

PD-1

Mr Robbins

LMNPD-F (23 Mar 81)

SUBJECT: Lake Pontchartrain, LA, and Vicinity Hurricane Protection Project

DA, New Orleans District, Corps of Engineers, PO Box 60267,
New Orleans, LA 70160 25 Sep 81

TO: Commander, Lower Mississippi Valley Division, ATTN: LMVPD-P

In accordance with paragraphs 4 and 5 of the 2nd Ind, dated 23 Jul 81, a Plan of Study (POS) for supplementing the Environmental Impact Statement of the subject project is inclosed for your approval.



CHARLES E. DEWEESE
LTC, CE
Acting Commander

1 Incl
wd all incl
Added 1 incl
6. POS (15 cy)

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DISPOSITION FORM

S: 9 Oct 81

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL

LMVPD-P

SUBJECT

Lake Pontchartrain, LA, and Vicinity Hurricane
Protection Project Plan of Study

TO C/Eng Div (3 cy)

FROM C/Plng Div

DATE 2 Oct 81

CMT 1

Robbins/ea/5835

ATL

✓ C/Con Ops Div

C/Real Est Div

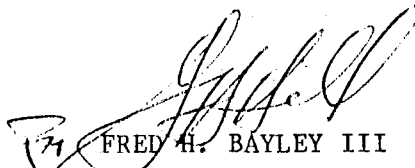
C/PDO

Counsel

Please review the subject material and furnish your comments by 9 October 1981.

1 Incl

as


FRED H. BAYLEY III

CF w incl (for review):

Asst C/Plng Div

C/Econ & Soc Anal Br

C/Env Anal Br

C/Plan Form Br

C/Urb St Br

C/FPMS

C/Pol & LR Plng Br

LAKE PONTCHARTRAIN, LOUISIANA
AND VICINITY HURRICANE PROTECTION PROJECT

COMBINED PHASE I TYPE GENERAL
DESIGN MEMORANDUM AND REVISED
ENVIRONMENTAL IMPACT STATEMENT
PLAN OF STUDY

Prepared by: US Army Engineer District, New Orleans
September 1981

LAKE PONTCHARTRAIN, LOUISIANA, AND VICINITY
HURRICANE PROTECTION PROJECT

PHASE I TYPE GENERAL DESIGN MEMORANDUM AND PLAN OF STUDY

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Inclosures:

1. Copy of Current AE&D Project Justification Sheet
2. Issues Identified in Coordination of Project EIS
3. Discussion of Estimated Phase I Type GDM Study Effort
4. Public Involvement Program
5. Study Schedule (with a list of AE&D milestones 26 through 30 attached)

LAKE PONTCHARTRAIN, LOUISIANA, AND VICINITY HURRICANE PROTECTION PROJECT -
COMBINED PHASE I TYPE GENERAL DESIGN MEMORANDUM AND REVISED ENVIRONMENTAL
IMPACT STATEMENT - PLAN OF STUDY

This Plan of Study (POS) for a Phase I Type GDM report including a revised environmental impact statement (EIS) has been prepared in response to LMVPD-P (LMV 23 Mar 81) 2nd Ind (23 Jul 81) regarding subject project. Data has been presented in sufficient scope and detail to summarize and justify the work necessary to revise the current EIS (placed on file with CEQ on 8 Jan 75) in response to the modified US Fifth District Court Order of 30 Dec 77.

1. Project Authorization Data

a. The Lake Pontchartrain, Louisiana, and Vicinity Hurricane Protection project was authorized for construction on 27 October 1965 by Public Law 89-298, the Flood Control Act of 1965 (House Document 231/89/1). The final environmental impact statement (EIS) was filed with the Council on Environmental Quality (CEQ) on 9 Jan 75. On 30 Dec 77, the Honorable Judge Charles Schwartz of the US 5th District Court, ruling on combined suits which had been filed against the project, held that the final EIS was legally inadequate and enjoined further construction of several project features until such time as the EIS deficiencies were rectified. Judge Schwartz subsequently modified the original injunction in separate actions on 8, 10, and 27 March 1978. As modified, the injunction stops any construction of the barrier features of the authorized plan at the Rigolets and at Chef Menteur Pass until the final EIS is revised to the satisfaction of the court while allowing construction of other project features to proceed.

