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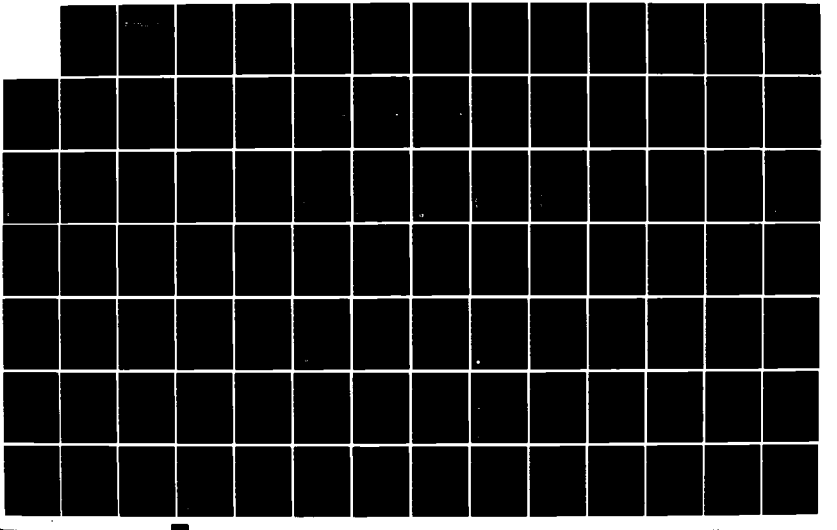

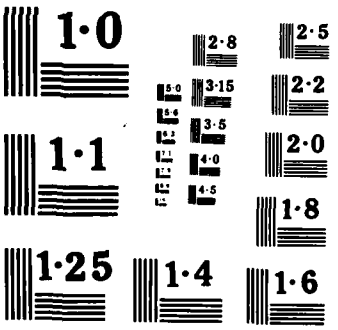
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US Army Corps
of Engineers
New Orleans District

Mississippi and Louisiana Estuarine Areas

Freshwater Diversion to Lake Pontchartrain Basin and Mississippi Sound

Feasibility Study

Volume 4
Public Views and Responses
April 1984

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO. AD-A152 706 / 3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) MISSISSIPPI AND LOUISIANA ESTUARINE AREAS Freshwater Diversion to Lake Pontchartrain Basin and Mississippi Sound, Volumes 1, 2, 3, 4	5. TYPE OF REPORT & PERIOD COVERED FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) / 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) DENNIS L. CHEW	8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT P.O. BOX 60267 NEW ORLEANS, LA 70160-0267	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS LMNPD-RE
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The study area has experienced land loss and saltwater intrusion due to natural processes such as subsidence and erosion, as well as man's developmental activities including leveeing, channelization, and petroleum exploration. The various natural processes and man's activities have altered overbank flooding and natural distributary flow which historically provided fresh water, sediments, and nutrients to the estuarine areas. This has resulted in conversion of fresh, intermediate, and brackish marshes to more saline marsh types and has

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Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

20. ABSTRACT (CONTINUED)

also caused the loss of substantial areas of wooded swamp. Saltwater intrusion and loss of wetlands have adversely affected the productivity of wildlife and fishery resources. Influx of saline waters is particularly harmful to the American oyster, due to increased predation and disease. Thousands of acres of formerly productive oyster reefs in the area lie largely unproductive due to excessive salinities. One way to ameliorate loss of wetland habitat and rate of saltwater intrusion is timely introduction of fresh water and associated sediments and nutrients into the study area. A total of 13 potential sites were evaluated for diversion of fresh water. Based on the results of this study, it has been recommended that fresh water from the Mississippi River be diverted into Lake Pontchartrain at a site adjacent to the Bonnet Carre' Spillway. This site is located at river mile 128.5. Implementation of this plan would save approximately 4,186 acres of marsh and 6,355 acres of wooded swamp. Additionally, average annual oyster production in the study area would increase by about 7.5 million pounds.

APPENDIX L

PUBLIC VIEWS AND RESPONSES

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MISSISSIPPI AND LOUISIANA AREAS STUDY

Report on Freshwater Diversion

To

Lake Pontchartrain Basin And Mississippi Sound

APPENDIX L

PUBLIC VIEWS AND RESPONSES

L.0.1. This appendix provides information on the public involvement program conducted as part of the planning process. The views of Federal, state, and local agencies and interested groups and individuals on the tentatively selected plan are included. Responses to the views are included where applicable. Summaries of the three public meetings held in December 1983 are also included in this appendix.

Section 1. PUBLIC INVOLVEMENT PROGRAM SUMMARY

L.1.1. The initial public meetings on the Mississippi and Louisiana Estuarine Areas study were held on 1 and 2 February 1978 in Gulfport, Mississippi, and New Orleans, Louisiana, respectively. At those meetings, local interests expressed a need to reduce saltwater intrusion and to improve fish and wildlife productivity.

L.1.2. Between March 1978 and July 1983, a series of informal meetings were held with representatives of Federal, state, and local agencies. The meetings provided forums to discuss the status and direction of the study. A briefing on the Mississippi and Louisiana Estuarine Areas study and the Louisiana Coastal Area study was given at joint meetings on 25 August 1981 and 21 January 1982. The New Orleans District maintained coordination with the Administrator, Coastal Management Section, Louisiana Department of Natural Resources. The district discussed the freshwater diversion studies at the Louisiana Universities Marine Consortium symposium on coastal erosion and wetlands modification on 5 and 6 October 1981.

L.1.3. Several Federal and local agencies actively cooperated in the study by providing advice or assistance. The NMFS provided commercial fisheries catch statistics. The USFWS, under an interagency agreement, cooperated with the New Orleans District in determining future habitat changes with and without the project. These two agencies were assisted by the Louisiana Department of Wildlife and Fisheries (LDWF) in conducting the impact assessment and habitat evaluation procedures, and in developing methodologies for estimating benefits to commercial fish and wildlife. The USFWS and LDWF provided advice and data used in conducting the recreation studies and evaluating benefits to sport fishing and hunting.

L.1.4. A two-state interagency ad hoc group was convened in May and June 1982 to consider salinity goals in the study area. The ad hoc group made recommendations on the desired salinity conditions. The signed Memorandum for Record is Exhibit 1 of Appendix B, Plan Formulation. Participants in the ad hoc group meetings were USFWS, LDWF, NMFS, Mississippi Department of Wildlife Conservation, Bureau of Marine Resources, Department of Natural Resources, US Food and Drug Administration, and Louisiana Department of Health and Human Resources. The study status and direction was discussed with the St. Bernard Coastal Zone Advisory Committee on 29 July 1982.

L.1.5. The tentatively selected plan was presented to numerous state and local agencies and groups from May 1983 to April 1984. The meetings are listed below:

State and Local Agencies and Interested Groups	Date
Governor's Coastal Protection Task Force Department of Natural Resources Department of Wildlife and Fisheries Department of Transportation and Development	May 26, 1983
St. Charles Parish Council President	June 7, 1983
St. Charles Parish Coastal Zone Advisory Committee	July 28, 1983
Lake Pontchartrain Basin Area Committee	June 28, 1983
Orleans Parish St. Tammany Parish St. Charles Parish St. John the Baptist Parish Livingston Parish Tangipahoa Parish	

Harrison County Board of Supervisors	September 27, 1983
Hancock County Board of Supervisors	September 29, 1983
Louisiana Oyster Dealers and Growers Association	October 8, 1983
St. John the Baptist Parish Planning Department	October 14, 1983
City of New Orleans Planning Commission/Regional Planning Commission for Jefferson, Orleans, St. Bernard, and St. Tammany Parishes Technical Staff	October 18, 1983
Jefferson Parish Rod and Gun Club	November 18, 1983
East Bank Fishermen Association	November 23, 1983 December 8, 1983
Public Meeting - Destrehan, Louisiana	December 6, 1983
Public Meeting - New Orleans, Louisiana	December 13, 1983
Public Meeting - Gulfport, Louisiana	December 15, 1983
St. Bernard Parish Coastal Zone Advisory Committee	June 30, 1983
Regional Planning Commission for Jefferson, Orleans, St. Bernard, and St. Tammany Parishes	January 11, 1984
Health and Human Resources Committee of the St. Tammany Police Jury	February 8, 1983
Members of Mississippi State Legislature and Governor's Aide	February 8, 1983
Slidell Sportsmen's League	February 23, 1984
Lake Pontchartrain Basin Area Committee Technical Staff	April 13, 1984

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FORT WORTH REGIONAL OFFICE
221 WEST LANCASTER AVENUE
P.O. BOX 2905
FORT WORTH, TEXAS 76113

REGION VI

IN REPLY REFER TO

Mr. Dennis L. Chew
U.S. Army Engineer District, New Orleans
Corps of Engineers
Post Office Box 60267
New Orleans, LA 70160

Dear Mr. Chew:

Subject: Draft Environmental Impact Statement (EIS)
Freshwater Diversion to Lake Pontchartrain Basin and
Mississippi Sound.

The draft report on the Mississippi and Louisiana Estuarine Areas; Main Report and the Draft Environmental Impact Statement, regarding the Freshwater Diversion to Lake Pontchartrain Basin and Mississippi Sound has been reviewed by both this office and our New Orleans office.

It has been determined that this Department will not comment regarding the subject EIS.

Sincerely,

Fenton Tolley

for I. J. Ramsbottom
Environmental Clearance Officer

NO RESPONSE REQUIRED

The EIS also needs to address the potential effects of each alternative action upon vector control efforts and vector populations in the project vicinity. The disposal of the dredged material and the construction of freshwater diversion devices must be done in such a way as to prevent any increase in vector populations capable of causing vector-borne disease or nuisance problems. Because of possible increased human exposure to vectors due to the construction and/or enhancement of recreational areas near wetlands, the need for additional mosquito control and surveillance measures needs to be addressed. We recommend that the State and local public health authorities be contacted for specific information on the history of vector-borne disease and nuisance problems that have occurred in the area. 75

We appreciate the opportunity to review the Draft EIS. Please send one copy of the Final EIS when it becomes available. Should you have any questions about our comments above, please contact Mr. Robert L. Kay, Jr. of my staff at FTS 236-4161.

Sincerely yours,

for Frank L. Lisella, Ph.D
Chief, Environmental Affairs Group
Environmental Health Services Division
Center for Environmental Health

RESPONSE 7.5: Additional information concerning vectors has been added to Sections 5.10 and 6.10 of the EIS as well as Section 3 of Appendix A, Problem Identification. Local public health authorities were contacted concerning this matter. It is their opinion, based on their current knowledge of the proposed project, that construction of the tentatively selected plan would not significantly contribute to vector-borne disease and nuisance problems. Coordination with these personnel will be maintained during future stages of the study.

DEPARTMENT OF HEALTH & HUMAN SERVICES — Public Health Service

Centers for Disease Control
Atlanta GA 30333

December 28, 1983

District Engineer
U.S. Army Engineer District
New Orleans, Louisiana 70160

Dear Sir:

We have reviewed the Draft Environmental Impact Statement (EIS) for the Mississippi and Louisiana Estuarine Areas Study Report on Freshwater Diversion to the Lake Pontchartrain Basin and Mississippi Sound. We are responding on behalf of the U.S. Public Health Service and are offering the following comments for your consideration in the preparation of the Final EIS.

We understand that the purpose of the study is to determine the feasibility of diverting fresh water into the Lake Pontchartrain Basin and Mississippi Sound to restore historical salinities, reduce the rate of wetland loss, and enhance wildlife and fishery production, particularly for the American oyster.

7.1 In general, the proposed project has numerous environmental benefits and provided adequate safeguards are incorporated into the project's design, public health impacts should be minimal. However, we believe additional consideration should be given to sediment quality, disposal impacts, potential vectorborne disease and nuisance impacts, and the relocation of 26 permanent single-family residential structures and 6 mobile homes.

7.2 It appears that more than 107 people (page F-69) will be displaced by the proposed plan. We believe more attention needs to be provided in the EIS on how this adverse impact of displacement will be mitigated. Have alternative designs been considered to reduce this displacement impact?

7.3 According to the EIS, fish tissue concentrations are in excess of Food and Drug Administration (FDA) action levels for total PCB's, dieldrin, and heptachlor epoxide. The EIS should discuss how the project will affect compliance with the action levels for fish and shellfish. Do any commercial fish bans exist for the project area?

7.4 We are concerned about the quality of sediments to be dredged. While the Section 404 (b)(1) Evaluation Report describes the impacts of discharging dredged materials into waters of the project area, the floodway sediments were assumed to be "clean of pollutants" and are expected to have no significant impact during construction. Any proposed construction and dredging of sediments in surface water channels where sediment deposition may be recent, should require sediment analyses and evaluation prior to construction activities. If the sediments are found to be contaminated, particularly for the compounds violating the FDA action levels, special measures will need to be taken to dredge and dispose of these sediments.

RESPONSE 7.1: The water quality analysis conducted indicates that adverse water quality impacts would be confined to the vicinity of the outfall channel. If highly contaminated sediments were detected, contaminant releases to wetlands or open water areas would be localized and of minor significance. These localized releases would probably be no greater than those resulting from periodic spillway diversions and subsequent movements of deposited sediments during removal for fill material. The dredged material disposal method would not be conducive to increased vector populations.

RESPONSE: 7.2: The people who would be relocated by the proposed project were fully considered in the planning process. At the December 6, 1983, public meeting in Destrehan, Louisiana, the people from the community affected by the project supported the tentatively selected plan but requested the entire community be relocated as a unit. The report recommendations indicate that relocation should be offered to all residents.

RESPONSE 7.3: The information cited on page EIS-94 states that fish tissue concentrations in excess of FDA action levels have been observed for total PCB's, dieldrin, and heptachlor epoxide. This information was taken from Table H-7-3 of the Water Quality Appendix. The data should not be interpreted as saying that fish tissue concentrations are in excess of FDA action levels. Table H-7-3 gives both mean and maximum levels detected for various substances and although the maximum recorded concentrations for the three aforementioned chemicals have exceeded action levels, the mean concentrations are generally well below action levels. Other than occasional closures of oyster harvesting areas due to excessive levels of fecal coliform bacteria, no commercial fish bans exist in the study area.

RESPONSE 7.4: See Response 7.1.

Sincerely,

Raymond P. Churan
Regional Environmental Officer

The policy of the President in regard to Federal/local cost sharing is that local interests assume a significant responsibility in all water resources development financed by the Federal government. The State of Louisiana has stated that they will act as one of the non-Federal sponsors of the project including financing the local share of the costs. The state legislature has demonstrated a strong interest by establishing a coastal protection trust fund into which funds are set aside for development of projects such as this. The State of Mississippi indicates that they are also willing to accept responsibility for their part of local costs of this project. In summary, it appears that non-Federal cost sharing is not a deterrent to implementation of this project, but would, in fact, help to insure its acceptance at the national level and enhance the probability of Federal funding.

RESPONSE 6.3: The impacts to recreational opportunities would be the loss of habitat due to construction of conveyance channel. There would be some inconvenience to persons using the spillway regularly for recreational activities because of limited access during construction. No other impacts to recreational opportunities are anticipated.

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Project Review
Post Office Box 2088
ALBUQUERQUE, NEW MEXICO 87103

ER-83/[illegible]

[illegible]

Colonel Robert C. Lee
District Engineer
U.S. Army Engineer District,
New Orleans
Post Office Box 60267
New Orleans, Louisiana 70160

Dear Colonel Lee:

We have reviewed the Draft Environmental Statement, Main Report, and Appendixes, Mississippi and Louisiana Estuarine Areas Study, Freshwater Diversion to Lake Pontchartrain and Mississippi Sound, Louisiana and Mississippi, and have the following comments.

The draft environmental impact statement and draft feasibility report are well written and comprehensive. Many of the methodologies regarding evaluations of the effects of the tentatively selected plan on fish, wildlife, and related resources were developed jointly by the Fish and Wildlife Service (FWS), Louisiana Department of Wildlife and Fisheries, and the Corps of Engineers. Furthermore, the assumptions utilized in those methodologies are clearly stated and well documented.

The planned intensive cultural resource survey should be closely coordinated with the Louisiana and Mississippi State Historic Preservation Officers. The results of this coordination, and any recommendations, should be included in the statement, as evidence that compliance with cultural resource preservation laws and regulations is proceeding satisfactorily. Mitigation plans for potential impacts on cultural resources should also be included.

Draft Feasibility Report Pages 64 and 65, APPORTIONMENT OF COSTS AMONG INTERESTS - More than 90 percent of the benefits of the tentatively selected plan (TSP) are attributable to commercial fisheries. Applicable laws and regulations allow 100 percent Federal funding of the first costs of commercial fishery enhancement projects if operation, maintenance and replacement costs are assumed by non-Federal interests or a Federal fisheries agency. The TSP clearly, then, meets the requirements for full Federal funding of first costs. The TSP also could be implemented as a mitigation measure to offset the role of the Mississippi River levees in increasing coastal wetland loss rates. Cost sharing for mitigation of

RESPONSE 6.1: The draft FIS was coordinated with the Louisiana and Mississippi SHPO's and the results of that coordination are included in this appendix. If necessary, mitigation plans for potential impacts on cultural resources will be developed upon completion of the cultural resources survey.

RESPONSE 6.2: With respect to mitigation and enhancement, the Fish and Wildlife Coordination Act allows for mitigation to be recommended on projects that are less than 60 percent complete as of August 12, 1958. This excludes the Mississippi River levee system. The Mississippi River Gulf Outlet (MR-GO) project was considered within the provision of this act since it was constructed between 1961 and 1963. At that time, studies conducted did not reveal evidence that the project would induce saltwater intrusion. Therefore, no recomendations were made to mitigate intruding saltwater. Saltwater intrusion problems in the study area are due to several factors: construction of the MR-GO, hurricanes, subsidence, oil and gas exploration, and canal dredging. The magnitude of the MR-GO contribution to the problem of increased salinities in the area is, even now, not fully known because of the many factors involved.

United States Department of the Interior
NATIONAL PARK SERVICE
JEAN LAFITTE NATIONAL HISTORICAL PARK
DELTA REGION PRESERVATION COMMISSION
423 Canal Street - Room 206
New Orleans, Louisiana 70130

L7619

January 11, 1984

Colonel Robert C. Lee
Department of the Army
New Orleans District
Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

Dear Colonel Lee:

Your plan to divert freshwater from the Mississippi River into Lake Pontchartrain has been reviewed and we would like to make the following comments relative to the proposal and the selected alternative.

5.1 While the proposal might benefit all wildlife and fishes in the lake basin, it would appear to be pointed toward enhancing the commercial oyster industry. We suggest that the project be designed and managed to create the broadest possible improvement in the aquatic environment of the basin. The continued productivity of this ecosystem has much to do with viability of the rich diversity of cultural tradition in the delta region. Steps should be taken to insure that Lake Maurepas also benefits from the project and its overall habitat quality enhanced.

5.2 We also recommend as an initial step in the project that a multi-disciplined study be put in place to provide continuous monitoring of the work in progress, and to continue to monitor the basin to insure that conditions are in fact being improved. Study data could be used to alter the project should such action become necessary, or to support ancillary actions which would further improve the general well-being of the Pontchartrain Basin. More importantly, such a study would provide information to an interested public and encourage broad based support for the project and for future project adjustments, should such actions become appropriate.

Sincerely,

Frederick Wagner

Dr. Frederick Wagner
Chairman

RESPONSE 5.1. The freshwater diversion plan would increase the production of oysters, white shrimp, blue crab, croaker, menhaden, and catfish. Despite these beneficial effects, monetary benefits could not be satisfactorily quantified in accord with the Water Resources Council Principles and Guidelines for Water and Related Land Resources Studies. Throughout the report, these benefits are described qualitatively. The structure operation would be modified based on data collected in the comprehensive monitoring system for the proposed plan. The intent of the plan is to create the broadest possible improvement in the aquatic environment.

Lake Maurepas will benefit from the proposed diversion plan. Swamps and marshes adjacent to the lake adversely affected by high salinities would be restored to a healthier condition. Catfish production in Lake Maurepas would increase.

Response 5.2: The comprehensive monitoring system will guide structure operation and assess the effects of the diverted fresh water on fish and wildlife populations. The Corps of Engineers and the non-Federal sponsor will establish a two-state interagency, multi-disciplinary advisory group to design and conduct the monitoring.

The programs in the monitoring system will be conducted in three phases: a 3-year preconstruction phase, a 4-year postconstruction phase, and a long-term phase. In the preconstruction phase, we will supplement existing information and establish baseline conditions for measuring future changes. The effect of the diverted waters on important hydrological and water quality fixed limits and on fish and wildlife will be assessed. The interagency group will use all this information to refine the structure operation and the scope of the long-term monitoring phase.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Washington, D.C. 20230

December 29, 1983

N/MB2:VLS

TO: PP2 - Joyce Wood

FROM: N - Paul M. Wolff

SUBJECT: DEIS 8311.02 - Main Report and Appendices for the Mississippi and Louisiana Estuarine Areas Study, Freshwater Diversion to Lake Pontchartrain and Mississippi Sound

The subject DEIS has been reviewed within the areas of the National Ocean Service's (NOS) responsibility and expertise, and in terms of the impact of the proposed action on NOS activities and projects.

4.1 Geodetic control survey monuments may be located in the proposed project area. If there is any planned activity which will disturb or destroy these monuments, NOS requires not less than 90 days' notification in advance of such activity in order to plan for their relocation. We recommend that funding for this project include the cost of any relocation required for NOS monuments. For further information about these monuments, please contact Mr. John Spencer, Chief, National Geodetic Information Branch (N/CG17), or Mr. Charles Novak, Chief, Network Maintenance Section (N/CG162), at 6001 Executive Boulevard, Rockville, Maryland 20852.

The NOS Office of Ocean and Coastal Resource Management (OCRM) has reviewed the project and discussed it with state coastal management authorities in Mississippi and Louisiana. OCRM supports the project and understands that both affected states also support it.

RESPONSE 4.1: No geodetic control survey monuments were identified in the feasibility phase of the study. Any monuments identified in the advanced engineering and design phase that have to be relocated as part of this project would be included in the cost of the project. The National Oceanic Service would be notified in sufficient time to plan relocations.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Washington D.C. 20230

OFFICE OF THE ADMINISTRATOR

December 30, 1983

Planning Division
Environmental Quality Section
Department of the Army
New Orleans Division, COE
P.O. Box 60267
New Orleans, Louisiana 70160

Dear Sir/Madam:

This is in reference to your draft environmental impact statement on the Main Report and Appendices for the Mississippi and Louisiana Estuarine Areas Study, Freshwater Diversion to Lake Pontchartrain and Mississippi Sound. Enclosed are comments from the National Oceanic and Atmospheric Administration.

Thank you for giving us an opportunity to provide comments which we hope will be of assistance to you. We would appreciate receiving four copies of the final environmental impact statement.

Sincerely,

Joyce M. Wood

Joyce M. Wood
Chief
Ecology and Conservation Division

Enclosure

SEE NEXT PAGE

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Region
9450 Koger Boulevard
St. Petersburg, FL 33702

December 6, 1983 F/SER112/DM:gog
409/766-3699

Colonel Robert C. Lee
District Engineer, New Orleans District
Department of the Army, Corps of Engineers
P. O. Box 60267
New Orleans, LA 70160

Dear Colonel Lee:

The National Marine Fisheries Service has received the Draft Environmental Impact Statement (DEIS) for the Mississippi and Louisiana Estuarine Areas Study Report on Freshwater Diversion to the Lake Pontchartrain Basin and Mississippi Sound - October 1983. We have reviewed the DEIS and have the following comments:

General Comments

The DEIS thoroughly addresses the impacts of this proposed freshwater diversion of Mississippi River water to the estuaries east of the River and the Mississippi River - Gulf Outlet. The impacts to marine fishery resources will be, as indicated, mostly positive. [illegible] that some additional studies on reduced salinity impacts [illegible] be discussed.

Specific Comments

3.1

[illegible] ENVIRONMENTAL EFFECTS

[illegible] FISHERIES

[illegible] Bonnet Carre' [illegible]

[illegible].1.13.

[illegible]

(2)

3.1 in the salinity interval of 15.0 to 19.9 $^{o}/oo$ and an optimum salinity range for white shrimp of 10.0 to 19.9 $^{o}/oo$. The citations of Venkataramiah et al (1974) on line 8 and Venkataramiah (1974) on line 13 are not in section 10. LITERATURE CITED, p. EIS-128 - 134.

Thank you for your consideration of these comments.

Sincerely yours,

Richard J. Hoogland
Chief, Environmental Assessment Branch

Enclosure

LITERATURE CITED

Christmas, J. Y., and W. Langley. [illegible] Section [illegible] Estuarine invertebrates, Mississippi, pp 255-317. In Phase IV. [illegible] Cooperative Gulf of Mexico Estuarine Inventory and Study, Mississippi, J. Y. Christmas ed. State of Miss. Gulf Coast Research Lab. and [illegible] Mar. [illegible] Ocean Springs, Ms.

Zein-Eldin, Z. P., and G. W. Griffith. [illegible] An appraisal of the effects of salinity and temperature on growth and survival of postlarval penaeids. FAO Fish. Rpt. [illegible] 1015-1 [illegible]

RESPONSE 3.1: The [illegible] information has been added to page EIS-75, [illegible] Zein-Eldin and Griffith (1969) and Christmas and Langley (1973). In addition, the citation of Venkataramiah et al. [illegible] has been included in [illegible].

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL
Lincoln Center, Suite 881 • 5401 W. Kennedy Blvd.
Tampa, Florida 33609 • Phone: 813/228-2815

December 16, 1983

00.DEC.83*002632

Colonel Robert C. Lee
District Engineer, New Orleans District
Department of the Army
Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160

Dear Colonel Lee:

Reference is made to your Announcement of Public Meetings and Draft Feasibility Study concerning the Mississippi and Louisiana estuarine areas, freshwater diversion to Lake Pontchartrain Basin and Mississippi Sound. The plan as you propose would divert a portion of the Mississippi River into Lake Pontchartrain Basin and western Mississippi Sound on a controlled basis resulting in more favorable conditions for fish and wildlife species. The diversion structure proposed for the north side of the Bonnet Carre Spillway would be capable of passing up to 30,000 CFS.

The Council strongly supports such projects which will enhance fishery habitat. The provision of nutrients and more favorable salinity regimes would go far to restore favorable conditions to those areas now isolated from riverine nourishment by levee systems.

We wish to commend you and your staff for proposing this project and wish to be included in the record for supporting it.

Sincerely,

Alex Jernigan
Chairman

AJ:TRL:llm

cc: Gulf Council
Mississippi/Louisiana Habitat AP
Staff

COMMENTS NOTED

L-8

United States Department of Agriculture
Soil Conservation Service
3737 Government Street
Alexandria, LA 71302

December 27, 1983

Colonel Robert C. Lee
District Engineer
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

ATTN: Planning Division, Environmental Quality Section

Dear Colonel Lee:

We have reviewed the draft EIS, main report, and appendices for the Mississippi and Louisiana Estuarine Areas Study, Freshwater Diversion to Lake Pontchartrain and Mississippi Sound. These documents are well prepared.

The Soil Conservation Service supports the concept of freshwater diversion from the Mississippi River into the coastal marshes of South Louisiana. This proposal should help to prevent further deterioration of marshes and swamps in the Lake Pontchartrain area.

Sincerely,

Harry S. Rucker
State Conservationist

COMMENTS NOTED

Advisory Council On Historic Preservation

1522 K Street, NW
Washington DC 20005

Reply to

730 Simms Street, Room 450
Golden, Colorado 80401

November 10, 1983

Colonel Robert C. Lee
District Engineer
U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160

Dear Colonel Lee:

2.1 The Council received the draft Environmental Impact Statement (DEIS) on the "Mississippi and Louisiana Estuarine Areas, Freshwater Diversion to Lake Pontchartrain Basin and Mississippi Sound Feasibility Study" on November 1, 1983. The DEIS shows evidence of consideration of cultural resources in the early planning stages of this undertaking. The documentation makes it clear that it is quite likely that implementation of this undertaking will have an effect on properties listed or eligible for listing in the National Register of Historic Places.

2.2 Consequently, we recommend that the Corps initiate development of a planning mechanism that will provide for identification, evaluation, and, if necessary, treatment of historic properties that may be affected by this undertaking. Development of such a planning mechanism at an early stage would allow for adequate consideration of historic properties while maintaining the flexibility required for efficient implementation of the undertaking. The planning mechanism would serve as a basis for the development of a Memorandum of Agreement (MOA) covering the treatment of historic properties affected by this undertaking. Once ratified, the MOA constitutes the Council's comments and evidences Corps compliance with Section 106.

Council staff is available to assist in the development of the planning mechanism and the MOA. If you have any questions or if the Council can be of assistance, please contact Alan Downer at (303) 234-4946, an FTS number.

Sincerely,

for Louis S. Wall
Chief, Western Division
of Project Review

RESPONSE 2.1: As stated in EIS, Section 6.20.1., the proposed undertaking will not adversely affect any property currently listed in or determined eligible for inclusion in the National Register. The reconnaissance analysis presented in Appendix E notes that some plan features do have a relatively high probability of affecting presently unrecorded archeological remains. However, the existence and significance of any such remains will not be determined until completion of the cultural resources survey during the next stage of project planning.

RESPONSE 2.2: The Corps planning guidance relative to historic properties is provided by ER 1105-2-50 and EP 1105-2-55 of the Planning Guidance Notebook.

SECTION 2. COMMENTS AND RESPONSES

L.1.5. The draft report and EIS were coordinated with other Federal, state, and local interests. Three public meetings were held: at Destrehan, Louisiana, at New Orleans, Louisiana, and at Gulfport, Mississippi. The three public meetings summaries are Exhibit 1, 2, and 3. The tentatively selected plan was favorably received, but some concerns were expressed for Mississippi River water quality and the effect of the diverted water on the Lake Pontchartrain fishery.

L.1.6. Commercial fishermen based at the Rigolets have expressed opposition to the project. The commercial fishermen are members of the East Bank Fishermen's Association. They related the proposed project to previous spillway openings, which have adversely affected the brown shrimp harvest in Lake Pontchartrain. About 100 form letters of opposition have been received. A copy of the form letter is Exhibit 4. Comments from Federal, state, and local agencies and interested groups and individuals and responses to those comments are in Section 2.

U S DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P O BOX 3629
BATON ROUGE, LOUISIANA 70821

REGION 6

October 31, 1983

IN REPLY REFER TO

Mississippi and Louisiana Estuarine Areas
Freshwater Diversion Feasibility Study
Draft Environmental Impact Statement

Colonel Robert C. Lee
District Engineer
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Attention Planning Division
Environmental Quality Section

Dear Colonel Lee:

U.S. 61 and Interstate 10 are on the Federal-aid highway system. The tentatively selected plan provides for a channel through the Bonnet Carre Spillway with alignment and design modifications beneath Airline Highway (U.S. 61) and Interstate 10 which avoid any need to relocate substructural elements of the bridges.

8.1 The Louisiana Department of Transportation and Development, Office of Highways, should be contacted and encouraged to comment on the proposed channel design in the area of the highway structures.

Thank you for allowing us to comment on the proposed action.

Sincerely yours,

J. N. McDonald
Division Administrator

RESPONSE 8.1: A copy of the draft feasibility report and EIS was forwarded to the Louisiana Department of Transportation and Development, Office of Highways, on November 7, 1983. No comments have been received.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
INTERFIRST TWO BUILDING, 1201 ELM STREET
DALLAS, TEXAS 75270

Colonel Robert C. Lee
District Engineer
New Orleans District
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

Dear Colonel Lee:

We have completed our review of the Draft Environmental Impact Statement, Main Report, and Appendixes for the Mississippi and Louisiana Estuaries Area Study, Freshwater Diversion to Lake Pontchartrain and Mississippi Sound.

The following comment is offered for your consideration:

We concur that the tentatively selected plan, freshwater diversion into Lake Pontchartrain and western Mississippi Sound upstream of the Bonnet Carre' Spillway, should have the least adverse impact upon the affected aquatic ecosystems when compared to the available alternatives. Our evaluation indicates that the use of the proposed disposal sites should not result in significant adverse effects on human health and welfare, including municipal and private water suppliers, recreational and commercial fisheries, wildlife and/or special aquatic sites. The benefits resulting from freshwater diversion should far outweigh any of the short term construction impacts.

We classify your Draft EIS as LO-1. Specifically, we have no objection to the selection of the preferred alternative. The statement contained sufficient information at this planning stage to evaluate the possible major impacts. Our classification will be published in the Federal Register in accordance with our responsibility to inform the public of our views on federal actions under Section 309 of the Clean Air Act.

Definitions of the categories are provided on the enclosure. Our procedure is to categorize the EIS on both the environmental consequences of the Federal Action and on the adequacy of the EIS at the draft stage, whenever possible.

We appreciate the opportunity to review the Draft EIS. Please send our office five copies of the Final Statement at the same time it is sent to the Office of Federal Activities, U.S. Environmental Protection Agency, Washington, D.C.

Sincerely yours,

Dick Whittington, P.E.
Regional Administrator

Enclosure

COMMENTS NOTED

ENVIRONMENTAL IMPACT OF THE ACTION

LO - Lack of Objections

EPA has no objections to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER - Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to re-assess these aspects.

EU - Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

ADEQUACY OF THE IMPACT STATEMENT

Category 1 - Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2 - Insufficient Information

EPA believes the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3 - Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement. If a draft statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make a determination.

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171

January 25, 1984

Colonel Robert C. Lee
District Engineer
Department of the Army
New Orleans District
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Colonel Lee:

Re: Draft Environmental Impact Statement, Main Report, and Appendices for the Mississippi and Louisiana Estuarine Areas Study, Freshwater Diversion to Lake Pontchartrain and Mississippi Sound

We have reviewed the draft environmental impact statement on the above mentioned project.

We are concerned about the impact of freshwater diversion to Lake Pontchartrain on the water quality of the Mississippi Sound, especially with regard to the concentration of fecal coliforms. We consider the elevated coliform concentration along the Mississippi coastline as one of our most pressing environmental problems. Consequently, we are continuing to make a considerable expenditure of resources to solve this problem.

9.1 According to the EIS, urban stormwater runoff from Kenner, Metairie, and New Orleans enters Lake Pontchartrain. It is known that severe violations of coliform standards occur with heavy rainfall. Additionally, municipal wastewater from urban areas in Jefferson Parish eventually enters Lake Pontchartrain. In addition, 15% of the time bottom sediments in Lake Pontchartrain are stirred and mixed throughout the water column. Therefore, we are concerned that freshwater diversion as well as tidal effects will result in high concentrations of fecal coliforms moving out of Lake Pontchartrain into the Mississippi Sound.

We would appreciate your addressing our reservation concerning the project. If further clarification is needed, please call Mr. Randy Reed of our staff, telephone 601/961-5171. Thank you for the opportunity to comment on this statement.

Very truly yours,

Charles H. Chisolm
Bureau Director

CHC:RR:els
cc: Mr. Joe Brown, State Department of Health

RESPONSE 9.1: The considerable open-water distance, travel time, and dilution volume between the diversion site and Mississippi Sound, and receiving water salinity ranges argue strongly against the survival of fecal coliforms and other bacteria originally present in diversion waters. Much nearer sources, i.e., the Pearl River and nearby municipalities, should continue to be primarily responsible for Mississippi Sound bacterial levels. In addition, coliform counts would be monitored on a regular basis in the comprehensive monitoring program proposed as part of the diversion project.

WILLIAM WINTER
Governor

MISSISSIPPI DEPARTMENT OF WILDLIFE CONSERVATION

Bureau of Marine Resources
P. O. Drawer 959
Long Beach, MS 39560
(601) 864-4602
Enforcement
Division 374-3205

Commissioners

Dr. Edmund Keiser
Oxford, MS

Jim Hunter McCaleb
Cleveland, MS

Lonnie Tadlock
Morton, MS

A. G. Williams
Osyka, MS

Joseph W. Gex
Bay St. Louis, MS

Lon Strong
Executive Director

Richard L. Leard
Bureau Director

January 9, 1984

Colonel Robert C. Lee
District Engineer
New Orleans District
Department of the Army
Corps of Engineers
P. O. Box 60267
New Orleans, LA 70160

Dear Colonel Lee:

Reference is made to your announcement of public meetings and draft feasibility study concerning the Mississippi and Louisiana estuarine area's proposed freshwater diversion project. We thank you for the opportunity to review the draft report, the preparation of which is a credit to you and your staff.

COMMENTS NOTED

The concept of diverting fresh waters into Mississippi Sound during periods of high salinity is wholeheartedly supported by the Bureau of Marine Resources. Undoubtedly, fishery production has decreased throughout the years as a result of saltwater intrusion into estuarine areas; and, perhaps, the proposed project would help to restore some of the beneficial affects that the periodic flooding of the unlevied river once had. Moreover, the introduction of floodwaters in gradual, controlled fashion as might be permitted through use of the proposed structure, would hopefully decrease the incidence of more drastic, and potentially damaging openings of the Bonnet Carre Spillway.

The importance of the Mississippi River and its freshwater input to fishery productivity in the northern Gulf of Mexico cannot be overstated. Unfortunately, the levied river's beneficial affects are principally directed away from Mississippi Sound and the Louisiana marshlands lying east of the river. The proposed control structure would doubtless do much to rectify this situation.

Thank you once again for the opportunity to review your draft report and go on record in full support of your efforts in bringing this significant habitat restoration project into being. We applaud your work thus far and look forward to the continuing development of the proposed project.

Please do not hesitate to contact this agency if we can be of any further assistance.

Best regards,

Richard L. Leard

Richard L. Leard, Ph.D.
Bureau Director

RLL:FD:kg

STATE OF MISSISSIPPI

DICK MOLPUS — GEORGE PARSONS

MEMORANDUM

TO Department of the Army, Corps of Eng.
P. O. Box 60267
New Orleans, LA 70160

DATE December 13, 1983

FROM STATE CLEARINGHOUSE FOR FEDERAL PROGRAMS

SUBJECT REVIEW COMMENTS

Activity The Corps request comments on the Draft Environmental Impact Statement main report, and appendixes for the Miss. and Louisiana Estuarine Areas study, Freshwater Diversion to lake Pontchartrain and Mississippi Sound.

State Application Identifier Number MS831031-001R

Location Contact Dennis Chew

The State Clearinghouse, in cooperation with state agencies interested or possibly affected, has completed the review process for the activity described above.

A 95 REVIEW COMPLIANCE

( ) We are enclosing the comments received from the state agencies for your consideration and appropriate action. The remaining agencies involved in the review did not have comments or recommendations to offer at this time. A copy of this letter is to be attached to the application as evidence of compliance with the A 95 review requirements.

(X) None of the state agencies involved in the review had comments or recommendations to offer at this time. This concludes the State Clearinghouse review, and we encourage appropriate action as *soon as possible*. A copy of this letter is to be attached to the application as evidence of compliance with the A 95 review requirements.

( ) The review of this activity is being extended for a period not to exceed 60 days from the receipt of notification to allow adequate time for review.

NO RESPONSE REQUIRED

COASTAL PROGRAM COMPLIANCE (Coastal area activities only)

( ) The activity has been reviewed and complies with the Mississippi Coastal Program. A consistency certification is to be issued by the Bureau of Marine Resources in accordance with the Coastal Zone Management Act.

( ) The activity has been reviewed and does not comply with the Mississippi Coastal Program.

( ) Not Applicable

cc Funding Agency (As requested by agency)

1303 Walter Sillers Building 500 High Street Jackson, Mississippi 39202 (601) 354-7018

State of Louisiana
DEPARTMENT OF CULTURE, RECREATION AND TOURISM
OFFICE OF CULTURAL DEVELOPMENT
ROBERT B. DEBLIEUX
ASSISTANT SECRETARY

December 21, 1983

Colonel Robert C. Lee
District Engineer
Department of the Army
New Orleans District, Corps
of Engineers
P. O. Box 60267
New Orleans, LA 70160

Re: Draft Environmental Impact Statement
Mississippi and Louisiana Estuarine Areas
Freshwater Division to Lake Pontchartrain
Basin and Mississippi Sound

Dear Colonel Lee:

My staff has reviewed the above referenced document and we have these comments to offer regarding cultural resources.

10.1 The data contained in the background study gives a good overview of presently known cultural resources in the study area. For your information, one property (Flagstaff, Lakeshore Drive, Mandeville) has been added to the National Register (9/15/83) since the D.E.I.S. has been compiled. Additionally, the Tchefuncte and Pass Manchac lighthouses are in the process of being nominated to the National Register by the U.S. Coast Guard. Also, note in the discussion of archaeological sites that there is a discrepancy in the total number cited in the study area. A figure of "over 545" sites is given on page 17 of Volume 1 while on pages E-17 and E-18 of Volume 3 a figure of "over 290" sites is given for the Louisiana portion of the study area and "over 330" sites for the Mississippi and Alabama portions of the study area, for a total of 620 + sites.

As a cultural resources survey of the tentatively selected alternate will be performed, we have no further comments to offer at this time. We look forward to reviewing the results of the survey.

If we may be of further assistance, do not hesitate to contact my staff in the Division of Archaeology.

Sincerely,

Robert B. DeBlieux
State Historic Preservation Officer

RBD:PGR:tb

P. O. BOX 44247 BATON ROUGE LOUISIANA 70804 (504) 342-6680 AND LINC 421-6680

RESPONSE 10.1. Portions of the text relative to cultural resources have been revised accordingly.

STATE OF LOUISIANA
OFFICE OF STATE PARKS

DEPARTMENT OF CULTURE, RECREATION AND TOURISM
P.O. DRAWER ● BATON ROUGE, LOUISIANA 70821 (504) 925-3868

DAVID C. TREEN
Governor

MRS. LAWRENCE H. FOX
Secretary

KIRK CARNEY
Assistant Secretary

December 15, 1983

Mr. Robert L. Lee, District Engineer
Department of the Army
New Orleans District, Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Lee:

We have reviewed the Draft Environmental Impact Statement, Main Report, and Appendixes for the Mississippi and Louisiana Estuarine Areas Study, Freshwater Diversion to Lake Ponchartrain and Mississippi Sound.

We find that the conclusions and actions regarding recreation are sound. The findings are consistent with those of the Louisiana State Comprehensive Outdoor Recreation Plan. The considerations given to recreation needs for the people of Louisiana are definitely part of the overall impact of the proposed project.

Therefore, we fully endorse the proposals advocated by these reports.

If you have any questions or comments concerning this matter, please do not hesitate to contact us.

