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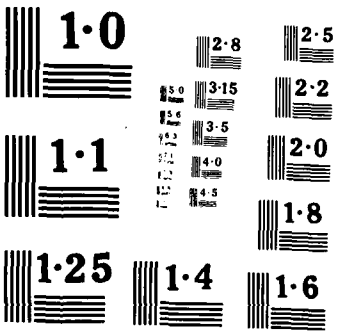
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REPRODUCED AT GOVERNMENT EXPENSE

US Army Corps
of Engineers
New Orleans District

Louisiana Coastal Area, Louisiana

Freshwater Diversion to
Barataria and Breton Sound Basins

AD-A152 706

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Feasibility Study

Volume 4
Public Views and Responses
September 1984

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The Barataria and Breton Sound Basins have experienced rapid loss of coastal wetlands due to natural processes such as subsidence and erosion, as well as man's developmental activities including leveeing, channelization, and petroleum exploration. These activities have led to a reduction in overbank flooding and natural distributary flow which historically provided fresh water, sediments, and nutrients to estuarine areas. This has resulted in conversion of fresh, intermediate, and brackish marshes to intermediate, brackish, and

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20. ABSTRACT (CONTINUED)

saline marshes, respectively, as well as loss of some areas of wooded swamp. Saltwater intrusion and loss of wetlands have adversely affected productivity of wildlife and fishery resources. Influx of saline waters is particularly harmful to the American oyster, due to increased predation. One way to ameliorate loss of wetland nursery areas and rate of saltwater intrusion is timely introduction of fresh water and associated sediments and nutrients. A total of 16 plans were evaluated for diversion of fresh water into the study area. These 16 plans consist basically of combinations of six freshwater diversion sites and various magnitudes of flow. Based on the results of this study, it has been recommended that fresh water from the Mississippi River be diverted into the Barataria Basin at a site near Davis Pond (river mile 118.4) and into the Breton Sound Basin at Big Mar (river mile 81.5).

APPENDIX L

PUBLIC VIEWS AND RESPONSES

TABLE OF CONTENTS

Item	Page
Section 1. Public Involvement Program Summary	L-2
Section 2. Comments and Responses	L-7

Federal Agencies

	Number
Advisory Council on Historic Preservation	1
United States Department of Agriculture, Soil Conservation Service	2
United States Department of Commerce, Gulf of Mexico Fishery Management Council	3
United States Department of Commerce, National Marine Fisheries Service	4
United States Department of Commerce, National Ocean Service	5
United States Department of Health and Human Services, Food and Drug Administration	6
United States Department of Housing and Urban Development	7
United States Department of the Interior, Office of Environmental Project Review	8
United States Department of Transportation, Federal Highway Administration	9
United States Department of Transportation, United States Coast Guard	10
United States Environmental Protection Agency	11

TABLE OF CONTENTS (Continued)

Item	Number
State Agencies	
Louisiana Department of Culture, Recreation, and Tourism, Office of Cultural Development	12
Louisiana Department of Environmental Quality	13
Louisiana Department of Natural Resources	14
Louisiana Department of Transportation and Development	15
Louisiana Department of Wildlife and Fisheries	16
Organizations and Individuals	
Acadia Plantation	17
Barataria Civic Improvement Association	18
Coastal Environments, Inc.	19
Delacroix Corporation	20
DuPont De Nemours & Co.c.	21
Greater Lafourche Port Commission	22
Michael Halle	23
Ralph Pausina, Pausina Oyster Corporation	24
Rathborne Land Company, Inc.	25
St. Charles Parish Waterwork District No. 2 (Includes letter from Fromherz Engineers, Inc.)	26
Tenneco LaTerre Company	27
Tulane Law School, Oliver A. Houck	28

TABLE OF CONTENTS (Continued)

List of Exhibits

1. Summary of Public Meeting Held in New Orleans, Louisiana on June 1, 1982

2. Summary of Public Meeting Held in Gretna, Louisiana on July 31, 1984

LOUISIANA COASTAL AREA STUDY

INTERIM REPORT ON FRESHWATER DIVERSION
TO
BARATARIA AND BRETON SOUND BASINS

Appendix L

PUBLIC VIEWS AND COMMENTS

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 and responses to those views are included. Summaries of the public meetings held in June 1982 and July 1984 are included.

Section 1. PUBLIC INVOLVEMENT PROGRAM SUMMARY

L.1.1. The original public meetings on the overall Louisiana Coastal area study were held in Jennings, Houma, and New Orleans in November and December, 1968. Local interests expressed a number of concerns including reducing saltwater intrusion and improving productivity in the fish and wildlife resources. At a public meeting on the related Mississippi and Louisiana Estuarine Areas study in New Orleans, February 1978, elected officials and residents of the current study area expressed a need to reduce saltwater intrusion to improve fish and wildlife productivity.

L.1.2. Between June 1978 and January 1982, a series of informal meetings were held with representatives of Federal, state and local agencies. The meetings provided an opportunity to discuss the status and direction of this study, the related Mississippi and Louisiana Estuarine Areas study, and the authorized Mississippi Delta Region project. A briefing on the two studies and the project and the possible courses of action was given at joint meetings of the Louisiana Senate and House committees on Natural Resources on August 25, 1981 and January 21, 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 October 5 and 6, 1981.

L.1.3. Several Federal, state, and local agencies actively cooperated in the study by providing advice or assistance. The National Marine Fisheries Service (NMFS) provided commercial fisheries catch statistics. The US Fish and Wildlife Services (USFWS), under an interagency agreement, cooperated with the New Orleans District in determining future habitat changes without and with 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 that were used in conducting the recreation studies and evaluating benefits to sport fishing and hunting. Representatives of these agencies and the Louisiana Office of Health and Environmental Quality and Plaquemines Parish Mosquito Control District participated in discussions to establish monitoring and operating criteria for the diversion structures.

L.1.4. The Draft Interim Report on Freshwater Diversion to Barataria and Breton Sound Basins was coordinated with Federal, state and local agencies and released to the public in May 1982. On June 1, 1982, the New Orleans District held a meeting at the Rivergate in New Orleans, Louisiana, to present the tentatively selected plan to the public for comment and discussion. The 1982 public meeting is summarized in Exhibit 1. The majority of the persons commenting on the plan favored the concept of freshwater diversion and the tentatively selected site at Big Mar in the Breton sound Basin, but about half opposed the tentatively selected site at Bayou Lasseigne in the Barataria Basin.

L.1.5. Parish officials asked the Corps to participate in parish sponsored meetings. The meetings were held on June 9, 1982, at Vacherie in St. James Parish, June 17, 1982 at Des Allemands in St. Charles Parish, and June 21, 1982, at Edgard, in St. John the Baptist Parish. The people attending these meetings represented a broad spectrum of the local residents, businesses, fishermen, landowners, and elected officials. The majority of the people were greatly concerned about possible flooding and the effects on local drainage systems, and the poor quality of the Mississippi river water and its impact on the catfish fishery in Lac Des Allemands. Other concerns that surfaced at these meetings included the possible adverse effects on jobs related to the catfish industry, siltation in Lac Des Allemands, and taking of lands proposed for industrial development.

L.1.6. The New Orleans District worked closely with the Louisiana Governor's Coastal Protection Task Force and parish officials to resolve the public's concerns and identify an acceptable site in the Barataria Basin. This cooperative effort resulted in formulation of Plan 16 with a site at Davis Pond in the vicinity of Lake Cataouatche. Plan 16 addresses the major concerns of flooding, water quality degradation, and siltation. Plan 16 received the tentative endorsement of the Governor's Coastal Protection Task Force and local officials. St. Charles Parish officials held a public meeting on January 20, 1983, to discuss the Davis Pond site and obtain the views of the public. About 120 persons attended the meeting. Seven persons spoke in favor of the plan, 5 against, and 17 expressed concerns about the plan. Their primary concern was the possibility of hurricane-generated tidal waters moving up the diversion channel to inundate their homes. It was explained that the diversion channel terminates in the overflow area and would not increase natural flood problems. On March 11, 1983, the state provided a letter expressing its intent to provide the necessary funds and assurances for the Davis Pond site. On May 17, 1984, St. Charles Parish officials discussed and resolved their concerns at a coordination meeting with Corps and state officials. On June 4, 1984, the St. Charles Parish council passed a resolution approving the Davis Pond site.

L.1.7. The tentatively selected plan was presented to numerous state and local agencies from August 1982 to July 1984. The meetings are listed below:

LOCATION	DATE	PRIMARY ATTENDEES/PARTICIPANTS
Louisiana Department of Natural Resources, Baton, Rouge	Aug. 10, 1982	Governor's Coastal Protection Task Force
Louisiana Department of Natural Resources, Baton Rouge, LA	Aug. 18, 1982	Coastal Protection Task Force and Technical Subcommittee
Louisiana Department of Wildlife and Fisheries Baton Rouge, LA	Oct. 28, 1982	Coastal Protection Task Force and Technical Subcommittee
Louisiana Department of Natural Resources, Baton Rouge, LA	Nov. 28, 1982	Coastal Protection Task Force and Technical Subcommittee
Bollinger Shipyard, Lockport, LA	Dec. 6, 1982	Chairman, Coastal Protection Task Force; President, St. Charles Parish
St. Charles Parish Courthouse, Hahnville, LA	Dec. 9, 1982	Chairman, Coastal Protection Task Force, St. Charles Parish Council
St. Charles Parish Courthouse, Hahnville, LA	Jan. 6, 1983	Parish Coastal Zone Management Advisory Committee
Bollinger Shipyard, Lockport, LA	Jan. 18, 1983	Chairman, Coastal Protection Task Force; Representatives of Orleans, Jefferson, St. Charles, St. John the Baptist Parishes
St. Charles Parish, Lakewood Jr. High School	Jan 20, 1983	Federal, state, local officials, and general public

U S DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P O BOX [illegible]
BATON ROUGE, LOUISIANA [illegible]

REGION 6

July 18, 1984

IN REPLY REFER TO

Draft Report and Draft EIS
Louisiana Coastal Area
Freshwater Diversion to
Barataria and Breton Sound
Basins

Mr. Cletis R. Wagahoff, Chief
Planning Division
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Wagahoff:

9.1 We appreciate the opportunity to comment on the subject document. Please coordinate those aspects of the proposed action involving Federal and State highways with the Louisiana Department of Transportation and Development, Office of Highways. We have no other comments.

Sincerely yours,

J. W. McDonald

J. W. McDonald
Division Administrator

RESPONSE 9.1: Comment noted.

8.4 Implementation of the proposed project will also benefit recreational resources by preserving and enhancing fish and wildlife habitat, and supporting needs documented in the Louisiana Statewide Comprehensive Recreation Plan. This plan also shows present and future needs for boat ramps, and we recommend that consideration be given to providing boat ramps/water access as part of the project wherever possible. Dr. Gerald Guidroz, Assistant Secretary, Office of State Parks, Department of Culture, Recreation and Tourism, P.O. Box 1111, Baton Rouge, Louisiana 70821, could assist in identifying recreation opportunities and resources.

8.5 Project implementation would similarly benefit historic and archeological resources by slowing the rates of land loss and subsidence. However, it has been recognized that there may be direct and indirect adverse impacts to cultural resources from constuction and erosive forces. An intensive cultural resource survey is planned for the next stage of project planning. We recommend that survey plans be closely coordinated with the State Historic Preservation Officer, Mr. Robert B. DeBlieux, Assistant Secretary, Office of Cultural Development, Department of Culture, Recreation and Tourism, P.O. Box 44247, Baton Rouge, Louisiana 70804.

The increased knowledge of cultural resources in the area will be beneficial since there is a sketchy record of cultural sites, expecially at JLNHP. Survey results should also be reported in future project documentation, along with proposed mitigation, if needed.

8.6 In summary we are pleased to acknowledge the close cooperation between the Department of the Interior and the Corps of Engineers in developing the TSP. However, we recognize that implementation of the TSP will not totally solve the wetlands loss problem in the study area, let alone the entire Louisiana coastal region. Accordingly, we are prepared to work cooperatively with the Corps of Engineers in developing new approaches to help maintain the integrity of the wetlands of the Louisiana coastal region. Further coordination in this regard can be initiated by contracting the Field Supervisor, Division of Ecological Services, U.S. Fish and Wildlife Service, P.O. Box 4305, Lafayette, Louisiana 70502 (318-264-6630).

Sincerely,

Raymond P. Churan

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. 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 8.3: Comment noted.

RESPONSE 8.4: As we have acknowledged in the report, a need for additional boat ramps/water access in the study area exists at the present time and will increase in the future. We intend to further investigate the potential of providing additional access in future stages of the project and will coordinate with Dr. Gerald Guidroz and his staff.

RESPONSE 8.5: Comment noted.

RESPONSE 8.6: Comment noted.

United States Department of the Interior

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

September 4, 1984

ER 84/893

Colonel Eugene Witherspoon
District Engineer
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160

Dear Colonel Witherspoon:

We have reviewed the Revised Draft Environmental Impact Statement and Main Report for the Louisiana Coastal Area Study, Freshwater Diversion to Barataria and Brenton Sound Basins, Louisiana, and have the following comments.

8.1 The diversion of Mississippi River waters into the Barataria and Brenton Sound estuaries will be a major and important component of any long-term plan to slow the deterioration of these estuaries by mitigating the consequences of the many actions that have taken place such as leveeing, draining, canal and channel dredging, etc. Only by a restoration of the productivity of the deltaic ecosystem can the unique cultural and natural components of the region be maintained. This is particularly important for preserving the approximately 8,000 acres of wetlands that comprise the Barataria Unit of the Jean Lafitte National Historical Park (JLNHP).

8.2 Since this project would result in substantial improvement to existing fish and wildlife resources and the Barataria Unit of the JLNHP, we are in full support of freshwater diversion at the locations indicated in the tentatively selected plan (TSP). We note, however, the recommendation that implementation of the plan is to be cost-shared on a 75 percent Federal and 25 percent non-Federal basis. We note that nearly 95 percent of the benefits of the TSP are attributable to commercial fisheries and that there is provision for total Federal funding for implementing commercial fishery enhancement projects. We also note that the proposed plan would mitigate for past fish and wildlife resource damages caused primarily by Federal projects such as the Federally-financed Mississippi River and Tributaries Project. Due to the special nature of this project and the fact that its projected benefits appear to be primarily for commercial fisheries and mitigation, we recommend that the Corps of Engineers seek total Federal funding. This method of funding should be considered and discussed in future additions to this report.

8.3 As proposed in the Feasibility Study, water quality in the estuaries will need to be continuously monitored. We believe that the project should be operated with adequate flexability to meet special conditions as they arise. For example, the possibility of substantially increasing the volume of flow should be considered if it becomes clear that greater benefits would thereby accrue. The long-term maintenance and improvement of the Mississippi Delta Region should be the standard for the project.

RESPONSE 8.1: Comment noted.

RESPONSE 8.2: 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 was completed in 1965. At that time no recommendations were made to mitigate intruding saltwater. Saltwater intrusion is due to subsidence, sea level rise, erosion, hurricanes, and canal dredging. The magnitude of the waterways contribution to increased salinities in this area was examined in hydraulic model studies conducted by the U.S. Army Engineer Waterways Experiment Station during 1961 and 1962. The model studies indicated that the MRGO would cause a significant increase in salinity in Lake Pontchartrain. As a result, in 1965, the Congress authorized Seabrook Lock to mitigate the effects of saltwater and hurricane induced surges moving up the MRGO and entering Lake Pontchartrain. The cost of the lock was apportioned 50 percent to the MRGO and 50 percent to the Lake Pontchartrain and Vicinity Hurricane Protection project..

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 would traditionally be fully a Federal responsibility, including operation and maintenance. However, the tentatively selected plan contributes 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, which is recommended for the tentatively selected plan. The recommended cost-sharing for the plan is consistent with the cost-sharing for the Mississippi Delta Region project authorized by Congress in the Flood Control Act of 1965 as amended.

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

August 20, 1984

Mr. Cletis R. Wagahoff
Chief, Planning Division
Department of the Army
New Orleans District, Corps of Engineers
PO Box 60267
New Orleans, LA 70160

Dear Mr. Wagahoff:

The Revised Draft Environmental Impact Statement (EIS) for the Louisiana Coastal Area, Interim Report on Freshwater Diversion to Barataria and Breton Sound Basins has been reviewed by our New Orleans Office.

7.1 It has been determined that the Department has no direct program involvement in the proposed action in a coastal area of approximately 2.3 million acres wehre commercial fishing and trapping are the dominant activities. We defer to other concerned agencies in respect to the impacts of tidal action, loss of habitat, and the effects on wet and agricultural lands. In compliance with Section 1503.2 of the Council on Environmental Quality regulations, we submit a no comment response.

Sincerely,

I. J. Ramsbottom
Environmental Clearance Officer

RESPONSE 7.1: Comment noted.

4. The impact Statement did not deal with the potential adverse affect of increased water quality monitoring on the LDHHR and the added burden on the Louisiana Department of Wildlife and Fisheries (LDWF) of patrolling those additional areas closed to shellfish harvesting during fresh water diversion.

Both of these State agencies lack funding and staffing to meet the increased surveillance and patrol needs that will be associated with increased fresh water diversion. The LDHHR will be required to conduct extensive water quality surveys to redefine seasonal closure areas once the diversions begin and then to continue an extensive sampling program after the diversions cease each year in order to reopen the impacted areas promptly so that optimum safe harvest of the areas' oyster resource can be utilized. In addition the LDWF has the responsibility to patrol these additional closed waters to prevent illegal harvesting. Without very significant increases in both budget and manpower, it is doubtful that these agencies can carry out their increased program responsibilities and an increased incidence of shellfish related disease outbreaks can be anticipated.

6.5

In summary the actual increased benefits accrued to the oyster industry will depend on the two State controlled agency's ability to meet the added demands imposed on them by the effects of the diversion projects. Unless these agencies receive substantial budget and staffing increases, optimum management of the affected area cannot be achieved and an increased risk of shellfish related disease may ensue.

Sincerely,

Victor L. Casper

Victor L. Casper
Regional Shellfish Specialist

VLC/sj

RESPONSE 6.5: The 1982 draft report did not provide information on fecal coliform die-off rates. The 1984 revised draft report presents calculations on die-off rates for the Davis Pond and Big Mar diversion sites (Appendix H). Based on that information, it is not expected that fecal coliform bacteria will present a problem by the time the river water reaches oyster harvesting areas. However, it is acknowledged that the potential for problems exists. Therefore, monitoring of fecal coliforms will be an integral part of the pre- and post-construction monitoring programs which will be developed for these freshwater diversion projects. We are presently developing the program for the Big Mar Site. Personnel from both the Louisiana Department of Health and Human Services and Louisiana Department of Wildlife and Fisheries are members of the technical group which has been assembled to develop and implement the monitoring program. They have indicated, based on their latest information, that a substantial increase in monitoring efforts as related to shellfish harvesting areas is not anticipated.

DEPARTMENT OF HEALTH & HUMAN SERVICES
FOOD AND DRUG ADMINISTRATION

June 17, 1982

DALLAS DISTRICT
[illegible] BRYAN STREET
DALLAS, TEXAS [illegible]

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

Gentlemen:

6.1 As the Food and Drug Administration's Regional Shellfish Specialist, I reviewed the Draft Environmental Impact Statement and Main Report and Appendixes for the Louisiana Coastal Area Study Interim Report on Fresh Water Diversion to Barateria and Breton Sound Basins as it pertains to this Agency's responsibilities under the National Shellfish Sanitation Program. Therefore the following comments will address only those areas dealing with the public health aspects and the relationship between the Food and Drug Administration and the State's shellfish control agencies.

6.2 1. The draft report repeatedly refers to the State's coliform standard for approved shellfish growing waters. Following the Food and Drug Administration's recommendation the Louisiana Department of Health and Human Resources (LDHHR) adopted the fecal coliform standard in 1978. The current standard defines the approved growing area limits as a median fecal coliform MPN of 14/100 ml with not more than 10% of samples exceeding 43/100 ml during the worst hydrographic and meteriological conditions. Water quality analyses are conducted according to the A.O.A.C. accepted A-1-M method which gives fecal coliform results in 24 hours.

6.3 2. In Volume 3, Appendix H.5.10 McKee and Wolf, 1963 is quoted regarding purging of E. Coli from oysters in about 60 days when relayed to uncontaminated waters at 5°-8°C. Since that time studies conducted at the Food and Drug Administration's Gulf Coast Technical Services Unit at Dauphin Island, Alabama and the Gulf Coast Research Laboratory in Ocean Springs, Mississippi have demonstrated effective elimination in 24-48 hours under optimum temperature and salinity conditions. The LDHHR requires a minimum time span between relaying and harvest of two weeks. Also, the LDHHR currently requires a two week cleansing period after water quality returns to approved levels following fresh water contamination such as might be associated with the operation of fresh water diversion structures.

6.4 3. In Volume 2, Appendix D on page 65 and again in Table 18 the report lists FDA action levels incorrectly as ppb. They are all in ppm's. It also appears that analytical results listed in this section may also be erroneously identified as ppb rather than ppm.

Mr. [illegible] Gaspar, Regional Shellfish Specialist, United States Department of Health and Human Services, Food and Drug Administration in a telephone conversation on July [illegible], [illegible] would not be sending comments on the revised draft report and RDEIS, and requested that we consider the comments made on the [illegible] draft report and DEIS.

RESPONSE 6.1: Comment noted.

RESPONSE 6.2: Comment acknowledged. All references to the bacteriological standards for shellfish harvesting areas have been changed accordingly in the revised draft and final reports.

RESPONSE 6.3: Not applicable. The information referred to in this comment no longer appears in the revised draft or final report.

RESPONSE 6.4: These comments pertained to the draft Fish and Wildlife Coordination Act Report. We contacted the U.S. Fish and Wildlife Service and they have changed the FDA action levels from ppb's to ppm's. The other analytical results listed as ppb's are correct.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

AUG 27 1984

Mr. Cletis R. Waganoff
Chief, Planning Division
Corps of Engineers, New Orleans District
Department of the Army
P.O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Waganoff:

Enclosed are additional comments on your draft environmental impact statement for the Louisiana Coastal Area Study, Interim Report on Freshwater Diversion and Breton Sound Basins from the National Oceanic and Atmospheric Administration.

We hope our comments will assist you. Thank you for giving us an opportunity to review the document.

Sincerely,

Joyce M. Wood
Chief, Ecology and
Conservation Division

Enclosure

DC:das

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Washington, D.C. 20235

N/MB21x6:VLS
Rec'd 8/28/84

TO: PP2 - Joyce M. Wood

FROM: N - Paul M. Wolff

SUBJECT: DEIS 8407.09 - Louisiana Coastal Area Study, Interim Report on Freshwater Diversion to Barataria and Breton Sound Basins (Department of the Army - Corps of Engineers, New Orleans District)

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.

Our office of Ocean and Coastal Resource Management has been in contact with the Louisiana State Department of Natural Resources. That Department has issued a letter of consistency for this proposed project.

5.1 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. NOS recommends 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.

RESPONSE 5.1: The cost of relocating any monuments in the area would be included in the project cost. Coordination would be maintained with the Survey.

Specific Comments

1. SUMMARY

1.2. AREAS OF CONTROVERSY

4.2 Page EIS-3, paragraph 1.2. It should be noted that the decreased oyster production projected for the most inland oyster areas would be more than offset by increased overall production from much larger areas of the Breton Sound and Barataria ecosystems.

5. AFFECTED ENVIRONMENT

5.2. SIGNIFICANT RESOURCES

4.3 5.2.8. FISHERIES

Page EIS-49, paragraph 5.2.8.1. The RDEIS and Appendix A note that the thousands of acres of marsh vegetation that this proposed project would save and maintain have a direct ecological relationship to estuarine-dependent marine fisheries resources. It should be further noted that this relationship has been demonstrated in recent studies on some gulf shrimp species (Turner 1977, and Zimmerman, et al. 1984) and Atlantic menhaden (Peters and Schaaf 1981), a close relative of the Gulf menhaden. We suggest that reference to these studies be made in the FEIS.

5.2.17. WATER QUALITY

4.4 Page EIS-56. It should be emphasized in this section that, even though the Mississippi River may not have the most environmentally desirable water quality to accomplish project purposes, it is the only freshwater source of sufficient magnitude.

6. ENVIRONMENTAL EFFECTS

6.1. GENERAL

4.5 Page EIS-61, paragraph 6.1.1. We recommend that Appendix C, Engineering Investigations, be referenced here for anticipated hydrological alterations. With such alterations and associated sediment deposition in the basins, the project would result in additional benefits to the environment by maintaining, restoring, and possibly creating marsh.

We appreciate the opportunity to review and comment on the RDEIS.

Sincerely yours,

Richard J. Hoogland
Chief, Environmental Assessment Branch

Enclosure
References

REFERENCES

Peters, D.S. and W.E. Schaaf. 1981. Food requirements and sources for juvenile menhaden. Trans. Am. Fish. Soc. 110: 317-324.

Turner, R.E. 1977. Intertidal vegetation and commercial yields of penaeid shrimp. Trans. Am. Soc. 106(5): 411-416.

Zimmerman, R.J., T.J. Minello and G. Zamora, Jr. 1984. Selection by Penaeus aztecus for Spartina alterniflora habitat in a Galveston Bay marsh. U.S. Dept. Comm. NOAA Fish. Bull. 82(2) 12 p. in press.

RESPONSE 4.1: Comment noted.

RESPONSE 4.2: Suggested comment has been added to Section 1.2.

RESPONSE 4.3: The relationship between marsh and production of estuarine-dependent marine fisheries resources is discussed in paragraph 6.8.1.2 of the RDEIS. We have added the studies you suggested in your comment to this paragraph and have included the references in the Literature cited.

RESPONSE 4.4: We have included your comment in paragraph 5.2.17.1 of the EIS.

RESPONSE 4.5: We have referenced Appendix C, Engineering Investigations, in paragraph 6.1.1.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

August 15, 1984

Mr. Cletis R. Waganoff
Chief, Planning Division
Corps of Engineers, New Orleans District
Department of the Army
P.O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Waganoff:

This is in reference to your draft environmental impact statement for the Louisiana Coastal Area Study, Interim Report on Freshwater Diversion and Breton Sound Basins. Enclosed are comments from the National Oceanic and Atmospheric Administration.

We hope our comments will assist you. Thank you for giving us an opportunity to review the document. We would appreciate receiving four copies of the final environmental impact statement.

Sincerely,

Joyce M. Wood
Chief, Ecology and
Conservation Division

Enclosure

DC:das

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Region
9450 Koger Boulevard
St. Petersburg, FL 333702

August 7, 1984 F/SER11/JL
813-893-3503

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 (NMFS) has received the Revised Draft Environmental Impact Statement (RDEIS) Louisiana Coastal Area Study, Interim Report on Freshwater Diversion to Barataria and Breton Sound Basins, dated June 1983. We have reviewed the RDEIS and offer the following General and Specific Comments regarding those portions of the document addressing marine fishery resources and their habitats.

General Comments

As NMFS stated at the public meeting held July 31, 1984, in Gretna, Louisiana, we applaud this proposed start toward reducing the current loss of wetlands in coastal Louisiana. This RDEIS is very similar to the DEIS prepared for this project on March 1982. However, the site proposed for reestablishing some Mississippi River flows into the Barataria Basin is now at Davis Pond and thence into Lake Cataouatche (Plan 16) instead of into Lac Des Allemands (Plan 5) as proposed in 1982. The site for reestablishing some river flows into the Breton Sound Basin remains the same as before, the Big Mar at Caernarvon.

Recognizing and supporting the necessity of re-introduction of fresh water to wetlands of Louisiana, we strongly recommend that the plans contain sufficient flexibility to allow for the least costly and environmentally disruptive expansion of the diversion structure and inflow and outflow channels at the two selected sites if such expansion were desired in the future.

Even with some expected adverse impacts, such as lower water temperatures and higher levels of pollutants, we reiterate the urgent need and our support for the Tentatively Selected Plan for freshwater diversion since the positive impacts to marine fishery resources would outweigh the adverse. Therefore, we recommend that the Final Environmental Impact Statement (FEIS) be completed as soon as possible so that construction may begin.

July 30, 1984

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:

In response to your announcement of public meeting held July 31, 1984, referenced LMNPD-P, we wish to submit the following comments:

The Gulf of Mexico Fishery Management Council, one of eight regional Councils established by Public Law 94-265 of the Magnuson Fishery Conservation and Management Act, has prepared and submitted on January 31, 1984, to the Secretary of Commerce, a plan for conservation and management of the shrimp fishery in the Gulf of Mexico Fishery Conservation Zone. The Secretary implemented a plan and subsequent amendment to the plan on May 15, 1981, and March 15, 1982, respectively.

3.1 The principal objective of the plan is to optimize yield from the shrimp fishery.

We view the tentative selected plan for freshwater diversion into Barataria and Breton Sound Basin's as one that will help achieve the objective of the plan prepared by our Council.

There is a definite correlation between shrimp production and a proper salinity regime in nursery areas.

Prior to intrusion of saltwater by channelization, and/or forces of nature, the Barataria Bay System was one of the most productive shrimp nursery areas in coastal Louisiana.

Your proposed construction promises to alleviate some of the problems and we fully support your efforts.

We wish to commend you and your organization along with the Louisiana Department of Wildlife and Fisheries, the Louisiana Department of Natural Resources, Louisiana State University, U.S. Fish and Wildlife Service, and National Marine Fisheries Service for your indepth investigation and studies related to the project, and for the cooperative manner in which they were conducted.

Sincerely,

John Green

John M. Green
Chairman/Habitat and Environmental Protection Committee

JMG:la

cc: Council
Staff

RESPONSE 3.1: Comment noted.

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

August 27, 1984

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

Dear Colonel Lee:

Re: Planning Division, Environmental Quality Section

2.1 As requested, we are providing comments on the Draft EIS, Main Report, and Appendices for the Louisiana Coastal Area Study Interim Report on Freshwater Diversion to Barataria and Brenton Sound Basins. The Soil Conservation Service is in favor of actions that will reduce salt water intrusion and improve the habitat and productivity of fish and wildlife resources in these two basins. Diversions of fresh water from the Mississippi River into these basins appears to be a feasible alternative in retarding saltwater intrusion.

2.2 Plan 16, the tentatively selected plan, will cause the loss of some 36 acres of prime farmland due to diversion construction for the Davis Pond site. Saltwater intrusion has been recognized as a major contributor to land loss in many areas where the Soil Conservation Service has provided planning assistance to soil and water district cooperators.

2.3 The diversion at Davis Pond should not create the increase in water levels in Lac des Allemands that was of previous concern to agricultural drainage of surrounding farmland. (Please refer to our letter of June 24, 1982, providing comments on this same project.)

2.4 The U.S. Department of Agriculture has published final rules for implementation of the Farmland Protection Policy Act (FPPA). Enclosed is a copy of the Act and these rules which became effective August 6, 1984. The purpose of the Act and rules is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. Section 658.4 describes the actions federal agencies are to take to comply with the rules. Enclosed is a copy of Form AD1006. Please call on us for additional information concerning the FPPA.

The Soil Conservation Service is an agency of the Department of Agriculture

We appreciate the opportunity to provide these comments.

Sincerely,

Acting

Harry S. Rucker
State Conservationist

Enclosures

cc: Charley Staples, Executive Director, State Soil and Water Conservation Committee, Baton Rouge
Danny Clement, AC, SCS, Denham Springs
Bill Savant, DC, SCS, Norco
Thomas N. Shiflet, Director, Ecological Sciences, SCS, Washington, D.C.

RESPONSE 2.1: Comment noted.

RESPONSE 2.2: In order to comply with the CEQ Memorandum concerning prime and unique farmlands, we coordinated with SCS and it was determined based on soil and water conditions that the 36 acres of agricultural land that would be impacted by this project are classified as prime farmland. However, these lands have been designated for industrial use by St. Charles Parish and as such are not considered prime farmland under the Farmland Protection Policy Act which became effective on August 6, 1984. Paragraph 6.5.4.2 of the Revised Draft Environmental Impact Statement has been modified accordingly.

RESPONSE 2.3: Comment noted.

RESPONSE 2.4: On September 14, 1984, we forwarded three copies of Form AD-1006 along with maps of the Davis Pond site to the District Conservationist in Norco, Louisiana. In their response to our September 14 correspondence, the SCS confirmed that the 36 acres in question have been zoned for manufacturing by St. Charles Parish. The SCS checked "No" in Part II of Form AD-1006 indicating the site does not contain prime, unique, or statewide or locally important farmland. This correspondence is available for review at the New Orleans District.

