1 January 1990
New Orleans District

DATA FOR TESTIFYING OFFICERS ON FY 1991 CIVIL WORKS BUDGET
LAKE PONTCHARTRAIN, LOUISIANA, AND VICINITY

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REFERENCE ER 11-2-240 WHICH STATES THAT BUDGETARY INFORMATION IS NOT TO BE RELEASED OUTSIDE THE DEPARTMENT OF THE ARMY

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LAKE PONTCHARTRAIN, LOUISIANA, AND VICINITY

BENEFIT-COST RATIO:

a. Comparison of Remaining B/C Ratios: The remaining B/C ratio is 5.0 to 1, a decrease of 7.6 from that last presented to Congress (12.6 to 1). This change is due to using benefits and costs from the latest economic analysis corrected for interest rate changes as directed by EC 11-2-156, dated 31 March 1989.

b. Annual Benefits: The following tabulation is provided for the purpose of comparing the benefits presented in the justification paragraph of the Justification Sheet.

	TOTAL BENEFITS		
Annual Benefits	Last Est. Submitted to Congress	Current Estimate at Project Interest Rate	Change From Last (+ or -)
Flood Control	$223,506,000	$179,856,000	$-43,650,000
Inundation Reduction 1/	(223,506,000)	(179,856,000)	(-43,650,000) 2/
Total Annual Benefits	$223,506,000	$179,856,000	$-43,650,000
Interest Rate Used	3-1/8%	3-1/8%	

1/ Essentially complete protection will be provided to 105,190 acres, comprised of 61,900 acres of urban type development, 43,290 acres of undeveloped land which would be impacted by a project hurricane. The current value of all lands is $7,615,000,000 and of improvements is $15,688,000,000. 1980 population: 858,000.

2/ Change due to using benefits and costs from the latest economic analysis corrected for interest rate changes as directed by EC 11-2-156, dated 31 March 1989.

LAKE PONTCHARTRAIN, LA, AND VICINITY

BENEFIT-COST RATIO: (Cont'd)

b. Annual Benefits: (Cont'd)

Annual Benefits	Benefits & Costs When 1st Funded for Construction In FY 1967 1/	Remaining Benefits/Cost Last Presented to Congress	Remaining Benefits/Cost Current Estimate at Project Interest Rate	Change From Last (+ or -)
Flood Control				
Inundation Reduction 2/	$51,389,400	$113,838,000	$ 91,607,000	$-22,231,000 3/
Intensification	344,000	-	-	-
Total Annual Benefits	$51,733,400	$113,838,000	$ 91,607,000	$-22,231,000
Total Annual Costs	$2,945,500	$ 9,067,000	$ 18,161,000	$ +9,094,000 3/
B/C Ratio	17.6	12.6	5.0	-7.6
Interest Rate Used	3-1/8%	3-1/8%	3-1/8%	

1/ Based on cost estimate effective 1 July 1975.

2/ Essentially complete protection will be provided to 105,190 acres comprised of 61,900 acres of urban-type development, and 43,290 acres of undeveloped land which would be impacted by a project hurricane. The current value of all lands is $7,615,000,000; current value of all improvements is $15,688,000,000. 1980 population was 858,000.

3/ Change due to using benefits and costs from the latest economic analysis corrected for interest rate changes as directed by EC 11-2-156, dated 31 March 1989.

ALLOCATION AND APPORTIONMENT OF FIRST COSTS:

Purpose	Allocation of First Costs: Based on Last Estimate Presented to Congress	Allocation of First Costs: Current	Percent of Current Total
Flood Control	$617,000,000	$589,000,000	100

Purpose	Apportionment of First Cost: Based on Estimate Last Presented to Congress: Federal	Non-Federal	Based on Current Estimate: Costs: Federal	Non-Federal	Percent of Total: Federal	Non-Federal
Flood Control	$432,000,000	$185,000,000	$423,000,000	$166,000,000	70	30

The apportionment of cost is based on the cost sharing formula as outlined in House Document No. 231, 89th Congress, and authorized by Flood Control Act of 1965. H.D. 231 specifies that local interests contribute in cash or equivalent work not less than 30 percent of the total project cost, said 30 percent to include the fair market value of lands, damages, and alterations (relocations) for the construction of the project.

Apportionment of First Costs			
Last Estimate to Congress:		Current Estimate	
Federal	Non-Federal	Federal	Non-Federal
$432,000,000	$185,000,000	$423,000,000	$166,000,000

Details of Apportionment	Project Costs to be Apportioned	Apportionment 1/ Federal	Apportionment 1/ Non-Federal
To be apportioned on 70/30 basis:	$588,770,000		
70% of Project Costs:		$412,000,000	
30% of Project Costs:			$176,770,000
Cost of Realignment at Florida Avenue Container Plant	230,000		230,000
Total Project Cost (Ultimate)	$589,000,000	$412,000,000 2/	$177,000,000 3/
Reimbursement		11,000,000	-11,000,000
Total Current Estimate (Allocations)		$423,000,000	$166,000,000

1/ See YDTO - 10, Local Cooperation, paragraph (a) (4).

2/ Excludes $11,000,000 which local interests are required to reimburse the Federal Government for costs allocated due to the Water Resources Development Act of 1974. Section 92 specifies that local interests may agree to pay the unpaid balance of their required cash payment, due in annual installments, in accordance with a specific formula.

3/ Includes $11,000,000 which local interests are required to reimburse the Federal Government for costs allocated due to the Water Resources Development Act of 1974. Section 92 specifies that local interests may agree to pay the unpaid balance of their required cash payment, due in annual installments, in accordance with a specific formula.

FINANCIAL DATA:

a. Comparison of Federal Cost Estimate: (Full Funding). The current Federal (Corps of Engineers) cost estimate of $423,000,000 is a decrease of $30,000,000 from the latest estimate ($453,000,000) submitted to Congress (FY 1989). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$- 6,789,000
Design Changes	- 2,192,000
Post Contract Award and Other Estimating Adjustments	-21,019,000 1/
Total	$-30,000,000

1/ Due primarily to contract awards and completed plans and specifications.

FINANCIAL DATA: (Cont'd)

b. Non-Federal Cost Estimate: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1965, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements (Previous)	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights-of-ways, including borrow areas and spoil disposal areas.	$ 39,638,000 (40,011,000) 1/	-
Accomplish alterations to roads, pipelines, cables, wharves, oil wells, and any other facilities necessary for construction of the project.	16,127,000 (16,063,000) 2	-
Bear 30 percent of total project cost, including the items listed above and a cash contribution or equivalent work specifically undertaken as an integral part of the project after authorization and in accordance with construction schedules as required by Chief of Engineers, excluding a reimbursement to the Federal Government for costs allocated due to the Water Resources Development Act of 1974.	110,235,000 (107,926,000) 3/	-
Reimburse the Federal Government for cost allocated due to the Water Resources Development Act of 1974.	$ 11,000,000 (21,000,000) 4/	
Bear all costs of operations, maintenance, and replacements of all features of the project works.		$1,225,000
Total Non-Federal Costs	$177,000,000	$1,225,000

1/ Based on a review of remaining lands required for construction.
2/ Due to a review of the remaining relocations.
3/ This change is required in order for local interest to maintain their required share of the project cost.
4/ The Water Resources Development Act of 1974, (PL 93-251), provided that local assuring agencies for this project could, if they so choose, repay their cash obligations using a deferred payment plan. New assurances have been executed by local interests incorporating a deferred payment plan. These assurances were approved by the Secretary of the Army on 7 December 1977. Local interests have been making payments under this plan, with first payments received in FY 1977.