Sincerely,

Kirk Carney
Assistant Secretary

KC/MSN/rm

COMMENTS NOTED

Offices in the Great Fosters Office Plaza at 666 N. Foster Drive, Baton Rouge

DAVID C. TREEN
GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

FRANK P. SIMONEAUX
SECRETARY

December 2, 1983

Col. Robert C. Lee
District Engineer
U.S. Army Corps of Engineers
New Orleans, LA 70160

RE: Recommendation from Coastal Protection Task Force
regarding Bonnet Carre' Freshwater Diversion plan

Dear Col. Lee:

The Governor's Coastal Protection Task Force has reviewed the information regarding the Bonnet Carre' Freshwater Diversion plan presented to the Technical Work Committee earlier this summer. As the Task Force Director, I am transmitting our recommendation that the Corps continue the feasibility study until all public and agency comments on the Draft Feasibility Study Report are received, evaluated and incorporated into a Final Feasibility Study Report. After that time a decision regarding issuance of a letter of intent can be made with the benefit of input from all affected interests or persons.

We appreciate the opportunity to review and comment on proposed Corp projects and look forward to continued cooperation with your agency in the future.

Sincerely,

Frank P. Simoneaux

FPS/DC/se

COMMENTS NOTED

P.O. BOX 44396 . BATON ROUGE, LA. 70804 . PHONE 342-4500
NATURAL RESOURCES BUILDING

FRANK [illegible] AUX

DEPARTMENT OF NATURAL RESOURCES

LAND, WATER AND RESEARCH

CHARLES G. GHO[illegible]
ASSISTANT TO THE SECRETARY

[illegible]

[illegible] District
[illegible]
New Orleans, [illegible]

[illegible]

[illegible] comments on the Draft Environmental [illegible] Statement, Main Report, [illegible] for the Mississippi and Louisiana Estuarine Areas [illegible] Water Diversion to Lake Pontchartrain and [illegible]. We have reviewed these documents and would like to [illegible] diversion plans to offset saltwater [illegible] coastal Louisiana and Mississippi.

[illegible] in the National [illegible]. The Mississippi and Louisiana Estuarine Areas Study [illegible] in the [illegible] as set forth in the Draft Environmental Impact Statement, [illegible] with the [illegible] Louisiana [illegible] Resources Program.

[illegible] and wildlife species other than oysters were discussed qualitatively [illegible] in the water resources [illegible] water and Related Land Resource Studies these could not be quantified [illegible] in the total project benefits. [illegible] agree with the [illegible] wildlife [illegible].

[illegible] to the development of the Final Environmental Impact Statement [illegible] will provide additional comments in regard to the consistency [illegible] Coastal Zone Management [illegible]. We remain optimistic that the areas of controversy and the [illegible] can be settled [illegible] the [illegible].

[illegible],

[illegible]

[illegible]

[illegible]

Department of Transportation and Development
OFFICE OF PUBLIC WORKS
P.O. BOX 44155 CAPITOL STATION
BATON ROUGE, LA 70804

PAUL J. HARDY
SECRETARY

DARRELL W. WILLIAMSON
ASSISTANT SECRETARY
342-7515

DAVID C. TREEN
GOVERNOR

January [illegible], 1981

Colonel Robert C. Lee
District Engineer
New Orleans District
U.S. Army, Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Re: Draft EIS for Mississippi and Louisiana Estuarine Area Study, Freshwater Diversion to Lake Pontchartrain and Mississippi Sound

Dear Colonel Lee:

[illegible] your letter transmitting the draft EIS on Miss. [illegible] App. [illegible] Freshwater Diversion to Lake Pontchartrain [illegible] [illegible]. This office has reviewed the subject document and finds [illegible] of the project as presented.

[illegible] present [illegible] to the draft EIS is a beneficial [illegible] [illegible] Office of Public Works urges implementation [illegible] at the earliest possible time.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

A. J. S., INC.
2442 LARK STREET
NEW ORLEANS, LA. 70122
Phone: 241-2309

December 13, 1983

Dept. of the Army
New Orleans District, Corps of Engineers
Planning Division
P. O. Box 60267
New Orleans, LA. 70160

Gentlemen:

My name is Mary P. Slavich and I represent A.J.S. Inc., Anthony J. Slavich and myself. The Slavich family has been involved in oyster cultivation in the State of Louisiana since 1901. The sale of oysters is our major source of income.

My family has seen, through the years, changes in the Louisiana marshlands. Oyster producing grounds that my grandfather and father cultivated have had to be abandoned due to salt water intrusion. Along with the salt water came many oyster predators that make the cultivation of these grounds unprofitable. We, therefore, recognize the importance of halting the steady advance of salt water into our marsh. But, we are strongly opposed to the opening of the Bonnet Carre Spillway for that purpose.

With the push of salt water into the marsh, we were forced to shift our productive oyster beds to more "inside" areas. That is in areas of lower salinity. That some salt water intrusion has changed the waters in the western end of Lake Borgne into a suitable oyster producing area. My family and others have leased [illegible] in Lake Borgne and [illegible] years are to develop these leases into [illegible]

Presently there are approximately 15,000 acres of oyster grounds in the western end of Lake Borgne under cultivation. My family controls about [illegible] acres of that total. Unfortunately these grounds are directly in the path of your proposed fresh water release. If the spillway is opened and fresh water from the Mississippi River is allowed to run over our oyster beds in Lake Borgne, it will cause serious damage.

We know this from past experience. In 1973 and recently in 1983 when the spillway was opened to relieve the high water situation in the River, we experienced:

1. Excessively high pollution levels, requiring the closure of our oyster beds for harvest.

RESPONSE II.1: About 7,[illegible] of the 19,000 acres of water bottoms leased for oyster production would be eliminated or productivity would be reduced due to overfreshening. This acreage was taken into consideration in the computation of the B/C ratio. A representative of the oyster fishermen would be on the two-state interagency group established to guide structure operation. The non-Federal sponsors of the project would be responsible for [illegible] the extent of compensation necessary.

2. Oyster mortality: Our beds experienced approximately 75% mortality by the time Spillway was closed. The oysters that did survive were stunted due to the fresh water lingering in the area.

3. Silting: That large volume of water from the River caused a thin layer of mud to cover portions of our oyster beds. In some sections we are still seeing the effects of this problem. The layer of mud on top of the shell bed prevents the oyster "spat" from finding a suitable place to attach itself to the bottom. The young oysters then die in the mud.

///

The lease holders in Lake Borgne were not compensated, in any way, for the damage done by the 1973 opening of the Spillway. We had to bear those losses on our own. Please find another way to get fresh water into the marsh. The Lake Borgne fishermen have suffered enough.

Sincerely,

A. J. S., Inc.
Mary T. Slavich,
Secretary/Treasurer

SDS/tss

CITY OF NEW ORLEANS

January 25, 1984

ERNEST N. MORIAL

MEMBERS

Colonel Robert C. Lee
New Orleans District, Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

ATTENTION: Planning Division
Environmental Quality Section

Dear Colonel Lee:

In reference to the Draft Environmental Impact Statement regarding Freshwater Diversion to Lake Pontchartrain Basin and Mississippi Sound (LANPD-P), I am enclosing minutes from the City Planning Commission meeting of January 18, 1984, considering the above-referenced project. Following a discussion of potential impacts and an overview of the scope and schedule of the project, the Commission adopted the posture as given in the minutes.

We appreciate your cooperation in this project and hope we can assist as it develops further.

Sincerely,

Robert W. Becker
Executive Director

RWB/gcv

Attachments

SEE NEXT PAGE

City Planning Commission · Robert W. Becker · Executive Director / 9th Floor - City Hall, Civic Center / New Orleans, La. 70112

Jesse S. Guillot

Law & Notarial Office

Telephone: (504) 522-7296

1521 Polymnia Street
New Orleans, Louisiana 70130

I am quite certain that we do not know, at this time, enough about the effects of the freshwater diversion on the seagrasses and the other plants and animals that use them as habitats. I suggest that a considerable amount of study be devoted to seagrass and the associated flora and fauna in Mississippi Sound before the proposed plan is put into effect.

I am also concerned about the change in salinity regimes in Mississippi Sound and the resulting effects on our tidal marshes. Additional study and some predictive method can be used to estimate the effect of changes in the salinity regimes on a variety of organisms. From this, perhaps, the effect on the flora and fauna of Mississippi's tidal marshes could be assessed.

The toxic chemicals in the waters of the Mississippi River are presently diluted in a much greater volume of water when they enter the Gulf of Mexico. What will be the effect on the organisms in the shallow, relatively confined waters of Mississippi Sound?

Further study on these aspects should be addressed by intensive research. Too much is at stake.

This letter was written on the authority given to me by the Director of the Gulf Coast Research Laboratory and should be considered an addendum to GCRL's previously issued statement.

Sincerely yours,

Lionel N. Eleuterius

Lionel N. Eleuterius, Ph.D.
Head, Botany Section

LNE:hg

cc: Dr. Harold Howse
Dennis Chew, Corps of Engineers

during the four spillway openings in the last decade (1973, 1975, 1979, 1983), no significant adverse water quality impacts have become apparent in the study area. Given the substantial dilution and dispersion that would occur before the river water enters Mississippi Sound, it is not likely that any water quality impacts will become obvious. In order to provide information concerning some of the potential impacts, extensive pre- and postconstruction monitoring programs are proposed including biological, water quality, and hydrological monitoring. These monitoring programs are mentioned throughout the report and the development and general design of the programs is discussed in Appendix ", Freshwater Diversion Structure Operation Criteria and Comprehensive Monitoring System. These programs will be developed with the assistance of experts in their respective fields. Seagrass beds have been selected as a significant resource within the study area and should be included in the overall monitoring program.

Gulf Coast Research Laboratory
EAST BEACH DRIVE
OCEAN SPRINGS MISSISSIPPI 39564
CONTROLLED BY THE BOARD OF TRUSTEES INSTITUTIONS OF HIGHER LEARNING STATE OF MISSISSIPPI
BOTANY SECTION

January 15, 1985

U.S. Army
Corps of Engineers
New Orleans District
New Orleans, LA 70160

Dear Sirs:

I have finally finished reviewing the Draft Environmental Impact Statement entitled, "Mississippi and Louisiana Estuarine Areas: Freshwater diversion to Lake Pontchartrain Basin and Mississippi Sound - Feasibility Study," dated October 1984.

Although the study is overwhelming in scope, but based on existing published data, I feel that the report points out the obvious lack of data in evaluating the effects of the proposed project. I am especially concerned about the effect of the proposed freshwater diversion on the seagrass communities in Mississippi Sound. We have some very reliable, unpublished data which indicates that reduced salinities in Mississippi Sound, resulting from opening the Bonnet Carré Spillway, may eventually eliminate these marine plants. Seagrasses are well adapted to water salinity at or very near full sea strength (35 ppt). Seagrasses apparently have a low tolerance to exposure to low salinity water or freshwater. The associated algal flora is also deleteriously affected and immediately killed when freshwater flows over the seagrass beds for a prolonged, although undetermined, period of time. The 360 animal species inhabiting seagrass beds, excluding fishes, in Mississippi Sound are also killed in a catastrophic matter. These statements are based on observations made at various times over the past 16 years when the Bonnet Carré Spillway was opened and closed.

15.1

I am also bothered about the fact that the quality of water found in Mississippi River is very poor. Many toxic chemicals are found in it, and I have fear that we do not know what permanent effects these chemical agents may have, not only on the biology of seagrasses, but the tidal marshes and the water quality of Mississippi Sound in general.

RESPONSE 15.1: It is acknowledged that diversion of large volumes of water through the Bonnet Carre' Spillway has exerted adverse impacts on seagrass communities and associated flora and fauna in Mississippi Sound. It should also be pointed out that in years when it becomes necessary to operate the spillway, there is generally heavy flooding on the Pearl and Pascagoula Rivers, as well as on other tributaries that provide freshwater input to Mississippi Sound. This freshwater input in conjunction with the spillway operation results in a prolonged freshening effect. The proposed plan would divert much less water and would be operated only in years when additional fresh water is needed to ameliorate the impact of excessive salinities in portions of the study area. Due to the large volume of high salinity water in areas where seagrass beds occur in Mississippi Sound, it is not anticipated that the proposed plan would significantly lower salinities in these areas. The deleterious effects related to spillway openings and flooding over the entire basin will occur periodically regardless of whether or not the *controlled diversions proposed by this project occur.*

With regard to potential water quality impacts related to the proposed diversion project, we have attempted to predict these as best as possible based on the current state of knowledge and available information. It is acknowledged that certain data gaps exist and it is particularly difficult to assess long-term, subtle effects. However,

WORLD'S BURGEONING HUMAN POPULATION ANY REDUCTION OF THE PRODUCTIVITY OF THOSE SYSTEMS IN UNTENDABLE.

I SUGGEST THAT "FRESHWATER DIVERSION TO LAKE PONTCHARTRAIN BASIN AND MISSISSIPPI SOUND" IS NOT A CORRECT DESCRIPTION OF THE PROPOSED PLAN. DIVERSION OF FRESHWATER FROM THOSE AREAS EXCEPT DURING EXTREMELY HIGH FLOWS WAS ACCOMPLISHED SOME 50 YEARS AGO WHEN THE MISSISSIPPI RIVER LEVEE SYSTEM WAS COMPLETED. THERE WAS LITTLE OR NO RECOGNITION OF, OR CONCERN FOR, POTENTIAL DAMAGE TO THE VERY ABUNDANT BUT NEVERTHELESS LIMITED FISH AND WILDLIFE RESOURCES IN THE SYSTEM. IN FACT, THE PROPOSED PLAN PROVIDES FOR CONTROLLED RESTORATION OF FRESHWATER FLOW TO THE DETERIORATING ESTUARINE AREA.

ADVERSE IMPACTS OF THE PLAN ARE NEGLIGIBLE AND LIMITED TO A SMALL AREA NEAR THE POINT OF FRESHWATER FLOW INTO THE SYSTEM. THERE HAS BEEN CONCERN ABOUT THE QUALITY OF MISSISSIPPI RIVER WATER. WE MUST ASSUME THAT ANY DELETERIOUS IMPACT FROM THAT SOURCE WILL BE ALLEVIATED AS THE NATION'S PROGRAM TO CLEAN UP POLLUTION PROGRESSES.

GULF COAST RESEARCH LABORATORY SUPPORTS THE PROPOSED PLAN AND URGES THAT IMPLEMENTATION PROCEED AS RAPIDLY AS FEASIBLE.

Public meeting statement [illegible] Christmas, Gulf Coast Research Laboratory.
Official statement of the Gulf Coast Research Laboratory, Ocean Springs, MS.

I NEED NOT REVIEW DETAILS OF THE TENTATIVELY SELECTED PLAN FOR FRESHWATER DIVERSION TO LAKE PONTCHARTRAIN BASIN AND MISSISSIPPI SOUND. THAT HAS BEEN ADEQUATELY AND WELL DONE IN THE CORPS' FEASIBILITY STUDY. THERE ARE SOME POINTS THAT NEED ADDED EMPHASIS.

THE STUDY AREA LIES IN ONE OF THE WORLD'S BIOLOGICALLY MOST PRODUCTIVE SYSTEMS. THOSE SYSTEMS WERE CREATED AND MAINTAINED BY GREAT RIVER SYSTEMS LIKE THE MISSISSIPPI AND THE AMAZON. THEIR CONTRIBUTION TO PRODUCTIVITY EXTENDS FAR OUT TO SEA WHERE THE ADULTS OF ESTUARINE DEPENDENT SPECIES SPAWN AND ARE HARVESTED. IN MANY CASES, THE ABUNDANCE OF SPECIES THAT ARE NOT CONSIDERED TO BE ESTUARINE DEPENDENT IS LARGELY DEPENDENT ON ESTUARINE DEPENDENT FOOD RESOURCES.

COMMENTS NOTED

CONSEQUENTLY, DETERIORATING ESTUARINE HABITAT, ABUNDANTLY DOCUMENTED FOR THE STUDY AREA, IS NOT ONLY A LOCAL BUT A NATIONAL AND GLOBAL PROBLEM. HIGHLY PRODUCTIVE MARINE AREAS ARE LIMITED TO A RELATIVELY VERY SMALL PART OF THE EARTH'S WATER SURFACE - SPECIFICALLY [illegible] OCCURS AND WHERE, LIKE THE STUDY AREA, [illegible] FLOW OF NUTRIENT BEARING FRESHWATER [illegible] THE [illegible] LANDS TO PROVIDE LAND BUILDING [illegible] AND [illegible] MODERATE SALINITIES. IN [illegible] LY TH[illegible]

heptachlor epoxide). The risk associated with the introduction of such industrial compounds is increased by the fact that such compounds can be bioconcentrated by some organisms and several are suspected or prover carcinogens.

The data presented in the Draft EIS for agricultural and industrial chemicals is limited and hence the ability to predict the effects of such contaminents on human health and other organisms is considered "beyond the state of the art." Given the complexity and potential severity of the problem, however, it is crucial that the already acknowledged data gaps be filled in.

(e) Trace Metals

14.10 As indicated in Table H-6-5 and H-6-6 (p. H-115 to H-122 of Appendix H), EPA freshwater criteria for 24-hour average concentrations as well as for instantaneous maximum concentrations are frequently exceeded by some, if not most, of the trace metals sampled. For example, on average four of the six trace metals sampled exceed the EPA freshwater criteria for 24-hour average concentrations at least 50% of the time (i.e., cadmium (75%); copper (89%); lead (57%); and zinc (41%); see table H-6-5, p. H-118 of Appendix H.) Comparable statistics for trace metal concentrations in relation to EPA freshwater criteria were apparently not available, but it is acknowledged in the EIS (p. 92-93) that the mean concentrations of the five trace metals samples were generally lower in Lake Pontchartrain than in the Mississippi River. Furthermore, only one trace metal, copper, was included in the subsequent analysis of expected impacts associated with the diversion project (see Appendix H).

In conclusion, numerous pollutants will be introduced into Lake Pontchartrain in significantly higher quantities as a result of the proposed diversion project. Although the Draft EIS, Main Report, and Technical Appendixes attempt to estimate the impact of such increases on biological productivity and human health, it is admitedly difficult if not impossible based on existing data. To fill in the data gaps, the Corps has proposed a monitoring program. We wholeheartedly support this effort to establish both a base condition (i.e., water quality, biological and hydrological conditions) and to assess already available data as well as the information 14.11 from the proposed monitoring programs so long as it is used to implement necessary corrective measures as required under the guidelines of the Louisiana Coastal Zone Management Program. Specifically, programs are available to the Corps as well as the State of Louisiana to reduce concentrations of potentially hazardous materials in the lower Mississippi River through strong enforcement of controls on industrial, agricultural and municipal contaminants from point and near-point sources. Any freshwater and sediment diversion project in our opinion must be coupled with effective enforcement of all such local, state and federal programs in a comprehensive effort to clean up the Mississippi River.

Yours very truly,

James T. B. Tripp
Counsel

David W. Hoskins
Science Associate

grp

RESPONSE 14.11: Comment noted

Mississippi River would then become an estuarine extension of the sea primarily for navigation purposes. This, in turn, would permit diversion of most, if not all, of the Mississippi's sediment and freshwater East or West (into the Barataria Basin or Breton Sound) at a point just North of the lock structure. The contribution of such a project to the creation of a new delta land mass is estimated to be on the order of twelve square miles per year.

3. Potential Impact of the Proposed Project on Lake Pontchartrain Water Quality

14.6 The Draft Main Report, Environmental Impact Statement and Technical Appendixes raise significant questions regarding the short- and long-term impact of the proposed project on the water quality and fishery resources of Lake Pontchartrain. The Mississippi River contains high levels of pollutants such as plant nutrients, bacteria, pesticides and trace metals which will be diverted under the proposed plan into the biologically rich waters of Lake Pontchartrain. Based on the data presented in these reports, we are therefore concerned about the potential impact of the following pollutants:

(a) Temperature Differentials

14.7 The temperature of the Mississippi River is approximately 6 to 10^{0} C cooler than the waters of Lake Pontchartrain. The change in water temperature at the outfall point could therefore be as much as 40 C.. The impact on the distribution and species composition of fish in Lake Pontchartrain although uncertain is potentially significant.

(b) Nutrients

14.8 The proposed diversion project would add on average 10,000 tons of nitrite plus nitrate and 2,000 tons of total Phosphorous to Lake Pontchartrain each year. The Environmental Impact Statement (p. 88) in its assessment of the associated impacts on water quality concludes that "the ability of the lake to process the additional nutrient load is uncertain" and furthermore "the increased nutrients could aggravate the eutrophication problems already being experienced in some areas on the fringes of the lake."

(c) Bacteria

14.9 Fecal coliform counts in the Mississippi River in the vicinity of the Bonnet Carre Site average 550 MPN/100 ML as compared to 5 MPN/100 ML in Lake Pontchartrain. Reductions in fecal coliform counts due to dilution, natural die off and predation. it is hypothesized, would permit compliance with shellfish harvest standards within ten miles of the outfall point. The impact, however, of this large increase in bacteria within Lake Pontchartrain on other uses such as swimming, fishing and drinking water received little or no attention in the Draft EIS.

(d) Agriculture and Individual Chemicals

14.10 The proposed project is expected to increase both the array and concentrations of pesticides and other organics in Lake Pontchartrain. Such pollutants have already been detected in fish tissue at concentrations in excess of FDA action levels (i.e., total PCB's, dieldrin, and

RESPONSE 14.7: See Response 21.3

RESPONSE 14.8: The effects of nutrients on the ecology of Lake Pontchartrain would be closely monitored as part of the comprehensive monitoring system proposed for the project.

RESPONSE 14.9: See response 9.1. No impacts on swimming, fishing, and drinking water are anticipated. Drainage canals in the New Orleans metropolitan area and tributary streams entering the lake are the sources of the high coliform counts that cause swimming on the lake to be prohibited.

RESPONSE 14.10: The organics and pesticide concentrations would be closely monitored as part of the comprehensive monitoring system proposed for the project. Data collected from the monitoring system would dictate structure operation.

most of these measures are currently being implemented to the "maximum practicable extent" and therefore presumably do not merit expenditure of additional time, money, or effort. A more substantive analysis of the respective roles of the
14.2 measures under consideration, in our opinion, would undoubtedly prove this conclusion false. Rather, it is clear that implementation of a successful coastal zone restoration and protection program rests on the expanded use of each of these measures. We strongly urge the Corps to reconsider their position on this crucial issue.

One example of the Corps' failure to accurately assess the adequacy of an existing plan is found in the Draft Main Report's evaluation of existing regulatory programs to control alteration of wetlands. The Report suggests that the
14.3 mere existance of a network of regulatory programs will insure adequate protection and hence provide "moderate contributions to most of the planning objectives." This is clearly not the case as is evidenced by the current and accelerating rate of "regulated" wetland loss in both the Lower Mississippi River Valley and the Louisiana Coastal Zone. Existence of one or even several regulatory programs obviously does not guarantee adequate implementation, enforcement and protection.

In this context, we urge the Corps to apply the Clean Water Act Section 404 permit process more stringently to dredge and fill activities in the coastal zone normally associated with navigation, oil and gas exploration and development and forced drainage. Furthermore, the Corps should conduct a comprehensive
14.4 review of the compatability of their other projects in the region with both the goals identified in the Draft Main Report/Environmental Impact Study and of the 404 Permit Program. Specifically, the Corps' navigation, forced drainage, and other civil works projects in the Louisiana Coastal Zone that contribute to wetland loss are inconsistent with virtually all of the proposed measures identified here, including freshwater diversion.

2. Evaluation of Freshwater Diversion Sites

The quantitative analysis of benefit-cost ratios rests in large part on the expected increase in oyster production following the introduction of large volumes of freshwater. As a result, freshwater diversion plans which alter salinity regimes as opposed to those which introduce sediment to restore and create new wetland
14.5 habitat are at a distinct advantage in the site evaluation process. The net impact of the proposed project on total marsh acerage is therefore relatively small, e.g., an estimated 4,186 more acres of marsh would occur in 2040 than without the project. Our calculations indicate that this savings will decrease marsh land loss only slightly from 28.5% without the project to 27.2% with the project during the period 1978 to 2040.

We recognize the desperate need for freshwater diversion projects which meet both objectives and therefore we urge the Corps to modify this project or complement it with others designed to introduce sediment as well as freshwater. In this con-
14.6 text, if this and other similar projects are successful, we would support the Corps in an effort to evaluate the merits of a substantially larger and hence potentially more beneficial comprehensive delta building program. In brief, this would entail a separation of the Mississippi's navigation and delta building functions via the construction of a lock in St. Bernard or Plaquemines Parish. The lower tip of the

RESPONSE 14.5: Comment noted

RESPONSE 14.6: Comment noted

. . . /

occuring at an estimated rate of 50 square miles per year. Moreover, the Draft Main Report for the Mississippi and Louisiana Estuarine Areas Freshwater Diversion Lake Pontchartrain Basin Feasibility Study concluded that without the proposed project, reductions in fresh, intermediate and saline marsh as well as in wooded swamp and bottomland hardwoods in the study area alone would total 146,058 acres between the year 1990 and 2040. This is equivalent to an annual rate of land loss of 3.5 square miles. Given the inherently high productivity of the Louisiana coastal wetlands, it is clear that such losses can only lead to significant adverse impact on the region's wildlife, fisheries, and, in turn, the local economy.

The causes of the land loss observed in recent decades in the Louisiana coastal zone are complex and interrelated. Natural causes include land subsidence and erosion of abandoned deltas, while other impacts are directly attributable to human activities. These activities specifically include: (1) construction of canals and channels for navigation, forced drainage, and oil and gas exploration; (2) leveeing and jetting of the Mississippi River and its tributaries; and (3) land reclamation. The cumulative effect of such man-related activities is now recognized by the scientific community as a dominant factor leading to the observed land loss. (Craig, 1979)

The proposed diversion project, in this context, is a well intentioned and desperately needed effort to restore the productivity and enhance the natural resources of one portion of the Louisiana Coastal Zone. We therefore strongly support the overall concept and underlying intent of the Corps' feasibility study as an initial step in the right direction.

We have several reservations, however, about three major facets of the Draft Main Report, Draft EIS and Technical Appendixes, including (1) the scope and interpretation of the alternative analysis; (2) the criteria used in evaluating various freshwater diversion sites; and (3) the potential impact of the proposed project on Lake Pontchartrain water quality.

1. Scope and Interpretation of the Alternative Analysis Process

The Draft Main Report initially identified a total of sixteen alternative conceptual plans which included measures to (1) divert fresh water; (2) construct saltwater barriers; (3) fill open water areas with dredged material; (4) regulate alteration of wetlands; (5) establish sanctuaries; and (6) manage fish and wildlife. With the exception of freshwater diversion, each of these measures was eliminated based on subsequent analysis.

14.1 First, we strongly urge the Corps to reevaluate their underlying assumption that conceptual plans containing such diverse measures are alternatives. Instead, we view each of these measures as an important component in a comprehensive effort to preserve the invaluable and rapidly diminishing natural resources of the Louisiana Coastal Zone. Given the complexity and urgency surrounding this issue, it is imperative that each of these measures be employed in concert rather than, as the Corps' analysis suggests, they be viewed as mutually exclusive.

14.2 Second, even if arguendo we accept the Corps' position that these are appropriate plans for inclusion in the alternative analysis process, we strongly disagree with the major finding of their analysis. In brief, the Corps asserts that

. . . /

RESPONSES 14.1, 14.2, 14.3 and 14.4: Our analysis of measures such as filling open water areas with dredged material, regulating alteration of wetlands, establishing sanctuaries, and managing fish and wildlife indicate that most of the programs are in place to be efficiently implemented. In recent years, requirements under these programs have been more stringently enforced. We currently are developing plans to build marsh with dredged material under the Louisiana Coastal Area study. We are building marsh with dredged material to a limited extent along the Mississippi River-Gulf Outlet. The freshwater diversion plan is intended and has been designed to operate in concert with existing management programs.

ENVIRONMENTAL DEFENSE FUND

January 13, 1984

Colonel Robert C. Lee
District Engineer
U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160

RE: Lake Pontchartrain Basin Freshwater Diversion Project

Dear Colonel Lee:

We have received the Draft Main Report, Draft Environmental Impact Statement, and the Technical Appendixes for the Mississippi and Louisiana Estuarine Areas Freshwater Diversion to Lake Pontchartrain Basin and Mississippi Sound Feasibility Study. We will present some general remarks followed by more specific comments on the proposed diversion project.

The Louisiana Coastal Zone is a very productive and diverse region which contains extensive coastal marshes, wooded swamps, bottomland hardwood forests and barrier islands. The coastal marshes provide valuable habitat for commercially important furbearers, alligators, endangered species, numerous nongame species, and large populations of wintering waterfowl. These areas also serve as a vital spawning and nursery ground for many sport marine or estuarine dependent fish species including spotted and sand seatrout, Atlantic croaker, king and Spanish mackerel, blue fish, greater amber jack, red drum, and black drum. The impact of these and other fishery resources found in the Louisiana Coastal Zone on the regional economy is substantial. Annual average harvest of estuarine dependent fisheries during the period 1973-1978 was 387 million pounds valued at approximately 100 million dollars. In addition, the bottomland hardwood forests and wooded swamps in and around the coastal zone provide important habitat for many wetland wildlife species including furbearers such as nutria, muskrat, mink, and raccoon as well as white-tailed deer, squirrels, and waterfowl.

The extent and productivity of the Louisiana Coastal Zone, however, in recent decades has experienced a dramatic decline. Recent analyses by the U.S. Fish and Wildlife Service and Coastal Environments indicate that land loss in the region is

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ENVIRONMENTAL DEFENSE FUND

December 22, 1983

Colonel Robert C. Lee
District Engineer
Department of the Army
New Orleans District
Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: The Tentatively Selected Plan
for Freshwater Diversion of Lake
Pontchartrain Basin and Mississippi Sound

Dear Colonel Lee:

13.1 We have received a copy of Oliver Houck's letter to you of December 15, 1983 regarding the above project. We concur in his overall comments and his remarks about the distinction between "enhancement" and "mitigation".

13.2 As we have pointed out to the Corps of Engineers New Orleans District on numerous occasions, and as you well know, the Corps of Engineers flood control, navigation and forced drainage civil works projects (quite aside from its regulatory program) have had significant secondary effects in terms of land loss, including salt water intrusion, which the Corps never appreciated when those projects were conceived. Increasing salinity in the Lake Pontchartrain Basin is one of those consequences.

As we have also stressed on many occasions, the Louisiana coastal zone is a national resource. It is the vast deltaic expanse of the country's largest river. Since national navigation, flood control and energy programs are largely responsible for its ongoing collapse, we consider land loss abatement programs in the Louisiana coastal zone to be a national responsibility.

Yours very truly,

James T.B. Tripp
Counsel

JTBT/la

cc: Oliver Houck

RESPONSE 13.1: See Response 6.2

RESPONSE 13.2: Comments noted

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describe potential negative effects in order to assist those who will be affected directly, in making decisions relative to the freshwater diversion project.

RESPONSES 12.6 and 12.7: See Response 6.2.

RESPONSE 12.8: No fishermen would lose their livelihood from the freshwater diversion project. Because of the nutrients added to the system and the creation of favorable salinities, the productivity of oysters, white shrimp, blue crab, croaker, catfish, and menhaden is expected to significantly increase.

Movements of fish and wildlife would be monitored as part of our comprehensive monitoring system. The system would guide structure operation and assess the effects of the diverted freshwater on fish and wildlife populations. Biological, hydrological, and water quality data would be collected from a network of sampling stations set up throughout the study area.

menhaden and other commercial species cannot be compromised. The Corps should be prepared to work with local and state governments, and the public, to utilize every means at our disposal to improve water quality, and protect against accidental contamination of the Mississippi River.

12.4

The EIS proposes an extensive monitoring program. Consideration should be given to monitoring stations upstream of the water intake in the Mississippi River. Rapid response provisions should be available in the event of a spill, etc. in the river, to permit closure or other protection from contamination. Overall management provisions flowing from this project should address themselves to improvement of river water quality both for the sake of the remaining natural ecosystem and for the thousands of persons depending on the Mississippi as a source of drinking water.

12.5

The project was autorized in 1976 by the Committee on Public Works and Transportation of the House of Representatives. The specific intent was to provide "freshwater into Lakes Maurepas, Pontchartrain, Borgne and Mississippi Sound areas in the interest of improving the wildlife and fisheries of this area."

Since environmental conditions in these areas have changed significantly over the years in response to saltwater intrusion, the project should be considered as a mitigative or restorational project, rather than a wildlife enhancement effort. Among the objectives cited in the EIS are efforts to restore habitats and/or conditions. Restoring areas or mitigating damages resulting from such Federal projects as the Mississippi River Levee system (1911) and the Mississippi River Gulf Outlet (1956) fall under provisions of the Fish and Wildlife Coordination Act which provides for 100% Federal funding of such projects.

12.6

The EIS proposes a 75:25 financing arrangement which would require approximately $14 million from non-Federal sources. However, local governments cannot be held accountable for the damage done by previous projects; they cannot be expected to bear the cost. If any non-Federal share is ultimately required, it will have to be borne by the State or any other entity responsible for the negative environmental impacts. Local governments will be willing to offer whatever cooperation may be necessary to ensure an effective project.

12.7

Fishermen who make their livng from lake Pontchartain's resources fear a loss in livelihood from such a change in salinity regime. Perhaps the benefit to the overall system outweighs this potential impact. But if there should be a long-term measurable adverse impact upon the fishing community, the project should provide for reasonable mitigation of demonstrable losses and expenses.

12.8

On the whole, the proposed project appears to the City Planning Commission to have more benefits than detriments. However, the Environmental Impact Statement should more clearly

would be diverted into the Mississippi River during flood conditions. The freshwater diversion project would not be operated at that time. The proposed freshwater diversion project is designed to be operated during relatively dry years in the basin to supplement rainfall.

The proposed reservoir on the Amite River would not be designed to hold flood flows over a long period of time. After a major flood on the Amite River, the reservoir would be emptied down to conservation pool levels within several months in order to provide flood control storage for subsequent floods and to minimize environmental damages. The major releases of water would probably occur during relatively wet years when no fresh water would be diverted.

RESPONSE 12.3: Cumulative impacts of proposed projects in the coastal zone are considered as part of the analysis required by the Corps permit regulatory program.

RESPONSE 12.4. The water quality analyses presented in Appendix H take into consideration the water quality of the Mississippi River at low flow. The Corps works with local and state governments to improve water quality and conditions in the study area.

RESPONSE 12.5: A monitoring station upstream of the freshwater diversion structure is part of the comprehensive monitoring system (see plate K-1, Volume 3, Appendix K). In addition to the proposed monitoring station upstream of the structure, data collected at existing sampling stations at Lutcher, Union, and St. Francisville, Louisiana, would be used to the maximum extent practicable. The freshwater diversion structure would be four 20- x 20-foot box culverts with electronically operated vertical lift gates. These gates can be closed electronically or by hand to prevent contamination of Lake Pontchartrain in the event of a chemical spill on the Mississippi River.

MISSISSIPPI AND LOUISIANA ESTUARINE AREAS
FRESHWATER DIVERSION FEASIBILITY STUDY

Comments on Draft Environmental Impact Statement to the U.S. Army Corps of Engineers by the City Planning Commission, City of New Orleans

12.1 The proposed site for the Tentatively Selected Plan for freshwater diversion to Lake Pontchartrain Basin and Mississippi Sound appears to address the needs of the basin, on an environmental basis. However it would be more reassuring if the Corps of Engineers could, with a high level of confidence, predict the scenarios in the affected environments. That is, if shrimping or fishing will decline in some areas, will they be expected to improve elsewhere? There would be more room for support if we were given a fairly reliable outline of future conditions, along with timetable of expected impacts.

12.2 The effect of this project must be coordinated with other plans for the basin. For instance, if a portion of the Amite River's flow is diverted to the Mississippi, then we may anticipate little net effect from this project; there will be more of a maintenance of the status quo. One might question whether or not the damming of the Amite could provide a source of freshwater that could be metered out as needed to the distributary below it, either in lieu of or in coordination with the proposed project.

12.3 A scientific look at southern Louisiana in the next half century shows that, without a number of projects such as this one, open waters of the Gulf will be dangerously close to the New Orleans Metropolitan area. Even if the landbuilding effects of the project are minimized, the decrease in salinity will result in a return of the types of aquatic plants known to hold soil from erosion much better than can soil in transition to salt marsh. Increased siphoning of freshwater along the lower Mississippi, through such projects as this one, can be expected to prolong the life of our disappearing wetlands. The Environmental Impact Statement describes scenarios from 1990 to 20[illegible], which, without such mitigative projects are bleak. As it has been [illegible] in managing wetland activities, however, the [illegible] consider the cumulative impacts of several [illegible] and thousands of small-scale [illegible] manner, in an attempt to prohibit the environmental impacts [illegible] predicted.

12.4 Water quality in the Mississippi River, feeding this area, particularly during low water periods must be taken into account. If the St. Charles Marsh is to be the initial recipient of this water, then its viability [illegible] critical nursery ground for

RESPONSE 12.1: The Corps of Engineers is confident that, overall, the project would be beneficial to fish and wildlife. The project would mimic salinity conditions that existed when the Mississippi River overflowed its banks. Most fish and wildlife biologists and resource experts agree that diverting fresh water into the estuarine areas generally benefits fish and wildlife. This opinion is based on past experiences with Bonnet Carre' Spillway openings and with the four freshwater diversion structures located along the lower Mississippi River in Plaquemines Parish. Two to three years after each spillway opening, fish and wildlife productivity increased significantly. As a result of the four Plaquemines Parish diversion structures, oyster production has doubled in some locations. No serious impacts are expected on the brown shrimp fishery. During periods of peak diversion, the brown shrimp may be displaced eastward. The brown shrimp would benefit from the nutrients added to the system in the fresh water in subsequent years. Diversion of fresh water into the Lake Pontchartrain Basin would increase productivity of oysters, white shrimp, blue crab, croaker, catfish, and menhaden.

RESPONSE 12.2: The plans being considered to divert water to the Mississippi River from the Comite River, a tributary of the Amite River, would have no effect on the freshwater diversion plan. The proposed diversion of the flood flows from the Comite River to the Mississippi River would occur during flood [illegible] Amite River [illegible] tributaries. The diversion would be [illegible] River flood flows enter [illegible] Lakes [illegible] the flood flows from the Comite would [illegible] fact, [illegible] Pontchartrain [illegible] tributary [illegible] in the [illegible] proposed Comite River diversion [illegible]

[illegible]

My clients want to be placed on notice of their opposition to the announcement of plans for fresh water diversion to Lake Ponchartrain Basin and the Mississippi River Sound.

16.1 If the Corp of Engineers deprives my clients of their property, what compensation will the Government offer for the deprivation of same. To do otherwise would be expropriation of properties owned by my clients without just compensat' n.

Very truly yours,

Jesse S. Guillot

JESSE S. GUILLOT

JSG/ch

cc: Peter J. Tesvich,
Pean Oyster Company
Ann Tesvich
Judi Tesvich
Lisa Tesvich
File Tesvich

League of Women Voters of Louisiana

850 North 5th Street • Apt. 103 • Baton Rouge, Louisiana 70802 • (504) 344-3326

December 13, 1983

To: Colonel Robert C. Lee, District Engineer
New Orleans District, Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

Attention: Planning Division
Regional Planning Branch

From: League of Women Voters of Louisiana
Bette Bornside, President Charlotte Fremaux, Natural Resources Chair
League of Women Voters of Jefferson Parish
League of Women Voters of New Orleans
League of Women Voters of St. Tammany Parish, involved local Leagues

Re: Public Meeting to Discuss the Tentatively Selected Plan for Fresh Water Diversion to Lake Pontchartrain Basin and Mississippi Sound
University Center- Room 211 A and B
University of New Orleans,
New Orleans, La.

The following statement represents the opinions, concerns and questions of the League of Women Voters of Louisiana and, more particularly, of those local Leagues in the project area, the League of Women Voters of Jefferson Parish, the League of Women Voters of New Orleans and the League of Women Voters of St. Tammany Parish.

We appreciate this opportunity to review the three volumes of the Fresh Water Diversion: Feasibility Study which present an abundance of technical details as well as a review of existing or planned projects affecting the area.

The League of Women Voters has supported protection of Louisiana's endangered coastal habitats for many years. Numerous studies by state and federal agencies, public and private institutions, foundations and civic and environmental groups have served as a basis for intelligent preservation, conservation and restoration of vulnerable, resource-rich coastal wetlands. Included in many are recommendations for introduction of fresh water as a viable means of reducing saltwater intrusion and improving degrading marshes.

The League of Women Voters supports the plan developed by joint efforts of the Corps of Engineers, the U.S. Fish and Wildlife Service, the Louisiana Department of Wildlife and Fisheries, the Mississippi Bureau of Marine Resources, Gulf Coast Research Laboratory and the National Marine Fisheries Service. This plan, developed in the Draft Main Report and Appendices, proposes to reduce saltwater intrusion and create a more favorable estaurine environment for oyster production, to reduce coastal wetlands loss and to enhance recreational activities.

Certain questions have been raised in the course of review. They are concerned with the following aspects of the plan:

17.1 Water Quality: Projected use of the Mississippi River, the fresh water source, indicates that increased traffic, barge-fleeting, population growth, discharge permitting, etc. will continue to degrade existing water quality. Will the State of Louisiana and the various Federal agencies set up adequate and responsible measures to reduce pollution?

RESPONSE 17.1: It is noted that the Louisiana Stream Control Commission has expanded its compliance monitoring program for Mississippi River dischargers. Mississippi River water quality should continue to improve provided regulatory policies are not relaxed.

RESPONSE 17.2: The interagency committee will thoroughly review existing data availability, and identify data gaps in the process of developing suitable pre- and postconstruction water quality monitoring programs. Additional water quality data would be gathered to fill data gaps identified.

League of Women Voters of Louisiana

856 North 4th Street • Apt. 103 • Baton Rouge, Louisiana 70802 • (504) 344-3326

December 13, 1983

Public Meeting: Re Fresh Water Diversion; Corps of Engineers Feasibility Study

172 Water Quality Data Are monitoring and data gathering capabilities adquate for the three proposed phases? Will existing data and information be able to be cover certain present gaps?

173 Water Quality Standards What water quality criteria and standards will prevail? State or federal?

174 Enforcement Water quality in both the Mississippi River and the receiving area must be protected by continued enforcement of regulations and the denial of variances which delay compliance. Will pressures make this impossible?

Monitoring Program of the Project Since the diversion plan will cover a span of a number of years and since a number of agencies will be involved the question of final authority for operation, financing, maintaining is raised. Will this be addressed in the future?

175 Guidelines Will guidelines for the project be developed as the next step? Will these include existing criteria for pollution control? Is any pertinent data available from the present fresh water diversion structures, especially that having to do with heavy metal contamination?