Advisory
Council On
Historic
Preservation

The Old Post Office Building
1100 Pennsylvania Avenue NW #809
Washington DC 20004

Reply to 730 Simms Street, Room 450
Golden, Colorado 80401

August 3, 1984

Mr. Cletis R. Wagahoff
Chief, Planning Division
New Orleans District, Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

Dear Mr. Wagahoff:

1.1 On July 10, 1984, the Council received the "Louisiana Coastal Area, Louisiana: Freshwater Diversion to Barataria and Breton Sound Basins, Feasibility Study--Draft Main Report/Draft Environmental Impact Statement" and technical appendices. These documents make it clear that there is a high likelihood that historic properties will be affected by any of the alternatives discussed.

1.2 Consequently, we recommend that the Corps of Engineers (COE) initiate consultation with the Louisiana State Historic Preservation Officer and the Council to develop a procedure to be used in the identification, evaluation and treatment of historic properties that may be subject to effects as a result of this undertaking. This procedure could serve as the basis for a Memorandum of Agreement (MOA) pursuant to 36 CFR Part 800.6 of the Council's regulations (36 CFR Part 800).

The MOA will ensure the full consideration of historic properties in the planning of this undertaking and will allow for orderly project development. It will also satisfy COE's substantive responsibilities under Section 106 of the National Historic Preservation Act (16 U.S.C. 470).

If you have any questions or if the Council may be of assistance, please contact Alan Downer at (303) 234-4946, an FTS number.

Sincerely,

Robert Fink
Chief, Western Division
of Project Review

RESPONSE 1.1: Comment noted.

RESPONSE 1.2: The Procedures which will be used in the identification, evaluation and treatment of historic properties are those contained in Title 36 CFR Part 800: Protection of Historic and Cultural Properties and Corps of Engineers planning regulations. At this time, no National Register or Register-eligible properties have been identified in the potential impact area of the tentatively selected plan. Preparation of a Memorandum of Agreement would be premature prior to completion of the cultural resources surveys which will identify any National Register-eligible properties located in the potential impact area of the tentatively selected plan.

Section 2. COMMENTS AND RESPONSES

L.2.1. This section responds to comments received on the June 1984 Revised Draft Main Report and Draft Environmental Impact Statement (DEIS). We have not specifically responded to comments on the original Draft Main Report and DEIS which was circulated in March 1982 because many of the 1982 comments are no longer applicable. However, public concerns and statements presented at the June 1982 public meeting held in New Orleans are summarized in exhibit 1.

L.2.2. The June 1984 Revised Draft Report, DEIS, and appendixes were prepared in response to comments received on the 1982 report. As a result of the opposition to the Bayou Lasseigne site, we formulated a new freshwater diversion plan at Davis Pond near Luling and have presented this new information in the June 1984 revised draft report which was circulated in its entirety to the same reviewing audience as the 1982 report. This allowed all reviewers an opportunity to comment on the revised draft report. A total of 12 formal meetings with various entities have been held on the new plan culminating in a public meeting on July 31, 1984 in Gretna. In addition, reviewers will have another opportunity to comment on the plan during the 30-day comment period on the final report.

L.2.3. The comments from Federal, state, and local agencies, organizations and individuals and responses to those comments on the 1984 revised draft report are presented on the following pages.

LOCATION	DATE	PRIMARY ATTENDEES/PARTICIPANTS
St. Charles Parish Courthouse, Hahnville, LA	July 11, 1983	St. Charles Parish Council; Federal, state, local officials, and general public
Ormond Country Club Destrehan, LA	May 17, 1984	St. Charles Parish Council and CZM Advisory Board, state officials
St. Charles Parish Courthouse, Hahnville, LA	June 4, 1984	St. Charles Parish Council; Federal, state, and local officials, and general public
Jefferson Parish Courthouse, Gretna, LA	July 31, 1984	Federal, state, local officials, and general public

L.1.8. A revised draft interim report and EIS was coordinated with Federal, state and local agencies and released to the public on June 28, 1984. A public meeting was held on July 31, 1984, at the Jefferson Parish Courthouse, Gretna, Louisiana, to present the tentatively selected site at Davis Pond in the Barataria Basin to the public for comment and discussion. The 1984 public meeting is summarized in Exhibit 2. Most of the people commenting on the plan favored the Davis Pond site.

U.S. Department of Transportation
United States Coast Guard

COMMANDER
EIGHTH COAST GUARD DISTRICT
HALE BOGGS FEDERAL BLDG

500 CAMP ST
NEW ORLEANS LA 70130
STAFF SYMBOL (dpl)
PHONE FTS 682-2961

16475
9 August 1984

From: Commander, Eighth Coast Guard District
To: District Engineer, New Orleans District, Corps of Engineers

Subj: LOUISIANA COASTAL AREA STUDY, INTERIM REPORT ON FRESHWATER DIVERSION TO BARATARIA AND BRETON SOUND BASINS; DRAFT EIS

10.1 1. Thank you for the opportunity to review this project. We have reviewed the Draft EIS and have no objections to the proposed work.

T. A. TANSEY
By direction

RESPONSE 10.1: Comment noted.

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

JUL 26 1984

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

Dear Colonel Lee:

We have completed our review of your agency's Revised Draft Environmental Impact Statement (EIS) for the proposed Freshwater Diversion to Barataria and Brenton Sound Basins, Louisiana Coastal Area, Louisiana.

We classify your Revised Draft Supplemental Environmental Impact Statement as LO-1. Specifically, we have no objections to the proposed project action. The statement contained sufficient information to evaluate the associated environmental impacts. Our classification will be published in the Federal Register in accordance with our responsibility to inform the public of our views on the proposed Federal action under Section 309 of the Clean Air Act. 11.1

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

We appreciate the opportunity to review the Revised Draft EIS. Please send our office five (5) copies of the Final Supplement at the same time it is sent to our Office of Federal Activities, U.S. Environmental Protection Agency, Washington, D.C.

Sincerely yours,

Dick Whittington

Dick Whittington, P.E.
Regional Administrator

Enclosure

RESPONSE 11.1: Comment 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.

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

Edwin W. Edwards
GOVERNOR
Noelle LeBlanc
SECRETARY

DIVISION OF ARCHAEOLOGY
KATHLEEN BYRD, DIRECTOR
DIVISION OF THE ARTS
ALBERT B. HEAD, DIRECTOR
DIVISION OF HISTORIC PRESERVATION
ANN REILEY JONES, DIRECTOR
FOLKLIFE PROGRAM
NICHOLAS R. SPITZER
PROGRAM MANAGER

August 8, 1984

Mr. Cletis Wagahoff
Chief, Planning Division
Department of the Army
New Orleans District, Corps
of Engineers
P. O. Box 60267
New Orleans, LA 70160

Re: Revised Draft Environmental
Impact Statement, Main Report,
and Technical Appendixes
Louisiana Coastal Area Study,
Freshwater Diversion to
Barataria and Breton Sound Basins

Dear Mr. Wagahoff:

12.1 Reference is made to your letter of June 29, 1984, requesting our comments on the above documents. The sections dealing with cultural resources are adequate as background studies of known resources in various project areas under consideration. We will withhold further comment, however, until the final diversion sites are selected and in depth cultural resources studies are conducted.

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

RESPONSE 12.1: Comment noted.

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

PATRICIA L. NORTON
SECRETARY

OFFICE OF WATER RESOURCES

J. DALE GIVENS
ASSISTANT SECRETARY

August 29, 1984

Department of the Army
New Orleans Corps of Engineers
P.O. Box 60267
New Orleans, La. 70160

Attention: Chief Cletis R. Wagahoff, Planning Division

Gentlemen:

RE: Revised Draft Environmental Impact Statement (EIS) and Main Report (Volume 1) for the Louisiana Coastal Area Study, Interim Report on Freshwater Diversion to Barataria and Breton Sound Basins.

13.1 We have reviewed the above referenced documents, and offer no objection to the proposed project. The proposed Water Quality Monitoring Program should be included in the final proposal. We appreciate the opportunity to participate in the planning of the monitoring program, and will continue to do so.

Thank you for the opportunity to review this proposal.

Sincerely,

J. Dale Givens

J. Dale Givens, Assistant Secretary
Office of Water Resources

JDG/LW/mp

RESPONSE 13.1: Comment noted.

NATURAL RESOURCES BUILDING • P.O. BOX 44066 • BATON ROUGE, LOUISIANA 70804 • PHONE (504) 342-6363

EDWIN W. EDWARDS
GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

WILLIAM C. HULS
SECRETARY

August 8, 1984

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

RE: C840314
Freshwater Diversion to Barataria
and Breton Sound Basins Feasibility
Study

Dear Colonel Lee:

14.1 Because of the importance of wetlands, and the vast fisheries and biological resources which they support, we have reviewed this project in great anticipation of the benefits which the State of Louisiana and the nation will derive. Land loss, particularly in these basins, has been documented to be occurring at unprecedented rates, with estimates as high as 102 km^2/yr. or 0.8% annually (Gagliano et al. 1981).

The reasons for this disappearance of wetlands are complex, with subsidence, lack of sediment input, salt water intrusion and canal dredging being the main contributors. Therefore, the implementation of freshwater diversion into Barataria and Breton estuaries will serve to increase productivity and slow land loss by the introduction of the sediment rich, freshwater from the Mississippi River.

A review of the applicable coastal use guidelines for freshwater diversion i.e. 7.1, 7.2, 7.4, 7.5 and 7.7 indicates that at this time the tentatively selected plan is consistent with the Louisiana Coastal Resources Program to the maximum extent practicable, in accordance with the Coastal Zone Management Act of 1972 (as amended), and the NOAA consistency regulations 15 CFR 930.30. However, the Coastal Management Division would appreciate the opportunity to comment as required by 15 CFR 930.37(c) on any future changes or supplemental reports which may result as the project is further developed, so that a consistency determination can be made as each major decision is made.

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

Again, we urge the Corps to move ahead with the tentatively selected plan, and we look forward to working with you in the future on this important, and worthwhile project.

Sincerely,

William C. Huls

By: C. G. Groat

WCH:CGG/ct

cc: Peter Tweedt
Ann Berger-Blundon

RESPONSE 14.1: Comment noted.

Robert G. Graves
Secretary

Department of Transportation and Development

P. O. BOX 44245 CAPITOL STATION
BATON ROUGE, LA 70804
(504) 342-7542

Edwin W. Edwards
Governor

September 6, 1984

LOUISIANA COASTAL AREA, LOUISIANA
FRESHWATER DIVERSION TO BARATARIA
AND BRETON SOUND BASINS

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

Attention: Mr. Cletis R. Wagahoff
Chief, Planning Division

Dear Mr. Wagahoff:

15.1 This is in response to your request dated June 29, 1984, for comments on the Revised Draft Environmental Impact Statement for the Louisiana Coastal Area Study, Interim Report on Freshwater Diversion to Barataria and Breton Sound Basins. It should be indicated in the document that any effects on roadways or roadway structures would have to be coordinated with the Louisiana Department of Transportation and Development.

Very truly yours,

V. Pizzolato

VINCENT PIZZOLATO
PUBLIC HEARINGS AND
ENVIRONMENTAL IMPACT ENGINEER

VP/JEH/pd
cc: Mr. Charles Higgins
Mr. Frank Heroy, Jr.
Mr. Harvey Shaffer
Mr. Louis Garrido
FHWA
Mr. P. J. Fredericks

RESPONSE 15.1: Relocation of roadways or roadway structures is the responsibility of the sponsoring agency. That agency will coordinate relocations with the Department.

State of Louisiana

DEPARTMENT OF WILDLIFE AND FISHERIES

September 10, 1984

Colonel Eugene S. Witherspoon
District Engineer
New Orleans District, Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160-0267

Dear Sir:

On July 2, 1982 the Department of Wildlife and Fisheries provided comments relative to the interim report on proposed freshwater diversions to Barataria and Breton Sound Basins. The comments contained herein are intended to address the proposal in general, and more specifically, to evaluate revisions to the original report which concern a new tentatively selected plan for Barataria Basin.

Because of its extensive coastal wetlands, Louisiana is the nation's leader in commercial fisheries production, and alligator and wild fur harvests. Louisiana also supports significant recreational economies based upon sport fishing and hunting for waterfowl and game animals.

16.1 However, it is now well documented that Louisiana's coastal areas are subsiding and eroding and some investigators have estimated a coastwide land loss rate from all causes as high as 45 square miles a year.

The state's coastal marshes and estuaries provide habitats and nursery areas for a wide variety of fish and shellfish species and marsh vegetation provides a source of organic material which is an important component of the detrital based food web. Recent scientific studies tend to substantiate the view that the production of commercial and recreational fisheries is linked not only to the quality of marsh habitat but to the quantity of habitat as well. For example, some researchers have reported that Louisiana commercial shrimp catches are directly proportional to the area of intertidal wetlands. The National Marine Fisheries Service has stated that the total estuarine-dependent commercial fisheries production of coastal Louisiana, including menhaden, shrimp, oysters, crabs, and some industrial bottomfish, has probably reached a peak and will decline in proportion to the acreages of marshland lost. Wildlife biologists would likewise agree that the production of furbearers, alligators, waterfowl, and game animals is linked in a similar way to the wetlands.

EXHIBIT 5

An Equal Opportunity Employer

The Department has long recognized the value of freshwater introduction to the production of fish and wildlife resources. By the early '50's the Department and Plaquemines Parish were cooperating in the development of a site on the lower Mississippi River for the controlled introduction of freshwater into estuarine areas in the Parish. Since that time the successful operation of this freshwater diversion structure has been based upon a schedule of carefully controlled discharges and monitoring; excellent cooperation has existed between the Plaquemine Parish Council, the Louisiana Department of Health and Human Resources and the Louisiana Department of Wildlife and Fisheries. Our assessment of this project is that any adverse effects that may result from periodic introductions of Mississippi River water are greatly outweighed by the benefits of increased oyster production. Department biologists have indicated that oyster production has often doubled in these areas after large influxes of freshwater and such increases may be attributable, in large part, to more favorable salinity regimes which reduced predation and disease. The decreased salinities and subsequent increased oyster production in Breton Sound in 1974-76 were attributed to the openings of the Bonnet Carre Spillway in 1973 and 1975. After conducting a preliminary analysis of data collected in Lake Pontchartrain before and after the Bonnet Carre openings, Department biologists observed significant increases in 16.1 many populations of estuarine-dependent species following the influx of large volumes of freshwater to the system.

The New Orleans Corps of Engineers in cooperation with various federal, state and local agencies, is now investigating the feasibility of enhancing habitat conditions and improving productivity of fish and wildlife resources by the introduction of freshwater into two estuaries, Barataria Bay and Breton Sound, and adjacent wetlands. These areas now support extensive commercial and sport fisheries, and are important hunting and trapping areas, and like much of coastal Louisiana, have experienced the adverse effects of saltwater intrusion and land loss in recent years. This is indicated by the reduction of fresh and intermediate marsh, the concomitant expansion of saline and brackish marsh, and the conversion of large acreages of marsh to open water. Two diversion sites are now being evaluated. One for the Barataria Basin would be located near Davis Pond (river mile 118) below the community of Lone Star at which Mississippi River water would be routed into the Department owned Salvador Wildlife Management Area. The other would be located at Big Mar and would provide for a diversion of water to the Breton Sound Basin.

It becomes very evident when oyster production records for the Barataria unit are examined, that the prime oyster seed and culturing grounds have shifted significantly northward through the bay. During periods of low rainfall, low river stages and decreased freshwater influx, as was experienced during the latter part of 1981 and early 1982, very limited oyster production takes place in Barataria Bay proper because salinity levels are too high for successful production to occur. This bay, particularly the lower end, was historically a prime area for the production of oysters and has extensive areas with suitable bottoms. With proper control of the diversion structure and the introduction of controlled amounts of freshwater adequate to maintain the average position of the

15 ppt isohaline in an area in the lower end of the bay (commonly referred to as the "Ford Line"), conditions would be suitable for increasing oyster production many fold. An increase of 100% in oyster production or more under these conditions could then be a reasonable expectation, because such conditions would bring into a biologically productive zone the vast acreages of suitable oyster culturing bottoms which were developed in previous years of intensive culturing at the lower end of the bay. Additionally, the location of a diversion structure near the Davis Pond site would provide direct benefits to the Salvador Wildlife Management Area in the reduction of land loss rates in the area, enhancement of fish and wildlife production, and increased public hunting and fishing opportunities, while still accomplishing the overall benefits to Barataria Basin.

In Breton Sound the Department maintains an area for public seed grounds of some 600,000 acres. As in Barataria Bay, only a small portion of the area has been consistently productive in the past 20 years due to increasing salinity levels. If the proposed diversion structure at Big Mar is of sufficient size and functions as planned, Department biologists estimate that a considerable portion of the seed grounds could be restored to oyster production which could conceivably double present levels of production. In addition, the introduction of freshwater to the Breton Sound Basin would prove beneficial for other important species.

16.1 We anticipate that the diversion projects would provide overall benefits to fish and wildlife resources in Barataria and Breton Sound Basins as isohalines are moved seaward by freshwater introductions. However, in areas lying landward of the 5 ppt project isohaline, there would be some losses to oyster production. This would affect approximately 10,000 acres of leased waterbottoms in Barataria Basin and some 5,000 acres in the Breton Sound Basin. While the loss of potential production in these areas is a matter of great concern to the Department, we believe that with a lifting of the existing moratorium on new lease applications, lease holders who might be adversely affected would be provided opportunities to establish productive leases in other areas.

Another matter of concern is the impact of freshwater introduction during the spring months, especially during high river years, into areas utilized as brown shrimp nursery grounds. Introductions during this critical period could adversely affect the survival and growth of maturing brown shrimp in affected areas. Evaluations should be made to determine all feasible means by which such potential impacts to both oyster and shrimp production could be offset.

The Department is in agreement with the estimates for reduction of rates of marsh loss for various marsh types developed jointly by biologists for the Corps and Fish and Wildlife Service and that are cited in the report. While the Department recognizes the fact that the proposal under consideration would not completely reverse the trends of marsh loss, the diversions would reduce the rates of loss in the study area, and would aid significantly in maintaining a salinity regime more favorable to fish and wildlife production.

16.1 Based upon its experience and decades of study and observation, this Department reiterates its support for the concept of controlled freshwater introduction primarily for the enhancement of fish and wildlife habitat and resources, and is interested and willing to cooperate in developing a program for the operation and monitoring of the diversion structures.

Sincerely yours,

J. Burton Angelle
Secretary

JBA/CJK/fsb

RESPONSE 16.1: Comment noted.

ACADIA PLANTATION

August 7, 1984

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

O-20.14

Reference: LMNPD-P

Dear Sir:

17.1 I would appreciate your forwarding to me a draft feasibility report and draft of environmental impact statement on the plan for fresh water diversion to Barataria and Breton Sound Basins, Louisiana.

17.2 For the record, please consider water flow through the Bayou Lafourche watershed as an additional fresh water diversion from the Mississippi River into salt marshes. The Bayou Lafourche Fresh Water District already pumps fresh water from the Mississippi River into the Bayou, and it soon will be evident that additional volumns of fresh water are required. Portions of Ascension, Assumption, Terrebonne, and Lafourche Parishes require this water, as well as Grand Isle. As the water passes into the Intracoastal system, the additional amounts also would assist in driving back the salt water intrusion and help restore land loss south of the Intracoastal Canal.

I thank you.

Sincerely,

David D. Plater

DDP/dj

RESPONSE 17.1: A draft report and EIS was sent on August 13, 1984.

RESPONSE 17.2: In our preliminary studies, we considered Bayou Lafourche as a possible diversion route. However, Bayou Lafourche has a rather limited discharge capacity. To increase its capacity to pass a flow of at least 3,550 cubic feet per second would require enlarging the channel over a distance of 90 miles and relocation of numerous residences and businesses along the bayou. This was found to be more expensive than other alternatives and was eliminated from further consideration.

BARATARIA CIVIC
IMPROVEMENT ASSOCIATION
5014 EHERT RD.
MARRERO, LOUISIANA 70072

August 17, 1984

Dept of the Army
N.O. District
Corps of Engineers
P.O. Box 60267
New Orleans, La. 70160

RE: FRESHWATER DIVISION PROJECTS LMNPD-P

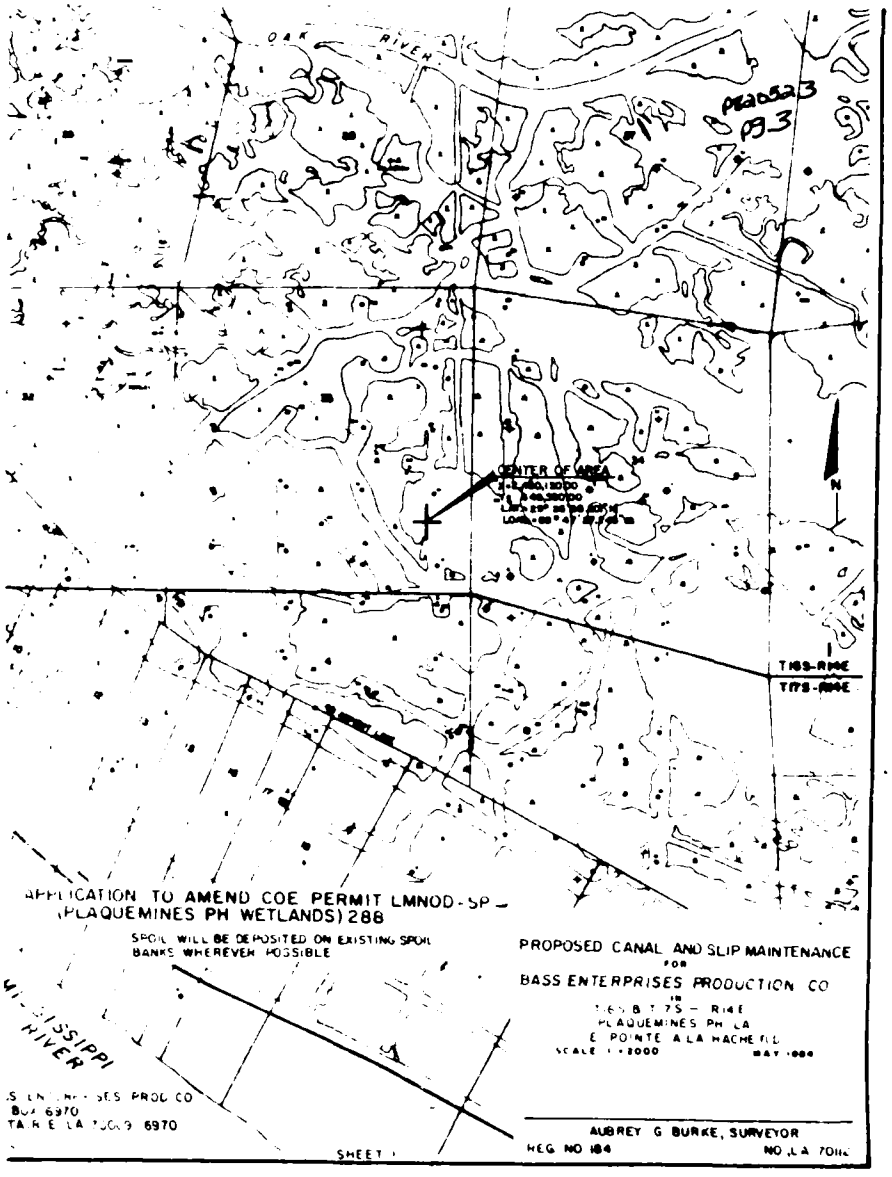
18.1 The Barataria Civic Improvement Association would like to thank the U.S. Corps of Engineers, the individuals, and organization(s) who spoke at the Public Hearing of July 31, 1984.

This civic club has fought long and hard to save our wetlands and its wildlife resources. To this extent we are fully supportive of the Freshwater Diversion Project.

18.2 The information contained in volume one (1) of the D.E.I.S. has the information also to hlep control land loss. If we the government are willing to spend an estimated $50,800,000 with annual charges of $4,970,000 over the next fifty years for operation and maintenance, which will help reduce saltwater intrusion and save about 99,200 acres of marsh; what about controlling land loss from canal dredging, which has contributed to over 45,400 acres of marsh land losses from the 71.2 square miles of canal dredged in the Barataria Basin from 1940 to 1970.

When viewing some permit applications from the State Department of National Resources, a person can see from the maps included with the permits that the canal form a spider webb effect, with some of the canal only a short distance and parallel to others (maps included marked attach 1) wave action from boats and tidal action are eating from one canal to another. Our feelings are the Corps of Engineers and the State should start denying these dredging permits. Let's have more directional drilling.

ATTACHMENT #1



BARATARIA CIVIC
IMPROVEMENT ASSOCIATION
5014 EHERT RD
MARRERO, LOUISIANA 70072

RE: FRESHWATER DIVISION PROJECTS LMNPD-P

18.3 The plans not to use the Harvey Canal locks and the Algiers locks were not very clear. It should be looked into, and used in conjunction with the other Freshwater Diversion Project. Sand pumped into the Lafitte Larose Highway Project would be a very good idea in restoring wetland losses in the project area since some of the pipe may still be in place. One of our biggest concern is that the new marshland which will be created may change the type of vegetation which is one of the areas which the Corps look at in determining if an area is still considered wetland.

18.4 We would like to have some kind of safeguard to assure that a developer or some other kind of project won't be allowed into the area because it was now considered non-wetland.

Respectfully,

A.J. Planche Jr.
President

RESPONSE 18.1: Comment noted.

RESPONSE 18.2: Our records indicate that the amount of wetlands loss due to permitted activities has decreased in recent years. Between 1978 and 1982 approximately 710 permits were granted to petroleum companies to dredge access canals in Jefferson, Lafourche, and Plaquemines Parishes. The average area covered by a permit is two acres. This indicates that 1,420 acres of wetlands were converted to open water over a five year period or about 284 acres per year.

RESPONSE 18.3: The use of the Harvey and Algiers Locks for freshwater diversion was considered as alternatives but was not considered feasible for the following reasons:

a. The Harvey Lock uses a miter-gate system, so that passing freshwater through the lock chamber is not possible. Freshwater could be passed through the filling and emptying culvert system for the lock but the volume obtained would be inadequate, particularily during the low water season.

b. The Algiers lock uses a sector-gate system, so that passing water through the lock chamber is possible. A significant volume would be obtained, however, extensive erosion protection would be required at the exit of the lock chamber.

c. Both locks have heavy traffic and the passage of vessels through the locks would interrupt any freshwater diversion flow. Considering the interruptions that would occur, the total volume of freshwater that could be diverted would not be sufficient enough to warrant the use of the locks.

RESPONSE 18.4: Comment noted.

August 27, 1984

The District Engineer
New Orleans District Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

Dear Sir:

At the request of the Lafourche Realty Corporation for whom Coastal Environments, Inc. serves as environmental and planning consultants, I have reviewed the information contained in the "Announcement of Public Meeting to Discuss the Tentatively Selected Plan for Freshwater Diversion to Barataria and Breton Sound Basins, Louisiana." In addition, a representative of our firm attended the public meeting that was held on July 31, 1984 in Gretna, Louisiana for the purpose of obtaining additional information on the proposed projects. The following comments are submitted in behalf of the Lafourche Realty Corporation.

19.1 Lafourche Realty owns approximately 18,000 acres, most of which are marshlands, within the Barataria Basin in Lafourche Parish, Louisiana. The property has been subjected to the effects of saltwater intrusion and marsh deterioration in recent decades. The apparent causes of these problems include construction of flood protection levees along the Mississippi River, the closure of Bayou Lafourche at Donaldsonville, subsidence, canal dredging, and expansion of the tidal passes along the Gulf shore.

The company has recently embarked upon a program of marsh management which will include low enclosure dikes, water control structures and monitoring. The purpose of this program is to prevent further deterioration and improve fish and wildlife habitat.

It is felt that the freshwater diversion proposed at Davis Pond will indirectly provide some relief for the Lafourche Realty properties as it will partially compensate for the disruption of natural overflow along the Mississippi River and down Bayou Lafourche. While it is unlikely that significant measurable changes will occur within the Lafourche Realty marshlands, the benefits of the project to the Barataria Basin as a whole will help reduce rates of deterioration.

In our opinion the proposed project addresses a serious environmental problem and should be implemented. Thank you for providing the opportunity to comment.

Sincerely yours,

Sherwood M. Gagliano, Ph.D.
Agent for Lafourche Realty Corporation

cc: James Hilboldt
P. Albert Bienvenu, Jr.
Alex J. Plaisance, Jr.

SMG/csa

RESPONSE 19.1: Comment noted.

CABLE ADDRESS
"DELACROIX

DELACROIX CORPORATION
300 N DECATUR STREET
NEW ORLEANS, U S A

August 15, 1984

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

Re: Barataria and Breton Sound
Basins - Fresh Water Diversions

Dear Colonel Lee:

Both the undersigned and Hugh M. Wilkinson, Jr., General Counsel for Delacroix Corporation, were in attendance at your Public Meeting in the Council Chamber, Gretna, on July 31, 1984 with respect to the captioned matter.

20.1 For some two years Delacroix Corporation has been aware of the general concept involved in the Caernarvon project through meetings with Plaquemines Parish officials relative to using Delacroix acreage from the River back to the forty arpent line. We were aware of the West Bank diversion in a more general way.

We would like to express our support for your projects as follows:

1. The Delacroix Corporation is generally supportive of the proposed diversion project at Big Mar (Caernarvon) as the freshwater introduced will help reduce erosion and deterioration which affects some of its land holdings.

2. The damaging conditions which the project addresses are largely the result of flood levees along the Mississippi River which prevent annual overbank flooding and saltwater intrusion through canals, including navigation canals and oil and gas canals from the outer continental shelf area.

20.2 3. Since many of the conditions that the project addresses are the result of Federal projects, or of Federally permitted activities, the formula which requires a 25 percent non-Federal match should be reevaluated. The Federal government should bear a greater share of the costs of the project.

20.3 4. The outfill area of the Big Mar project does affect private land, of which the Delacroix Corporation is the principal landowner. The Delacroix Corporation wishes to be kept fully appraised of all proposals which may affect changes on its land. It also advises that permission must be obtained for the purpose of surveying, testing, boring, sampling or other activities. Property of the Delacroix Corporation includes not only vegetated land but canals and other water bodies.

Very truly yours,

DELACROIX CORPORATION

By: _____
Mrs. Marie Louise Molero O'Toole,
President

MLMO'T/kpt

RESPONSE 20.1: Comment noted.

RESPONSE 20.2: See response 8.2.

RESPONSE 20.3: Comment noted.

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY

WILMINGTON DELAWARE 19898

GENERAL SERVICES DEPARTMENT
REAL ESTATE DIVISION

August 13, 1984

Department of Army
New Orleans District
Corps of Engineers
P. O. Box 60267
New Orleans, LA 70160

Attn: Col. Robert C. Lee

FRESH WATER DIVERSION TO BARATARIA &
BRETON SOUND BASIN, LOUISANA

Dear Colonel Lee:

This will supplement my letter of July 9, 1984 and is a result of the public meeting which was held on July 21, 1984 at the Jefferson Parish Court House.

It appears that the diversionary canal will traverse a portion of Du Pont's westerly property line. We are willing to consider having the entire canal placed on our property along our westerly boundary and might consider donatin; the land for the proposed canal and its levee and all of the southerly portion of our property south of U.S. Highway 90.

21.1 The above condition is contingent upon certain trade-offs being worked out. The remainder of our property north of U.S. 90 is quite low and could serve as a nearby landfill area for surplus fill which will undoubtedly result from this project and you will have to dispose of it in the area. We believe such an arrangement might be mutually beneficial and, if you have any interest, we would like to initiate a dialogue with you on the possibility.

If you, members of your staff, or personnel from the Louisana Office of Public Works would like to meet with us to further discuss this proposal, you may call me on 302-992-3853 or D. E. Johnson, Manager of Real Estate on 302-992-3841.

G. R. Parker
Industrial Properties

GRP/cmb

cc: R. A. Buisson, Jr. - Corp. of Engg.
A. Theis - LA - Dept. of Public Works

RESPONSE 21.1: The sponsoring agency is responsible for acquiring lands, easements, and rights-of-way needed for construction and operation of this project. We will be glad to meet with representatives of the sponsoring agency and the Dupont Company to discuss the land requirements.

August 1, 1984

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

Dear Colonel Lee:

The Greater Lafourche Port Commission continues to support the concept of freshwater diversion from the Mississippi River into the Barataria Basin.

22.1 We ask that you consider the comments made by this Commission at the public hearing held on the Bayou Lassigne Project at the Riverqate in New Orleans as being applicable to the Davis Pond Project.

Again, this Commission continues to support your efforts in diverting freshwater into our estuaries and strongly urge the Corps of Engineers to actively pursue the initiation of this project.

Sincerely,

Ted M. Falgout
Executive Director

TMF:ppg

RESPONSE 22.1: Comment noted.