FINANCIAL DATA: (Cont'd)

c. Comparison of Preconstruction Cost Estimate: Not applicable.

d. Contingencies: The estimate includes $37,205,000 for contingencies, which is 19% of the uncompleted work. The estimate last presented to Congress included $40,269,000 for contingencies, which was 18% of the uncompleted work.

e. Firmness of Federal Cost Estimate: The current estimate is based on design memorandums, plans and specifications, contracts, and completed work, with costs projected through the construction period.

f. Appropriation History:

Appropriation History		FY 1990 Budget History		FY 1991 Budget Request
		LMVD Recommendation	$44,000,000	$11,655,000
Total thru FY 1984	$161,238,000 1/	OCE Recommendation	44,000,000	11,655,000
FY 1986	20,358,000	OMB Allowance	44,000,000	11,655,000
FY 1987	13,375,000	House Allowance	39,898,000	
FY 1988	13,140,000	Senate Allowance	39,898,000	
FY 1989	9,214,000	Conference Allowance	39,898,000	
FY 1990	34,292,000 2/	Work Allowance	34,292,000 2/	
FY 1990 Total to date	$251,617,000	Capability	34,292,000	$11,655,000

1/ Initial construction funds received in FY 1967.
2/ Reflects reduction of $3,849,000 assigned as savings and slippage, $410,000 sequestered in accordance with the Gramm-Rudman-Hollings Act, and $1,347,000 reprogrammed from the project..

g. Capability. No funds, in addition to the budget request of $11,655,000, can be effectively utilized.

FINANCIAL DATA: (Cont'd)

h. Transfers:

FY 1989:

From	To	Month of Transfer	Amount	Reason
Lake Pontchartrain	OCE	Oct 88	$10,020,000	Funds available due to revised estimate of contractor earnings in FY 1989.
Lake Pontchartrain	OCE	Jan 89	$11,500,000	Funds available due to revised estimate of contractor earnings in FY 1989.
Lake Pontchartrain	Mississippi River-Gulf Outlet	Mar 89	$ 650,000	Funds available due to revised estimate of contractor earnings in FY 1989.
Lake Pontchartrain	New Orleans to Venice	Apr 89	$ 500,000	Funds available due to delay in award of St. Charles Parish contract based on additional time required for GDM approval and ROW acquisition.
Lake Pontchartrain	OCE	Jul 89	$ 4,500,000	Funds available due to delays in award of two contracts as a result of a bid protest and a ROW acquisition problem; and a corresponding reduction in S&A.

FY 1990: None.

Anticipated: None.

i. Unobligated and Unexpended Balances:

	End of FY 1989	Estimated at End of FY 1990
Unobligated Balance	$ 84.4	$ 0
Undelivered Orders	1134.9 1/	0
Unexpended Balance	$ 1219.3	$ 0

1/ Contract earnings less than anticipated. Funds will be expended in FY 1990.

FINANCIAL DATA: (Cont'd)

h. Transfers:

FY 1989:

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Lake Pontchartrain	OCE	Oct 88	$10,020,000	Funds available due to revised estimate of contractor earnings in FY 1989.
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Lake Pontchartrain	New Orleans to Venice	Apr 89	$ 500,000	Funds available due to delay in award of St. Charles Parish contract based on additional time required for GDM approval and ROW acquisition.
Lake Pontchartrain	OCE	Jul 89	$ 4,500,000	Funds available due to delays in award of two contracts as a result of a bid protest and a ROW acquisition problem; and a corresponding reduction in S&A.

FY 1990: None.

Anticipated: None.

i. Unobligated and Unexpended Balances:

	End of FY 1989	Estimated at End of FY 1990
Unobligated Balance	$ 84.4	$ 0
Undelivered Orders	1134.9 1/	0
Unexpended Balance	$ 1219.3	$ 0

1/ Contract earnings less than anticipated. Funds will be expended in FY 1990.

STATUS AND SCHEDULE:

a. Scheduled Completion Dates: The scheduled completion date for the New Orleans EAst Unit is currently September 1995, a delay of 1-3/4 years from the last date presented to Congress (December 1993). This delay is due to local interest needing time to complete maintenance work underway in the project area.

b. Performance - FY 1990:

Last Presented to Congress	Present Schedule	Remarks
NEW ORLEANS EAST UNIT		
Initiate		
Orleans Ave Outfall Canal	Not presented	Local interests proceeding with work. No Federal involvement in FY 1990.
Not Presented		
Orleans Floodwall Extension	Complete	Item is physically complete. Claim pending.
New Orleans East Back Levee Sta. 771-1099	Complete	Completion delayed due to additional time required to process contract modifications.
NEW ORLEANS WEST UNIT		
Continue		
St. Charles Levee 1st Lift Alinement N. of Airline	Initiate	Additional time required for GDM approval and ROW acquisition. Name was changed from St. Charles Levee to Alinement N. of Airline.
CHALMETTE UNIT		
Initiate		
Bayou Bienville Floodwall Capping	Not presented	Capping delayed until final levee enlargement is completed.
Sta. 1117-1568 Floodwall Capping	Not presented	Capping delayed until final levee enlargement is completed.
Not Presented:		
Sta.1116-1568 (2nd Enlgt)	Complete (1lft)	Completion delayed due to additional time required for adverse weather.

c. Construction Difficulties: None.

LAKE PONTCHARTRAIN, LA, AND VICINITY

PHYSICAL DATA CHANGES: Same as last presented to Congress.

OTHER DATA CHANGE: None.

LOCAL COOPERATION: (Refer to YDTO-10)

Rights-of-way Schedule for Items Which Could Be Initiated in the Remainder of the Current Fiscal Year and in the Budget Fiscal Year.

Item of Work	Action taken by District	Scheduled Date for Receipt of R/W	Date R/W Was Obtained	Scheduled Award Date
NEW ORLEANS EAST UNIT				
New Orleans Lakefront Levee Orleans Outfall Canal	1/	Aug 90		Oct 90
NEW ORLEANS WEST UNIT				
Alignment N. of Airline Hwy (1st lift)	2/	Jul 90		Sep 90
Jefferson Lakefront Levee Sta. 438-550	Requested 8 Aug 89	Jan 90		Apr 90
Jefferson Lakefront Levee Sta. 128-210	Requested 3 Aug 89	May 90		Jul 90
Jefferson Lakefront Levee Sta. 354-435	To be requested May 90	Nov 90		Jan 91
CHALMETTE UNIT				
Orleans N. of Florida Ave Floodwall Capping	To be requested Feb 90	Aug 90		Oct 90
Batou Dupre FW Cap	To be requested Apr 90	Oct 90		Dec 90

1/ Work currently scheduled to be accomplished by local interest.
2/ ROW request schedule is contingent upon approval of the GDM.

PROBLEMS: All questions were fully answered in last year's appropriation hearing.