The League of Women Voters commends the initiative by the Corps and cooperating agencies in addressing the problem of wetland loss and degradation with its accompanying reduction of biological productivity. This project represents only one kind of effort that is essential to reversing the environmental difficulties of Louisiana's marshlands. Other activities of paramount importance include reduction in canal dredging, mitigation of damage, back-filling, denial of permits which encourage building in fragile areas, etc. By concerted and appropriate management activities the future of our renewable resources may be assured.

Thank you for your consideration.

Charlotte Fremaux, Natural Resources Chair

RESPONSE 17.3: Water quality data will be compared with both State of Louisiana and US Environmental Protection Agency criteria. These comparisons will be an important aspect of the analyses of background and with-project water quality and ecosystem responses, and will be instrumental in the development of optimal operating procedures for the diversion structure.

RESPONSE 17.4: It is presumed that those agencies responsible for enforcing Federal and state water quality regulations will continue to do so under prevailing government policies.

RESPONSE 17.5: The Corps of Engineers will take the leadership role in implementing the comprehensive monitoring system. As part of the operation of the project, the States of Louisiana and Mississippi would be required to establish a two-state interagency advisory group to participate in governing structure operation. This group should include local, parish, state, and Federal people who have expert knowledge of the multiple needs of fish and wildlife resources. In addition, people would be included in the group to represent sport and commercial fish and wildlife interests. The states must maintain a comprehensive monitoring system to collect hydrological, water quality, and biological data essential for determining the best use of diverted water. The comprehensive monitoring system will guide structure operation.

The comprehensive monitoring program would be designed in detail in the next phase. Existing criteria for pollution control will be used to monitor chemical concentrations. Very little water quality data is available from existing freshwater diversion structures.

The State of Louisiana, by letter dated January 26, 1984, and the State of Mississippi, by letter dated February 29, 1984, have given assurances that they will provide the required non-Federal funding ($14 million) and, at the appropriate time, provide the necessary local cooperation. About 80 percent of the benefits attributable to the project would be realized in Louisiana. The non-Federal share of the required funding was distributed on the basis of benefits realized in the states. Louisiana's share is $11 million.

Louisiana Oyster Dealers & Growers Assn.

6851 Louisville Street NEW ORLEANS, LA 70124

January 2, 1984

Col. Robert L. Lee
Department of the Army
Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

Attn: Planning Division
Regional Planning Branch

Re: Tentatively selected plan
for freshwater diversion to
Lake Pontchartrain Basin and
Mississippi Sound

Dear Sir:

We commend the Corps for undertaking a project such as this. It is not often that small industries are given an opportunity for improvement. We wholeheartedly support the project. We understand that one of the purposes of the project is to lower salinity in order to make some 12,000 acres of public seed ground and some [illegible] acres of privately leased grounds productive once more. We have read that the hope is to increase oyster production in Louisiana by six million pounds. This would be great. While we offer our support we also would like to make the Corps aware of some other aspects if it is not already.

The six million pounds of additional production is considered very optimistic. Also as a result of subsidence and salt water intrusion, some fishermen were forced to leave areas they formerly worked and found new areas in Lake Borgne that would support their operations. Our understanding is that there are some 10,000 acres now under lease in this area. The fact sheet issued on June 22, 1983 discusses adverse impacts to species which could or would not be in the impacted area when the water would be diverted. The oysters in Lake Borgne area cannot move of their own accord so therefore the diverted water could have an adverse impact [illegible]. The lease holders in these areas have an investment, because they have planted a crop for future harvest. The questions raised here are as follows:

This area is now optimum for raising oysters without the Bonne Carre Spillway. If the areas outside of these are to be made optimum then it follows that these Lake Borgne areas must become unfavorable. The oysters could die because of low salinity.

L-49

18.1 If this does occur, has this loss been included in the overall benefits/cost ratio? Will someone representing these leaseholders be a part of the body making management decisions regarding timing of openings, flow rate, and length of openings? Will these leaseholders be compensated for their loss if indeed it does occur? Has a mechanism been built into the plan to monitor this situation?

We know that some of these people will also have an opportunity to benefit from the overall project. This does not belie the fact that they have moved into this area and not by choice, but because of necessity they were forced to start over on new grounds in order to stay in business. Establishing a new rearing area is not without expense. The oyster industry is not like other fishing endeavors where one secures a vessel, proper equipment and gathers a ready marketable crop. In order to be successful in our business, one depends on natural abundance but more so on planting culch and seed and waiting and protecting this crop through all sorts of changing conditions for the duration of one to four years before reaping a mature harvest.

18.2 If these leases are to be sacrificed, will these leaseholders be compensated?

We thank you for the opportunity to voice our opinion in this matter. If we can be of any further assistance please feel free to contact us.

Sincerely,

Ralph V. Pausina, President

rvp:mmv

RESPONSE 18.1 and 18.2: See Response 11.1

NATIONAL WILDLIFE FEDERATION

1412 Sixteenth Street N.W. Washington D.C. 20036 202—797-6800

January 6, 1984

Colonel Robert C. Lee
District Engineer
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

Dear Sir:

Please include these comments for the record on the Public Hearings and the Draft Feasibility Study/Environmental Impact Statement for the proposed freshwater diversion to Lake Pontchartrain Basin and Mississippi Sound, dated October 1983. The National Wildlife Federation is the world's largest non-profit organization with nearly four million members and supporters.

The tentatively selected plan is designed to partly ameliorate loss of wetland habitat and saltwater intrusion by periodic introduction of fresh water and associated sediments and nutrients into Lake Pontchartrain. The plan includes a control structure near the existing Bonnet Carre Spillway, a 950-foot long inflow channel, a 6-mile long outflow channel, and other features (p. 58). The facilities are designed to divert the maximum supplemental flows, primarily during March to June, during a 50-percent drought condition; that is, one year out of two (p. 59). The first cost is estimated at $55 million (p. 57) and annual operation and maintenance costs are estimated at less than one million dollars (p. 65).

The freshwater diversion plan would restore historic salinity and thus improve the fish and wildlife habitat at the site. The study report estimates that oyster production would increase by 7.5 million tons per year (p. 55). Excavation of the channels and structures will require 618 acres of wooded swamp, 1,074 acres of developed lands, and [illegible] acres of scrub shrub (p. 64). The report [illegible] that the selected plan would result in saving [illegible] acres of wetlands that would be lost over the next [illegible] years with no action.

The National Wildlife Federation endorses the tentatively selected plan. It [illegible] periodic flooding of the Mississippi River [illegible] before flood protection levees and navigation channel improvements were built. However, [illegible]

important that a preconstruction and postconstruction monitoring plan for both vegetation and habitat be carefully designed. The responsibility for operating and monitoring the diversion structure should be assigned concurrently with preparation of the final report.

The National Wildlife Federation finds that the plan meets the "net benefits test" of the Principles and Standards. The economic (NED) benefits displayed in the report are a small portion of the benefits of the plan. Only commercial fishing and recreation benefits, $0.1 million and $.6 million annualized, respectively, have been quantified. Many nonmonetary benefits will result from project implementation (p. 63). As the report states, they include improved habitat for nongame and noncommercial species, improved productivity of wooded swamps, and increased plant species diversity. Land losses would be reduced. Commercial and noncommercial trapping might be increased.

19.1 We find it difficult to verify the claimed commercial fishing benefits. The final report EIS should describe and display the derivation and calculation of the expected benefits to oyster production. Confidence intervals should be placed on the estimation of the expected increase in oyster production and any uncertainties concerning the estimates described in Section IX of the National Economic Development (NED) Procedures should be followed and displayed (Table 2.9.11). It is not clear from the draft report whether increases in harvesting costs as a result of the plan have been calculated and evaluated. Also, if oyster production is expected to double as a result of the plan, how are prices expected to change?

19.2 The draft report suggests that $14.1 million of the first costs of $55.6 million be shared by non-Federal entities (pp. 64-5). The rationale for the cost-sharing apportionment is that the primary function of the plan is fish and wildlife enhancement, traditionally cost-shared on a 75 percent Federal and 25 percent non-Federal basis. NWF strongly supports the principle of cost-sharing but we ask that you reconsider the cost-sharing rationale for this proposed plan.

19.3 In 1982, NWF resolved to support the diversion of freshwater from the Mississippi River to help maintain and nourish coastal marshes. (Resolution attached). It was further resolved that "land loss abatement measures be financed through equitable payments from those who have benefited and will benefit from the physical alterations which precipitate the wetland loss problem."

Response 19.1: A section has been added to the Main Report on [illegible] Benefit Calculations. [illegible] for computing expected benefits [illegible] oyster production [illegible] in Volume [illegible] of the feasibility report, Appendix [illegible]. The associated [illegible] analysis is contained [illegible] of the feasibility report, Ap[illegible].

Responses 19.2, 19.3 [illegible] 19.4: See Response [illegible].

19.3 It could be argued that the purpose of the proposed plan is not fish and wildlife enhancement, but rather mitigation for human development activities including leveeing, channelization, and petroleum exploration. The primary reason that the Mississippi seldom provides freshwater to the Lake Pontchartrain Basin is that levees and navigation works have been constructed to prevent flooding and stabilize the Mississippi River Channel. These expensive measures have not been cost-shared, therefore, is it consistent to require cost-sharing of the mitigation? The waters and marshes were much less saline when the Mississippi was allowed to flood periodically. Oysters were plentiful at that time.

19.4 It is the responsibility of the U.S. Army Corps of Engineers to render a professional judgement as to what portions of the tentatively selected plan constitute mitigation and what portions constitute enhancement. A discussion of this issue, along with conclusions, should be included in the final report. The report does state that, "[T]he problems in the study area began when the Mississippi River was leveed and not allowed to migrate back and forth across what is now southeast Louisiana." (p. 30). The description of the problems in the report, the primary purposes of the TSP, and the cost-sharing recommendations should be integrated into the discussion.

We commend the preparers of the study for their careful formulation and analysis of alternative plans. The study was integrated well with the Louisiana Coastal Area Study and other studies in the region. The Corps of Engineers also cooperated with other Federal agencies, State and local bodies, and private industries and individuals in the preparation of the report.

Thank you for your consideration of these views.

Sincerely,

David C. Campbell, Ph.D.
Resource Economist
Water Resources Program

cc: Ronnie Sonnier, President
Lousiana Wildlife Federation

Randy Lanctot, Exec. Director
Lousiana Wildlife Federation

Dr. Greer Ricketson, Regional Director
Lousiana Wildlife Federation

NATIONAL WILDLIFE FEDERATION
1412 Sixteenth Street, N.W., Washington, D.C. 20036 202—797-6800

Resolution No. 10

ABATING LOUISIANA COASTAL WETLAND LOSS

WHEREAS, the coastal wetlands of the state of Louisiana are a nationally important resource, they support 25 percent of the total U.S. commercial fisheries harvest, they provide wintering habitat for more than two-thirds of the migratory waterfowl in the Mississippi Flyway, and they support a commercial fur harvest worth more than $16 million per year; and

WHEREAS, due to a variety of causes, the coastal wetlands of Louisiana are disappearing at an alarming rate of over 45 square miles per year; and

WHEREAS, the combined influence of man-made levees on the Mississippi River which prevent the influx of fresh water, silt, and nutrients into the coastal wetland system, and the dredging of canals primarily for navigation and the development of oil and gas resources throughout the Louisiana coastal zone greatly accelerate saltwater intrusion and wetland deterioration; and

WHEREAS, diversion of freshwater from the Mississippi River into the adjacent wetlands as proposed by the U.S. Army Corps of Engineers and the state of Louisiana would cause the growth of sub-deltas, combat saltwater intrusion and create conditions more favorable to the growth of fresh and intermediate marshes; and

WHEREAS, non-structural stabilization of offshore islands will help maintain the salinity balance of nearshore estuaries without disrupting the natural littoral drift from one island to the next; and

WHEREAS, the the state of Louisiana has passed legislation and appropriated funds for a program to reduce the loss of coastal wetlands and control saltwater intrusion;

NOW, THEREFORE, BE IT RESOLVED that the National Wildlife Federation, in annual meeting assembled March 18-21, 1982, in Milwaukee, Wisconsin, strongly supports the diversion of freshwater from the Mississippi River to help maintain and nourish coastal marshes; and

BE IT FURTHER RESOLVED that NWF strongly supports non-structural alternatives for stabilizing offshore barrier islands to retard saltwater intrusion. Structural alternatives for island and wetland protection are acceptable where clearly demonstrated threats to wildlife and fish habitat exists; and

BE IT FURTHER RESOLVED that these land loss abatement measures be financed through equitable payments from those who have benefitted and will benefit from the physical alterations which precipitated the wetland loss problem. Specifically, the National Wildlife Federation supports the

COMMENTS NOTED

financing of freshwater diversions with navigation user fees on the Mississippi River, and with appropriate federal cost-sharing as an integral mitigation feature of the ongoing Mississippi River and Tributaries Project, and the financing of state wetlands loss abatement measures with state revenues derived from oil and gas production as well as other available state revenue sources.

OFFICERS

MEMBERSHIP

REGIONAL PLANNING COMMISSION
JEFFERSON · ORLEANS
ST BERNARD · ST TAMMANY
PARISHES

December 30, 1983

Col. Robert C. Lee
New Orleans District, Corps of Engineers
P.O. Box 60267
New Orleans, LA. 70160

Att.: Planning Division
Environmental Quality Section

Dear Col. Lee:

In reference to the Draft Environmental Impact Statement regarding Freshwater Diversion to Lake Pontchartrain Basin and Mississippi Sound (LMNPD-P), this letter transmits a preliminary assessment on behalf of the Regional Planning Commission. At the Commission's meeting of December 20, 1983, the proposed project was presented by our staff and the Commission approved the attached interim statement being forwarded today.

The Regional Planning Commission requests an extension of sixty (60) days to consider the proposed project. We believe that a program of such significance and magnitude deserves an adequate hearing, including, if possible, a presentation of the project before our Commission by the Corps of Engineers. We do not feel that there has been sufficient time to analyze the project, since the Corps-sponsored public meeting in New Orleans was held only two weeks ago. At that meeting, many concerns were aired which, only after such a presentation are brought to the attention of local governmental leaders. We believe the Corps would do itself and the project a service by taking the time to discuss this [illegible] with the single [illegible] that represents citizens of the four parishes most likely to be affected.

With [illegible] wishes [illegible] New Year, we await your reply.

Sincerely,

[illegible]
Chairman

E-56

MISSISSIPPI AND LOUISIANA ESTUARINE AREAS
FRESHWATER DIVERSION FEASIBILITY STUDY

Preliminary Comments on Draft Environmental Impact Statement

REGIONAL PLANNING COMMISSION

20.1 The proposed site for the Tentatively Selected Plan for freshwater diversion to Lake Pontchartrain Basin and Mississippi Sound appears to address the needs of the basin, on an environmental basis. However it would be more reassuring if the Corps of Engineers could, with a high level of confidence, predict the scenarios in the affected environments. That is, if shrimping or fishing will decline in some areas, will they be expected to improve elsewhere? There would be more room for support if we were given a fairly reliable outline of future conditions, along with a timetable of expected impacts.

20.2 The effect of this project must be coordinated with other plans for the basin. For instance, if a portion of the Amite River's flow is diverted to the Mississippi, then we may anticipate little net effect from this project; there will be more of a maintenance of the status quo. One might question whether or not the darming of the Amite could provide a source of freshwater that could be metered out as needed to the distributary below it, either in lieu of or in coordination with the proposed project.

20.3 A scientific look at southern Louisiana in the next half century shows that, without a number of projects such as this one, open waters of the Gulf will be dangerously close to the New Orleans Metropolitan area. Even if the landbuilding

RESPONSE: 20.1 - 20.8 - SEE RESPONSES 12:1 - 12:8

effects of the project are minimized, the decrease in salinity will result in a return of the types of aquatic plants known to hold soil from erosion much better than can soil in transition to salt marsh. Increased siphoning of freshwater along the lower Mississippi, through such projects as this one, can be expected to prolong the life of our disappearing
20.3 wetlands. The Environmental Impact Statement describes scenarios from 1990 to 2040, which, without such mitigative projects are bleak. As it has taken a role in managing wetland activities, however, the Corps of Engineers has an obligation to consider the cumulative impacts of several major endeavors and thousands of small-scale ones in a responsible manner, in an attempt to prohibit the environmental impacts that have been predicted.

Water quality in the Mississippi River, feeding this area, particularly during low water periods must be taken into account. If the St. Charles Marsh is to be the initial
20.4 recipient of this water, then its viability as a critical nursery ground for menhaden and other commercial species cannot be compromised. The Corps should be prepared to work with local and state governments, and the public, to utilize every means at our disposal to improve water quality, and protect against accidental contamination of the Mississippi River.

20.5 The EIS proposes an extensive monitoring program. Consideration should be given to monitoring stations upstream of the

water intake in the Mississippi River. Rapid response provisions should be available in the event of a spill, etc. in the river, to permit closure or other protection from contamination. Overall management provisions flowing from this project should address themselves to improvement of river water quality both for the sake of the remaining natural ecosystem and for the thousands of persons depending on the Mississippi as a source of drinking water.

20.5

The project was authorized in 1970 by the Committee on Public Works and Transportation of the House of Representatives. The specific intent was to provide "freshwater into Lakes Maurepas, Pontchartrain, Borgne and Mississippi Sound areas in the interest of improving the wildlife and fisheries of this area."

Since environmental conditions in these areas have changed significantly over the years in response to saltwater intrusion, the project should be considered as a mitigative or restorational project, rather than a wildlife enhancement effort. Among the objectives cited in the EIS are efforts to restore habitats and/or conditions. Restoring areas or mitigating damages resulting from such Federal projects as the Mississippi River levee system (1911) and the Mississippi River Gulf Outlet (1956) fall under provisions of the Fish and Wildlife Coordination Act which provides for 100% Federal funding of such projects.

20.6

20.7 The EIS proposes a 75:25 financing arrangement which

ST. CHARLES PARISH

DEPARTMENT OF PLANNING & ZONING
P.O. BOX 302 • HAHNVILLE, LOUISIANA 70057
783-6246 466-1994 (N.O. Line)

December 15, 1983

KEVIN M. FRILOUX
PARISH PRESIDENT

HAROLD L. HOLMES
DIRECTOR

Department of the Army
U. S. Army Engineer District, New Orleans
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Attn: Mr. Falcolm E. Hull
Planning Branch

Dear Mr. Hull:

This letter is written at the request of Milton Cambre Chairman of the St. Charles Parish Coastal Zone Advisory Committee. Mr. Cambre would like the following comments entered into the written record for the "tentatively selected plan for Freshwater Diversion to Lake Pontchartrain Basin and the Mississippi Sound"

23.1 It is suggested that the Corps include in the proposed recreational facilities an area inside the spillway north of Airline Hwy. which could be enhanced for crawfish production and management. An area developed and managed for this purpose would provide numerous benefits to both recreational and wildlife interest alike by taking full advantage of the resource potential of the spillway.

Please contact me if additional information is required. Thank you in advance for the consideration of our comments.

Sincerely,

David A. Mekarski

David A. Mekarski
Coastal Zone Management Director

DAM:bd

RESPONSE 23.1: The inclusion of an additional recreation site inside the spillway north of Airline Highway that includes provision for crawfish production and management would be considered in the next phase of the study.

22.1 who will feel a hardship due to the project. The community of Montz represents a relatively small community, totaling some sixty families. Relocation of the entire community to preserve the community character would be possible while still preserving the ecnomic feasibility of the project.

22.2 (2) The CC road, Hwy. 626 be relocated to the western most side of the upper guide levee.

22.3 (3) The spillway road, linking the communities of Montz & Norco be retained. This road provides a vital link between the two communities.

(4) If the Montz Park and playground is to be displaced, full compensation be paid to St. Charles Parish.

The foregoing Resolution having been submitted to a vote, the vote thereon was as follows:

YEAS: LANDRY, HOGAN, MELANCON, FAUCHEUX, DUFRENE, RODRIGUE, GRIMES

NAYS: NONE

ABSENT: AUPIED, CLEMENT

And the Resolution was declared adopted this 19th day of DECEMBER, 1983, to become effective five (5) days after publication in the Official Journal.

Sterling Melancon
COUNCIL CHAIRMAN

Joan Becnel
SECRETARY

DELIVERED TO PARISH PRESIDENT 12.20.83

APPROVED: KP

DISAPPROVED: _____

PARISH PRESIDENT

RESPONSE 22.1: The report recommends that relocation be offered to all residents of the community of Montz.

RESPONSE 22.2: The CC road and Highway 626 would be relocated to the westernmost side of the upper guide levee.

RESPONSE 22.3: The road linking the communities of Montz and Norco would be retained.

A motion was made by Mr. RODRIGUE seconded by Mr. HOGAN

to adopt the following:

INTRODUCED BY: Kevin Friloux- Parish President
Bruce Rodrigue-Councilman District 6

RESOLUTION NO. 2537

WHEREAS, the St. Charles Parish Council is concerned about the landloss and coastal erosion problems of the Mississippi and Louisiana estuarine areas, including the Parish's LaBranche Wetland area within the shoreline of Lake Pontchartrain, and;

WHEREAS, the U. S. Army Corp of Engineers has proposed a freshwater diversion plan which is designed to reduce saltwater intrusion, enhance habitat conditions, and improve fish and wildlife production within the Lake Pontchartrain Basin and the Mississippi Sound, and;

WHEREAS, the U. S. Army Corp has selected the use of the Bonnet Carre Spillway including an area adjacent to the upriver side of the spillway in the community of Montz, and;

WHEREAS, the St. Charles Parish Coastal Zone Advisory Committee held a technical conference and open public meeting on July 28, 1982, to enable the Committee to assess the impacts of such a project and forward a recommendation to the Parish Council, and;

WHEREAS, the St. Charles Parish Coastal Zone Advisory Committee in its regular meeting of November 17, 1983 recommended to the Parish Council the approval of the project after taking into consideration the environmental and socio-economic aspects of the project, and;

WHEREAS, the Army Corp of Engineers held a public hearing in Destrehan on December 6, 1983, and;

WHEREAS, area residents expressed a very real concern that the proposed plan of displacing 32 families would destroy the homogeneous nature of the community, and;

WHEREAS, Councilman Bruce Rodrigue representing the community presented the Corps officials with a petition signed by 24 residents asking the Corps to purchase the entire residential area bound by the Bonnet Carre Spillway, River Road, Louisiana Power and Light Co.s Little Gypsy power plant and the Illinois Central Gulf Railroad tracts.

ST. CHARLES PARISH

P.O. BOX 302 • HAHNVILLE LOUISIANA 70057
783-6246 466-1994

January 5, 1984

U. S. Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Gentlemen:

This is to advise that on Monday, December 19, 1983, the St. Charles Parish Council adopted Resolution No. 2537 approving the U. S. Corps of Engineers proposed freshwater diversion plan contingent upon the four (4) recommendations as stated in this Resolution.

A copy of Resolution No. 2537 is enclosed for your records.

SEE NEXT PAGE

Sincerely,

JOAN BECNEL
COUNCIL SECRETARY

JB'sbl

Enclosure

cc: Mr. Dave Mekarski w/ Enclosure

Police Jury
St. Bernard Parish
8201 W. Judge Perez Drive
Chalmette, La 70043
Telephone 277-6371

OFFICERS
Charles Ponstein
Ashley Henderson
Lewis H. Stephens
David B. Fetter

MEMBERS
Charles Ponstein
Ashley Henderson
Henry J. Rodriguez Jr.

EXTRACT OF THE OFFICIAL PROCEEDINGS OF THE POLICE JURY OF THE PARISH OF ST. BERNARD, STATE OF LOUISIANA, TAKEN AT A REGULAR MEETING HELD AT CHALMETTE, LOUISIANA ON THURSDAY, JULY 7, 1983 AT ELEVEN O'CLOCK A.M.

On joint motion of the entire Police Jury, it was moved to adopt the following resolution:

RESOLUTION 102-83

WHEREAS, the St. Bernard Parish Citizen's Coastal Zone Advisory Committee has reviewed and recommended the U.S. Army Corps of Engineers plan for freshwater diversion at the Bonnet Carre' Spillway site, to benefit Lake Pontchartrain and the St. Bernard Parish wetlands east of the M.R.G.O.; and,

WHEREAS, the St. Bernard Parish Police Jury, being responsible for the health and well-being of Parish residents desires to facilitate the improvement in quality of the marsh, its protective value against storm surge, and its nutritive value to commercial and sport fisheries and other non-game wildlife.

BE IT THEREFORE RESOLVED, that the Police Jury of St. Bernard Parish joins with the Citizen's Coastal Zone Advisory Committee in its conditional support of the project at the Bonnet Carre' site, provided that the plan gives great weight to minimizing any negative impacts or conflicts anticipated from the project.

The above and foregoing having been submitted to a vote the vote thereupon resulted as follows:

YEAS:Messrs: Guillot, Gonzales, Haggerty, Gorbaty, Cusimano, Munster, Licciardi, Henderson and Rodriguez.

NAYS: None.

ABSENT: Mr. Landry.

And the resolution was declared adopted on the 7th day of July, 1983.

CERTIFICATE

I HEREBY CERTIFY THAT the above and foregoing is a true and correct copy of a motion adopted at a regular meeting of the Police Jury held at Chalmette, Louisiana on July 7, 1983.

Witness my hand and the seal of the Parish of St. Bernard on the 8th day of July, 1983.

[signature]

DAVID B. [illegible]
SECRETARY [illegible]

COMMENTS NOTED

SLIDELL SPORTSMEN'S LEAGUE

P. O. BOX 1206
SLIDELL LOUISIANA 70458

Feb. 13, 1984

U.S. Army Corps of Engineers
New Orleans District
New Orleans, La.

Re: Freshwater Diversion to Lake Pontchartrain

Dear Sir:

We support the Tentatively Selected Plan of the Freshwater Diversion to Lake Pontchatrain Basin Project.

Whereas the project would, in establishing a favorable salinity regime, increase oyster production, increase production of commercial and sport fish and wildlife, enhance vegetative growth and provide recreation facilities. The Slidell Sportsmans League will approve, promote and champion this project til it's implementation.

We provide this letter as proof of our support and resolution and ask our legislative representatives to regard it as our support for this project.

Sincerely,

Jimmy Fowler

Slidell Sportsmans League
Jimmy Fowler Pres.

COMMENTS NOTED

21.9 the ad hoc committee, which, in the past three years has represented local government on the important issue of Lake Pontchartrain management. Local input and participation are essential elements if local support is desired for a project of this scale.

Sincerely,

REGIONAL PLANNING COMMISSION

Richard P. Keiffer

RICHARD P. KEIFFER
CHAIRMAN

RPK ALL fts

group that developed objectives for this study and recommended that the optimum salinity regime be established in the St. Bernard marshes. The Department of Natural Resources prepared the letter dated January 26, 1984, indicating that the state would participate in the project. Therefore, we feel that freshwater diversion would be consistent with the management strategies proposed by Coastal Environments, Inc., for the Department of Natural Resources in the overall management of the Lake Pontchartrain estuary.

RESPONSE 21.8: A monitoring station upstream of the freshwater diversion structure is part of the comprehensive monitoring system (see plate F-1, Volume 3, Appendix K). In addition to the proposed monitoring station upstream of the structure, data collected at existing sampling stations at Lutcher, Union, and St. Francisville, Louisiana, would be used to the maximum extent practicable. The freshwater diversion structure would be four 20- x 20-foot box culverts with electronically operated vertical lift gates. These gates can be closed electronically or by hand to prevent contamination of Lake Pontchartrain in the event of a chemical spill in the Mississippi River.

RESPONSE 21.9: The operation of the freshwater diversion project would be a non-Federal responsibility. The Corps of Engineers and the States of Louisiana and Mississippi would establish a two-state interagency advisory group to participate in governing structure operations and conducting the comprehensive monitoring system. This group should include local, parish, state, and Federal people who have expert knowledge of the multiple needs of fish and wildlife resources, water quality and supply, navigation, and flood control. In addition, persons that represent sport and commercial fish and wildlife interests would be part of the group. The State of Louisiana has flexibility in recommending any management group within the framework described above. The state may recommend the same group as for the Lake Pontchartrain special management area, but it is too early in the planning phase of the project to determine. Specific recommendations for the management group would not be made until the advanced engineering and design phase of the study, which will take about four years to complete if funds are available.

21.6 page 63, attached). If local governments are required to support this project, greater input is essential.

21.7 The proposed tentatively selected site appears to be one part of the possible solution to a very large task, the management of the Lake Pontchartrain Borgne-Maurepas estuary. The State of Louisiana has been awarded $70 thousand in Federal funds to analyze the estuary's management. A diversion project should be an acceptable strategy in this overall program, which is still under study. The comments above should be evaluated by the Corps of Engineers in that context.

21.8 The EIS proposes an extensive monitoring program. Consideration should be given to monitoring stations upstream of the water intake in the Mississippi River. Rapid response provisions should be available in the event of a spill, etc. in the river, to permit closure or other protection from contamination. Overall management provisions flowing from this project should address themselves to improvement of river water quality both for the sake of the remaining natural ecosystem and for the thousands of persons depending on the Mississippi as a source of drinking water.

21.9 Local governments must have a significant role in the management of this important estuary. To date, the state's recommended management structure for a Lake Pontchartrain Special Management Area provides for minimal local government input. A press release originated by the Department of Natural Resources dated October 17, 1983, (attached) provides for, among others, a 15 member panel composed of five federal or state bureaucrat technocrats, four members from commerce industry and:

- One or more representatives of the Louisiana Police Juries Association from the neighboring parishes;
- The Louisiana Municipal Association from a neighboring municipalities; and,
- A lawyer hired from a neighboring parish.'

This management structure appears to overlook

The State of Louisiana, by letter dated January 26, 1984, and the State of Mississippi, by letter dated February 29, 1984, have given assurances that they will provide the required non-Federal funding ($14 million) and at the appropriate time provide the necessary local cooperation. About 80 percent of the benefits attributable to the project would be realized in Louisiana. The non-Federal share of the required funding was distributed on the basis of benefits realized in the states. Louisiana's share is $11 million.

The State of Louisiana indicated that the required funds for the project would be provided through LA R.S. 30: 311-316, Coastal Protection Trust Fund. Funds under this program have been dedicated to coastal projects that would reduce erosion, saltwater intrusion, land subsidence, and land loss. With the State of Louisiana as one of the non-Federal sponsors of the project, it does not appear that the parishes adjacent to Lake Pontchartrain would not be required to pay any portion of the project, including operation and maintenance.

RESPONSE 21.7: The $70 thousand contract to analyze management of the Lake Pontchartrain estuary was awarded by the Department of Natural Resources to Coastal Environments, Inc. The contract requires the contractor to identify changes in the basin that have affected Lake Pontchartrain. Coastal Environments, Inc., will also identify activities and entities involved in the activities that affect the lake. No solutions to these problems will be identified as part of this contract. Both groups worked very closely with us in development of the tentatively selected plan. The Department of Natural Resources contracted with Coastal Environments, Inc., in 1981 to make detailed recommendations as to the location, manner, and quantity of discharge diversion from the Mississippi River into adjacent estuaries to the east. Coastal Environments, Inc., recommended the Bonnet Carre' site for diversion of water to Lake Pontchartrain. The Department of Natural Resources and Coastal Environments, Inc., strongly support freshwater diversion to the Lake Pontchartrain Basin and the Corps of Engineers tentatively selected plan. The report prepared by Coastal Environments, Inc., is referenced in Response 21.1. The Department of Natural Resources and Coastal Environments, Inc., were members of the ad hoc

construction of the MR-GO, hurricanes, subsidence, oil and gas exploration, and canal dredging. The magnitude of the MR-GO contribution to the problem of increased salinities in the area is, even now, not fully known because of the many factors involved.

Essentially all the monetary benefits of the plan are attributable to enhancement of commercial fisheries. Cost-sharing policies for a project with the specific purpose of enhancing commercial fisheries traditionally would be fully a Federal responsibility, including operation and maintenance. The plan, however, does contribute to fish and wildlife resources as a whole. Therefore, the broad purpose of the plan is to enhance fish and wildlife resources. The traditional cost-sharing for fish and wildlife enhancement projects is 75 percent Federal and 25 percent non-Federal. This cost sharing is recommended for the plan. The recommended cost sharing is consistent with the cost sharing for the Mississippi Delta Region project authorized by Congress in the Flood Control Act of 1965 as amended.

The policy of the President in regard to Federal/local cost sharing is that local interests assume a significant responsibility in all water resources development financed by the Federal government. The States of Louisiana and Mississippi have given assurances that they will act as the non-Federal sponsors of the project, including financing the local share of the costs. The Louisiana state legislature has demonstrated a strong interest by establishing a coastal protection trust fund into which funds are set aside for development of projects such as this. In summary, it appears that non-Federal cost sharing is not a deterrent to implementation of this project, but enhances the probability of Federal funding.

RESPONSE 21.c: The operation and maintenance cost of the project is $822,000. The $5.2 million is the first cost of the project ($57.8 million) annualized over the 50-year project life plus operation and maintenance cost. This cost is annualized for the purpose of computing the benefit/cost ratio of the project to determine economic feasibility.

struction begins. At the present time, however, the river has concentrations of mercury, zinc and copper, among others, exceeding EPA standards. The effect of these heavy metals in the stressed Pontchartrain ecosystem calls for evaluation. If a site such as Lake Borgne received the waters directly through a nearby structure along the MRGO, a substantial volume of the heavy metals will be buried, rather than suspended in the turbid waters of Lake Ponchartrain. The sediment build up would have a greater effect in the marshes shown to have had the greater land loss, and freshwater diversion could be demonstrated as having a more direct and visible effect in this eroded area where the MRGO's influence is more apparent. A diversion site nearer St. Bernard Parish has the remedial project more closely located to the area most damaged.

21.4

To repeat this Commission's preliminary statement, since environmental conditions in these areas have reportedly changed significantly over the years in response to saltwater intrusion, the project should be considered as a mitigative or restorational project, rather than a wildlife enhancement effort. Among the objectives cited in the EIS are efforts to restore habitats and or conditions. Restoring areas or mitigating damages resulting from such Federal projects as the Mississippi River levee system (1911) and the Mississippi River Gulf Outlet (1950) fall under provisions of the Fish and Wildlife Coordination Act which provides for 100% Federal funding of such projects.

21.5

The EIS proposes a 75:25 financing arrangement which would require approximately $14 million from non-Federal sources. As presently described, one-fourth of the approximately $5.4 million annual operational costs would be borne by non-Federal sources. The inference here is that each parish bordering on the lake may be obliged to pay for an unspecified portion, while preponderant direct economic benefits through enhanced oyster production go to the state of Mississippi and, to a lesser extent, St. Bernard Parish (see Volume 1,

21.6

RESPONSE 21.4: As part of the project, a comprehensive monitoring system would evaluate the effects of heavy metals on the Lake Pontchartrain ecosystem. The programs in the monitoring system will be conducted in three phases: a 3-year preconstruction phase, a 4-year postconstruction phase, and a long-term phase. In the preconstruction phase, we will supplement existing information and establish baseline conditions for measuring future changes. The effects of the diverted water on important hydrological conditions and water quality standards and on fish and wildlife will be assessed. The operating scheme of the diversion structure would be modified according to information obtained from the monitoring program.

A freshwater diversion site in St. Bernard Parish was considered. The site was eliminated because the hydraulic head was not available to divert sufficient water to achieve the optimum salinity regime recommended by the ad hoc group for the St. Bernard marshes. In addition, several scenic streams would have to be disturbed and more than 1,000 acres of marsh would be destroyed by excavation of the diversion channel. The project would not be economically feasible even if the required supplemental flows could be diverted. About half of the water diverted would be lost to the Gulf of Mexico via the MR-GO and would not have a substantial influence on salinities in the St. Bernard marshes. The available hydraulic head would require a significantly larger structure and conveyance channel to divert the same amount of water as at the Bonnet Carre' site. Floodgates would be required in the conveyance channel at the intersection of the channel with the hurricane protection back levee.

RESPONSE 21.5: The Fish and Wildlife Coordination Act permits mitigation to be recommended on projects that are less than 60 percent complete as of August 12, 1958. This excludes the Mississippi River levee system. The Mississippi-River Gulf Outlet (MR-GO) project was considered within the provision of this act since it was constructed between 1961 and 1963. At that time, studies conducted did not reveal evidence that the project would induce saltwater intrusion. Therefore, no recommendations were made to mitigate intruding saltwater. Saltwater intrusion problems in the study area are due to several factors:

of the original Lake Pontchartrain and Vicinity Hurricane Protection project is not part of the newly proposed Lake Pontchartrain and Vicinity project High Level Plan. Therefore, the Seabrook lock would not be constructed.

RESPONSE 21.3: Modeling studies were not performed in the feasibility phase because of the additional time and extensive expenditures required. Complete mixing in Lake Pontchartrain should occur due to turbulence as the water flows across the lake. The movement of the fresh water in the lake would reduce tendencies toward stratification. We have evaluated the need to conduct modeling studies in the advanced engineering and design phase and determined that such studies are not necessary. We plan to collect additional data during this phase to improve the regression analysis performed in the feasibility phase.

No serious impact is expected on the brown shrimp fishery. During periods of peak diversion, the species may be displaced eastward. The brown shrimp would benefit from the nutrients the fresh water would add to the system in subsequent years. The freshwater diversion would not significantly lower temperatures, except in the immediate outfall area. Throughout most of the southwest quadrant of the lake, maximum reduction would be from 0.4 to 2.8° C. Nearshore temperature reductions at the outfall locations might approach 4°C. These maximum changes would occur gradually over periods of up to several weeks, providing ample opportunity for acclimation or movement of most motile organisms. Normal water temperature variations on the order of 2° to 5°C or more within a few days are not uncommon. It should be noted that except for receiving areas, significant average response time of one to seven weeks would prevail for temperature changes. These time periods are generally sufficient to reduce potential stress on biological systems to acceptable levels in large receiving areas such as Lake Pontchartrain. During periods of peak diversion, salinities are predicted to be 0.6 to 1.0 ppt less at a distance of 10 miles from the outfall, to about 0.3 ppt less at mid-Causeway and Pass Manchac, and from 1.2 ppt to 2.8 ppt less at the IHNC. Times required for maximum salinity changes to occur would vary from about 12 to 36 days. These gradual salinity changes are not expected to significantly stress organisms in the lake.

21.2 The man-made saltwater connection between Lake Pontchartrain and the Gulf of Mexico through the Mississippi River Gulf Outlet (MRGO) to the Gulf Intracoastal Waterway (GIWW) is labelled as a major cause of increased salinity. Still, its carrying capacity is far below that of Chef Menteur Pass or the Rigolets. If higher salinities near the mouth of the Inner Harbor Navigational Canal (IHNC) and "dead zones" on the bottom nearby are related to the movement of saltwater and pollutants along the bottom of the GIWW above the MRGO, then it should be demonstrated in advance that diversion of more freshwater from the west will help alleviate the problem. Since a lock or other such control structure at the mouth of the IHNC appears integral to lakefront hurricane protection, this source of pollution and saline water into the lake may not be a factor in the future. Such a scenario could obviate one proposed benefit of the project.

21.3 If freshwater is introduced, it should be shown that mixing will result in the desired salinity. Most of the year, much of the lake's waters are fairly well mixed, due to effects of surface winds and the shallow depths. But at certain times, the Mississippi River's temperature can be so much colder(according to quotes in Appendix B, Exhibit I) than the lake that stratification may exist, and the desired salinity mix has no chance to occur. Instead, a lens of freshwater may simply cross the lake west to east with a minimum of mixing. The Corps of Engineers should be able to model this situation, with varying densities and temperatures, through its hydrology facilities at Vicksburg. The combination of low salinity and low temperature could have serious impact upon the lake's brown shrimp fishery, according to the same document.

21.4 If the tentatively selected site is implemented, the Draft Main Report notes that certain pollutants will enter the lake at the western end. Hopefully, the toxic load in the Mississippi River will have lowered significantly by the time con-

van Beek, J. L., D. Roberts, D. Davis, D. Sabins, and S. M. Gagliano. 1982. Recommendations for freshwater diversion to Louisiana estuaries east of the Mississippi River. Prepared for Department of Natural Resources, Coastal Environments, Inc., Baton Rouge, Louisiana.

Chabreck, R. H. 1972. Vegetation, water, and soil characteristics of the Louisiana coastal region. Louisiana State University, Agricultural Experiment Station Bulletin 664.

RESPONSE 21.2: Although Chef Menteur Pass and the Rigolets have larger tidal exchange capacities than the Inner Harbor Navigation Canal, the water entering the lake through the passes is diluted by fresh water from the Pearl River. Therefore, salinities are generally higher at the Inner Harbor Navigation Canal. The influence of fresh water from the west has been demonstrated by the seven Bonnet Carre' Spillway openings. The Bonnet Carre' Spillway openings were more massive than those proposed in the tentatively selected plan. Thus, the reduction in salinities would be less with the proposed diversion. Data gathered from the 1979 spillway opening were used to predict salinity changes at the Inner Harbor Navigation Canal. Data from the 1979 opening were used because the largest number of water quality stations were sampled and the most comprehensive number of parameters analyzed. During a peak diversion, salinity at the IHNC is expected to be reduced by 1.2 ppt to 2.8 ppt. Dissolved oxygen concentrations are generally high in the Mississippi River. According to the Department of Natural Resources, during the summer and early fall a layer of high salinity water enters the lake from the IHNC. This high salinity water is denser than the ambient lake water and sinks to the bottom forming a significant plume of nonmixing water along the south shore adjacent to the Seabrook area. Because of the lack of turbulent mixing during the summer and early fall, a dissolved oxygen depletion develops in the lower water column next to the lake bottom. This results because the limited input of oxygen from reduced photosynthesis in this layer is not sufficient to overcome the respiratory use of oxygen by the lake's sediment microbes and benthic animals. This phenomenon has also been observed by researchers from the University of New Orleans Biology Department. The diversion of fresh water would lower salinities, create turbulent mixing as the water flows across the lake, and enhance dissolved oxygen levels that should reduce the occurrence of conditions conducive to creation of dead zones in the lake. The Seabrook lock proposed as part

OFFICERS

MEMBERSHIP

February 21, 1984

REGIONAL PLANNING COMMISSION
JEFFERSON • ORLEANS
ST BERNARD • ST TAMMANY
PARISHES

Colonel Robert L. Lee
U. S. Army Corps of Engineers
New Orleans District
P. O. Box 60267
New Orleans, LA 70160

Dear Colonel Lee:

At its meeting today the Regional Planning Commission discussed aspects of the Mississippi and Louisiana Estuarine Areas Freshwater Diversion Feasibility Study. With the understanding that this is our final opportunity to comment upon this draft of the document, and noting a number of concerns expressed at the meeting, the Regional Planning Commission voted unanimously to object to the project as presented, requesting that a number of issues be addressed by the Corps. In addition to points made in the December 29, 1983 preliminary comment, closer examination of data presented in Volume II (Technical Appendices to the Mississippi and Louisiana Estuarine Areas Feasibility study on Freshwater Diversion) has raised certain questions which we believe must be addressed before the Corps of Engineers makes (or asks for) further commitments regarding the tentatively approved site for freshwater diversion into Lake Pontchartrain and adjoining estuaries. Specifically, while data on page C-5 (Appendix B, Exhibit 1) shows a modest increase in mean salinities at Little Woods (1.5 parts per thousand (ppt)), and 0.4 ppt at Pass Manchac, a manipulation of figures quickly reduces this average change to 1.0 ppt and 0.2 ppt respectively if only the data for 1963 is excluded (see Table C-1-22 attached). That is to say, the levels may vary year to year, the mean may be strongly influenced by a given year, and therefore doubts are raised as to the adequacy of 25 or 30 years of recordings to allow broad generalizations. Further, these changes lose significance due to the persistent wide variability, which remains unchanged over the study period. To be significant, the mean change in salinity must be greater than the variability from one year to another (see Tables C-1-17, C-1-18, attached). The apparent increase in salinity levels at these sites does not appear to be statistically significant, since the average salinity has maintained at approximately 5 ppt while monthly ranges read from 3 ppt to 15 ppt. It appears, therefore, that increasing salinities may not be as great as suggested.