Greater Lafourche Port Commission · P.O. Drawer 728 · Galliano, La. 70354 · (504) 632-6701

PROJECT THE CONCEPT IS THE SAME AND SUPPORTS THE CORPS OF ENGINEERS' PROPOSAL ON FRESH WATER DIVERSION.

27.1 IN SUMMARY, TENNECO LATERRE BELIEVES THAT THE ABOVE TENTATIVELY SELECTED PLAN FOR FRESH WATER DIVERSION, WHEN FULLY IMPLEMENTED WILL HAVE VERY POSITIVE RESULTS IN REDUCING DETERIORATION AND INCREASING THE PRODUCTIVITY OF THE ESTUARIES AND WETLANDS. SINCE WE ARE ARRIVING AT A LATE HOUR IN IMPLEMENTING PROGRAMS WHICH WILL SAVE OUR WETLANDS WE URGE YOU TO EXPEDITE THIS PROPOSED PROGRAM AND CONTINUE YOUR EFFORTS TO IDENTIFY OTHER AREAS WHICH CAN ACCOMMODATE SIMILAR MANAGEMENT.

THANK YOU FOR ALLOWING US TO COMMENT ON THIS PROPOSED PROJECT.

SINCERELY,

TENNECO LATERRE

JOHN W. WOODARD
LAND MANAGER

JWW/rt

RESPONSE 27.1: Comments noted.

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

August 7, 1984

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: Freshwater Diversion to Barataria and Breton Sound Basins, Louisiana

Dear Colonel Lee:

I am writing to support the proposed Diversion, with the caveat noted in my previous oral and written testimony on the Corps' recent diversion projects.

28.1
1. These diversions are necessitated by the interposition of the Mississippi River levees, constructed and maintained by the Corps as a 100 percent federally-funded project since 1917;

2. They are further necessitated by more recent Corps projects such as the Mississippi River Gulf Outlets, also constructed and maintained by the federal government;

3. Compensation for the effects of these projects is required (16 U.S.C. §551 et. seq.) to mirror the federal share . . . or 100 percent.

Attempts to require the State to cost-share may reflect the administration's views of federalism. They do not reflect the law. And given the State's finances, they unnecessarily jeopardize the chances these projects will be funded and built.

Sincerely,

Oliver A. Houck
Professor of Law

OAH:je
cc: The Honorable Wm. Huls, La. DNR
The Honorable John Breaux
The Honorable Lindy Boggs
General Thomas Sands, LMVD

RESPONSE 28.1: See Response 8.2.

ST. CHARLES PARISH WATERWORK DISTRICT NO. 2

FRESH WATER DIVERSION AT DAVIS POND

RELOCATE WATER MAINS AT HWYS. LA 18 & US 90

26.1

@ LA 18:	Temporary Bypass 600 LF 8" PVC Pipe	@	$ 22 =	$ 13,200	
	Remove Exist. 8" Water Main 550 LF	@	$ 10 =	5,500	
	New Permanent Main 550 LF 8" DI Pipe	@	$ 25 =	13,750	
	Remove temporary bypass 600 LF	@	$ 10 =	6,000	
					$38,450 (48,000)
@ US 90:	Temporary Bypass 600 LF 12" PVC Pipe	@	$ 30 =	18,000	
	Remove Exist. 12: Water Main 550 LF	@	$ 12 =	6,600	
	Concrete trestle 5' wide 400 LF	@	$175 =	70,000	
	New Water Main on trestle 400 LF 12" DI	@	$ 32 =	12,800	
	New Water Main in ground 150 LF 12" DI	@	$ 35 =	5,250	
	Remove temporary bypass 600 LF	@	$ 12 =	7,200	
					$119,850 (150,000)
	Subtotal			$158,300	
	Contingencies			39,700	
	Total Estimated Construction Cost			$198,000	

RESPONSE 26.1: The cost to relocate the 8" and 12" water mains has been included in the relocation cost estimate for the Davis Pond site.

A Tenneco Company

Houma Louisiana 70361
(504) 879 3528

July 31, 1984

MR. ROBERT C. LEE, COLONEL, CE
DISTRICT ENGINEER
DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT
CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160

RE: PUBLIC MEETING JULY 31, 1984, 7:00 P.M.
JEFFERSON PARISH COURT HOUSE
TENTATIVE SELECTED PLAN FOR FRESH WATER DIVERSION TO BARATARIA AND BRETON SOUND BASINS, LOUISIANA

DEAR MR. LEE:

27.1

WE COMMEND THE U.S. ARMY CORPS OF ENGINEERS FOR YOUR EFFORTS TO DESIGN AND IMPLEMENT THE ABOVE PROJECT. IT IS OUR BELIEF THAT THE "FRESH WATER DIVERSION CONCEPT" OFFERS AN EXCELLENT OPPORTUNITY TO REDUCE SALTWATER INTRUSION, ENHANCE HABITAT CONDITIONS AND IMPROVE FISH AND WILDLIFE PRODUCTION. AS A MAJOR WETLAND OWNER WE HAVE OBSERVED OVER THE YEARS THAT THE ACCELERATED RATES OF MARSH DETERIORATION IS DIRECTLY RELATED TO THE AVAILABLE FRESH WATER OR FRESH WATER INFLOW.

AT PRESENT WE ARE PROPOSING A MARSH MANAGEMENT PROJECT FOR THE PURPOSE OF IMPLEMENTING A MITIGATION BANKING PILOT PROJECT ON A 5,000 ACRE TRACT OF TENNECO LATERRE PROPERTY IN TERREBONNE PARISH. OUR PROJECT INVOLVES CONSTRUCTING A SERIES OF WEIRS, DAMS AND LEVEES FOR THE PURPOSE OF INCREASING FRESH WATER AND SEDIMENT INFLOW, IMPROVING WATER CIRCULATION AND REDUCING SALTWATER INTRUSION TO PRESERVE AND IMPROVE FISH AND WILDLIFE HABITAT. OUR INITIAL EVALUATIONS AND PROJECTIONS INDICATE THAT THE SUCCESS OF OUR PROJECT IS DIRECTLY DEPENDENT UPON THE ABILITY TO HAVE FRESH WATER DIVERSION INTO THE MANAGEMENT AREA. EVEN THOUGH THE TENNECO LATERRE PROJECT IS SMALL COMPARED TO THE ABOVE CORPS

Our consulting engineers are preparing a cost estimate for the temporary and permanent relocations which will be forwarded as soon as complete.

26.1 The District has worked with Parish Councilman Clay Faucheux since announcement of this Public Meeting has been received, and it is with his knowledge and participation that this request is made.

Thank you for your consideration.

Yours very truly,

ST. CHARLES PARISH WATERWORKS
DISTRICT NUMBER 2

Herman G. Haydel
President - Board of
Commissioners

FROMHERZ ENGINEERS INC
CONSULTING ENGINEERS
4747 LAPLACE BLVD
NEW ORLEANS LA 70125
504 488 [illegible]

PLEASE ADDRESS REPLY
P O BOX 13784
NEW ORLEANS LA 70185

August 28, 1984

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: Tentatively Selected Plan
For Freshwater Diversion To
Barataria and Breton Sound
Basins, Louisiana

Dear Colonel Lee:

26.1 We respond on behalf of St. Charles Parish Waterwork District No. 2, Luling, Louisiana, to provide you with an estimate of the cost of the relocation of their water supply facilities in connection with the subject project. At the Public Meeting July 31, 1984, Mr. Jack Spiers, Superintendent, Waterwork District, advised that the cost estimate would be forwarded.

Attached herewith please find a breakdown of the estimated cost to provide temporary and permanent relocations of the District's facilities at State Route La 18 and US Hwy. 90 which totals $198,000 without allowance for contingencies, escalation or other factors.

Yours very truly,

FROMHERZ ENGINEERS, INC.

By:
Frank C. Fromherz, P.E.
President

FCF/om
Encl.

cc: Mr. Jack Spiers w/encl.

the public meeting held July 31, 1984 in Jefferson Parish was the last public hearing and that public comment will be cut off 29 days after that date. We are being required to develop the data as to the impact on our lands at our own cost and expense. After this information is fully developed we believe that there should be opportunity for additional public hearings on the subject.

25.1 We note one further problem. Your present design calls for a "small guide levee" which would cut across our existing levee system and isolate about 30 acres of our property from the rest of our leveed acreage, destroying its value.

Under these circumstances and without proper regard being given for protecting the development potential of our lands, we must register our strong objection to the Davis Pond project.

Very truly yours,

REB:bm

Certified Mail #P240 638 852

RESPONSE 25.1: Additional meetings with affected interests will be held during the next study phase, advanced engineering and design. At that time, we will conduct surveys and develop detailed information on drainage characteristics and the levee alinements. This information will be presented to all affected interests for their review and comment.

DISTRICT NO. 2
P. O. BOX 108
LULING, LOUISIANA 70070

July 30, 1984

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

Re: Tentatively Selected Plan for
Freshwater Diversion
Barataria and Breton Sound Basins
Louisiana

Dear Colonel Lee:

The service area of this District includes the West Bank of the Mississippi River in St. Charles Parish. The District is a publicly owned utility system whose governing authority is the St. Charles Parish Council and whose daily affairs are administered by the Board of Waterwork Commissioners and the District staff. The proposed project impacts certain facilities which we own and operate for the purpose of supplying potable water to our customers.

26.1 In reviewing various documents concerning the proposed diversion channel, particularly the Second Volume of the Feasibility Study, we note that Louisiana Route 18 and Louisiana US 90 will be temporarily relocated following which they will be reconstructed in a permanent location, the alignment of which will be very close to existing. We have noted that the utility relocations listed include various pipelines, but have omitted the water mains which are the property of this District.

Crossing the proposed diversion channel in the alignment of US Hwy. 90, the District owns and operates a 12 inch water main which will require both temporary and permanent relocation. Also, the District owns and operates a 6 inch water main in the alignment of State Route 18 which must be temporarily and permanently relocated in connection with the project. We request that the cost of the permanent and temporary relocations of our facilities be identified and included in the budget for the subject project so that the District is not required to bear the cost of same.

privately owned grounds as a result of the project?

24.17 I thank the Corps for the opportunity to submit my opinion of the proposed plan for freshwater division to Barataria and Breton Sound Basins. If I can be of further assistance or if any questions arrise from my statement please feel free to contact me at any time.

Ralph V. Pausina
6551 Louisville Street
New Orleans, Louisiana 70124

504- 486-5079 Home
504- ~~522-3660~~ Office
899-8804

RESPONSE 24.17: Comment noted.

RATHBORNE LAND COMPANY, INC.
P O BOX 157 HARVEY, LOUISIANA 70059
TELEPHONE (504) 368-6355

ROBERT E. BECHER
PRESIDENT

August 27, 1984

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

Attention: Colonel Robert C. Lee
Louisiana Coastal Study

Re: Freshwater Diversion
Barataria Basin, Louisiana
Public Meeting 7/31/84

Gentlemen:

25.1 We are the owners of a tract of land containing approximately 6000 acres located south of U.S. Highway 90 and west of and adjoining the Salvadore Game Management area in St. Charles Parish, Louisiana. Our lands will be significantly damaged by the proposed "Davis Pond" fresh water diversion project. We therefore register our strong objection.

Currently about 600 acres of our land are enclosed by levee. Outside of the levee system we have additional properties that are ridgelands and have future development potential. The "Davis Project" as presently designed will flood these properties and completely destroy their development potential. The levee system which we are maintaining in the area has a sluice gate on its southern end which is required to remain open. An increase in general water levels will therefore adversely impact lands inside as well as outside of the levee system. Non-wetlands and marginal lands will soon become wet.

An additional concern of ours is that the Mississippi River waters which will be discharged onto our property will contain numerous chemical pollutants which will cause direct damage to our property.

We also object to the method of holding public hearings on this matter. At the public hearings and a meeting for landowners held last month, we were given only the vaguest information about how our lands would be affected. The reason given for the lack of specifics is that detailed studies will be done later after more funding is available. Now we are told that

strengh and fat, weakening the animal causing it to be suscep-
24.13 table to attack by preditors or diseases.

Is there a mechanism in the plan to compensate a lease holder for loss as a result of the project? Is there a time frame for this compensation to occur? I believe that buildup of the Gulf/ Bay interface is the only real solution to the
24.14 problems of the Barataria Bay Complex. The addition of water from the Mississippi River at Bayou Lasseigne could help the basin during low river and low rainfall years but only coupled with the protection at the lower end. The Gulf must be kept at the beaches and not at the northern end of Barataria Bay.

The plan should cover all aspects of the intended goals. These include the actual building of the structure, the maintenance of the structure and the lands, waterways, and
24.15 waterbottoms affected, the compensation of plants, animals, people and businesses effected, the proper use of the structure, the establishment of parameters as to when it should be opened and closed, who or what body or bodies has what responsibilities regarding the structure and the areas it affects.

Something else to be considered here is the fact that approximately 95% of all oysters producing grounds in the Barataria Bay Complex are privately owned. Should the Corps
24.16 be advertising the fact that it is spending some $25,000,000 of public money to among other thing supposedly increase the production of private businesses by 20%? Has the Corps taken into consideration the loss of production of some of these

RESPONSE 24.14: Compensation to lease holders for losses incurred as a result of this project would be the responsibility of the non-Federal sponsor for the project, which is currently the State of Louisiana.

RESPONSE 24.15: We fully agree that all aspects of the project should be covered and a comprehensive approach be taken. In that regard, we intend to develop monitoring programs for the diversion structure. During the three years prior to construction of the project, we will develop a model of the basin, an operational plan, and an oversight committee to determine operational criteria and supervise the operation. Actual operation of the floodgates will be by the local sponsor (State or Parish Agency) within guidelines set down by the oversight committee. The Corps of Engineers will be represented on the committee and will exercise an equal vote, except if the operation of the structure would affect the availability of water for municipal use along the River or would have a significant negative effect on navigation or flood control. We also intend to develop a post-construction monitoring program to assess the impacts of the project and provide information to improve operational efficiency.

RESPONSE 24.16: This project is consistent with Corps policies on multiple beneficiaries since the ownership of oyster leases is widely dispersed among many operators. In addition, benefits to other commercial fish and wildlife interests as well as recreational outputs accrue to numerous individuals.

This is a labor intensive procedure, not a pleasant job, not a profession many people choose to do. The sale of oyster meat is limited solely by the buyer being able to get oysters in the shell and by how many can he get opened. An increase in the production of oysters in the water of 1% means nothing if the dealer cannot increase his opening capacity. This ancient method of shucking the animal also keeps the oyster priced as a luxury item. It is an appetizer, an hor d'oeuvre
24.12 rather that a staple. An increase in the supply of oysters of 20% would result in the following price situation. Oysters to the consumer at the same level or slightly lower. Oysters from dealers or shuckers to wholesalers or retailers lower, governed solely by the amount a dealer can get shucked in a given period of time. Prices to the producer or fisherman, rock bottom coupled with extreme difficulties obtaining sufficient sales to make up the dufference in the lower sales income.

Another of the benefits in the proposed plan is the addition of nutrients and sediment to the esturary. From the oysters viewpoint these are not benefits. Nutrients are now in the system. Oysters are as fat as they have ever
24.13 been; there is no noticablg decline in the quality of the product. The addition of sediment is an adverse effect rather than a benefit to the oyster. It would have to exert more effort to filter the additional silt load therefore diverting more energy to this effort rather than to buildup

RESPONSE 24.13: The addition of nutrients to the estuary would benefit marsh vegetation and variety of fish and wildlife resources. The increases in oyster production with this project have not been directly linked with nutrient input. However, oysters are filter feeders and increased nutrients would be beneficial to them. It is acknowledged that too much sediment is detrimental to oysters. However, as pointed out in an earlier response, this is primarily a salinity management project. The majority of the sediments in the diverted water would fall out or settle out long before reaching oyster-producing areas.

24.10 major oyster producing area now in existence. The increased production in the lower end could never equal the production now occuring in the upper end. This is no minor habitat dislocation. The type of oyster produced would be of lower quality that is now produced in the some area. The product would be harder to market and bring lower prices.

24.11 The proposed plan states that one of the benefits would be an increase of oyster production nationally by 20%. This sounds good on the surface. For this amount to be included as a benefit it must not only have to be produced, it must be harvested, and sold. Another question arrises in my mind; over how long a period of time will this projected 20% increase occur? Will it take 5 years, 10 years, 40 years? Where will this increase come from? It is from the East Bank project or the West Bank project, if from both in what portions? Thinking of the normal practise of harvesting seed oysters from the public grounds on the East Bank and transferring them to the grow out grounds on the West Bank, has the Corps counted the same oyster twice in these projections? Is this figure a gross figure or is it net after substrating the grounds taken out of production.

24.12 There could be problems in marketing this additional production if it indeed occurs. The single most limiting factor in the sale of oysters in the United States today is the lack of automated systems or devices for removing the oyster from its shells. This is still done by hand.

RESPONSE 24.11: It is acknowledged that sale of any project-induced oyster production is a prerequisite to benefit accural. Local authoritative sources assert that a significant potential for market expansion can be realized through aggressive marketing (see Appendix F, Economics, para. F.6.7.). Project-induced oyster outputs are projected to occur 5 years after project implementation (see Appendix F, para. F.2.3.). About 60 percent of the oyster increase would occur in the Barataria Basin and 40 percent would occur in Breton Sound (see Appendix F, Table F-2-7). Production on about 9,600 acres of leased water bottoms in the Barataria Basin and 5,800 acres in the Breton Sound Basin would be reduced or eliminated due to project implementation. These losses have been netted out of the claimed benefits (see Appendix F, para. F.2.9.).

RESPONSE 24.12: A declining labor base and processing inefficiencies are but two of many problems facing the domestic oyster industry, although these two are among the toughest to solve. To the extent that stability of reef production and reduced harvest cost attributed to the project operate to reduce the seasonality of processing work and increase wages paid, these problems can be partly offset. Increased profitability on a large scale may also attract the venture capital needed to develop some degree of mechanization in shucking. It is recognized, however, that complete marketing of all potential output is not a certainty and effects of that short fall in sales could reduce benefits (see Appendix F, Section 6, particularly paras. F.6.7. and F.6.8.)

If one assumes no increase in sales, the reduction in harvest costs due to lessened predation and the enhanced salinity regime on the reefs would tend to increase profits to project-area fishermen (see Appendix F, para. F.6.8.).

assuming that this could increase, there would be a need to supplement the natural rainfall to the area every 5th year.

24.8 It could take 100 years before sufficient silt could be placed into Barataria Bay to build land, stablize beach erosion, counter act subsidence, halt salt intrusion and help to increase oyster production. In 100 years there may be no beaches to rebuild, no oyster production to increase.

Without barriers at the beaches the eastern portions of Barataria Bay will not be affected by this project. The

24.9 Barataria Bay Waterway funnels the freshwater through Barataria Bay and out into the Gulf by-passing the Bay itself, offering no hope for the oyster beds on the east side of the Bay.

The enviornmental impact statement states that minor habitat dislocation will be one of the adverse effects of the project. In order to alter the sal of Barataria Bay itself, the amount of water introduced at Bayou Lasseigne must have to be substantial. If the amount of water is not extremely

24.10 large, then the project cost benefit ratio of 3:1 is not a true reflection of the project goals. A major amount of water of literally zero sal placed into as large a system as Barataria in quantities sufficient to accomplish a major change in the lower reaches would of necessity have to dislocate major habitats. If one of the goals of the project is to lower sal in the lower Bay sufficiently to keep oysters alive year round, the amount of water necessary would kill a

RESPONSE 24.9: If by eastern Barataria Basin you are referring to areas such as Adams Bay and Bastian Bay south of Empire, we concur that the eastern extremities of the basin will not be significantly affected by this project.

RESPONSE 24.10: The environmental impact statement (EIS) as well as the other parts of the report acknowledge that adverse impacts would occur due to habitat shifts. We were unable to locate the reference to "minor" habitat dislocations in the EIS. It is acknowledged that it is not possible to shift a salinity regime seaward that has gradually encroached inland over the past 50-years or so without adversely impacting certain resources that have also moved inland with the encroaching saltwater. Whether or not an impact is "minor" or "major" is relative and depends on if you are looking at specific locations or at the basin overall.

The goal of the project is not to lower salinities in the lower bay year-round but rather to mimic the natural cycle which occurred historically with a spring freshet and gradual increase of salinities thereafter.

24.6 and after the closure of the gates and the return of the lower bay salinities to normal high levels will not change the production of these lower Bay beds.

What will help all the beds would be the closure of the many unnecessary openings along the shoreline at the Gulf. Narrow the widened passes. Replace the lost beaches. This

24.7 would allow less interchange between the Bays and the Gulf, thereby naturally lowering salinities in the bays, and stabilizing the salinity regimes. This reinforcement of the barrier islands would also serve to help prevent the tidal surge associated with hurricanes and unusually high southerly winds.

The problem associated with this approach is that subsidence would still continue. The beach barriers will require maintenance to be effective. The flood gates and continued silting as a result of the deposits from the river also require maintenance. The continued subsidence will result in the loss of some marsh land even with rebuilt barrier islands.

24.8 With the flood gate system some marsh land will be displaced in the upper area of the system and in the lower area subsidence will still occur because the silt load will not reach the lower areas for many years. The silt load would have to almost cover Lac es Allemends, then portially fill Lake Salvador then to Little Lake and Turtle Bay before any substantial amount of silt will be deposited into Barataria Bay. My records indicate extreme high sal. occuring every 7 or 8 years,

RESPONSE 24.7: We agree that the closure of many of the outlets between the gulf and the basin would benefit the salinity regime in the basin. However, as we stated previously, the cost of restoring the coastline is too great.

RESPONSE 24.8: We concur that subsidence will continue and that the barrier islands need to be restored. Maintenance of the floodgates has been computed in the project cost.

With response to your comments on marsh loss, it must be pointed out that the proposed project is primarily for salinity management and will not build significant quantities of land outright. A delta covering about four square miles will be formed over the 50-year project life in the shallow open water area where the outfall channel ends in the overflow area above Lake Cataoutche. Portions of this area will become vegetated with marsh plants. The majority of the marsh which would be saved by this project would be the result of curbing saltwater intrusion, thereby reducing the rate of loss of fresh and intermediate marshes which are presently being destroyed by saltwater. In addition, some of the fine sediments would be distributed through the basin and offset marsh loss to a lesser extent. It is expected that the project would reduce the rate of marsh loss in the basin by about 83,000 acres over the 50-year project life. Without the project, it is projected that about 221,000 acres of marsh would be lost. In order to totally offset land loss in the basin, we would have to divert about 20 times as much water as proposed in this project.

Extra freshwater introduced at a time when historically and naturally the salinities are at their lowest for that particular year. This is as a result of rain fall, cold fronts draining the upper reaches of the basin and reasonably higher river stages dumping more water into the Gulf at the Western outlets (lowering Gulf top salinity and SE and S winds carrying this water along the beaches an into the entrance at the lower end). And no freshwater from July to December, a time when naturally and historically the salinities are at their highest for that particular year. What is created here would be a larger difference between the high and low salinities for any given year. A greater change results in

24.6 shorter periods of time for plant and animal life to adjust to the prevailing conditions. You will have lowered the salinity of the basin but only for a time when it is normally low. When August comes the freshwater will exit into the Gulf at least as fast as it is now and it will be replaced by saltier Gulf water returning the system to the high salinity ranges. This will not help the producing oyster beds of Barataria Bay nor will it increase the production of oysters from the Bay. Beds in the upper reaches of the bay need a more constant salinity in order to continue to be productive. Beds in the lower reaches are not self perpetuating, seed oysters are planted on these beds in the fall (September, October) and harvested in the spring; prior to July, August. The addition of freshwater during the winter lowering salinities

RESPONSE 24.5: Comment acknowledged. It is obvious that you have maintained good records of your area. Due to the location of your leases, a great deal of the fresh water which presently enters the upper basin from rainfall, drainage, or other sources passes over your leases in a relatively short period of time. When this occurs, particularly in the warmer months, the oysters are subjected to a rapid drop in salinities when water temperatures are very high. Under these conditions, the combined effect of low salinities and high temperatures cause oysters to die rapidly. By the same token, in some of the drier years, when the basin as a whole is in need of fresh water, your leases do receive some fresh water to offset high salinities, thereby allowing your area to be productive. It is likely that this project would tend to stabilize conditions in the long term and salinity changes would not be as broad and abrupt. Of course, in years of very heavy precipitation, your leases would receive too much fresh water totally independent of this project. Likewise, in some years of intermediate rainfall, fresh water introduced by this project would likely cause decreased production in your area.

RESPONSE 24.6: We must note that the river and the bay are essentially separate hydrologic units. High water in the river does not necessarily generate a fresh or low salinity condition in Barataria Basin. If is true that the spring rains, coupled with low stages in the gulf because of winter storms, may result in low salinity conditions in the basin in the spring which coincide with spring highwater in the river. However, it is also possible to have local drought in the spring causing high salinities in the basin while having a flood on the Mississippi River. The freshwater diversion project is designed to provide sufficient fresh water from the Mississippi during the first five months of the year to mimic the natural spring flooding which occurred prior to leveeing the Mississippi River, and to depend on the residual effect of this "flood" to sustain the proper salinity regime throughout the remainder of the year. It is true that some areas that are currently producing oysters in areas that were historically too fresh have been billed to the project as a cost in the benefit-cost analysis. The residual effect of the spring "flood" will keep salinities in the later months from rising as high as they would without the "flood", thus the differential range in salinity will be less.

24.3 gets into the Gulf it is replaced with salt water on the next tide.

Freshwater entering the system whether it comes from rain or the river will rush through the system on its way to the Gulf at an equal rate. I believe that the establish-
24.4 ment of a reasonably constant salinity regime with natural seasonal fluctuations is what we should be attempting to accomplish. I do not believe that this can be done simply by adding more freshwater to the tub and allowing the drain to stay open. Restricting the drain and adding freshwater should better accomplish the task.

My experience of some 22 years actively working and observing and recording events in the area at the Mouth of Bayou St. Denis at Manila Village has shown that salinities are normally low from January through June, and normally
24.5 high from August through November. My records indicate total die-off of oysters in 1961 and 1980, partial die-offs in 1969 and 1975 and some minor kills in 1968, 1969, 1973, 1974, 1978, and 1979 all as a result of low salinities coupled with high temperature, while a partial kill occured in 1963 and 1971 as a result of high salinities, (another would have occured in 1977 but for hurricane Agnes skirting the shoreline droping large amounts of rain, altering the salinity).

With the flood gates operating from January to May
24.6 during high river stages as proposed in the plan the following situation would develop.

RESPONSE 24.3: We agree that the restoration of barrier islands and reduction of the size or number of connections between the gulf and the bay could achieve a significant improvement in the salinity regime in the basin. However, studies have indicated that this would be at least ten times more expensive than freshwater diversion. Additional benefits to offset these added costs have not been identified.

RESPONSE 24.4: We agree that establishment of a more constant salinity regime with seasonal fluctuations should be the goal. That is the foundation of our freshwater diversion project. Our studies indicate a lag period between the time the fresh water is introduced from the river and the time it fully exits the basin into the gulf. The water would not move directly to the gulf, but would move back and forth due to the effects of the winds and tides. The marsh soils, which have a relatively high salt content, would tend to absorb some of the fresh water and help stabilize the salinity regime in the basin. As a result, the effects of the fresh water would not cease when the structure is closed. There would be a residual effect and salinities would be modified for several months thereafter. Following this, salinities would begin to rise. This basically mimics the natural cycle which occurred historically when the river overflowed its banks in the late winter and spring. There was a freshet in the spring, with salinities gradually increasing later in the year. It was under this condition that extensive oyster reefs were formed throughout southeastern Louisiana. The marshes, as well as many species of fish and wildlife, flourished. It has long been recognized by fishermen and biologists alike that a freshening effect early in the year is needed to sustain natural oyster production. The fresh water controls the predators, diseases, and organisms which compete with oysters. It also introduces vast quantities of nutrients into the system. The value of lowered salinities in the spring months has been documented in a report by Chatry et al. (1983) where ten years of salinity data were correlated with oyster production over productive seed reefs in Breton Sound.

It should be emphasized that the January through May diversion scenario presented in our report is based on the best available information at the present time. It is not concretely established. On the contrary, we have acknowledged that modifications may be necessary and have emphasized the need for operational flexibility. The structure would be capable of diverting water during other periods of the year if deemed necessary.

Pausina Oyster Corporation

OYSTER CULTIVATORS

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NEW ORLEANS, LA. 70119

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

Ref: Tentative plan to divert Mississippi River water into Barataria and Breton Sound Basins.

Re-submittal July 31,1984

24.1 My name is Ralph V. Pausina, my family has been planting, raising, and harvesting oysters for some 61 years. I am president of our family business, Pausina Oyster Corporation and I have served as president of our state Trade Association, Louisiana Oyster Dealers and Growers Association, for three terms. I served as chairman of the legislative committee and board chairman for numerous years. I am now the immediate past president of our National Trade Association the Shellfish Institute of North America.

RESPONSE 24.1: Comment noted.

24.2 I shall confine my remarks to the effects on the portion of the proposed plan affecting only the oyster industry pertain in the Barataria Bay area. I feel that the plan as presented; "to divert a flow of 14,650 cubic feet per second of water" into Bayou Lasseigne will of itself not benefit the oysters of Barataria Bay anywhere near the amounts referred to in the proposal. I believe that if any increases in the amount of oysters in Barataria Bay occur as a result of this proposed plan it will be some 10 years hence. I am therefore opposed to the plan as presented.

RESPONSE 24.2: The diversion site has been relocated from Bayou Lasseigne to Davis Pond. However, we acknowledge that your comments are generally applicable, as diversion from either site would modify salinities in the Barataria Basin in a similar fashion.
The purposed diversion would lower salinities throughout most of the Barataria Basin during its first year of operation. The structure would be operated in years when local precipitation is not adequate and saltwater intrusion is a problem. Our records indicate that in about three years out of ten, the basin receives sufficient rainfall to optimize conditions for producing oysters. The freshwater diversion project, as designed, would increase the number of years with optimal conditions to nine out of ten. Some benefits to oyster production would be expected following the first year of salinity management. Dramatic increases in oyster production have been well documented in areas where proper salinities have been established over suitable oyster bottoms. More information on this subject is provided later in this response.

24.3 Our major problem is erosion and subsidence at the Gulf/ Bay interface. The fresh water we now receive is loss much to rapidly through the various enlarged cuts, washed away beaches, deep canals, and the Barataria Bay Waterway. This water is rushed through the system at an increasing rate as it reaches the lower portions of the basin and once it

Colonel Robert [illegible] Lee,
District Engineer
U.S. Army Corps of Engineers
[illegible]
New Orleans, La. 70160

Dear Colonel Lee: [illegible]

Reference: [illegible], Freshwater Diversion to [illegible] and Breton Sound Basins, Louisiana

This plan to introduce fresh water into the Barataria Basin is a good one. The Barataria Basin and most of the La. coast is suffering tremendous land loss. It is my hope that the Corps has taken into account the sediment, toxic and sewage load carried by the Miss. River. Studies on fish in the river show high levels of toxics, some beyond the [illegible] standards for edibility.

23.1 I would like to point out, however, that while there is universal or amost universal enthusiasm for the freshwater diversion because it will help save the wetlands in the Basin, the Corps is at the same time still destroying those same wetlands. A Sierra Club study of 1983 (The Oil & Gas Industry and Coastal Management In La.) showed as much as five miles of canals being dredged in La. wetlands per month.

It seems paradoxical that the major cause of land loss in La., canals due for navigation and for well sites, should continue while efforts to mitigate their effects are implemented. It is not impossible to restore damaged wetlands. [illegible] frequently requires that unused canals be filled in.

Diverting freshwater "upstream" from the problem is a bit like treating a splinter with antibiotics. The infection may be stopped but the splinter remains in the flesh.

The Corps is begging the issue by not implementing a one-for-one acre mitigation plan. Canals cause wetlands loss both directly and indirectly. The Corps has the authority to regulate canals right now as provided by the Clean Water Act. The Corps needs no other authority. The Corps needs only the will and dedication, two character traits in short supply.

Sincerely,
Michael Halle
Michael Halle

Michael Halle
520 Esplanade Avenue
New Orleans, La. 70116

RESPONSE 23.1: Comment noted.

SUMMARY OF PUBLIC MEETING

HELD IN NEW ORLEANS, LOUISIANA

JUNE 1, 1984

Exhibit 1

LOUISIANA COASTAL AREA STUDY

INTERIM REPORT ON FRESHWATER DIVERSION

TO

BARATARIA AND BRETON SOUND BASINS

SUMMALRY OF PUBLIC MEETING

HELD IN NEW ORLEANS, LOUISIANA

JUNE 1, 1982

1. Introduction. A public meeting was held at 2:00 p.m. on June 1, 1982, at the Rivergate in New Orleans, Louisiana. The purpose of the meeting was to give all interested persons the opportunity to express their views on the tentatively selected plan for freshwater diversion to Barataria and Breton Sound Basins. Attachment 1 is the public meeting announcement. Attachment 2 is the meeting agenda.

