levee, Inner Harbor Navigation Canal to Paris Road, Levee	600,000			

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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. They are required to share in only one-half the cost of the 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:

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Lands and Damages	\$ 18,050,000
Relocations	11,460,000
Cash Contributions:	
Based on 30 percent of total project cost less Seabrook	73,630,000
Based on 15/85 ratio for Seabrook Lock	4,960,000
Capitalization of Operation and Maintenance for Rigolets Lock	9,900,000
Total	\$118,000,000

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 \$656,000 including \$271,700 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 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.

**STATUS OF LOCAL COOPERATION:** Assurances are required for the two independently justified plans authorized by Congress.

1. Chalmette Area Plan:

- a. Orleans Levee District: Assurance dated 28 July 1966 accepted 10 October 1966. Supplemental assurance covering provisions of the Uniform Relocation Assistance and Real Property Acquisition

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Policies Act, Public Law 91-646, executed 29 May 1975, accepted on 8 July 1975. New agreements of assurance covering all local cooperation requirements and a deferred payment plan as authorized by Public Law 93-251 executed 30 March 1976. This has not been accepted due to lack of supporting document.

- b. St. Bernard Parish Police Jury and Lake Borgne Basin Levee District: Joint assurances dated 16 August 1966, accepted 1 September 1966 and 16 June 1967, accepted 3 July 1967. Joint supplemental assurance covering provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act, Public Law 91-646, executed 26 February 1975, accepted 17 March 1975. New joint agreement of assurance covering all local cooperation requirements and a deferred payment plan as authorized by Public Law 93-251 executed 2 April 1976. This has not been accepted due to lack of supporting documents.

2. Barrier Plan:

- a. Orleans Levee District: Assurance dated 28 July 1966, accepted 29 March 1974. New agreement of assurance covering all local cooperation requirements and a deferred payment plan as authorized by Public Law 93-251 executed 30 March 1976. This has not been accepted due to lack of supporting document.
- b. Assurance executed by then Governor John J. McKeithen for and on behalf of the St. Tammany Parish Police Jury on 8 May 1972 was never accepted due to lack of supporting documents. On 19 October 1976, Governor Edwards executed an instrument designating, among other things, the Louisiana Department of Public Works to lend financial assistance in connection with this project. The Louisiana Department 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.
- c. Pontchartrain Levee District: Assurance dated 7 October 1971. Supplemental assurance covering the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act, Public Law 91-646, executed on 15 October 1973 were never accepted due to lack of supporting documents. New agreements of assurance covering all local cooperation requirements and a deferred payment plan as authorized by Public Law 93-251 were executed 20 September 1976. On 8 November 1976, The Louisiana Department 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.

**COMPARISON OF FEDERAL COST ESTIMATES:** The current Federal cost estimate of \$260,000,000 is an increase of \$18,000,000 over the latest estimate (\$242,000,000) submitted to Congress. This change includes increases of \$17,953,000 for higher price levels, and \$1,074,000 in Engineering and Design and Supervision and Administration based on a recent reanalysis of

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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)		242,000 (Oct 1975)		260,000 (Oct 1976)
Reason for Change		(176,216)		(18,000)	
a. Price Escalation		115,115		17,953	
b. Design Changes		41,795			
c. Additional Function Added Under General Authorization		4,243			
d. Authorized Modification		10,886			
e. Post-Contract Award and Other Estimating Adjustments				47 1/	
f. Schedule Changes					
g. Sundry		4,177			
h. Real Estate					

1/ Increase of \$1,074,000 in Engineering and Design and Supervision and Administration due to addition of a water quality program and Rigolets Complex Extension; offset by a decrease of \$1,027,000 based on a redistribution of costs between Federal and non-Federal.

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requirements. These increases were partially offset by a decrease of \$1,027,000 based on a reanalysis of Federal cost-sharing requirements.

**STATUS OF ENVIRONMENTAL IMPACT STATEMENT:** The final Environmental Impact Statement was filed with the Council on Environmental Quality on 9 January 1975.

**BENEFIT TO COST RATIO:** The benefit to cost ratio last presented to Congress (FY 1977) was 13.3 to 1. The current benefit to cost ratio is 13.5 to 1. The benefit to cost ratio is based on the project functioning independently.

**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 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 response to the complaint denies wholly or in part each of the accusations. The suit is presently in the discovery stage of the legal proceedings and the hearing date is as yet unknown.

