✓ Dr Gardner
As sent to
HQUSACE & ASA(CW)

CELMN-PD-FG

21 December 1990

Section 116(k)
of the
Water Resources Development Act of 1990

Plan of Study

This is the plan of study for complying with Section 116(k) of the Water Resources Development Act of 1990 (Public Law 101-640), 28 November 1990.

Authority. The authority for this study is Section 116(k) of the Water Resources Development Act of 1990 (Public Law 101-640) which states:

"SEC. 116. STUDIES

(k) Lake Pontchartrain, Louisiana.--

(1) STUDY.-- The Secretary shall study the benefits which accrue to the non-Federal sponsors from the project for flood protection on Lake Pontchartrain, Louisiana, authorized by Section 204 of the Flood Control Act of 1965 (79 Stat. 1077), for the purposes of determining--

(A) whether or not such sponsors have received the expected benefits from the project; and

(B) whether or not there should be a reallocation of costs as a result of any unrealized expected benefits from the project.

(2) REPORT.--Not later than 12 months after the date of the enactment of this Act, the Secretary shall transmit to Congress a report on the results of the study conducted under this subsection.

(3) NON-FEDERAL RESPONSIBILITY DURING STUDY.--During the period beginning on the date of the enactment of this Act and ending of the 30th day following the date of the transmission of the report under paragraph (2), non-Federal sponsors of the project referred to in paragraph (1) shall not be required to make payments on non-Federal responsibilities incurred for the St Bernard Parish portion of the Chalmette area before or during such period."

Purpose The purpose of this study is to compare the expected benefits of the Lake Pontchartrain, Louisiana, and Vicinity hurricane protection project to the benefits that have actually accrued or will accrue upon project completion, to determine if the costs of the project should be reallocated.

Scope. This study will include:

(a) a review of the estimates of economic benefits for each feature of the Lake Pontchartrain and Vicinity, Louisiana, project that were included in reports which were completed prior to the execution of the initial local cooperation agreements for the feature;

(b) the development of current estimates of the benefits that have accrued to each project feature or are expected to accrue to each feature upon its completion; and

(c) a comparison of the benefits developed in subparagraphs (a) and (b) for each feature to determine if a reallocation of the costs of the feature should be recommended.

Existing Project. The existing Lake Pontchartrain, Louisiana, and Vicinity hurricane protection project was authorized by Section 204 of the Flood Control Act of 1965 (Public Law 89-298). The project included three separable components: (1) a barrier across the tidal passages between Lake Pontchartrain and the Mississippi Sound and levee systems protecting the portions of Orleans, Jefferson, and St. Charles Parishes adjacent to the southern shoreline of the lake, (2) the Chalmette Area Loop which protected portions of St. Bernard and Orleans Parishes located between the Mississippi River and the Mississippi River-Gulf Outlet ship channel, and (3) the rehabilitation of the seawall located along the Lake Pontchartrain northern shoreline in Mandeville, Louisiana, in St. Tammany Parish. The project was authorized in accordance with House Document Number 231, 89th Congress. The Louisiana Office of Public Works provided a letter of intent to provide the assurances of local cooperation for the entire project. Construction of the project was initiated in 1966.

The project was modified by the Chief of Engineers in 1967 to expand the Chalmette Area Loop southward to encompass a larger area between the Mississippi River and the Mississippi River-Gulf Outlet ship channel in St. Bernard Parish.

Section 92 of the Water Resources Development Act of 1974 (Public Law 93-251) authorized a deferred payment plan for the Lake Pontchartrain, Louisiana, and Vicinity project. The plan provides for the payment of the cash portion of the non-Federal share of the project in annual payments beginning upon completion of the project but no later than 10 years following the project initiation. The plan provided for full payment within 25 years of project initiation. The 25-year period ended on September 30, 1990.

The project was again modified by the Chief of Engineers in 1984 to provide for the enlargement of the levees along Lake Pontchartrain in Orleans, Jefferson, and St. Charles Parishes to higher elevations in lieu of the construction of the barrier along the tidal passages between Lake Pontchartrain and the Mississippi Sound. This plan

is commonly referred to as the "high-level" plan. The project currently includes four separable components: (1) the New Orleans East Unit which provides for a levee system protecting Orleans Parish exclusive of that portion of Orleans Parish in the Chalmette Loop Area, (2) the New Orleans West Unit which provides for a levee system protecting portions of Jefferson and St. Charles Parishes on the southern shore of Lake Pontchartrain, (3) the Chalmette Area Loop which provides protection for portions of St. Bernard and Orleans Parishes located between the Mississippi River and the Mississippi River-Gulf Outlet ship channel, and (4) the rehabilitation of the seawall located along the Lake Pontchartrain northern shoreline in Mandeville, Louisiana, in St. Tammany Parish.

The total first cost of the Lake Pontchartrain, Louisiana, and Vicinity project is currently estimated at $611,000,000, of which $184,000,000 is non-Federal.

Status of Existing Project. The New Orleans East Unit of the Lake Pontchartrain, Louisiana, and Vicinity project is approximately 90 percent complete, the New Orleans West Unit is approximately 10 percent complete, and the Chalmette Area Loop is approximately 97 percent complete. The rehabilitation of the Mandeville seawall feature has not been initiated. More detailed information on on each of these project component is presented in the following paragraphs. A small portion of the barrier across the Lake Pontchartrain tidal passages was constructed prior to the deletion of this feature from the project in 1984.

(a) New Orleans East Unit. The initial assurances of local cooperation from the Orleans Levee District were executed in 1966 for all project features in Orleans Parish. New assurances were executed in 1976 covering all assurances of local cooperation including the deferred payment plan authorized by the Public Law 93-251 and the requirements of Public Law 91-646. Amended assurances were executed in 1985 for the high-level plan. This feature is currently 90 percent complete and the local sponsor is ahead of its schedule of payments due to credits for work performed.