ADDITIONAL INFORMATION:

a. Florida Avenue Complex: The addition of a major pumping station has been approved for the Florida Avenue Complex in addition to vertical lift gates in the drainage canal. The current cost estimate includes the vertical lift gates and the pumping station. Since the pumping station is an interior drainage item, local interests are constructing the station as part of their required project contribution. In addition, local interests plan to construct the floodwall reaches in this vicinity on both sides of the Inner Harbor Navigation Canal as a work-in-kind contribution.

ADDITIONAL INFORMATION: (Cont'd)

b. St. Charles Parish Lakefront Levee: In view of the need for further environmental studies, as well as the inclusion of Bayous LaBranche and Trepagnier in the Louisiana Natural and Scenic River System, the construction of this levee has been deferred. As a result of litigation on the project, alternatives to the authorized lakefront levee in St. Charles parish were examined. Based on completed environmental studies the most favorable alternative is a levee which would generally parallel and run north of Airline Highway (US 61). This alignment is recommended as part of the High Level Plan of Protection.

c. Mandeville Seawall: The Mandeville Unit portion of the project had previously been placed in an indefinite category due to local interests' objections to the project. St. Tammany Parish Police Jury refused to furnish the financial assurances. (Refer to YDTO-12, Current Status of Assurances, Lake Pontchartrain Barrier Plan.) By virture of a meeting on 6 July 1978, and a letter dated 8 August 1978, the mayor of Mandeville indicated interest in the seawall repairs. In October 1980, the town of Mandeville furnished a letter of intent to provide the financial support for the seawall restoration, providing that the restoration could be accomplished in such a way as to not preclude future recreational swimming at the seawall. 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 failed to pass; therefore, the completion date for the Mandeville Seawall is now indefinite.

d. Report of Significant Post-Authorization Changes:

(1) In compliance with OCE letter dated 21 November 1973, subject, "Lake Pontchartrain, Louisiana and Vicinity, Lake Pontchartrain Barrier Plan Report on size selection, Chef Menteur Navigation Structure and the Rigolets and Seabrook Locks," and LMVD 1st End thereto, a significant post-authorization change report was prepared and submitted by NOD for review and approval on 7 January 1974. The report was returned by OCE on 16 December 1974, for additional information. A Public Meeting was held on 22 February 1975, in which comments were received on the sizes of the navigation structures. Additional work on the report was delayed until a review of the previous sizing decisions could be made. This review was completed and a new report was submitted on 25 June 1976. This report which covers the Rigolets Lock only was approved by OCE on 21 September 1976, subject to agreement with the local sponsor, which has been subsequently received.

(2) Public opposition to the environmental impacts of the Barrier Plan resulted in a court-ordered revision to the EIS. This resulted in a project reevaluation which recommended a design change from the previously authorized Barrier Plan of Protection to a High Level Plan without the barrier structures. The final Reevaluation Report and a required post authorization change report were completed and forwarded to higher authority on 8 August 1984, and approved by the Director of Civil Works on 7 February 1985.

e. Save Our Wetlands Suit: 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 the 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;

ADDITIONAL INFORMATION: (Cont'd)

(3) that the Corps has not completely eliminated the St. Charles Parish lakefront levee as required by the Environmental Protection Agency. The Government moved to dismiss the lawsuit based on laches 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 co-defendant) 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, New Orleans East Area (East of Paris Road), and the Chalmette Area of the project until a new environmental statement is prepared.

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. However, on 8, 10, and 27 March 1978, Judge Charles 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.

f. St. Tammany Parish Police Jury Suit: This agency has also filed a lawsuit on 30 March 1977, attacking the project. Their suit was similar to the Save Our Wetlands suit and was combined with that suit.

g. St. Charles Parish Suit: On 12 April 1977, an unincorporated association of citizens and property owners filed suit against the project in an effort to force construction of the St. Charles Parish lakefront levee, which is indefinitely deferred for environmental reasons, or, in the event the levee is not built, to force the Government to purchase lands in St. Charles Parish which may otherwise be subject to tidal flooding. The U.S. Attorney sought dismissal on the grounds that the plaintiffs lacked cause of action upon which relief could be granted by the court. At a 17 May 1978 hearing, Judge Charles Schwartz declared that the suit was premature and deferred further consideration until completion of the revised EIS.

h. Deferred Payment Plan: The modification authorized by the Water Resources Development Act of 1974, whereby local interests may agree to pay the unpaid balance of the cash payment due, with interest, in yearly installments, has provided immediate relief to local interests. Initial cash payments were received from local interests in FY 1977, and they have expressed their appreciation of the plan. The deferred payment plan expires 1 October 1990, at which time the unpaid balance will be due to meet the 30% share of the project costs.

i. General - Because of the widespread interest which had been expressed with regard to the Barrier portion of the project, the Sub-Committee of Water Resources for the House Public Works and Transportation Committee held a hearing in New Orleans on 5 February 1978. The purpose of the hearing was to obtain information on the hurricane protection plan for the project and to give interested parties an opportunity to make their views known.

j. Chalmette Unit Economic Analysis: Since the Chalmette Unit is a separate entity from an engineering, hydrological, and economic standpoint, the court has required that a separate economic reanalysis for this unit be conducted separate and apart from the Lake Pontchartrain Hurricane Protection project economic reanalysis.

k. High Level Plan: A public meeting was held in New Orleans on 21 November 1981, to seek public comment on the tentatively selected High Level Plan. The High Level Plan will provide for heightening and strengthening the existing hurricane protection levee systems in Orleans Parish, the east * bank of Jefferson Parish; repairing and rehabilitating the Mandeville Seawall in St. Tammany Parish; building a new mainline *

ADDITIONAL INFORMATION: (Cont'd)

hurricane levee on the east bank of St. Charles Parish, just north of US Highway 61 (Airline Highway); raising and strengthening the existing levee which extends along the Jefferson-St. Charles Parish boundary between Lake Pontchartrain and Airline Highway; and deferring construction of the proposed Seabrook lock until its feasibility as a feature of the Mississippi River-Gulf Outlet navigation project can be determined. Areas enclosed by the levee and floodwall construction will be provided protection against tidal surge flooding resulting from the Standard Project Hurricane (SPH). The public response is heavily in favor of the High Level Plan.

The draft Reevaluation Study (including a draft EIS) recommending the High Level Plan was submitted by New Orleans District for higher level review on 15 December 1982. The Reevaluation Report was released to the public and filed with the EPA on 16 December 1983.

A public meeting to discuss the High Level Plan was held on 28 June 1984. The final report, EIS and post authorization change report, recommending the High Level Plan, were forwarded to higher authority on 8 August 1984, and approved on 7 February 1985.

A draft mitigation report with corresponding EIS was prepared and distributed for public review on 16 March 1988. The completion date for submittal of the final EIS is currently unscheduled pending legal opinion from consul as to whether local assurers are legally bound to sponsor project mitigation.