21.1

SUITE 900
MASONIC TEMPLE BUILDING
333 ST. CHARLES AVENUE
NEW ORLEANS, LOUISIANA 70130

RESPONSE 21.1: We acknowledged in the report in Appendix C, page C-33, paragraph C.1.33, that salinities in Lake Pontchartrain have somewhat stabilized and no significant increase in average annual salinities is projected in the future. However, wide seasonal variations are expected to continue into the future in response to freshwater inflows from major rivers and streams entering the lake. These wide salinity variations have caused habitat changes and related land loss adjacent to Lakes Pontchartrain and Maurepas. This view has been supported by Wicker et al. (1981) and Van Beek et al. (1982). They have reported that prolonged salinities in excess of 2 ppt eventually cause mortality in wooded swamps. Chabreck (1972) reported a mean water salinity of 1.9 ± 0.7 ppt to be the tolerance limit for baldcypress.

Saltwater intrusion into Lakes Maurepas and Pontchartrain has contributed substantially to major habitat changes in the last 25 years. Approximately 25,000 acres of formerly fresh habitat including fresh marsh and baldcypress swamp have been converted to nonfresh habitat. The changes occurred in the lower Pearl River drainage basin near the Rigolets, the area south of Pass Manchac, and in St. Charles Parish south of Interstate 10. Close to 21,000 acres of baldcypress swamp have been changed to marsh. These changes mostly occurred between Lakes Pontchartrain and Maurepas north of Pass Manchac. About 36,000 acres of baldcypress swamp are under stress because of continued excessive salinities. Most of the stressed swamp is located on the northern and southern shores of Lake Maurepas. Additional stressed swamp occurs in St. Charles Parish in a band along Airline Highway from southeast of the Bonnet Carre' Floodway to the St. Charles-Jefferson Parish line. In St. Bernard Parish, increased salinity has caused 9,700 acres of fresh habitat to change to nonfresh habitat. About 900 acres of baldcypress swamp are under stress. Implementing the plan would rejuvenate large areas of wooded swamp and marsh adjacent to Lakes Pontchartrain and Maurepas with fresh water and nutrients.

LITERATURE CITED

Wicker, K. M., D. Davis, M. DeRouen, and D. Roberts. 1981. Assessment of extent and impact of saltwater intrusion into the wetlands of Tangipahoa Parish, Louisiana. Prepared for Tangipahoa Parish Police Jury, Coastal Environments, Inc., Baton Rouge, Louisiana.

would require approximately $14 million from non-Federal sources. However, local governments cannot be held accountable for the damage done by previous projects; they cannot be expected to bear the cost. If any non-Federal share is ultimately required, it will have to be borne by the State or any other entity responsible for the negative environmental impacts. Local governments will be willing to offer whatever cooperation may be necessary to ensure an effective project.

20.7

Fishermen who make their living from Lake Pontchartrain's resources fear a loss in livelihood from such a change in salinity regime. Perhaps the benefit to the overall system outweighs this potential impact. But if there should be a long-term measurable adverse impact upon the fishing community, the project should provide for reasonable mitigation of demonstrable losses and expenses.

20.8

On the whole, the proposed project appears to the Regional Planning Commission to have more benefits than detriments. However, the Environmental Impact Statement should more clearly describe potential negative effects in order to assist those who will be affected directly, in making decisions relative to the freshwater diversion project.

HERMAN A. SHARP
PRESIDENT

ELIZABETH TEAGUE
VICE-PRESIDENT

FLOYD D. GLASS, DIST. 1
HERMAN A. SHARP, DIST. 2
JAMES A. "RED" THOMPSON, DIST. 3
WILL GRIFFIN, DIST. 4
OGISE RICHARDSON, DIST. 5
GARY SINGLETARY, DIST. 6
C. J. DUNAWAY, DIST. 7

ST. TAMMANY PARISH POLICE JURY
P. O. BOX 628
COVINGTON, LOUISIANA 70434
(504) 892-2911

JERRY SCHWEHM, DIST. 8
BARRY BAGERT, DIST. 9
MARTY HOUSTON, DIST. 10
ELIZABETH TEAGUE, DIST. 11
EARL D. BROOM, DIST. 12
STAN OWEN, DIST. 13
ANTHONY ALFRED, DIST. 14

February 21, 1984

U.S. Army Corps of Engineers
Department of the Army
New Orleans District
Post Office Box 60267
New Orleans, Louisiana 70160

Attention: Robert C. Lee
Colonel, Corps of Engineers
District Engineer

Dear Sirs:

At the Regular Meeting of the St. Tammany Parish Police Jury a Floor [illegible] was passed authorizing the St. Tammany Parish Police Jury President to issue a letter of OPPOSITION to your office concerning the Mississippi River Fresh Water Diversion into Lake Pontchartrain Project.

24.1 It is the opinion of the Governing Authority of St. Tammany Parish that not enough information on the proposed project is known, from an environmental and economic standpoint, at this point in time. As one of the Parishes bordering Lake Pontchartrain, also being the parish with the greatest amount of land frontage...It is our opinion that we would potentially receive the most impact of the proposed project. As such the point may be raised as to why a public hearing was not held in St. Tammany Parish?

At this point and until such time as the governing body and the people of St. Tammany are afforded more information on the proposed project, St. Tammany Parish, Louisiana is on record as being opposed to the proposed Mississippi River Fresh Water Diversion into Lake Pontchartrain Project.

Respectfully,

Herman A. Sharp,
Police Jury President

HAS/kaz

RESPONSE 24.1: A meeting between the US Army Corps of Engineers and the St. Tammany Parish Police Jury was suggested to provide the police jury with information on the proposed project and to discuss the prospects of holding a public meeting in St. Tammany Parish. The Corps is confident that any concerns the parish may have can be satisfied. A letter dated March 30, 1984, including this information was forwarded to St. Tammany Parish.

Tulane

Tulane Law School
Joseph Merrick Jones Hall
Tulane University
New Orleans Louisiana 70118

Faculty

December 15, 1983

Colonel Robert C. Lee
District Engineer
Department of the Army
New Orleans District
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Re: The Tentatively Selected Plan
For Freshwater Diversion To
Lake Pontchartrain Basin and
Mississippi Sound

This letter will supplement my oral remarks at the public hearing on December 13, 1983 concerning the above-captioned project.

25.1 In a word the project is sound, necessary and long-overdue. I am taking the time to write because the project, however meritorious, has one drawback which could be its undoing. As drawn, the project is said to "enhance" fish and wildlife production. As "enhancement", a 25 percent cost-share is required of the State . . . in this case $14 million in first costs and roughly $1 million thereafter in O & M. Whatever the desirability of cost-sharing as national policy, in this case it is wholly unwarranted.

25.2 The purpose of this project is to minimize losses from increasing salinity in the Lake Pontchartrain Basin. There are two direct causes of this increased salinity. The first is the Mississippi River levee system which cut off historic fresh water flow, as acknowledged in your Announcement of November 4, 1953. The second is the Mississippi River Gulf Outlet, which introduced the Gulf of Mexico in a new and unobstructed way. The levees have been an exclusive Corps responsibility since 1911. The MRGO has been the Corps' responsibility since 1956. In short, Corps projects have caused this problem. In such cases it is the Corps' responsibility to mitigate. Mitigation for federal projects is logically enough, a federal cost in proportion to the overall federal funding. These two projects are 100 percent federal. So should be the come-lately projects to repair their effects.

25.3 The distinction I draw here between "enhancement" and "mitigation" is not an idle one. Louisiana has fallen on short times. State budgets have been cut. Taxes have been raised. State health programs are particularly hard hit. These are no times to ask the State to assume

RESPONSES 25.1, 25.2, and 25.3: See Response 6.2

253 responsibilities which by law belong to the federal government. If such State costs continue to be required it will be hard to have confidence that this project, however necessary, will ever take place.

Thank you for the opportunity to present these views.

Sincerely,

Oliver A. Houck
Professor of Law

OAH:je
cc: The Honorable Bennett Johnston
The Honorable John Breaux
The Honorable Lindy Boggs

Wildlife Management Institute

Suite 725, 1101 14th Street, N.W., Washington, D.C. 20005 • 202/371-1808

DANIEL A. POOLE
President
L. R. JAHN
Vice-President
L. L. WILLIAMSON
Secretary
WESLEY M. DIXON, Jr.
Board Chairman

PLEASE REPLY TO:
Murray T. Walton
Southcentral Representative
Star Route 1A, Box 30G
Dripping Springs, Texas 78620
512-825-3473

January 6, 1984

District Engineer
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, La. 70160

Dear Sir:

The Wildlife Management Institute has reviewed the Public Meeting Announcement for the Tentatively Selected Plan for Freshwater Diversion to Lake Ponchartrain Basin and Mississippi Sound. The Institute recognizes the need for this and other diversions not only for fish and wildlife but also to assist in halting land loss in Louisiana. We commend the Corps for efforts to date and urge a speedy completion of the proposed project.

COMMENTS NOTED

Thank you for the opportunity to comment on this matter.

Sincerely,

Murray T. Walton
Southcentral Representative

12/11/83

DePt. of the Army
N.O. Dist, Corps of Engineers

En reguards to freshwater diversion project, the location useing the spillway site seems to be the best all around, wildlife & fisheries seem to agree with the benifits to the seafood industry.
the only negative thing seems to be the output of 55 M, which will most
26.1 probably amount to twice that inotch by the end of construction, on a project that no one knows will really work or not.
why not convert some of the existing gates in the system-to divert the water to test the theory, that way you could know before hand weather it would be benificial or dethimental to
26.2 seafood.
It seems to me the morguiza gates are a example,
the picks could be replaced with solid gates that could be raised and lowered at will

RESPONSE 26.1: See response 12.1

RESPONSE 26.2: The existing spillway structure was designed to divert Mississippi River water during high water. No water can be diverted during periods of low to average flow on the river. These periods of low to average river flow are when fresh water is necessary to supplement runoff from rainfall and enhance fish and wildlife production. Modification of the spillway structure for freshwater diversion would be $5.2 million more expensive than constructing a structure adjacent to the spillway structure.

the cost of converting existing gates as an expirement would be prohibitive when considering the present cost of $55 ~~M~~ for the experiment now under concideration. the Government is so mutch in debt already why throw more coal on the fire.

26.2

One more thing I don't think the people of Destrahan or Gulfport should ~~carry~~ as mutch weight as local population since they can only benifit, where we the Locals can only loose if the project doesn't work

26.3

Sincerly

JAMES C BURNS
RT 6 Box 263-C
N.O. LA 70129

RESPONSE 26.3: Equal consideration was given to all comments made on the draft feasibility report.

Montz, Louisiana
Dec. 1, 1983

U. S. Army Engineer District N.O.

As I will not be able to attend a meeting scheduled for Dec. 6th. in Destrehan proposing construction of a freshwater diversion structure on the Miss. just above the Bonnet Carré Spillway and being a resident of Montz my concern is the roadway through the Spillway. Have plans been made to retain the road which is part of the old River Road?

27.1

Sincerely yours,
Mrs. Enoch J. Falterman
Rt. 1 Box 661 (Montz)
La Place La. 70068

RESPONSE 27.1: The road that links the community of Montz and Norco would be retained.

Neuman F Bauer
3293 Raine ave
Slidell, La. 70458

COMMENTS NOTED

To whom it may concern.

I, as a taxpayer am totally against building a fresh water diversion canal into Lake Pontchartrain This Polluted mess. river will do nothing to help the lake, but will destroy it for Brown shrimp and Crabs and any other salt water species. Every time the spillway is opened it takes about 3 years for the lake to recover from it, so how can a fresh water canal help. Its just a slick way of making 55 million dollars. The Army Corps of Engineers has a History of making a lot of stupid ~~things~~ mistakes and once it is done its too late to about it and change it Back.

Gretna, La, 12-5-83

Gentlemen—

28.1 Would you please send me whatever brochures, booklets, maps, so forth — on the tentative recommendations on the construction of fresh water diversion structure on the Mississippi about the Bonnet Carre Spillway — I have epilepsy — more or less confined to my home cannot fish and hunt, so forth — but enjoy whatever material I can get my hands on, to read — Appreciate everything you send — Thanks a millions —

sincerely -

Bryan Lee Hinyub

BRYAN LEE HINYUB
108 HINYUB AVENUE
GRETNA, LA, 70053

RESPONSE 28.1: A copy of the draft feasibility report and Technical Appendixes was furnished.

February 13, 1984

Colonel Robert C. Lee
Department of the Army
New Orleans District, Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Colonel:

My name is Ronald J. Ricca. I am a commerical fisherman in the local areas of Lake Pontchartrain, Lake Borgne and the Louisiana marshlands. I fish mainly for shrimp and crabs.

I am writing you to let you know that I am very concerned that the diversion of the Mississippi River into Lake Pontchartrain will be very detrimental on the part of my income as a fisherman.

Let me explain that the opening of the spillway last spring totally ruined my income for the brown shrimp season and I had to go farther across Lake Borgne for any shrimp at all. The shrimp we did catch were very small and therefore, I lost not only the amount of shrimp that I could have caught but I further did not receive the money value that I could have received for the larger shrimp which was lost by the opening of the spillway.

Please consider my feelings in this matter along with all of the commerical and recreational fisherman of this area when determining the future of our lives.

Appreciating your continued cooperation in this and other matters, I remain,

With regards,

Ronald J. Ricca

Ronald J. Ricca
114 Kempsey Court
Slidell, Louisiana 70458

RJR/psr

COMMENTS NOTED

Statement of John Joseph Ross
on the proposed freshwater diversion to
Lake Pontchartrain Basin and Mississippi Sound

Submitted to
Corps of Engineers
U.S. Army Engineer District
New Orleans, Louisiana

My name is Joe Ross and I own and operate the shrimp vessel the Colonel John A. O'Keefe. I have fished for shrimp for over 54 years. I realize the benefit of freshwater inflow to the marshes for long term benefit of our fishery resources. I would like to support the proposed project and urge its completion and operation.

In the past when large amounts of freshwater flooded into the area our catches of shrimp were much greater. We had large crops of brown shrimp in 1936 that I knew about but we could not sell them. We started selling brown shrimp in 1940. I personnaly caught as many as 20-30 barrels a day in 1938. To pick a small amount for white shrimp from them we would catch about 200lbs to 400lbs a day. This was with a 30 horsepower motor. In 1936 the freshwater would run past the north end of Chandelier Island.

Based on my past experience and observation I realize the benefit of freshwater introduction into the marshes and support the project.

John Joseph Ross

Submitted by John J. Ross

December 17, 1983

COMMENTS NOTED

SUMMARY OF PUBLIC MEETING

HELD IN DESTREHAN, LOUISIANA

DECEMBER 6, 1983

Exhibit 1

MISSISSIPPI AND LOUISIANA ESTUARINE AREAS

SUMMARY OF PUBLIC MEETING
HELD IN DESTREHAN, LOUISIANA

6 DECEMBER 1983

1. Introduction

The first public meeting was held in Destrehan, Louisiana, at the Destrehan High School. The purpose of the meeting was to give all interested people the opportunity to express their views on the tentatively selected plan for freshwater diversion to the Lake Pontchartrain Basin and Mississippi Sound. The agenda of the meeting is Exhibit 1.

2. Attendance

A total of 142 persons attended the meeting. Various Federal, state, and local agencies as well as citizens and environmental groups were represented. A list of attendees is shown in Exhibit 2. Exhibit 3 is a list of persons who expressed their views at the meeting.

3. Welcome and Opening Remarks

Mr. Darrell Williamson, Assistant Secretary of Transportation and Development, Office of Public Works, was to chair the meeting. Mr. Williamson was delayed and Colonel Lee opened the meeting. Colonel Lee stated the purpose of the meeting and then introduced members of his staff. He described the study area and gave an overview on what actions are required before construction can be initiated on the proposed project. When Mr. Williamson arrived, he made a brief statement indicating the importance of this kind of meeting and his support for the project. He recognized distinguished guests and introduced Ms. Virginia Van Sickle, who was representing Dr. Charles Groat, Louisiana Department of Natural Resources (DNR). Ms. Van Sickle stated that DNR agrees with the Corps of Engineers that freshwater diversion would provide the only long-term, technically viable means for reducing saltwater intrusion and land loss in the study area. She noted that scientists recognized this many years ago. Ms. Van Sickle said that the state, however, is presently not committed to cost sharing in the project. Based on the results of these public meetings, the Governor's Coastal Protection Task Force will make a recommendation to the Governor concerning state participation in the project.

Dr. Ted Ford, Louisiana Department of Wildlife and Fisheries, said that it is difficult to develop a complex approach that will achieve a management regime for the overall area to benefit several fish and wildlife resources. He noted that there have been many work sessions on

the plan to be presented. There have been compromises along the way in terms of how the information has been assessed and evaluated. Dr. Ford indicated that he supports the tentatively selected plan considering the overall resources and how we try to manage these resources.

4. Study Presentation

Colonel Lee called on Mr. Falcolm Hull, study manager, to discuss the tentatively selected plan. Mr. Hull presented information on problems of land loss and reduced fish and wildlife productivity in the study area. He discussed the plan formulation process and the rationale for selecting the Bonnet Carre' plan. He described pertinent information on the tentatively selected plan. Mr. Hull's remarks are Exhibit 4.

5. Public Views and Concerns

Colonel Lee asked everyone to limit statements to five minutes. He asked those making presentations to come forward and speak at the podium so that everyone could hear. He said that the meeting was being taped and that copies of the meeting summary and the cassette tape would be available in about 60 days at the cost of reproduction. Views and concerns of speakers at the meeting are summarized below in order of occurrence.

Mr. Gerald Bodin, U. S. Fish and Wildlife Service

Mr. Bodin stated that the reintroduction of Mississippi River water into Louisiana subdelta marshes has been recommended in the past as a viable means for preventing saltwater intrusion and wetland deterioration. The tentatively selected plan that recommends installing a freshwater diversion structure adjacent to the Bonnet Carre' Spillway would result in substantial benefits. Benefits include a reduction in coastal wetlands loss over the next 50 years, reduction in saltwater intrusion and creation of a salinity regime more favorable to fish and wildlife, an average net increase in estuarine commercial fishery landings, an average increase in commercial sport fishing and a net increase in landings, and an increase in fur animal and alligator harvest and in game and nongame wildlife populations.

In closing, he stated that from a biological standpoint, the site selected is superior to other sites evaluated. He also emphasized that the structure will allow freshwater flow to restore salinity conditions. Furthermore, freshwater diverted at this location would more effectively and efficiently accomplish study goals. Mr. Bodin's statement is Exhibit 5.

Mr. Bruce Rodrigue, St. Charles Parish Councilman, District 6

Mr. Rodrigue was concerned with displacement of the citizens in the project area. He presented a signed petition from Montz residents

AD-A152 726 MISSISSIPPI AND LOUISIANA ESTUARINE AREAS FRESHWATER DIVERSION TO LAKE PO.. (U) ARMY ENGINEER DISTRICT NEW ORLEANS LA D L CHEW APR 84 2/3

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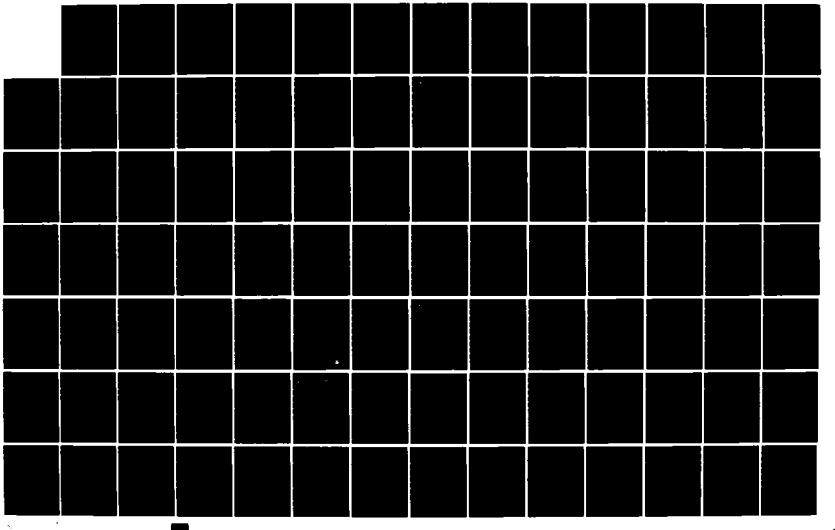

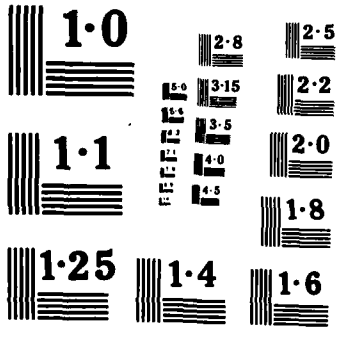
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asking the government to relocate the entire Montz community east of the Louisiana Power and Light plant, west of the Bonnet Carre' Spillway, at the Mississippi River on the south, and near the Illinois Central Railroad track on the north. The residents feel that constructing the proposed structure as designed would downgrade property values and eliminate the southeast evacuation route to Norco. The petition is Exhibit 6.

Dave Merkarski, St. Charles Parish Department of Planning and Zoning and Coastal Zone Management

Mr. Merkarski spoke on behalf of Mr. Kevin Friloux, St. Charles Parish president. He indicated that the parish supported the project but asked that the following be considered:

1. Relocation be offerred to all residents.

2. CC road Hwy. 626 be relocated to the western-most side of the upper guide levee.

3. Spillway road connecting the communities of Montz and Norco be retained.

4. Provide full compensation to St. Charles Parish if Montz Park playground is displaced.

Mr. Merkarski's statement is Exhibit 7.

Ms. Alma Shallonharns, Montz Resident

Ms. Shallonharns asked where the residents would be relocated. Colonel Lee responded that once the project gets to the authorization phase and a local sponsor is determined, then people will be relocated. This means residents in the community can relocate themselves and the government will pay in accordance with the relocation laws or the local sponsor will pay, depending on what happens. Ms. Shallonharns was referred to Mr. Randy Florent, U. S. Army Corps of Engineers, Real Estate Attorney, for additional discussion.

Mr. Mark Chatry, Louisiana Department of Wildlife and Fisheries

Mr. Chatry stated that the proposed diversion plan has estuarine enhancement as its sole purpose and, most importantly, offers controlled diversions of much smaller volumes of water over an extended period. Since the diversions will be controllable, the timing and amount of freshwater releases can be managed so that the benefits to fish and wildlife are maximized and the negative effects are minimized. The success of two existing freshwater diversion structures in Plaquemines Parish, managed in part by the department, has proven these goals attainable.

The department is aware that certain fisheries resources will be displaced. However, the department firmly believes that the increase in overall productivity of the basin, along with increased use of existing resources, will result in real benefits to the vast majority of interests.

The Department of Wildlife and Fisheries believes that freshwater diversion is the single most effective means by which the rate of deterioration of our coastal areas can be slowed. The department strongly endorses the proposed plan and urges all those concerned to give it their favorable consideration.

Mr. Chatry's statement is Exhibit 8.

Mr. William Chauvin, American Shrimp Canners and Processors Association

Mr. Chauvin stated that the benefits derived from diversion of freshwater will far outweigh negative impacts of any Mississippi River water quality problems. He added that the prime benefit derived over the life of the project is an estimated reduction of thousands of acres in marsh loss rate caused by saltwater intrusion. This reduction is of substantial consequence to the future of the Louisiana seafood industry. Louisiana is the number one producing state in volume for shrimp but that position is threatened by marsh loss in the nursery area. It seems now that over 70 percent of the entire U. S. supply of shrimp will be imported. The situation is even more signifcant in the oyster industry. A large supply of canned oysters is being imported while a minor amount is being canned domestically. An estimated 100 percent increase in commercial oyster harvest in the area could result from the project. This would be beneficial not only to the fishing, processing, and marketing segments of the industry but to consumers and the nation as well. In closing, Mr. Chauvin said that the result of the project would be greater fisheries production and business opportunities in commercial and sport fisheries and related support industries. Employment would increase as well.

Mr. M. L. Cambre - Chairman, St. Charles Coastal Zone Advisory Committee

Mr. Cambre read a resolution of the St. Charles Coastal Zone Advisory Committee supporting the project. The resolution urged the St. Charles Parish Council to support the project. The resolution is Exhibit 9. Mr. Cambre also made his own statement. He stated his support for the project because it has become evident that it is necessary. He further commented that without this project, salinity will increase. The proposed project is vital to the area, though if the biggest obstacle to the project is resident relocation, the Corps should re-engineer the project to minimize this problem.

Mr. Cambre's statement is Exhibit 10.

Mr. Clark Braud, Laplace, Louisiana

Mr. Braud was concerned with the fastest procedures to get Congress to fund the study. Colonel Lee said that proposed plans would take about a year for review proceedings. Then the plan goes to the Division level at Vicksburg, to the Mississippi River Commission, and to the Washington level to be authorized by Congress. Mr. Braud asked when residents would know the date to move. Colonel Lee responded that residents would not have to move until after the plan is authorized, funded, and designed in detail. Colonel Lee emphasized that the residents will be given enough time. Two acts of Congress are necessary to authorize a project.

Ms. Gail Vinnett - Montz, Louisiana, (Laplace)

Ms. Vinett was concerned about whether someone placing another home in that area would be included or covered in the relocation plan.

Colonel Lee emphasized that this stage of the study is preliminary. He indicated that if people want to sell or build onto their homes, they are free to do so until the project is authorized, the exact area to be taken is determined, and negotiations are started or an act is taken by the local sponsors.

Ms. Vinnett asked if the original plan still exists. Colonel Lee noted that the tentatively selected plan is the subject of this public meeting.

Ms. Vinnett stated her concern about the amount of time before relocation begins. Colonel Lee indicated that if the project proceeds normally, relocations wouldn't begin for eight years.

Mr. Stanford Caillouet - Destrehan, Louisiana

Mr. Caillouet questioned what would be done about pollution once Mississippi River water enters the lake. He asked if the outlet from the river to the lake would be dredged, marked, and lighted for recreation purposes. Colonel Lee said a catch basin placed into the lake would be dredged periodically. Mr. Falcolm Hull, project manager, indicated that markers are not part of the plan. Colonel Lee said that if the outlet is to be marked by the Federal government, the coast guard will do it.

Mr. Williamson indicated that he would answer the question concerning pollution. He stated that he believes the majority of contamination will settle out when water is discharged through the sediment basin. Mr. Caillouet asked what the difference in cost would be between going through the spillway with the new diversion or through the channel in the proposed plan. Colonel Lee said the cost would be at least $10,000,000 more than the tentatively selected plan. Mr. Caillouet

asked about raw sewage discharging into the lake. Mr. Williamson emphasized that the major causes and contributors to the problem are being corrected. He added that this problem is probably monitored and under citation by EPA or DNR.

Ms. Agatha Seaton - Montz, Louisiana

Ms. Seaton stated that she and other residents of Montz are aware of the coastal problems surrounding them. She further emphasized her support for the tentatively selected plan and said she hopes the plan is carried out.

Closing Remarks

Colonel Lee emphasized that a written statement must be submitted to Planning Division, U. S. Army Corps of Engineers, New Orleans District before the 16th of January to be included as part of the record. Colonel Lee also expressed thanks for public participation. Mr. Williamson expressed appreciation to those attending the meeting for their participation. The meeting was then adjourned.

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160

REPLY TO
ATTENTION OF

Agenda

Public Meeting
on
Mississippi and Louisiana Estuarine Areas
Freshwater Diversion to
Lake Pontchartrain Basin and Mississippi Sound

December 6, 1983

I. Welcome	Darrell Williamson Assistant Secretary Louisiana Department of Transportation, Office of Public Works
II. Opening Statement	Colonel Robert C. Lee District Engineer US Army Corps of Engineers, New Orleans District
III. Presentation	Falcolm Hull Study Manager US Army Corps of Engineers, New Orleans District
IV. Public Statements	Interested Individuals
V. Summary	Colonel Robert C. Lee
VI. Closing Remarks	Darrell Williamson

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LIST OF PERSONS ATTENDING
PUBLIC MEETING IN DESTREHAN, LOUISIANA

Name	Representing
Mr. Stanford J. Caillouet	Self
Mr. & Mrs. David Allen Green, Sr.	Self
Mr. & Mrs. George Ledoux	Self
Mr. James G. Drake	Self
Mrs. Myrtle Creecy	Self
Mrs. Dorothy Richard	Self
Mrs. Irma Eugene	Self
Mrs. Barbara A. Dunn	Self
Mrs. Rosa Mae Geason	Self
Mrs. Emaline Smith	Self
Mr. Hubert D. Shurtz	Self
Mrs. Ann Eugene Hines	Self
Mr. Roland L. Keller	Self
Mrs. Daniel J. Keller	Self
Mrs. Mable Rainey	Self
Mr. Larrie L. Augillard	Self
Mr. Ralph Schexnaydre	Self
Mrs. Elibert Francie	Self
Mr. & Mrs E. K. Johnson, Jr.	Self
Mrs. Mary F. Breaux	Self
Mrs. Maritta L. Victor	Self
Mr. & Mrs. Herbert Creecy, Sr.	Self
Mr. Victor Mavar	Self
Mr. & Mrs. Lionell Smith	Self
Mr. Adrian D. Smith	Self
Mr. Melvin Creecy	Self
Ms. Marcia Jalvia	Self
Mr. Willie Leonard	Self
Mr. Hugh C. Brown	Williams Inc.
S. A. Walker	Self
Mr. Roland Jalvia, Jr.	Self
Mrs. Vera Hawkins Jalvia	Self
Mrs. Audrey Hawkins	Self
Mr. Gregory Jalvia	Jalvia-Hawkins
Mr. Ernen Pedesellal	Self
Mrs. Linda Augillard	Self
Mr. Joseph Calcogm	Self
Mr. & Mrs. Ronald L. Pafe	Self
Mr. H. LeBlanc, Jr.	B&C Rod & Gun
Mr. Chuck Killerbrew	La. Dept. of Wildlife & Fisheries
Mr. M. J. Creecy	Self

Exhibit 2

LIST OF PERSONS ATTENDING
PUBLIC MEETING IN DESTREHAN, LOUISIANA (Continued)

Name	Representing
Mr. Gary Smith	Dept. of Natural Resources
Mrs. Evelina Victor	Self
Mr. Hubert J. Schlandecker	Hunting
Mr. Dennis M. Casey	Self
Mr. Joseph Smith	Self
Mrs. Wanda Anderson	Self
Mr. Ferman Victor	Self
Mrs. Cora Smith	Self
Mrs. Dorothy Mae Jones	Self
Mr. Bill Miller	Self
Mr. George T. Oubre	Self
Mrs. Charlotte Fremoux	League of Women Voters of Louisiana
Mr. Robert Lacy	Self
Mr. Robert Eugene	Self
Mrs. Mary LaRose	Self
Mrs. Gloria Creecy Larche	Self
Mrs. Charlotte T. Mason	Self
Mrs. Karen A. Mason	Self
Mrs. Carmen Mason	Self
Mrs. Wilhelmina Syhre	Self
Mrs. Mable E. Ceaser	Self
Mrs. Janice Etinne	Self
Mr. Norman Richard	Self
Ms. Agatha Sexton	Self
Mr. Glen Landry	Self
Mrs. Eaelyn Richard	Self
Mr. Philip Seymour	Self
Mr. Martin L. Richard, Sr.	Self
Mr. Wayne A. Brady	Self
Mr. Herman Francis	Self
Mr. Winslow Parquet	Self
Mr. Melieur Brown	Self
Mr. Arthur Harrison	Self
Mr. & Mrs. Hitheen A. Williams	Self
Mrs. Gladys Harrison	Self
Mrs. Mary Vukes	Self
Mr. W. L. Caughman, Jr.	Self
Mr. Michael Chester	Self
Mr. Sal Calugm	Corps of Engineers, New Orleans District
Mr. Reginald Hawkins	Self
Mrs. Cleoma Smith	Self

LIST OF PERSONS ATTENDING
PUBLIC MEETING IN DESTREHAN, LOUISIANA (Continued)

Name	Representing
Mrs. Dorothea Creecy	Self
Mr. Wendell H. Creecy	Self
Verlian Noble	Self
Mrs. Rose Faucheux	Self
Mrs. Marian Francis	Self
Mr. Murphy Francis, Jr.	Self
Mr. Edyur Noble, Sr.	Self
Mr. John M. Lucas	Self
Mr. Larry J. Kliebert	Fisher Association
Mr. Lyle Torres	Self
Mr. Charles Torres	Self
Mr. Glen N. Montz	Self
Mr. Terry A. Landry	Self
Mr. Dale J. Jacob	Self
Mr. & Mrs. Joseph Smith, Jr.	Self
Mr. & Mrs. Tommy Berthelet	Self
Mr. Vernon Behrhorst	Self
Mr. Rick Bush	Corps of Engineers, New Orleans District
Mr. Robert L. Ancelet	Self
Mr. L. Brandt Savoie	La. Dept. of Wildlife & Fisheries
Mr. Rod E. Emmer	Self
Mr. Harry Schafer	Self
Mrs. Barbara S. Barreca	St. Charles Parish Dept. of Emergency Preparedness
Mrs. Sherry Thompson	Self
Mr. Ron Thibodeaux	Times-Picayune
Senator Ron Landry	Senate
Mr. Ralph R. Miller	State Representative
Mr. Donald Hogan	Councilman, St. Charles Parish
Mr. Barney Barrett	La. Dept. of Fish & Wildlife
Mr. Richard Stuart	Corps of Engineers, Mississippi River Commission
Mr. David W. Fruge'	U. S. Fish & Wildlife Service
Mr. Gerry Waguespack	La. Wildlife Federation

LIST OF PERSONS ATTENDING
PUBLIC MEETING IN DESTREHAN, LOUISIANA (Continued)

Name	Representing
Mr. E. D. Shipman	Self
Mr. Rodger Baudier, Jr.	Self
Mr. Gerald Bodin	US Fish and Wildlife Service
Mr. Bruce Rodrigue	St. Charles Parish Councilman
Mr. Dave Merkarski	Coastal Zone Management Council
Mrs. Alma Shallowharns	Self
Mr. Mark Chatry	La. Dept. of Fish and Wildlife
Mr. William Chauvin	American Shrimp Canners and Processors Association
Mr. M. L. Cambre	Self
Mr. Patrick Codere	Self
Mrs. Mary Codere	Self
Mr. C. Braud	Self
Mrs. Hilda O. Carter	Self
Mrs. Gail C. Vinnett	Self
Mr. Keith Fremin	Self
Mr. Sylvester Williams	Self
Mrs. Olivi J. Augillaud	Self
Mr. Albert Poche	Manchac Fishermans Association
Mr. Charles Calcagm	Self

LIST OF PERSONS WHO EXPRESSED THEIR VIEWS
AT THE PUBLIC MEETING

Mr. Gerald Bodin	US Fish and Wildlife Service
Mr. Bruce Rodrigue	St. Charles Parish Councilman
Mr. Dave Merkarski	Coastal Zone Management Commission
Mrs. Alma Shallonharns	Resident of Montz, Louisiana
Mr. Mark Chatry	La. Dept. of Fish and Wildlife
Mr. William Chauvin	American Shrimp Canners and Processors Associaton
Mr. M. L. Cambre	Chairman, St. Charles Coastal Zone Advisory Committee
Mr. C. Braud	Resident of Laplace, Louisiana
Mr. Stanford Cauillouet	Resident of Destrehan, Louisiana
Mrs. Agatha Seaton	Resident of Montz, Louisiana
Mrs. Gail C. Vinnett	Resident of Laplace, Louisiana

Exhibit 3

SENTATION

FALCOLM HILL

IK YOU, COLONEL LEE/LTC WILLIS.

DE 1
E SUPERED
R STUDY AREA

THE PROBLEMS IN THE RICH AND PRODUCTIVE COASTAL MARSHLANDS BEGAN IN EARNEST WHEN MAN HARNESSED THE MISSISSIPPI RIVER AND ITS TRIBUTARIES IN THE NAME OF FLOOD CONTROL.

DE 2
ROLOGIC CYCLE

WITHOUT THE ANNUAL FRESH WATER AND SEDIMENTS FROM THE RIVER, THE NATURAL PROCESSES OF SUBSIDENCE, COMPACTION, EROSION, AND SALTWATER INTRUSION, AND MAN'S CHANNEL DREDGING ACTIVITIES HAVE CAUSED COASTAL LAND LOSS AT THE ALARMING RATE OF 40 SQUARE MILES PER YEAR.

DE 3
STAL LAND
S

THE LOSS AND ALTERATION OF MARSH HABITAT HAS ADVERSELY AFFECTED THE PRODUCTIVITY OF OUR FISH AND WILDLIFE RESOURCES.

DE 4
IMP BOAT

THE HARVEST OF MANY COMMERCIALLY-IMPORTANT ESTUARINE SPECIES SUCH AS SHRIMP, MENHADEN, OYSTER, BLUE CRAB,

DE 5
TS

NUTRIA, MUSKRAT, MINK, OTTER, AND RACCOON HAS GENERALLY DECLINED.

DE 6
S

IN 1982, OUR FIRST STEP IN DEVELOPING A PLAN TO REDUCE LAND LOSS AND INCREASE FISH AND WILDLIFE PRODUCTIVITY WAS TO RECONVENE THE INTERAGENCY AD HOC GROUP ESTABLISHED IN 1969. THE GROUP WAS CHARGED WITH IDENTIFYING DESIRABLE SALINITY CONDITIONS FOR FISH AND WILDLIFE. THE GROUP INCLUDED FEDERAL, LOUISIANA AND MISSISSIPPI STATE AGENCIES WITH RESPONSIBILITIES FOR WATER RESOURCES.

shot 4

SLIDE 7
STUDY AREA
WITH RED OVERLAY

THE AD HOC GROUP RECOMMENDED THAT A SALINITY REGIME--THAT IS, SYSTEMATICALLY CONTROLLING THE SALTWATER IN THE ST. BERNARD MARSHES--WOULD BE BENEFICIAL TO OYSTERS. IF THE SALINITY REGIME IS ESTABLISHED IN THE ST. BERNARD MARSHES, THE PRIMARY ZONE OF OYSTER PRODUCTIVITY WOULD BE THIS AREA SHOWN IN RED.

SLIDE 8
GRAPH
"OPTIMUM SALINITY
REGIME"

THE REGIME IS BASED ON A TEN-YEAR LOUISIANA WILDLIFE AND FISHERIES STUDY AND WOULD MIMIC SALINITY CONDITIONS THAT EXISTED WHEN THE MISSISSIPPI RIVER OVERFLOWED ITS BANKS EVERY SPRING. THIS REGIME, WHILE BENEFITING OYSTERS, WOULD ALSO BE FAVORABLE FOR MOST FISH AND WILDLIFE SPECIES. SALINITIES WOULD BE REDUCED TO 7 AND 8 PPT IN APRIL AND MAY AND ALLOWED TO INCREASE TO ABOUT 16 PPT IN THE FALL AND WINTER.

SLIDE 9
MANY MEASURES
T

TO ACHIEVE THE SALINITY REGIME, WE INVESTIGATED A NUMBER OF MANAGEMENT MEASURES. WE FOUND THAT DIVERTING FRESH WATER FROM THE MISSISSIPPI RIVER TO THE MARSHES AND ESTUARIES ON AN AREA-WIDE SCALE IS THE BEST WAY TO ESTABLISH THE FAVORABLE SALINITY CONDITIONS, ENHANCE VEGETATIVE GROWTH, REDUCE LAND LOSS, AND IMPROVE FISH AND WILDLIFE PRODUCTION.

SLIDE 10
STUDY AREA MAP
OVERLAY

OUR PRELIMINARY STUDIES IDENTIFIED 13 POTENTIAL FRESHWATER DIVERSION SITES ALONG THE MISSISSIPPI RIVER. THE TEN SITES ABOVE NEW ORLEANS ARE SHOWN IN RED. THE THREE SITES IN AND BELOW NEW ORLEANS ARE SHOWN IN BLACK.

SLIDE 11
STUDY AREA MAP
OVERLAY - 3 SITES

WE ANALYZED THE ENGINEERING CHARACTERISTICS, POTENTIAL ENVIRONMENTAL, ECONOMIC, AND SOCIAL EFFECTS OF THE SITES. WE THEN SELECTED THREE SITES FOR FURTHER ANALYSIS: BONNET CARRE', INNER HARBOR NAVIGATION CANAL, AND RIVERBEND. WE ANALYZED EACH SITE FOR DIFFERENT SIZE DIVERSION FLOWS AND COMBINED THE SITES AND FLOWS INTO 6 ALTERNATIVE PLANS.

This is due to a combination of factors including, saltwater intrusion, subsidence and erosion. We in St. Charles Parish are well aware of the ill effects of this process. In the LaBranche Wetlands, adjacent to the spillway, the Parish, has lost over 4,500 acres of forested habitat and over 6,300 acres of marsh having been converted to open water since 1956. Within the study area to be effected by this project over 146,058 acres or 2.5 square miles per year of land are expected to be lost within the next 50 years if no action is taken to retard this process.