b. To adequately respond to the specifics of the court's ruling effectively requires preparation of a new EIS and Phase I GDM. Revised EIS studies have been underway for some time, but a Notice of Intent to Prepare an EIS Supplement has not yet been published.

c. Two types of concepts form the basis for all alternatives being considered; they are: building barrier structures such as those authorized in tandem with construction of levees and floodwalls (barrier plans), or simply building levees and floodwalls (high level plans). Alternatives consist of varying levee alignments, degrees of protection, and types of construction. Any of the alternatives which are price competitive with the authorized plan and provide Standard Project Hurricane (SPH) protection could be approved by the Chief of Engineers under his discretionary authority as design changes (based on a reading of Corps' regulations).

d. Current data on project justification is contained in incl 1.

2. Statement of Controversial Issues and Areas of Concern.

a. With regards to the authorized plan, there is wide-spread concern that construction and operation of the proposed barrier complexes at the Rigolets and Chef Menteur Pass would result in significant long term environmental degradation of Lake Pontchartrain as a result of altering tidal exchange. The environmental impact analyses of these proposed structures in the existing EIS were specifically found to be inadequate by the court. Since the injunction, we have contracted with WES, Louisiana State University (LSU), and the University of New Orleans (UNO) to perform extensive studies focusing on the lake's tidal exchange mechanisms. We also contracted separately with LSU to perform baseline environmental studies of the main body of the lake; these studies are essentially complete. WES studies of tidal prisms and the proposed structures' effects upon same are essentially complete. The LSU and UNO tidal transport contracts were broken down into two phases; phase I, which is complete, consisted of study design and phase II was to consist of a 1-year sampling program and subsequent data analyses. LSU was responsible for physical and biological transport and UNO for chemical transport. LSU's contract has been terminated and the district has requested permission to terminate the UNO contract. Phase II work can be contracted if future study results warrant such action, i.e., if results indicate that we would likely recommend a barrier type plan. It should also be noted that navigation interests were opposed to the barrier plan because they perceived that the proposed complex at the Rigolets would limit the size of future navigation.

b. The existing levee alignment in the New Orleans East area incloses about 19,000 acres of wetlands. Environmental interests are opposed to development of these wetlands. In our original economic analyses, we claimed enhancement benefits (now called location benefits) for future development. Using current criteria, we do not claim location benefits for development of the inclosed wetlands, nor do we need such benefits to justify the existing levee alignment; however, the district recently received a permit application from New Orleans East Inc. to develop 9,800 acres, much of which is wetlands. They have been advised that we cannot

act upon the application until they prepare an EIS, which they are doing. Their EIS preparation is scheduled for completion in about 2 years. It is the district's position that future development in New Orleans East are actions which must be addressed on their own merits, separately from the hurricane protection project.

c. We have received requests from environmental interests to investigate the feasibility of leaving four existing drainage structures through the South Point to GIWW levee in the New Orleans East area open to normal tidal exchange for the purpose of nourishing wetlands. It is not clear at this time whether or not any operations of the structures which do not threaten the integrity of the hurricane protection fall within our purview.

d. The original authorizing document specified a 50%/50% cost allocation of the Seabrook Complex, a feature of the MR-GO project, between the hurricane protection project and the navigation project. The cost sharing was specified because the Seabrook Complex would serve several functions; it could be operated as a barrier complex for hurricane protection (thus benefiting the hurricane protection project), it could be operated to reduce hazardous currents (a benefit to MR-GO navigation), and it could be operated to control salinities in the lake (mitigation for MR-GO). Under a barrier plan recommendation scenario, no change in the Seabrook Complex's status is contemplated. However, if a high level plan were recommended, then we foresee recommending deferment of the Seabrook Complex for two reasons, cost sharing and feasibility. The Seabrook Complex would not be needed for hurricane protection; therefore, if we recommend a high-level plan, we foresee recommending changing the authorized cost sharing for Seabrook to 100 percent MR-GO funding at the same time by separate report. Also, there is a cheaper alternative to eliminating currents hazardous to navigation, i.e., relocation of a restrictive railroad bridge; thus, the incremental costs of building and operating the complex would be attributable to its mitigation function. The feasibility of the incremental investments and operational procedures for environmental enhancement/restoration will not have been determined at the conclusion of any "fast track" schedule, so our recommendations would

be to defer construction until adequate feasibility studies could be funded and performed under the MR-CO project.