ENVIRONMENTAL INFORMATION:

a. Status of Environmental Impact Statement: - 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 the Reevaluation Report, which documents the proposal to adopt that plan instead of the Barrier Plan, were 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.

b. Changes in Environmental Impact Statement Scheduling: No change from that last submitted to Congress.

c. Environmental Opposition:

(1) The known environmental opposition to the barrier plan of protection for the Lake Pontchartrain, Louisiana, and Vicinity Hurricane Protection project is summarized below:

(a) The Orleans Audubon Society opposes the disposal and ponding of dredged material in the marshes along the Chef and Rigolets Passes, along the MR-GO and in New Orleans East, and the proposed borrow area on Apple Pie Ridge along US Highway 90. They believe these disposal and borrow plans will destroy valuable marshland that Louisiana cannot afford to lose. They also recommend that levees be built around populated areas only and the Barrier Plan be eliminated.

ENVIRONMENTAL INFORMATION: (Cont'd)

c. Environmental Opposition: (Continued)

(b) The Louisiana Wildlife Federation recommended that the St. Charles Parish segment be eliminated from the project plan because it will instigate further encroachment and deterioration of a rapidly dwindling and fragile marsh ecosystem. They felt that the placement of the barrier structures as proposed on the Rigolets and Chef Menteur Pass may have severe, irreversible consequences on the delicate balance which differentiates between the fine line which constitutes a fresh and a saline marsh ecosystem.

(c) The Sierra Club, Delta Chapter, believes that wetlands represent economic, environmental, and recreational values which are far more important to the public interest than the claimed benefits from developing such lands for increased taxes. For this reason they recommend that the project should be used to protect existing settlement, and not to encourage intensive development in one of the large flood plains between the Mississippi River and the Gulf of Mexico.

(d) The Bonnet Carre' Rod and Gun Club and the St. Charles Environmental Council oppose the lakefront levee in St. Charles Parish. They favor a hurricane protection levee generally along Airline Highway (US Hwy 61) in St. Charles Parish. They believe this alignment would be environmentally acceptable and would still protect the presently developed areas in St. Charles Parish.

(e) The Clio Sportsman's League of New Orleans' position favors hurricane protection, but opposes the "so called" policy of unnecessary private land enhancement at the expense of the public and the environment. They opine that the barriers with its borrow, disposal and ponding areas, and accompanying future developments will play a leading role in the destruction of Lake Pontchartrain and, eventually, the entire Maurepas, Pontchartrain, Catherine and Borgne estuary system.

(f) The St. Tammany Environmental Council is of the opinion that the acknowledged and potential adverse environmental and economic impact of the Lake Pontchartrain, Louisiana, and Vicinity hurricane protection plan far outweighs the benefits our population may receive in the form of hurricane protection.

(g) The St. Tammany Sportsman's League is opposed to the "Floodgates" at the Rigolets because they say it will destroy the interplay between the lake and the marshes which supplies 50 percent of all nutrients that feed the flora and fauna in Lake Pontchartrain. "The loss of these nutrients will result in the death of the lake," they opine.

(h) The Environmental Defense Fund has expressed concern regarding the whole project, more specifically the New Orleans East Area. They consider the wetlands in the New Orleans East Area are still viable and could be restored to a high level of productivity given appropriate redesign of the levees; provision for tidal flows and water circulation; and stringent regulation of dredge fill, and drainage activities in accordance with the Corps' regulations and wetland policy.

ENVIRONMENTAL INFORMATION: (Cont'd)

c. Environmental Opposition: (Cont'd)

(2) Environmental opposition to the High Level Plan centers on two major issues. Fourteen groups have expressed concern over the proposal to locate borrow pits in Lake Pontchartrain near the Jefferson Parish Lakefront. Possible adverse water quality impacts are the primary concern. Eleven of these groups have expressed opposition to the enclosure of wetlands by the hurricane protection levee in New Orleans East. Four groups also oppose the levee alignment in St. Charles Parish because the levee would enclose a wetland and may subject it to development in the future. To date, there are no court injunctions filed against this plan.

d. Other Environmental Opinions:

(1) The US Fish and Wildlife Service and the National Marine Fisheries Services have fully cooperated in developing a plan for hurricane protection for the metropolitan area of New Orleans that will alleviate, to the fullest extent feasible, any project impacts on the fish and wildlife resources in the area. Both have opposed the St. Charles Parish lakefront levee and have made specific recommendations in the other segments of the project to help minimize the destructive features of the project.

(2) The Environmental Protection Agency has also fully cooperated in helping us to develop an environmentally feasible plan. In their review of the statement of findings for the plans for placement of dredged material for this project they stated that tidal interchange should be allowed in the New Orleans East area until developed areas are threatened.

e. Environmental Studies:

(1) Phase I of the biological transport studies contract entered into with the Louisiana State University along with a preliminary Phase II scope study based on Phase I data have been completed. The remaining portions of the contract have been terminated at the request of LMVD due to the preference for the High Level Plan.

(2) The EPA, in their review of the 404 proceedings, have requested us to study whether the drainage structures in the South Point to GIWW levee can be changed with regard to their operation. They would like to see the structures remain open during normal tidal conditions to nourish the marsh in New Orleans East with the lake water. The Louisiana Wildlife Federation and the U.S. Fish and Wildlife Service are supportive of this recommendation. We coordinated this request with the Orleans Levee District, the Sewerage and Water Board, the Mosquito Control Board, and the City Planning Commission and found extensive opposition. As a result of this opposition and since Fish & Wildlife Management is not an authorized federal program purpose, re-establishment of tidal exchange is not recommended in the Reevaluation Report/EIS released to the public in December 1983.

f. Status and Impact of Compliance with Section 404, Clean Water Act of 1977: 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 on 18 November 1983. A Public Notice for the High Level Plan was issue on 28 March 1984, and certification from the State of Louisiana was received on 29 June 1984.

1 January 1990
New Orleans District

DATA FOR TESTIFYING OFFICERS ON FY 1991 CIVIL WORKS BUDGET
LAKE PONTCHARTRAIN, LOUISIANA, AND VICINITY

AUTHORIZATION:

Authorization Documents.

Authorizations		Estimated Cost and Year of Price Level
FC Act of 1965 dated 27 October 1965 (PL 89-298) (HD 231/89/1)	A program for protection from hurricane flood levels at New Orleans, LA and surrounding areas by means of levees, floodwalls, control structures, navigation structures, locks, dams and drainage structures.	$56,235,000 (1961) 1/
Water Resources Development Act of 1974 dated 7 March 1974 (PL 93-251) Section 92	A modification of the FC Act of 1965 (PL 89-298) to provide that non-Federal public bodies may agree to pay the unpaid balance of the cash payment due with interest, in yearly installments.	
Water Resources Development Act of 1986, dated 17 November 1986 (PL 99-662), 805	A modification of the project to include construction of a floodwall with sluice gates or other necessary means to ensure that hurricane-flood protection within Jefferson Parish will be unimpaired as a result of any pumping station constructed by local interests.	$ 3,500,000 (1985)

1/ This is net cost to the Federal Government. The gross cost is $60,185,000. The difference is $3,950,000, which is capitalized value at 3 1/8 percent interest over 100 years for O&M on Rigolets Lock which is to be contributed by local interests and used by the Federal Government for project construction.

Monetary Authorization. Full monetary authorization was provided in the Flood Control Act of 27 October 1965.