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APPROPRIATION TITLE: CONSTRUCTION GENERAL			CLASSIFICATION: LOCAL PROTECTION (FLOOD CONTROL PROJECT)			
SUMMARY CONSTRUCTION PROGRAM (PB-1)						
FISCAL YEARS 1977 AND 1978						
LINE NO	ITEM	PROJECT COST ESTIMATE	TOTAL TO 30 SEP 1976	CURRENT FY 1977	BUDGET FY 1978	BALANCE TO COMPLETE AFTER FY 1978
	(a)	(b)	(c)	(d)	(e)	(f)
1	BARRIER UNIT					
2	LANDS AND DAMAGES	2,190,000	34,000	960,000		1,196,000
3	RELOCATIONS	140,000		25,000		115,000
4	LOCKS	39,600,000				39,600,000
5	ROADS	150,000				150,000
6	CHANNELS AND CANALS	4,030,000	764,800			3,265,200
7	BREAKWATERS AND SEAWALLS	2,840,000				2,840,000
8	LEVEES AND FLOODWALLS	36,210,000		1,500,000	5,120,000	29,590,000
9	FLOODWAY CONTROL AND DIVERSION					
10	STRUCTURES	47,200,000				47,200,000
11	PERMANENT OPERATING EQUIPMENT	10,000				10,000
12	ENGINEERING AND DESIGN	9,890,000	4,319,800	1,325,000	892,100	3,353,100
13	SUPERVISION AND ADMINISTRATION	6,920,000	347,600	225,000	306,000	6,041,400
14	SUBTOTAL - BARRIER UNIT	149,180,000	5,466,200	4,035,000	6,318,100	133,360,700
15						
16	NEW ORLEANS EAST UNIT					
17	LANDS AND DAMAGES	7,760,000	4,840,000	990,000	90,000	1,840,000
18	RELOCATIONS	7,210,000	1,675,900	113,700	418,000	5,002,400
19	LEVEES AND FLOODWALLS	68,260,000	34,588,800	3,478,000	3,750,000	26,443,200
20	PUMPING PLANTS	9,360,000				9,360,000
21	ENGINEERING AND DESIGN	10,480,000	6,147,900	570,300	337,900	3,423,900
22	SUPERVISION AND ADMINISTRATION	5,100,000	2,381,200	255,000	242,000	2,221,800
23	SUBTOTAL - NEW ORLEANS EAST UNIT	108,170,000	49,633,800	5,407,000	4,837,900	48,291,300
24						
25	NEW ORLEANS WEST UNIT					
26	LANDS AND DAMAGES	1,140,000	1,140,000			
27	RELOCATIONS	820,000				820,000
28	LEVEES AND FLOODWALLS	30,350,000				30,350,000
29	ENGINEERING AND DESIGN	2,460,000	690,600	28,000	48,000	1,693,400
30	SUPERVISION AND ADMINISTRATION	1,260,000	78,400	7,000	7,000	1,167,600
31	SUBTOTAL - NEW ORLEANS WEST UNIT	36,030,000	1,909,000	35,000	55,000	34,031,000
32						
33						
EFFECTIVE DATE		DIVISION	REGION	PROJECT		
1 Jan 77		LOWER MISSISSIPPI VALLEY	LOWER MISSISSIPPI	LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY (HURRICANE PROTECTION)		
DISTRICT		NEW ORLEANS	BASIN	COASTAL LOUISIANA		

APPROPRIATION TITLE: CONSTRUCTION GENERAL			CLASSIFICATION: LOCAL PROTECTION (FLOOD CONTROL PROJECT)			
SUMMARY CONSTRUCTION PROGRAM (PB-1)						
FISCAL YEARS 1977 AND 1978						
LINE NO	ITEM	PROJECT COST ESTIMATE	TOTAL TO 30 SEP 1976	CURRENT FY 1977	BUDGET FY 1978	BALANCE TO COMPLETE AFTER FY 1978
	(a)	(b)	(c)	(d)	(e)	(f)
1	MANDEVILLE UNIT					
2	LEVEES AND FLOODWALLS	588,000				588,000
3	ENGINEERING AND DESIGN	62,000	23,300	1,000	1,000	36,500
4	SUPERVISION AND ADMINISTRATION	50,000	2,200	200	200	47,400
5	SUBTOTAL - MANDEVILLE UNIT	700,000	25,700	1,200	1,200	671,900
6						
7	CHALMETTE UNIT					
8	LANDS AND DAMAGES	6,960,000	6,631,000			329,000
9	RELOCATIONS	3,290,000	2,358,500			931,500
10	LEVEES AND FLOODWALLS	61,350,000	23,757,600	5,124,700	2,940,000	31,527,700
11	PERMANENT OPERATING EQUIPMENT	20,400	20,400			
12	ENGINEERING AND DESIGN	5,850,000	2,841,700	205,200	121,000	2,682,100
13	SUPERVISION AND ADMINISTRATION	4,449,600	1,440,500	287,500	184,800	2,536,800
14	SUBTOTAL - CHALMETTE UNIT	83,920,000	37,049,700	5,617,400	3,245,800	38,007,100
15						
16	TOTAL COST (Federal and Non-Federal)	378,000,000	94,084,400	15,095,600	14,458,000	254,362,000
17	TOTAL OBLIGATIONS		97,141,300	13,158,700	13,338,000	254,362,000
18						
19	TOTAL COST (Federal Funds Only)	260,000,000	71,082,100	12,636,900	13,520,000	162,761,000
20	TOTAL OBLIGATIONS		74,139,000	10,700,000	12,400,000	162,761,000
21						
22	TOTAL COST (Non-Federal Only)	118,000,000	23,002,300	2,458,700	938,000	91,601,000
23	TOTAL OBLIGATIONS		23,002,300	2,458,700	938,000	91,601,000
24						
25	METHOD OF FINANCING					
26	(Corps of Engineers)					
27	Allocations		74,139,000	10,700,000 1/		
28	Unobligated Carryover from Prior Year					
29	Total Available for Obligations			10,700,000	12,400,000	
30	Undelivered Orders from Prior Year			3,056,900	1,120,000	
31	Total Available for Expenditure			13,756,900	13,520,000	
32	Appropriations				12,400,000	162,761,000
33	1/ Reflects \$1,300,000 reduction assigned as Savings and Slippage.					
EFFECTIVE DATE		DIVISION	REGION	PROJECT		
1 Jan 77		LOWER MISSISSIPPI VALLEY	LOWER MISSISSIPPI	LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY (HURRICANE PROTECTION)		
DISTRICT		BASIN				
NEW ORLEANS		COASTAL LOUISIANA				