What will this mean economically? The wetlands within the study area support 1.2 billion dollars annually in mineral production; 96 million pounds in fishery resources valued at $52 million and over $800,000 annually in the harvest of furbearing animals and alligators. If nothing is done this dollar amount is expected to be reduced by over 47 percent.

Today we are asked to consider a freshwater diversion project which is designed to improve the habitat and productivity of fish and wildlife resources, preserving and restoring wetlands, enhancing vegetative growth and establishing a favorable salinity gradient. I fully endorse this project but would like to express some reservations I have to the tentative plan as presented.

Initially I would like to applaud the selection of the Bonnet Carre Spillway as the diversion site. This site represents the least expensive

ST. CHARLES PARISH

P.O. BOX 302 • HAHNVILLE, LOUISIANA 70057
783-6246 466-1994 (N.O. Line)

M. FRILOUX
IH PRESIDENT

Statement for the December 7th 1983 Public Hearing on the U.S. Army Corps of Engineers feasibility study for freshwater diversion to Lake Pontchartrain Basin and Mississippi Sound.

As President of St. Charles Parish this project is of particular concern to me. Seventy-eight (78) percent of St. Charles total land acreage is wetlands. The wetlands in south Louisiana and St. Charles Parish are the backbone of our economy, lifestyles and cultural identity. The wetlands of Louisiana help contribute to over 30% of the nation's commercial fish harvest and about 40% of the nation's fur harvest. Our wetlands; were created by the annual overflow of sediment laden waters of the Mississippi River, which was molded by the sea into tidal ponds, inlets and estuaries. These estuaries support some of the richest and most productive wildlife and fisheries resources in the world; But construction of the Mississippi River levees prevented the overbank flooding and contained the silt and sediment that for centuries built new land and replenished the fresh water and nutrients necessary for growth and productivity. As a result of this containment Louisiana is losing approximately 40 square miles of wetland annually.

L.L.+ 7

Evelyn Richard
Mattie Richard
Norman Richard
Dorothy Richard
Ann E. Hines
Mrs Marian Francis
Mrs [illegible] Brumfield
Emaline Smith
Rosa Mae Gleason
Carrie [illegible]
Melvin Brown
Mary F Breaux
Alma Shallowhorne (Ursin William Property)
Herbert Caseley Sr

06 DEC 83

To Whom It May Concern:

We, the concerned citizens and home owners of Montz, Louisiana, hereby respectfully request that the Government of the State of Louisiana, or the Federal Government of the United States of America to PLEASE purchase the entire residential area in Montz, Louisiana, East of the Louisiana Power and Light plant and West of the Bonnett Carrie Spillway at the Mississippi River on the South and on the North near the Illinois Railroad Tracks.

The proposed structure, if built to its completion, would downgrade property value and eliminate the Southeast evacuation route to Norco, Louisiana.

Again, we the property owners in the affected area, wish that the agents sponsoring the proposed projects, consider purchasing the entire impacted area.

Thank you very much.

Attached Signatures

are needed if the rich renewable resources of the Northern Gulf Coast are to be maintained for generations yet to come.

Thank you.

[illegible] million pounds per
[illegible] landings
[illegible],

[illegible] effort valued
[illegible], and

[illegible] commercial fisheries
[illegible] harvests, and
[illegible] populations.

[illegible] in full support of freshwater
[illegible] to the tentatively selected plan.
[illegible] biological standpoint, the diversion
[illegible] the other sites evaluated. Being
[illegible] freshwater environment, distant from prime
[illegible] structure will allow freshwater flow
[illegible] salinity conditions in the stressed
[illegible] along the western shore of Lake
[illegible] will also allow for a reduction of excess
[illegible] and pollutants and for greater solar heating of the cooler
[illegible] prior to its reaching the prime estuarine
[illegible]. Furthermore, fresh water diverted at this location
[illegible] accomplish the study goals
[illegible] locations downstream from New Orleans.

[illegible] recommends that the following measures
[illegible] and wildlife conservation:

[illegible] be recommended
[illegible]

[illegible] be conducted to develop
[illegible] guidelines for the
[illegible] and to design
[illegible] affected area.

[illegible] that the proposed diversion plan
[illegible] wetlands loss problem in the study area,
[illegible] region of Louisiana and Mississippi.
[illegible] be intensified to reduce wetland loss and saltwater
intrusion throughout the coastal zone. Such efforts must include
improved [illegible] and maintenance of water resource projects, improved
[illegible] dredging and other
regulated works, and improved management of freshwater and sediment
to maximize delta building and minimize saltwater intrusion and marsh
[illegible] of these efforts, following the proposed diversion plan,

United States Department of the Interior
FISH AND WILDLIFE SERVICE
POST OFFICE BOX 4305
103 EAST CYPRESS STREET
LAFAYETTE, LOUISIANA 70502

STATEMENT OF U.S. FISH AND WILDLIFE SERVICE
PRESENTED AT PUBLIC MEETING TO DISCUSS
THE TENTATIVE PLAN FOR FRESHWATER DIVERSION
INTO THE LAKE PONTCHARTRAIN BASIN AND MISSISSIPPI SOUND

Presented December 6, 13, and 15, 1983

Colonel Lee, distinguished guests, ladies and gentlemen, my name is Gerald Bodin. I am presenting this statement on behalf of Mr. James Pulliam, Regional Director, U.S. Fish and Wildlife Service, Atlanta, Georgia. My statement represents the views of the Fish and Wildlife Service on the tentatively selected plan for freshwater introduction into the Lake Pontchartrain Basin and Mississippi Sound of southeastern Louisiana and southwestern Mississippi.

Louisiana's coastal swamps and marshes are being lost at a rate exceeding 29,000 acres per year, and indications are that this rate is increasing. This alarming decline is an item of serious concern to the Fish and Wildlife Service because of the national importance of Louisiana's coastal wetlands to migratory waterfowl and other migratory birds, fur animal and alligator harvests, and sport and commercial fisheries. In contrast, Mississippi's coastal swamps and marshes are much more stable, having a loss rate of less than 300 acres per year.

The re-introduction of Mississippi River water into Louisiana's subdelta marshes has been recommended for decades as a viable means of reducing saltwater intrusion and wetlands deterioration. Plans are presently being developed under another study to divert Mississippi River water into Louisiana's Barataria and Breton Sound Basins. Substantial benefits to fish and wildlife are expected to result from these diversions. The plan developed under the present study recommends that a major freshwater diversion structure be installed in the Bonnet Carre Spillway in St. Charles Parish, Louisiana.

The tentatively selected plan would result in substantial benefits to fish and wildlife, based on studies conducted jointly by the Fish and Wildlife Service, Corps of Engineers, and Louisiana Department of Wildlife and Fisheries in consultation with the Mississippi Bureau of Marine Resources, Gulf Coast Research Laboratory, and National Marine Fisheries Service. Some of these benefits include:

- a reduction of 10,500 acres in the amount of coastal wetlands lost in the study area over the next 50 years;
- a reduction in saltwater intrusion and creation of a salinity regime more favorable to fish and

Exhibit 5

SLIDE 32
[illegible] OF PLAN
RESPONSIBILITIES

IN THE DIVISION OF PLAN RESPONSIBILITY BETWEEN THE FEDERAL GOVERNMENT AND THE NON-FEDERAL SPONSORS, THE NON-FEDERAL SPONSORS' RESPONSIBILITIES ARE: THEY MUST PROVIDE WITHOUT COST TO THE UNITED STATES, ALL LANDS, EASEMENTS, AND RIGHTS-OF-WAY NECESSARY FOR CONSTRUCTION AND OPERATION OF THE WORKS, MUST HOLD AND SAVE THE UNITED STATES FREE FROM DAMAGES, MUST OPERATE AND MAINTAIN THE WORKS, MUST CONSTRIBUTE 25% OF THE CONSTRUCTION COSTS FOR THE DIVERSION STRUCTURE, CHANNELS, LEVEES, AND ASSOCIATED WORKS AND 50% OF THE CONSTRUCTION COSTS FOR RECREATION FACILITIES, AND MUST ASSURE ADEQUATE PUBLIC ASSESS TO THE PROJECT AREA.

SLIDE 33
TITLE SLIDE

THAT CONCLUDES OUR DESCRIPTION OF OUR TENTATIVELY SELECTED PLAN TO DIVERT FRESHWATER TO THE LAKE PONTCHARTRAIN BASIN AND MISSISSIPPI SOUND.

(AD LIB CLOSE)

MAY I HAVE THE LIGHTS, PLEASE. THANK YOU FOR YOUR ATTENTION.

WESTERN QUADRANT OF LAKE PONTCHARTRAIN, THE DIVERSION WOULD INCREASE TURBIDITY, COLIFORM COUNTS, AND OTHER TYPES OF CHEMICAL CONCENTRATIONS, AND WOULD SLIGHTLY LOWER TEMPERATURES. THESE IMPACTS WOULD DISSIPATE RAPIDLY TO THE EAST. WATER QUALITY IMPACTS MAY NOT BE ANY MORE SIGNIFICANT THAN WHEN TRIBUTARY STREAMS TO LAKE MAUREPAS AND LAKE PONTCHARTRAIN HAVE FAIRLY HIGH FLOW.

SLIDE 28
TABLE
"BONNET CARRE' PLAN COST"

THE FIRST COST OF THE PLAN IS ESTIMATED AT $55.6 MILLION WITH ANNUAL CHARGES OF $5.4 MILLION. THE AVERAGE ANNUAL BENEFITS ATTRIBUTABLE TO THE PLAN ARE ESTIMATED AT $6.8 MILLION. THE BENEFIT-COST RATIO IS 1.25 TO 1.

SLIDE 29
TABLE, "REC. COSTS"

OF THE $55.6 MILLION, THE RECREATION DEVELOPMENT PLAN WOULD COST $742,800.

SLIDE 30
TABLE
"BONNET CARRE' PLAN COST APPORTIONMENT"

TO IMPLEMENT THE PLAN, WE PROPOSE THAT UNDER OUR TRADITIONAL COST SHARING POLICIES THE FIRST COST OF $55.6 MILLION BE APPORTIONED AS FOLLOWS: THE FEDERAL GOVERNMENT WOULD BEAR 75 PERCENT OF THE FIRST COSTS OF THE DIVERSION STRUCTURE, CHANNELS, LEVEES, AND ASSOCIATED WORKS, AND 50% OF THE FIRST COSTS OF THE RECREATION FACILITIES OR $41,523,000. THE NON-FEDERAL SPONSORS' COSTS WOULD BE $14,089,000, AS SHOWN HERE.

SLIDE 31
TABLE
BONNET CARRE'
"PLAN BREAKDOWN OF NON-FEDERAL COST"

NON-FEDERAL INTERESTS WOULD BEAR ALL COSTS ASSOCIATED WITH THE OPERATION, MAINTENANCE, AND REPLACEMENTS, CURRENTLY ESTIMATED AT $818,000 ANNUALLY. THE CURRENT ADMINISTRATION IS REVIEWING COST SHARING POLICIES AND FINANCING OF WATER RESOURCES DEVELOPMENT PROJECTS. WHILE SPECIFIC PRINCIPLES GOVERNING COST SHARING IN THE TENTATIVELY SELECTED PLAN HAVE NOT BEEN ESTABLISHED, NON-FEDERAL INTERESTS CAN EXPECT THAT THEIR LEVEL OF FINANCIAL PARTICIPATION MAY BE GREATER UNDER THE PRESENT ADMINISTRATION'S COST SHARING POLICIES.

INFORMATION AND ESTABLISH BASELINE CONDITIONS FOR MEASURING FUTURE CHANGES. THE EFFECT OF THE DIVERTED WATERS ON HYDROLOGICAL AND WATER QUALITY CONDITIONS AND ON FISH AND WILDLIFE WILL BE ASSESSED IN THE POST-CONSTRUCTION PHASE. THE INTERAGENCY GROUP WILL USE ALL THIS INFORMATION TO REFINE THE OPERATING SCHEME AND THE SCOPE OF THE LONG-TERM MONITORING PHASE.

SLIDE 25
REDUCED LAND LOSS SUPER

THE PLAN OFFERS MANY BENEFITS. AS A RESULT OF THE FRESHWATER DIVERSION, SALTWATER INTRUSION THAT KILLS MARSH VEGETATION AND CREATES OPEN WATER WOULD BE REDUCED. NUTRIENTS AND SEDIMENTS IN THE FRESH WATER DIVERTED INTO THE ESTUARINE SYSTEM WOULD RESULT IN HEALTHIER MARSH HABITAT AND WOULD REDUCE LAND LOSS. 10,500 ACRES OF MARSH AND WOODED SWAMP ADJACENT TO LAKE MAUREPAS AND LAKE PONTCHARTRAIN WOULD BE SAVED. SALINITY CONDITIONS FAVORABLE TO FISH AND WILDLIFE WOULD BE CREATED. OYSTER PRODUCTION WOULD INCREASE BY 7,600,000 POUNDS AND THE PRODUCTIVITY OF WHITE SHRIMP, BLUE CRAB, CROAKER, AND MENHADEN SHOULD GREATLY INCREASE.

SLIDE 26
INTANGIBLE BENEFITS SUPER

THE PLAN WOULD ALSO PROVIDE INTANGIBLE BENEFITS. HABITAT CONDITIONS FOR NONCOMMERCIAL AND NONGAME SPECIES AND PRODUCTIVITY OF WOODED SWAMPS ASSOCIATED WITH FISH AND WILDLIFE WOULD BE IMPROVED. BUSINESS OPPORTUNITIES IN COMMERCIAL AND SPORT FISHERIES AND WILDLIFE INDUSTRIES AND RELATED SUPPORT INDUSTRIES WOULD INCREASE.

SLIDE 27
ADVERSE IMPACTS

ESTUARINE SPECIES LESS TOLERANT OF LOW SALINITY WATERS SUCH AS BROWN SHRIMP, SPECKLED TROUT, AND RED DRUM MAY BE DISPLACED EASTWARD BY THE DIVERSION. IN THE SOUTH-

INDIVIDUALS IN PAYMENT FOR NORMAL EXPENSES INCURRED. LOSSES OR DAMAGE OF ANY ITEMS MOVED AS WELL AS STORAGE COSTS WILL BE PAID WHERE INSURANCE TO COVER THESE ITEMS IS NOT AVAILABLE. OTHER ITEMS THAT WOULD BE PAID INCLUDE:

CLOSING COSTS, LOAN PENALTY PAYMENTS, AND THE DIFFERENCE IN THE COST OF INTEREST ON THE OLD HOUSE LOAN AND THE INTEREST THAT MUST BE PAID ON A NEW HOUSE. WE WILL BE HAPPY TO TALK WITH THOSE OF YOU WHO WANT MORE INFORMATION ABOUT THE RELOCATION PROCESS AFTER THIS MEETING.

SLIDE 22
SITE PLAN
MAP QUADS

CONSTRUCTION WILL REQUIRE RELOCATION OF SECTIONS OF LOUISIANA HIGHWAY 628, THE ILLINOIS CENTRAL RAILROAD, THE LOUISIANA AND ARKANSAS RAILROAD, AND SEVERAL PIPELINES.

SLIDE 23
CARTOON

A COMPREHENSIVE MONITORING SYSTEM WILL GUIDE STRUCTURE OPERATION AND ASSESS THE EFFECTS OF THE DIVERTED FRESH WATER ON FISH AND WILDLIFE POPULATIONS. THE CORPS OF ENGINEERS AND THE NON-FEDERAL SPONSOR WILL ESTABLISH A TWO-STATE INTERAGENCY ADVISORY GROUP TO DESIGN AND CONDUCT THE MONITORING PROGRAM. THE INTERAGENCY GROUP WILL INCLUDE FEDERAL, STATE, AND LOCAL AGENCIES RESPONSIBLE FOR WATER RESOURCES. THE REQUIRED BIOLOGICAL, HYDROLOGICAL, AND WATER QUALITY DATA WILL BE COLLECTED FROM A NETWORK OF SAMPLING STATIONS SET UP THROUGHOUT THE STUDY AREA.

SLIDE 24

THE PROGRAMS IN THE MONITORING SYSTEM WILL BE CONDUCTED IN THREE PHASES--A 3-YEAR PRECONSTRUCTION PHASE, A 4-YEAR POSTCONSTRUCTION PHASE, AND A LONG-TERM PHASE. IN THE PRECONSTRUCTION PHASE, WE WILL SUPPLEMENT EXISTING

THE 1,460-FOOT LONG SEDIMENTATION TRAP WOULD BE PLACED 3,500 FEET DOWNSTREAM OF THE DIVERSION STRUCTURE TO CATCH THE SAND PORTION OF THE SEDIMENTS. THE BOTTOM WIDTH WOULD BE 780 FEET WITH SIDE SLOPES OF 1 VERTICAL ON 3 HORIZONTAL.

PART OF THE UPPER GUIDE LEVEE WOULD BE RELOCATED TO INCLOSE THE DIVERSION CHANNEL WITHIN THE FLOODWAY AND PROVIDE FLOOD PROTECTION TO SURROUNDING RESIDENTS. A 600-FOOT TIMBER ACCESS BRIDGE WOULD BE PLACED ACROSS THE DIVERSION CHANNEL ON THE LAKE SIDE OF THE ILLINOIS CENTRAL RAILROAD TRACKS TO GIVE SAND HAULERS ACCESS IN AND OUT OF THE FLOODWAY.

SLIDE 19
SKETCH

AT THE LAKE END OF THE BORROW CHANNEL, RECREATION FACILITIES WOULD BE DEVELOPED CONSISTING OF TWO-LANE BOAT RAMPS, COURTESY PIERS, PARKING AREA, AND PICNIC TABLES.

SLIDE 20
STUDY AREA MAP W/REC SITE OVERLAY.

SIMILAR FACILITIES WOULD BE DEVELOPED AT FRENIER BEACH, THE RIGOLETS, AND POINT AUX HERBES IN LOUISIANA AND AT CEDAR POINT AND WOLF RIVER IN MISSISSIPPI.

SLIDE 21
MAP PLAN

APPROXIMATELY 32 STRUCTURES WOULD HAVE TO BE RELOCATED. THESE RELOCATIONS ARE UNAVOIDABLE BECAUSE THE STRUCTURES ARE LOCATED IN THE DIVERSION CHANNEL AND UPPER GUIDE LEVEE ALINEMENT. YOU PEOPLE LIVING IN THE RESIDENCES THAT WOULD BE RELOCATED BY THE PROJECT ARE PROTECTED BY THE UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION POLICIES ACT OF 1970. PEOPLE WHO ARE RELOCATED WOULD QUALIFY FOR THE ACTUAL COST OF MOVING OR AN AMOUNT AGREED UPON BY THOSE WHO WANT TO MOVE THEMSELVES, AND A RELOCATION PAYMENT TO ASSIST

SLIDE 15
STUDY AREA MAP "T.S.P." AND RECREATION SITES OVERLAY

THE TENTATIVELY SELECTED PLAN CONSISTS OF A CONTROL STRUCTURE AND ASSOCIATED WORKS AND SIX LOCATIONS FOR DEVELOPMENT OF RECREATION FACILITIES.

SLIDE 16
CUTAWAY SECTION STRUCTURE

THE CONTROL STRUCTURE WOULD CONSIST OF FOUR 20- x 20-FOOT BOX CULVERTS 455 FEET LONG IN A MISSISSIPPI RIVER LEVEE SETBACK. THE CONTROL STRUCTURE WOULD HAVE A MAXIMUM DESIGN CAPACITY OF 30,000 CUBIC FEET PER SECOND.

SLIDE 17
BAR CHART "SUPPLEMENTAL FLOW"

TO ACHIEVE THE OPTIMUM SALINITY REGIME, WATER WOULD BE DIVERTED FROM MARCH TO NOVEMBER. THE AVERAGE DIVERTED FLOW FOR THE PERIOD WOULD BE ABOUT 9,800 CFS. A MAXIMUM OF 30,000 CFS WOULD BE DIVERTED DURING THE MONTH OF APRIL THE STRUCTURE WOULD HAVE THE CAPABILITY OF DIVERTING THE REQUIRED SUPPLEMENTAL FLOW ON AN AVERAGE OF EVERY OTHER YEAR.

SLIDE 18
COLOR PHOTO INFLOW/OUTFLOW CHANNEL

THE INLET CHANNEL WOULD BE 25 FEET DEEP WITH A BOTTOM WIDTH OF 400 FEET, 1 VERTICAL ON 3 HORIZONTAL SIDE SLOPES, AND WOULD BE 0.2 MILES LONG. THE OUTFLOW CHANNEL WOULD BE 25 FEET DEEP WITH A BOTTOM WIDTH OF 400 FEET, 1 VERTICAL AND 3 HORIZONTAL SIDE SLOPES, AND WOULD BE 6.4 MILES LONG. THE CHANNEL IS DESIGNED TO CONTAIN ALL FLOWS WITHIN BANKS.

THE FIRST 3.8 MILES OF CHANNEL WOULD BE A NEW CHANNEL CUT FROM DIVERSION STRUCTURE TO THE EXISTING BORROW CHANNEL. THE BORROW CHANNEL HAS SUFFICIENT CAPACITY TO CONVEY THE MAXIMUM FLOW AND WOULD BE USED FOR 2.0 MILES. A NEW CHANNEL CUT WOULD BE REQUIRED FROM THE BORROW CHANNEL TO LAKE PONTCHARTRAIN.

SLIDE 12
TABLE
"SITE COMBINATIONS & MAXIMUM DESIGN FLOW"

OUR EVALUATION OF THE PLANS REVEALED THAT PLAN A--DIVERTING FRESH WATER AT RIVERBEND--AND PLAN D--DIVERTING WATER AT THE INNER HARBOR NAVIGATION CANAL--COULD NOT ACHIEVE THE DESIRED SALINTY REGIME. PLANS B, C, AND E--DIVERTING WATER IN VARIOUS COMBINATIONS AT RIVERBEND, IHNC, AND BONNET CARRE'--WERE TOO COSTLY AND GENERALLY CAUSED MORE ADVERSE IMPACTS.

SLIDE 13
STUDY AREA MAP OVERLAY - BONNET CARRE' SITE

THE ANALYSIS INDICATED PLAN F--DIVERTING WATER ONLY AT THE BONNET CARRE' SITE--IS THE BEST PLAN BECAUSE CONVEYANCE CHANNELS WOULD BE SHORTER, SCENIC RIVERS AND STREAMS WOULD NOT BE ALTERED, VERY LITTLE HABITAT ALTERED., ARCHEOLOGICAL AND HISTORICAL SITES WOULD NOT BE DISTURBED, AND ENGINEERING PROBLEMS WOULD BE LESS. PLAN F WAS THEREFORE DESIGNATED AS THE TENTATIVELY SELECTED PLAN.

SLIDE 14
COLOR SLIDE OF BONNET CARRE' STRUCTURE

AT THE BONNET CARRE' SITE, WE CONSIDERED MODIFYING PART OF THE SPILLWAY STRUCTURE FOR FRESHWATER DIVERSION. THE STRUCTURE IS DESIGNED TO OPERATE ONLY DURING PERIODS OF EXTREMELY HIGH WATER ON THE MISSISSIPPI. FRESHWATER DIVERSIONS WOULD, HOWEVER, BE MADE DURING THE PERIOD OF AVERAGE TO LOW FLOW ON THE RIVER. MODIFYING THE SPILLWAY STRUCTURE FOR FRESHWATER DIVERSION WOULD BE EXTREMELY EXPENSIVE AND WOULD JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE SPILLWAY. WE LOOKED AT OTHER POSSIBLE DIVERSION LOCATIONS NEXT TO THE SPILLWAY AND DETERMINED THAT A FRESHWATER DIVERSION STRUCTURE COULD BE PLACED JUST UPRIVER OF THE SPILLWAY STRUCTURE.

and most compatible alternative studied. I do have concerns regarding the placement of the control structure upriver of the existing spillway structure. This proposed structure necessitates the relocation of 26 homes and six trailers, disrupting the community of Montz. The report indicates that the structure cannot be included within the existing spillway because (and I quote) "modifying the spillway structure to incorporate a freshwater diversion structure would be extremely expensive. In addition a portion of the spillway would have to be closed for approximately two years to accomplish the modification. If a large flood occured on the Mississippi River and the spillway were operated with diminished capacity, areas might flood that otherwise would not have flooded". While I can understand the concern for safety, the report does not present sufficient information to objectively evaluate this statement. In regard to expense, the cost of displacing 32 families cannot be measured in dollars and cents alone. The community of Montz is a tight knit, homogenous community with large, extended families. The project calls for the relocation of a approximately half of the families in Montz.

The community has expressed a very real concern that as a result of this project their community will be destroyed. While some are not in opposition to relocation, the majority express opposition to relocation of only a portion of the community. While supporting the project, I ask the following to be considered:

1. The reevaluation of locating the diversion structure entirely within the spillway.
2. The minimization of displacement disruption to the community of Montz.

If it is demonstrated that it is technically and economically unfeasible to construct the entire project within the spillway, I ask the following to be considered.

1. Relocation be offered to all residents of the community who will feel a hardship due to the project. The community of Montz represents a relatively small community, totaling some sixty families. Relocation of the entire community to preserve the communities character would be possible while still preserving the economic feasibility of the project.

In addition to this major concern I would ask consideration to be given to the following.

1. The CC road, Hwy 626 be relocated to the western most side of the upper guide levee.
2. The spillway road, linking the communities of Montz & Norco be retained. This road provides a vital link between the two communities.
3. If the Montz Park and playground is to be displaced, full compensation be paid to St. Charles Parish.

Implementation of the plan would retain over 6,000 acres of wooded swamp and 4,000 acres of fresh to intermediate marsh. Some 4,000 acres of brakish marsh in St. Charles would be converted to fresh and intermediate marsh. Lowering the salinities would facilitate structural management to induce establishment of plant associations more valuable for wildlife. This would improve the condition of the swamp and potentially increase diversity in the marsh.

We applaud the Corps' plans to help protect our fish and wildlife resource, in that process let us not forget the value of our human resources.

Sincerely,

KEVIN M. FRILOUX
PARISH PRESIDENT

KMF:DAM:jcb

Colonel Willis, distinguished guests, ladies and gentlemen, my name is _____. The statement I will present represents the views of the Department of Wildlife and Fisheries concerning the proposed plan for controlled introduction of freshwater to the Pontchartrain Basin, Mississippi Sound, and the Upper Eastern marshes of Louisiana.

Since the turn of the century, state biologists have advocated diversion of fresh water from the Mississippi River to adjacent estuarine areas to enhance fisheries production. Over the past several decades, the Department has studied the effects on estuarine productivity of crevasses and, more recently, Bonnet Carre Spillway openings. We have concluded that the short term negative effects of such events are usually far outweighed by the long term increases in productivity. Unfortunately, it is the negative effects which are most often remembered from such an event. For this reason it is imperative that a clear distinction be made between a flood control Spillway opening and the plan for controlled freshwater diversion. Spillway openings are essentially uncontrolled releases of huge volumes of water for the purpose of flood protection. The proposed diversion plan under consideration, however, has as its sole purpose, estuarine enhancement, and most importantly, offers controlled diversions of much smaller volumes of water over an extended period. Since the diversions will be controllable, the timing and amount of freshwater releases can be managed so that the benefits to fish and wildlife are maximized and the negative effects minimized. The success of two existing freshwater diversion structures in Plaquemines Parish, managed in part by the Department, has proven these goals attainable.

The Department is aware that certain fisheries resources will be displaced. However, we firmly believe that the increase in overall productivity of the Basin, along with increased utilization of existing resources, will result in real benefits to the vast majority of interests.

The proposed salinity management scheme being considered here tonite was developed by the Department of Wildlife and Fisheries from decades of research and experience. We believe it to be a reasonable and justifiable plan, which will result in a more stable and consistently productive region. We also believe, however, that once the structure is in operation and the effects of the diversions are measured, modifications to the management scheme are inevitable. We believe, however, that these functional modifications can be achieved on a reasonable basis.

While the particulars of the diversion scheme are debatable, the need for controlled, supplemental freshwater input to the Basin is not. Saltwater intrusion has resulted in habitat loss and alterations to large areas of wooded swamp and fresh, brackish and intermediate marshes. This process continues to occur, and threatens more and more of our coastal region. The Department, as well as some of your staff, Colonel Willis, recognizes that the

Exhibit 8

diversion plan would not eliminate swamp and marsh loss, but it would significantly reduce the rates of loss throughout the Basin. The instability of salinity conditions which now exist in the Basin has contributed to the inconsistency of commercial and recreational fisheries production, and also has magnified the disastrous effects of occasional floodwaters and domestic pollution. This problem is sharply illustrated by the decline in oyster production in the Basin over the past 50 years. As saltwater intrusion progressed, the zone of favorable salinities for oyster production moved landward, and away from the vast, historically productive reefs and firm waterbottoms. The proposed freshwater diversion would shift the zone of greatest productivity back to the greatly superior reef areas, which are much less affected by floodwaters and pollution, and would help maintain a larger, more favorable, estuarine area.

The Corps of Engineers has understandably emphasized the benefits to the oyster industry in the proposed plan. The Department supports the claimed increases in oyster production and perhaps more importantly, believes that the unclaimed benefits to other fish, wildlife and land resources will be substantial. The increase in overall productivity of the Basin will provide for larger and more consistent commercial and recreational harvests, increased hunting and fishing opportunities, and the preservation of the local economies based upon the resources of the Basin.

The Department of Wildlife and Fisheries believes that freshwater diversion is the single, most effective means by which the rate of deterioration of our coastal areas can be slowed. For this reason, the Department commends you Colonel Willis, and your staff, for the preparation of this plan. The Department strongly endorses the proposed plan and urges all those concerned, to give it their favorable consideration.

RESOLUTION

Whereas, the St. Charles Parish Coastal Zone Advisory Committee is concerned about the landloss and coastal erosion problems of the Mississippi and Louisiana estuarine areas, including the Parish's LaBranche Wetland area within the shoreline of the Lake Pontchartrain, and;

Whereas, the U.S. Army Corp of Engineers has proposed a freshwater diversion plan which is designed to reduce saltwater intrusion, enhance habitat conditions, and improve fish and wildlife production within the Lake Pontchartrain Basin and the Mississippi Sound, and;

Whereas, the U.S. Army Corp has selected the use of the Bonnet Carre Spillway including an area adjacent to the upriver side of the spillway in the community of Montz, and;

Whereas, A technical conference and open public meeting on July 28, 1982 held with the U.S. Army Corp of Engineers to enable the Committee to assess the impact of such a project, and;

Whereas, the Corps feasibility report dated October 1983 was presented to the Committee on November 3, 1983, and;

Whereas, the Committee has taken into consideration the environmental and socio-economic aspects of the project.

NOW THEREFORE BE IT RESOLVED that the St. Charles Parish Coastal Zone Advisory Committee in its regular meeting of November 17, 1983 recommend to the Parish Council the approval of the project site and plan as presented.

BE IT FURTHER RESOLVED that the Committee pass its own resolution of approval at the December 5th Council Meeting and forward such a resolution of support at the full public hearing scheduled for Tuesday, December 6, 1983 at Destrehan High School Auditorium at 7:00 P.M.

A motion was made by Mr. Ramon Billeaud, seconded by Mr. Leon Fabre, to endorse the project as presented.

YEAS: Ramon Billeaud, Leon Fabre, Hubert Shurtz, Charlie Torres

NAYS: None

ABSENT: Charlie Smith, Ray Matherne, Roland Oubre

Exh L + 9

I fully support this fresh water diversion project because it has become evident that it is necessary. As a citizen that has been involved with the coastal zone and aware of the tremendous land loss of over 40 square miles per year, this project will greatly benefit us by retarding salt water intrusion. Since salt water intrusion is the greatest factor affecting our land loss problems, this project's beneficial factors will greatly out weigh its adverse impacts.

Without this project salinity levels will increase, putting severe stresses on our cypress swamps and many thousands of acres will be lost along with the hunting opportunities that go along with them. Habitat deterioration in the study areas will adversely affect productivity of fish and wildlife resources leading to declines in population of alligators, furbarers and important shelfish and finfish species. This decline in production will adversely affect employmnet and earnings in commercial fish and wildlife industries. Decreases in fish and wildlife productivity will cause a reduction of out-door recreational opportunities. The supply of fish and wildlife is anticipated to decrease to a level which would support 1,997,921 man-days of recreation by the year 2040. This is a reduction of 127,417 annual man days from its present use level. This loss is valued at over $900,000 per year. Market area demands are projected to reach 56,732,809 man days by the year 2040. This will cause us many serious problems. Our quality of life as we have known will be adversely affected. We have enjoyed such an abundance of natural resources that we are unware of problems that are causing the reduction of these natural resources. Unless we take these steps now to off set these declines in our natural resources the good life that we have become use to will just diminish year by year.

I feel that this project is vital to our areas and urge our Parish Council to endorse it. I will work to iron out any problems that may arise because of the project. If the biggest obstacle to the project is the relocation of people, then I feel that the Corps should re-engineer the project to minimize this problem.

After going over the project site, it seems possible that this can be done.

I would like to thank you for the opportunity to speak on this matter and offer my full support of the project in any way that I can.

Yours truly,

Dr. L. Comeaux
Marco, La.

Exhibit 10

SUMMARY OF PUBLIC MEETING

HELD IN NEW ORLEANS, LOUISIANA

DECEMBER 13, 1983

Exhibit 2

MISSISSIPPI AND LOUISIANA ESTUARINE AREAS

SUMMARY OF PUBLIC MEETING
NEW ORLEANS, LOUISIANA

13 December 1983

1. Introduction

The second public meeting was held in New Orleans, Louisiana, at the University of New Orleans. The purpose of the meeting was to give all interested people the opportunity to express their views on the tentatively selected plan for freshwater diversion to the Lake Pontchartrain Basin and Mississippi Sound. The agenda of the meeting is Exhibit 1.

2. Attendance

A total of 140 persons attended the meeting. Various Federal, state, and local agencies as well as citizens and environmental groups were represented. A list of attendees is Exhibit 2. Exhibit 3 is a list of persons who expressed their views at the meeting.

3. Welcome and Opening Remarks

Mr. Gasper Chifici, New Orleans Area District Engineer, Department of Transportation and Development, Office of Public Works, opened the meeting. He indicated that the Office of Public Works was designated by the Governor to coordinate water resources studies and projects with the Corps of Engineers. Mr. Chifici emphasized the value of the personal views and opinions. He introduced Dr. Ted Ford, Assistant Secretary, Louisiana Department of Wildlife and Fisheries. Dr. Ford said that it is difficult to develop a complex approach that will achieve a management regime for the overall area in order to benefit several fish and wildlife resources. He noted that there have been many work sessions on the plan to be presented. There have been compromises along the way in terms of how the information has been assessed and evaluated. Dr. Ford indicated that he supported the tentatively selected plan considering the overall resources and how we try to manage these resources.

Mr. Chifici then introduced Dr. Charles Groat, Department of Natural Resources. Dr. Groat said that his comments were on the behalf of the Department of Natural Resources and the Governor's Coastal Protection Task Force. He said that they were very encouraged at this point by the results and the selection of the Bonnet Carre' site and the opportunities that it provided to enhance and increase benefits to the Lake Pontchartrain Basin and Mississippi Sound. Dr. Groat stated that he is confident the project would be overall beneficial.

Mr. Chifici introduced LTC Edward Willis, Deputy District Engineer, New Orleans District, Corps of Engineers, to conduct the business portion of the meeting. LTC Willis introduced the New Orleans District staff. He expressed appreciation to the University of New Orleans for providing the excellent meeting facilities. Colonel Willis emphasized the importance of filling out an attendance card so that each person can be notified of study completion. The cards are also held as a permanent part of the record.

4. Study Presentation

Colonel Willis called on Mr. Falcolm Hull, study manager, to discuss the tentatively selected plan. Mr. Hull presented information on the problems of land loss and reduced fish and wildlife productivity in the study area. He discussed the plan formulation process, the rationale for selecting the Bonnet Carre' plan, and pertinent details of the tentatively selected plan. Mr. Hull's remarks are Exhibit 4.

5. Public Views and Concerns

Colonel Willis asked everyone to limit statements to five minutes. He asked those making presentations to come forward and speak at the podium so that everyone could hear. He said that the meeting was being taped and that copies of the meeting summary and cassette tapes would be available in about 60 days at the cost of reproduction. Views and concerns of speakers at the meeting are summarized below in order of occurrence.

Mr. Willis Hof, Jefferson Parish Councilman, Chairman, Lake Pontchartrain- Maurepas Ad Hoc Management Committee.

Councilman Hof said that the committee did not support or oppose the project. He indicated that they had doubts about the tentatively selected plan. The committee is concerned about the effect of the Mississippi River water on Lakes Pontchartrain and Maurepas from a water quality standpoint. Councilman Hof was concerned about how the fish, shrimp, and crab industry and recreational fishermen in the area would be affected. He asked how much sediment would be introduced into Lake Pontchartrain once the project is operated.

Mr. Rick Ruebsomen, National Marine Fisheries Services (NMFS)

Mr. Ruebsomen read a letter from Mr. Richard J. Hoogland, Chief of Environmental Assessment Branch. Mr. Hoogland's letter is Exhibit 5. The NMFS supports the project and considers the project beneficial overall although benefits attributable to most fish and wildlife could not be quantified except for oysters. NMFS concurs that the project would be beneficial to many marine fishery species. He noted that the Corps was able to quantify benefits to brown and white shrimp and blue

crabs in another gulf estuary, Matagorda Bay, Texas. Mr. Ruebsomen stated that NMFS appreciated the opportunity to participate in the ad hoc interagency meetings to develop objectives for the project as well as to provide these comments.

Mr. Gerald Bodin, US Fish and Wildlife Service

Mr. Bodin stated that reintroduction of Mississippi River water into Louisiana subdelta marshes has been recommended in the past as a viable means of preventing saltwater intrusion and wetlands deterioration. The tentatively selected plan that recommends installing a freshwater diversion structure adjacent to the Bonnet Carre' Spillway would result in substantial benefits. Benefits include a reduction in coastal wetlands loss over the next 50 years, reduction in saltwater intrusion and creation of a salinity regime more favorable to fish and wildlife, an average net increase in estuarine commercial fishery landings, an average increase in commercial sport fishing and a net increase in landings, and an increase in fur animal and alligator harvest and in game and nongame wildlife populations.

In closing, he stated that from a biological standpoint, the site selected is superior to other sites evaluated. He also emphasized that the structure will allow freshwater flow to restore salinity conditions. Furthermore, freshwater diverted at this location would more effectively and efficiently accomplish study goals. Mr. Bodin's statement is Exhibit 6.

Mr. Chuck Killebrew, Louisiana Department of Wildlife and Fisheries

Mr. Killebrew stated that the proposed diversion plan has estuarine enhancement as its sole purpose and, most important, offers controlled diversions of much smaller volumes of water over an extended period. Since the diversions will be controllable, the timing and amount of freshwater releases can be managed so that benefits to fish and wildlife are maximized and the negative effects are minimized. The success of two existing freshwater diversion structures in Plaquemines Parish, managed in part by the department, has proven these goals attainable.

He noted that the department is aware that certain fisheries resources will be displaced. However, the department firmly believes that the increase in overall productivity of the basin, along with increased use of existing resources, will result in real benefits to the vast majority of interests.

The Department of Wildlife and Fisheries believes that freshwater diversion is the single most effective way to slow the rate of deterioration of our coastal areas. The department strongly endorses the proposed plan and urges all those concerned to give it their favorable consideration.

Mr. Killebrew's statement is Exhibit 7.

Bill Dekemel, President, Eastbank Commercial Fishermen's Association, member, Board of Directors, Concerned Shrimpers of Louisiana, member, Management Council Advisory Panel, Gulf of Mexico Fisheries.

Mr. Dekemel stated that the project has the potential to destroy the brown shrimp crop in Lake Pontchartrain. Orleans, St. Tammany, St. Bernard, and Jefferson are all parishes directly affected by the project. A large percentage of commercial fishermen are from these parishes. Mr. Dekemel strongly feels the project would be a total disaster to commercial fishermen, and that the only species that probably will benefit are oysters. He indicated that over 7,000 families would be adversely affected by the project.

He emphasized the fact that Lake Pontchartrain produces a better, more valuable crop of brown shrimp. He also said any displacement of the shrimp will cause a decrease in their value. This is because the shrimp being produced in Lake Borgne and surrounding marshes are smaller. He asserted that shrimpers should be compensated. Some of the adverse impacts of the plan stated in the summary are that speckled trout, red drum, and brown shrimp may be displaced eastward. In closing, Mr. Dekemel noted that fresh water would be released into the lake when fresh water from rainy weather would already be in the lake. The only benefit, he stated, would be to some marshland areas for vegetation. He added that soft crabs would be in jeopardy with this plan of water diversion.

L. J. Arthur, Metairie, Louisiana

Mr. Arthur agreed with statements made by Mr. Dekemel.

Henry Cormier, Jr., Westbank resident

Mr. Cormier said he first wanted to know what the lake was like before the spillway was constructed. He noted that saltwater intrusion has a straight shot to the lake from the ship channel and asked how the problem would be rectified. He emphasized that a lot of questions had to be answered and something would have to be done about them if everyone knew just what they were. He asked if this project would help Lake Maurepas and areas all the way to the gulf or if the area would be killed as a fishing estuary.

Vivian Newman, New Orleans Audubon Society

Ms. Newman was concerned with water quality effects in the area. She commented that EPA regulations and state standards aren't enough for this particular action. She discussed the Corps' incoherence on the number of things they are engaged in. She said she was making this

statement to point out the so-called success of the permitting program. This program is evidently working at cross purposes, permitting developmental urbanization around parts of the lake. The development, at the same time, is destroying the shoreline that this project is trying to restore.

Mrs. Robert Lane, Jr., New Orleans resident

Mrs. Lane commented that her main concern was water quality. She explained that when she was young, the water was suitable for human consumption as well as swimming and fishing recreation. Now, with the idea of flushing this water into the lake, it will likely adversely affect commercial fishermen.

James Daspit, Commercial shrimper

Mr. Daspit stated that he was in agreement with statements made by Mr. Dekemel. He explained his personal views on the diverting of fresh water to Lake Pontchartrain. He said he feels that the brown shrimp harvest will be adversely affected. Mr. Daspit said he is opposed to the freshwater diversion project.

Mr. Steve Gorin, Jefferson Parish resident

Mr. Gorin said he was concerned with pollution entering from the Mississippi due to the floodgate openings. He was also concerned what would happen to Lakes Maurepas and Pontchartrain. He said we are not at the state of the art to tell what is going to happen. Mr. Gorin asked what would happen if trouble arises. He added that some of the benefits are good, but some areas can be adversely impacted to the benefit of others. He said he is not totally sure this project will mitigate adverse affects.