e. There is an unresolved issue with regards to the three main outfall canals in New Orleans which empty into Lake Pontchartrain along the reach known as the New Orleans Lakefront. Return levees flank these gravity drainage canals for a considerable distance inland from the lake, tying into lift pump stations at the head of the canals. Since the time of project authorization, it has been determined that the return levees are inadequate in terms of both grade and stability. Five basic alternatives have been formulated to address the problem of deficient return levees for both high-level and barrier type plans. The economics of the alternatives are similar for either plan, i.e., choosing the same type solution for both plans would not affect plan selection.

(1) The first solution would involve raising and strengthening the return levees to assure SPH protection without concern for the number of house relocations necessary. At current price levels, this solution would cost about \$200,000,000.

(2) The second solution would be the same as the first except that all house relocations would be avoided. This solution would cost about \$250,000,000.

(3) A third solution would involve building floodgates at the mouths of the outfall canals which could be closed when lake levels threaten the integrity of the return levees. During such times, pumping capacity would be zero and interior rainfall flooding would be somewhat greater. However, closure operations of the floodgates would occur infrequently and generally be of short duration, also, such operations would occur during times of high lake levels when the capacities of the existing pumping stations would already be greatly reduced. Therefore, increased annualized residual flood damages due to closure of the floodgates would be minor in dollar terms. The costs of the floodgates is estimated to be \$20,000,000.

(4) A fourth solution would be the same as the third solution except that auxillary pumping stations would be provided at the lake with bypass lines to allow continued pumping when the floodgates were closed. The estimated cost of these improvements is estimated at \$120,000,000 (\$20,000,000 for floodgates and \$100,000,000 for pumping stations); however, the \$100,000,000 cost estimate for the pumping stations may be very low. Further, the New Orleans Sewerage and Water Board and our own engineering staff have serious concerns that this solution will work because of potential surging problems between stations.

(5) A fifth solution would involve relocating the existing pumping stations to the lake; however, the cost of improving gravity drainage to the relocated stations, i.e., necessary improvements of the existing outfall canals would be much more expensive than raising and strengthening return levees only, so these costs in tandem with the cost of pump station relocations were assumed to be prohibitive and estimates were not developed.

(6) Several of the alternatives involve large increases in project costs and those involving construction of pumping stations would be classified as modifications to drainage works (a local responsibility); except for the third solution, floodgates only, any of the other solutions would result in a substantial increase in costs to the New Orleans Levee Board, the local assursor, and in fact, any of the solutions involving pumping stations might well result in the levee board having to bear more than a 30 percent share of a substantially increased project cost in New Orleans.

(7) The politically sensitive nature of the outfall canals problem would seem to dictate that resolution of the issue will require close coordination and exchange between Corps and New Orleans Levee Board decision makers.

f. There are several legal, technical, and planning problems associated with construction of the St. Charles Parish Levee feature of the project.

(1) The authorized project provides for construction of a levee along the lakefront in St. Charles Parish. In the early 70's before the court suit, this feature was indefinitely deferred because of concern regarding the environmental impacts upon the large area of wetlands which the proposed levee would inclose and the fact that the State of Louisiana had included two streams in the area under its Natural and Scenic Rivers Act whose natural drainage would be blocked by construction of the lakefront alinement.

(2) Subsequent to our decision to defer construction, we were sued to force us to construct the authorized levee by landowner interests. The US 5th District Court delayed ruling on this suit pending filing of our revised EIS mandated by the 30 Dec 77 court injunction. Also, we do not have Section 404 approved from EPA for construction of this feature.

(3) Since the court injunction, we have designed and costed three levee alinements for St. Charles Parish for both barrier and high level design concepts. At the time the project was authorized, the St. Charles Parish levee was primarily justified by virtue of projected future development of wetlands which would be inclosed (location benefits). As previously discussed, under current criteria we cannot claim the vast majority of these benefits. As a result, preliminary data indicates that no levee alinement, for any degree of protection, is presently justified. However, of the three alinements considered, the "best," for any plan, would follow the existing St. Charles/Jefferson return levee and then run generally parallel to and just north of Airline Highway, tying into the east guide levee of the Bonnet Carre Spillway to the west.