2. Attendance. Approximately 140 persons attended the meeting. Interested Federal, state, local agencies, organizations, and individuals were present. Attachment 3 is a list of attendees.

3. Welcome and Opening Remarks. Mr. Arthur Theis, Louisiana Department of Transportation and Development, Office of Public Works, opened the meeting, stated its purpose, and introduced elected officials and Colonel Robert C. Lee, District Engineer, New Orleans District Corps of Engineers. Col. Lee introduced his staff, explained how projects are conceived, authorized, and constructed. He discussed the study resolution and its relationship to the Mississippi and Louisiana Estuarine Areas study and the authorized Mississippi Delta Region project. He gave an overview of the study and

described the actions needed before construction work begins. Finally, he called on Mr. Peter Hawxhurst the study manager, to present the study findings.

4. Study Presentation. Mr. Hawxhurst used slides and display maps to describe the problem of habitat deterioration and its effects on the fish and wildlife resources. He discussed possible solutions and the rationale for the tentatively selected plan that includes diversion sites at Bayou Lasseigne in Barataria Basin and Big Mar in the Breton Sound Basin. Mr. Hawxhurst's presentation is attachment 4.

5. Questions and Answers. Colonel Lee asked people who had questions on the presentation to state their names and questions so he or a member of his staff could answer them. The questions and answers are summarized on the following pages.

Mr. Sidney Rosenthal, Jr., Fund for Animals, Inc.

Mr. Rosenthal asked how the diverted freshwater would travel to the Gulf.

Response: Mr. Buisson explained that the water would travel through the waterways and canal networks. It would not travel as overland flow. In this way, the diverted water would push the saltwater intruding in the waterways back to the Gulf.

Lynn Dean, Caernarvon Resident

Mr. Dean's questions covered many aspects of the study. He was concerned with ownership of the land in the study area, why a copy of the report was not placed in St. Bernard Public Library, whether there was a guarantee on the maintenance of the canals, what the maintenance costs were, and what the bayou water quality would be once the water is diverted.

Response: Land was owned by both private and industrial parties. That St. Bernard Public Library did not receive a copy of the report was simply an oversight. Mr. Buisson explained that the maintenance of the canals would be the responsibility of the local sponsoring organization and the Corps would require their guarantee of proper maintenance. Maintenance costs are not available at the present time. Water quality of the bayou siphon not expected to be significantly affected by the diverted water.

Larry Buras, Resident of Belle Chasse

Mr. Buras commended the Corps for this needed project. He then questioned why the Oakville and Myrtle Grove sites were not supported by Plaquemines Parish.

Response: Mr. Buisson said that there were no local sponsors for the project at these sites.

Dan Coulon, D and J Company

Mr. Coulon was concerned with the fishermen's reefs. He asked how much the fishermen would be reimbursed for their lost reefs, whether there were estimates of the amount of lost reefs, and how long it would take the water to travel from Lac Des Allemands to Barataria Basin.

Res onse; There are no figures on reimbursement of the fishermen's reefs. The remaining questions are answered in the report. It was decided that Mr. Coulon would meet with a member of the study team for further discussion.

Pat Robert

Mr. Robert expressed concern about the water quality of Lac Des Allemands and flooding of the nearby area. He suggested that the increase in water might flood a nearby road, Hwy. 3127. He asked how the diverted water could be fresh and monitored if it is coming from the highly polluted Mississippi River.

Response: Mr. Buisson said that if the structure is properly operated, there would be no flooding of the roadway.

Charlie Hodson, American Sugarcane League

Mr. Hodson asked if there was any mention in the report about detrimental effects on the Sugar Cane crop. He expressed deep concern about the negative effects of increased water on the sugar cane crops.

Response: Mr. Buisson said there is no mention of negative impacts on the Sugar Cane crops in the report.

Zebedee Lassevre, Vacherie Resident

Mr. Lassevre asked if the structure would be opened when the river rises to flood conditions thereby breathing floods down river.

Response: Mr. Buisson said that the structure would be opened but there would not be enough flow to cause any change down river. The structure could also be closed during high river conditions.

Charles Ballay, Plaquemines Parish Resident

Mr. Ballay asked if there were any studies underway to help build up the marshes by diverting sites.

Response: While no studies are presently underway, this is a possible subject of future studies.

6. Public Statements

Colonel Lee asked people to limit their statements to five minutes. He requested that persons making statements come to the microphone and state their names and addresses prior to the statement. He indicated that the meeting was being recorded and copies of the cassette tapes would be available to anyone on request at the cost of reproduction. He stated that the record of the meeting would be held open for a period of 30 days. In this time, persons can submit written statements for the record. Following is a summary of oral statements delivered at the meeting.

Vernon Behrhorst, Governor David Treen's Office

Mr. Behrhorst read a statement from Governor Treen in which he expressed his appreciation to the Corps of Engineers for having the public meeting and stated his support for the study.

Lloyd F. Abadie, Resident, Crowley, LA

Mr. Abadie expressed his skepticism for the Corps study. He stated that saltwater intrusion was a result the Corps MR-GO project. He urged that the Corps abandon this project because of its negative environmental, economic, and social consequences.

Donald Moore, National Marine Fisheries Service, Environmental Assessment Branch

Mr. Moore read a prepared statement from the Southeast Marine Fisheries Service. He stated his concern for the loss of fish and shrimp habitat due to saltwater intrusion and applauded the Corps planned project. However, this should only be a beginning for further freshwater diversion projects. Additional diversions into Lake Pontchartrain, Lake Borgne, and Chandeleur Sound were mentioned as possible sites. Mr. Moore proposed that structures for this project be designed with sufficient flowage easements so freshwater diversion could be increased, if desired, in future years. He strongly endorsed the project and recommended immediate construction.

Charlotte Fremaux, League of Women Voters, LA

Speaking for the League of Women Voters of Louisiana, Ms. Fremaux commended the Corps study. She stated that the League of Women Voters of Louisiana supports this study of freshwater diversion to halt and repel saltwater intrusion.

Dr. Mary Curry, Jefferson Parish

Dr. Curry, speaking for Jefferson parish, expressed support for the project.

Kenneth Barnes, Chalmette Resident

Mr. Barnes asked several questions for the record: Who owns the Real Estate called Big Mar? Will the canals be dredged? Who is the local sponsor? Will the project have one contract or two separate ones? Mr. Barnes also expressed concern with sedimentation buildup. He requested that the Caernarvon structure be moved a few miles south or east. This would significantly reduce the cost because the Real Estate is less valuable and there would be no railroad obstructions.

Randle Caire, Clyde Casey Real Estate, Inc.

Mr. Caire represented Clyde Casey Real Estate, Inc., and certain property owners in the study area. He expressed concern that the Bayou Lasseigne structure would eliminate prime industrial Real Estate. Mr. Caire asked that the Corps reevaluate the site selection. He emphasized that he does not disagree with the study concept.

Charles Chataignier, Slidell Sportsmen League

Mr. Chataignier, representing the Slidell Sportsmens League, expressed support for the project. He said that he was aware of the negative impacts, but he felt the benefits far outweighed the negative effects.

Windell Curole, South Lafourche Levee District

Mr. Curole stated the support of the South Lafourche Levee Board for the

project. He said that there would be some initial negative effects but, in the long term, it was an excellent project.

Donald Hogan, Councilman, St. Charles Parish

Mr. Hogan strongly objected to the freshwater diversion project. First, he was concerned that strong southern winds would push the water into lowlands causing flooding. Second, he was concerned about the quality of the diverted Mississippi River water. Mr. Hogan stated that saltwater intrusion in the area was aggravted by three Corps-constructed ship channels: The Houma Navigation Channel, The Barataria Waterway, and the New Orleans Ship Channel. He suggested that building another channel would simply create more problems. Finally, Mr. Hogan recommended using locks and jetties to solve the problem.

Michael Kirby, Plaquemine Parish Commission Council

Mr. Kirby said he would like the Lac Des Allemands project and the Caernarvon project to be separated. He expressed support for and endorsed the Caernarvon project. The Bayou Lasseigne project, he said, was a good concept, but there were minimum benefits from it. He expressed concern for the lack of a management plan in the study. He stated that Plaquemines Parish needs a voice in the management and that they are already working on a freshwater management plan for the Caernarvon site. Mr. Kirby urged that the flow out of Bayou Lasseigne not be channelized. Plaquemines Parish needs overland flow. This, he suggested, might be accomplished by siting structures at Oakville or Myrtle Grove. Finally, Mr. Kirby emphasized the need for a good water quality

ıonitoring program.

Welton Aupied, Paradis Resident

:r. Aupied expressed his opposition to the project.

William Chauvin, American Shrimp Canners and Processors Association

Ir. Chauvin, speaking for his association, expressed support for the ›roject. He reminded the audience that the project would not be effective its irst year, but it would be in the following years. He recommended monitoring he salinity and flow and implementing the project as soon as possible.

Ted Falgout, Lafourche Port Commission

'he Coastal Zone Management Board went on record as opposing the freshwater iversion structure for Lac Des Allemands. Mr. Falgout cited water quality, looding, and silt buildup as significant adverse impacts for the area and the 'easons for opposing the study.

Aubrey Gravois, St. James Parish Council

Ir. Gravois asked that a public meeting be held in St. James Parish, possibly ›n the West Bank, since the citizens of the Parish will be significantly ffected. He stated that he was neither opposed to or in favor of the project ›ecause he lacked adequate information. Finally, Mr. Gravois asked how the ugarcane farmers would be affected by the project.

Kevin Friloux, St. Charles Parish President

Mr. Friloux stated his opposition to the plan because St. Charles Parish would be directly impacted. Specifically, the catfish would be affected by the water quality. Mr. Friloux was particularly concerned with bioaccumulation of pollutants in fishlife. He expressed concern for local wildlife and local residents because of the pollution and flooding. He requested that a meeting be held in the town of Des Allemands in St. Charles Parish. Mr. Friloux submitted several copies of his statement.

Larry Buras, Plaquemines Parish Resident

Mr. Buras stated that Oakville, Myrtle Grove, and Happy Jack would be favorable sites for the project.

Vhores Trosclair, South Lafourche Buck Club

Mr. Trosclair expressed his concern for wetlands loss due to saltwater intrusion. He encouraged the Corps to continue the project.

Kerry St. Pe', Louisiana Wildlife Biologists Association

Mr. St. Pe', speaking for the Louisiana Wildlife Biologists Association, stated his support for the plan. He urged the Corps to continue projects devoted to preservation of the marshlands.

Carroll L. Adams, Clovelly Farms

Adams, representing Clovelly Farms, voiced his support for the project. tated that the farms had lost numerous acres to saltwater intrusion.

Dowie Gendron, St. John the Baptist Police Jury

Gendron said St. John the Baptist Police Jury was unanimously opposed to plan for the following reasons: destruction of prime land, flooding, r quality, and siltation. He suggested that saltwater intrusion could be rolled by locks and other means. He asked to have a public meeting in rd, St. John the Baptist Parish. The St. John the Baptist Police Jury lution opposing the plan was entered into the records.

Hasten Lewis, St. John the Baptist Police Jury

Lewis expressed his concern for sunken pipelines. He explained that uding or flooding water conceals the pipes. Once hidden, they become a rd to boaters and shippers. He was also concerned that the proposed nel would divide the parish, creating financial burdens. Mr. Lewis went ecord as opposing the plan.

Bill Savant, USDA Soil Conservation Service

Savant said that the official statement of the service would be sent to Corps. He also said that many landowners had expressed concern with

saltwater intrusion. Personally, Mr. Savant felt the concept of freshwater diversion was good. He suggested investigating alternative sites on the Barataria Basin site.

Daniel Coulon, D and J Company

As an oyster fisherman, Mr. Coulon addressed the matter of releasing river water into Barataria Basin. He felt it was unnecessary to divert freshwater into the Basin. He explained that the use of freshwater diversion has caused disastrous effects in the past. He expressed fear that many thousands of acres of oyster reefs on the north side of Barataria Bay to the north side of Little Lake would be lost. Water pollution is also a major concern. Mr. Coulon said that the poor water quality of the Mississippi River would have negative consequences. In conclusion, Mr. Coulon opposed diverting water into Barataria Bay.

Elizabeth Haw, Representative Murry Hebert's Office

Ms. Haw read a letter from Representative Hebert. He suggested that freshwater be diverted into Bayous Lafourche and Terrebonne. Representative Hebert pledged his support for the study. As an individual, Ms. Haw endorsed the concept of freshwater diversion and the proposed plan.

David Fruge', US Fish and Wildlife Service

Mr. Fruge', representing his agency, mentioned previous freshwater diversion projects authorized in the past. He stated that the fish and wildlife service

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

AGENDA

Public Meeting
On
Louisiana Coastal Area - Freshwater Diversion To
Barataria and Breton Sound Basins, Louisiana

1 June 1982

I. Welcome	Arthur Theis Louisiana Department of Transportation and Development, Office of Public Works
II. Opening Statement	Colonel Robert C. Lee District Engineer US Army Corps of Engineers, New Orleans
III. Presentation	Corps of Engineers
IV. Questions and Answers	Corps of Engineers
V. Public Statements	Interested Individuals
VI. Summary	Colonel Robert C. Lee
VII. Closing Remarks	Arthur Theis

MENT 2

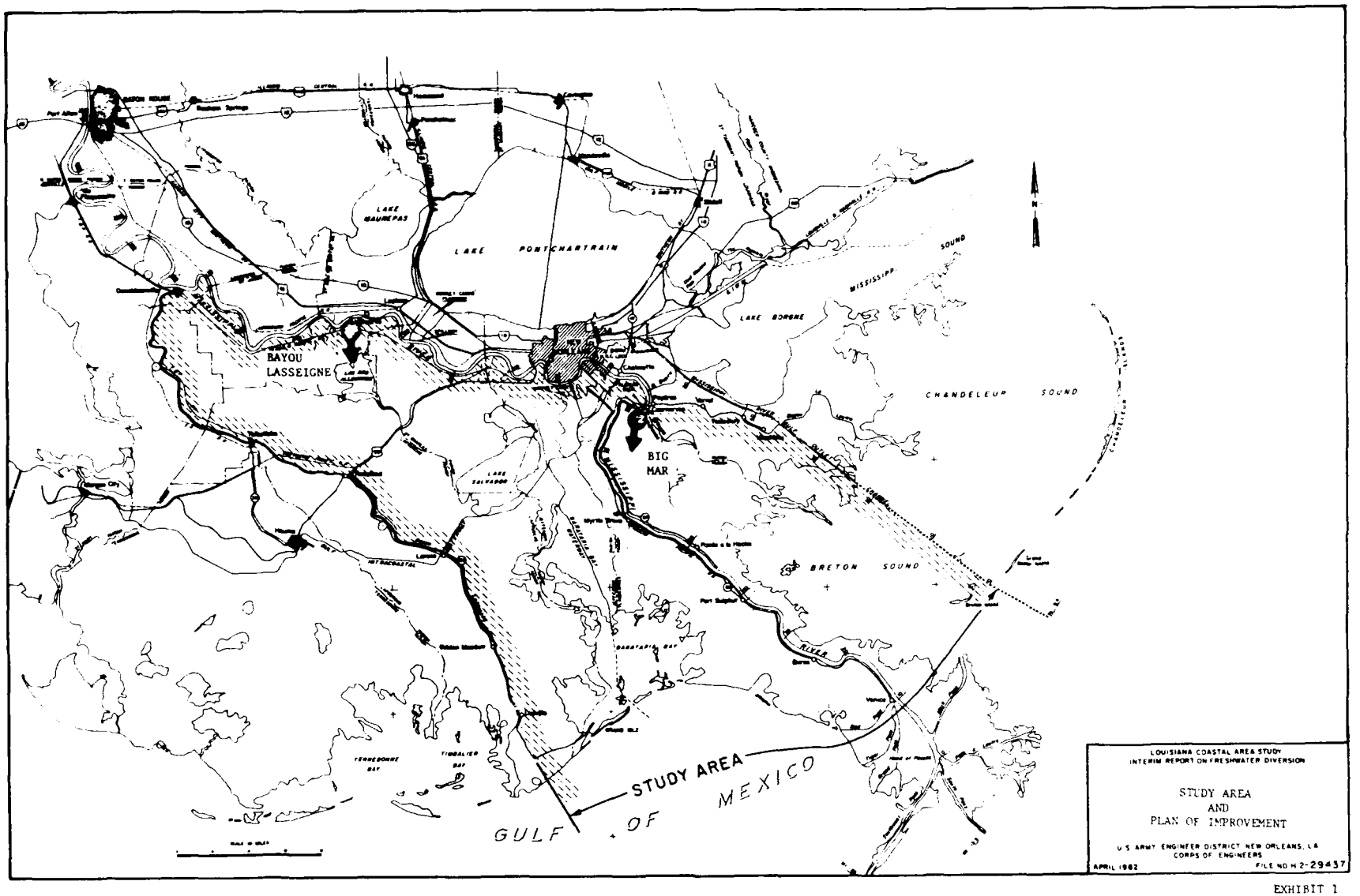

EXHIBIT 1

EXHIBIT 1

solution to the major problems in the entire wetlands area - - saltwater intrusion and land loss.

Our preliminary studies showed that freshwater diversion on an area-wide scale would offer the best solution to saltwater intrusion. Diverting freshwater from the Mississippi River into the Barataria and Breton Sound Basins would establish favorable salinity conditions, enhance vegetation growth, reduce land loss, and increase commercial and sport fish and wildlife productivity. Therefore, our detailed studies focused on freshwater diversion.

The Tentatively Selected Plan

We evaluated a total of 15 alternative plans to divert freshwater into the study area. Each plan would divert a flow of 6,600 cubic feet per second into the Breton Sound Basin and a flow of 10,650 cubic feet per second into Barataria Basin. We assessed the plans to determine their engineering feasibility and their impacts on economic development, environmental quality, cultural resources, recreation, and social concerns such as relocation of existing developments. Each plan will cause adverse impacts but the intensity of the impacts will vary. The primary adverse impacts include loss of wetlands, water bodies, and developed lands due to construction, and degradation of water quality. The degraded water quality may pose problems to some fish and wildlife species. The major benefits are retarding saltwater intrusion, enhancing vegetative growth, reducing land loss, and expanding nursery grounds. Our studies indicate that diverting flows into the Breton Sound Basin at Big Mar and into the Barataria Basin at Bayou Lasseigne (Plan 5) is the least costly and would produce the most benefits. The plan minimizes adverse impacts to existing development and the environment, and maximizes the benefits to environmental quality. Thus, Plan 5 was named the Tentatively Selected Plan.

Total first cost of the plan is estimated at $39,300,000 with annual charges of $3,690,000 including interest, amortization, and operation and maintenance. The average annual benefits attributed to the plan are estimated at $12,400,000. Commercial fishing and trapping account for $11,830,000 and sport fishing and hunting, $520,000. The average annual benefits over costs are $8,716,000. The benefits-cost ratio is 3.3 to 1.

The Tentatively Selected Plan would reduce saltwater intrusion, would save more than 99,200 acres of valuable marshland, and would increase oyster production by more than 16,400,000 pounds. The increased production represents a 20-percent increase in the national oyster harvest.

The plan offers many intangible benefits such as:

- Improved habitat for noncommercial and nongame species.
- Improved productivity of wooded swamps and associated freshwater fish and wildlife, especially in Jean Lafitte National Park.
- Increased potential for recreation.
- Increased business opportunities in the commercial and sport fish and wildlife industries and support industries.

Implementing the Plan

We propose that the first costs of the plan, $39,300,000, be apportioned as follows: The Federal government would bear 75 percent, $29,500,000, and non-Federal interest would bear 25 percent, $9,800,000. The non-Federal interests would also bear all costs associated with operation, maintenance, and replacements. This cost is estimated at $259,000 annually.

BACKGROUND INFORMATION
ON
THE TENTATIVELY SELECTED PLAN

The Problem

Louisiana's coastal wetlands and estuaries are among the most productive in the nation. With 41 percent of the nation's coastal wetlands, Louisiana provides more than 25 percent of the nation's commercial fish harvest and 40 percent of the wild fur harvest. Many migratory waterfowl and nongame birds that use the Mississippi Valley Flyway winter in Louisiana's coastal marshes. Today, these rich and productive estuaries and wetlands are severely threatened. Saltwater intrusion is causing major habitat changes. As the habitat deteriorates, the area no longer has the capacity to support an abundant and diverse fish and wildlife population, and productivity declines. This alarming trend is expected to accelerate unless some action is taken.

The Corps of Engineers has been investigating whether it is feasible to enhance habitat conditions and improve fish and wildlife productivity by reducing saltwater intrusion. To provide rapid response to this steadily worsening problem, we selected two highly productive estuaries, Barataria Bay and Breton Sound, their adjacent wetlands, and the lower Mississippi River below Donaldsonville for detailed investigation. The 2.4 million-acre study area is shown on the inclosed map (Exhibit 1).

Our studies show that the wetlands in the Barataria and Breton Sound Basins support extensive commercial fishing and trapping and sport fishing and hunting. From 1963-1978, commercial fishermen in the area harvested an average of 337 million pounds of fish and shellfish each year. This catch represents 25 percent of the national average annual oyster and shrimp harvest. The average annual value of the catch is $100 million. Commercial trappers harvested an average of $6 million in pelts and meats each year, about 26 percent of the nation's annual wild fur harvest. In 1980, sportsmen spent an estimated 11 million man-days fishing and hunting and in wildlife-oriented recreation. The value of the recreation was $6.2 million.

Our studies confirmed that the continued productivity of the fish and wildlife resources depends on sustaining favorable conditions in the wetlands and estuaries. The studies also revealed that saltwater intrusion, subsidence, erosion, and the activities of man have caused significant changes in the coastal waters and wetlands in recent years. Because of saltwater intrusion, the saline and brackish marshes have expanded and the fresh and intermediate marshes have been reduced. The saline marshes moved inland an average of 2.1 miles and the brackish marshes 3.8 miles between 1945 and 1968. These changes were accompanied by land loss. More than 164,000 acres of marsh were converted to open water between 1955 and 1978. As saltwater intrudes into the valuable marsh-estuarine areas, the nursery grounds vital to many fish and wildlife species are reduced and productivity declines.

Nature and man will continue to adversely affect the wetlands and estuaries. By the year 2035, studies estimate that saltwater will intrude 14-20 miles in years of low rainfall and that more than 281,000 acres of marsh will be converted to open water. Reduced fish and wildlife productivity will have a severe adverse impact on commercial fishing and trapping, on recreation, and on jobs in these industries and the support services.

Solutions

We considered several measures as possible solutions to the problems in the wetlands. These measures include diverting freshwater, installing saltwater barriers, regulating wetlands, filling open water areas, establishing sanctuaries, and managing fish and wildlife. Our studies showed that Federal, state, and parish agencies are presently implementing most of these measures to some degree. However, the efforts are limited and offer only a partial

LIST OF PARISH AND UNIVERSITY LIBRARIES

1. Jefferson Parish Library
   3420 N. Causeway Blvd.
   Metairie, LA 70001

2. Lafourche Parish Library
   526 Green Street
   Thibodaux, LA 70302

3. Plaquemines Parish Public Library
   203 LA Highway 23 South
   Buras, LA 70041

4. St. Charles Parish Library
   100 River Oaks Drive
   Destrehan, LA 70047

5. St. John the Baptist Public Library
   Riverland Shopping Center,
   Airline Highway
   LaPlace, LA 70008

6. New Orleans Public Library
   219 Loyola Avenue
   New Orleans, LA 70140

7. Louisiana State University Library
   Government Documents Department
   Baton Rouge, LA 70803

8. Nicholls State University Library
   Thibodaux, LA 70310

9. Tulane University Library
   6823 St. Charles Ave.
   New Orleans, LA 70118

10. University of New Orleans
    Government Documents Division
    Lakefront
    New Orleans, LA 70122

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

IN REPLY REFER TO
LMNPD-P

3 May 1982

ANNOUNCEMENT OF PUBLIC MEETING
TO DISCUSS
THE TENTATIVELY SELECTED PLAN
FOR FRESHWATER DIVERSION TO
BARATARIA AND BRETON SOUND BASINS, LOUISIANA

You are invited to attend a public meeting to discuss the Tentatively Selected Plan for freshwater diversion from the Mississippi River into Barataria and Breton Sound Basins, Louisiana. The purpose of the plan is to reduce salt-water intrusion, enhance habitat conditions, and improve fish and wildlife production. You are urged to attend the meeting to express your views, suggestions, and comments. Information about the Tentatively Selected Plan and the feasibility study is included with this announcement. The draft feasibility report and draft environmental impact statement are available on request at the address above. Copies are also available for review at the parish and university libraries listed in inclosure 1.

We have made no final decisions about the plan. After we have had the opportunity to consider the information we receive at the public meeting, we will prepare our final report and submit it to the Division Engineer, Lower Mississippi Valley Division in Vicksburg, Mississippi. The report will then be processed through Corps channels to the Office of the Chief of Engineers and to the US Congress for action.

Everyone is invited to the meeting to state views and opinions. In order to give everyone a chance to speak, I ask that presentations be limited to no more than five minutes. You may also submit a written statement at this meeting or mail a statement to me at the address above before the meeting or by 28 June 1982. We will give both oral and written statements equal consideration in making final decisions. After 28 June 1982, the records of the meeting will be closed.

We have scheduled the meeting at a place and time that we hope will make it convenient for you to participate. I urge you to attend and give us your ideas and suggestions.

Sincerely,

ROBERT C. LEE
Colonel, CE
District Engineer

1 Incl
As stated

US Army Corps of Engineers
New Orleans District

Announcement of Public Meeting

3 May 1982

What for ...

To discuss the Tentatively Selected Plan for freshwater diversion to Barataria and Breton Sound Basins, Louisiana, to reduce saltwater intrusion, enhance habitat conditions, and improve fish and wildlife production.

When ...

Tuesday, 1 June 1982 at 2 p.m.

Where ...

The Rivergate
Room 11 (Upstairs) Poydras Street Entrance
#4 Canal Street
New Orleans, Louisiana

Who ...

All interested individuals, groups, and agencies are invited to attend or to be represented at this meeting.

local objections.

2. This project simply reduces the rate of marsh loss, and does not create marshland. Therefore, more such projects are needed.
3. Better public information is needed. This would held explain to local citizens what will happen if these projects are not implemented.
4. There is an equity problem with several interests. Those persons losing leases need to be accommodated, perhaps by giving them first choice on newly created fishery areas.

Finally, Mr. Houck stated his support for the plan.

Joan Phillips, Delta Chapter of Sierra Club

Ms. Phillips, representing the Delta Chapter of Sierra Club, stated that the organization supports the plan. She also noted the need for more freshwater diversion, the need to clean up the river water, and the need for equity to persons suffering from negative effects.

7. Closing Remarks

Colonel Lee reminded the audience that written statements can be submitted for a period of 28 days after the close of the meeting or until 28 June 1982. He told the audience that Corps Representatives would meet with those parish officials requesting additional meetings in their parish. Mr. Theis concluded the meeting and thanked everyone for attending. He said all comments were appreciated and would be taken into consideration.

needs to be formulated. Just diverting freshwater to the study area is not enough.

Margaret Balzer, St. Bernard Parish Planning Commission

Ms. Balzer spoke for the St. Bernard Parish Police Jury and stated their support for the Caernarvon structure. She briefly discussed the freshwater diversion siphon in the Violet Canal. She noted the need for a carefully monitored and controlled salinity levee. She indicated there was a possible problem with navigation along the Caernarvon Canal. Maintaining the canal as a navigable waterway is essential if the St. Bernard Police Jury is to support the project.

Randy Lanctot, Louisiana Wildlife Federation

Mr. Lanctot read a statement from the Wildlife Management Institute and a resolution from the Louisiana Wildlife Federation supporting the plan. He asked the Louisiana Congressional delegation to seek the federal funds necessary for the Corps to resume advanced design and construction of the Caernarvon freshwater diversion structure. Mr. Lanctot said that this project is not enough and more diversion plans are needed.

Oliver Houck, National Wildlife Federation

Mr. Houck made several recommendations:

1. Federal funding should be 100%. This would eliminate much of the

Horace Thibodaux, Lafourche Parish Coastal Advisory Commission

Mr. Thibodaux spoke for the Advisory Commission and for himself, a Lafourche resident. The majority of the Commission members supported the concept of freshwater diversion at Big Mar and Bayou Lasseigne. However, Mr. Thibodaux said he had several questions:

1. Will Lafourche parish have to participate in the cost of the project, particularly, the Barataria basin project?
2. If yes, how much?
3. Who will operate and maintain the diversion facilities?
4. Who will monitor the sites?
5. What are the parameters to be monitored?
6. What will the frequency of monitoring?
7. Do the O&M costs include the cost of monitoring?
8. What role could Lafourche Parish Council play?
9. What type of additonal input will be allowed?
10. Who determines when the structures will be opened and closed if the water quality becomes unacceptable?
11. Will the monitoring data be available to the public?

Mr. Thibodaux recommended a public meeting in Lafourche Parish.

Al Clark, National Wildlife Federation

Mr. Clark requested a copy of Appendix A. He voiced support for the plan and offered one suggestion. He stated that a plan for the entire coastal zone

description. Mr. Peytavin was concerned about the fair market value of Mr. Perret's land. In the proposed plan of responsibility, he felt that the Federal government should provide funds to compensate local landowners. He also requested that the Corps hold a public meeting in St. James Parish and that a copy of the report be sent to the St. James Parish Public Library.

Mr. Peytavin stated that Shell Oil, an industrial landowner in the project area, had authorized him to make a statement on their behalf. He said that Shell Oil did not receive formal notice of the public meeting. Shell's initial reaction was to oppose the plan.

Charles Killabrew, LA. Dept. of Wildlife and Fisheries

Mr. Killabrew spoke as a representative of the Louisiana Department of Wildlife and Fisheries. He stated that the plan would not completely reverse the trends, but it would reduce saltwater intrusion. He proposed that operational guidelines be developed and a freshwater management plan implemented for each basin. Mr. Killabrew voiced his support for the plan provided. The Louisiana Department of Wildlife and Fisheries is given an active role in study formulation, implementation, and operation.

James Isenogle, Jean Lafite National Historical Park

Mr. Isenogle detailed the history of Jean Lafitte National Historical Park and expressed his support for the freshwater diversion plan.

Sidney Rosenthal, Funds for the Animals, Inc.

Mr Rosenthal, speaking for Fund for the Animals, Inc., expressed support for the plan. He said that some persons would be adversely affected but people must realize that this is a needed project. If the problem is allowed to continue, the people in Edgard will be affected similarly in the future. Mr. Rosenthal suggested that Bayou Segnette Waterway be used. He commented that this plan will not solve the saltwater intrusion problem and companion projects should be considered to add silt into the marshes.

Roland Deroche, Luling Resident

Mr. Deroche spoke against the proposed plan at Lac Des Allemands. His main objections were flooding, destruction of fisheries, water quality, sedimentation, and cost. Mr. Deroche stated that saltwater intrusion should be fought at its source, that is, the Gulf. He suggested three areas where the problem could be fought: MR-GO, Barataria Waterway and Houma Navigation Canal.

John Peytavin, Attorney for Alvin Perret

Mr. Peytavin, speaking for Alvin Perret, a private landowner, opposed the plan. He complained about lack of due process notice, having had one week's notice of the public meeting. Mr. Peytavin stated that the scope of the EIS is too narrow. He noted an ommission in the description of lands to be used. Mr. Perret's land, which is leased to a grain company, is not included in the

J. Y. Christmas, Ocean Springs, MS

Mr. Christmas expressed his satisfaction with the project.

Frank Ehret, Orleans Audubon Society

Mr. Ehret, representing the Orleans Audubon Society, agreed with the plan. He felt that the Myrtle Grove site should be considered as a possible location for freshwater diversion.

Perry Thompson, Gulf States Marine Fishery Commission

Mr. Thompson commented favorably and encouraged completion and operation of the project.

Wilfred Robert, Edgard Resident

Mr. Robert expressed his opposition to the plan. As a landowner in the project area, he was upset over the possible loss of his land. He was also concerned with the price he would receive for the land. He felt he would not be paid a fair price.