John Uhl, Gretna area resident

Mr. Uhl was generally in favor of the diversion control structure but said the situation should be looked at carefully. He said he recognized the dieback in the Louisiana marshes because of levee systems and the displacement of fishermen after seeing what was happening across Louisiana from the Mississippi line to the Texas line. He felt that monitoring the structure would take care of and possibly mitigate all problems at hand. With the dynamics in coastal Louisiana, the diebacks that are occurring are in the marshlands that are valuable for fish species as nursery grounds. He stressed that the Louisiana State University Consortium under the Sea Grant Program be given a role in this project to protect citizen interests.

Charlotte Fremaux, Metairie, Louisiana resident and Natural Resources Chairman, League of Women Voters in Louisiana

Ms. Fremaux emphasized that the main aspect of the freshwater diversion plan is water quality. She stated that increased traffic, barge fleeting, population growth, and discharge permitting all degrade water quality. She asked if water quality data and the proposed monitoring program would close the necessary gaps. Ms. Fremaux asked whether state or Federal water quality standards and criteria would prevail and whether pressure would make water quality enforcement on the Mississippi impossible.

Mr. Frank Tullos, State Seafood Promotion Marketing Board

Mr. Tullos said he would not comment pro or con because he would be making a statement at the next meeting. He said he would present the board with the information he received at this hearing.

Terry J. Gagliano, New Orleans Supermarket owner

Mr. Gagliano sent a speaker on behalf of himself and his employees. The speaker said that they oppose the Corps plan. He stated that in order for such a plan to be beneficial, mitigation of canal dredging, saltwater intrusion from the Mississippi River-Gulf Outlet, and urban development ought to be taken care of first.

Joan Phillips, Wetlands Chairman, Delta Chapter of the Sierra Club

Ms. Phillips said she was concerned with the loss of wetlands in the study area and Lake Pontchartrain's health because of saltwater intrusion through the MR-GO. She explained that fresh water is needed to provide healthier vegetation for marshes and nursery grounds for seafood. She said she was also concerned about the water quality of the Mississippi River. In the eastern end of Lake Pontchartrain, the MR-GO is letting in saltwater. If this situation is not corrected, the area will become an open water lake.

Ms. Phillips asked that this study be coordinated with the Amite River and Tributaries Study in which consideration is being given to diverting water to the Mississippi River. She said one project would divert water into the basin and the other would divert water out of the basin. She agreed with previous statements made by the U.S. Fish and Wildlife Services and Louisiana Wildlife and Fisheries.

Michael Halle, New Orleans Resident

Mr. Halle stated that the freshwater diversion plan is not an isolated project. It is the salvation of Lake Pontchartrain wetlands. He said the wetlands are being threatened by developers in that particular area. These actions are permitted by the Corps under Section 404,

E 15
/ AREA MAP
.P." AND
EATION SITES
LAY

THE TENTATIVELY SELECTED PLAN CONSISTS OF A CONTROL STRUCTURE AND ASSOCIATED WORKS AND SIX LOCATIONS FOR DEVELOPMENT OF RECREATION FACILITIES.

E 16
WAY SECTION
CTURE

THE CONTROL STRUCTURE WOULD CONSIST OF FOUR 20- x 20-FOOT BOX CULVERTS 455 FEET LONG IN A MISSISSIPPI RIVER LEVEE SETBACK. THE CONTROL STRUCTURE WOULD HAVE A MAXIMUM DESIGN CAPACITY OF 30,000 CUBIC FEET PER SECOND.

E 17
CHART
PLEMENTAL FLOW"

TO ACHIEVE THE OPTIMUM SALINITY REGIME, WATER WOULD BE DIVERTED FROM MARCH TO NOVEMBER. THE AVERAGE DIVERTED FLOW FOR THE PERIOD WOULD BE ABOUT 9,800 CFS. A MAXIMUM OF 30,000 CFS WOULD BE DIVERTED DURING THE MONTH OF APRIL. THE STRUCTURE WOULD HAVE THE CAPABILITY OF DIVERTING THE REQUIRED SUPPLEMENTAL FLOW ON AN AVERAGE OF EVERY OTHER YEAR.

E 18
R PHOTO
W/OUTFLOW
NEL

THE INLET CHANNEL WOULD BE 25 FEET DEEP WITH A BOTTOM WIDTH OF 400 FEET, 1 VERTICAL ON 3 HORIZONTAL SIDE SLOPES, AND WOULD BE 0.2 MILES LONG. THE OUTFLOW CHANNEL WOULD BE 25 FEET DEEP WITH A BOTTOM WIDTH OF 400 FEET, 1 VERTICAL AND 3 HORIZONTAL SIDE SLOPES, AND WOULD BE 6.4 MILES LONG. THE CHANNEL IS DESIGNED TO CONTAIN ALL FLOWS WITHIN BANKS.

THE FIRST 3.8 MILES OF CHANNEL WOULD BE A NEW CHANNEL CUT FROM DIVERSION STRUCTURE TO THE EXISTING BORROW CHANNEL. THE BORROW CHANNEL HAS SUFFICIENT CAPACITY TO CONVEY THE MAXIMUM FLOW AND WOULD BE USED FOR 2.0 MILES. A NEW CHANNEL CUT WOULD BE REQUIRED FROM THE BORROW CHANNEL TO LAKE PONTCHARTRAIN.

SLIDE 12
TABLE
"SITE COMBINATIONS & MAXIMUM DESIGN FLOW"

OUR EVALUATION OF THE PLANS REVEALED THAT PLAN A--DIVERTING FRESH WATER AT RIVERBEND--AND PLAN D--DIVERTING WATER AT THE INNER HARBOR NAVIGATION CANAL--COULD NOT ACHIEVE THE DESIRED SALINTY REGIME. PLANS B, C, AND E--DIVERTING WATER IN VARIOUS COMBINATIONS AT RIVERBEND, IHNC, AND BONNET CARRE'--WERE TOO COSTLY AND GENERALLY CAUSED MORE ADVERSE IMPACTS.

SLIDE 13
STUDY AREA MAP OVERLAY - BONNET CARRE' SITE

THE ANALYSIS INDICATED PLAN F--DIVERTING WATER ONLY AT THE BONNET CARRE' SITE--IS THE BEST PLAN BECAUSE CONVEYANCE CHANNELS WOULD BE SHORTER, SCENIC RIVERS AND STREAMS WOULD NOT BE ALTERED, VERY LITTLE HABITAT ALTERED., ARCHEOLOGICAL AND HISTORICAL SITES WOULD NOT BE DISTURBED, AND ENGINEERING PROBLEMS WOULD BE LESS. PLAN F WAS THEREFORE DESIGNATED AS THE TENTATIVELY SELECTED PLAN.

SLIDE 14
COLOR SLIDE OF BONNET CARRE' STRUCTURE

AT THE BONNET CARRE' SITE, WE CONSIDERED MODIFYING PART OF THE SPILLWAY STRUCTURE FOR FRESHWATER DIVERSION. THE STRUCTURE IS DESIGNED TO OPERATE ONLY DURING PERIODS OF EXTREMELY HIGH WATER ON THE MISSISSIPPI. FRESHWATER DIVERSIONS WOULD, HOWEVER, BE MADE DURING THE PERIOD OF AVERAGE TO LOW FLOW ON THE RIVER. MODIFYING THE SPILLWAY STRUCTURE FOR FRESHWATER DIVERSION WOULD BE EXTREMELY EXPENSIVE AND WOULD JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE SPILLWAY. WE LOOKED AT OTHER POSSIBLE DIVERSION LOCATIONS NEXT TO THE SPILLWAY AND DETERMINED THAT A FRESHWATER DIVERSION STRUCTURE COULD BE PLACED JUST UPRIVER OF THE SPILLWAY STRUCTURE.

LIDE 7
TUDY AREA
ITH RED OVERLAY

THE AD HOC GROUP RECOMMENDED THAT A SALINITY REGIME--THAT IS, SYSTEMATICALLY CONTROLLING THE SALTWATER IN THE ST. BERNARD MARSHES--WOULD BE BENEFICIAL TO OYSTERS. IF THE SALINITY REGIME IS ESTABLISHED IN THE ST. BERNARD MARSHES, THE PRIMARY ZONE OF OYSTER PRODUCTIVITY WOULD BE THIS AREA SHOWN IN RED.

LIDE 8
IRAPH
'OPTIMUM SALINITY
EGIME"

THE REGIME IS BASED ON A TEN-YEAR LOUISIANA WILDLIFE AND FISHERIES STUDY AND WOULD MIMIC SALINITY CONDITIONS THAT EXISTED WHEN THE MISSISSIPPI RIVER OVERFLOWED ITS BANKS EVERY SPRING. THIS REGIME, WHILE BENEFITING OYSTERS, WOULD ALSO BE FAVORABLE FOR MOST FISH AND WILDLIFE SPECIES. SALINITIES WOULD BE REDUCED TO 7 AND 8 PPT IN APRIL AND MAY AND ALLOWED TO INCREASE TO ABOUT 16 PPT IN THE FALL AND WINTER.

LIDE 9
GMT MEASURES
IST

TO ACHIEVE THE SALINITY REGIME, WE INVESTIGATED A NUMBER OF MANAGEMENT MEASURES. WE FOUND THAT DIVERTING FRESH WATER FROM THE MISSISSIPPI RIVER TO THE MARSHES AND ESTUARIES ON AN AREA-WIDE SCALE IS THE BEST WAY TO ESTABLISH THE FAVORABLE SALINITY CONDITIONS, ENHANCE VEGETATIVE GROWTH, REDUCE LAND LOSS, AND IMPROVE FISH AND WILDLIFE PRODUCTION.

LIDE 10
TUDY AREA MAP
VERLAY

OUR PRELIMINARY STUDIES IDENTIFIED 13 POTENTIAL FRESH-WATER DIVERSION SITES ALONG THE MISSISSIPPI RIVER. THE TEN SITES ABOVE NEW ORLEANS ARE SHOWN IN RED. THE THREE SITES IN AND BELOW NEW ORLEANS ARE SHOWN IN BLACK.

LIDE 11
TUDY AREA MAP
VERLAY - 3 SITES

WE ANALYZED THE ENGINEERING CHARACTERISTICS, POTENTIAL ENVIRONMENTAL, ECONOMIC, AND SOCIAL EFFECTS OF THE SITES. WE THEN SELECTED THREE SITES FOR FURTHER ANALYSIS: BONNET CARRE', INNER HARBOR NAVIGATION CANAL, AND RIVERBEND. WE ANALYZED EACH SITE FOR DIFFERENT SIZE DIVERSION FLOWS AND COMBINED THE SITES AND FLOWS INTO 6 ALTERNATIVE PLANS.

PRESENTATION

MR. FALCOLM HULL

THANK YOU, COLONEL LEE/LTC WILLIS.

SLIDE 1
TITLE SUPERED OVER STUDY AREA MAP

THE PROBLEMS IN THE RICH AND PRODUCTIVE COASTAL MARSHLANDS BEGAN IN EARNEST WHEN MAN HARNESSED THE MISSISSIPPI RIVER AND ITS TRIBUTARIES IN THE NAME OF FLOOD CONTROL.

SLIDE 2
HYDROLOGIC CYCLE

WITHOUT THE ANNUAL FRESH WATER AND SEDIMENTS FROM THE RIVER, THE NATURAL PROCESSES OF SUBSIDENCE, COMPACTION, EROSION, AND SALTWATER INTRUSION, AND MAN'S CHANNEL DREDGING ACTIVITIES HAVE CAUSED COASTAL LAND LOSS AT THE ALARMING RATE OF 40 SQUARE MILES PER YEAR.

SLIDE 3
COASTAL LAND LOSS

THE LOSS AND ALTERATION OF MARSH HABITAT HAS ADVERSELY AFFECTED THE PRODUCTIVITY OF OUR FISH AND WILDLIFE RESOURCES.

SLIDE 4
SHRIMP BOAT

THE HARVEST OF MANY COMMERCIALLY-IMPORTANT ESTUARINE SPECIES SUCH AS SHRIMP, MENHADEN, OYSTER, BLUE CRAB,

SLIDE 5
PELTS

NUTRIA, MUSKRAT, MINK, OTTER, AND RACCOON HAS GENERALLY DECLINED.

SLIDE 6
MAPS

IN 1982, OUR FIRST STEP IN DEVELOPING A PLAN TO REDUCE LAND LOSS AND INCREASE FISH AND WILDLIFE PRODUCTIVITY WAS TO RECONVENE THE INTERAGENCY AD HOC GROUP ESTABLISHED IN 1969. THE GROUP WAS CHARGED WITH IDENTIFYING DESIRABLE SALINITY CONDITIONS FOR FISH AND WILDLIFE. THE GROUP INCLUDED FEDERAL, LOUISIANA AND MISSISSIPPI STATE AGENCIES WITH RESPONSIBILITIES FOR WATER RESOURCES.

Exhibit 4

LIST OF PERSONS WHO EXPRESSED
THEIR VIEWS AT THE MEETING

Mr. Willie Hof	Chairman, Lake Pontchartrain-Lake Maurepas Ad Hoc Committee
Mr. Rickey Ruebsamen	National Marine Fisheries Service
Mr. Gerald Bodin	U.S. Fish and Wildlife Service
Mr. Chuck Killebrew	Louisiana Department of Wildlife and Fisheries
Mr. T. J. Arthur	Resident of Metairie, Louisiana
Mr. Bill Dekemel	East Bank Commercial Fishermen's Association
Mr. Henery A. Cormier, Jr.	Resident of Bridge City, Louisiana
Mrs. Vivian D. Newman	Orleans Audubon Association
Mr. & Mrs. Robert E. Lane, Jr.	Resident of New Orleans, Louisiana
Mr. James Daspit	Shrimper, Pearl River, Louisiana
Mr. Steve Gorin	Resident of Metairie, Louisiana
Mr. John Uhl	Resident of Gretna, Louisiana
Mrs. Charlotte Fremaux	League of Women Voters of Louisiana
Mr. Frank Tullos	State Seafood Promotion, Marketing Board Member
Mr. T. J. Gagliano	GEM Supermarket
Mrs. Joan Phillips	Wetlands Chairman, Delta Chapter of the Sierra Club
Mr. Michael Halle	Resident of New Orleans, Louisiana
Mr. Milton R. Walker, Jr.	Clio Sportsmen League
Mr. Norman Froomer	Resident of Carriere, Mississippi
Mr. Juan F. Lizarraga	New Orleans Sportsman Organization
Mr. Robert F. Hereford	Jefferson Rod and Gun Club
Mr. Vernon Behrhorst	President of Louisiana Intracoastal Seaway Association
Mr. Johnnie Tarver	LA. Wildlife Biologists Association
Mr. Bruce A. Thompson	Center for Wetland Resources, Coastal Ecology and Fisheries Institute, Louisiana State University
Mr. Peter Loverde, Jr.	Member of Eastbank Fishermen's Association
Mrs. Margaret E. Balzer	St. Bernard Parish Planning Commission
Mr. Eric H. Beier	Resident of Metairie, Louisiana
Mr. John Kelt	Resident of New Orleans, Louisiana
Mr. Joseph L. Voelker, Jr.	Private Citizen
Mr. A. D. Bach	Shrimper, Metairie, Louisiana
Mr. Victor Thom	Resident of Slidell, Louisiana
Mr. K. M. Mayer	Resident of Harvey, Louisiana
Mr. Edgar F. Veillon	Louisiana Wildlife Federation
Mr. Oliver Houck	Professor of Law, Tulane University
Mr. Darrell Williamson	Asst. Secretary, La. Dept. of Transportation
Mr. Charlie Bats	Manchac Fishermens Association

h.b.f 3

LIST OF PERSONS ATTENDING
PUBLIC MEETING IN NEW ORLEANS, LOUISIANA (Continued)

Name	Representing
Mr. John Lagattuta	Self
Mr. Billy Lestrade	Self
Mr. G. Raish	Self
Mr. Stephen M. Dargis	Self
Mr. & Mrs. Arnauda Raequw	Self
Mr. Arthur Girard	Jefferson Rod & Gun Club

LIST OF PERSON ATTENDING
PUBLIC MEETING IN NEW ORLEANS, LOUISIANA (Continued)

Name	Representing
Mr. John J. Ibert	Self
Mr. Brandt Savoie	LA. Dept. of Wildlife and Fisheries
Mr. Arthur Clutier, Jr.	Clio Sportsmen's League
Mr. Julian Blomley	Self
Terry Ibert	Self
Mr. & Mrs. Peter Tesvich	Self
Mr. Mark Ostendorf	Self
Mr. Peter Tesvich	Self
Mr. Bill Daly	Self
Mr. Richard Howell	Self
Mr. James C. Maes, Sr.	Self
Mr. Michael Furk	Clio Sportsmen's League
Mr. Michael V. Pizzolato, Jr.	Lake Catherine Fishing Association
Mr. J. R. Macgregor	Self
Mr. John Lopez	Self
Mrs. Alice Lowry	Self
Mr. Anthony G. Jonero	Self
Mr. Frank Mitchell	Self
Mr. Alex Heaton	Self
Mrs. Annette Naake	Self
Mr. Robert Giraud	Self
Mr. Tom Pullen	U.S. Army Corps of Engineers, Lower Mississippi Valley Division
Mr. Thomas Carbone, Jr.	Self
Mr. Thomas Carbone	Self
Mr. James L. Iseuogle	Jean Lafitte National Park
Mr. Jay Baum	Self
Mr. Paul Newfield III	Self
Mr. & Mrs. Freida M. Fowler	Slidell Sportsman's League
Mr. Harry Schafer	LA. Dept. Wildlife & Fisheries
Mr. Jack Cutshall	U.S. Soil Conservation Service
Mr. Bill Savant	U.S. Soil Conservation Service
Mr. Dennis Lacoste	Self
Mr. J. L. Kirschenheuter, Sr.	Self
Mr. H. E. Cassidy	Self
Mr. J. L. Kirschenheuter, Jr.	Self
Mr. L. H. Ritchie	Self

LIST OF PERSONS ATTENDING
PUBLIC MEETING IN NEW ORLEANS, LOUISIANA (Continued)

Name	Representing
Mr. Huey J. Daigle	Self
Mr. Gasper Chifici	Office of Public Works
Mrs. Eileen E. Hollander	NOPSI
Mr. E. K. Johnson	U.S. Army Corps of Engineers, NOD, Chief Economic & Social Analysis Branch
Mr. Barry M. Glad	Self
Mr. Alan Alemar	Self
Mr. Glen Wiloz	U.S. Army Corps of Engineers, NOD
Mr. Jay Combe	U.S. Army Corps of Engineers, NOD, Chief, Coastal Engineering
Mr. T. G. Hokkanen	U.S. Army Corps of Engineers, NOD
Mr. Dwain Pimayer	Self
Mr. J. V. Guillotte, III	Dept. of Anthropology and Geography, University of New Orleans
Mr. Joseph I. Vincent	Self
Mr. Rodney Mach	U.S. Army Corps of Engineers
Mr. Martin S. Mayer	Self
Mrs. Yvonne C. Hull	Self
August Bertoniere	Self
Mr. Walten August Tonawtino, Jr.	Self
Mr. Tom Soniat	University of New Orleans Dept. of Biology
Mr. Jim LeBalcn	Middle South Services
Mrs. Marietta Herr	League of Women Voters
Mr. John G. Collins	Self
Mr. Michael A. Poirrier	Self
Mr. G. O. Bissel	Self
Mr. Joel A. Madere	Self
Mr. Paul Martory III	Self
Mr. A. H. Rack	Self
Mr. Jim Klos	Self
Mr. David S. Bois Dore'	Self
Mr. Ronald L. Biava	Self
Mr. E. D. Shipman	Self
Mr. Rodger Baudier, Jr.	Self

LIST OF PERSONS ATTENDING
PUBLIC MEETING IN NEW ORLEANS, LOUISIANA

Name	Representing
Mr. William A. Thorn	Self
Dr. Anthony Laska	Self
Mr. Robert H. Redditt, Sr.	Jefferson Parish Water Department
Mr. James D. Brown	U.S. Fish and Wildife Serivce
Mr. David M. Soileau	U.S. Fish and Wildlife Service
Mr. Robert L. Ancelet	LA. Dept. of Wildlife and Fisheries
Mr. Jerald Horst	LA. Dept. of Natural Resources
Mr. C. G. Groat	LA. Dept. of Natural Resources
Mr. Dave Fruge	U.S. Fish & Wildlife Service
Mr. Robert P. Hannah	LA. Dept. of Natural Resources
Mr. Dugan S. Soloins	LA. Dept. of Natural Resources
Mr. Charles Tiblier	Self
Mr. Carl Durel, Jr.	Self
Dr. C. S. Watson	University of New Orleans, English Department
Mr. Cletis Wagahoff	U.S. Army Corps of Engineers, NOD, Chief, Planning Division
Mr. Lionel T. Goubler, Jr.	Commercial Fisherman
Mr. W. C. Majorie, Jr.	Commercial Fishermens Association
Mr. John Burlett	Commercial Fisherman
Mr. Harold J. Mechler	Commercial Fisherman
Mr. Ralph Latapie	LA. Dept. Wildlife & Fisheries
Mrs. Bonnie Dekemel	East Bank Commercial Fishermens Association
Mr. Huiet V. Joseph	Self
Mrs. L. J. Arthur	Self
Mrs. Kerry D. Miqhore	Self
Mr. Allan Ensminger	LA. Dept. of Fish & Wildlife
Mr. Bernard Welb	GEM Supermarket
Mr. Charles Ballas	Self

Exhibit 2

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160

REPLY TO
ATTENTION OF

Agenda

Public Meeting
on
Mississippi and Louisiana Estuarine Areas
Freshwater Diversion to
Lake Pontchartrain Basin and Mississippi Sound

December 13, 1983

I. Welcome	Darrell Williamson Assistant Secretary Louisiana Department of Transportation, Office of Public Works
II. Opening Statement	LTC Edward J. Willis, Jr. Deputy District Engineer US Army Corps of Engineers, New Orleans District
III. Presentation	Falcolm Hull Study Manager US Army Corps of Engineers, New Orleans District
IV. Public Statement	Interested Individuals
V. Summary	LTC Edward J. Willis, Jr.
VI. Closing Remarks	Darrell Williamson

Exhibit 1

CLOSING REMARKS

Colonel Willis again emphasized that anyone wishing to submit a statement on the report may do so by January 16, 1984. For the EIS, statements must be received by January 3, 1984. He also expressed appreciation for all the individual participation. He then called on Mr. Chifici for remarks.

Mr. Chifici also expressed his appreciation for all the public participation. He felt the expressions made gave more insight to the project. He then thanked everyone in attendance and closed the meeting.

people. He said that we should not stop using the Mississippi River as a resource, but should clean the river up. He urged the Corps to recognize that the Federal levees and the MR-GO are the main cause of the problem, which are the Corps responsibility. The Corps should pick up the total cost of the project.

Peter Loverde, Jr., member, Eastbank Fishermen's Association

Mr. Loverde said he grows soft shell crabs in tanks. During Bonnet Carre' Spillway openings, the sediment from the river kills the crabs. Mr. Loverde opposed freshwater diversion.

Margaret Balzer, St. Bernard Parish Planning Commission

Ms. Balzer spoke on behalf of the St. Bernard Parish Police Jury. They support the efforts of the Corps in pursuing freshwater diversion. Ms. Balzer stressed that immediate action is required to just slow down coastal deterioration. She stated that in St. Bernard Parish alone, 60,000 acres of fresh and intermediate marsh and 8,000 acres of cypress swamp have been lost since 1955. St. Bernard Parish has had the opportunity to fully experience the effect of saltwater intrusion and the benefits of fresh water introduced by the siphon the parish constructed at Violet, Louisiana. Ms. Balzer's statement is Exhibit 10.

Eric H. Beier, Metairie resident

Mr. Beier said that the project should be implemented because there seems to be no other solution. He would also like to see the water quality of the Mississippi River improved.

John Kelt, Sport fishermen

Mr. Kelt said that he opposed the tentatively selected plan because it would reduce fish, shrimp, and oyster populations. The proposed project would also pollute oyster and other fish resources with Mississippi River water.

Edgar Veillon, Louisiana Wildlife Federation

Mr. Veillon was concerned about marshland and habitat loss due to saltwater intrusion. He said the project is needed for much better management potential. In order to advance the project, a sum of $14,000,000 must be funded by local sponsors. Due to the financial bind the state of Louisiana is in, it is questionable where the money will come from. Mr. Veillon expressed his agreement with the project as well as the Wildlife Federation's support. He commented that the Federal government should fund this needed project. As for the affected individuals in Montz, he asked that the Corps require definite assu[illegible]e and an equitable settlement for the residents.
Mr. Veillon's statement is Exhibit 11.

Dr. Bruce Thompson, Center for Wetland Resources, Coastal Ecology and Fisheries Institute

Dr. Thompson indicated he had done research on the fish communities in Lake Pontchartrain and the Atchafalaya delta. He said Mother Nature has a freshwater diversion project going on in the Atchafalaya delta. A number of interesting things have happened in this area. The salinity regime has gone from a normal estuarine system to a freshwater system. The system has maintained the estuarine fauna you expect to be pushed seaward. Some of the areas that were called commercially harvestable have been reduced to a nursery area. The size of white and brown shrimp has been reduced significantly although the number has not declined. The brown shrimp in Lake Pontchartrain tolerates much lower salinity. White shrimp should be the dominant species. The brown shrimp in Lake Pontchartrain may be more tolerant than anticipated and, therefore, there may not be a large displacement. The proposal to divert water from the Amite River may offset the diversion in this report. Dr. Thompson stated that the Corps should look at the basin-wide approach. The Amite River is one of the most valuable sources of freshwater river flow.

Johnny Tarver, Louisiana Wildlife Biologists Association

Mr. Tarver indicated that the coastal marshes and swamps are being lost at a rate of 45 square miles per year. This is due to saltwater intrusion and subsidence caused by reduced Mississippi River inflow. The estimated monetary benefits of the tentatively selected plan to fish and wildlife would exceed project cost considerably. This is attributed to a large increase in oyster production, a net increase in commercial and sport harvest of crabs, shrimp, and finfishes, improved yield of alligators and furbearers, and net increases in sport hunting opportunities. Unquantified benefits include reduced habitat losses in Manchac, Joyce, Biloxi, and Pearl River Wildlife Management Areas and St. Tammany Wildlife refuge. Mr. Tarver's statement is Exhibit 9.

Oliver Houck, Professor of Law, Tulane University

Mr. Houck stated that as far as the proposed project is concerned, good or bad, it's inevitable. In reference to the gentlemen that spoke concerning increased salinity reduces marsh erosion, this goes against everything that has been published on marsh deterioration. Mr. Houck indicated that marsh could be considered a group of soils, mud, or plants. He said anyone who is content that saltwater is good for freshwater marshes is like Dow Chemical saying phenols are good for their children. As far as those who opposed the project because their fishing may be adversely affected, the real issue is whether we would like to see New Orleans-by-the-sea or freshwater diversion. Mr. Houck said that the question of how to compensate the people who are adversely affected should be addressed. He stated that the solutions to the problems should be a project component and given as much emphasis as

dredge and fill. The National Marine Fisheries and U. S. Fish and Wildlife Services both disagreed with this action. Because of toxic waste and pollution in the lake, there are questions whether the fish from the lake are safe to eat. The Corps permitting of the strip mining industry is diminishing wetlands vegetation. In closing, he emphasized his support of the project with the limitations previously mentioned. Mr. Halle's statement is Exhibit 8.

Mr. Milton Walker, Jr., President of Clio Sportsmen's League

Mr. Walker expressed his support for the project. He was concerned with the possibility of increased loss of wetlands. He explained their cultural heritage importance. He stated that commercial fishermen may possibly lose the use of the lake in the future if the project is not implemented.

Mr. Norman Froomer, former University of New Orleans faculty member

Mr. Froomer stated that his research on marshlands along the Mississippi River delta showed evidence that whenever salinities decreased, marsh erosion rates increased. He indicated that saltwater is needed to stabilize marsh erosion. Mr. Froomer said sediments were needed in order to save marshes. To do this, sediments should be added to Lake Pontchartrain.

Juan Lizarraga, Sport fishermen

Mr. Lizarraga said he was deeply concerned about diverting fresh water into Lake Pontchartrain. He explained that the opening of the Bonnet Carre' Spillway caused a decrease in fisherman's catches. He indicated that the project in his opinion would not be beneficial.

Robert Hereferd, Jefferson Parish Rod and Gun Club

Mr. Hereferd said he agreed with the proposed plan. He explained that the amount of ways it took for the problems to occur would take even more ways to correct. Companies who dig the canals that kill off marshes should be held responsibile for keeping saltwater out or for filling the canals. Careful proceedings should be done before a final plan is submitted. He added in closing that in the next public hearing all aspects should be discussed and looked at carefully.

Vernon Behrhorst, President, Louisiana Intracoastal and Seaway Association

Mr. Behrhorst said he felt that the tentatively selected plan incorporates the concept of water management. The project is an opportunity and challenge for water management between two states.

THE 1,460-FOOT LONG SEDIMENTATION TRAP WOULD BE PLACED 3,500 FEET DOWNSTREAM OF THE DIVERSION STRUCTURE TO CATCH THE SAND PORTION OF THE SEDIMENTS. THE BOTTOM WIDTH WOULD BE 780 FEET WITH SIDE SLOPES OF 1 VERTICAL ON 3 HORIZONTAL.

PART OF THE UPPER GUIDE LEVEE WOULD BE RELOCATED TO INCLOSE THE DIVERSION CHANNEL WITHIN THE FLOODWAY AND PROVIDE FLOOD PROTECTION TO SURROUNDING RESIDENTS. A 600-FOOT TIMBER ACCESS BRIDGE WOULD BE PLACED ACROSS THE DIVERSION CHANNEL ON THE LAKE SIDE OF THE ILLINOIS CENTRAL RAILROAD TRACKS TO GIVE SAND HAULERS ACCESS IN AND OUT OF THE FLOODWAY.

SLIDE 19
SKETCH

AT THE LAKE END OF THE BORROW CHANNEL, RECREATION FACILITIES WOULD BE DEVELOPED CONSISTING OF TWO-LANE BOAT RAMPS, COURTESY PIERS, PARKING AREA, AND PICNIC TABLES.

SLIDE 20
STUDY AREA MAP W/REC SITE OVERLAY.

SIMILAR FACILITIES WOULD BE DEVELOPED AT FRENIER BEACH, THE RIGOLETS, AND POINT AUX HERBES IN LOUISIANA AND AT CEDAR POINT AND WOLF RIVER IN MISSISSIPPI.

SLIDE 21
MAP PLAN

APPROXIMATELY 32 STRUCTURES WOULD HAVE TO BE RELOCATED. THESE RELOCATIONS ARE UNAVOIDABLE BECAUSE THE STRUCTURES ARE LOCATED IN THE DIVERSION CHANNEL AND UPPER GUIDE LEVEE ALINEMENT. YOU PEOPLE LIVING IN THE RESIDENCES THAT WOULD BE RELOCATED BY THE PROJECT ARE PROTECTED BY THE UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION POLICIES ACT OF 1970. PEOPLE WHO ARE RELOCATED WOULD QUALIFY FOR THE ACTUAL COST OF MOVING OR AN AMOUNT AGREED UPON BY THOSE WHO WANT TO MOVE THEMSELVES, AND A RELOCATION PAYMENT TO ASSIST

INDIVIDUALS IN PAYMENT FOR NORMAL EXPENSES INCURRED. LOSSES OR DAMAGE OF ANY ITEMS MOVED AS WELL AS STORAGE COSTS WILL BE PAID WHERE INSURANCE TO COVER THESE ITEMS IS NOT AVAILABLE. OTHER ITEMS THAT WOULD BE PAID INCLUDE:

CLOSING COSTS, LOAN PENALTY PAYMENTS, AND THE DIFFERENCE IN THE COST OF INTEREST ON THE OLD HOUSE LOAN AND THE INTEREST THAT MUST BE PAID ON A NEW HOUSE. WE WILL BE HAPPY TO TALK WITH THOSE OF YOU WHO WANT MORE INFORMATION ABOUT THE RELOCATION PROCESS AFTER THIS MEETING.

SLIDE 22
SITE PLAN
MAP QUADS

CONSTRUCTION WILL REQUIRE RELOCATION OF SECTIONS OF LOUISIANA HIGHWAY 628, THE ILLINOIS CENTRAL RAILROAD, THE LOUISIANA AND ARKANSAS RAILROAD, AND SEVERAL PIPELINES.

SLIDE 23
CARTOON

A COMPREHENSIVE MONITORING SYSTEM WILL GUIDE STRUCTURE OPERATION AND ASSESS THE EFFECTS OF THE DIVERTED FRESH WATER ON FISH AND WILDLIFE POPULATIONS. THE CORPS OF ENGINEERS AND THE NON-FEDERAL SPONSOR WILL ESTABLISH A TWO-STATE INTERAGENCY ADVISORY GROUP TO DESIGN AND CONDUCT THE MONITORING PROGRAM. THE INTERAGENCY GROUP WILL INCLUDE FEDERAL, STATE, AND LOCAL AGENCIES RESPONSIBLE FOR WATER RESOURCES. THE REQUIRED BIOLOGICAL, HYDROLOGICAL, AND WATER QUALITY DATA WILL BE COLLECTED FROM A NETWORK OF SAMPLING STATIONS SET UP THROUGHOUT THE STUDY AREA.

SLIDE 24

THE PROGRAMS IN THE MONITORING SYSTEM WILL BE CONDUCTED IN THREE PHASES--A 3-YEAR PRECONSTRUCTION PHASE, A 4-YEAR POSTCONSTRUCTION PHASE, AND A LONG-TERM PHASE. IN THE PRECONSTRUCTION PHASE, WE WILL SUPPLEMENT EXISTING

INFORMATION AND ESTABLISH BASELINE CONDITIONS FOR MEASURING FUTURE CHANGES. THE EFFECT OF THE DIVERTED WATERS ON HYDROLOGICAL AND WATER QUALITY CONDITIONS AND ON FISH AND WILDLIFE WILL BE ASSESSED IN THE POST-CONSTRUCTION PHASE. THE INTERAGENCY GROUP WILL USE ALL THIS INFORMATION TO REFINE THE OPERATING SCHEME AND THE SCOPE OF THE LONG-TERM MONITORING PHASE.

SLIDE 25
REDUCED LAND LOSS SUPER

THE PLAN OFFERS MANY BENEFITS. AS A RESULT OF THE FRESHWATER DIVERSION, SALTWATER INTRUSION THAT KILLS MARSH VEGETATION AND CREATES OPEN WATER WOULD BE REDUCED. NUTRIENTS AND SEDIMENTS IN THE FRESH WATER DIVERTED INTO THE ESTUARINE SYSTEM WOULD RESULT IN HEALTHIER MARSH HABITAT AND WOULD REDUCE LAND LOSS. 10,500 ACRES OF MARSH AND WOODED SWAMP ADJACENT TO LAKE MAUREPAS AND LAKE PONTCHARTRAIN WOULD BE SAVED. SALINITY CONDITIONS FAVORABLE TO FISH AND WILDLIFE WOULD BE CREATED. OYSTER PRODUCTION WOULD INCREASE BY 7,600,000 POUNDS AND THE PRODUCTIVITY OF WHITE SHRIMP, BLUE CRAB, CROAKER, AND MENHADEN SHOULD GREATLY INCREASE.

SLIDE 26
INTANGIBLE BENEFITS SUPER

THE PLAN WOULD ALSO PROVIDE INTANGIBLE BENEFITS. HABITAT CONDITIONS FOR NONCOMMERCIAL AND NONGAME SPECIES AND PRODUCTIVITY OF WOODED SWAMPS ASSOCIATED WITH FISH AND WILDLIFE WOULD BE IMPROVED. BUSINESS OPPORTUNITIES IN COMMERCIAL AND SPORT FISHERIES AND WILDLIFE INDUSTRIES AND RELATED SUPPORT INDUSTRIES WOULD INCREASE.

SLIDE 27
ADVERSE IMPACTS

ESTUARINE SPECIES LESS TOLERANT OF LOW SALINITY WATERS SUCH AS BROWN SHRIMP, SPECKLED TROUT, AND RED DRUM MAY BE DISPLACED EASTWARD BY THE DIVERSION. IN THE SOUTH-

WESTERN QUADRANT OF LAKE PONTCHARTRAIN, THE DIVERSION WOULD INCREASE TURBIDITY, COLIFORM COUNTS, AND OTHER TYPES OF CHEMICAL CONCENTRATIONS, AND WOULD SLIGHTLY LOWER TEMPERATURES. THESE IMPACTS WOULD DISSIPATE RAPIDLY TO THE EAST. WATER QUALITY IMPACTS MAY NOT BE ANY MORE SIGNIFICANT THAN WHEN TRIBUTARY STREAMS TO LAKE MAUREPAS AND LAKE PONTCHARTRAIN HAVE FAIRLY HIGH FLOW.

SLIDE 28
TABLE
"BONNET CARRE' PLAN COST"

THE FIRST COST OF THE PLAN IS ESTIMATED AT $55.6 MILLION WITH ANNUAL CHARGES OF $5.4 MILLION. THE AVERAGE ANNUAL BENEFITS ATTRIBUTABLE TO THE PLAN ARE ESTIMATED AT $6.8 MILLION. THE BENEFIT-COST RATIO IS 1.25 TO 1.

SLIDE 29
TABLE, "REC. COSTS"

OF THE $55.6 MILLION, THE RECREATION DEVELOPMENT PLAN WOULD COST $742,800.

SLIDE 30
TABLE
"BONNET CARRE' PLAN COST APPORTIONMENT"

TO IMPLEMENT THE PLAN, WE PROPOSE THAT UNDER OUR TRADITIONAL COST SHARING POLICIES THE FIRST COST OF $55.6 MILLION BE APPORTIONED AS FOLLOWS: THE FEDERAL GOVERNMENT WOULD BEAR 75 PERCENT OF THE FIRST COSTS OF THE DIVERSION STRUCTURE, CHANNELS, LEVEES, AND ASSOCIATED WORKS, AND 50% OF THE FIRST COSTS OF THE RECREATION FACILITIES OR $41,523,000. THE NON-FEDERAL SPONSORS' COSTS WOULD BE $14,089,000, AS SHOWN HERE.

SLIDE 31
TABLE
BONNET CARRE'
"PLAN BREAKDOWN OF NON-FEDERAL COST"

NON-FEDERAL INTERESTS WOULD BEAR ALL COSTS ASSOCIATED WITH THE OPERATION, MAINTENANCE, AND REPLACEMENTS, CURRENTLY ESTIMATED AT $818,000 ANNUALLY. THE CURRENT ADMINISTRATION IS REVIEWING COST SHARING POLICIES AND FINANCING OF WATER RESOURCES DEVELOPMENT PROJECTS. WHILE SPECIFIC PRINCIPLES GOVERNING COST SHARING IN THE TENTATIVELY SELECTED PLAN HAVE NOT BEEN ESTABLISHED, NON-FEDERAL INTERESTS CAN EXPECT THAT THEIR LEVEL OF FINANCIAL PARTICIPATION MAY BE GREATER UNDER THE PRESENT ADMINISTRATION'S COST SHARING POLICIES.

SLIDE 32
DIVISION OF PLAN RESPONSIBILITIES

IN THE DIVISION OF PLAN RESPONSIBILITY BETWEEN THE FEDERAL GOVERNMENT AND THE NON-FEDERAL SPONSORS, THE NON-FEDERAL SPONSORS' RESPONSIBILITIES ARE: THEY MUST PROVIDE WITHOUT COST TO THE UNITED STATES, ALL LANDS, EASEMENTS, AND RIGHTS-OF-WAY NECESSARY FOR CONSTRUCTION AND OPERATION OF THE WORKS, MUST HOLD AND SAVE THE UNITED STATES FREE FROM DAMAGES, MUST OPERATE AND MAINTAIN THE WORKS, MUST CONSTRIBUTE 25% OF THE CONSTRUCTION COSTS FOR THE DIVERSION STRUCTURE, CHANNELS, LEVEES, AND ASSOCIATED WORKS AND 50% OF THE CONSTRUCTION COSTS FOR RECREATION FACILITIES, AND MUST ASSURE ADEQUATE PUBLIC ASSESS TO THE PROJECT AREA.

SLIDE 33
TITLE SLIDE

THAT CONCLUDES OUR DESCRIPTION OF OUR TENTATIVELY SELECTED PLAN TO DIVERT FRESHWATER TO THE LAKE PONTCHARTRAIN BASIN AND MISSISSIPPI SOUND.

(AD LIB CLOSE)

MAY I HAVE THE LIGHTS, PLEASE. THANK YOU FOR YOUR ATTENTION.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Region
9450 Koger Boulevard
St. Petersburg, FL 33702

December 9, 1983 F/SER112/DM:yj
409/766-3699

Colonel Robert C. Lee
District Engineer, New Orleans District
Department of the Army, Corps of Engineers
P. O. Box 60267
New Orelans, LA 70160

Dear Colonel Lee:

This is in response to your Announcement of Public Meetings and Draft Feasibility Study concerning the Mississippi and Louisiana Estuarine Areas, Freshwater Diversion to Lake Pontchartrain Basin and Mississippi Sound. Our comments concerning the draft Environmental Impact Statement are being forwarded for inclusion in the comments to be submitted by the National Oceanic and Atmospheric Administration for the Department of Commerce. We note that you have recommended a tentatively selected plan to divert a portion of the Mississippi River flows into Lake Pontchartrain Basin and western Mississippi Sound in order to create more favorable salinity conditions and enhance fish and wildlife. The proposed diversions would occur through a diversion structure constructed along the north side of the Bonnet Carre' Spillway and capable of passing a maximum design flow of 30,000 cfs.

The National Marine Fisheries Service (NMFS) commends you and your staff for proposing this freshwater diversion, which the Supplemental Flow Requirements discussion in your Feasibility Report notes is considered beneficial overall to the fish and wildlife resources in the study area. In that section you further state that despite this beneficial effect, benefits attributable to most fish and wildlife species except oysters could not be satisfactorily quantified in accord with the Water Resources Council Principles and Guidelines for Water and Related Land Resources Studies. These benefits were then described qualitatively.

We agree with the conclusion of freshwater inflow benefits being attributable to many marine fishery species, in addition to oysters. It should also be noted that in another Gulf estuary, Matagorda Bay, Texas, the Corps has been able to quantify benefits to brown and white shrimp and blue crabs, as well as oysters, from restoring some river flows to the bay. Underscoring the great national interest in providing such habitat restoration is that many of the Gulf of Mexico shrimp, upon being reared in the estuaries, migrate offshore to where the fishery is currently managed under the Magnuson Fishery Conservation and Management Act.