(4) There are several other points of interest regarding this issue:

(a) The President of the St. Charles Parish Police Jury has been informally briefed on the results of our preliminary studies and informed that he will be kept abreast of any future findings and/or decisions concerning this feature.

(b) A decision to indefinitely defer construction of this feature is within the discretionary authority of the Chief of Engineers.

(c) Such a decision would dictate a need to improve and extend the existing return levee to prevent flanking of the Jefferson Parish Lakefront levee.

g. The authorized Mandeville Seawall feature, whose purpose is erosion control, is not incrementally justified under either main design concept. Further, we do not have local assurances for this feature. However, the town of Mandeville has expressed the intention of getting funds and providing local assurances. The possibility exists that the seawall construction (primarily rehabilitation work) will be complete prior to filing of the final revised EIS.

h. An issue raised in the court suit which was not addressed (the court held its right to rule on the matter in abeyance pending final revision of the EIS) was the ability of local sponsors, specifically the New Orleans Levee Board to meet their cost sharing responsibilities. How to address possible modifications of local assurances or analyses of local sponsors' abilities to pay are subjects which will require ongoing coordination between local sponsors, and district and division staffs.

i. Inclosure 2 contains additional information concerning issues identified during coordination of the EIS.

3. Discussion of Completion - Time Completion:

a. The extreme risk to human life in the absence of adequate hurricane protection for the metropolitan New Orleans area dictates that we complete our revised EIS studies in the most timely manner possible.

b. The degree of study effort to produce an adequate EIS depends to a large extent upon the recommended plan. Of the two basic design concepts under consideration, the barrier concept poses the most study problems and

the high-level concept poses the least study problems with regards to environmental impact analyses. Since our engineering and economic studies are well along and pose, in themselves, i.e., disregarding their relationships to barrier impact analyses, no esoteric study problems, our course of action with regards to environmental studies will control the overall study completion date (critical path). Our Phase I tidal transport study contracts with LSU and UNO have defined the extent of studies (phase II) which would be necessary in order to adequately analyze environmental impacts analyses for a recommended barrier concept plan. A recommended high level concept plan would, in the district's opinion, require a lesser degree of environmental impact analyses than for any barrier concept alternative.

c. While we are not in a position to make any tentative recommendations with regards to plan selection, the preliminary data indicates that on the basis of overall feasibility, a high level design concept is competitive with a barrier design concept. Further, strictly based upon a reading of Corps regulations, it appears that if a high level design concept were to be recommended; it could be implemented under the discretionary authority of the Chief of Engineers, i.e., such a decision would not delay project implementation. This point needs clarification with OCE counsel.

d. Several study scenarios are possible, ranging from a complete "state of the art" analysis of all alternatives (maximum study time and effort) to a fast track analysis focusing on high-level alternatives with analysis of barrier alternatives' tidal transport impacts limited to examination and use of existing data (minimum study time and effort). Regardless of what study scenario is followed, our capabilities will allow us to switch to any study mode within the range of reasonable study scenarios should future study results dictate. It should be noted that any switch from one study scenario to another will result in some additional study slippage, the amount of which will be dependent upon the degree and timing of change in study effort. It should be noted that a "two-track" approach could be used; that is, two study scenarios could be pursued

simultaneously to keep study options open. Such an approach would, of course, require a greater commitment of study resources than pursuing a single study scenario. Also, if a decision were made to select a barrier plan, then it would be necessary to complete one of the transport study scenarios.

e. Inclosure 3 discusses the estimated study effort under several different study scenarios.

4. Recommendations

a. The amount of study effort, study completion time, and time to complete the project are highly dependent upon the final recommended plan. The main unknown factor regarding plan selection at this time is public reaction to the plans. An early public meeting would appear to be the most logical vehicle for getting a quick reading of the public's views. A fast track schedule, which would focus analyses on a high-level plan and analyze a barrier plan using available data offers the potentially shortest course of action for study completion. This study effort should result in a final revised EIS being placed on file with EPA in November 1983. It is recognized that future study results may dictate an increase in study time and effort; however, pursuing a fast track study effort appears to be a justified calculated risk at this time.

b. It is recommended that we pursue a fast track study effort (as described in inclosures 3, 4, and 5) at this time, hold a public meeting in mid-November 1981, and, based on the results of that meeting, make a firm decision concerning future study direction in mid-December 1981.