NEED FOR THE PROJECT: The project is located in southeastern Louisiana in the vicinity of Lake Pontchartrain and includes the city of New Orleans and surrounding areas. The project area is susceptible to flooding from wind-driven hurricane tides from Lake Pontchartrain, Lake Borgne, and the Gulf of Mexico. Historical hurricanes have produced recorded stages up to 13 feet on the southwest shore of the lake, 6.2 feet at the south shore, 7.1 feet at the southeast shore, and 7.7 feet at the north shore. The protective works have been overtopped and developed areas flooded by surges from hurricanes several times in recent years.

In 1915, the 7.7 foot stage on the north shore and the 13 foot stage on the southwest shore caused considerable flooding.

NEED FOR THE PROJECT: (Cont'd)

The 1947 hurricane caused extensive flooding in Jefferson Parish when a lakeshore embankment proved inadequate to prevent overtopping, even though the stage was only about 5 feet. Considerable overtopping of the New Orleans seawall occurred during this storm and about 9 square miles of residential area were flooded.

In 1956, the New Orleans seawall was again overtopped, resulting in the flooding of about 2.5 square miles of residential and commercial area in the lakefront area.

Hurricane Betsy in September 1965, caused extensive flooding of urban areas of the New Orleans area to depths of up to 10 feet.

Hurricane Camille in August 1969, caused flooding of low lying areas adjacent to the IHNC.

Although Hurricane Carmen in September 1974, caused little flooding in the project area, it was rated by the National Weather Service as more dangerous than Hurricane Betsy. Had Carmen continued its northerly course or shifted slightly to the east, it would have passed thru the vicinity of New Orleans and would have caused extensive flooding within the project area.

Wave action during moderate to high lake stages has undermined the existing seawall at Mandeville, causing it to become ineffective as a hurricane protective structure.

On several occasions, the area between Lake Pontchartrain and Lake Borgne has been flooded by stages up to 11 feet.

Much of the developed area in New Orleans and in Jefferson Parish is below normal lake level; some land being as low as 7 feet below national geodetic vertical datum, with a considerable portion lower than 2 feet below national geodetic vertical datum. Stages attending a standard project hurricane would cause overtopping of all existing protective works by several feet and ponding as deep as 16 feet in the developed areas and the pumping system, on which removal of all flood waters is dependent, would be inoperable for an extended period of time. This prolonged inundation would cause enormous damage to private and public property, create serious hazards to life and health, disrupt business and community life, and require an immense expenditure of public and private funds for evacuation and subsequent rehabilitation of local residents.

Prior to construction of the Mississippi River-Gulf Outlet navigation project, tidal flow between Lake Pontchartrain and Lake Borgne was interchanged through the Rigolets, Chef Menteur Pass, and the Gulf Intracoastal Waterway-Inner Harbor Navigation Canal channel. Salinities of the incoming tides from Lake Borgne were reduced primarily by fresh water flows from the Pearl River basin, and from the northern tributary inflow to Lake Pontchartrain. However, the Mississippi River-Gulf Outlet project now permits tidal flows from Breton Sound and the Gulf of Mexico to enter Lake Pontchartrain directly through the Inner Harbor Navigation Canal via its enlarged channel. As a result, salinities in the lake have increased significantly. Also increased current velocities in the Inner Harbor Navigation Canal caused by the Gulf Outlet navigation project have resulted in an increase in navigation difficulties and the creation of major scour problems along existing bridges and harbor developments. The restricted section through the Seabrook Bridge has enlarged greatly since construction of the Gulf Outlet project.

PLAN OF IMPROVEMENT:

The current recommended plan for protection from hurricane flood levels consists of the following:

a. A new levee is to be constructed parallel to and immediately north of US Highway 61, between the levee along the Jefferson-St. Charles Parish boundary and the east Bonnet Carre' Spillway guide levee.

b. A new levee is to be constructed along the Jefferson Parish lakefront.

c. The New Orleans lakefront levee landward of the seawall is to be enlarged.

d. Enlargement of existing levees, construction of new levees, and a concrete-capped sheetpile wall are to be constructed along the east and west levees of the Inner Harbor Navigation Canal in New Orleans.

e. A new levee and floodwall are to be constructed along the lakefront extending from the floodwall at the New Orleans Airport to South Point.

f. The levee from South Point to the GIWW is to be enlarged.

g. The levee along and north of the Mississippi River-Gulf Outlet and Gulf Intracoastal Waterway from the Inner Harbor Navigation Canal to its intersection with the South Point to GIWW levee is to be enlarged and floodwalls constructed where necessary.

h. A new levee is to be constructed to protect the area generally referred to as the Chalmette area and will extend from the Inner Harbor Navigation Canal levee along and on the south bank of the Mississippi River-Gulf Outlet to a point approximately 2-1/2 miles northeast of Verret and then in a generally westerly direction to the Mississippi River Levee near Caernarvon.

i. The existing Mandeville seawall on the north shore will be strengthened at its present height.

j. A new pumping station and vertical lift gates for the Florida Avenue Complex are under construction. This will complete the protection provided in the Inner Harbor Navigation Canal System. (See above.)

CHANGE IN SCOPE:

Year	Change in Scope since Authorization	Estimated Cost
1967	The authorized alignment of protective works in the vicinity of Chef Menteur Pass was modified and the New Orleans East Levee was extended to Chef Menteur Pass under the discretionary authority of the Chief of Engineers to provide protection for an additional 1,533 acres. The letter report recommending this modification was submitted to OCE 28 March 1967.	$ 4,775,600
1967	The project was also modified under the discretionary authority of the Chief of Engineers to delete from the Lake Pontchartrain project as a mitigating measure the costs of protecting a portion of the foreshore along the Mississippi River-Gulf Outlet project. Construction of the Mississippi River-Gulf Outlet project exposed levees of substantial size and the foreshore between them and the project channel along both banks of the project navigation canal in the City of New Orleans to direct attack with resultant damages from waves generated by seagoing vessels utilizing the waterway. The navigation project should have included adequate provisions for protecting these levees and their foreshore from damage. The new levees in this project located adjacent to the ship channel will also require protection. The costs deleted from this project have been added to the Mississippi River-Gulf Outlet project. (There are about 6 miles along the north bank and 18 miles along the south bank of the navigation project that require protection.) GDM No. 2, Supplement No. 4, Mississippi River-Gulf Outlet, La. Foreshore Protection was submitted to OCE 29 May 1968.	$-3,495,000
1967	In accordance with the desires of local interests the project was again modified under the discretionary authority of the Chief of Engineers to provide protection to a larger area in the vicinity of New Orleans known as the Chalmette area. This change incorporated the need to increase levee heights to accommodate the new hurricane parameters. This modification will provide protection for an additional 18,800 acres. The letter report recommending this modification was submitted to OCE on 12 December 1966.	$12,938,700
	The Director of Civil Works by letter of 27 November 1967 informed the Chairmen of the Committees on Appropriations of the House and Senate that the above changes in scope had been approved by the Chief of Engineers.	
	The Office, Chief of Engineers, by letter report dated 17 December 1968, informed the Bureau of the Budget of an increase in cost from $136,200,000 to $166,000,000 in accordance with ER 1165-2-305 dated 25 Sep 68, "Significant Post-Authorization Changes in Corps of Engineers Projects". This change was approved by the Office of Management and Budget on 25 March 1969.	