Pat Robert, Laplace Resident

Mr. Robert stated his concern about his land. He was skeptical about fair market value. Mr. Robert stated that he wanted to retain his land and, therefore, was opposed to the plan.

supports the plan and commented that if only one of the structures is built, the Bayou Lasseigne structure would be best. Mr. Fruge's recommendations are:

1. Authorize the plan.
2. First costs should be borne by the Federal government.
3. Post-authorization studies should be conducted to refine the operation and maintenance guidelines for the structures. Monitoring and water management plans should be designed for the area.
4. Authority should be given to enlarge the structures if it can be justified.
5. Bank fishing facilities should be provided along outflow channels and public boat launching ramps should be constructed in the study area.

Lynn Dean, Elevating Boats, Inc.

Mr. Dean reminded the Corps that this is an irreversible project and economically wasteful. He explained that the prime industrial land was needed to relieve the economic burdens of the area. Mr. Dean indicated skepticism with the benefit-cost ratio. He felt that the subject of siltation had not been properly addressed. He suggested building the structure below the Bohemia levee. In this way, no highways, water lanes, levees, or other structures would be a hinderance. If the project was authorized, Mr. Dean recommended buying the Big Mar land and dedicating it as a state park. Before the plan is implemented, he requested that Caernarvon Canal be dredged to a depth of 7 feet and a width of 70 feet.

LIST OF PERSONS ATTENDING PUBLIC MEETING

Mr. Vernon Behrhorst (Representing Governor Treen)	Governor's Coastal Protection Task Force
Mr. Lloyd F. Abadie	Crowley resident
Donald Moore	National Marine Fisheries Service, Environmental Assessment Branch
Ms. Charlotte Fremaux	League of Women Voters of Louisiana
Dr. Mary Curry	Jefferson Parish, Environmental Development Control Department
Mr. Kenneth Barnes	Chalmette resident
Mr. Randle Caire	Clyde Casey Real Estate, Inc.
Mr. Charles J. Chataignier	Slidell Sportsmens League
Mr. Windell Curole	South Lafourche Levee District
Mr. Donald Hogan	St. Charles Parish Council
Mr. Michael Kirby	Plaquemines Parish Commission Council
Mr. Welton J. Aupied	St. Charles Parish Council
Mr. William Chauvin	American Shrimp Canners & Processors Association
Mr. Ted Falgout	Lafourche Port Commission
Mr. Aubrey J. Gravois	St. James Parish Council
Mr. Kevin Friloux	St. Charles Parish
Mr. Larry N. Buras	Plaquemines Parish resident
Mr. Vhores Trosclair	South Lafourche Buck Club
Mr. Kerry St. Pe'	Louisiana Wildlife Biologists Association
Mr. Carroll L. Adams	Clovelly Farms
Mr. Dowie L. Gendron	St. John Parish Police Jury

Mr. Hasten Lewis	St. John the Baptist Parish Police Jury
Mr. Bill Savant	USDA Soil Conservation Service
Mr. Daniel Coulon	D and J Company
Ms. Elizabeth M. Haw (Representating Rep. Murray Hebert)	Thibodaux resident
Mr. David J. Fruge	US Fish and Wildlife Service
Mr. Lynn Dean	Elevating Boats, Inc.
Mr. J. Y. Christmas	Gulf States Marine Fisheries Commission
Mr. Frank J. Ehret, Jr.	Orleans Audubon Society
Mr. Perry A. Thompson	Gulf States Marine Fisheries Commission
Mr. Wilfred J. Robert	Edgard resident
Mr. Pat Robert	Laplace resident
Mr. Sidney Rosenthal	Fund for the Animals, Inc.
Mr. Roland Deroche	Luling resident
Mr. John L. Peytavin	Attorney for Alvin Perret, Lutcher resident
Mr. Charles J. Kellebrew	Louisiana Department of Wildlife & Fisheries
Mr. James Isenogle	Jean Lafitte National Historical Park
Mr. Horace J. Thibodaux	Lafourche Parish Coastal Advisory Commission
Mr. Al Clark	National Wildlife Federation
Ms. Margaret Balzer	St. Bernard Parish Police Jury Planning Commission
Mr. Randy Lanctot	Louisiana Wildlife Federation
Mr. Oliver Houck	National Wildlife Federation
Ms. Joan Phillips	Delta Chapter of Sierra Club
Mr. Charlie Hodson	American Sugar Cane League

Mr. Zebedee Lassevre	Vacherie resident
Mr. Charles Ballay	Plaquemines Parish resident
Mr. Gordon Matherne	
Rev. William J. McCallion	Des Allemands resident
Ms. Elaine Deroche	Luling resident
Louis O. Boudreaux	Hahnville resident
George N. Pivach, Jr.	Belle Chasse resident
Robert F. Hereford, Jr.	Jefferson Rod and Gun Club
Ray J. Matherne	St. Charles Parish CSM
Lloyd L. Lauden	New Orleans resident
Michael Voisin	Louisiana Oyster Dealers & Growers Association
Ralph V. Pausina	Pausina Oyster Corporation
Clarke L. Lozes	Plaquemines Parish Commission Council
Melvin Burmaster	Plaquemines Gazette
Dr. C. S. Watson	Technical Writing Associates
Leopold Taliancich	Taliancich Bros.
Louis P. Porterie	Plaquemines Parish Commission Council
Tom Heitman	Congressman Bob Livingston
Kathy Vick	Congressman Lindy Boggs
Robert L. Ancelet	Louisiana Department of Wildlife & Fisheries
Ralph Latapie	Louisiana Department of Wildlife & Fisheries
Joel L. Lindsey	Louisiana Department of Natural Resources
D. B. Woo	New Orleans resident
C. Graugnard	Edgard resident

Frank Donze	Chalmette resident
Harold L. Holmes	St. Charles Parish Planning Dept.
Leo Steib	Vacherie resident
Glenda Barnes	St. Bernard resident
Charles F. Campbell	USDA Soil Conservation Service
Michael Tesvich	Port Sulphur resident
Mark Daire	Galliano resident
Wayne M. Fernandez	Congressman Billy Tauzin
Brian Chaisson	Congressman Billy Tauzin
Patrick Bell	Congressman Billy Tauzin
Barry Bagert	Slidell Sportsmen's League
John R. Cashen, II	Fromherz Engineers, Inc.
Jack Zibilich	New Orleans resident
Irwin Fingerman	Port of New Orleans
Eileen E. Hollander	NOPSI - Environmental Affairs
Gary A Lee	New Orleans resident
Jerald Horst	LSU Cooperative Extension Service
Cindy Fromherz	City of New Orleans
Antoine Bartholomew	Edgard resident
Herman J. Granier	Vacherie resident
Paul D. Thibodeaux	Pointe-a-la-Hache resident
Dale Benoit	Plaquemines Watchman
Luzma Petrovich	Empire resident
John W. Bordages	Texaco, Inc.
Jim LeBlanc	Middle South Services, Environmental Affairs Section
Alvin M. Perret	Edgard resident

Kathleen Osborne	Times-Picayune
Keith M. Schexnayder	Metairie resident
Gerald Bodin	St. Martinville resident
Stephen M. Crane	New Orleans resident
David M. Soileau	US Fish and Wildlife Service
Joseph F. Abadie	Metairie resident
Laura J. Swilley	US Army Corps of Engineers-NOD
A. R. Theis	LA Office of Public Works
Michael S. Loden	Jefferson Parish Environmental Department
Mark Chatry	LA Dept. of Wildlife and Fisheries
J. E. Roussel	LA Dept. of Wildlife and Fisheries
Alex VanKeuren	Burk & Associates, Inc.
Mr. & Mrs. Norman Rome	Des Allemands residents
Joseph Ralph Millet	Metairie resident
Rowena Robert Millet	Metairie resident
Mark Murrell	Houma Daily Courier
Johannes Van Beek	Coastal Environments, Inc.
Wayne Everage	Plaquemines Parish Commission Council
Mrs. Daniel P. Coulon	D & J Company
R. J. Varnell	Plaquemines Parish Mosquito Control
Bob Strader	US Fish & Wildlife Service
Thomas C. Michot	US Fish & Wildlife Service
Stephe Barker	Thibodaux resident
W. H. Crenshaw, Jr.	Louisiana Delta Farms
Victor Mavar	Mavar Shrimp & Oyster Co.
Richard C. Beavers	Department of Anthropology, UNO

Teresia R. Lamb	Coastal Associates
Paul J. Chiapetta	Braithwaite resident
Allen Lottinger	Boutte resident
John Lovett	Tulane Law School
Ronald H. Kitgen	Thibodaux resident
David Chambers	LA Dept. of Natural Resources
Jiff Hingle	LA Dept. of Transportation & Development

III. Presentation
Mr. Hawxhurst

2-1 SLIDE 0
Opaque

DISSOLVE TO:

1-1 SLIDE 1
Title slide-study area map

DISSOLVE TO:

2-2 SLIDE 2
Study area map

DISSOLVE TO:

1-2 SLIDE 3
Scene: Dupre Cut & Bayou Cutter

DISSOLVE TO:

2-3 SLIDE 4
Scene: man & shrimp on conveyor belt

DISSOLVE TO:

Thank you, Col. Lee. Good afternoon, ladies and gentlemen. If you will please dim the lights, we can begin. (Slide 1) We are here to discuss freshwater diversion to Barataria and Breton Sound Basins.

(Slide 2) The area encompasses the lower Mississippi River delta region in southeastern Louisiana. The area (point out) is bounded by the Mississippi River, Bayou Terre aux Boeufs and the Mississippi River-Gulf Outlet on the north and east, by Bayou Lafourche on the west, and by the Gulf of Mexico on the south. There are three major hydrologic features in the area: the Mississippi River, the Barataria Bay estuary west of the river, and the Breton Sound estuary east of the river. The Mississippi River and its levees divide the area into two distinct watersheds. The Barataria Basin is about 40 miles wide (point out) at the Gulf of Mexico and extends inland about 85 miles to Donaldsonville. The Breton Sound Basin is about 20 miles wide at the Gulf and extends about 50 miles up the river to Caernarvon.

(Slide 3) The purpose of this study was to determine whether it is feasible to reduce saltwater intrusion into the area to enhance and preserve the resources of our coastal area (Slide 4) and to improve habitat conditions for the production of fish and wildlife resources.

ATTACHMENT 4

SLIDE 5
Map: Miss. River deltaic plain

(Slide 5) The coastal area was created as the Mississippi River migrated back and forth across what is now southeast Louisiana. As the river migrated, it deposited sediment in the form of deltaic masses. The deltas are: the Teche, the St. Bernard, the Lafourche, and the Plaquemine-Modern. The river is now actively depositing sediment only at its mouth. Where sedimentation stopped, the natural forces of subsidence, compaction, and erosion allowed gulf waters to advance over the delta to form water bodies such as Barataria Bay and Breton Sound.

DISSOLVE TO:

SLIDE 6
Vegetation map

(Slide 6) After formation of the land, it was colonized by vegetation. The vegetation types include marshes, wooded swamps, and bottomland hardwoods. These types constitute 13 percent of the nation's coastal wetlands. The coastal marshes are the most conspicuous. The marshes were once more extensive, but they are now in a state of retreat. The natural forces of subsidence, erosion, and saltwater intrusion, (Slide 7) along with such activities as channel dredging and levee building are reducing the extent and quality of the coastal marshes. If the changes continue, they will have drastic effects on the marshland.

DISSOLVE TO:

SLIDE 7
Scene: Dredging in Barataria Bay

DISSOLVE TO:

SLIDE 8
Graph: Marsh acreage

(Slide 8) The fresh/intermediate marshes cover 210,200 acres but are expected to decline to 47,400 acres by 2035, approximately an average land loss rate of 2,900 acres per year. The brackish and saline marshes will experience

	similar changes approaching a land loss rate of 2,100
DISSOLVE TO:	acres per year.
SLIDE 9 Scene: Wooded swamp	(Slide 9) The wooded swamps that border the marshes . . .
DISSOLVE TO:	
SLIDE 10 Scene: Bottomland hardwoods	. . . (Slide 10) . . . and the bottomland hardwood forests that border the natural levees are declining steadily.
DISSOLVE TO:	
SLIDE 11 Graph: Bottomland hardwoods & wooded swamps acreage	(Slide 11) These habitats are being cleared for urban, industrial, and agricultural purposes. The bottomland hardwoods and wooded swamps are expected to lose about 50 percent of their acreage.
DISSOLVE TO:	
SLIDE 12 Scene: Bassa Bassa Bay	(Slide 12) As the wetlands are lost, the open water areas expand.
DISSOLVE TO:	
SLIDE 13 Graph: Water acreage	(Slide 13) The fresh/intermediate lakes will increase in area by 4,900 acres. The estuarine bays will increase in area by 275,300 acres or about 33 percent.
DISSOLVE TO:	
SLIDE 14 Scene: Wading birds	(Slide 14) The area supports a variety of fish and wildlife resources.
DISSOLVE TO:	
SLIDE 15 Scene: Commercial fishing boat	(Slide 15) Currently, the area produces 25 percent of the nation's shrimp harvest . . . . 25 percent of the nation's
DISSOLVE TO:	oyster harvest . . . .
SLIDE 16 Scene: Trapper at dock	. . . . (Slide 16) and 26 percent of the wild fur harvest.
DISSOLVE TO:	

LIDE 17
cene: Hunter w/geese

(Slide 17) Sport fishing and sport hunting are popular activities in the area.

ISSOLVE TO:

LIDE 18
raph: "Value to
ommercial Fishermen
Trappers"

(Slide 18) The changes in extent and diversity of habitat types will have an adverse effect on fish and wildlife production. The decline in production will cause a decrease in the commercial fishermen and trappers' harvest and income. Commercial fishermen will lose nearly 42 percent of their income. The trappers would lose over 91 percent of their income by the year 2035.

ISSOLVE TO:

LIDE 19
rawing: Freshwater/
altwater exchange

(Slide 19) The changes in fish and wildlife habitats are related primarily to saltwater intrusion caused by activities of nature such as subsidence, loss of Mississippi River overbank flooding, and erosion, and the activities of man such as channel dredging and levee building. Leveeing the Mississippi River has prevented the inflow of freshwater, sediment, and nutrients that each year had built up the land and flushed the estuaries. Now that the area no longer receives sediment, the destructive forces of subsidence and erosion can attack and reduce the land. The lowering of the land has allowed saline gulf waters to invade the estuaries and wetlands.

The general rise in sea level is expected to allow saline waters to intrude farther inland.

Saltwater intrusion is also affected by precipitation over the area. During years of high rainfall, the runoff is sufficient to retard saltwater intrusion. But, in years of low rainfall, the runoff is not sufficient.

DISSOLVE TO:

// SLIDE 20
Map: "Projected Salinities in 2030"

(Slide 20) Our studies indicate that in years of low rainfall saline water would (use pointer) intrude to Little Lake and Lake Levy, thereby further reducing the nursery areas.

To identify the salinity zones favorable to fish and wildlife, the Corps established an interagency group representing the National Marine Fisheries Service, US Fish and Wildlife Service, and the Louisiana Department of Wildlife and Fisheries.

DISSOLVE TO:

// SLIDE 21
Map: Fish & Wildlife Isohalines

(Slide 21) The group determined that maintaining an average salinity of 15 parts of salt per thousand parts of water at the blue line (point to line) would increase the nursery areas used by estuarine-dependent fish and restore oyster reefs no longer suitable for oysters to their former high productivity. Wildlife prefer the fresh-to-brackish marshes and the group recommended that salinities not exceed 15 parts per thousand at the green line (point to line). If the salinity condition established for fish is met, then the condition recommended for wildlife will also be met.

DISSOLVE TO:

)E 22
:t: "Management
;ures"

(Slide 22) To achieve the salinity conditions, we investigated a number of management measures. We found that diverting freshwater from the Mississippi River to the marshes and estuaries on an area-wide scale is the best way to establish favorable salinity conditions, enhance vegetative growth, reduce land loss, and improve fish and wildlife production.

;OLVE TO:

)E 23
ıe: Bayou Lamoque
ıcture

(Slide 23) This conclusion is borne out by the success of the two state structures--this one in the vicinity of Bayou Lamoque and a second at Bohemia. The freshwater diverted through these structures has proven to be beneficial to the marsh and oyster grounds. However, because of their location at the lower end of the estuary, their area of influence is limited.

;OLVE TO:

)E 24
STUDY AREA

(Slide 24) Our preliminary studies identified 20 potential freshwater diversion sites along the Mississippi River form in the Lac Des Allemands area shown in green, seven in the Lake Cataouatche-Lake Salvador area shown in yellow, six in the Bayou Barataria-Barataria Bay Waterway area shown in red, and three sites in the Breton Sound Basin shown in blue.

OLVE TO:

-13 SLIDE 25
Map: Study area w/five sites

(Slide 25) We analyzed the engineering characteristics, potential environmental, economic, and social effects, and the costs of the sites. We then selected five sites for detailed analysis--the sites are Bayou Lasseigne, Bayou Fortier, Oakville, Myrtle Grove, and Caernarvon.

DISSOLVE TO:

-14 SLIDE 26
Chart: "Alternative Plans"

We analyzed each site for different size flows and combined the sites and flows into 15 (Slide 26) alternative plans. Each plan would divert a flow of 10,650 cubic feet of freshwater per second into Barataria Basin and 6,600 cubic feet per second into Breton Sound Basin to maintain the desired salinities.

All plans include a site near Caernarvon that would divert flows into Big Mar in the Breton Sound Basin. In the Barataria Basin, Plans 1 through 5, shown in green, would divert all flows into Lac Des Allemands. Plans 6 through 10, shown in yellow, proportion the flows between Lac Des Allemands and Bayou Barataria. Plans 11 through 15, shown in red proportion the flows between Lac Des Allemands and Barataria Bay.

Our evaluation of each plan revealed that diverting all flow through the upper basin would provide maximum dispersion and benefit the largest area, and would allow the poorer quality river water to be assimilated before entering the highly sensitive estuarine shellfish areas.

DISSOLVE TO:

Presentation

27
"Alternative
w/Plan 5 in

VE TO:

(Slide 27) Our assessment of the plans idicated that Plan 5 would cause the fewest adverse impacts on economic development, environmental quality, cultural resources, recreation, and social concerns such as relocation of existing developments. The plan would produce the most monetary and nonmonetary benefits. Thus, Plan 5 was designated as the tentatively selected plan.

28
tudy area
sites

VE TO:

(Slide 28) The tentatively selected plan of improvement includes two major diversions: one on the west bank of the river (Point out site) at Bayou Lasseigne that would divert freshwater into Barataria Basin . . . . . and one on the east bank (Point out site) that would divert water into Breton Sound Basin. The flows would be diverted from January through April. Lesser amounts could be diverted in other months.

29
Bayou Lasseigne

/E TO:

(Slide 29) This is the site of the Bayou Lasseigne diversion from the Mississippi River to Lac Des Allemands. The structure at Bayou Lasseigne would divert a flow of 10,650 cubic feet per second of freshwater into Barataria Basin.

30
: Bayou Lasseigne
ıre

/E TO:

(Slide 30) The diversion facilities (Point out features) include an inlet channel 560 feet long and 1,040 feet wide, a control structure 200 feet long by 180 feet wide built in the levee, and an outlet channel 32,100 feet long by 895 feet wide.

AD-A152 706 LOUISIANA COASTAL AREA LOUISIANA FRESHWATER DIVERSION TO BARATARIA AND BR..(U) ARMY ENGINEER DISTRICT NEW ORLEANS LA D L CHEW SEP 84 2/2

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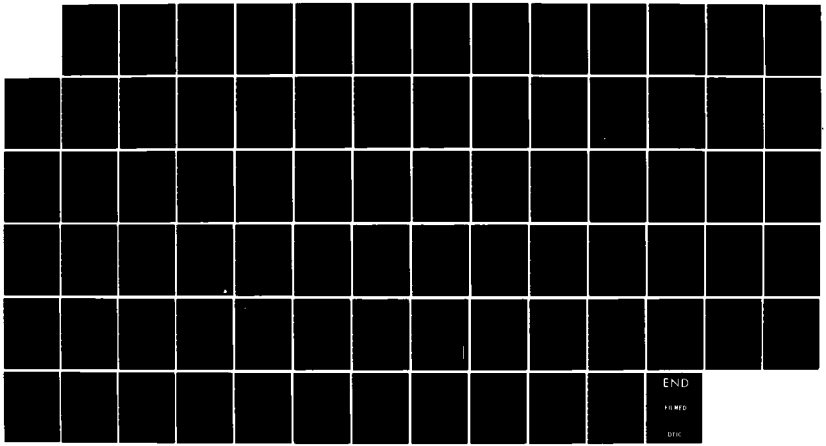

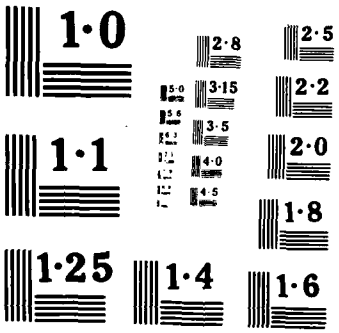
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SLIDE 31
Scene: Big Mar

(Slide 31) This is the site of the Big Mar diversion from the Mississippi River into Big Mar. The structure at Big Mar would divert a flow of 6,600 cubic feet per second of freshwater into Breton Sound Basin.

DISSOLVE TO:

SLIDE 32
Sketch: Big Mar

(Slide 32) The diversion facilities at Big Mar (Point out features) include an inlet channel 800 feet long by 450 feet wide, a control structure 100 feet long by 180 feet wide built in the levee, an outlet channel 8,100 feet long by 415 feet wide, and a dike along the east bank of Big Mar to prevent the flow from entering Caernarvon Canal.

DISSOLVE TO:

SLIDE 33
Map: Study area w/two sites

(Slide 33) Constructing the plan will require a total of 778 acres of real estate for structures, channels, and disposal areas for dredged material. It will be necessary to alter sections of three roads, two railroads, and five pipelines. Other adverse impacts associated with construction of the plan include increases in turbidity an and degradation of water quality.

To ensure that the project is operated in the most effective manner, we will carefully monitor water quality conditions and their impacts on the fish and wildlife populations. In our preconstruction studies, we will measure important water quality constituents and the levels of these constituents in important commercial and sport fish and wildlife species. This information will enable us to detect any adverse changes

as a result of freshwater diversions and guide the operation of the structures. The design and conduct of the monitoring program will be closely coordinated with the fish and wildlife agencies.

DISSOLVE TO:

1-17 SLIDE 34
Chart: "Costs-Benefits of TSP"

(Slide 34) Based on these requirements, the first cost of the tentatively selected plan is $39.3 million. The annual cost is $3.7 million. Included in the annaul cost is $259,000 for operation and maintenance of the structure, channels, and conducting the water quality and biological monitoring program. The plan has many benefits. It would reduce saltwater intrusion and would save 99,200 acres of valuable marshland. This would increase fish and wildlife production. Oyster production alone would be increased by 16.4 million pounds. The average annual value of fish and wildlife production is estimated at $12.4 million. Commercial fish and wildlife account for about 96 percent of the benefits, and recreation accounts for about 4 percent. The ratio of average annual benefits to cost is 3.3 to 1.

DISSOLVE TO:

1-18 SLIDE 35
Map: Study area w/two sites

(Slide 35) Diverting the flow at Bayou Lasseigne and Big Mar offers a number of distinct advantages. The diversions would begin in January and continue through April. The water would move through the network of waterways and water bodies down to Barataria Bay and Breton Sound.

This will allow maximum dispersion and flushing of the basins and the influx of nutrients to benefit the largest area--approximately 617,000 acres of water bodies in the Barataria Basin and 365,000 acres in the Breton Sound Basin. Dispersion from the two sites would also provide the longest detention time. The long detention time will permit some pollutants and sediments to settle out and the cool river water to warm before reaching the estuarine shellfish grounds. The long detention time will ensure maintenance of the favorable salinity gradients from April through September.

DISSOLVE TO:

1-17 SLIDE 36
Scene: Ibises in water

(Slide 36) Other benefits attributable to the plan include improved habitat for noncommercial and nongame species.

DISSOLVE TO:

1-17 SLIDE 37
Scene: Wooded swamp

(Slide 37) The plan will improve productivity of wooded swamps and associated freshwater fish and wildlife, especially in the Jean Lafitte National Park area, and increase plant species diversity and inflow of nutrients.

DISSOLVE TO:

2-20 SLIDE 38
Scene: Fisherman at sunset

(Slide 38) The plan will increase potential for recreational fishing and hunting.

DISSOLVE TO:

1-20 SLIDE 39
Scene: Shrimp boat

(Slide 39) The plan will increase business opportunities in the commercial and recreational fish and wildlife industries, and support service industries.

DISSOLVE TO:

2-21 SLIDE 40 Scene: Oyster boat DISSOLVE TO:	(Slide 40) The plan will increase employment and income in the commercial and recreational fish and wildlife related industries.
1-21 SLIDE 41 Scene: Aerial of Lafitte DISSOLVE TO:	(Slide 41) The plan will enhance property values. The increase in business activity, personal income, and property values will provide additional tax revenues. The plan will minimize the loss of the marsh's capacity to buffer hurricane tides and to treat waste.
2-22 SLIDE 42 Scene: Grand Isle camp DISSOLVE TO:	(Slide 42) The plan will help preserve the unique cultural heritage and lifestyles of the coastal fishing and trapping communities.
1-22 SLIDE 43 Chart: "Cost Apportionment"	(Slide 43) To implement the plan, we propose that the first costs of $39.3 million be apportioned as follows under our traditional cost sharing policies. The Federal government would bear 75 percent of the first costs or $29.5 million and non-Federal interests would bear 25 percent or $9.8 million. Non-Federal interests would bear all costs associated with the operation, maintenance, and replacements currently estimated at $259,000 annually. The current administration is reviewing cost sharing policies and financing of water resources developments. 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.

DISSOLVE TO:

2-22 SLIDE 44
Chart: "Division of Plan Responsibility"

(Slide 44) Prior to construction of the project, non-Federal interests must provide without costs to the United States all lands, easements, and right-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 contribute 25 percent of the construction costs, and must assure adequate public access to the project area.

DISSOLVE TO:

1-22 SLIDE 45
Corps logo

(Slide 45) That concludes our presentation and description of the tentatively selected plan to divert freshwater to Barataria and Breton Sound Basins.

2-24 GO TO BLACK

May I have the lights, please.

Ladies and gentlemen, this ends my presentation. Thank you for your attention.

SUMMARY OF PUBLIC MEETING

HELD IN GRETNA, LOUISIANA

JULY 31, 1984

Exhibit 2

LOUISIANA COASTAL AREA STUDY

INTERIM REPORT ON FRESHWATER DIVERSION

TO

BARATARIA AND BRETON SOUND BASINS

SUMMARY OF PUBLIC MEETING

HELD IN GRETNA, LOUISIANA

JULY 31, 1984

1. Introduction. A public meeting was held at 7:00 p.m. on July 31, 1984 at the Jefferson Parish courthouse in Gretna, Louisiana. 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 at Davis Pond in Barataria Basin. Attachment 1 is the announcement of the public meeting. Attachment 2 is the meeting agenda.

2. Attendance. About 100 persons attended the meeting. Interested Federal, state, and local agencies, environmental groups and individuals were represented. Attachment 3 is a list of attendees including speakers.

3. Welcome and Opening Remarks. Colonel Robert C. Lee opened the meeting. He introduced Mr. Arthur Theis, Louisiana Department of Transportation and Development, Office of Public Works. Mr. Theis stated the purpose of the meeting and introduced elected officials. Colonel Lee introduced Mr. Gerald Theriot representing Mr. Mike Bourgeois, Louisiana Department of Natural Resources. Mr. Theriot stated that the state is developing plans to solve coastal problems associated with erosion, saltwater intrusion, and land loss. He noted that one of the state's high

priority projects is the freshwater diversion project at Davis Pond in Barataria Basin. Next, Colonel Lee introduced William Perrett, Louisiana Department of Wildlife and Fisheries. Mr. Perrett discussed the effect habitat deterioration is having on fish and wildlife productivity. He traced the history of studies that documented the problem and the need for supplemental freshwater. He noted that his agency has cooperated closely with the Corps and other agencies in developing an acceptable plan for freshwater diversion. This plan offers the best means to restore favorable habitat conditions that are the most conducive for fish and wildlife resources. His agency strongly supports the freshwater diversion plan. Colonel Lee introduced his staff, explained how projects are conceived, authorized and constructed. He noted that the major topic for discussion is the plan for the Davis Pond site in the Barataria Basin. He called on Mr. Peter Hawxhurst to present the study findings.

4. Study Presentation. Mr. Hawxhurst used slides and display maps to describe the problem of habitat deterioration and its effects on fish and wildlife resources. He discussed possible solutions, and reviewed the public's concerns with the Bayou Lasseigne site in the Barataria Basin. He noted that close cooperation with the state and parish officials resulted in developing an acceptable freshwater diversion plan for the Davis Pond site. Mr. Hawxhurst's presentation is Attachment 4.

5. Public Statements. Colonel Lee called on individuals who wished to make a statement, to come to the microphone, state your name and the agency you represent, if any. He indicated that the meeting is being recorded and the tapes will be available at the cost of reproduction. He stated that the record of the public meeting will be held open 30 days and anyone may submit a written statement during this time for the record. Following is a summary of oral statements delivered at the meeting. Public statements received before, during and after the public meeting are in Attachment 5.

Dave Fruge', US Fish and Wildlife Service

Mr. Fruge' stated that the USFWS is in full support of the tentatively selected plan for freshwater diversion to Barataaria and Breton Sound Basins. The USFWS recommended that the: TS plan be implemented as soon as possible; the first cost of the plan be borne by the Federal government; post authorization studies should be conducted to refine the operation and maintenance guidelines; authority be requested to enlarge proposed structures; and the authority be requested to provide bank fishing opportunities along the outflow channel and construct boat ramps throughout the area. Mr. Fruge' noted that the project would enhance fish and wildlife, but would not solve all the problems in the Barataria Basin or the coastal area. Efforts need to be increased to attack those problems.

Mr. Donald Moore, National Marine Fisheries Service

Mr. Moore stated that the National Marine Fisheries Service (NMFS) supports freshwater diversion and applauds the TS plan.

David Chambers, Louisiana Department of Natural Resources

Mr. Chambers stated that the LDNR and the Governor's Coastal Protection Task Force fully support the concept of freshwater diversion and urge the Corps to move ahead with the plan.

Chuck Killebrew, Louisiana Department of Wildlife and Fisheries

Mr. Killebrew explained that the proposed plan could increase oyster production in Barataria Bay 100 percent and would reduce landloss and enhance fish and wildlife production at the Salvador Wildlife Management area. The LDWF recognizes that the plan will not completely reverse the marsh loss trend. The diversion would reduce the rates of loss in the study area. The LDWF supports the concept of freshwater diversion and is willing to cooperate in the design of a monitoring program for the plan.

Rick Felter, Representing St. Charles Parish President and Council

St. Charles Parish adopted a resolution on June 4, 1984 supporting the tentatively selected plan.

Mr. Charles Lyles, Executive Secretary, Louisiana Shrimp Association

Mr. Lyles stated that his organization endorses the Corps proposed tentatively selected, and urges implementation plan as quickly as possible.

Mr. Ralph Pausina, Louisiana Oyster Growers Association

Mr. Pausina stated that his organization is basically supportive of freshwater diversion that would lower salinities allowing better oyster production. His group is in favor of freshwater at the Caernarvon site which would enhance the primarily public oyster grounds, but does not

support the Davis Pond site. It would displace 9,000 acres of privately leased oyster farms. He noted that the study should have contained a plan to help or relocate the oyster farmers who would be affected by the diversion. He recommended that the passes between the islands be reduced in size to prevent saltwater intrusion. His organization would like to be a part of the committee which regulates flow through the diversion structure, since they are considered the big beneficiary of the project.

Johnnie Tarver, Louisiana Wildlife Biologist Association

Mr. Tarver stated that his organization has long recognized the need for freshwater diversion and its benefits to fish and wildlife and strongly supports the Corps tentatively selected plan.

Mr. Jack Spiers, St. Charles Water Works District No. 2

Mr. Spiers noted that his District owns two watermains that must be relocated if the Davis Pond diversion plan is implemented. He stated that a 12" watermain is located on the north side of US Highway 90 and a 6" watermain is located on the south side of Louisiana Highway 18. They were not identified in the utility relocations referred to in the feasibility study. Relocating the watermain would present a serious financial problem to his water district. He stated costs estimated for the relocation are being made and will be submitted by August 30. He will submit a letter requesting the cost of relocation be identified and included in the cost estimate for the Davis Pond site.

Mr. Bill Chauvin, American Shrimp Processors Association

Mr. Chauvin stated that his organization strongly supports the tentatively selected plan. He noted that their one major concern is the timing of the freshwater being introduced to the area during the January through May period. He requested that Mr. Perrett, Louisiana Department of Wildlife and Fisheries, look into this matter further because this timing is particularly critical for the brown shrimp.