CHARLES E. DEWEESE

LTC, CE

Acting Commander and District Engineer

Division: Lower Mississippi Valley
District: New Orleans

6 August 1981

STATEMENT OF JUSTIFICATION

CONSTRUCTION GENERAL - FY 1982

1. Name of Study. Lake Pontchartrain and Vicinity (Hurricane Protection) - 09350
2. Authorization. Public Law 298-Section 204, 89th Congress, 1st Session, approved 27 October 1965, authorized the Lake Pontchartrain, Louisiana, and Vicinity hurricane protection project substantially in accordance with the recommendations of the Chief of Engineers in House Document No. 231, Eighty-Ninth Congress, except that the recommendation of the Secretary of the Army in that document shall apply with respect to the Seabrook Lock feature of the project.

3. Summarized Financial Data:

Total Estimated Cost	\$700,000,000
Allocation Through FY81	114,364,000
Budget Estimate FY82	16,000,000 ¹
Proposed Allocation FY83	18,800,000
Balance Required After FY83	550,836,000

¹Includes \$1,000,000 funds deferred in FY 81.

4. Description of Study Area and Nature Problem. The "Lake Pontchartrain, Louisiana, and Vicinity" hurricane protection project is located in southeastern Louisiana in the general vicinity of New Orleans. The project area comprises the lowland and water areas from the Mississippi River alluvial ridge and the west and north shores of Lake Borgne to the Pleistocene escarpment to the north and west. Lake Pontchartrain, a shallow land-locked tidal basin approximately 640 square miles in area and averaging 12 feet in depth, dominates the topography of the area. It connects with lesser Lake Maurepas to the west and through Lake Borgne and Mississippi Sound to the Gulf of Mexico on the east. Project works will be located in the parishes of Orleans, Jefferson, St. Bernard, St. Charles, and St. Tammany. The project area includes all of the metropolitan area of New Orleans east of the Mississippi River. Much of the developed area in New Orleans and Jefferson Parish is below normal lake level. Stages attending a standard project hurricane would cause overtopping of all existing protective works by several feet and cause ponding as deep as 16 feet in some developed areas. This inundation would cause enormous damage to private and public property, disruption of business and community life, and require a larger expenditure of public and private funds for evacuation and subsequent rehabilitation of local residents.

5. Current Status and Work to be Performed in FY 82. In addition to ongoing construction work, preparation of most of the input for the draft revised EIS is tentatively scheduled for accomplishments.

6. Work to be Done in FY83. In addition to ongoing construction work, a final public meeting is tentatively scheduled for the second quarter of FY83 and submission of the revised draft revision of the EIS to LMVD is tentatively scheduled for the end of the 3rd quarter of FY83.

7. Change in Scope and Cost During Past Year. The current Federal Cost Estimate of \$700,000,000 is a decrease of \$1,000,000 from the latest estimate (\$701,000,000) presented to Congress. This change includes increases of \$19,925,000 for higher price levels, \$156,000 based on actual bid, \$155,000 based on actual cost of completed work, \$3,531,000 based on design modifications, and \$145,000 based on more detailed project cost estimates. These increases were offset by a decrease of \$24,912,000 due to reanalysis of Federal cost sharing requirements.

8. Other Ongoing Studies in the Area. The following studies are currently underway in the area.

- a. Bayou Bonfouca
- b. Lake Pontchartrain, Jefferson Parish
- c. Lake Pontchartrain, North Shore
- d. Lake Pontchartrain, West Shore
- e. Mississippi and Louisiana Estuarine Areas
- f. New Orleans-Baton Rouge Metropolitan Area

9. Other Pertinent Information. Funds to initiate preconstruction planning were appropriated in FY66 and for construction in FY67.