CHANGE IN SCOPE: (Cont'd)

1984 The Reevaluation Study, dated July 1984, recommends the use of the High Level Plan rather than the Barrier Plan. The plan would provide for improving the existing hurricane protection levee systems in Orleans Parish and the east bank of Jefferson Parish, improving existing levees and constructing new ones in St. Bernard Parish, repairing and rehabilitating the Mandeville Seawall in St. Tammany Parish, building a new mainline hurricane levee on the east bank of St. Charles Parish immediately north of US Highway 61 (Airline Hwy), raising and strengthening the existing levee which extends along the Jefferson-St. Charles Parish boundary between Lake Pontchartrain and Airline Highway, and deferring construction of the proposed Seabrook Lock until its feasibility as a feature of the MRGO navigation project can be determined.

MAJOR CHANGES IN DESIGN:

a. The net grades of all the protective levees and structures, except for the levees and structures adjacent to the Chef Menteur Pass and the Rigolets, were revised upward by 1 to 2 feet in accordance with the results of tidal hydraulic studies utilizing more severe hurricane parameters developed by the U.S. Weather Bureau subsequent to project authorization.

b. A pumping plant was added to the Florida Avenue Complex to provide uninterrupted drainage relief during hurricane conditions.

c. The reevaluation of the project resulted in the recommendation for a design change from the authorized Barrier Plan of protection to a High Level Plan without barrier structures. Under the High Level Plan the design height of the levees and floodwalls proposed for the Barrier Plan would be increased to contain the lake levels that would occur without the barrier structures.

BENEFIT-COST RATIO:

a. Period of Economic Analysis. - The economic life of the project is 100 years based on our estimate that protection from hurricane tidal overflow to this area will be needed long beyond the life of the project.

b. Derivation of B/C Ratio. - The project functions independently. Preproject levees provide the area a degree of protection from headwater and tidal overflow and no benefits are claimed for this protection. Benefits credited to the total project consist of reduction of flood damage from hurricane tidal overflow including that damage caused by overtopping existing levees.

c. Composite B/C Ratio.- Although the Chalmette Area Plan will function as a separable unit, the B/C ratio is presented for the total project plan. The benefit-cost ratio was derived by measuring the total benefits credited to these hurricane barrier plan components against their total costs.

STATUS AND SCHEDULE, PLANNING:

a. Design Memorandums:

Item	% Complete 1 Jan 90	Est % Complete 30 Sep 90	Actual (A) or Scheduled (S) Submission Date to LMVD	Scheduled Award Date
GDM, London Ave. Outfall Canal	100	100	14 Feb 89 (A)	
GDM, 17th Street Outfall Canal	80	100	Mar 90 (S)	
GDM, St. Charles Parish North of Airline Hwy Levee	100	100	8 Feb 89 (A)	

b. Plans and Specifications:

NEW ORLEANS EAST UNIT				
New Orleans Lakefront Levee Orleans Outfall Canal	0	100	Apr 90 (S)	Oct 90
NEW ORLEANS WEST UNIT				
Alignment-North of Airline Hwy. (1st lift)	50	100	Apr 90 (S)	Sep 90
Jefferson Lakefront - Sta 438 to 550	100	100	Jan 90 (S)	Apr 90
Jefferson Lakefront - Sta 128 to 210	75	100	Mar 90 (S)	Jul 90
Jefferson Lakefront - Sta 354 to 435	10	100	Sep 90 (S)	Jan 91

1/ To be accomplished by local interests.

CHALMETTE UNIT				
Orleans N. of Fla. Ave. Fldwl Capping	20	100	N/A 1/	Oct 90

1/ Items estimated at less than $2,000,000.

PHYSICAL DATA:

a. Land Requirements.

(1) Scope, Status and Schedule of Acquisition: Acquisition of lands, easements, R/W and disposal areas is the responsibility of local interest.

PHYSICAL DATA: (Cont,d)

b. Recreation Facilities. Not applicable.

c. Disposal Areas. Easements for disposal areas are the responsibility of local interests.

d. Operator's Quarters. None.

JUSTIFICATION:

a. Flood Damages. The duration of flooding within the project areas extends up to 2 weeks. Wind driven hurricane waters overtopping the levees become entrapped behind the levees. If the levee is seriously eroded, the water will slowly recede with the reduction in tides, but must also be pumped; if the levee remains intact, portions of it are degraded to facilitate removal of flood waters along with supplementary pumping. Depth of flooding caused by Hurricane Betsy of September 1965, varied to a maximum of approximately 10 feet in urban areas; this storm is also considered the flood of record.

The project is designed to protect against a hurricane with a frequency of about once in 250 years. The 1965 hurricane approached the design hurricane in magnitude in part of the area. The high order protection was selected because of the urban character of much of the region and the hazard to life.

Description of Flood Area	Design Flood 1/	Works Against Design Flood
Number of Acres:	(501,780)	(501,780)
Residential	33,530	33,530
Commercial, Industrial	14,510	14,510
Open Land (Idle)	28,760	28,760
Woods, Swamp, Marsh	414,010	414,010
Other Developed Land	10,970	10,970
Value of Lands and Improvements	(23,303,000,000) 2/	(23,303,000,000) 2/
Lands	7,615,000,000	7,615,000,000
Improvements	15,688,000,000	15,688,000,000
Population (1980)		
Residing	815,000	
Working (Addition to Residing)	80,000	

1/ Based on theoretical design flood which has yet to be experienced.
2/ Escalated to October 1989 price levels.

JUSTIFICATION: (Cont'd)

b. Flood History. Legend: Actual Acres Flooded =(c)-(e); Actual $ Damages = (f)-(h); N.O.= Not Operable.

Flood Date	Natural Stage	Area (Acres): Flooded Without Project	Protected With Project in Full Operation	Protected at Time of Flood	Damages (Dollars): Without Project	Preventable at Time of Flooding With Project in Full Operation	Prevented at time of Flood	Preventable Under Present Condition with Project in Full Operation
					$	$	$	$
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i) 2/
(A) Past 5 Fiscal Years:								
Oct 1985 (Juan)	1/	105,190	105,190	99,900	5,818,000,000	5,818,000,000	5,527,000,000	6,275,000,000
(B) Major Floods Prior to 5 Fiscal Years:								
Aug 1969 (Camille)	1/	23,000	23,000	22,000	92,500,000	91,500,000	90,000,000	357,800,000
Sep 1965 (Betsy)	1/	23,000	23,000	N.O.	85,000,000	85,000,000	N.A.	467,800,000
Sep 1956 (Flossy)	1/	8,000	8,000	N.O.	750,000	750,000	N.A.	3,445,000
Sep 1947	1/	33,000	33,000	N.O.	5,300,000	5,300,000	N.A.	56,564,000

1/ HIGHEST RECORDED STAGE (N.G.V.D.)

	Oct 1985	Aug 1969	Sep 1965	Sep 1956	Sep 1947
Lake Pontchartrain at West End	6.1 ft.	5.2 ft.	7.6 ft.	5.5 ft.	5.46 ft.
Rigolets Pass near Lake Pontchartrain	5.7 ft.	9.0 ft.	7.0 ft.	6.49 ft.	7.18 ft.