(b) New Orleans West Unit. This unit consists of features in Jefferson and St. Charles Parishes.

(1) *Jefferson Parish.* The construction of the portion of the New Orleans West Unit in Jefferson Parish was initiated in 1988. Local assurances for the entire New Orleans West Unit were initially furnished by the Pontchartrain Levee District in 1976. These assurances included provisions for the deferred payment authorized by Public Law 93-251 and the requirements of Public Law 91-646. Local assurances were executed with the East Jefferson Levee District in 1987 for the Jefferson Parish portion of the high-level plan. Jefferson Parish has not accrued any debt under the deferred payment plan. They have provided their share of the project cost through cash contributions and work-in-kind.

(2) *St. Charles Parish.* The construction of the portion of the New Orleans West Unit in St. Charles Parish has not been initiated. Local assurances for the entire New Orleans West Unit were initially furnished by the Pontchartrain Levee District in 1976. These assurances included provisions for the deferred payment authorized by Public Law 93-251 and the requirements of Public Law 91-646. Local assurances were executed with the Pontchartrain Levee District in 1987 for the St Charles Parish portion of the modified high-level plan. The Pontchartrain Levee District had accrued a debt of $497,000 for planning, engineering, and design costs under the deferred payment plan as of 30 September 1990. They plan to pay this debt in January 1991.

(c) Chalmette Area Loop. Portions of this component are located in Orleans and St. Bernard Parishes.

(1) *Orleans Parish.* The information on assurances and payments discussed under paragraph (a) for the Orleans Levee Board also apply to this area.

(2) *St. Bernard Parish.* Joint assurances from St. Bernard Parish and the Lake Borgne Levee District were accepted for the portion of the Chalmette Area Loop in St. Bernard Parish in 1966. Amended assurances were executed in 1977 covering the deferred payment plan authorized by Public Law 93-251 and the requirements of Public Law 91-646. Upon the end of the 25-year period following the initiation of construction, the local sponsors owed $6,739,000, none of which had been paid prior to the enactment of Public Law 101-640, which deferred payments for one year. The local sponsors have stated that they are unable to pay this debt.

(d) Rehabilitation of Mandeville Seawall. Assurances of local cooperation have never been received for this feature of the project and no work has been accomplished.

A project map of the Lake Pontchartrain, Louisiana, and Vicinity hurricane protection project is enclosed.

Description of Proposed Studies. The studies include a comparison of the original or "baseline" estimates of economic benefits to the estimates of economic benefits that have accrued or will accrue upon project completion (current estimates of economic benefits), and a review of appropriateness of the cost-sharing for the project based on this comparison. Baseline and current estimates of economic benefits will not be developed and compared for the rehabilitation of the Mandeville seawall feature or for the barrier feature. Assurances of local cooperation have not been received for the Mandeville seawall feature and no work has been performed on this feature. Assurances were received for the barrier feature; planning, engineering, and design was conducted; and the construction of a channel relocation was completed. The barrier feature was abandoned upon the approval of the high-level plan in 1984 and no benefits have accrued thereto.

(a) *Develop Baseline Estimates of Benefits.* This effort consists of researching the reports in which the benefits to the major project components were last presented prior to the execution of the initial assurances of local cooperation for each feature. These reports include the Interim Survey Report, Lake Pontchartrain, Louisiana, dated 21 November 1962 and subsequently published as House Document Number 231, 89th Congress; Lake Pontchartrain, Louisiana, and Vicinity, Chalmette Area Plan, Design Memorandum Number 3, dated 3 November 1966; and Lake Pontchartrain, Louisiana, and Vicinity, Chalmette Area Extension, Design Memorandum Number 3, Supplement Number 1, dated 1 September 1968. The former report will be used for baseline benefits estimates for all components except the Chalmette Area Loop; the latter two reports will be used for the Chalmette Area Loop. The benefits included in these documents will be converted to a common price level (December 1961) and discount rate (2-7/8 percent).

(b) *Develop Current Estimates of Benefits.* The estimates of benefits include three major categories: flood damages prevented to existing development, flood damages prevented on future development, and enhancements. Current estimates of average annual damages for each category will be developed as follows:

(1) Flood Damages Prevented to Existing Development. Flood damages prevented to "existing" development (circa 1965) will be assumed to have accrued.

(2) Flood Damages Prevented on Future Development. Flood damages prevented to future development will be prorated based on the rate and other characteristics of future growth assumed in the earlier reports as compared to observed actual growth. No accounting of the effects on future damages of the Flood Insurance Administration regulations concerning first floor elevations of structures will be made. These regulations became effective in the 1970's.

(3) Enhancement Benefits. Enhancement benefits to areas outside the mainline protection levees, primarily the area between the interior local levee in the Chalmette Area Loop and the project levee for that feature, will be assumed not to have accrued.

Other sources of data will be used and/or developed to the extent practicable, including discussions with realtors, information from other reports, color infrared photographs, limited field reconnaissance, and published statistics.

(c) *Report* . The report will present the methodology utilized in the development of the baseline and current of estimates benefits, the current and baseline estimates of benefits, a discussion of the differences in the estimates, and recommendations concerning the reallocation of project costs.

Estimates of study Costs. The estimated study costs are presented below:

Development of Estimates of Benefits	44,000
Report Preparation	2,000
Total Estimated Study Cost:	$ 46,000

The total estimated study costs for only the Chalmette Area Loop is $38,000.

Study Schedule. The report would be submitted to the Lower Mississippi Valley Division on 16 August 1991.

Recommendation. We recommend that the this plan of study be approved.

Robert H. Schroeder, Jr.
Chief Planning Division

Enclosure (Project Map)