Joseph I. Vincent, Friends of Jean Lafitte Park Association

Mr. Vincent stated that his organization strongly supports the tentatively selected plan. His organization would like to see some safeguards to insure the project does not induce loss of wetlands near already developed areas through placement of the guide levees and pumping stations. He stated that his association would like guarantees that any fastlands which may occur as a result of the project will not be developed in the future. He commented that a concrete program must be formulated to help oystermen and others who operate on a lease basis to survive through the first few years of the project.

Mr. Vernon Behrhorst, Louisiana Intracoastal Seaway Association

Mr. Behrhorst stated that his organization strongly supports the tentatively selected plan.

Mr. Murray Walton	Wildlife Management Institute
Mr. Joseph F. Hamam, Sr.	Venice Fisherman
Mr. William G. Kass, IV	President, West Side Oyster Farms
Mr. John M. Green	Chairman, Environmental Comm., Gulf of Mexico Fishery Management Council
Mr. Charles J. Beckendorf	Ama Resident
Mr. Frank J. Ehret, Jr.	Marrero Resident
Mr. James W. Larkin	Metairie Resident
Mr. Milton R. Walker, Jr.	Clio Sportsman League
Mr. David B. Spears	Sierra Club of New Orleans
Mr. Oliver G. Salinovich	Port Sulphur Resident
Mr. John Uhl	Administrator, Jefferson Parish Coastal Zone Management Comm.
Mr. James Whelan	Orleans Audubon Society
Mr. Edgar F. Veillon	La. Wildlife Federation, Inc.
Mr. R.D. Cabaniss	Belle Chasse Resident

LIST OF PERSONS ATTENDING THE MEETING

SPEAKERS

Mr. David Fruge'	US Fish and Wildlife Service
Mr. Donald Moore	National Marine Fisheries Service
Mr. David Chambers	La. Dept. of Natural Resources
Mr. Chuck Killebrew	La. Dept. of Wildlife and Fisheries
Mr. Rick Felter	Representing St. Charles Parish Council and President
Mr. Charles H. Lyles	La. Shrimp Association
Mr. Ralph V. Pausina	La. Oyster Growers Association
Mr. Johnnie W. Tarver	La. Wildlife Biologist Association
Mr. Jack Spiers	St. Charles Parish Waterworks Dist. No. 2
Mr. Bill Chauvin	American Shrimp Processors Assoc.
Mr. Joseph I. Vincent	Friends of Jean Lafitte Park
Mr. Vernon Behrhorst	La. Intracoastal Seaway Assoc.
Mr. John W. Woodard	Tenneco Latterre Corp.
Ms. Charlotte Fremaux	League of Women Voters of Jefferson Parish

ATTACHMENT 3

DEPARTMENT OF THE ARMY
New Orleans District, Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

AGENDA

Public Meeting
On
Louisiana Coastal Area - Freshwater Diversion To
Barataria and Breton Sound Basins, Louisiana
31 July 1984

I.	Welcome	Colonel Robert C. Lee
II.	Opening Statement	Colonel Robert C. Lee District Engineer US Army Corps of Engineers New Orleans
III.	Presentation	Corps of Engineers
IV	Public Statements	Interested Individuals
V.	Summary	Colonel Robert C. Lee
VI.	Closing Remarks	Colonel Robert C. Lee

ATTACHMENT 2

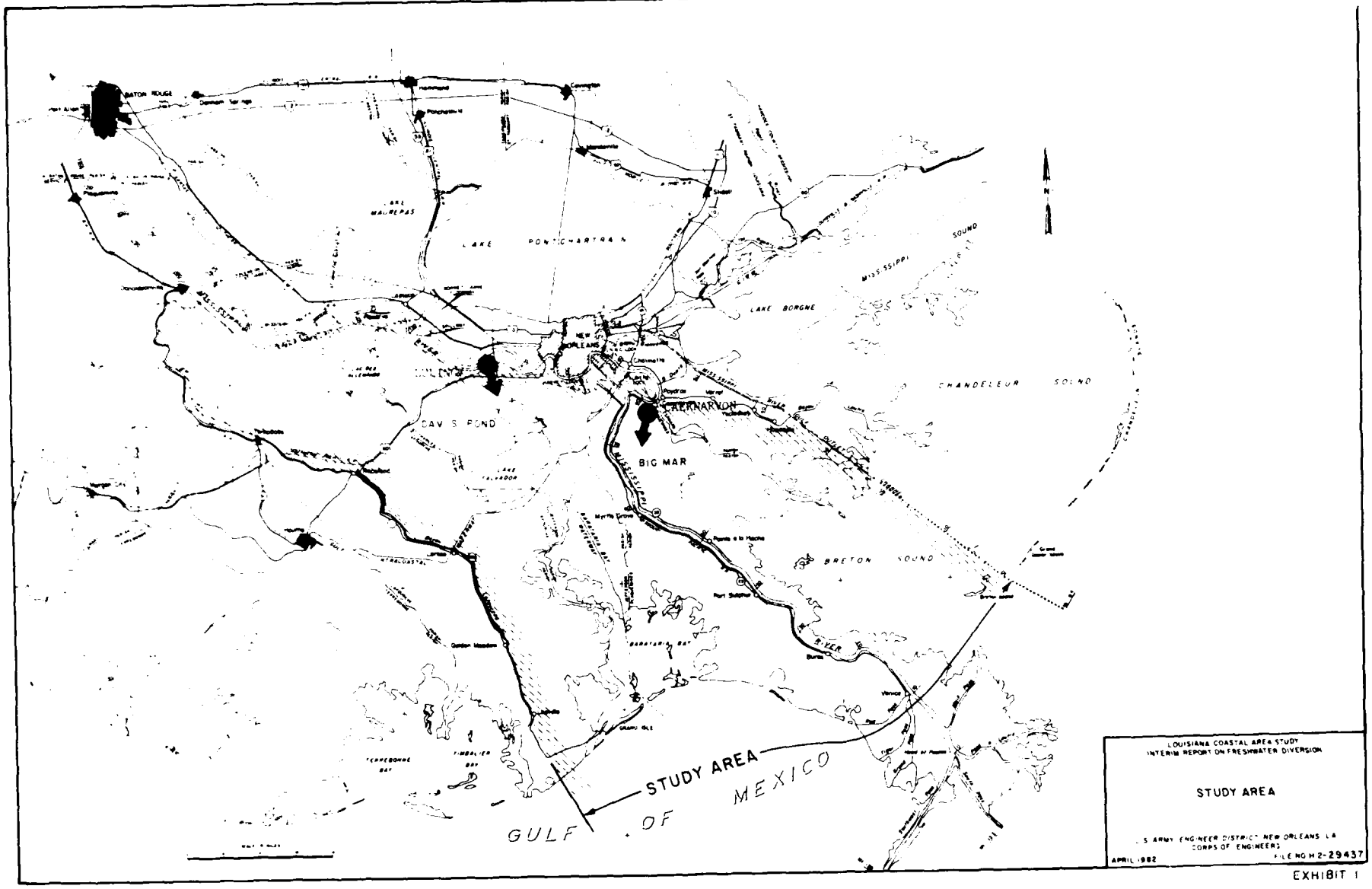

EXHIBIT I

EXHIBIT I

Our preliminary studies showed that freshwater diversion on an area-wide scale would offer the best solution to saltwater intrusion. Diverting fresh water from the Mississippi River into the Barataria and Breton Sound Basins would establish favorable salinity conditions, enhance vegetation growth, reduce land loss, and increase commercial and sport fish and wildlife productivity. Therefore, our detailed studies focused on freshwater diversion.

The Tentatively Selected Plan

We evaluated a total of 16 alternative plans to divert freshwater into the study area. Each plan would divert a flow of 6,600 cubic feet per second into Breton Sound Basin and a flow of 10,650 cubic feet per second into Barataria Basin. We assessed the plans to determine their engineering feasibility and their impacts on economic development, environmental quality, cultural resources, recreation, and social concerns such as relocation of existing developments. Each plan will cause adverse impacts but the intensity of the impacts will vary. The primary adverse impacts include loss of wetlands, water bodies, and developed lands due to construction, and degradation of water quality. The degraded water quality may pose problems for some fish and wildlife species. A comprehensive monitoring system will assess water quality impacts on important fish and wildlife species. The major benefits are retarded saltwater intrusion, enhanced vegetative growth, reduced land loss, expanded nusery grounds, and increased fish and wildlife productivity. Our studies indicate that diverting flows into Breton Sound Basin at Big Mar and into Barataria Basin at Davis Pond (Plan 16) reasonably maximizes national economic development benefits consistent with protecting the nation's environment while being responsive to state and local concerns. The plan minimizes adverse impacts to the environment and maximizes the benefits to environmental quality. State and local concerns regarding water quality, flooding, and enhancement of the Salvador Wildlife Management Area are also addressed by the plan. The plan has widespread public support. The State of Louisiana has furnished a letter of intent to participate in the project. The St. Charles Parish Council has furnished a resolution supporting the project. Thus, Plan 16 was named the Tentatively Selected Plan.

Total first cost of the plan is estimated at $50,800,000 with annual charges of $4,970,000 including interest, amortization, and operation and maintenance. The average annual benefits attributed to the plan are estimated at $15,760,000. Commercial fishing and trapping account for $15,190,000 and sport fishing and hunting for $570,000. The average annual benefits over costs are $10,790,000. The benefit-cost ratio is 3.2 to 1.

The Tentatively Selected Plan would reduce saltwater intrusion, would save more than 99,000 acres of valuable marshland, and would increase oyster production by 16,400,000 pounds. The increased production represents a 25-percent increase in the national oyster harvest.

The plan offers many intangible benefits such as:

- Improved habitat for noncommercial and nongame species.

- Improved productivity of wooded swamps and associated freshwater fish and wildlife, especially in Jean Lafitte National Park and Salvador Wildlife Management Area.

- Increased potential for recreation.

- Increased business opportunities in the commercial and sport fish and wildlife industries and related support industries.

Implementing the Plan

We propose that the first costs of the plan, $50,800,000, be apportioned as follows: The Federal government would bear 75 percent, $38,100,000, and non-Federal interest would bear 25 percent, $12,700,000. The non-Federal interests would also bear all costs associated with operation, maintenance, and replacements. This cost is estimated at $455,000 annually.

BACKGROUND INFORMATION
ON
THE TENTATIVELY SELECTED PLAN

The Problem

Louisiana's coastal wetlands and estuaries are among the most productive in the nation. With 41 percent of the nation's coastal wetlands, Louisiana provides more than 25 percent of the nation's commercial fish harvest and 40 percent of the wild fur harvest. Many migratory waterfowl and nongame birds that use the Mississippi Flyway winter in Louisiana's coastal marshes. Today, these rich and productive estuaries and wetlands are severely threatened. Saltwater intrusion is causing major habitat changes. As the habitat deteriorates, the area no longer has the capacity to support an abundant and diverse fish and wildlife population, and productivity declines. This alarming trend is expected to accelerate unless some action is taken.

The Corps of Engineers has been investigating whether it is feasible to enhance habitat conditions and improve fish and wildlife productivity by reducing saltwater intrusion. To address this steadily worsening problem, we selected two highly productive estuaries, Barataria Bay and Breton Sound, their adjacent wetlands, and the lower Mississippi River below Donaldsonville for detailed investigation. The 3,750-square-mile study area is shown on the inclosed map (Exhibit 1).

Our studies show that the wetlands in the Barataria and Breton Sound Basins support extensive commercial fishing and trapping and sport fishing and hunting. From 1963-1978, commercial fishermen in the area harvested an average of 337 million pounds of fish and shellfish each year. This catch represents 25 percent of the national average annual oyster and shrimp harvest. The average annual value of the catch is $107 million. Commercial trappers harvested an average of $1.6 million in pelts and meats each year, about 26 percent of the nation's annual wild fur harvest. In 1980, sportsmen spent an estimated 1.1 million man-days fishing and hunting and in wildlife-oriented recreation. The value of the recreation was $6.6 million.

Our studies confirmed that the continued productivity of the fish and wildlife resources depends on sustaining favorable conditions in the wetlands and estuaries. The studies also revealed that saltwater intrusion, subsidence, erosion, and the activities of people have caused significant changes in the coastal waters and wetlands in recent years. Because of saltwater intrusion, the saline and brackish marshes have expanded and the fresh and intermediate marshes have been reduced. The saline marshes moved inland an average of 2.1 miles and the brackish marshes 3.8 miles between 1945 and 1968. These changes were accompanied by land loss. More than 164,000 acres of marsh were converted to open water between 1955 and 1978. As saltwater intrudes into the valuable marsh-estuarine areas, the nursery grounds vital to many fish and wildlife species are reduced and productivity declines.

Nature and people will continue to adversely affect the wetlands and estuaries. Studies indicate that in years of low rainfall saltwater will intrude 12-17 miles. By the year 2035 more than 281,000 acres of marsh will be converted to open water. The deterioration in habitat conditions will reduce fish and wildlife productivity. The decline in productivity will have a severe adverse impact on commercial fishing and trapping, on jobs in these industries and related support industries, and on recreation.

Solutions

We considered several measures as possible solutions to the problems in the wetlands. These measures include diverting freshwater, installing saltwater barriers, regulating wetlands, filling open water areas, establishing sanctuaries, and managing fish and wildlife. Our studies showed that Federal, state, and parish agencies are presently implementing most of these measures to some degree. However, the efforts are limited and offer only a partial solution to the major problems in the entire wetlands area--saltwater intrusion and land loss.

LIST OF PARISH AND UNIVERSITY LIBRARIES

1. Jefferson Parish Library
   Gretna Branch
   102 Willow Drive
   Gretna, LA 70053

2. Lafourche Parish Library
   526 Green Street
   Thibodaux, LA 70302

3. Plaquemines Parish Public Library
   203 LA Highway 23 South
   Buras, LA 70041

4. St. Charles Parish Library
   298 Lakewood Drive
   Luling, LA 70070

5. St. John the Baptist Public Library
   Riverland Shopping Center,
   Airline Highway
   LaPlace, LA 70008

6. New Orleans Public Library
   3014 Holiday Drive
   New Orleans, LA 70114

7. Louisiana State University Library
   Government Documents Department
   Baton Rouge, LA 70803

8. Nicholls State University Library
   Thibodaux, LA 70301

9. Tulane University Library
   6823 St. Charles Avenue
   New Orleans, LA 70118

10. University of New Orleans
    Government Documents Division
    Lakefront
    New Orleans, LA 70122

ENCLOSURE 1

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

REPLY TO
ATTENTION OF:

LMNPD-P

ANNOUNCEMENT OF PUBLIC MEETING
TO DISCUSS
THE TENTATIVELY SELECTED PLAN
FOR FRESHWATER DIVERSION TO
BARATARIA AND BRETON SOUND BASINS, LOUISIANA

You are invited to attend a public meeting to discuss the Tentatively Selected Plan for freshwater diversion from the Mississippi River into Barataria and Breton Sound Basins, Louisiana. The purpose of the plan is to reduce salt-water intrusion, enhance habitat conditions, and improve fish and wildlife production. You are urged to attend the meeting to comment on the plan, make suggestions, and state your views. Information about the Tentatively Selected Plan and the feasibility study is included with this announcement. The draft feasibility report and draft environmental impact statement are available on request at the address above. Copies are also available for review at the parish and university libraries listed in enclosure 1.

After we have had the opportunity to consider the information we receive at the public meeting, we will prepare our final report and submit it to the Division Engineer, Lower Mississippi Valley Division, in Vicksburg, Mississippi. The report will then be processed through Corps channels to the Office of the Chief of Engineers for action.

Everyone interested is invited to the meeting. In order to give everyone a chance to speak, I ask that presentations be limited to no more than five minutes. You may also submit a written statement at this meeting or mail a statement to me at the address above before the meeting on July 31, 1984. We will give both oral and written statements equal consideration in making final decisions. After August 30, 1984, the records of the meeting will be closed.

We have scheduled the meeting at a place and time we hope will make it convenient for you to participate. I urge you to attend and give us your ideas and suggestions.

Sincerely,

ROBERT C. LEE
Colonel, CE
District Engineer

1 Incl
As stated

US Army Corps
of Engineers
New Orleans District

Announcement of Public Meeting

What for ...

To discuss the Tentatively Selected Plan for freshwater diversion to Barataria and Breton Sound Basins, Louisiana, to reduce saltwater intrusion, enhance habitat conditions, and improve fish and wildlife production.

When ...

Tuesday, July 31, 1984, at 7p.m.

Where ...

Jefferson Parish Court House
Council Chambers
Second and Derbigny Streets
Gretna, Louisiana

Who ...

All interested individuals, groups, and agencies are invited to attend or to be represented at this meeting.

percent of the construction cost. Consideration should be given to the concerns of the oyster and shrimp associations regarding the timing of the freshwater introduction.

R.D. Cabaniss, Belle Chasse Resident

Mr. Cabaniss stated that we must leave some marsh for our children to hunt and fish. He recognized that there are some legitimate problems involved in putting polluted water into the estuaries, but we must do it swiftly while we still have some marsh to save.

6. Closing Remarks. Colonel Lee thanked the people for expressing their views and the spirit in which they were made. He reminded the people, that they have until August 30 to submit additional comments. He then closed the meeting.

John Uhl, Administrator, Jefferson Parish Coastal Zone Management

Mr. Uhl stated that he supports the tentatively selected plan. He commented that the structure should be monitored and an overall management plan be adopted for the basin. He recommended that the LSU Sea Grant Progam be included as a participant in the monitoring program. He also recommended a restriction of the flow rate through the passes with some type of structure placed in the passes. This will reduce saltwater intrusion and hold the freshwater in the bays. He believes that the diversion sites have a short life span, therefore additional diversion sites should be identified and acquired to reduce high construction costs in the future.

James Whelan, Orleans Audubon Society

Mr. Whelan stated his organization fully supports the tentatively selected plan. His organization is concerned ahbout preservation and protection of wetlands. This project will address a serious need in that area.

Edgar F. Veillon, Louisiana Wildlife Federation, Inc.

Mr. Veillon stated that the Federation, by adopting resolutions in 1981, 1982, and 1983, is well on record as supporting the concept of freshwater diversion as a means of protecting the state's vital coastal wetlands from deterioration. The tentatively selected plan has the enthusiastic endorsement of the Federation. The plan should be considered as mitigation for much of the navigation and flood control work done by the Corps along the Mississippi River. Therefore, the Federal government should contribute 100

John W. Woodard, Land Manager, Tenneco Properties

Mr. Woodard stated that his organization supports the tentatively selected plan.

Mrs. Charlotte Fremaux, League of Women Voters of Jefferson

Mrs. Fremaux stated that her organization supports the tentatively selected plan.

Mr. Murray Walton, Wildlife Management Institute in Texas

Mr. Murray stated that his organization supports the tentatively selected plan. He noted that the project could be 100 percent Federally funded because the economic benefits are widespread and involve interstate commerce. He commented that they look upon the project as mitigation for past flood control and navigation projects in the entire Mississippi River system.

Mr. F. Hamam, Sr., Resident of Venice, LA

Mr. Hamam stated he was concerned with breaks in the levees that allow free flow of freshwater into Bay Coquille which are killing the oysters and shrimp in the bay. He was concerned about land subsidence, saltwater intrusion, and erosion of the wetlands. He believes that the only way to stop the saltwater intrusion and erosion is to build levees on the main streams.

Mr. James W. Larkin, Resident of Metairie, Louisiana

Mr. Larkin stated that he supports the tentatively selected plan. He was concerned about preserving the wetlands and any new marshlands from the developers.

Milton R. Walker, Jr., President, Clio Sportsmen League

Mr. Walker stated that his organization supports the tentatively selected plan. His organization is concerned about control of oil exploration canals which are conduits for saltwater intrusion. He recommended stricter regulations be created to force the oil exploration companies to maintain these manmade canals, and the Corps should look into the maintenance of these canals.

David B. Spears, New Orleans Sierra Club

Mr. Spears stated that his organization supports the tentatively selected plan.

Mr. Oliver G. Salinovich, Port Sulphur Resident

Mr. Salinovich stated that he supports the project but that it has to be well controlled. He is concerned that the project will provide too much freshwater in Barataria Bay thus killing all the oyster and shrimp. He noted that the freshwater from the diversion will combine with the freshwater coming from the river up through the passes causing an over abundance of freshwater.

Mr. William G. Kass IV, President of Westside Oyster Farms

Mr. Kass stated that he is concerned with the dredging in the Barataria Bay which brings the saltwater directly into the bay. He indicated that he supports freshwater diversion but something needs to be done to reduce saltwater intrusion through the passes.

Mr. John M. Green, Chief, Environmental Committee Gulf of Mexico Fisheries Management Council, Tampa Florida

Mr. Green stated that his organization supports the tentatively selected plan for freshwater diversion to Barataria and Breton Sound Basins.

Mr. Charles Beckendorf, Resident of Kenner, Louisiana

Mr. Beckendorf stated that he opposes the project. He was concerned that the lamprey in the Mississippi River would enter the Barataria Bay and destroy the fishery.

Frank Ehret, Resident of Marrero, Louisiana

Mr. Ehret stated that he supports the tentatively selected plan.

Non-Speakers

Ms. Belhlyn McCloskey	Metairie Resident
Mr. J. Lassos	Port Sulphur Fisherman
Mr. John Dufrene	Boutte Resident
Mr. George Neusaenger	Jean Lafitte National Park
Mr. John J. Blanchard	Plaquemine Parish Advisory Council
H.A. Cormier, Jr.	Bridge City Resident
Mr. R.J. Varnell	Plaquemines Parish Environmental Services
Mr. Clarke Lozes	Plaquemines Parish Environmental Services
Mr. Bruce H. Wright, Jr.	St. Bernard Parish Police Jury
Mr. Michael S. Loden	Jefferson Parish Dept. Environmental and Developmental Control
Mr. Bruce Burglass	Jefferson Parish Dept. Environmental and Developmental Control
Mr. Allen B. Ensminger	La. Dept. Wildlife and Fisheries
Mr. Mark Chatry	La. Dept. Wildlife and Fisheries

Mr. Phil Pittman	La. Dept. Natural Resources Coastal Management Division
Ms. Janice Roux	La. Dept. Natural Resources
Mr. Mike Windham	La. Dept. Wildlife and Fisheries
Mr. Dugan S. Sabins	La. Dept Environmental Quality, Water Pollution Control Division
Mr. Dale Benoit	Plaquemines Watchman Newspaper
Mr. Norris Babin	Plaquemines Watchman Newspaper
Mr. Larry Wieslip	La. Dept Environmental Quality Water Pollution Control Division
Mr. Mike Halle	New Orleans Resident
Ms. Stephanie Buergen	Slidell Resident
Mr. Blaine Kern	New Orleans Resident
Mr. Blaikey Kern	New Orleans Resident
Mr. W.L. Manning	La. Land and Exploration Co.
Mr. Ken Gaubert, Sr.	Boog-a-Lee Bass Masters
Mr. Steven Rockweiler	Boog-a-Lee Bass Masters

Mr. George L. Pivach, Jr.	Pivach Agency, Belle Chasse
Ms. Karen Dufrene	Boutte Resident
Mr. Robert M. Bass	Boog-a-Lee Bass Masters
Mr. Nick L. Skansi	New Orleans Resident
Mr. Hugh M. Wilkinson, Jr.	Attorney, Delacroix Corp.
Mr. W. Rodriguez	Belle Chasse Resident
Brian Varnell	Plaquemines Parish Resident
Mr. & Mrs. H.E. Reily	Little Lake Club
Mr. James W. Stuart	Empire Menhaden Co., Inc.
Mr. Andy Boros	River Ridge Resident
Ms. Lydia Guillot	Sierra Club of New Orleans
Mr. F.A. Danos	
Mr. Charles Sampey	Bridge City Resident
Mr. Damian LeCompte	Bridge City Resident
Mr. Douglas Bourgeois	Bridge City Resident
Mr. H.A. Cornier III	Bridge City Resident
Ms. Marie Louise Molero O'Toole	Delacroix Corp.

Mr. Terry Obrien	West Bank Guide Newspaper
Mr. Robert E. Becker	Rathborne Land Co., Inc.
Mr. Victor Mavar	American Shrimp Canners Assoc.
Mr. Jim LeBlanc	Middle South Services
Mr. Richard Cuccia	Southland Canning Co.
Mr. A.J. Planche, Jr.	Barataria Civic Improvement Assoc.
Mr. Gregory C. Lier	Rathborne Land Co.
Mr. Klaus Meyer-Arendt	Coastal Environments, Inc.
Mr. Titus Dechatel	Barataria Bass Masters
Mr. G.R. Parker	DuPPont Co., Real Estate Division
Mr. F.C. Fromherz	Fromherz Engineers, Inc.
Mr. Joseph Bernstein	Bernstein Land Co.
Mr. Robert M. Benge	Delacroix Corp.
Mr. Thomas A. Benge	Delacroix Corp.
Mr. Davis Muth	National Park Service
Mr. Nikki Bane	Gulf States Marine Fisheries Comm.
Mr. Paul D. Thibodeaux	LSU Extension Service

Mr. Vic Lafont	Nicholls State University
Mr. Jerald Horst	LSU Extension Service
Mr. Stuart Guey, Jr.	Plaquemines Parish Comm. Council
Mr. Cornel Martin	Representing Congressman Billy Tauzin
Ms. Deborah Frombola	New Orleans Resident
Ms. Carrol B. Campoe	Alligator Snapper Society
Mr. Benny Rousselle	Plaquemines Parish, CZM Citizen Advisory Comm.
Mr. Everett C. Poderer	Plaquemine Parish Oyster Fisherman
Mr. M.J. Farar, Sr.	Port Sulphur Fisherman

III. PRESENTATION
MR. HAWXHURST

SLIDE 0 Opaque Slide 1 Title slide-study area map	THANK YOU, COLONEL LEE. GOOD EVENING, LADIES AND GENTLEMEN. IF YOU WILL PLEASE DIM THE LIGHTS, WE CAN BEGIN. (SLIDE 1) WE ARE HERE TO DISCUSS FRESHWATER DIVERSION TO BARATARIA AND BRETON SOUND BASINS.

VIUSAL	AUDIO
SLIDE 1: TITLE SLIDE	IN APRIL 1982, WE RELEASED A DRAFT REPORT PREPARED UNDER THE LOUISIANA COASTAL AREA STUDY ON FRESHWATER DIVERSION TO BARATARIA AND BRETON SOUND BASINS. WE INVESTIGATED THE FEASIBILITY OF RETARDING SALTWATER INTRUSION TO ENHANCE HABITAT CONDITIONS AND IMPROVE PRODUCTIVITY OF THE FISH AND WILDLIFE RESOURCES.
SLIDE 2: ARTWORK: HYDROLOGIC CYCLE	IN THE PAST, MISSISSIPPI RIVER OVERBANK FLOODING NOURISHED THE MARSHES AND MAINTAINED THE FRESHWATER-SALTWATER BALANCE IN THE ESTUARIES. SINCE LEVEES WERE CONSTRUCTED ALONG THE RIVER, RAINFALL IS THE ONLY SOURCE OF FRESHWATER IN THE BASIN. THE LOSS OF RIVER FLOW ALONG WITH LAND SUBSIDENCE AND RISING SEA LEVEL, HAS RESULTED IN ACCELERATION OF SALTWATER INTRUSION IN THE MARSHES.
SLIDE 3: LAND LOSS MAP	THESE FACTORS AND MAN'S ACTIVITIES SUCH AS CANAL DREDGING AND FLOOD PROTECTION WORKS ARE CAUSING EXTENSIVE LAND LOSS IN COASTAL LOUISIANA. IN THE BARATARIA BASIN, LAND LOSS IS VERY SEVERE ALONG THE COAST AND GRADES TO MODERATE IN THE VICINITY OF LAKE CATAOUACHIE AND LAC DES ALLEMANDS.

VIUSAL	AUDIO
SLIDE 4: VEGETATION MAP	THE DISTRIBUTION OF THE MARSH TYPES IN BARATARIA BASIN DEPENDS ON THE MARSH PLANTS TOLERANCE TO SALTWATER. THE MOST SALT-TOLERANT TYPE, SALINE MARSH, OCCURS NEAR THE COAST. AS THE SALT IN THE WATER DECREASES INLAND, THE MARSHES GRADE TO BRACKISH, INTERMEDIATE AND, ULTIMATELY, FRESH. AS SALTWATER HAS INTRUDED STEADILY INLAND, THE SALINE MARSH HAS ADVANCED AS FAR UP THE BASIN AS LITTLE LAKE. ABOUT 150,000 ACRES OF MARSH WERE CONVERTED TO OPEN WATER BETWEEN 1955 AND 1978. THE FISH AND WILDLIFE POPULATIONS SHIFTED DRAMATICALLY. OYSTER PRODUCTION SHIFTED FROM LOWER BARATARIA BAY INTO THE UPPER BAY AND LITTLE LAKE AREA. SHRIMP AND SALTWATER FISH MOVED FURTHER INLAND. THE FRESHWATER CATFISH FISHERY HAS DECLINED. IF WE DO NOTHING TO RETARD SALTWATER INTRUSION, WE CAN EXPECT MARSH LOSSES TO INCREASE DRAMATICALLY AND FISH AND WILDLIFE PRODUCTION TO DECLINE SEVERELY.
SLIDE 5: VEGETATION MAP W/OPTIMUM SALTWATER MANAGEMENT LINE	WE PROPOSE TO INTRODUCE FRESHWATER AT THE TOP OF THE BASIN TO RETARD SALTWATER INTRUSION. THE FRESHWATER FLOWING THROUGH THE BASIN WILL RESTORE THE WIDE RANGE OF MARSH AND WATER HABITATS ESSENTIAL TO FISH AND WILDLIFE PRODUCTION. STABILIZING SALTWATER CONDITIONS BENEFICIAL TO OYSTERS AT THIS LOCATION WILL MAINTAIN OPTIMUM HABITAT CONDITIONS THROUGHOUT THE BASIN. IF WE MAINTAIN OPTIMUM SALTWATER CONDITIONS HERE APRIL THROUGH SEPTEMBER WHILE THE JUVENILE FISH ARE IN THE

VIUSAL	AUDIO
	AREA, WE WOULD IMPROVE PRODUCTION OF THESE RESOURCES. THE FRESHWATER WILL NOT CHANGE THE KINDS OF FISH IN THE BASIN SIGNIFICANTLY BUT THERE WILL BE SOME SHIFTS GULFWARD.
SLIDE 6: STUDY AREA MAP WITH TENTATIVELY SELECTED PLAN	IN OUR DRAFT REPORT, WE TENTATIVELY RECOMMEND TWO FRESHWATER DIVERSION SITES: ONE ON THE EAST BANK OF THE RIVER NEAR THE TOWN OF CAERNARVON, AND THE OTHER ON THE WEST BANK IN THE VICINITY OF BAYOU LASSEIGNE. WE DISCUSSED OUR TENTATIVELY SELECTED PLAN AT A PUBLIC MEETING ON JUNE 1, 1982, AND AT SUBSEQUENT MEETINGS IN ST. CHARLES, ST. JAMES AND ST. JOHN THE BAPTIST PARISHES. THE BIG MAR SITE HAS BEEN WIDELY ACCEPTED AND THE STATE OF LOUISIANA HAS FURNISHED A LETTER EXPRESSING ITS INTENT TO PROVIDE THE NECESSARY FUNDS AND ASSURANCES. THE BIG MAR STRUCTURE IS IN ADVANCED ENGINEERING AND DESIGN AND COULD BE READY FOR CONSTRUCTION IN NOVEMBER 1986. THEREFORE, THE PRESENTATION WILL FOCUS ON THE BARATARIA BASIN. AS A RESULT OF LOCAL OPPOSITION TO THE BAYOU LASSEIGNE SITE, GOVERNOR TREEN'S COASTAL PROTECTION TASK FORCE ASKED THE NEW ORLEANS DISTRICT TO INVESTIGATE THE FEASIBILITY OF DIVERTING FRESHWATER INTO BARATARIA BASIN IN THE VICINITY OF DAVIS POND.