In the section of the Feasibility Report addressing Problems, you have appropriately noted that the problems of insufficient freshwater inflow, which this project would partially correct in the study area, began when the Mississippi River was leveed. The section also lists saltwater intrusion along with man's channel dredging among other problems. It should specifically be noted that the Mississippi River - Gulf Outlet has been a major avenue of saltwater intrusion into the study area. It would therefore appear to be appropriate to indicate in the Tentative

Recommendation discussion that the proposed plan would also partially mitigate fishery losses from past water resource projects. Such an objective should be added unless that would delay project implementation.

We have appreciated the opportunities to participate in the ad hoc interagency meetings to develop objectives for this project as well as to provide these comments. In conclusion the NMFS fully endorses your tentatively selected plan which we hope will be constructed and operated as soon as possible.

Sincerely yours,

Richard J. Hoogland
Chief, Environmental Assessment
Branch

United States Department of the Interior
FISH AND WILDLIFE SERVICE
POST OFFICE BOX 4305
103 EAST CYPRESS STREET
LAFAYETTE, LOUISIANA 70501

STATEMENT OF U.S. FISH AND WILDLIFE SERVICE
PRESENTED AT PUBLIC MEETING TO DISCUSS
THE TENTATIVE PLAN FOR FRESHWATER DIVERSION
INTO THE LAKE PONTCHARTRAIN BASIN AND MISSISSIPPI SOUND

Presented December 6, 13, and 15, 1983

Colonel Lee, distinguished guests, ladies and gentlemen, my name is Gerald Bodin. I am presenting this statement on behalf of Mr. James Pulliam, Regional Director, U.S. Fish and Wildlife Service, Atlanta, Georgia. My statement represents the views of the Fish and Wildlife Service on the tentatively selected plan for freshwater introduction into the Lake Pontchartrain Basin and Mississippi Sound of southeastern Louisiana and southwestern Mississippi.

Louisiana's coastal swamps and marshes are being lost at a rate exceeding 29,000 acres per year, and indications are that this rate is increasing. This alarming decline is an item of serious concern to the Fish and Wildlife Service because of the national importance of Louisiana's coastal wetlands to migratory waterfowl and other migratory birds, fur animal and alligator harvests, and sport and commercial fisheries. In contrast, Mississippi's coastal swamps and marshes are much more stable, having a loss rate of less than 300 acres per year.

The re-introduction of Mississippi River water into Louisiana's subdelta marshes has been recommended for decades as a viable means of reducing saltwater intrusion and wetlands deterioration. Plans are presently being developed under another study to divert Mississippi River water into Louisiana's Barataria and Breton Sound Basins. Substantial benefits to fish and wildlife are expected to result from these diversions. The plan developed under the present study recommends that a major freshwater diversion structure be installed in the Bonnet Carre Spillway in St. Charles Parish, Louisiana.

The tentatively selected plan would result in substantial benefits to fish and wildlife, based on studies conducted jointly by the Fish and Wildlife Service, Corps of Engineers, and Louisiana Department of Wildlife and Fisheries in consultation with the Mississippi Bureau of Marine Resources, Gulf Coast Research Laboratory, and National Marine Fisheries Service. Some of these benefits include:

- a reduction of 10,500 acres in the amount of coastal wetlands lost in the study area over the next 50 years;
- a reduction in saltwater intrusion and creation of a salinity regime more favorable to fish and

Exhibit C

wildlife;

- o an average net increase of 8.2 million pounds per year in estuarine commercial fisheries landings valued at $6.3 million;

- o an average increase in sportfishing effort valued at more than $400,000 annually; and

- o a net increase in freshwater commercial fisheries landings, fur animal and alligator harvests, and game and non-game wildlife populations.

The Fish and Wildlife Service is in full support of freshwater diversion at the location indicated in the tentatively selected plan. We are convinced that, from the biological standpoint, the diversion location selected is superior to the other sites evaluated. Being located in a historically freshwater environment, distant from prime estuarine nursery grounds, the structure will allow freshwater flow to restore more favorable salinity conditions in the stressed cypress-tupelo swamps and marshes along the western shore of Lake Pontchartrain; this will also allow for a reduction of excess nutrients and pollutants and for greater solar heating of the cooler Mississippi River water prior to its reaching the prime estuarine nursery grounds. Furthermore, fresh water diverted at this location would more effectively and efficiently accomplish the study goals than at the locations considered downstream from New Orleans.

The Fish and Wildlife Service recommends that the following measures be implemented in the interest of fish and wildlife conservation:

1. the tentatively selected plan be recommended for authorization and

2. post-authorization studies be conducted to develop operational and maintenance guidelines for the proposed diversion structure and to design monitoring plans for the affected area.

In closing, it should be emphasized that the proposed diversion plan will not totally solve the wetlands loss problem in the study area, let alone the entire coastal region of Louisiana and Mississippi. Efforts must be intensified to reduce wetland loss and saltwater intrusion throughout the coastal zone. Such efforts must include improved design and maintenance of water resource projects, improved mitigation of damages associated with canal dredging and other regulated works, and improved management of freshwater and sediment to maximize delta building and minimize saltwater intrusion and marsh loss. All of these efforts, including the proposed diversion plan,

are needed if the rich renewable resources of the Northern Gulf Coast are to be maintained for generations yet to come.

Thank you.

Colonel Willis, distinguished guests, ladies and gentlemen, my name is _____. The statement I will present represents the views of the Department of Wildlife and Fisheries concerning the proposed plan for controlled introduction of freshwater to the Pontchartrain Basin, Mississippi Sound, and the Upper Eastern marshes of Louisiana.

Since the turn of the century, state biologists have advocated diversion of fresh water from the Mississippi River to adjacent estuarine areas to enhance fisheries production. Over the past several decades, the Department has studied the effects on estuarine productivity of crevasses and, more recently, Bonnet Carre Spillway openings. We have concluded that the short term negative effects of such events are usually far outweighed by the long term increases in productivity. Unfortunately, it is the negative effects which are most often remembered from such an event. For this reason it is imperative that a clear distinction be made between a flood control Spillway opening and the plan for controlled freshwater diversion. Spillway openings are essentially uncontrolled releases of huge volumes of water for the purpose of flood protection. The proposed diversion plan under consideration, however, has as its sole purpose, estuarine enhancement, and most importantly, offers controlled diversions of much smaller volumes of water over an extended period. Since the diversions will be controllable, the timing and amount of freshwater releases can be managed so that the benefits to fish and wildlife are maximized and the negative effects minimized. The success of two existing freshwater diversion structures in Plaquemines Parish, managed in part by the Department, has proven these goals attainable.

The Department is aware that certain fisheries resources will be displaced. However, we firmly believe that the increase in overall productivity of the Basin, along with increased utilization of existing resources, will result in real benefits to the vast majority of interests.

The proposed salinity management scheme being considered here tonite was developed by the Department of Wildlife and Fisheries from decades of research and experience. We believe it to be a reasonable and justifiable plan, which will result in a more stable and consistently productive region. We also believe, however, that once the structure is in operation and the effects of the diversions are measured, modifications to the management scheme are inevitable. We believe, however, that these functional modifications can be achieved on a reasonable basis.

While the particulars of the diversion scheme are debatable, the need for controlled, supplemental freshwater input to the Basin is not. Saltwater intrusion has resulted in habitat loss and alterations to large areas of wooded swamp and fresh, brackish and intermediate marshes. This process continues to occur, and threatens more and more of our coastal region. The Department, as well as some of your staff, Colonel Willis, recognizes that the

Exhibit 7

ersion plan would not eliminate swamp and marsh loss, but would significantly reduce the rates of loss throughout the in. The instability of salinity conditions which now exist the Basin has contributed to the inconsistency of commercial recreational fisheries production, and also has magnified disastrous effects of occasional floodwaters and domestic lution. This problem is sharply illustrated by the decline oyster production in the Basin over the past 50 years. As twater intrusion progressed, the zone of favorable salinities oyster production moved landward, and away from the vast, torically productive reefs and firm waterbottoms. The proposed shwater diversion would shift the zone of greatest productivity k to the greatly superior reef areas, which are much less ected by floodwaters and pollution, and would help maintain arger, more favorable, estuarine area.

The Corps of Engineers has understandably emphasized the efits to the oyster industry in the proposed plan. The Depart- t supports the claimed increases in oyster production and perhaps e importantly, believes that the unclaimed benefits to other h, wildlife and land resources will be substantial. The increase overall productivity of the Basin will provide for larger and e consistent commercial and recreational harvests, increased ting and fishing opportunities, and the preservation of the al economies based upon the resources of the Basin.

The Department of Wildlife and Fisheries believes that fresh- er diversion is the single, most effective means by which the e of deterioration of our coastal areas can be slowed. For s reason, the Department commends you Colonel Willis, and ır staff, for the preparation of this plan. The Department ongly endorses the proposed plan and urges all those concerned, give it their favorable consideration.

December 13,1983

Colonel Lee, ladies and gentlemen. My name is Michael Halle. I live at 520 Esplanade Avenue in New Orleans. I appreciate the opportunity to comment tonight at UNO on the proposed freshwater diversion project to come through a structure adjacent to the Bonnet Carre Spillway.

It is my understanding that the proposed project will have many beneficial affects on oyster production and, particularly,on preserving the threatened freshwater and brackish marshes along the lake. Therefore I fully support the project.

I feel, however, personally a strong need to put this project in historical perspective; and to also put the activities of the Corps of Engineers into perspective in Louisiana because it is impossible to view this project as one isolated project.'

It is not an isolated project.

It is being touted as the "salvation" of Lake Pontchartrain's wetlands. But Lake Pontchartrain's wetlands have been far more threatened and destroyed by the developers who brought us Venetian Isles and Eden Isles in Slidell and who are bringing us New Orleans East.

And by the Mississippi River Gulf Outlet which the Corps of Engineers started in 1956 and opened in 1961 after which Mumphrey and others here at UNO found the salinity in the Lake going up immeidately. And it has never come down since. So that simultaneously the cypress--freshwater marshes in St. Charles Parish and even on the north shore of Lake Pontchartrain began to die.

So here we have come full circle in the short space of 23 years; what the Corps has destroyed the Corps will repair.

h.b.t 8 As I say, this is an attempt to put the Corps' business into

torical perspective and believe me, time does not permit
n a cursory review of the Corps' hundred and fifty-three
lion dollars worth of projects underway in Louisiana.

And let us not forget that the Corps ten years ago tried
dam up Lake Pontchartrain with barriers that would have
uced the flow at the Rigolets and the Chef by three-quarters,
that the Corps' engineers attempted to tell us the flow
ld be the same.

Never-the-less, this project seems to be a good project,
withstanding the extra load of silt that may smother
e oyster beds; or even the extra loads of toxics that will
e in from the river; or even the extra sewage. The lake's marshes
d freshwater if they are to survive. Menhaden production will
rease, as will many other estuarine dependent fish that spawn
these marshes and in the grass beds.

Careful monitoring, however, needs to be made of the quanities
sewage coming into the lake.

Careful monitoring needs to be made of the fish and the
ins. Studies in this EIS at present already reveal the average
h or shell fish is contaminated.

How pitifully contaminated is our water in America and not
y from Big Oil and the members of the La. Chemical Industry
ociation but also from dozens of municipalities in Louisiana
t dump their sewage into the Mississippi River.

Is the shell fish in the lake safe to eat at present? Are
fish safe? Who knows?

Lastly, I feel I would be rather remiss not to mention the
er role the Corps has played in destroying Louisiana wetlands,
ely in canal permitting and canal dredging. Is it not necessary

W. V. Robertson

Mr. Robertson said that his statement was not for any group or organization. He stated, however, that he is director of the Mississippi Wildlife Federation in this area. He emphasized that if the fresh water from the Mississippi River were good, he could see where this project might enhance wildlife possibilities. But, he added, the fresh water from the Mississippi River were polluted, he would be strictly against the project.

Mr. Bill Dekemel, President of East Bank Commercial Fishermans Association

Mr. Dekemel stated that he represents some 1,250 commercial fishermen, support facilities, and their families. These people make their living and support their families primarily from seafood originating in Lake Pontchartrain. He mentioned that Louisiana Wildlife and Fisheries statistics show that 2,500 commercial fishermen are licensed in Orleans parish, 1,400 in St. Tammany Parish, 1,500 in St. Bernard Parish, and 2,500 in Jefferson Parish, as well as many in Mississippi. This is in excess of 7,500 families that will be effected by this program, most of them adversely. He added that of the over 7,000 commercial fishermen, there are over 4,000 commercial shrimp fishermen within the study area in Louisiana and Mississippi. Most of the crop coming from the Lake Pontchartrain Basin are brown shrimp. He noted that this is the principal fishery that will be most adversely affected by this project.

He stated that the project will affect Louisiana's seafood industry, which is second only to oil production. He added that shrimp is the number one revenue producer in the seafood industry in both Mississippi and Louisiana. The project will have the potential to destroy the brown shrimp production in the Lake Pontchartrain area. Project engineers and biologists say that the brown shrimp will only be relocated eastward. But, Lake Pontchartrain has the unique ability to produce a larger, more valuable brown shrimp than any other area on the coastline. He noted that he did not have the reasons nor the answers for this and neither did the biologists at the meeting. But, he stated, it is a proven fact that brown shrimp in the Biloxi area may vary but seldom reach a size larger than 36-40, 31-35 count. In Lake Pontchartrain, by the end of July and in August, the shrimp leaving Lake Pontchartrain reach sizes of up to 10-15 to the pound. What this adds up to is a possible 50% loss of crop by weight if they are only moved eastward so that they cannot get into Lake Pontchartrain to grow, and a possible 75% loss in crop by value. He stated that 1,000 pounds of 31-35 count in the marshes will be worth $1,800. That same 1,000 lbs in Lake Pontchartrain may grow to 3,000-4,000 pounds at 10-15 count and be worth over $10,000. Brown shrimp need 10-17 parts per thousand salinity and temperatures above 20°C to produce a good crop.

He added that the river water, not taking into consideration water quality, will definitely lower salinity and temperatures to the point where it will be untolerable for brown shrimp in Lake Pontchartrain and the nearby areas. Mississippi commercial shrimp fishermen have traditionally fished the Louisiana-Biloxi marsh area, both inshore and offshore. Lake Pontchartrain brown shrimp leaving the lake through St. Joe and Mississippi Sound have always been the principal target for Mississippi shrimp fishermen. If the shrimp do not grow in Lake Pontchartrain, the fishermen will be working on a 40-50 count shrimp worth much less than the usual 21-25 count. The minimal increase in oyster production will be offset many times by the reduction of brown shrimp value because the shrimp crop is approximately 10-15 times greater in value than the oyster crop. This may cause the cost-benefit ratio

ın Shrimp Canners
ıtion

Gulf State Marine
Fisheries Commission

ına Oyster Dealers
ers Association

New Orleans Sportsmen
League

ına Wildlife Federation

Louisiana Wildlife Biologists
Association

ına Department of Wildlife Fisheries.

ıe project got underway, interest sparked from other directions and now
ıre at least two other planned diversions from the Mississippi River and
ve a wide range of support from the business, sport, and scientific
lties. The three-volume report contains a mass of engineering,
lfic, environmental, and economic data. He added that to the best of
owledge, no stones have been left unturned. The net of all this is that
lled amounts of freshwater from the Mississippi River diverted to the
ınd estuary will enhance habitat for wildlife, sport fish, and
:ial fishery species. It will also help prevent loss of marsh in the
/. He stated that the purpose of his statement was twofold. First, to
artedly endorse the proposal and, second, to point out to all present
ıis project is not some quick off-the-cuff idea that was hastily put
er. But, he noted, it is one that has had ten years work put into it by
ımittees, the Corps of Engineers, and many agencies of state and Federal
ıent since 1976 to bring it to this stage. In closing, he stated that
d the project would go forward with no delay. Mr. Marvar's statement
lbit 4.

Dr. David Etzold, University of Southern Mississippi

:old stated that he has been associated with the project since its
on through the Mississippi Sea Grant Program. On August 1973, he
the members of the Mississippi seafood industry had asked him to
them in developing a document to present to Congress to request the
of the Bonnet Carre' Spillway during dry years to replenish freshwater
nto east Louisiana and western Mississippi estuaries to enhance seafood
ivity. He added that meetings insued with numerous Mississippi and
na Federal, state, and other fishery and wildlife associations, as
d in his February 2, 1978, public meeting statement in Gulfport,
ippi, entitled "On a Study of Lake Maurepas, Pontchartrain, Borgne, and
ippi Sound Estuarine Areas, Louisiana and Mississippi," pages 32-34.
d they have made semi-annual and annual progress reports to the Gulf
Marine Fisheries Commission, The American Shrimp Canners and Processors
tion, and other fishery associations and conducted coordinating
ives with New Orleans District Corps of Engineers as well as the office
honorable Trent Lott. He mentioned that all of these groups, as well
r interested parties, continued to support the earliest successful
ion of this most important project. Dr. Etzold stated that as a
ntative of the Mississippi Sea Grant Program, he highly endorsed the
ions of the October 1983 feasibility study of the Mississippi and
na estuarine areas freshwater diversion to Lake Pontchartrain and
ippi Sound.

dependent species spawn and are harvested, in many cases. He noted that there is an abundance of species not considered to be estuarine-dependent that often largely depends on estuarine-dependent food resources. He added that, consequently, the deteriorating estuarine habitat that dominates this area is not only a local, but a national and global problem. Highly productive marine areas are limited to a very small part of the earth's surface. He commented that with the increasing demand for food to supply the world's burgeoning population, any reduction in productivity in those systems is untentable. He suggested that freshwater diversion to Lake Pontchartrain Basin and Mississippi Sound is not a correct description of the proposed plan. Diversion of fresh water from those areas except during extremely high flow was accomplished some 50 years ago when the Mississippi River levee system was completed. There was little or no recognition or concern for potential damage to the very abundant but nevertheless limited fish and wildlife resources in the system. In fact, the proposed plan provides for controlled restoration of freshwater flow to the deteriorating estuarine area. Adverse impacts of the plan are negligible when limited to a small area near the point of freshwater flow into the system. He noted that there was concern about the quality of the Mississippi River water. He stated that we must assume any deleterious impact from that source will be alleviated by the nation's program to clean up the water. In closing, he emphasized the Gulf Coast Research Laboratory's support for the proposed plan and urged that implementation proceed as rapidly as possible.

Victor Mavar, Vice-President of Mavar Shrimp and Oyster Company, Biloxi, Mississippi.

Mr. Marvar stated that he serves on the Estuarine Development Committee of the American Shrimp Canners and Processors Association. He noted that the committee had spearheaded this study. He stated to LTC Willis that he already supports this project. Most of his remarks, he noted would be directed toward providing additional background information for those present. He stated that he has actively been involved in the seafood business a long time. His family has been in the seafood business for 57 years, since 1926. During this time, he commented, he has witnessed many changes in the seafood business in Mississippi and Louisiana. Unfortunately, too many of the changes have been for the worst. He added that as far back as he could remember the fishermen and processors have complained about the absence of different fishery species due to the lack of fresh water from the Mississippi River. He noted that the freshwater project originated in 1973. But, before Congress passed the resolution supporting the study, they had researched the records of the various seafood commissions and found many references to lack of fresh water. They found one reference to this matter in the Louisiana Oyster Commission minutes from the year 1898. However, except for a few siphons over the banks of the Mississippi River, not much was ever done. There were many proposals but for one reason or another they never really got off the ground. He commented that before this project was presented to the COE for this study, it was endorsed by the following organizations:

Mississippi Marine Conservation Commission

Mississippi Marine Resources Council

Mississippi Game and Fisheries Commission

Gulf Coast Research Laboratory,

making presentations to come forward and speak at the podium so that one could hear. He said that the meeting was being taped and that copies e meeting summary and the cassette tape would be available in about 60 at the cost of reproduction. Views and concerns of speakers at the ng are summarized below in order of occurrence.

nomas McElwain, Gulf Coast Research Laboratory, Ocean Springs, ssippi, Representing Congressman Trent Lott.

cElwain stated that the result of Mississippi River leveeing is decreased ctivity of fish and wildlife resources and hastened loss of land area. mmented that floodwaters in the past replenished the marshes with ents and sediments. The freshwater helped to mediate the intrusion of ater into the delta area. The annual replenishment of nutrients in the and mediation of saltwater intrusion provided a highly productive area lsh and wildlife resources. He noted that the objective of this study is termine the best way to introduce a controlled amount of freshwater to ast delta region to restore the high productivity of fish and wildlife rces. He stated the Corps of Engineers has evaluated a variety of dologies and structures to accomplish the controlled introduction of vater into the study area. He said that the most desirable alternative construct a diversion facility in the Bonnet Carre' Spillway in St. es Parish approximately 33 miles upstream from New Orleans. He noted the cost of the plan is estimated at $55.6 million with annual charges of ximately $5.4 million dollars.

cElwain emphasized that the plan also includes the development of ational facilities at six locations in the study area. The average l benefits of this plan are estimated at approximately $6.7 million, gives a favorable cost-benefit ratio of 1.25 to 1. He fully supports ull development of this alternative. He stated that he is looking rd to working with his colleagues from Louisiana to insure that the sary funds are available to see that this project is brought to its sful completion and, subsequently, the high productivity of fish and life resources of that area is restored.

harles Lyles, Mississippi Coast Fisheries Association.

yles indicated that he and the Mississippi Coast Fisheries Association rted the project and would work with others in obtaining the necessary g for the project from the state of Mississippi.

Guillot, C.F. Guillot and Son Seafood, Biloxi, Mississippi

illot stated that she supported the project and it was necessary to e an economically declining seafood industry. She noted that the t is supported by most persons involved in the seafood industry.

Christmas, Gulf Coast Research Laboratory, Ocean Springs, Mississippi

ristmas stated that the study area lies in one of the world's most ically productive systems. He noted these systems were created and ined by great river systems like the Mississippi and Amazon Rivers. bution to productivity extends far out to sea where adults of estuarine-

MISSISSIPPI AND LOUISIANA ESTUARINE AREAS

SUMMARY OF PUBLIC MEETING
GULFPORT, MISSISSIPPI
December 15, 1983

1. Introduction.

The third public meeting was held in Gulfport, Mississippi, at the Mississippi Power Company auditorium. The purpose of the meeting was to give all interested people the opportunity to express their views on the tentatively selected plan for freshwater diversion to Lake Pontchartrain Basin and Mississippi Sound. The agenda of the meeting is Exhibit 1.

2. Attendance.

A total of 46 persons attended the meeting. Various Federal, state, and local agencies as well as citizens and environmental groups were represented. A list of attendees is shown in Exhibit 1a. Exhibit 2 is a list of persons who expressed their views at the meeting.

3. Welcome and Opening Remarks

Dr. Richard Leard, Director of the Bureau of Marine Resources, Mississippi Department of Wildlife Conservation, chaired the meeting. Dr. Leard stated the purpose of the meeting and described the study area. He stated that the diversion was to reduce saltwater intrusion, enhance habitat conditions, and improve fish and wildlife production in the area.

Dr. Leard recognized persons sitting at the head table. Mr. Ron Dugas, representing Mr. Ted Ford of the Louisiana Department of Wildlife and Fisheries, LTC Edward Willis, Deputy District Engineer, New Orleans District, and Cletis Wagahoff, Chief, Planning Division, New Orleans District. LTC Willis conducted the business portion of the meeting. He introduced the Corps of Engineers, New Orleans District, staff and expressed appreciation to the Mississippi Power Company for providing the meeting facilities. LTC Willis emphasized the importance of filling out an attendance card so that each person can be notified of study completion. The cards are also held as a permanent part of the record.

4. Study Presentation.

Colonel Willis called on Mr. Falcolm Hull, study manager, to discuss the tentatively selected plan. Mr. Hull presented information on problems of land loss and reduced fish and wildlife productivity in the study area. He discussed the plan formulation process and the rationale for selecting the Bonnet Carre' plan. He described pertinent information on the tentatively selected plan. Mr. Hull's remarks are Exhibit 3.

5. Public Views and Concerns.

LTC Willis asked everyone to limit their statements to five minutes. He asked

SUMMARY OF PUBLIC MEETING

HELD IN GULFPORT, MISSISSIPPI

DECEMBER 15, 1983

Exhibit 3

for a critical illness. The Corps of Engineers have historically been masters at identifying and cultivating local sponsors for barge canals, dams, and the like. We urge that the same effort be put forth to guarantee the necessary local cost share for the project.

To sum up, the Louisiana Wildlife Federation strongly favors the Tentatively Selected Plan; we feel that it should be considered mitigation for past and continuing damages from previous Corps of Engineers works and therefore be wholly funded by the Federal Government; we are extremely concerned about identifying local sponsors and securing the necessary assurances in view of the current financial status of state and local governments; we urge the Corps to vigorously pursue the required local assurances; and, in deference to those persons in the community of Montz who will have to be relocated because of the project, we urge the Corps and local sponsors to take the necessary pains to insure an equitable settlement acceptable to the affected families and individuals.

Thank you.

Edgar F. Veillon

Edgar F. Veillon
Co-Chairman
Wetlands Committee
LWF, Inc.

because the proposed diversion structure can be flexible in its operation, it will allow for a unique and much needed management potential. The prospect of having the ability to maximize fisheries and wildlife productivity by regulating water flow through the structure is exciting to contemplate from a resource management perspective. Unlike the massive uncontrolled blast of river water that disrupts the system's productivity over the short-term when the Bonnet Carré structure is utilized, but enhances it over the long-term, the TSP will help to stabilize the productivity of the system, as well as enhance it.

Though the most substantial project beneficiary is the Louisiana oyster industry, the spin-off marsh/swamp enhancement and fish and wildlife values, and the proposed recreation facilities, are significant enough to warrant strong support from sportsmen in the project region.

In all fairness, this Tentatively Selected Plan for freshwater diversion and others that will follow can and should be considered as mitigation for the extensive work that the Corps has done along the Mississippi River in the name of flood control and navigation. Louisiana's severe saltwater intrusion and wetland deterioration problem is directly attributable to these projects. Under the usual mitigation arrangements, the Federal Government would be contributing 100 percent of the construction costs rather than the 75 percent being offered here. Though we understand that proposals to consider these freshwater diversions as mitigation have been rejected, we feel compelled to reiterate that, in our opinion, they could and should be considered as mitigation for past and ongoing project damages.

Be that as it may, a sum in excess of $14 million must be provided by local sponsors for the project to move forward. Because of the severe financial bind our state government finds itself in, we wonder where the money is going to come from. Without local assurances, the whole proposal is no more than a placebo

Louisiana Wildlife Federation, Inc.

P O BOX 16089 LSU
BATON ROUGE, LOUISIANA 70893
504/355-1871

Comments of the Louisiana Wildlife Federation
Regarding the Tentatively Selected Plan (TSP) for
the Diversion of Freshwater to Lake Pontchartrain
December 13, 1983

Colonel Lee, Ladies and Gentlemen:

Thank you for the opportunity to express our views on this most important proposal. The Louisiana Wildlife Federation is the largest citizen-conservation organization in Louisiana with over 7,000 members and 80 affiliated sportsmens groups statewide - 35 of which are located within the study area of the Freshwater Diversion to Lake Pontchartrain project. The Federation is well on record in support of the concept of freshwater diversion as a means of protecting the State's vital coastal wetlands from further deterioration.

The advance of saltwater into Louisiana's marshes and estuaries, with the attendant loss of fish and wildlife habitat, is the most serious natural resource problem facing our coastal area. Since the turn of the century, persons knowledgeable about coastal geology and ecosystems have recognized the need to restore freshwater flows from the Mississippi River as a means of combating this problem. It is widely accepted today that freshwater diversion is the only viable longterm solution to the severe land loss that is occuring in the coastal zone.

The Tentatively Selected Plan will be a significant measure to set back saltwater intrusion in the Pontchartrain Basin estuary, and it has the enthusiastic support of the Louisiana Wildlife Federation. Not only is the project expected to save or improve thousands of wetland acres and enhance fisheries production but,

Exhibit 11

HAVE MOVED FURTHER AND FURTHER INLAND BECOMING VULNERABLE TO THE MORE URBAN RELATED PROBLEM OF POLLUTION.

ST. BERNARD HAS HAD THE OPPORTUNITY TO FULLY EXPERIENCE THE EFFECTS OF SALTWATER INTRUSION. WE HAVE ALSO EXPERIENCED THE BENEFITS OF FRESH WATER INTRODUCTION FROM OUR SIPHON. IT IS OUR PHILOSOPHY THAT FULL SCALE MANAGEMENT WITH A COORDINATED APPROACH INCLUDING SALTWATER BARRIERS, MARSH CREATION, REVEGETATION, AND FRESHWATER DIVERSION WILL BE NECESSARY. IF WE CHOOSE TO SAVE OUR ECONOMY AND THE NATION'S SEAFOOD INDUSTRY, IT WILL REQUIRE AN AGGRESSIVE ATTITUDE SUCH AS THIS. WE REALIZE THERE ARE SOME NEGATIVE IMPACTS ASSOCIATED WITH A DIVERSION PROJECT OF THIS MAGNITUDE, BUT ARE WILLING AND INTERESTED TO WORK WITH YOU TOWARD OUR MUTUAL GOAL OF RESTORING OUR COASTAL ENVIRONMENT.

submitted by:
The St. Bernard Parish
Police Jury
8201 W. Judge Perez Dr.
Chalmette, La. 70043

PUBLIC STATEMENT

MISSISSIPPI & LOUISIANA ESTUARINE

ST. BERNARD PARISH POLICE JURY WOULD LIKE TO EXPRESS ITS SUPPORT FOR THE EFFORTS AND ACCOMPLISHMENTS OF THE NEW ORLEANS DISTRICT U.S. ARMY CORPS OF ENGINEERS IN PURSUING FRESH WATER DIVERSION INTO THE MISSISSIPPI LOUISIANA ESTUARINE AREA. AS WE LEARN MORE AND MORE ABOUT CURRENT TRENDS IN OUR ENVIRONMENT, WE COME TO REALIZE THAT IMMEDIATE ACTION WILL BE REQUIRED TO EVEN SLOW DOWN THESE CHANGES. THE CORPS HAS NOT ONLY PREDICTED WHAT EFFECTS THE FRESHWATER IS EXPECTED TO HAVE, BUT ALSO THE CONDITION OF THE STUDY AREA 50 YEARS HENCE WITHOUT THE PROJECT.

IT IS A GRIM AND DESOLATE PICTURE THEY HAVE PAINTED WITH 77,500 ACRES OF LAND CONVERTED TO WATER BOTTOM, SALINITIES DOUBLING AND A REDUCTION OF 65 MILLION POUNDS IN COMMERCIAL FISHERIES. NO ACTION IS CLEARLY NOT AN OPTION WE CAN AFFORD TO EXERCIZE. THE ECONOMIC LOSES TO DATE ARE INDETERMINABLE; THOSE PREDICTED IN THIS STUDY ARE UNAFFORDABLE. JUST IN ST. BERNARD ALONE, A DOCUMENTED 60,000 ACRES OF FRESH TO INTERMEDIATE MARSH AND 8,000 ACRES OF CYPRESS SWAMP HAVE BEEN LOST SINCE 1955. THESE ACRES WERE THE PREFERRED HABITAT OF THE IMPORTANT COMMERCIAL AND SPORT WILDLIFE SPECIES. WILDLIFE PRODUCTIVITY IS DIRECTLY CORRELATED TO PLANT GROWTH AND COMPOSITION. OF PARTICULAR NOTE HAS BEEN THE RESULTANT LOSS OF HABITAT FOR WINTERING WATERFOWL INCLUDING THE LESSER SNOW GEESE, MALLARDS AND GREEN WINGED TEAL. IN ADDITION, WITH SALINITIES RISING, IMPORTANT NURSERY GROUNDS

Exhibit 10

Louisiana Wildlife Biologists Association

P. O. BOX 14762

BATON ROUGE, LOUISIANA 70808

into Louisiana's coastal wetlands, the Louisiana Wildlife Biologists Association strongly supports the Corps' tentatively selected plan for freshwater diversion into the Lake Pontchartrain Basin.

While the proposed plan represents an important step towards addressing Louisiana's coastal wetlands loss problem, much more needs to be done. We therefore urge the Corps of Engineers to continue, in an expeditious manner, its evaluation of measures to reduce wetland deterioration in coastal Louisiana.

Thank you.

Louisiana Wildlife Biologists Association

P. O. BOX 14762

BATON ROUGE, LOUISIANA 70808

PUBLIC HEARING STATEMENT OF LOUISIANA WILDLIFE BIOLOGISTS ASSOCIATION ON PROPOSED PLAN FOR FRESHWATER DIVERSION TO LAKE PONTCHARTRAIN BASIN AND MISSISSIPPI SOUND

December 13, 1983

Colonel Lee, distinguished guests, ladies and gentlemen, my name is Johnny Tarver and I am presenting this statement on behalf of the Louisiana Wildlife Biologists Association. Our Association is composed of approximately 170 professional fish and wildlife biologists employed throughout the State of Louisiana by federal, state, and local government entities, universities, and private industry. This Association has long recognized the urgent need for introducing freshwater into Louisiana's coastal marshes and adjacent estuarine waters and has supported efforts to achieve that goal.

Recent studies have shown that the coastal marshes and swamps of Louisiana, along with their associated fish and wildlife benefits, are being lost at a rate of over 45 square miles each year. This loss is, to a large degree, a result of saltwater intrusion and subsidence caused by reduced inflow of Mississippi River water, nutrients, and sediments. The single most feasible solution to this problem is the introduction of Mississippi River water into these wetlands to reduce saltwater intrusion and the high rate of wetland loss.

The tentatively selected plan recommended by the Corps of Engineers calls for a structure on the Mississippi River at the Bonnet Carre Spillway to introduce supplemental freshwater into the Lake Pontchartrain Basin and western Mississippi Sound. The estimated monetary benefits of this plan to fish and wildlife would exceed project costs considerably. This is attributed to a large increase in oyster production; a net increase in commercial and sport harvest of crabs, shrimp, and finfishes; improved yields of alligators and furbearers; and net increases in sport hunting opportunities. Unquantified benefits include reduced habitat loss on Manchac, Joyce, Biloxi, and Pearl River Wildlife Management Areas and St. Tammany Wildlife Refuge; preservation of the storm surge protection and waste treatment functions of the area's marshes and swamps; and improved sport and commercial fishing opportunities in the tailwaters of the proposed diversion structure. A major benefit to overall resource productivity is associated with the anticipated savings of more than 10,500 acres of marsh and swamp in the study area over the next 50 years. Such a reduction is critical if the renewable resources of the project area are to be preserved.

In view of the project's substantial benefits to fish and wildlife, and in light of our Association's long-standing support of freshwater diversion

Exh L 1 9

to look at the other projects of this giant an organization to see how they fit in with a fifty-five million dollar project?

The answer is that it is certainly prudent. And what is the Corps doing elsewhere in Louisiana? It is issuing permits to destroy La. at an estimated 100 per month, mostly to the strip-mining industries who rip off the wetlands vegetation and drill a hole and then go away. How does that fit in with this giant project to restore the lake's wetlands, to enhance the lake's fisheries by restoring those wetlands.

How can the WL&F Department say, as they did at Destrehan two weeks ago, that they are all for this when they themselves do not even bother to comment on the strip-mining permits? What do they care?

So, again, this is a good project, maybe; as long as the river water does not have too much mercury and copper in it. Or ten dozen others. So go ahead with it , I say. Let the right hand build while the left destroys. Thank-you.

of this program to go far below the minimum necessary to suppport the program. A previous speaker mentioned that no stone has been left unturned. Well, one stone has been left unturned, brown shrimp, the number one shrimp in Louisiana and Mississippi and the number two industry for Louisiana.

Mr. Dekemel stated that commercial fishermen are concerned with the track record of the Corps of Engineers. When the MR-GO was proposed, they had all the answers. The biologists knew exactly what was going to happen. While, he noted, exactly the opposite happened--saltwater intrusion. He added that when the hurricane protection system and the barrier system in the Chef and the Rigolets Pass was designed, they had all the answers. Again, there have been serious problems in the project setback. The shrimp data to be used in this particular program is the best techological information available, but it is not good enough. It's the same "best technological information" used in the past. He added that better information is needed before such a program can proceed. He noted that the National Marine Fisheries landing records do not include the Lake Pontchartrain landings and the effects if the size of the crop were reduced. He mentioned that the feasibility study in Volume 1 of the report states that there has never been an indepth study of the affect of the Mississippi River fresh water into Lake Pontchartrain and Lake Borgne. Before we get put out of business, we want to know what's going to happen. The problem is that the commercial fishermen should have been consulted way before the program got to this point. These people are experts in their field. Everytime we have had a spillway opening, the brown shrimp crop has suffered severely.

Mr. Mark Chatry, Louisiana Department of Wildlife and Fisheries

Mr. Chatry stated that the proposed diversion plan has estuarine enhancement as its sole purpose and, most important, offers controlled diversions of much smaller volumes of water over an extended period. Since the diversions will be controllable, the timing and amount of freshwater releases can be managed so that the benefits to fish and wildlife are maximized and the negative effects are minimized. The success of two existing freshwater diversion structures in Plaquemines Parish, managed in part by the department, has proven these goals attainable.

The department is aware that certain fisheries resources will be displaced. However, the department firmly believes that the increase in overall productivity of the basin, along with increased use of existing resources, will result in real benefits to the vast majority of interests.

The Department of Wildlife and Fisheries believes that freshwater diversion is the single most effective ways to slow the rate of deterioration of our coastal areas. The department strongly endorses the proposed plan and urges all those concerned to give it their favorable consideration.

Mr. Chatry's statement is Exhibit 5.

Trent Wilson, Part-time Fishermen

Mr. Wilson stated he initially thought he could be supportive of the project, but in the final analysis he believes the brown shrimp crop is going to be seriously affected. The main income of the commercial fishermen in this area is brown shrimp with a secondary income on white shrimp and oysters. He noted that while oyster production will be increased with this project, there are a

few things to be considered. First, an oyster will magnify any type of pollution that is in the water. As a chemist, he stated he did not believe you can assure the water moving through the area is going to be clean no matter how much you analyze it. He added that you can miss toxins. He also pointed out that Mississippi oysters and oysters all over the gulf, which are marketed in other states, have had serious problems complying with the coliform levels. The water being introduced into this area would definitely not help matters. Mr. Wilson stated that he thought a lot more needed to be looked at before the plan is accepted.

Mr. Gerald Bodin, US Fish and Wildlife Service

Mr. Bodin stated that the reintroduction of Mississippi River water into Louisiana subdelta marshes has been recommended in the past as a viable means for preventing saltwater intrusion and wetlands deterioration. The tentatively selected plan that recommends installing a freshwater diversion structure adjacent to the Bonnet Carre' Spillway would result in substantial benefits. Benefits include a reduction in coastal wetlands loss over the next 50 years, reduction in saltwater intrusion and creation of a salinity regime more favorable to fish and wildlife, an average net increase in estuarine commercial fishery landings, an average increase in commercial sport fishing and a net increase in landings, and an increase in fur animal and alligator harvest and in game and nongame wildlife populations.

In closing, he stated that from a biological standpoint, the site selected is superior to other sites evaluated. He also emphasized that the structure will allow freshwater flow to restore salinity conditions. Furthermore, fresh water diverted at this location would more effectively accomplish study goals. Mr. Bodin's statement is Exhibit 6.

Peter J. Umbdenstock, Sr.

Mr. Umbdenstock was mainly concerned with the pollution problems. He stated that chemical pollution in the Mississippi River floating from Baton Rouge to LaPlace hasn't been stopped and could very well float into the gulf and adversely affect the shrimp and fish industry. He added that more studies should be done to avoid this problem.

Jeffrey Taylor - Gulf Regional Planning Commission

Mr. Taylor stated that the Board of Supervisors for Hancock and Harrison Counties had met with the Corps of Engineers to discuss the tentatively selected plan. They discussed the recreational benefits fully and support the project.

Larry Simpson - Executive Director, Gulf States Fishery Commission

Mr. Simpson, on behalf of the commission, commented favorably on the Corps project to divert fresh water to the Lake Pontchartrain Basin and Mississippi Sound. He recognized previous occurrences of periodic flooding which brought needed freshwater to maintain a consistent salinity regime. This also brought needed nutrients for plant growth which led to organic detritus. Because wildlife thrive on marshland and wooded swamp areas for survival, there was a vast increase in wildlife. He explained how man utilized technology and invented mechanisms to keep the river flow confined. This caused fish, land, and wildlife in the area to decline in vitality and quantity. With the

project of controlled fresh water, he said man can moderate fresh water within the banks of the Mississippi River. He added that without controlled freshwater diversion, a salinity zone will move further shoreward. He noted that fresh and intermediate marshes will be replaced with saline marshes which will gradually destroy the vegetation that holds the soil together and thus cause land loss due to erosion. This trend is at a point where it can be reversed by implementing the tentatively selected plan. Mr. Simpson's statement is exhibit 7.

Dr. Ed Cake, Oyster Biologist for the State of Mississippi, President-elect, National Shell Fisheries Assocation

Dr. Cake indicated that the freshwater will reduce the number of predators such as the oyster drills that prey on oysters and thrive in higher salinity waters. The tentatively selected plan would definitely benefit oysters, but will do little to stop land loss. He stated that additional diversion sites along the river are required to stop land loss.

Bob Soule

Mr. Soule asked if a section of the Bonnet Carre' Spillway could be modified for freshwater diversion while awaiting construction of the tentatively selected plan. LTC Willis explained that the spillway structure is too high and can only be used during high water periods.

Closing Remarks

LTC Willis emphasized that anyone wishing to submit a statement or report may do so by January 16, 1984, and by January 3, 1984, for the EIS. He expressed his appreciation for public participation.

Dr. Leard stated that the project would stabilize the seafood industry and overall increase production of oysters and shrimp. He indicated that on behalf of the state of Mississippi he would submit a longer statement. He also expressed his appreciation on behalf of Mississippi for all the participation. Dr. Leard then closed the meeting.