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

The Government moved to dismiss the lawsuit based on an unexcusable delay in forwarding a claim and the contention that the allegations of the plaintiffs were not liable to trial in a court of justice under the National Environmental Policy Act. A hearing was held on 5 November 1976 and the court denied the motion on 7 December 1976. In addition, a hearing was held on 15 December 1976 on the Orleans Levee District's (a codefendant) motion to dismiss issues regarding assurances for the project. The court then 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 Complexs, New Orleans East area (east of Paris Road) and the Chalmette area of the project until a revised environmental statement has been prepared.

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

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

10. Alternatives Being Considered.

a. Chalmette Area. Hurricane protection for the Chalmette area is provided by a levee and floodwall system which starts and ends with the existing Mississippi River levee. The combined effect of the hurricane protection and the Mississippi River levee is to provide a closed loop of flood protection around the Chalmette area. The Chalmette area protection is completely independent of hurricane protection for adjacent land area.

b. Other Project Areas. Protection for the remaining project areas (New Orleans East, Citrus, New Orleans West of IHNC, Jefferson Parish East of Mississippi River, and St. Charles Parish East of Mississippi River) can be accomplished either with a "barrier" concept of protection or with "high level" levees and floodwalls. Under the Barrier Plan, portions of St. Tammany and Tangipahoa Parishes bordering Lake Pontchartrain receive a degree of protection. This added degree of protection cannot be achieved under the high level plan.

(1) Barrier Plan. The barrier concept provides for a system of controls at the Rigolets, Chef Menteur, and Seabrook inlets to Lake Pontchartrain which limit the tidal rise in Lake Pontchartrain in event of a hurricane. Protective works bordering the lake are designed accordingly and do not have to be as high as required if the hurricane surge was permitted to enter the lake. Reaches of protection directly affected include St. Charles and Jefferson Parishes, Orleans Lakefront, and the eastern side of New Orleans East. Reaches of protection not affected by the presence of the barriers are the east and west banks of the IHNC, the Citrus back levee, and the New Orleans East back levee. The repairs presently authorized for the Mandeville Seawall are irrespective of the barrier plan.

(2) High Level Plan. Under this plan the hurricane surge is permitted to enter Lake Pontchartrain and protective works bordering the lake are designed accordingly. Except for a portion of the New Orleans East back levee, protective works bordering the lake are designed for the standard project hurricane.

11. Capability. To be added.

12. Scheduled Completion Date. The entire project is presently scheduled for completion in September of 1991. This reflects no change over the last completion date submitted to Congress.

Completion Funding Schedule

FY 1984 - \$21,900,000
FY 1985 - 21,500,000
FY 1986 - 20,200,000
FY 1987 - 17,000,000
Balance to Complete \$470,036,000

13. Transfers.

FY 1981: None.
Anticipated: None.
FY 1982: None.
Anticipated: None.

14. Interested Senators and Representatives.

Senator J. Bennett Johnston
Senator Russell B. Long
Robert L. Livingston (1st District)
Lindy Boggs (2nd District)
Billy Tauzin (3rd District)
Henson Moore (6th District)
Gillis W. Long (8th District)

Issues Identified in Coordination of Project EIS

a. Environmental Opposition. The known environmental opposition to the Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection project is summarized below:

(1) 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 elimination of the barrier plan.

(2) The Louisiana Wildlife Federation recommends 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 feel that the placing 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.

(3) 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.

(4) The Bonnet Carre Rod and Gun Club and the St. Charles Environmental Council oppose the St. Charles Parish levee segment as it is now proposed. 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.

(5) The Clio Sportman's League of New Orleans position is that they favor hurricane protection but oppose 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 Maurepass, Pontchartrain, Catherine and Borgne estuary system.

(6) 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 outweigh the benefits our population may receive in the form of hurricane protection.

(7) 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.

(8) 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.

b. Other Environmental Opinions.

(1) The US Fish and Wildlife Service and the National Marine Fisheries Service 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 area. Both have opposed the St. Charles Parish levee, as

presently proposed, 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 environmental 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 into the New Orleans East area until developed areas are threatened and that the Seabrook Lock should be constructed as soon as possible in order to reduce saltwater intrusion into Lake Pontchartrain.