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SLIDE 7: BARATARIA BASIN MAP W/DAVIS POND SITE	IN EARLIER STUDIES, WE HAD EVALUATED SITES AT THIS LOCATION BUT THEY DID NOT MEET OUR CRITERIA AS WELL AS THE BAYOU LASSEIGNE SITE. HOWEVER, TO MEET THE PUBLIC DEMAND FOR AN ALTERNATE WEST BANK DIVERSION SITE, WE DEVELOPED A PLAN IN THE VICINITY OF DAVIS POND.
SLIDE 8: DAVIS POND SITE MAP W/ALL PALN FEATURES	THE DAVIS POND PLAN INCLUDES FACILITIES FOR DIVERTING MISSISSIPPI RIVER WATER INTO THE BASIN AND REDIRECTING INTERCEPTED DRAINAGE. THE DIVERSION FACILITIES CONSIST OF THE CONTROL STRUCTURE, THE CONVEYANCE CHANNEL, GUIDE LEVEES AND WEIRS. THE CONVEYANCE CHANNEL HAS A DEPTH OF 15 FEET OVER A BOTTOM WIDTH OF 200 FEET AND WILL EXTEND 2.3 MILES TO THE OVERFLOW AREA. THE MATERIAL EXCAVATED FROM THE CHANNEL WILL BE USED TO CREATE 175 ACRES OF MARSH AND BUILD LEVEES. THE LEVEE SYSTEM WILL PARALLEL THE CHANNEL AND BORDER THE OVERFLOW AREA. THE LEVEES ALONG THE CHANNEL WILL RANGE FROM 3 TO 6 FEET ABOVE NATURAL GROUND AND THE LEVEES AROUND THE OVERLOW AREA WILL BE 3 FEET ABOVE NATURAL GROUND. THE FIVE WEIRS WILL EACH BE 250 FEET LONG WITH A DEPTH OF 4 FEET. THE WEIRS WILL ALLOW THE WATER TO POND IN THE OVERFLOW AREA AND CONTROL THE FLOW OF WATER ENTERING LAKE CATAOUATCHE AND THE SALVADOR WILDLIFE MANAGEMENT AREA.
SLIDE 9: ARTIST'S CONCEPTION OF STRUCTURE	THE DIVERSION STRUCTURE WILL BE BUILT IN THE MISSISSIPPI RIVER LEVEE. THE STRUCTURE WILL CONSIST OF 6 BOX CULVERTS 15 FEET HIGH BY 15 FEET WIDE THAT

VIUSAL	AUDIO
	EXTEND 240 FEET FROM THE RIVER TO THE LAND SIDE OF THE LEVEE. THE DESIGN CAPACITY OF THE STRUCTURE IS 10,650 CFS. FLOW THROUGH THE STRUCTURE WILL BE CONTROLLED BY ELECTRICALLY OPERATED VERTICAL LIFT GATES.
SLIDE 10: DAVIS POND SITE MAP W/ALL PLAN FEATURES	THE MEASURES TO REDIRECT LOCAL DRAINAGE INCLUDE CHANNEL CLEARING, A NEW DRAINAGE CANAL, AND A PUMPING STATION. CHANNEL CLEARING IS PROPOSED ALONG PORTIONS OF HWY. 90 BORROW PIT CANAL AND BAYOU VERRET. DRAINAGE NORTH OF HWY. 90 AND EAST OF THE DIVERSION CHANNEL WOULD BE DIRECTED ALONG A MORE EFFICIENT BAYOU VERRET CHANNEL. BECAUSE DRAINAGE FROM THE COMMUNITY OF LONE STAR WILL BE AFFECTED AS A RESULT OF THE PROPOSED DIVERSION CHANNEL A PUMPING STATION WILL BE INSTALLED AT THE INTERSECTION OF HWY. 90 AND THE DIVERSION CANAL. DRAINAGE FROM THE UNDEVELOPED AREAS BETWEEN WILLOWDALE, LAKEWOOD AND MIMOSA PARK WILL BE CARRIED BY A NEW DRAINAGE CANAL TO THE PROPOSED PUMPING STATION WITH A CAPACITY OF 260 CFS AND TO A NEW PUMP WITH A CAPACITY OF 100 CFS AT THE EXISTING COUSIN CANAL PUMPING STATION.

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DE 11: W OF HWY. 90 & RR CKS NEAR DAVIS POND ER: OCATION FACILITIES	CONSTRUCTION OF THIS PLAN WILL REQUIRE RELOCATION OF SECTIONS OF LOUISIANA HWY. 18, THE TEXAS AND PACIFIC RAILROAD, THE SOUTHERN PACIFIC RAILROAD, AND US HWY. 90. TEMPORARY BYPASSES WILL BE CONSTRUCTED TO ACCOMODATE LOCAL TRAFFIC DURING CONSTRUCTION.
DE 12: W OF MARSH IN VICINITY DIVERSION CHANNEL & PURSION AREA. ER. ALTER HABITAT	388 ACRES OF FISH AND WILDLIFE HABITAT WILL BE ALTERED WITHIN THE CHANNEL AND LEVEE RIGHT-OF-WAY. 88 ACRES WILL BE CONVERTED TO OPEN WATER.
DE 13: W OF GOLD COURSE MUNITY DEVELOPMENT	THE RESIDENTS OF THE COMMUNITIES OF WILLOWDALE, LONE STAR, LAKEWOOD AND MIMOSA PARK WILL NOT BE ADVERSELY AFFECTED BY THE PLAN.
DE 14: IAL VIEW OF GES IN AREA	NO RECORDED ARCHEOLOGICAL SITES OR NATIONAL REGISTER-ELIGIBLE PROPERTIES ARE LOCATED IN THE CONSTRUCTION RIGHT-OF-WAY. HOWEVER, BASED ON PREHISTORIC AND HISTORIC SETTLEMENT PATTERNS, THERE IS A POSSIBILITY OF UNCOVERING CULTURAL REMAINS ON THE RIDGES ALONG BAYOUS VERRET AND PIOUANT.
DE 15: CHART: PPLEMENTAL WATER DS"	STRUCTURE OPERATION DEPENDS ON WHETHER THERE IS ENOUGH RAINFALL TO MAINTAIN THE SALTWATER MANAGEMENT LINE APRIL THROUGH SEPTEMBER. THE BLUE SHOWS THE AMOUNT OF RAINFALL IN NORMAL 10-YEAR CYCLE AND INDICATES WHEN WE WOULD HAVE TO DISCHARGE FRESHWATER TO SUPPLEMENT THE RAINFALL. NOTICE THAT THERE IS ONLY ONE YEAR IN 10 WHEN EXPECT TO HAVE TO DIVERT THE PEAK AMOUNT OF FRESHWATER--10,650 CUBIC FEET PER SECOND. WE EXPECT THAT AT LEAST 3 YEARS IN 10 WE WON'T HAVE TO DIVERT AT ALL. IN THESE YEARS OF HEAVY RAINFALL, THE STRUCTURE

VIUSAL	AUDIO
	WILL REMAIN CLOSED TO PREVENT ADDING TO NATURAL FLOOD CONDITIONS. PROPER OPERATION OF THE STRUCTURE WILL FORESTALL ANY CONTRIBUTION TO NATURAL FLOODING.
SLIDE 16: DAVIS POND SITE MAP W/ DISPERSION & SEDIMENT OVERLAY	DISPERSING THE WATER OVER THE 7,400 ACRE-OVERLOW AREA WILL IMPROVE WATER QUALITY. THE COOL RIVER WATER WOULD WARM UP AND WOULD BE THE SAME TEMPERATURE AS LAKE CATAOUATCHE WHEN IT ENTERED THE LAKE. THE VEGETATION WILL TRAP 5 TO 40 PERCENT OF THE HEAVY METALS BUT MOST LIKELY IT WILL BE TOWARDS THE LOWER END OF THE RANGE. NEARLY 95 PERCENT OF THE SEDIMENT IN THE WATER WILL BE TRAPPED. OVER A 50-YEAR PERIOD, THE SEDIMENT WILL FORM A DELTA 1-4 FEET THICK THAT WILL COVER ABOUT 4 SQUARE MILES. THE DELTA WILL HAVE AN ELEVATION OF 2-3 FEET ABOVE NATURAL GROUND. ANOTHER CONCERN OF THE PROJECT IS THE IMPACTS RELATED TO THE CONCENTRATIONS OF FECAL COLIFORM BACTERIA IN THE MISSISSIPPI RIVER WATER AND THEIR EFFECTS ON OYSTER HARVESTING AREAS. AS YOU ARE PROBABLY AWARE, THE AREA IS ALREADY PLAGUED BY FREQUENT INTRODUCTIONS OF SEWAGE CONTAINING HIGH CONCENTRATIONS OF FECAL COLIFORMS WHICH SOMETIMES RESULT IN CLOSURES OF OSYTER HARVESTING AREAS. HOWEVER, THE FECAL COLIFORM BACTERIA INTRODUCED BY OUR PROJECT WOULD DIE OFF AS THE WATER PASSES THROUGH THE OVERFLOW AREA, AND LAKES CATAOUTCHE AND SALVADOR. BY THE TIME THE WATER REACHES THE LOWER END OF LAKE SALVADOR THE FECAL COLIFORMS INTRODUCED WITH THE RIVER WATER WOULD BE REDUCED TO ZERO. THE LOWER END OF LAKE SALVADOR IS INLAND OF EVEN THE MOST INSHORE OYSTER HARVESTING AREAS. THEREFORE, NO OYSTER REEF CLOSURES ARE ANTICIPATED AS A RESULT OF THIS PROJECT. PRELIMINARY EVALUATIONS INDICATE THAT WATER LEVELS IN LAKE CATAOUATCHE COULD BE INCREASED BY 4 INCHES AND IN LAKE SALVADOR BY 1 INCH. PROPER OPERATION OF THE STRUCTURE WILL PREVENT ADDING TO NATURAL FLOOD CONDITIONS.

	AUDIO
CARTOON OF IG PROGRAM	OPERATION OF THE STRUCTURE WILL BE GUIDED BY MONITORING PROGRAMS. IN OUR PRECONSTRUCTION STUDIES, WE WILL MEASURE IMPORTANT WATER QUALITY PARAMETERS AND THE LEVELS OF THESE PARAMETERS IN IMPORTANT COMMERCIAL AND SPORT FISH AND WILDLIFE SPECIES. THIS INFORMATION WILL ENABLE US TO DETECT ANY ADVERSE CHANGES AS A RESULT OF FRESHWATER DIVERSION. AFTER CONSTRUCTION, QUALITY AND SALINITY CONDITIONS AND THEIR IMPACTS ON THE FISH AND WILDLIFE POPULATIONS WILL BE MONITORED. THE DESIGN AND CONDUCT OF THE MONITORING PROGRAMS WILL BE CLOSELY COORDINATED WITH HEALTH AND FISH AND WILDLIFE AGENCIES.
NSMINGER & MOTE	FRESHWATER DIVERSION HAS BEEN WIDELY SUPPORTED BY NUMEROUS FISH AND WILDLIFE AGENCIES, AND COMMERCIAL AND SPORTSMEN'S ORGANIZATIONS AND INDIVIDUALS.
ON TO 969 MAPS	MARSH LOSS HAS BEEN OCCURING THROUGHOUT THE BASIN AND IN THE SALVADOR WILDLIFE MANAGEMENT AREA NEARLY 8,000 ACRES OF MARSH WERE CONVERTED TO OPEN WATER.
SALVADOR WILDLIFE T AREA - FRESH H & WITHOUT	THE FRESH MARSHES IN THE SALVADOR WILDLIFE MANAGEMENT AREA ARE VALUABLE TO SPORT FISHERMEN, HUNTERS AND TRAPPERS. THE FRESH MARSH IN 1978 COVERED 17,000 ACRES. BASED ON PROJECTIONS TO 2035 WITHOUT A PROJECT, THE FRESH MARSH IS EXPECTED TO DECLINE TO 6,000 ACRES. HOWEVER, WITH A PROJECT FRESH MARSH WOULD BE 11,000 ACRES FOR A NET SAVINGS OF APPROXIMATELY 5,000 ACRES. SAVING THIS 5,000 ACRES OF MARSH WOULD RESULT IN A NET SAVINGS TO SPORT FISHERMEN AND HUNTERS VALUED AT

VIUSAL	AUDIO
	$56,000. COMMERCIAL TRAPPERS WOULD EXPERIENCE A NET SAVINGS OF $29,000.
SLIDE 21: BARATARIA BASIN MAP SHADED IN GREEN. SUPER: 0 RETARD SALTWATER 0 ENHANCE VEGETATION GROWTH 0 EXPAND ESTUARINE SPECIES NURSERY GROUNDS 0 ENHANCE FISH & WILDLIFE PRODUCTIVITY	DIVERTING FRESHWATER AT DAVIS POND WOULD BRING MANY BENEFITS TO THE BASIN. THE FRESHWATER WOULD RETARD SALTWATER INTRUSION, ESTABLISH AN OPTIMUM SALINITY REGIME, AND EXPAND NURSERY AREAS. THE SEDIMENTS AND NUTRIENTS IN THE WATER WOULD ENHANCE GROWTH OF VEGETATION AND REVITALIZE SOME AREAS OF MARSH AND REDUCE LAND LOSS. ALL OF THESE FACTORS WOULD IMPROVE PRODUCTIVITY OF FISH AND WILDLIFE RESOURCES. THE INCREASED PRODUCTIVITY WOULD HAVE AN AVERAGE ANNUAL VALUE OF $9.7 MILLION DOLLARS.
SLIDE 22: BARATARIA BASIN MAP W/OVERLAY OF 5 LAKE SALVADORS	IF MARSH CONTINUES TO BE LOST AT THE PRESENT RATE, BY 2035 APPROXIMATELY 221,000 ACRES OF MARSH WILL BE CONVERTED TO OPEN WATER, AN AREA EQUAL TO 5 LAKE SALVADORS. HOWEVER, DIVERTING FRESHWATER AT THE TOP OF THE BASIN WOULD RESULT IN NET SAVINGS OF 83,000 ACRES, AN AREA EQUAL TO 2 LAKE SALVADORS.
SLIDE 23: VIEW OF WADING BIRDS IN POND. SUPER: INTANGIBLE BENEFITS 0 INCREASED PLANT SPECIES DIVERSITY 0 PRESERVED & REJUVENTATED CYPRESS-TUPELO SWAMPS 0 IMPROVED HABITAT FOR NONGAME & NONCOMMERCIAL SPECIES	SOME BENEFITS WE DID NOT QUANTIFY. WE IDENTIFIED THESE AS INTANGIBLE BENEFITS. THE DIVERSIONS WOULD RESTORE HEALTHY HABITAT CONDITIONS FOR A WIDE VARIETY OF PLANT AND ANIMAL SPECIES. THESE SPECIES GIVE OUR COASTAL WETLANDS MUCH OF THEIR AESTHETIC AND ECOLOGICAL VALUE.

Louisiana Wildlife Federation, Inc.

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BATON ROUGE, LOUISIANA 70893
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Comments of the Louisiana Wildlife Federation Regarding
the Tentatively Selected Plan (TSP) for the Diversion
of Freshwater to Barataria and Breton Sound Basins
July 31, 1984

Colonel Lee, Ladies and Gentlemen:

Thank you for the opportunity to express our views on these most important and urgently needed projects. The Louisiana Wildlife Federation is the largest conservation non-government organization in Louisiana with over 7,000 members and 75 affiliated sportsmens groups statewide - 25 of which are located within a short drive or boat ride of the areas that will be benefited by the proposed diversion projects. By virtue of resolutions adopted by LWF convention delagates in 1981,82,83 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 [illegible] in the critically important Breton Sound and Barataria Bay

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 wetlands deterioration in coastal Louisiana.

Thank you.

PUBLIC HEARING STATEMENT OF LOUISIANA
WILDLIFE BIOLOGISTS ASSOCIATION ON
PROPOSED PLAN FOR FRESHWATER DIVERSION
TO BARATARIA AND BRETON SOUND BASINS
OF SOUTHEASTERN LOUISIANA
July 31, 1984

Colonel Lee, distinguished guests, ladies and gentlemen, my name is Johnnie 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 diversion structures on the Mississippi River at Caernarvon and Davis Pond to introduce supplemental freshwater into the Barataria and Breton Sound Basins. The estimated monetary benefits of this plan to fish and wildlife would exceed project costs by a three to one margin. 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 Salvador Wildlife Management Area and Jean Lafitte National Historical Park; 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 structures. A major benefit to overall resource productivity is associated with the anticipated savings of nearly 100,000 acres of marsh in the study area over the next 50 years. Such a reduction is critical if the renewable resources of southeastern Louisiana 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 into Louisiana's coastal wetlands, the Louisiana Wildlife Biologists Association strongly supports the Corps' tentatively selected plan for freshwater diversion into the Breton Sound and Barataria Basins.

JEFFERSON PARISH COASTAL ZONE MANAGEMENT
3330 N. Causeway Blvd., Room 303
Metairie, LA 70002

John J. Uhl
Administrator

July 31, 1984

In 1982 the Jefferson Parish Council passed resolutions that endorsed the concept of freshwater diversion, supported studies by the U. S. Army Corps of Engineers, and urged that a diversion of fresh water into the Barataria Basin be implemented at the earliest possible date. It is felt that the diversion is necessary to maintain the marsh at its current status and to curb further deteriorations through saltwater intrusion.

However, introducing freshwater into the Basin may not be sufficient. In the past relatively narrow passes impeded the flow of fresh water toward the south and the flow of seawater toward the north. This allowed gradual, steady mixing of the waters and maintained relatively stable salinity concentrations. More recently, erosion has widened passes, bayous, and artificial cuts, thereby allowing large quantites of fresh or salt waters to flow much more quickly. This has led to the occurrence of more sudden and wider salinity fluctuations over a larger area.

It is our recommendation that a freshwater diversion structure be accompanied by flow restriction structures in the lower Barataria Basin to alleviate sudden influxes of salt or fresh water. Jetties or other such structures that could constrict passes and openings to previous widths would require little maintenance. They would serve to stabilize salinity concentrations in the marsh, thereby maintaining habitats for estuarine organisms and providing further protection for the marsh.

JOHN J. UHL

THE TENTATIVELY SELECTED PLAN WILL DIVERT FRESHWATER INTO BRETON SOUND AT BIG MAR AND INTO BARATARIA BASIN AT DAVIS POND. INTRODUCTION OF FRESHWATER WILL REDUCE SALTWATER INTRUSION, ENHANCE VEGETATIVE GROWTH, DIMINISH LAND LOSS, EXPAND ESTUARINE NURSERY GROUNDS, AND INCREASE FISH AND WILDLIFE PRODUCTIVITY. SELECTION AND DESIGN OF THIS PLAN HAS BEEN TEMPERED BY STATE AND LOCAL CONCERNS REGARDING FLOODING, WATER QUALITY, DETERIORATION OF THE SALVADOR WILDLIFE MANAGEMENT AREA, AND THE NEED FOR ADEQUATE MONITORING AND LOCAL REPRESENTATION IN THE OPERATION OF THE FRESHWATER DIVERSION STRUCTURES.

PROJECTED BENEFITS EXCEED COSTS BY A FACTOR OF 3.2 TO 1. THE STATE OF LOUISIANA HAS PROVIDED A LETTER OF INTENT TO PARTICIPATE IN THE PROJECT, AND THE ST. CHARLES PARISH COUNCIL HAS FURNISHED A RESOLUTION SUPPORTING THE PROJECT. THE LOUISIANA DEPARTMENT OF NATURAL RESOURCES AND THE GOVERNOR'S COASTAL PROTECTION TASK FORCE FULLY SUPPORT THE CONCEPT OF FRESHWATER DIVERSION AND URGE THE CORPS OF ENGINEERS TO MOVE AHEAD WITH THE IMPLEMENTATION OF THE TENTATIVELY SELECTED PLAN.

MY NAME IS DAVID CHAMBERS. I AM HERE TO PRESENT A STATEMENT ON BEHALF OF THE LOUISIANA DEPARTMENT OF NATURAL RESOURCES AND THE GOVERNOR'S COASTAL PROTECTION TASK FORCE IN REGARD TO THE TENTATIVELY SELECTED PLAN FOR FRESHWATER DIVERSION.

THE BARATARIA AND BRETON SOUND BASINS ALONE ACCOUNT FOR ABOUT ONE-FOURTH OF THE NATION'S AVERAGE ANNUAL OYSTER AND SHRIMP CATCH. COMMERCIAL TRAPPING HARVESTS IN THIS AREA REPRESENT A SIMILAR PERCENTAGE OF THE NATION'S ANNUAL WILD FUR HARVEST. IN ADDITION, THESE BASINS ARE USED EXTENSIVELY FOR SPORT FISHING, HUNTING, AND OTHER WILDLIFE-ORIENTED RECREATION. TO MAINTAIN THIS HIGH LEVEL OF ESTUARINE PRODUCTIVITY, THE WETLAND HABITATS IN THESE BASINS MUST BE PRESERVED. UNFORTUNATELY, INTRUSION OF SALINE GULF WATERS, EROSION, AND SUBSIDENCE ARE CAUSING RAPID DETERIORATION AND LOSS OF THESE HABITATS. BETWEEN 1955 AND 1978 MORE THAN 164,000 ACRES OF MARSH WERE LOST TO OPEN WATER. THE RATE OF MARSH LOSS APPEARS TO BE ACCELERATING, AND PRODUCTION OF WILDLIFE AND FISHERIES SPECIES IS EXPECTED TO DECLINE ACCORDINGLY.

THIS LAND LOSS TREND IS LIKELY TO CONTINUE UNLESS MAN IMPLEMENTS LARGE SCALE PROGRAMS TO DIVERT FRESHWATER, TO MAINTAIN THE INTEGRITY OF THE BARRIER ISLANDS AND SHORELINES BORDERING THE GULF OF MEXICO, AND TO BETTER MANAGE OUR INTERIOR WETLANDS THROUGH WATER CONTROL MECHANISMS. STATE AND PARISH AGENCIES ARE PRESENTLY INVOLVED IN IMPLEMENTING PORTIONS OF SUCH A PROGRAM. THE TENTATIVELY SELECTED PLAN TO DIVERT MISSISSIPPI RIVER WATER INTO BARATARIA AND BRETON SOUND BASINS WILL COMPLEMENT STATE AND LOCAL GOVERNMENT EFFORTS TO REDUCE AND CONTROL COASTAL EROSION THROUGH SHORELINE STABILIZATION AND WETLAND MANAGEMENT MEASURES.

5. authority be requested for providing bank fishing facilities along outflow channels near the proposed diversion structures, and for constructing public boat launching ramps at locations in the study area identified during post-authorization studies.

While the proposed diversion plan will greatly benefit fish and wildlife resources, it will not totally solve the wetlands loss problem in the study area, let alone the entire Louisiana coastal region. Efforts must be intensified to reduce wetland loss and saltwater intrusion throughout the Louisiana 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. Such an approach is mandatory if the rich renewable resources of the Louisiana coastal region are to be maintained for generations yet to come.

Thank you.

- a reduction of nearly 100,000 acres in the amount of marsh lost in the study area over the next 50 years;

- a reduction in saltwater intrusion and creation of salinity regimes more favorable to fish and wildlife;

- improvement of wildlife habitat on the State-owned Salvador Wildlife Management Area and on the Barataria Unit of Jean Lafitte National Historical Park;

- a doubling of commercial oyster production in the study area;

- a net increase in estuarine-dependent commercial fisheries landings valued at $14.9 to 15.9 million per year;

- a net increase ranging from $291,000 to $368,000 in the average annual net returns from fur animal and alligator harvest; and

- a substantial net increase in populations of game and non-game wildlife.

The Corps of Engineers has initiated formal consultation with the Fish and Wildlife Service under the Endangered Species Act. The Fish and Wildlife Service is presently working with the Corps to assist that agency in fulfilling its responsibilities under that Act with respect to the endangered bald eagles which nest in the project area.

The Fish and Wildlife Service is in full support of freshwater diversion at the locations indicated in the tentatively selected plan. Being located at the upper portions of each of the two basins studied, these structures will allow freshwater flow through a maximum area of emergent wetlands; this will enhance removal of excess nutrients and pollutants, and allow for greater solar heating of the cooler Mississippi River water prior to its reaching the prime estuarine nursery grounds.

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

1. The tentatively selected plan be recommended for implementation;

2. The first costs of the proposed project be borne by the Federal government;

3. post-authorization studies be conducted to refine operational and maintenance guidelines for the proposed diversion structures, and to design monitoring and water management plans for the affected area;

4. authority be requested for enlargement of the proposed structures if, in the opinion of the District Engineer, such action would be justified to maximize project benefits; and

United States Department of the Interior

FISH AND WILDLIFE SERVICE

STATEMENT OF U.S. FISH AND WILDLIFE SERVICE
PRESENTED AT PUBLIC MEETING TO DISCUSS
THE TENTATIVE PLAN FOR FRESHWATER DIVERSION INTO THE
BARATARIA AND BRETON SOUND BASINS OF LOUISIANA - JULY 31, 1984

[illegible], distinguished guests, ladies and gentlemen, my name is [illegible] Bridge, Field Supervisor of the Lafayette, Louisiana, Field [illegible] the U.S. Fish and Wildlife Service. I am presenting this [illegible] on behalf of James W. Pulliam, Jr., Regional Director of the [illegible] and Wildlife Service in Atlanta, Georgia. My statement [illegible] sets the views of the Fish and Wildlife Service on the tentatively selected plan for freshwater introduction into the Barataria and Breton Sound Basins of southeastern Louisiana.

As many of you know, Louisiana's coastal marshes are being lost at a rate exceeding 25,000 acres per year. 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 harvest, and sport and commercial fisheries.

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. Such action would re-establish more favorable conditions for fish and wildlife. A plan for freshwater diversion into the marshes below New Orleans was submitted by the Fish and Wildlife Service to the Corps of Engineers in 1959, and was subsequently authorized by the Congress in 1965 as the *Mississippi Delta Region salinity control project*. However, none of the four freshwater diversion structures authorized by that legislation have ever been constructed. The plan developed under the present study recommends that two major freshwater diversion structures be installed along the lower Mississippi River; one of these would be constructed at Big Mar near Caernarvon, while the other structure would be at Davis Pond near Luling. At least one of those diversion structures would be constructed under the Mississippi Delta Region project authority.

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

Our past letters to the Corps concerning freshwater diversion from the Mississippi River related to the Mississippi and Louisiana Estuarine Areas Study (March 1, 1978 and December 9, 1983), the Mississippi River East Bank Levee System (October 29, 1976; February 24, 1977; and July 19, 1978) and this study (June 1, 1982) have shown a continuing desire by the NMFS to have freshwater flows from the river reestablished to the adjacent wetlands. We, therefore, applaud this proposed start toward reducing the current loss of wetlands in coastal Louisiana.

Although this plan is an excellent one, it is only a beginning, with much remaining to be done to drastically stem wetland loss. Additional freshwater inflow measures will be needed, such as a diversion into Lake Pontchartrain and thence Chandeleur and Mississippi Sounds, being proposed under the Mississippi and Louisiana Estuarine Areas Study, and maximizing the dispersal of freshwater flows and sediments in Atchafalaya Bay and into the western Terrebonne Parish marshes, under the Atchafalaya Basin Project. Equally important is the need to drastically reduce the coastal land loss caused by canal proliferation.

A comprehensive control of coastal wetland loss in the deltaic plain of Louisiana will require great strides in both diverting freshwater into the estuaries and reducing canal impacts. The excellent freshwater diversion initiative, proposed here, should spur even greater efforts toward controlling the loss of coastal Louisiana wetlands. Our only suggestion for improvement of the plan would be to design the structures and secure sufficient flowage easements so that freshwater diversions into these two basins could be easily increased at these locations, if desired in the future.

In closing, the NMFS strongly endorses the diversion of freshwater into these two basins and recommends that construction commence as soon as possible.

Sincerely yours,

Richard J. Hoogland
Chief, Environmental
Assessment Branch

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

July 31, 1984 F/SER112/DM:sav
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:

This responds to your Announcement of Public Meeting for July 31, 1984, referenced LMNPD-P, to discuss the Tentatively Selected Plan for Freshwater Diversion to Barataria and Breton Sound Basins, Louisiana. Implementation of that plan would reduce saltwater intrusion, enhance habitat conditions, and improve fish and wildlife production by diverting, from the Mississippi River, a flow of 6,600 cfs into the Breton Sound Basin, entering at Big Mar near Caernarvon and 10,650 cfs into Barataria Basin, entering at Davis Pond near Luling and into Lake Cataouatche.

The National Marine Fisheries Service (NMFS) has reviewed this announcement and is presently reviewing the project Draft Feasibility Study. We may submit additional comments on the study's Main Report and Appendices after completing their review. Our comments on the Revised Draft Environmental Impact Statement will be included in those submitted by the Department of Commerce.

This is essentially the same project we commented upon on June 1, 1982 except the diversion into Barataria Basin would enter the open waters of the basin at Lake Cataouatche, instead of Lac Des Allemands. Since the fishery benefits would be comparable for the two alternative diversions into that basin the NMFS essentially reiterates its 1982 comments.

As you have indicated in the Background Information, the wetlands in the Barataria and Breton Sound Basins support extensive commercial and recreational fishing. As saltwater intrudes into these valuable marsh-estuarine areas, coastal marshes are often eroded or destroyed and the nursery grounds vital to many fish and shellfish resources are reduced and productivity declines.

Though you indicate, for the commercial fishery catch, a current average annual value of $107 million, we wish to also note that both the Barataria and Breton Sound estuarine complexes are major nurseries supporting shrimp resources that are federally managed under the Magnuson Fishery Conservation and Management Act in the Gulf Fishery Conservation Zone, much of which is outside the study area shown in Exhibit 1. This is a further indication of the national interest to be served by starting to stem the loss and degradation of these fishery nurseries.

PUBLIC STATEMENTS

ATTACHMENT 5

VIUSAL	AUDIO
	FOR THE REMAINING 3 PERCENT. THE RATIO OF AVERAGE BENEFITS TO COST IS 2.8 TO 1.
SLIDE 29: DIVISION OF PLAN RESPONSIBILITIES	PRIOR TO CONSTRUCTION OF THE PROJECT, NON-FEDERAL INTERESTS 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 CONTRIBUTE A PORTION OF THE CONSTRUCTION COST, AND MUST ASSURE ADEQUATE PUBLIC ACCESS TO THE PROJECT AREA.
SLIDE 30: CORPS LOGO	THAT CONCLUDES OUR DESCRIPTION OF OUR TENTATIVELY SELECTED PLAN. MAY I HAVE THE LIGHTS, PLEASE. THANK YOU FOR YOUR ATTENTION.

VIUSAL	AUDIO
SLIDE 24: VIEW OF STRIP DEVELOPMENT ALONG BARATARIA BAY WATERWAY. 0 INCREASED BUSINESS OPPORTUNITES 0 INCREASED TAX REVENUES	BUSINESS OPPORTUNITIES WILL INCREASE IN THE COMMERCIAL AND RECREATIONAL FISH AND WILDLIFE SERVICE AND SUPORT ACTIVITIES. THE INCREASE IN BUSINESS ACTIVITY AND PERSONAL INCOME WILL PROVIDE ADDITIONAL TAX REVENUES.
SLIDE 25: VIEW OF COASTAL MARSHES. SUPER: 0 INCREASED MARSH CAPACITY TO BUFFER HURRICANE TIDES & TREAT WASTES 0 ENHANCE PROPERTY VALUES	THE PLAN WILL MINIMIZE THE LOSS OF THE MARSH'S CAPACITY TO BUFFER HURRICANE TIDES AND TO TREAT WASTES. THE IMPROVED CONDITIONS OF THE MARSH AND ITS INCREASED PRODUCTIVITY WILL ENHANCE PROPERTY VALUES.
SLIDE 26: VIEW OF BOATHOUSES IN CANAL. SUPER: 0 PRESERVE UNIQUE CULTURAL RESOURCES	THE PLAN WILL HELP PRESERVE THE UNIQUE CULTURAL HERITAGE AND LIFESTYLES OF THE COASTAL FISHING AND TRAPPING COMMUNITIES.
SLIDE 27: TABLE: APPORTIONMENT OF FIRST COSTS.	TO IMPLEMENT THE PLAN WILL REQUIRE A FIRST COST OF $35.5 MILLION. THE FEDERAL GOVERNMENT WOULD BEAR 75 PERCENT OF THE FIRST COSTS AND NON-FEDERAL INTERESTS WOULD BEAR THE REMAINING 25 PERCENT.
SLIDE 28:	THE ANNUAL COST IS $3.5 MILLION. INCLUDED IN THE NON-FEDERAL ANNUAL COST IS $174,000 FOR THE WATER QUALITY AND BIOLOGICAL MONITORING PROGRAM. THE REMAINING $171,000 IS OPERATION AND MAINTENANCE OF THE STRUCTURE, CHANNALS AND LEVEES. THE BENEFITS OF THE PLAN ARE ESTIMATED AT $9.7 MILLION. COMMERCIAL FISH AND WILDLIFE ACCOUNT FOR ABOUT 97 PERCENT OF THE BENEFITS, AND RECREATIONAL FISH AND WILDLIFE ACCOUNT

estuaries, and it has the enthusiastic support of the Louisiana Wildlife Federation. Not only are the projects expected to save or improve thousands of acres of wetland wildlife habitat and enhance fisheries production but, because the proposed diversion structures can be flexible in their operation, they 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. The TSP will help to stabilize the productivity of the system, as well as enhance it.