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160

REPLY TO
ATTENTION OF

Agenda

Public Meeting
on
Mississippi and Louisiana Estuarine Areas
Freshwater Diversion to
Lake Pontchartrain Basin and Mississippi Sound

December 15, 1983

I. Welcome	Dr. Richard Leard, Executive Director, Bureau of Marine Resources, Department of Wildlife Conservation
II. Opening Statement	LTC Edward J. Willis, Jr. Deputy District Engineer US Army Corps of Engineers, New Orleans District
III. Presentation	Falcolm Hull Study Manager US Army Corps of Engineers New Orleans District
IV. Public Statements	Interested Individuals
V. Summary	LTC Edward J. Willis, Jr.
VI. Closing Remarks	Dr. Richard Leard

Exhibit 1

LIST OF PERSONS ATTENDING
PUBLIC MEETING IN GULFPORT, MISSISSIPPI

Name	Representing
Mr. John A. Lopez	Self
Mr. Ronald J. Dugas	La. Wildlife & Fisheries
Mr. Marvin McGraw	Self
Mr. Steve Riley	The Clarim - Ledger
Mr. Jim Frank	Gulf Publishing
Mr. Thomas J. Strong	Strong Brothers Seafood
Mr. Bennie A. Rohr	National Marine Fisheries Service, NOAA
Mr. Davis Veal	Director of Seagrant
Mrs. Bonnie Dekemel	Self
Mr. Werner Huber	Self
Mrs. Susan Ivester Rees	U.S. Army Corps of Engineers Mobile District
Mr. Alan J. Santa Cruz	Mississippi Legislature
Mr. Gene Peralta	Self
Mr. Earnest Carpalali	Fisherman
Mr. Ellie McDonnell	Fisherman
Mr. E. R. Guillot	C.F. Guillot & Sons Seafood Industry
Mr. Dennis P. McCann	U.S. Army Corps of Engineers, Mobile District
Mr. Dru Barrineau	U.S. Army Corps of Engineers, Mobile District
Mr. Jay Combe	U.S. Army Corps of Engineers, NOD
Mr. Vernon Behrhorst	Self
Mr. & Mrs. E. K. Johnson, Jr.	U.S. Army Corps of Engineers, NOD
Mrs. Edna S. Etzold	Self
Dr. C. S. Watson	University of New Orleans English Department
Mr. Glen Willoz	U. S. Army Corps of Engineers, NOD
Mr. R. G. Soule'	Self
Mr. Ken Jones	Self
Mrs. Arny Guillot	C.F. Guillot & Sons Seafood Incorporated
Mr. C. T. Green	Mississippi State Port Authority
Mr. Ed Cake	Gulf Coast Research Laboratory
Mr. Larry B. Simpson	Gulf State Marine Fisheries Commission

xhibit 2

Mr. Jeffrey E. Taylor	Gulf Regional Planning Commission
Mr. P. J. Umbdenstock, Sr.	Resident of Gulfport, Mississippi
Mr. Gerald Bodin	US Fish and Wildlife Service
Mr. Trent Wilson	Resident of Gulfport, Mississippi
Mr. Mark Chatry	Louisiana Department of Fish and Wildlife
Mr. Bill Dekemel	President, East Bank Commercial Fishermans Association
Mr. W. V. Robertson	Resident of Pass Christian, Mississippi
Mr. James A. Herring	Biloxi Chamber of Commerce
Mr. David Etzold	University of Southern Mississippi
Mr. Victor Mavar	Vice-President, Mavar Shrimp & Oyster Company
Mr. J. Y. Christmas	Gulf Coast Research Laboratory
Mrs. Linda S. Guillot	C. F. Guillot & Son Seafood Incorporated
Mr. Milo Glarson	Resident of Biloxi, Mississippi
Mr. Charles H. Lyles	Mississippi Coast Fisheries Association
Mr. Thomas D. McZlwain	Speaker for Congressman Trent Lott
Mr. Richard Leard	Bureau of Marine Resources

LIST OF PERSONS WHO EXPRESSED THEIR VIEWS AT THE PUBLIC MEETING

Name	
Mr. C. T. Green	Mississippi State Port Authority
Mr. Ed Cake	Gulf Coast Research Laboratory
Mr. Larry B. Simpson	Gulf State Marine Fisheries Commission
Mr. Jeffrey E. Taylor	Gulf Regional Planning Commission
Mr. P. J. Umbdenstock, Sr.	Resident of Gulfport, Mississippi
Mr. Gerald Bodin	US Fish and Wildlife Service
Mr. Trent Wilson	Resident of Gulfport, Mississippi
Mr. Mark Chatry	Louisiana Department of Fish and Wildlife
Mr. Bill Dekemel	President, East Bank Commercial Fishermans Association
Mr. W. V. Robertson	Resident of Pass Christian, Mississippi
Mr. James A. Herring	Biloxi Chamber of Commerce
Mr. David Etzold	University of Southern Mississippi
Mr. Victor Mavar	Vice-President, Mavar Shrimp & Oyster Company
Mr. J. Y. Christmas	Gulf Coast Research Laboratory
Mrs. Linda S. Guillot	C. F. Guillot & Son Seafood Incorporated
Mr. Milo Glarson	Resident of Biloxi, Mississippi
Mr. Charles H. Lyles	Mississippi Coast Fisheries Association
Mr. Thomas D. McElwain	Speaker for Congressman Trent Lott
Mr. Richard Leard	Bureau of Marine Resources
Mr. Bob Soule	Self

xhibit 2

PRESENTATION

MR. FALCOLM HULL

THANK YOU, COLONEL LEE/LTC WILLIS.

SLIDE 1
TITLE SUPERED OVER STUDY AREA MAP

THE PROBLEMS IN THE RICH AND PRODUCTIVE COASTAL MARSHLANDS BEGAN IN EARNEST WHEN MAN HARNESSED THE MISSISSIPPI RIVER AND ITS TRIBUTARIES IN THE NAME OF FLOOD CONTROL.

SLIDE 2
HYDROLOGIC CYCLE

WITHOUT THE ANNUAL FRESH WATER AND SEDIMENTS FROM THE RIVER, THE NATURAL PROCESSES OF SUBSIDENCE, COMPACTION, EROSION, AND SALTWATER INTRUSION, AND MAN'S CHANNEL DREDGING ACTIVITIES HAVE CAUSED COASTAL LAND LOSS AT THE ALARMING RATE OF 40 SQUARE MILES PER YEAR.

SLIDE 3
COASTAL LAND LOSS

THE LOSS AND ALTERATION OF MARSH HABITAT HAS ADVERSELY AFFECTED THE PRODUCTIVITY OF OUR FISH AND WILDLIFE RESOURCES.

SLIDE 4
SHRIMP BOAT

THE HARVEST OF MANY COMMERCIALLY-IMPORTANT ESTUARINE SPECIES SUCH AS SHRIMP, MENHADEN, OYSTER, BLUE CRAB,

SLIDE 5
PELTS

NUTRIA, MUSKRAT, MINK, OTTER, AND RACCOON HAS GENERALLY DECLINED.

SLIDE 6
MAPS

IN 1982, OUR FIRST STEP IN DEVELOPING A PLAN TO REDUCE LAND LOSS AND INCREASE FISH AND WILDLIFE PRODUCTIVITY WAS TO RECONVENE THE INTERAGENCY AD HOC GROUP ESTABLISHED IN 1969. THE GROUP WAS CHARGED WITH IDENTIFYING DESIRABLE SALINITY CONDITIONS FOR FISH AND WILDLIFE. THE GROUP INCLUDED FEDERAL, LOUISIANA AND MISSISSIPPI STATE AGENCIES WITH RESPONSIBILITIES FOR WATER RESOURCES.

Exhibit 3

E 7
Y AREA
RED OVERLAY

THE AD HOC GROUP RECOMMENDED THAT A SALINITY REGIME--THAT IS, SYSTEMATICALLY CONTROLLING THE SALTWATER IN THE ST. BERNARD MARSHES--WOULD BE BENEFICIAL TO OYSTERS. IF THE SALINITY REGIME IS ESTABLISHED IN THE ST. BERNARD MARSHES, THE PRIMARY ZONE OF OYSTER PRODUCTIVITY WOULD BE THIS AREA SHOWN IN RED.

E 8
H
IMUM SALINITY
ME"

THE REGIME IS BASED ON A TEN-YEAR LOUISIANA WILDLIFE AND FISHERIES STUDY AND WOULD MIMIC SALINITY CONDITIONS THAT EXISTED WHEN THE MISSISSIPPI RIVER OVERFLOWED ITS BANKS EVERY SPRING. THIS REGIME, WHILE BENEFITING OYSTERS, WOULD ALSO BE FAVORABLE FOR MOST FISH AND WILDLIFE SPECIES. SALINITIES WOULD BE REDUCED TO 7 AND 8 PPT IN APRIL AND MAY AND ALLOWED TO INCREASE TO ABOUT 16 PPT IN THE FALL AND WINTER.

E 9
MEASURES

TO ACHIEVE THE SALINITY REGIME, WE INVESTIGATED A NUMBER OF MANAGEMENT MEASURES. WE FOUND THAT DIVERTING FRESH WATER FROM THE MISSISSIPPI RIVER TO THE MARSHES AND ESTUARIES ON AN AREA-WIDE SCALE IS THE BEST WAY TO ESTABLISH THE FAVORABLE SALINITY CONDITIONS, ENHANCE VEGETATIVE GROWTH, REDUCE LAND LOSS, AND IMPROVE FISH AND WILDLIFE PRODUCTION.

E 10
Y AREA MAP
LAY

OUR PRELIMINARY STUDIES IDENTIFIED 13 POTENTIAL FRESH-WATER DIVERSION SITES ALONG THE MISSISSIPPI RIVER. THE TEN SITES ABOVE NEW ORLEANS ARE SHOWN IN RED. THE THREE SITES IN AND BELOW NEW ORLEANS ARE SHOWN IN BLACK.

E 11
Y AREA MAP
LAY - 3 SITES

WE ANALYZED THE ENGINEERING CHARACTERISTICS, POTENTIAL ENVIRONMENTAL, ECONOMIC, AND SOCIAL EFFECTS OF THE SITES. WE THEN SELECTED THREE SITES FOR FURTHER ANALYSIS: BONNET CARRE', INNER HARBOR NAVIGATION CANAL, AND RIVERBEND. WE ANALYZED EACH SITE FOR DIFFERENT SIZE DIVERSION FLOWS AND COMBINED THE SITES AND FLOWS INTO 6 ALTERNATIVE PLANS.

SLIDE 12
TABLE "SITE COMBINATIONS & MAXIMUM DESIGN FLOW"

OUR EVALUATION OF THE PLANS REVEALED THAT PLAN A--DIVERTING FRESH WATER AT RIVERBEND--AND PLAN D--DIVERTING WATER AT THE INNER HARBOR NAVIGATION CANAL--COULD NOT ACHIEVE THE DESIRED SALINTY REGIME. PLANS B, C, AND E--DIVERTING WATER IN VARIOUS COMBINATIONS AT RIVERBEND, IHNC, AND BONNET CARRE'--WERE TOO COSTLY AND GENERALLY CAUSED MORE ADVERSE IMPACTS.

SLIDE 13
STUDY AREA MAP OVERLAY - BONNET CARRE' SITE

THE ANALYSIS INDICATED PLAN F--DIVERTING WATER ONLY AT THE BONNET CARRE' SITE--IS THE BEST PLAN BECAUSE CONVEYANCE CHANNELS WOULD BE SHORTER, SCENIC RIVERS AND STREAMS WOULD NOT BE ALTERED, VERY LITTLE HABITAT ALTERED., ARCHEOLOGICAL AND HISTORICAL SITES WOULD NOT BE DISTURBED, AND ENGINEERING PROBLEMS WOULD BE LESS. PLAN F WAS THEREFORE DESIGNATED AS THE TENTATIVELY SELECTED PLAN.

SLIDE 14
COLOR SLIDE OF BONNET CARRE' STRUCTURE

AT THE BONNET CARRE' SITE, WE CONSIDERED MODIFYING PART OF THE SPILLWAY STRUCTURE FOR FRESHWATER DIVERSION. THE STRUCTURE IS DESIGNED TO OPERATE ONLY DURING PERIODS OF EXTREMELY HIGH WATER ON THE MISSISSIPPI. FRESHWATER DIVERSIONS WOULD, HOWEVER, BE MADE DURING THE PERIOD OF AVERAGE TO LOW FLOW ON THE RIVER. MODIFYING THE SPILLWAY STRUCTURE FOR FRESHWATER DIVERSION WOULD BE EXTREMELY EXPENSIVE AND WOULD JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE SPILLWAY. WE LOOKED AT OTHER POSSIBLE DIVERSION LOCATIONS NEXT TO THE SPILLWAY AND DETERMINED THAT A FRESHWATER DIVERSION STRUCTURE COULD BE PLACED JUST UPRIVER OF THE SPILLWAY STRUCTURE.

15
AREA MAP
P." AND
ATION SITES
AY

THE TENTATIVELY SELECTED PLAN CONSISTS OF A CONTROL STRUCTURE AND ASSOCIATED WORKS AND SIX LOCATIONS FOR DEVELOPMENT OF RECREATION FACILITIES.

16
AY SECTION
TURE

THE CONTROL STRUCTURE WOULD CONSIST OF FOUR 20- X 20-FOOT BOX CULVERTS 455 FEET LONG IN A MISSISSIPPI RIVER LEVEE SETBACK. THE CONTROL STRUCTURE WOULD HAVE A MAXIMUM DESIGN CAPACITY OF 30,000 CUBIC FEET PER SECOND.

17
HART
LEMENTAL FLOW"

TO ACHIEVE THE OPTIMUM SALINITY REGIME, WATER WOULD BE DIVERTED FROM MARCH TO NOVEMBER. THE AVERAGE DIVERTED FLOW FOR THE PERIOD WOULD BE ABOUT 9,800 CFS. A MAXIMUM OF 30,000 CFS WOULD BE DIVERTED DURING THE MONTH OF APRIL THE STRUCTURE WOULD HAVE THE CAPABILITY OF DIVERTING THE REQUIRED SUPPLEMENTAL FLOW ON AN AVERAGE OF EVERY OTHER YEAR.

18
PHOTO
/OUTFLOW
EL

THE INLET CHANNEL WOULD BE 25 FEET DEEP WITH A BOTTOM WIDTH OF 400 FEET, 1 VERTICAL ON 3 HORIZONTAL SIDE SLOPES, AND WOULD BE 0.2 MILES LONG. THE OUTFLOW CHANNEL WOULD BE 25 FEET DEEP WITH A BOTTOM WIDTH OF 400 FEET, 1 VERTICAL AND 3 HORIZONTAL SIDE SLOPES, AND WOULD BE 6.4 MILES LONG. THE CHANNEL IS DESIGNED TO CONTAIN ALL FLOWS WITHIN BANKS.

THE FIRST 3.8 MILES OF CHANNEL WOULD BE A NEW CHANNEL CUT FROM DIVERSION STRUCTURE TO THE EXISTING BORROW CHANNEL. THE BORROW CHANNEL HAS SUFFICIENT CAPACITY TO CONVEY THE MAXIMUM FLOW AND WOULD BE USED FOR 2.0 MILES. A NEW CHANNEL CUT WOULD BE REQUIRED FROM THE BORROW CHANNEL TO LAKE PONTCHARTRAIN.

THE 1,460-FOOT LONG SEDIMENTATION TRAP WOULD BE PLACED 3,500 FEET DOWNSTREAM OF THE DIVERSION STRUCTURE TO CATCH THE SAND PORTION OF THE SEDIMENTS. THE BOTTOM WIDTH WOULD BE 780 FEET WITH SIDE SLOPES OF 1 VERTICAL ON 3 HORIZONTAL.

PART OF THE UPPER GUIDE LEVEE WOULD BE RELOCATED TO INCLOSE THE DIVERSION CHANNEL WITHIN THE FLOODWAY AND PROVIDE FLOOD PROTECTION TO SURROUNDING RESIDENTS. A 600-FOOT TIMBER ACCESS BRIDGE WOULD BE PLACED ACROSS THE DIVERSION CHANNEL ON THE LAKE SIDE OF THE ILLINOIS CENTRAL RAILROAD TRACKS TO GIVE SAND HAULERS ACCESS IN AND OUT OF THE FLOODWAY.

SLIDE 19
SKETCH

AT THE LAKE END OF THE BORROW CHANNEL, RECREATION FACILITIES WOULD BE DEVELOPED CONSISTING OF TWO-LANE BOAT RAMPS, COURTESY PIERS, PARKING AREA, AND PICNIC TABLES.

SLIDE 20
STUDY AREA MAP W/REC SITE OVERLAY.

SIMILAR FACILITIES WOULD BE DEVELOPED AT FRENIER BEACH, THE RIGOLETS, AND POINT AUX HERBES IN LOUISIANA AND AT CEDAR POINT AND WOLF RIVER IN MISSISSIPPI.

SLIDE 21
MAP PLAN

APPROXIMATELY 32 STRUCTURES WOULD HAVE TO BE RELOCATED. THESE RELOCATIONS ARE UNAVOIDABLE BECAUSE THE STRUCTURES ARE LOCATED IN THE DIVERSION CHANNEL AND UPPER GUIDE LEVEE ALINEMENT. YOU PEOPLE LIVING IN THE RESIDENCES THAT WOULD BE RELOCATED BY THE PROJECT ARE PROTECTED BY THE UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION POLICIES ACT OF 1970. PEOPLE WHO ARE RELOCATED WOULD QUALIFY FOR THE ACTUAL COST OF MOVING OR AN AMOUNT AGREED UPON BY THOSE WHO WANT TO MOVE THEMSELVES, AND A RELOCATION PAYMENT TO ASSIST

INDIVIDUALS IN PAYMENT FOR NORMAL EXPENSES INCURRED. LOSSES OR DAMAGE OF ANY ITEMS MOVED AS WELL AS STORAGE COSTS WILL BE PAID WHERE INSURANCE TO COVER THESE ITEMS IS NOT AVAILABLE. OTHER ITEMS THAT WOULD BE PAID INCLUDE:
CLOSING COSTS, LOAN PENALTY PAYMENTS, AND THE DIFFERENCE IN THE COST OF INTEREST ON THE OLD HOUSE LOAN AND THE INTEREST THAT MUST BE PAID ON A NEW HOUSE. WE WILL BE HAPPY TO TALK WITH THOSE OF YOU WHO WANT MORE INFORMATION ABOUT THE RELOCATION PROCESS AFTER THIS MEETING.

CONSTRUCTION WILL REQUIRE RELOCATION OF SECTIONS OF LOUISIANA HIGHWAY 628, THE ILLINOIS CENTRAL RAILROAD, THE LOUISIANA AND ARKANSAS RAILROAD, AND SEVERAL PIPELINES.

A COMPREHENSIVE MONITORING SYSTEM WILL GUIDE STRUCTURE OPERATION AND ASSESS THE EFFECTS OF THE DIVERTED FRESH WATER ON FISH AND WILDLIFE POPULATIONS. THE CORPS OF ENGINEERS AND THE NON-FEDERAL SPONSOR WILL ESTABLISH A TWO-STATE INTERAGENCY ADVISORY GROUP TO DESIGN AND CONDUCT THE MONITORING PROGRAM. THE INTERAGENCY GROUP WILL INCLUDE FEDERAL, STATE, AND LOCAL AGENCIES RESPONSIBLE FOR WATER RESOURCES. THE REQUIRED BIOLOGICAL, HYDROLOGICAL, AND WATER QUALITY DATA WILL BE COLLECTED FROM A NETWORK OF SAMPLING STATIONS SET UP THROUGHOUT THE STUDY AREA.

THE PROGRAMS IN THE MONITORING SYSTEM WILL BE CONDUCTED IN THREE PHASES--A 3-YEAR PRECONSTRUCTION PHASE, A 4-YEAR POSTCONSTRUCTION PHASE, AND A LONG-TERM PHASE. IN THE PRECONSTRUCTION PHASE, WE WILL SUPPLEMENT EXISTING

INFORMATION AND ESTABLISH BASELINE CONDITIONS FOR MEASURING FUTURE CHANGES. THE EFFECT OF THE DIVERTED WATERS ON HYDROLOGICAL AND WATER QUALITY CONDITIONS AND ON FISH AND WILDLIFE WILL BE ASSESSED IN THE POST-CONSTRUCTION PHASE. THE INTERAGENCY GROUP WILL USE ALL THIS INFORMATION TO REFINE THE OPERATING SCHEME AND THE SCOPE OF THE LONG-TERM MONITORING PHASE.

SLIDE 25
REDUCED LAND LOSS SUPER

THE PLAN OFFERS MANY BENEFITS. AS A RESULT OF THE FRESHWATER DIVERSION, SALTWATER INTRUSION THAT KILLS MARSH VEGETATION AND CREATES OPEN WATER WOULD BE REDUCED. NUTRIENTS AND SEDIMENTS IN THE FRESH WATER DIVERTED INTO THE ESTUARINE SYSTEM WOULD RESULT IN HEALTHIER MARSH HABITAT AND WOULD REDUCE LAND LOSS. 10,500 ACRES OF MARSH AND WOODED SWAMP ADJACENT TO LAKE MAUREPAS AND LAKE PONTCHARTRAIN WOULD BE SAVED. SALINITY CONDITIONS FAVORABLE TO FISH AND WILDLIFE WOULD BE CREATED. OYSTER PRODUCTION WOULD INCREASE BY 7,600,000 POUNDS AND THE PRODUCTIVITY OF WHITE SHRIMP, BLUE CRAB, CROAKER, AND MENHADEN SHOULD GREATLY INCREASE.

SLIDE 26
INTANGIBLE BENEFITS SUPER

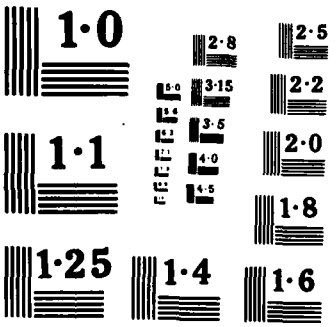
THE PLAN WOULD ALSO PROVIDE INTANGIBLE BENEFITS. HABITAT CONDITIONS FOR NONCOMMERCIAL AND NONGAME SPECIES AND PRODUCTIVITY OF WOODED SWAMPS ASSOCIATED WITH FISH AND WILDLIFE WOULD BE IMPROVED. BUSINESS OPPORTUNITIES IN COMMERCIAL AND SPORT FISHERIES AND WILDLIFE INDUSTRIES AND RELATED SUPPORT INDUSTRIES WOULD INCREASE.

SLIDE 27
ADVERSE IMPACTS

ESTUARINE SPECIES LESS TOLERANT OF LOW SALINITY WATERS SUCH AS BROWN SHRIMP, SPECKLED TROUT, AND RED DRUM MAY BE DISPLACED EASTWARD BY THE DIVERSION. IN THE SOUTH-

AD-A152 726 MISSISSIPPI AND LOUISIANA ESTUARINE AREAS FRESHWATER DIVERSION TO LAKE PO.. (U) ARMY ENGINEER DISTRICT NEW ORLEANS LA D L CHEW APR 84 3/3

UNCLASSIFIED F/G 13/2 NL


1·0
1·1
1·25
2·8
3·15
3·5
4·0
4·5
1·4
2·5
2·2
2·0
1·8
1·6

WESTERN QUADRANT OF LAKE PONTCHARTRAIN, THE DIVERSION WOULD INCREASE TURBIDITY, COLIFORM COUNTS, AND OTHER TYPES OF CHEMICAL CONCENTRATIONS, AND WOULD SLIGHTLY LOWER TEMPERATURES. THESE IMPACTS WOULD DISSIPATE RAPIDLY TO THE EAST. WATER QUALITY IMPACTS MAY NOT BE ANY MORE SIGNIFICANT THAN WHEN TRIBUTARY STREAMS TO LAKE MAUREPAS AND LAKE PONTCHARTRAIN HAVE FAIRLY HIGH FLOW.

SLIDE 28
TABLE
"BONNET CARRE' PLAN COST"

THE FIRST COST OF THE PLAN IS ESTIMATED AT $55.6 MILLION WITH ANNUAL CHARGES OF $5.4 MILLION. THE AVERAGE ANNUAL BENEFITS ATTRIBUTABLE TO THE PLAN ARE ESTIMATED AT $6.8 MILLION. THE BENEFIT-COST RATIO IS 1.25 TO 1.

SLIDE 29
TABLE, "REC. COSTS"

OF THE $55.6 MILLION, THE RECREATION DEVELOPMENT PLAN WOULD COST $742,800.

SLIDE 30
TABLE
"BONNET CARRE' PLAN COST APPORTIONMENT"

TO IMPLEMENT THE PLAN, WE PROPOSE THAT UNDER OUR TRADITIONAL COST SHARING POLICIES THE FIRST COST OF $55.6 MILLION BE APPORTIONED AS FOLLOWS: THE FEDERAL GOVERNMENT WOULD BEAR 75 PERCENT OF THE FIRST COSTS OF THE DIVERSION STRUCTURE, CHANNELS, LEVEES, AND ASSOCIATED WORKS, AND 50% OF THE FIRST COSTS OF THE RECREATION FACILITIES OR $41,523,000. THE NON-FEDERAL SPONSORS' COSTS WOULD BE $14,089,000, AS SHOWN HERE.

SLIDE 31
TABLE
BONNET CARRE'
"PLAN BREAKDOWN OF NON-FEDERAL COST"

NON-FEDERAL INTERESTS WOULD BEAR ALL COSTS ASSOCIATED WITH THE OPERATION, MAINTENANCE, AND REPLACEMENTS, CURRENTLY ESTIMATED AT $818,000 ANNUALLY. THE CURRENT ADMINISTRATION IS REVIEWING COST SHARING POLICIES AND FINANCING OF WATER RESOURCES DEVELOPMENT PROJECTS. WHILE SPECIFIC PRINCIPLES GOVERNING COST SHARING IN THE TENTATIVELY SELECTED PLAN HAVE NOT BEEN ESTABLISHED, NON-FEDERAL INTERESTS CAN EXPECT THAT THEIR LEVEL OF FINANCIAL PARTICIPATION MAY BE GREATER UNDER THE PRESENT ADMINISTRATION'S COST SHARING POLICIES.

SLIDE 32
DIVISION OF PLAN RESPONSIBILITIES

IN THE DIVISION OF PLAN RESPONSIBILITY BETWEEN THE FEDERAL GOVERNMENT AND THE NON-FEDERAL SPONSORS, THE NON-FEDERAL SPONSORS' RESPONSIBILITIES ARE: THEY MUST PROVIDE WITHOUT COST TO THE UNITED STATES, ALL LANDS, EASEMENTS, AND RIGHTS-OF-WAY NECESSARY FOR CONSTRUCTION AND OPERATION OF THE WORKS, MUST HOLD AND SAVE THE UNITED STATES FREE FROM DAMAGES, MUST OPERATE AND MAINTAIN THE WORKS, MUST CONSTRIBUTE 25% OF THE CONSTRUCTION COSTS FOR THE DIVERSION STRUCTURE, CHANNELS, LEVEES, AND ASSOCIATED WORKS AND 50% OF THE CONSTRUCTION COSTS FOR RECREATION FACILITIES, AND MUST ASSURE ADEQUATE PUBLIC ASSESS TO THE PROJECT AREA.

SLIDE 33
TITLE SLIDE

THAT CONCLUDES OUR DESCRIPTION OF OUR TENTATIVELY SELECTED PLAN TO DIVERT FRESHWATER TO THE LAKE PONTCHARTRAIN BASIN AND MISSISSIPPI SOUND.

(AD LIB CLOSE)

MAY I HAVE THE LIGHTS, PLEASE. THANK YOU FOR YOUR ATTENTION.

STATEMENT OF VICTOR MAVAR AT HEARING ON

MISSISSIPPI/LOUISIANA ESTUARINE DEVELOPMENT

Gulfport, Mississippi, December 15, 1983

My name is Victor Mavar. I am vice-president of Mavar Shrimp & Oyster Co., Biloxi, Mississippi and I serve on the Estuarine Development Committee of the American Shrimp Canners and Processors Association. It is this committee which has spearheaded the study. Colonel Willis, you already know that I support the project. Most of my remarks will be directed towards providing additional background information for those present who may not be familiar with the work that has taken place on this project.

I have been actively involved in the seafood business all of my adult life. The same applies to my three older brothers and our father before us. Our firm has been in existance for 57 years . . . since 1926. During this time I have witnessed many changes in the seafood business in Mississippi and Louisiana.

As far back as I can remember I have heard fishermen and processors complain about the absence of various fishery species and it was almost always blamed on the lack of fresh water from the Mississippi River. The project being discussed tonight originated in 1973, but before Congress passed the resolution supporting the study we researched the records of the various seafood commissions and found numerous references to the lack of fresh water. We found one reference to

Exhibit 4

this matter in the Louisiana Oyster Commission minutes from the year 1898. However, except for a few small siphons over the banks of the Mississippi River not much was ever done. There were many proposals but for one reason or another they never really got off the ground.

Before this project was presented to the Corps of Engineers for study, it was endorsed by the following:

1. Mississippi Marine Conservation Commission
2. Mississippi Marine Resources Council
3. Mississippi Game and Fish Commission
4. Gulf Coast Research Laboratory
5. American Shrimp Canners Association
6. Gulf States Marine Fisheries Commission
7. Louisiana Oyster Dealers and Growers Association
8. New Orleans Sportsmen League
9. Louisiana Wildlife Federation
10. Louisiana Wildlife Biologists Association
11. Louisiana Department of Wildlife and Fisheries

Once this project got underway interest sparked from other directions and now there are at least two other planned diversions from the Mississippi River and all have a wide range of support from the business, sporting and scientific communities.

Besides all that, I want to show all those present a copy of the study just completed by the Corps of Engineers. These volumes contain a mass of engineering, scientific, environmental and economic data. To the best of my knowledge no stones have been left unturned. The net of all of this is that controlled amounts . . . and I repeat . . . controlled amounts of fresh water from the Mississippi River diverted to the marsh and estuary will enhance the habitat for wildlife, sport fish and commercial fish species. It will also help prevent further deterioration of the marsh.

The purpose of my statement is two fold. First, to once again wholeheartedly endorse the proposal; and second to point out to all present that this project is not a quick off the cuff idea that was hastily put together, but is one that has had ten years of work put into it by our committees and work since 1976 by the Corps of Engineers and many agencies of the State and Federal Government to bring it to this stage. I hope it will go forward with no delay.

Colonel Willis, distinguished guests, ladies and gentlemen, my name is _____. The statement I will present represents the views of the Department of Wildlife and Fisheries concerning the proposed plan for controlled introduction of freshwater to the Pontchartrain Basin, Mississippi Sound, and the Upper Eastern marshes of Louisiana.

Since the turn of the century, state biologists have advocated diversion of fresh water from the Mississippi River to adjacent estuarine areas to enhance fisheries production. Over the past several decades, the Department has studied the effects on estuarine productivity of crevasses and, more recently, Bonnet Carre Spillway openings. We have concluded that the short term negative effects of such events are usually far outweighed by the long term increases in productivity. Unfortunately, it is the negative effects which are most often remembered from such an event. For this reason it is imperative that a clear distinction be made between a flood control Spillway opening and the plan for controlled freshwater diversion. Spillway openings are essentially uncontrolled releases of huge volumes of water for the purpose of flood protection. The proposed diversion plan under consideration, however, has as its sole purpose, estuarine enhancement, and most importantly, offers controlled diversions of much smaller volumes of water over an extended period. Since the diversions will be controllable, the timing and amount of freshwater releases can be managed so that the benefits to fish and wildlife are maximized and the negative effects minimized. The success of two existing freshwater diversion structures in Plaquemines Parish, managed in part by the Department, has proven these goals attainable.

The Department is aware that certain fisheries resources will be displaced. However, we firmly believe that the increase in overall productivity of the Basin, along with increased utilization of existing resources, will result in real benefits to the vast majority of interests.

The proposed salinity management scheme being considered here tonite was developed by the Department of Wildlife and Fisheries from decades of research and experience. We believe it to be a reasonable and justifiable plan, which will result in a more stable and consistently productive region. We also believe, however, that once the structure is in operation and the effects of the diversions are measured, modifications to the management scheme are inevitable. We believe, however, that these functional modifications can be achieved on a reasonable basis.

While the particulars of the diversion scheme are debatable, the need for controlled, supplemental freshwater input to the Basin is not. Saltwater intrusion has resulted in habitat loss and alterations to large areas of wooded swamp and fresh, brackish and intermediate marshes. This process continues to occur, and threatens more and more of our coastal region. The Department, as well as some of your staff, Colonel Willis, recognizes that the

Exhibit 5

diversion plan would not eliminate swamp and marsh loss, but it would significantly reduce the rates of loss throughout the Basin. The instability of salinity conditions which now exist in the Basin has contributed to the inconsistency of commercial and recreational fisheries production, and also has magnified the disastrous effects of occasional floodwaters and domestic pollution. This problem is sharply illustrated by the decline in oyster production in the Basin over the past 50 years. As saltwater intrusion progressed, the zone of favorable salinities for oyster production moved landward, and away from the vast, historically productive reefs and firm waterbottoms. The proposed freshwater diversion would shift the zone of greatest productivity back to the greatly superior reef areas, which are much less affected by floodwaters and pollution, and would help maintain a larger, more favorable, estuarine area.

The Corps of Engineers has understandably emphasized the benefits to the oyster industry in the proposed plan. The Department supports the claimed increases in oyster production and perhaps more importantly, believes that the unclaimed benefits to other fish, wildlife and land resources will be substantial. The increase in overall productivity of the Basin will provide for larger and more consistent commercial and recreational harvests, increased hunting and fishing opportunities, and the preservation of the local economies based upon the resources of the Basin.

The Department of Wildlife and Fisheries believes that freshwater diversion is the single, most effective means by which the rate of deterioration of our coastal areas can be slowed. For this reason, the Department commends you Colonel Willis, and your staff, for the preparation of this plan. The Department strongly endorses the proposed plan and urges all those concerned, to give it their favorable consideration.

United States Department of the Interior
FISH AND WILDLIFE SERVICE
POST OFFICE BOX 4305
101 EAST CYPRESS STREET
LAFAYETTE, LOUISIANA 70502

STATEMENT OF U.S. FISH AND WILDLIFE SERVICE
PRESENTED AT PUBLIC MEETING TO DISCUSS
THE TENTATIVE PLAN FOR FRESHWATER DIVERSION
INTO THE LAKE PONTCHARTRAIN BASIN AND MISSISSIPPI SOUND

Presented December 6, 13, and 15, 1983

Colonel Lee, distinguished guests, ladies and gentlemen, my name is Gerald Bodin. I am presenting this statement on behalf of Mr. James Pulliam, Regional Director, U.S. Fish and Wildlife Service, Atlanta, Georgia. My statement represents the views of the Fish and Wildlife Service on the tentatively selected plan for freshwater introduction into the Lake Pontchartrain Basin and Mississippi Sound of southeastern Louisiana and southwestern Mississippi.

Louisiana's coastal swamps and marshes are being lost at a rate exceeding 29,000 acres per year, and indications are that this rate is increasing. This alarming decline is an item of serious concern to the Fish and Wildlife Service because of the national importance of Louisiana's coastal wetlands to migratory waterfowl and other migratory birds, fur animal and alligator harvests, and sport and commercial fisheries. In contrast, Mississippi's coastal swamps and marshes are much more stable, having a loss rate of less than 300 acres per year.

The re-introduction of Mississippi River water into Louisiana's subdelta marshes has been recommended for decades as a viable means of reducing saltwater intrusion and wetlands deterioration. Plans are presently being developed under another study to divert Mississippi River water into Louisiana's Barataria and Breton Sound Basins. Substantial benefits to fish and wildlife are expected to result from these diversions. The plan developed under the present study recommends that a major freshwater diversion structure be installed in the Bonnet Carre Spillway in St. Charles Parish, Louisiana.

The tentatively selected plan would result in substantial benefits to fish and wildlife, based on studies conducted jointly by the Fish and Wildlife Service, Corps of Engineers, and Louisiana Department of Wildlife and Fisheries in consultation with the Mississippi Bureau of Marine Resources, Gulf Coast Research Laboratory, and National Marine Fisheries Service. Some of these benefits include:

- a reduction of 10,500 acres in the amount of coastal wetlands lost in the study area over the next 50 years;
- a reduction in saltwater intrusion and creation of a salinity regime more favorable to fish and

Exhibit 6

wildlife;

- o an average net increase of 8.2 million pounds per year in estuarine commercial fisheries landings valued at $6.3 million;

- o an average increase in sportfishing effort valued at more than $400,000 annually; and

- o a net increase in freshwater commercial fisheries landings, fur animal and alligator harvests, and game and non-game wildlife populations.

The Fish and Wildlife Service is in full support of freshwater diversion at the location indicated in the tentatively selected plan. We are convinced that, from the biological standpoint, the diversion location selected is superior to the other sites evaluated. Being located in a historically freshwater environment, distant from prime estuarine nursery grounds, the structure will allow freshwater flow to restore more favorable salinity conditions in the stressed cypress-tupelo swamps and marshes along the western shore of Lake Pontchartrain; this will also allow for a reduction of excess nutrients and pollutants and for greater solar heating of the cooler Mississippi River water prior to its reaching the prime estuarine nursery grounds. Furthermore, fresh water diverted at this location would more effectively and efficiently accomplish the study goals than at the locations considered downstream from New Orleans.

The Fish and Wildlife Service recommends that the following measures be implemented in the interest of fish and wildlife conservation:

1. the tentatively selected plan be recommended for authorization and

2. post-authorization studies be conducted to develop operational and maintenance guidelines for the proposed diversion structure and to design monitoring plans for the affected area.

In closing, it should be emphasized that the proposed diversion plan will not totally solve the wetlands loss problem in the study area, let alone the entire coastal region of Louisiana and Mississippi. Efforts must be intensified to reduce wetland loss and saltwater intrusion throughout the coastal zone. Such efforts must include improved design and maintenance of water resource projects, improved mitigation of damages associated with canal dredging and other regulated works, and improved management of freshwater and sediment to maximize delta building and minimize saltwater intrusion and marsh loss. All of these efforts, including the proposed diversion plan,

are needed if the rich renewable resources of the Northern Gulf Coast are to be maintained for generations yet to come.

Thank you.

TESTIMONY OF

GULF STATES MARINE FISHERIES COMMISSION

ON

FRESHWATER DIVERSION TO LAKE PONTCHARTRAIN BASIN
AND MISSISSIPPI SOUND

PRESENTED BEFORE THE

U.S. ARMY CORPS OF ENGINEERS
PUBLIC HEARING - GULFPORT, MISSISSIPPI
DECEMBER 15, 1983

My name is Larry B. Simpson and I am the Executive Director of the Gulf States Marine Fisheries Commission. The Commission is a five-state compact created by an Act of Congress, PL 81-66, for the better utilization of fisheries (marine, shell and anadromous) of the Gulf coast. The Commission represents the states of Texas, Louisiana, Mississippi, Alabama and Florida on fishery matters of mutual concern to those states and their fishery constituents. It is the purpose of this compact to promote the better utilization and prevent the physical waste of fisheries from any cause. As a result of this charge we are pleased to comment favorably on the U.S. Army Corps of Engineers project for freshwater diversion to Lake Pontchartrain Basin and Mississippi Sound.

This Commission has for many years supported the plans for this project through our Technical Coordinating Committee (TCC). We support and endorse the comments of Dr. Ted B. Ford, chairman of the TCC, and Dr. David J. Etzold, monitor of this project for the TCC.

For centuries the normal chain of events for the lower delta of the Mississippi River were seasonal flooding, followed by periods of normal river flow within its banks. The periodic flooding of the marshes was an accepted natural occurrence since little could be done to prevent the overflow. This flooding brought the needed freshwater to maintain consistent salinity regimes which had long been established. Flooding also brought needed nutrients to

support plant growth which led to the production of organic detritus for fisheries production. In this necessary habitat for their survival fur-bearing animals thrived. The marsh areas, wooded swamps and bottomland supported vast quantities of wildlife.

Man expanded his living area and utilized his technology to prevent flooding by building mechanisms to keep the river's flow confined. This has caused the fisheries, wildlife and land of that area to decline in quantity and vitality.

Saltwater intrusion is a major problem in the eastern Louisiana marshes. Recent studies have indicated the average land loss rate for coastal Louisiana is approximately forty (40) square miles per year. With the controlled introduction of freshwater into these marshes man can moderate that which he has affected by restricting freshwater flow within the banks of the Mississippi River. Freshwater diversion has been shown to be favorable for increased fish and shellfish production as well as wildlife production. Without this controlled freshwater diversion, the saline zone will move further still than it already has moved shoreward. The more desirable fresh and intermediate marshes will be replaced with more saline marshes gradually destroying vegetation which holds the soil together and causing the loss of land by erosion. In Breton Sound Basin current studies indicated a land loss rate of 1.6 square miles per year.

We have the ability now to reverse this trend and to increase our fisheries production, as well as aid the fur-bearing animals in this area. This at, as you indicated, a 1.25 to 1 positive cost benefit ratio if the project is carried out.

The Gulf States Marine Fisheries Commission therefore supports this project for the controlled introduction of freshwater into the Lake Pontchartrain Basin and Mississippi Sound and encourages the completion and operation of the project for the benefit of Mississippi and Louisiana as well as for the entire Nation.

Thank you for the opportunity to comment for the record.

FORM LETTER

EAST BANK FISHERMEN'S ASSOCIATION

Exhibit 4

February 9, 1984

Colonel Robert C. Lee
Department of the Army
New Orleans District, Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Colonel:

My name is Vic Bullock. I am a commercial fisherman that fishes Lake Pontchartrain, Lake Borgne and the Louisiana marsh area (Biloxi marsh). I fish shrimp, crabs and fin fish and every time we get any excessive amounts of fresh water we lose a large amount of our income. It makes no difference if the water comes from the Pearl River, rain water runoff or the spilway, the result is the same, "DISASTER"!

Last year the spilway was opened and we lost the total spring brown shrimp season in Lake Pontchartrain. I had to go further across Lake Borgne and fish the marsh. This costs more money because it is a longer run to the fishing grounds and I use more gas. What is worse is that the shrimp I caught was smaller and worth only about one third of what they would have been worth if caught in Lake Pontchartrain.

We also lost all our green crabs when the river water reached the Chef and the Rigolets passes. Soft crabs are a big part of some crab fishermen's income and when the fresh water comes it kills them all! Not to mention the loss of the hard crab catch.

Some of us fish fin fish in Lake Borgne. So far this fall and winter has been so bad that it is not worth setting nets on a regular basis, in fact most of us cannot even pay for the cost of operation.

I am totaly against diverting Mississippi River water into Lake Pontchartrain any time, except during extreme flooding emergencies when people's lives are seriously being threatened. The silt, fresh water, lower water temperature and pollution will cause serious problems for commercial fishermen throughout the area.

I was told that even though the written comment period was over January 16, Mr. Falcolm E. Hull said that they would accept comments untill the end of February.

Thank You,

Vic Bullock Sr.

END

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