(3) The Louisiana Wildlife and Fisheries Commission expressed concern regarding damages to productive oyster beds near the Chef Menteur Barrier Structure. In the spirit of full cooperation, they have requested that the design of the ponding areas and wing walls for the Chef structure be coordinated with them and that a periodic review and evaluation regarding the effects of the other project works on fish and wildlife resources be scheduled during the entire construction period. This will insure the minimum destruction of the fish and wildlife resources. They have stated that the Seabrook Complex will provide the capability for managing salinities within the lake.

(4) The EPA in their review of the 404 proceedings has requested us to study whether the drainage structures in the South Point to GIWW levee should be changed with regards 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 US Fish and Wildlife Service are supportive of this recommendation. Coordination with the Orleans Levee District, Sewerage and Water Board, Mosquito Control Board, and the City Planning Commission has been completed. The respective agencies stated views on this recommendation are conflicting. We are not at their time in a position to recommend any water management plan for the wetlands in the New Orleans East area. Further, the existing levees were initially constructed by local interests

before being incorporated into the project, and the hydrology of the area was altered at that time. Therefore, it can be argued that developing and/or implementing a water management plan falls within the purview of local authorities.

(5) The New Orleans City Planning Commission has requested us to study the possibility of purchasing wetlands outside the protected area to mitigate the loss of wetlands included in the project. Development of inclosed wetlands is not a factor in the current economic justification of the project. Since such potential development would be accomplished by private interests, any mitigation requirements should also be borne by the development interests, not the Federal Government. The environmental values of wetlands lost to direct construction will be determined during the EIS studies with assistance from the US Fish and Wildlife Service. However, any possible recommendations to purchase mitigation lands would not be included in the Phase I report, but rather included in a separate report, as such recommendation would require additional legislative authority to implement.

6. Status and Impact of Compliance with Section 404, Federal Water Pollution Control Act of 1972. In response to a request from former Congressman F. Edward Hebert, the New Orleans District conducted a public meeting to discuss the entire project on 22 February 1975. A portion of this meeting was dedicated to a presentation of methods for the disposal of dredged effluents for all portions of the project with the exception of the St. Charles lakefront levee, as required by Section 404 of the Federal Water Pollution Act of 1972. The Statement of Findings on the meeting was forwarded to the Environmental Protection Agency on 22 August 1975 for review and approval. Approval of the plan for the disposal of dredged material was granted on 1 October 1975. However, even for the authorized plan, after 1 Oct 81, new guidelines will require additional investigations. Clarification of the status of the St. Charles Parish Lakefront Levee was provided to the Environmental Protection Agency to indicate compliance with the conditional approval. EPA has clarified their position by stating that deauthorization of the levee is not essential to

meeting their condition. Furthermore, EPA stated that it was not their intent to require the elimination of hurricane protection studies in St. Charles Parish.

Discussion of Estimated Phase I GDM Type Study Effort

The revised EIS studies have been undertaken as a result of the modified 30 Dec 77 court injunction. Pertinent portions of the injunction are as follows:

...It is clear from the evidence in this case that the final environmental impact study for the Lake Pontchartrain, Louisiana, and Vicinity Hurricane Protection Project prepared by the United States Army Corps of Engineers dated August 1974 does not comply with the requirements of Title 43 United States Code Section 4332 which provides in pertinent part: ... all agencies in the Federal Government shall - utilize a systematic, interdisciplinary approach in decision making ... include in every recommendation or report or proposals for legislation ... a detailed statement by the responsible official on the environmental impact of the proposed action ... alternatives to the proposed action.... as written the EIS actually precludes both public and governmental parties from the opportunity to fairly and adequately analyze ... the proposed plan and any alternatives to it.... the court's opinion is limited strictly to the finding that the environmental impact statement of August, 1974 for the project was legally inadequate. Upon proper compliance with the law with regard to the impact statement this injunction will be dissolved and any hurricane plan thus properly presented will be allowed to proceed ...

Significant changes in physical and economic conditions and Federal and Corps water resource planning procedures have occurred since the project's initial authorization. These changes, coupled with the court's

mandate effectively dictate preparation of a new plan formulation document (Phase I GDM type report) and EIS based on current conditions.

The study effort to produce such a study document basically falls into four categories: engineering studies, economic studies, environmental studies, and plan formulation studies.