APPROPRIATION TITLE: CONSTRUCTION GENERAL			CLASSIFICATION: LOCAL PROTECTION (FLOOD CONTROL PROJECT)			
SUMMARY CONSTRUCTION PROGRAM (PB-1)						
FISCAL YEARS 1977 AND 1978						
1	ITEM	PROJECT COST ESTIMATE	TOTAL TO 30 SEP 19 76	CURRENT FY 19 77	BUDGET FY 19 78	BALANCE TO COMPLETE AFTER FY 19 78
2	(a)	(b)	(c)	(d)	(e)	(f)
3	(Non-Federal Funds)					
4	Contributions		23,002,300			
5	Unobligated Carryover from Prior Year					
6	Total Available for Obligation					
7	Undelivered Orders from Prior Year					
8	Total Available for Expenditure					
9	Contributions Required		23,002,300	2,458,700	938,000	91,601,000
10	Cash		1,650,000	370,000	430,000	81,367,100
11	Equivalent Work		21,352,300	2,088,700	508,000	10,233,900
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EFFECTIVE DATE		DIVISION	REGION	PROJECT		
1 Jan 77		LOWER MISSISSIPPI VALLEY	LOWER MISSISSIPPI	LAKE PONCHARTRAIN, LOUISIANA AND VICINITY (HURRICANE PROTECTION)		
		DISTRICT NEW ORLEANS	BASIN COASTAL LOUISIANA			

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

PROJECT: Larose to Golden Meadow, Louisiana (Hurricane Protection) (Continuing)

LOCATION: The project is located in Lafourche Parish, Louisiana, about 28 miles southwest of New Orleans and about 25 miles inland from the Gulf of Mexico along Bayou Lafourche, south of the Intracoastal Waterway extending from Larose to Golden Meadow, a distance of about 16 miles.

AUTHORIZATION: Flood Control Act of 1965.

BENEFIT-COST RATIO: 3.4 to 1

SUMMARIZED FINANCIAL DATA

Accumulated % of Estimated Federal Cost

STATUS (1 January 1977)

PERCENT COMPLETE COMPLETION SCHEDULE

Estimated Federal Cost \$26,900,000  
Estimated Non-Federal Cost \$11,600,000  
Cash Contribution \$6,070,000  
Other \$5,530,000  
Total Estimated Project Cost \$38,500,000  
Allocations to 30 September 1976 \$4,662,000  
Conference Allowance for FY 1977 \$2,600,000  
Allocation for FY 1977 \$1,800,000  
Allocations to Date \$6,462,000  
Appropriation Requested for FY 1978 \$3,700,000  
Balance to Complete After FY 1978 \$16,738,000

Levees and Floodwalls 10 Dec 1987  
Entire Project 14 Dec 1987

1/ Reflects \$800,000 reduction assigned as savings and slippage.

Levees

PHYSICAL DATA  
Floodgates

Drainage Structures

Loop levee approximately 40 miles in length along both banks of Bayou Lafourche; Enlargement of 3 miles of levees at Golden Meadow; Eight miles of low interior levee to regulate intercepted drainage.

2 - 56-foot sector-gated

8 multibarreled culverts controlled by flap gates

Division: Lower Mississippi Valley

District: New Orleans

Region: Lower Mississippi

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Larose to Golden Meadow, Louisiana (Hurricane Protection)

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