2/ October 1989 price levels.

c. Power. Not applicable.

LAKE PONTCHARTRAIN, LA, AND VICINITY

LOCAL COOPERATION: (October 1989 price levels) 1/

a. Requirements. Prior to construction, local interests furnished assurances satisfactory to the Secretary of the Army that they will, without cost to the United States:

(1) Provide all lands, easements and rights-of-way, including borrow and spoil disposal areas, necessary for construction of the project;

(2) Accomplish all necessary alterations and relocations to roads, railroads, pipelines, cables, wharves, drainage structures, and other facilities made necessary by the construction works;

(3) Hold and save the United States free from damages due to the construction works;

(4) Bear 30 percent of the first cost, a sum presently estimated at $166,000,000, to consist of $55,765,000 for items listed in subpararagraphs (1) and (2) above, and a cash contribution presently estimated at $110,235,000 to be paid either in a lump sum prior to initiation of construction or in installments at least annually in proportion to the federal appropriation prior to start of pertinent work items in accordance with construction schedules, as required by the Chief of Engineers, or, as a substitute for any part of the cash contribution, accomplish, in accordance with approved construction schedule, items of work of equivalent value as determined by the Chief of Engineers, the final apportionment of costs to be made after actual costs and values have been determined.

(5) Provide all interior drainage and pumping plants required for reclamation and development of the protected areas;

(6) Maintain and operate all features of the works in accordance with regulations prescribed by the Secretary of the Army, including levees, floodgates and approach channels, drainage structures, drainage ditches or canals, floodwalls, seawalls, and stoplog structures, but excluding the Rigolets navigation lock and channel and modified dual-purpose Seabrook Lock; and

(7) Acquire adequate easements or other interest in land to prevent encroachment on existing ponding areas unless substitute storage capacity or equivalent pumping capacity is provided promptly. Local interests are also required to comply with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646), in acquiring real property.

1/ The total non-Federal contribution including future reimbursement is determined as follows:
Land and Relocations ($55,765,000) + Cash/Equivalent Work Contribution ($110,235,000) + Future Reimbursement ($11,000,000) = ($177,000,000).

b. Modification to Authorizing Law. Recognizing the increasing burden of providing required matching local funds, the former Representative F. Edward Hebert sponsored Congressional legislation to defer required local payments over an extended period of time. This legislation was enacted in February 1974, as Section 92 of the Water Resources Development Act of 1974. This act modifies the authorizing law by providing that non-Federal public bodies may agree to pay the unpaid balance of their required cash payment due, with interest, in annual installments in accordance with a formula specified by the Act.

LOCAL COOPERATION: (Cont'd)

c. Requirements of PL 91-611 and PL 91-646. (1) PL 91-611 - not applicable. Construction started prior to 1 January 1972. (2) PL 91-646 - a Constitutional Amendment was provided by the Louisiana Legislature on 1 February 1972, allowing local interest to comply. The estimated cost to local interest is $45,000.

d. Current Status of Assurances. Assurances are required for the two independently justified plans authorized by Congress; the Chalmette Area Plan and the Lake Pontchartrain High Level Plan. Supplemental assurances for the High Level Plan were executed by the Pontchartrain Levee District for the St. Charles Parish portion of the project on 7 August 1987.

(1) Chalmette Area Plan: The basic assurances for this plan have been accepted.

(a) Joint assurances of the St. Bernard Parish Police Jury and the Lake Borgne Basin Levee District were accepted on 28 September 1966. The Lake Borgne Basin Levee District and St. Bernard Parish Police Jury executed a new joint agreement of assurance covering all requirements of local cooperation and a deferred payment plan as authorized by PL 93-251 on 20 April 1976. These assurances were approved on behalf of the United States on 7 December 1977.

(b) Assurances from the Board of Commissioners of the Orleans Levee District were accepted on 10 October 1966. The assurances were amended on 16 September 1971 to reflect an increase in cost participation. These amended assurances, which supersede the 10 October 1966 assurances, were approved on behalf of the United States on 29 March 1974. The original assurances from the Orleans Levee District dated 10 October 1966, are considered in full effect. This 1966 assurance (for Chalmette Plan only) was supplemented to included PL 91-646 on 29 May 1975, and approved on behalf of the United States on 8 July 1975. The Orleans Levee District executed a new agreement of assurances covering all requirements of local cooperation and a deferred payment plan as authorized by PL 93-251 on 30 March 1976. These assurances were approved on behalf of the United States on 7 December 1977. Amended assurances for the High Level Plan were executed by the local sponsor on 29 May 1985, and accepted by the United States on 21 June 1985.

(c) Supplemental assurances providing for Public Law 91-646: The Louisiana Office of Public Works, coordinating agency under 5 March 1971 designation by the Governor, was requested to have the St. Bernard Parish Police Jury and the Lake Borgne Levee District execute such supplemental assurances. A joint supplemental assurance dated 26 February 1975, was received from the agencies and approved on behalf of the United States on 17 March 1975.

(2) Lake Pontchartrain Barrier Plan. Basic assurances for the plan were obtained from the Board of Commissioners of the Orleans Levee District and accepted on 10 October 1966.

(a) The Orleans Levee District requested assistance in carrying out the assurances due to the rising non-Federal cost of participation and the widespread benefits to be derived by the surrounding parishes. The Governor of the State of Louisiana, by Executive order (5 March 1971), designated the Louisiana Office of Public Works as the local coordinating agency. Through this procedure, the Pontchartrain Levee District, the St. Tammany Parish Police Jury, and the Orleans Levee District are the assurers for the Barrier Plan. See b below.

LOCAL COOPERATION: (Cont'd)

d. Current Status of Assurances. (Cont'd)

(b) Amended assurances to provide for an increase in cost participation were executed by the Orleans Levee District on 16 September 1971, and approved on behalf of the United States on 29 March 1974. The amended assurances supersede the 10 October 1966 assurances. Subsequent to the approval of the 1971 assurance, it became evident that problems existed in obtaining acceptable assurances from two agencies for this plan. For this reason, the original assurances from the Orleans Levee District dated 10 October 1966, are considered in full effect. The Orleans Levee District executed a new agreement of assurance covering all requirements of local cooperation and deferred payment plan as authorized by PL 93-251 on 30 March 1976. These assurances were approved on behalf of the United States on 7 December 1977.

(c) Assurances providing for participation pursuant to the action of the Governor have been obtained from the Pontchartrain Levee District. Assurances on behalf of the St. Tammany Parish Police Jury were executed by the Governor on 8 May 1972, under Section 81, Title 38, Louisiana Revised Statutes of 1950 as amended. Neither of the last mentioned assurances has been accepted for lack of supporting documents. However, the Pontchartrain Levee District executed a new agreement of assurance covering all requirements of local cooperation and a deferred payment plan as authorized by PL 93-251 on 20 September 1976. On 19 October 1976, the Governor of the State of Louisiana executed an instrument designating, among other things, the Louisiana Office of Public Works to lend financial assistance in connection with this project. 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; and to lend financial assistance after the Pontchartrain Levee District has contributed $100,000 in cash toward that portion of the Barrier Plan which is the responsibility of that levee district. These assurances were approved on behalf of the United States on 7 December 1977.