Engineering studies are well advanced. Foundation studies, hydraulic studies, and design and cost studies for a full range of alternatives have essentially been accomplished with the exception of certain items, notably the New Orleans outfall canals. Future study efforts will consist primarily of refining and updating design and cost estimates and providing input for the DEIS. These studies are not now nor expected to be on the study's critical path.

Economic studies are also well advanced. Benefit/loss analyses are complete with the exception of computing yearly costs and area redevelopment benefits, which are dependent upon engineering input, and recreation and fish and wildlife benefit/loss computations, which are dependent upon environmental input. Economics Branch is currently compiling and verifying data from completed benefit analyses and has initiated preparation of the economic appendix for the DEIS. Preliminary data indicates any alternative under consideration will be overwhelming economically justified on an overall basis; however, some separable project features may not be incrementally justified. These studies should not be critical.

Preliminary Plan Formulation Studies based on existing data were initially completed in early 1980. It is anticipated that Plan Formulation Branch's primary future study efforts will be study coordination, public involvement, and report preparation. Since these functions are dependent upon input from other study elements, plan formulation should not be a critical factor to the study schedule.

Environmental studies have posed the most study problems to date, and it is anticipated that these studies will continue to constitute the

critical study effort. The question as to how to approach tidal transport analyses has lead up to develop five different environmental analyses study scenarios which basically reflect different levels of tidal transport analyses effort (attachment 1).

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NOTICE OF INTENT

To Prepare a Revised Draft Environmental Impact Statement (EIS) Supplement for the Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection Project.

AGENCY: US Army Corps of Engineers, DOD, New Orleans District

ACTION: Notice of Intent to Prepare an EIS Supplement

SUMMARY: 1. Proposed Action. The proposed action to be analyzed in this EIS Supplement is a plan for completion of the ongoing Lake Pontchartrain, Louisiana, and Vicinity Hurricane Protection project. This plan would consist of features to provide hurricane protection to the Greater Metropolitan New Orleans Area while preserving environmental values to the maximum practicable extent. The action is being taken in response to a court injunction issued on 30 December 1977, subsequently modified by three separate actions during March of 1978, by the United States Fifth District Court on the basis that the Final Environmental Impact Statement (FEIS) prepared by the Corps in August 1974 is legally inadequate.

2. Reasonable Alternatives. The following actions are being considered in an attempt to meet the above needs: construction of barrier structures at Lake Pontchartrain's main tidal passes which could be operated to reduce the build-up of lake stages during the approach of hurricanes in tandem with construction of levees and floodwalls or construction of only levees and floodwalls. Various levee alignments, providing various degrees of design protection are being considered, as is justified for mitigation of any adverse impacts.

3. Scoping Process.

a. This study has a long history of public involvement. Shortly after the court injunction, a Technical Advisory Group (TAG) was formed to assist in designing and monitoring environmental studies. The TAG consists of representatives of the main agencies which will be responsible for

out of Sequence

reviewing the Draft EIS (DEIS) with respect to environmental values: the US Fish and Wildlife Service, US Environmental Protection Agency, State of Louisiana Wildlife and Fisheries Commission, National Marine Fisheries Service, Dr. Eugene Cronin, a nationally known estuarine ecologist who is acting as a Corps consultant is also on the TAG. Since study initiation, representatives of the American Society of Civil Engineers (ASCE) and representatives of local assuring agencies have been periodically informed of study progress and developments. Also, close coordination has been maintained with the US Fish and Wildlife Service. These interests are expected to maintain an active role in this study.

b. Significant issues to be analyzed in the EIS include: hurricane protection of the Greater Metropolitan New Orleans Area, preservation of natural resources in the study area, impacts of the proposed plan on biological, cultural, historical, social, economic, water quality, and human resources, and project costs.

c. The US Fish and Wildlife Service will provide Planning Aid data for the DEIS and a Coordination Act Report for the FEIS.

d. The DEIS will be coordinated with all required Federal, state, and local agencies, environmental groups, landowner groups, and interested individuals.

4. A public meeting to present preliminary data concerning reasonable alternatives identified to date is scheduled for November 1981.

5. The DEIS is scheduled to be made available to the public in January 1983.