(d) Supplemental assurances covering Public Law 91-646:

1. Supplemental assurances were executed by the Orleans Levee District on 21 September 1973.
2. Supplemental assurances were executed by Pontchartrain Levee District on 15 October 1973.
3. St. Tammany Parish Police Jury--the assurances executed by the Governor on 8 May 1972 included Public Law 91-646 requirements.

The assurances listed as items 2 and 3 above have not been accepted on behalf of the Government due to lack of supporting data; however, substitute assurances incorporating the deferred payment plan authorized by PL 93-251 and PL 91-646 have been executed by these levee districts. These assurances were approved on behalf of the United States on 7 December 1977.

The Water Resources Development Act of 1974, PL 93-251, was enacted on 7 March 1974. This act provided among other things, that local assuring agencies for this project (both plans) could, if they so choose, repay their cash obligation using a deferred payment plan. New assurances were executed by local interests incorporating a deferred payment plan in 1976, and these assurances were approved by the Secretary of the Army on 7 December 1977. Local interests have been making payments under this plan. First payments were received in FY 1977.

LOCAL COOPERATION: (Cont'd)

d. Current Status of Assurances. (Cont'd)

(3) 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 the Water Resources Development Act of 1974, 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 were executed by the local sponsor on 29 May 1985, and accepted by the United States on 21 June 1985.

(b) St. Tammany Parish: The Louisiana Office of Public Works executed an act of assuranace 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; however, due to failure of the local sponsor to agree to the items of local cooperation, this portion of the project has an indefinite completion date.

(c) Pontchartrain Levee District: New agreements of assurances covering all local cooperation requirements and a deferred payment plan as authorized by the Water Resources Development Act of 1974 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. Supplemental assurances for the High Level Plan were executed by the Pontchartrain Levee District for the St. Charles Parish portion of the project on 20 April 1987, and accepted on behalf of the United States on 7 August 1987.

(d) East Jefferson Levee District: Supplemental assurances for the High Level Plan were executed by the East Jefferson Levee District for the Jefferson Parish portion of the project on 16 January 1987, a financial plan was submitted on 24 November 1987, and the supplemental assurances were accepted on behalf of the United States on 21 December 1987. These levees were previously the responsibility of the Pontchartrain Levee District.

(e) Action Being Taken by Local Interests Toward Compliance. Local interests have cooperated in all efforts to date and have given assurance that all requests for additional cooperation will be expedited; however, local interests have delayed granting of rights-of-way as scheduled on certain items. They are constructing items of flood protection works at vulnerable locations as work-in-kind in lieu of cash contribution. Local interests will be given credit only for the portion meeting project requirements.

(f) Status of Clearances for Relocations or Other Negotiations Affecting Construction. All negotiations for relocations are the responsibility of local interests. All negotiations with local owners are on schedule.

e. Repayment Contracts. Not applicable.

f. Other Current and Anticipated Difficulties, and Proposed Remedial Action. As of 1 January 1979, the State of Louisiana formed the Jefferson Levee District and assigned to it the responsibility for Jefferson Parish levees on the east bank of the Mississippi River. These levees were previously the responsibility of the Pontchartrain Levee District.

LOCAL COOPERATION: (Cont'd)

SUPPORT AND OPPOSITION:

a. Interested Senators and Representatives, and Nature and Extent of Support or Opposition.

Senator J. Bennett Johnston - support
Senator John B. Breaux - not known
Representative Lindy Boggs (2nd Dist) - support
Representative Robert L. Livingston, Jr. (1st Dist) - support
Representative Richard Baker (6th Dist) - not known
Representative Billy Tauzin (3rd Dist) - not known

b. Support or Opposition by Local Interests. The Louisiana Office of Public Works, the agency designated to act in such matters in behalf of the Governor of the State of Louisiana, the Board of Levee Commissioners of the Orleans Levee District and the Board of Commissioners of the Port of New Orleans have concurred with the proposed plan of protection and are assisting in the implentation of the authorized plan. The U. S. Fish and Wildlife Service has been consulted on all aspects of the project and will continue in coordinating future features of the project.

c. Attitude of Affected Property Owners. Most property owners support the plan of protection although some minor opposition to specific features of the plan has been encountered.

d. Adverse Effects. Approximately 2,100 acres of marsh and swamp wetland and 900 acres of lake bottom will be used for construction of the hurricane protection plan. Loss of this habitat will cause a decrease in wildlife and fisheries in the Lake Pontchartrain area.

Turbid water conditions with associated silting due to dredging, pumping, and levee construction will occur only during construction periods. Temporary turbid water conditions during construction will decrease the amount of primary production in the disturbed area by decreasing the light available to phytoplankton and other aquatic plants.

ENVIRONMENTAL INFORMATION: (Cont'd)

c. Environmental Opposition: (Cont'd)

(2) Environmental opposition to the High Level Plan centers on two major issues. Fourteen groups have expressed concern over the proposal to locate borrow pits in Lake Pontchartrain near the Jefferson Parish Lakefront. Possible adverse water quality impacts are the primary concern. Eleven of these groups have expressed opposition to the enclosure of wetlands by the hurricane protection levee in New Orleans East. Four groups also oppose the levee alignment in St. Charles Parish because the levee would enclose a wetland and may subject it to development in the future. To date, there are no court injunctions filed against this plan.

d. Other Environmental Opinions:

(1) The US Fish and Wildlife Service and the National Marine Fisheries Services have fully cooperated in developing a plan for hurricane protection for the metropolitan area of New Orleans that will alleviate, to the fullest extent feasible, any project impacts on the fish and wildlife resources in the area. Both have opposed the St. Charles Parish lakefront levee and have made specific recommendations in the other segments of the project to help minimize the destructive features of the project.

(2) The Environmental Protection Agency has also fully cooperated in helping us to develop an environmentally feasible plan. In their review of the statement of findings for the plans for placement of dredged material for this project they stated that tidal interchange should be allowed in the New Orleans East area until developed areas are threatened.

e. Environmental Studies:

(1) Phase I of the biological transport studies contract entered into with the Louisiana State University along with a preliminary Phase II scope study based on Phase I data have been completed. The remaining portions of the contract have been terminated at the request of LMVD due to the preference for the High Level Plan.

(2) The EPA, in their review of the 404 proceedings, have requested us to study whether the drainage structures in the South Point to GIWW levee can be changed with regard to their operation. They would like to see the structures remain open during normal tidal conditions to nourish the marsh in New Orleans East with the lake water. The Louisiana Wildlife Federation and the U.S. Fish and Wildlife Service are supportive of this recommendation. We coordinated this request with the Orleans Levee District, the Sewerage and Water Board, the Mosquito Control Board, and the City Planning Commission and found extensive opposition. As a result of this opposition and since Fish & Wildlife Management is not an authorized federal program purpose, re-establishment of tidal exchange is not recommended in the Reevaluation Report/EIS released to the public in December 1983.

f. Status and Impact of Compliance with Section 404, Clean Water Act of 1977: 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 on 18 November 1983. A Public Notice for the High Level Plan was issue on 28 March 1984, and certification from the State of Louisiana was received on 29 June 1984.