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.

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; and most importantly, every effort should be made to implement these projects as soon as possible.

Thank you.

Edgar F. Veillon
Co-Chairman
Wetlands Committee
LWF, Inc.

THOMAS P. POPICH
President
JOSEPH A. POPICH
Secretary Treasurer

The Plaquemines Gazette

OFFICIAL NEWSPAPER OF PLAQUEMINES PARISH
And All Parish Official Agencies

[illegible]
[illegible]
[illegible]
Telephone [illegible]

Melvin Burmaster
Editor, Gazette
Resident, Plaquemines
Parish, 101 Live Oak Drive
Belle Chasse.

Freshwater Diversion
Re: public hearing and solicitation of comments.

As a citizen of Plaquemines Parish, I fully support the proposal for freshwater diversion with one proviso: that the citizenry must have full knowledge of the system, either natural or mechanical, planned to cleanse water coming from the Mississippi River, in order to improve water quality.

The area into which the fresh water will circulate is a primary oyster growing area. Introduction of heavy metals and man-made contaminants will further damage the market aspects of the crop, as well as pose long-term health hazards. Also, introduction of even greater amounts of digestive system wastes into the area will increase the likelihood of market sales bans on the produce.

While the matter tonight concentrates on two basins, there is the possibility that the Corps could utilize lands in lower Plaquemines Parish for a hydrological test area, with possible land-building implications.

As land in the Bohemia area is placed back in the hands of private owners, the Corps or another interested state or federal agency could secure a surface servitude in the area. According to claimants, there is little likelihood that anyone will move to that area. Therefore, the Corps would have, in essence, a 20 mile long stretch of lower Mississippi to utilize as a model in water diversion and/or land-building.

Melvin J. Burmaster, Jr.

WESTSIDE OYSTER FARMS

July 31, 1984

Louisiana has 41% of National Coastal wetlands and provides 25% of the national commercial fish harvest, plus 40% of the wild fur harvest.

In 1963 through 1978, commercial fishing produced an average of 337,000,000 pounds of fish and shellfish and shows increases in total pounds per year for the past thirty years, but these figures do not reflect what we could have produced if these inland waters would have been protected from salt water intrusion and the dredging of channels throughout these lakes and bays. These figures only reflect pounds fished. This increase is mainly due to more fishing by more boats both bigger and better fishing not more production.

It is a known fact that our passes have enlarged in volume as much as ten times over in my lifetime. If the problems are salt water intrusion, why not start at the base of the problems, coastal barrier reefs and shoreline. Bring the passes under control to slow down the tidal changes that have increased so much in the past fifty years.

I believe along with most knowledgeable fishermen that river water by itself will not solve or correct our problems. You see gentlemen, while you sit and become judges on the project, as you the Corps for the last thirty years, that I know have done nothing but study projects. You have listened and put more weight on the people who study in the lab and study projects than people who know facts..

When fishermen speak we speak from experience that we have acquired from our forefathers and our personal experience and not from a lot of presumption of facts. If we are wrong about our feelings for the wetlands, we fool ourselves and if so we lose.

You the Corps have to make a decision and are paid as your livelyhood. We live and die by your decision, so as a farmer of wetlands, I speak from the heart and pocketbook. We put our lives on the line when we speak.

We must have salt water slowed down as much as we need more fresh water. Fresh water is vital, but, also it must be placed in the march, not channeled to lakes directly. If fresh water is allowed into lakes, bays, and streams, without curbing saltwater intrusion all you will do in our opinion is cause more damage because the marshes will become even more disturbed than they are now. This opinion is based on past experiences.

In the past you have allowed channels to cut through the marshes for the convenience of certain groups. This has caused more problems than Mother Nature has caused through natural erosion.

I am personally against more fresh water in the Barataria Bay area until salt water intrusion is dealt with at the passes along the Gulf of Mexico and also the disappearing coastline.

W. C. Ross IV
Pres W.S.O.F. Inc

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

STATEMENT OF MURRAY T. WALTON
BEFORE THE
PUBLIC MEETING TO DISCUSS
THE TENTATIVELY SELECTED PLAN
FOR FRESHWATER DIVERSION TO
BARATARIA AND BRETON SOUND BASINS, LOUISIANA

JULY 31, 1984 GRETNA, LOUISIANA

I am Murray T. Walton, Southcentral Representative of the Wildlife Management Institute. The Institute has been dedicated to the wise use and scientific management of natural resources since 1911.

The Wildlife Management Institute has followed the progress of planning for freshwater diversions from the Mississippi River into Barataria and Breton Sound Basins, Louisiana and has reviewed the Announcement of Public Meeting. We believe that the investigations by the Corps of Engineers and other cooperating Federal and State agencies have conclusively demonstrated the need to implement the tentatively selected plan in order to slow saltwater intrusion and land loss. The projected economic benefits for commercial and sport fishing, trapping, and hunting result in an extremely favorable benefit cost ratio of 3.2 to 1. In particular, it should be noted that increasing commercial fisheries landings should aid in a catagory where the United Sta es suffers an international trade deficit.

The Institute hopes that the proposed cost sharing arrangement requiring

a 25 percent ($12,700,000) non-Federal contribution will not be an impediment to timely construction. Although the proposed project will produce local economic benefits, we believe that there is a sound legal basis for 100 percent Federal financing. The economic benefits of the project accrue primarily for commercial fishing and trapping, activities which involve interstate and international commerce, and, particularly in regard to fisheries, harvest may be accomplished by fishermen from a number of states on the Gulf Coast. We believe these widespread benefits are clearly a matter of national interest. Also, various Federal flood control and navigation projects have resulted in the present restriction of freshwater flows. These projects span nearly the entire length of the Mississippi River. In our view, the diversions can logically be considered mitigation for prior damages.

The Wildlife Management Institute supports the early completion of the tentatively selected plan and appreciates the opportunity to appear here tonight.

June 22, 1984

206 Ellen Street
Ama, Louisiana 70031

Mr. Kevin M. Friloux
Parish President
P. O. Box 302
Hahnville, Louisiana 70057

Dear Mr. Friloux,

I recently communicated with you by telephone in response to an article in the Times Picayune - States Item newspaper, section 1, page 20, June 1, 1984: "River Project to be reviewed by St. Charles".

During that telephone discussion, I expressed to you my complete and total opposition to any proposal as outlined in that article. That article, in part as reported by Ron Thibodeaux of the River Parishes Bureau, states: "Army Corps of Engineer's troubled Mississippi River diversion proposal through Luling will get a second look Monday night from the St. Charles Parish Council". That article further reports: "The Corps has proposed constructing a diversion channel and floodway from the Mississippi River through the Davis Pond area to Lake Cataouatche. Water from the river would flow through Lakes Cataouatche and Salvador and help combat salt water intrusion into the Barataria Basin."

This is a "new approach" to the previous attempt published in the Times Picayune almost one year to the date of June 3, 1983, captioned: "Water Diversion Will Rob Parishes, Officials Complain". That article by Kathleen Osborne of East Jefferson Bureau: "A thirty-nine million dollar plan to help save Louisiana's wetlands by diverting Mississippi River water into the Barataria Bay and Breton Sound Basins has received high praise from environmentalists and coastal parishes. However, St. Charles and St. John parish officials vehemently opposed the plans, arguing that it would come at the expense of their constituents. The Army Corp of Engineers says the plan addresses the state's serious coastal erosion problems, which it says will cost Louisiana two hundred-eighty thousand (280,000) acres of valuable fishing, shrimping, and hunting land by the year 2035. To slow the rate of land loss, the Corps plan to divert the Mississippi at Bayou Lasseigne at Edgard and at the Big Mar Lake near Caernarvon to provide sediment and nutrients that have been blocked from the marshes since the river was blocked off by levees."

The Corps dropped their previous plan costing thirty-nine million ($39,000,000) dollars diverting water at Bayou Lasseigne and Big Mar Lake. One year later it has proposed to divert the river water through the Davis Pond area to Lake Cataouatche, Bayou Cuba, and Lake Salvador. However, this project is to cost thirty-two million ($32,000,000) dollars, with an additional five hundred thousand ($500,000) dollars projected to provide a six and one-half foot levee behind Willowdale Subdivision and a pumping station as "pacification" for the local inhabitants and is a direct misrepresentation of the purpose of the diversion in the first place.

During our telephone conversation, I cited numerous objections, including various ferences to you to support those objections. Those references will be hereby quoted d identified for your consideration.

I. Environmental Control And Safety Management, January 1971, volume 141, number 1, page 14: "Automation in Industrial Water Management, by Robert L. Patton, Vice President, Honeywell, Inc., Industrial Division, Fort Washington, Pennsylvania. In no area of resources management are the problems more complex or more urgently in need of solution than those involving the quality of our environment . . . but it may take more than just a contribution to correct the abuses that have been heaped upon the air and water and the land around us. The story about the chicken and the pig walking down the street seems appropriate. Turning to the pig, the chicken said, "Look at the sign over there: 'Bacon and Eggs 79¢'. Doesn't it make you proud of your contribution?" "For you it's a contribution," said the pig, "for me, it's a total commitment". And thus illustrates the position of St. Charles in this controversy. The Corps of Engineers, the idealists, the utopians and the "referenced environmentalists" are the chickens, but for the citizens and ecology of St. Charles Parish, we are the pig and for us it is total commitment. That article goes on to describe the projected cost of control for industrial waste treatment in the years 1970 and 1975, those costs ranging up to 4.4 billion dollars. The cost of comprehensive controls for industrial coolant facilities, those needed for thermal pollution abatement, will be 1.9 billion dollars, etc.

II. Environmental Quality: The Ninth Annual Report of the Council of Environmental Quality, December 1978, (for sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., 20402, stock number 041-011-0004-08). That report submitted to the Executive Office of the President's Council on Environmental Quality, 722 Jackson Place, N. W. Washington, D. C., 20006. Submitted in accordance with section 201 of the National Environmental Policy Act of 1969 (42 U. S. C. 4341).

A. Water Quality, chapter 2, page 90:

1. The year 1977 was a milestone for water pollution control programs. Deadlines for the many requirements of the Federal Water Pollution Control Act Amendments arrived and the Act was amended by the Clean Water Act of 1977. Thus, 1978 begins a new phase in water pollution control.

2. This chapter takes a satellite view of the major water pollution problems on which the most data has been collected. It then looks at various sources and kinds of pollution and the control measures adopted in order to achieve "fishable" and "swimmable" waters by 1983. Last are considered some issues that may well become more important with the passage of time. Among them are what constitutes "biological integrity" and, once it is defined, how to reach that illusive goal. It is important to recognize that water quality is but one element of a complex environment and that it is related to air quality, the land, and other natural resources. All need to be managed with the thought of the others.

3. Page 91, National Patterns of Water Quality Conditions: In a recent summary the state reports to the Congress prepared according to the requirements of section 305 (b) of the Clean Water Act, the Environmental Protection Agency indicated that 95% of the 246 hydrological drainage basins in the United States were affected by water pollution in 1977 . . . on the other hand, failure to report a problem does not necessarily mean that the basin is free from pollution; it may simply mean that the monitoring data are lacking. This lack of data is particularly true of potential carcinogens or other toxic pollutants. The nation's most wide spread water quality problems, as perceived by state officials, are high levels of nutrients, bacterial pollution, high concentrations of suspended sediments, and heavy loading of oxygen-demanding materials and consequent oxygen depletion in streams.

4. Page 92: Major Sources of Bacterial Pollution Are Improperly Treated Sewerage, Sewer Overflows, Poorly Operated Septic Systems, Ships and Boats, and Livestock. Water bodies with excessive fecal bacterial levels cannot be used for swimming, boating, and fishing, because of threat of water-borne disease. Coliform, fecal coliform, and fecal streptococcal bacterial counts are commonly used as the principal indicators of bacterial pollution. Coliform bacteria, though not harmful in themselves, indicate the possible presence of pathogens that are a hazard to health.

5. Page 96, figure 205: Shows fecal coliform levels form measures at NASQAN (Nationa' Stream Quality Accounting Network) stations during the 1975 - 1977 water years. "Violation rates" are the percentage of measurements in which concentrations of fecal coliform bacteria exceed the recommended maximum for safe swimming, which many states and CEQ (Council on Environmental Quality) defined as greater than two hundred cells per one hundred milliliters of water. (There is no legal, uniform national standard; standards may vary with water use and local laws and standards sometime differ from nationally recommended criteria).

6. Page 98, line six: For Nitrogen, Phosphorous, Fecal Streptococci Bacteria, Dissolved Solids, and Phytoplankton (Algae), more stations show deterioration than improvement.

7. Page 98, paragraph 2: Oxygen Depletion, Excessive Suspended Material, Oil and Grease, Heavy Metals and Toxic Chemicals are common in industrial pollution problems. Particular industries generate thermal pollution and pH problems; for example, discharges of cooling water from electric power plants can warm receiving waters enough to affect aquatic life significantly.

8. Page 101 - 102: Effluent Limitation Guidelines. Table 2-3, Toxic Pollutions Identified in the Clear Water Act of 1977.

9. Page 103: Pre-treatment studies by E. P. A. have estimated that up to 25% of waste received by municipal treatment plants is from industrial sources. A number of the pollutants discharged by industrial uses of municipal plants are substances for which there is evidence of carcinogenicity, mutagenicity, and/or teratogenicity. Others are know to have acute toxic affects on humans or aquatic organisms at sufficiently high concentrations. Many of the toxic pollutants are persistent in the environment and some bioaccumulate and enter the food chain.

10. Page 108, Municipal Point Sources Impacts: The pollutants most observed at unacceptable levels in municipal discharges are fecal coliform bacteria, oxygen-demanding materials, and phosphorous and nitrogen. Municipal discharges can also contain an excess of suspended sediments or dissolved solids as well as heavy metals and toxic organic compounds.

11. Page 118, Nonpoint Sources: E. P. A.'s 1975 National Inventory of Water Quality indicated that nonpoint problems would make it impossible to obtain "fishable" and "swimmable" waters by 1983. For example, Montana reported in 1977 that four thousand miles of its' streams could not meet the 1983 goal; the reason for more than three thousand-nine hundred miles is pollution from nonpoint sources. Erosion is a major cause of nonpoint pollution.

12. Page 125: Other sources, hydrologic modification of streams, such as by dredging, excavating, or dam installation, affects water quality in approximately 15% of the hydrologic drainage basins, as reported by the states. (See table 2-9). The basins affected are shown in figure 2-7. Dredging or excavation of stream beds to maintain navigation channels, reduce flooding potential, or facilitate irrigation can increase suspended sediments and sediment deposits and destroy stream habitats. This problem, as described in detail in the Arkansas and Tennessee state reports, affects many streams in the lower Mississippi River Basin.

13. Page 131, Toxic Substances: Contamination of water by heavy metal, pesticides, P. C. B.'s and other organic chemicals has attracted national attention only in recent years. These toxic pollutants can harm aquatic or human life in extremely low concentrations, which are often difficult to detect. Long-term, low dosage (chronic) affects, including carcinogenic, mutagenic, and teratogenic affects, often present an even greater danger to the general health of the aquatic environment than do their acutely toxic affects. Toxic pollutants enter the aquatic environment from a variety of point and nonpoint sources - some of the most common are industrial discharges, urban storm water run-off, atmospheric fallout, agricultural run-off of pesticides, leachates from sanitary landfills, mine drainage and accidental spills of chemicals.

14. Pages 131 - 139: The 129 priority toxic pollutant ..

15. Page 196, Implementing TSCA: The Toxic Substances Control Act, which became effective January 1, 197[illegible], gives the E. P. A. broad authority to review substances before they are manufactured for commercial purposes and to take action to prevent any unreasonable risks of injury to health or to the environment.

16. Page 197, Requirements of TSCA: Because the law encompasses as many as seventy thousand chemical substances in commerce, four million substances now known are in research and development, and one thousand new chemicals are introduced into the market each year, E. P. A must set priorities . . .

17. Page 209, The Chemical Abstracts Services, which has assigned numbers to over four million substances having more than six million names since it was begun in 1965 . . . It will take several years to run existing government files against this "dictionary" of chemicals . . .

18. Page 245, Floodplains and Wetlands: The Federal Government has begun a major effort to give wetlands and floodplains special attention. Two executive orders issued by President Carter on May 24, 1977 prohibited Federal Agencies from needlessly damaging or destroying wetlands and floodplains. If an agency proposes to conduct or support an action in a wetland or floodplain, their orders require that the head of the agency make a written finding that there were no practical alternatives to the site . . . The Congress had previously enacted more than a dozen laws which gave partial protection to wetland areas, the most of which is section 404 of the Federal Water Pollution Control Act. This section requires a permit from the Corps of Engineers for the disposition of materials in the water of the United States. Inland and coastal wetlands throughout the country have, as a result, received strong Federal protection. Amendments to the act in 1977, however, exempted certain routine forestry and agricultural practices from the permit requirements. Congress also exempted from the permit requirement Federal projects which will be primarily water projects that are submitted to the Congress prior to the specific authorization or appropriation requests and before any actual discharge. In these situations, the submission to the Congress must include environmental impact statement information on the effects of the proposed discharge. Etc., etc.

19. Page 246, Executive Order 11988: "Floodplain Management" replaced the 1966 Executive Order 11296: "Flood Hazard Evaluation", which recognized that structural flood control measures alone were inadequate to stem rising flood losses. The 1966 order was followed by the establishment of flood insurance, disaster assistance, and related Federal programs, and some state and local floodplains management.

19. (cont'd) The new executive order adds environmental perspective to the objective of achieving flood control. The order seeks to preserve the natural and the beneficial value of floodplains - wildlife habitat, farm and forest, stable ecosystems, parks and recreation . . . Both the wetlands and floodplains executive orders require the heads of agencies to give a specific public finding if there is no practical alternative to citing an action in an area. In addition, agencies must take all practical measures to minimize any harm that may result from the action.

20. Page 274, Soil Erosion and Productivity: Erosion of soil from U. S. farms is a long standing problem. Over the last two hundred years, U. S. cropland has lost approximately one third of its topsoil. Since 1935, about one hundred million acres have been degraded to the point where they cannot be cultivated; on another hundred million acres, more than 50% of the topsoil has been lost . . . The dominant form of U. S. soil loss is sediment carried off by water. Some four billion tons of sediment per year are delivered to the waterways of the 48 contiguous states. Wind erosion accounts for another one million tons per year. Three-fourths of the nation's water-borne sediment comes from the agricultural lands. About one billion tons ends up in the ocean; the remainder settles in resevoirs, rivers, and lakes, shortening their useful life. Additionally, sediment often carries with it fertilizers, pesticides, and other by-products of modern farming, which degrades the receiving bodies of water.

21. Page 310, Ecology and Living Resources - Disruption of Natural Systems: When explorers and colonists first arrived on our shores, they were astonished at the richness and variety of the new world's wildlife. John Cabot, exploring Newfoundland in 1497, noted the mast-sized trees that came to the water's edge, and his son, Sebastian, noted that salmon, sole and codfish were "so abundant as to slow up the advance of the ship". To these first arrivals and others who followed, it seemed that the continent's bounty was inexhaustable. Yet, the fact is that the regenerative capacity of nature cannot always make up for the excesses of human actions. A pattern of abuse characteristic of most of our history can relegate living resources to non-renewable status.

22. Page 311, An Aquatic Ecosystem - The Great Lakes: The Great Lakes once provided some of the richest commercial fisheries in the United States. The collapse of this resource was caused by a number of human actions which had cummulative effects, sometimes accompanied by changes in natural conditions. Overfishing resulted in loss of the lake sturgeon and cisco as commerical species by 1900. A sub-species of cisco became extinct about this time. Today the blue pike is on the endangered species list, in part because of earlier overfishing. Thus, even before the 1940's, as shown on tabel 7-1, the stocks of native fishes of the Great Lakes were already severely stressed, when the effects of another human action, taken long before, began to be felt. Since colonial days, the nation's waterways have been altered to provide cheap, convenient carriage of cargo.

22. (cont'd) Sometimes the natural barriers which were breached to improve the efficiency of transport were the same barriers which isolated discreet living communities. The three hundred twenty-six foot cascade of Niagra Falls which blocked passage to the Great Lakes was once an impassable barrier for both goods and living organisms. The Welland Canal, opened in 1829, by-passed Niagra Falls, with the result that species which were not native and had never before been present, gained access to the upper Great Lakes. The most notorious of those species was the parasitic sea lamprey, whose initial slow colonization of the Great Lakes illustrates the time-bomb affect on some human actions in the environment. The first lamprey was not found in Lake Erie until 1921. The species did poorly there, but it ventured further into the upper Great Lakes, becoming established in Lake Huron in 1932, Lake Michigan in 1936, and Lake Superior in 1946. Here the species prospered and essentially eliminated fish higher in the food chain, such as lake trout and burbot. Table 7-2 shows how the lake trout declined as the lamprey population increased. Other important species, such as whitefish and walleye were also severely affected. The removal or reduction of these major predators had reverberations throughout the food chain. Without them, the lower links could expand unchecked. A small marine herring, the alewife, was accidently introduced into Lake Ontario about 1870. By 1954, it had spread to Lake Superior. The alewife was not found in Lake Michigan until 1959; its arrival coincided with the loss of the predators from sea lampreys. The alewife population increased spectacularly to become a major nuisance. Other small fish, the American smelt, which was accidently introduced into the Lake Michigan drainage basin in 1912, also flourished and its population expanded during this period. After extensive research a successful program to control the [illegible] of the sea lamprey has been developed. At the same time, a major sports fishery has been successfully established in the Great Lakes. Efforts to introduce top carnivore fish species, especially salmon, dates back to the 1870's. As the original lake fisheries declined throughout the period before World War II, attempts to stock salmon and other valuable fish continued in the hope of developing a new commercial fishery. None was successful. After World War II, management efforts turned towards sport fishing. States bordering the Great Lakes launched major stocking programs of salmon and trout through the 1950's and 1960's. In Lake Michigan especially, the results have been outstanding, with high survival rates and rapid growth. The successful progress of the Great Lakes sports fisheries is indicated in table 7-3. Despite their apparent success, however, both the lamprey control program and the artificially propagated sport fishery depended on continued human effort. Although limited spawning of sport fish has taken place, maintenance of the sport fisheries still requires large annual stocking. Lamprey control depends on the continuous application of costly strategies, such as chemical poisoning of larvae. In judging the success of the programs, one must keep these facts in mind:

2. t'd)

- The original ecosystem has been lost and can never be replaced.

- The managed ecosystem that has taken its place is artificial and must be continually controlled by removing lamprey and adding salmon, and the cost in dollars, energy, and human effort is high.

- In the absence of human intervention, the new system would rapidly degenerate.

Overall, the Great Lakes water quality has shown improvement in the last several years. However, because the salmonides introduced into the lakes are top carnivores, those pollutants that are still present accumulate in the food chain and reach high concentrations in salmon flesh. High levels of both mercury and P. C. B.'s in the Great Lakes have caused great concern, and sport fishermen have been warned about excessive consumption of their catch. Although there are signs that the mercury situation is improving, P. C. B. levels in fish flesh have not significantly changed in 8 - 9 years. In brief, the Great Lakes are a system so thoroughly perturbed by people, that it is difficult to imagine their original fisheries ever again becoming a true renewable resource. Stability, even in the presently managed ecosystem, has not been achieved. An analysis of the fish data available for the Great Lakes region concluded that as late as 1971, there were no signs of a new equilibrium. The history of the Great Lakes - those immense natural resevoirs which hold one-fifth of the world's fresh water - demonstrates the extraordinary consequences of human actions. An important commercial fishing industry in several states is completely destroyed; the replacement sports fishery is plagued by bioaccumulation of toxics; the ecosystem ~~is chronically~~ out of balance among predator (salmon), prey (alewife), and parasite (lamprey) and requires continual human subsidies; the several species or subspecies have become either endangered or extinct.

3. Pages 315 - 319: Wetland Ecosystems.

4. Page 320, A Terrestrial Ecosystem - The Big Thicket: The southeastern states are a microcosm of much of the nation's forest situation. The amount of land in a region devoted to forests and foresting is declining, as is the timber yeild, shown in figure 7-4. In the Mississippi delta, substantial loss of wetland forest has occurred. Of the 11.8 million delta acres of the forest in the early 1930's, some 40% have been converted to soybean cultivation and other non-timber uses. This conversion is occurring for several reasons. Besides economic advantage to farmers who do not have to wait out a fifteen year harvest cycle, the government price supports, property taxes, and other influences, encourage this trend.

25. Page 472, Water Resource Development - Irrigation; The Dangers of Improper Use. Irrigation is a technology used by farmers since ancient times to coax dry lands to produce crops . . . As long ago as the Sumerian and Babylonian civilations, it became apparent that irrigation was not without danger. Unless special care is exercised, alterations in the level of the water tables, rate of salt leaching, and flow of natural waterways can cause irrigated lands to turn into wastelands . . .

26. Page 476, Water Quality and Human Health: The intimate connection between environmental quality and human health is widely acknowledged; yet it remains very difficult to battle environmentally caused diseases . . . Water-borne diseases include typhoid, cholera, malaria, amoebic dysentery, round worm and hook worm, filariasis, trachoma, schistosomiasis, and onchocerciasis (river blindness). Some, like typhoid and cholera, are attributable to fecal contamination in water; others, like malaria and river blindness, come from insects, such as the mosquito and the black fly. Dysentery is the leading cause of death in infants and children in the third world.

27. Page 476, Aswan's Other Impact: In creating the enormous Lake Nasser resevoir in a large network of irrigation canals, engineers also provided a mammoth habitat for snails that are the critical link in the life cycle of a parasitic worm which causes schistosomiasis . . .

28. Pages 539 - 578: Application and interpretation of proposed N. E. P. A. regulations and subsequent adoption of those regulations (National Environmental Policy Act).

III. Lake Pontchartrain - Lake Maurepas Special Management Committee - A Technical Draft Report, May 11, 1982 - Regional Planning Commission - Jefferson, Orleans, St. Bernard, and St. Tammany Parishes. The heading on this document is self-explanatory. It is offered in support, in its entirety, all ninety-five pages. This document is offered because those problems that plague Lakes Maurepas and Pontchartrain are similiar to those that now or soon will plague Lake Cataouatche, Lake Des Allemands, and Lake Salvador. Furthermore, it has been proposed that river water be diverted from the Mississippi River through the Bonne Carre' Spillway into Lake Pontchartrain with the subsequent effect as referenced previously in this report.

IV. Xeroxed material received form Mr. Richard Bejarano, Department of Wildlife and Fisheries, Fish Kill Section, 400 Royal Street, New Orleans, Louisiana, 70130. That xeroxed material is numbered 1 - 11 in hand-written identification numbers at the bottom of each page.

A. Page 1: Xeroxed copy of "skeletal types". The top such object is a "lamprey", the bottom designated object is a shark.

B. Page 2: Fresh water fishes of Louisiana family petromyzontidae. The lampreys are fish-like vertebrates . . . Occasionally, lampreys are collected with a seine or chemicals, but more often they are found still attached to their hosts in the nets of commercial fishermen . . . but lampreys DO NOT NOW APPEAR TO OCCUR IN SUFFICIENT NUMBERS TO BE CONSIDERED A SERIOUS DETRIMENT TO LOUISIANA FISHES . . .

C. Page 3: Illustration, Chestnut Lamprey.

D. Page 4: Chestnut Lamprey . . . In Louisiana, it has been found in the adult stage throughout the state and in MOST MAJOR RIVER DRAINAGES . . . The adult is usually found in the larger rivers and impoundments of the state . . .

E. Page 5: Southern Brook Lamprey and distribution.

F. Page 6: Brook Lamprey and description . . . In Louisiana it has been found in the adult stage in "MOST MAJOR RIVER DRAINAGES" . . .

G. Page 7: Axial firm skeleton.

H. Page 8: Description and illustration of fish and lampreys.

I. Page 9: Class Agantha. This class is represented by the jawless vertebrates, including hagfishes and the lampreys. Hagfishes are wholly marine, usually found in offshore waters. Lampreys occur in both fresh water and marine environments, but the marine forms must enter fresh water to spawn. The sea lamprey (petromyzon marinus) is a parasite as an adult and has become permanently established in some bodies of fresh water, including the Great Lakes . . .

J. Page 10: Indexes.

K. Page 11: Unwanted materials, such as toxins produced in nature and pollution from human activities are serious menaces to fish life. The aquatic habitat provides no places of escape from damaging substances and solutions. The threat to fish of water-borne toxic materials is comparable to that of air-borne pollutants to humans. Although fish are able to detect many such chemical containments, they are often unable to avoid them. Like all animals, fishes have a full compliment of diseases with which to contend. Many of these are due to external agencies; others arise internally. From outside come viruses, fungi, bacteria, parasitic protozoans, worms, crustaceans, and lampreys . . . The fish must survive periodic adverse chemical conditions in water, predators . . . How and why fish are studied:

K. (cont'd) At least ten centuries before Christ, the Chinese were trying to find out enough about fishes successfully to propagate them. Ancient Egytians, Greeks, and Romans recorded observations on the varieties, habits, and qualities of various fishes. The symbol of the early Christian underground movement in the catacombes was the fish.

V. Affidavits from William D. Beckendorf and Larry Zeringue attesting to having witnessed the effects of predatory lamprey attacks on catfish caught on trot lines in the Mississippi River in the Ama to Davis Crevasse area.

VI. Soft-shell crab workshop, Lacombe, Louisiana, May 1984.

A. Interim design recommendations for closed recirculating blue crab shedding systems by Ronald F. Malone, Ph.D, Assistant Professor, and Don P. Manthe, Research Assistant, Department of Civil Engineering, Louisiana State University, May 10, 1984.

1. Pages 1 -13: This data describes the relative natural and artificial environment for the "Louisiana Blue Crab" survivability.

B. Proceedings: Blue Crab Colloquium, Gulf States Marine Fisheries Commission, number 7, August 1982. Proceedings of the blue crab colloquium, October 18 - 19, 1979, 137 - 152. The fishery for soft crabs with the emphasis on the development of the closed recirculating sea water for shedding crabs. Harriet M. Perry, John Ogle, and Larry C. Nicholson. Fisheries research and development, oyster biology, and anadromous fish sections, Gulf Coast Research Laboratory, Ocean Springs, Mississippi, 39564. This paper, a total of seventeen pages, deals with the natural and artificial environment for processing hard-shell crabs into soft-shelled crabs. The paper deals principally with the ecosystems, both natural and artificial, with specifics to salinity, oxygen content, etc.

C. Marine Resource Report - Mortalities in the Soft Crab Industry: Sources and Solutions, Michael J. Osterling, April 1982. A publication of the Virginia Sea Grant Marine Advisory Program, Virginia Institute of Marine Science, College of William and Mary, Glouchester Point, Virginia, 23062. Virginia Marine Resource Report number 82-6.

1. Page 1, Item 4: Silt Load of River. Although not a direct cause of mortality, a heavy silt load in the water can cause problems for shedding houses. Most obvious is the interference with respiration (breathing). This can put the crab into a weakened state prior to harvesting. Secondly, a heavy silt load can contribute to reduce oxygen problems later in the year. Associated with the silt will be organic matter. When this settles to the bottom, oxidative break-down will begin. Oxygen will be consumed in this process, thus lowering the oxygen available to other bottom organisms . . . water temperature . . . dissolved oxygen . . .

2. Page 5, Item 7: Salinity. Salinity of water in your floats/tanks should be approximately the same level as the area that your peelers came from; at least no more than five parts per thousand higher or lower than the salinity in the area of the peeler harvest. If at all possible, protect your facility from experiencing wide fluctuations in salinity . . . water temperature . . . oxygen levels . . .

3. Page 8, Table 1: Amount of oxygen which can be dissolved into sea water and different temperature and salinity combinations. Temperature is in degrees Farenheit (°F), salinity in parts per thousand (ppt), and oxygen in milliliters per liter (ml/l).

VII. Article from New Orleans Times Picayune - States Item, 6-11-84: "N. O. Water Tapped is the Best Tasting" . . .

A. G. Joseph Sullivan, General Superintendent of the Sewerage and Water Board, said the win shows New Orleans is meeting the challenge of "TREATING THE RAW SEWERAGE OF ONE HUNDRED MILLION PEOPLE" in the Mississippi.

B. Experts tap N. O. water as best in N. America. "The Mississippi has been cited as having higher than Federally allowed levels of carcinogens. Dr. Michael Collins, a water specialist from Southern Methodist University in Dallas, who also judged the contest, noted the irony, but he said, "Safe doesn't have anything to do with taste".

VIII. Article from TP - SI, s-1, p-2, 6-12-84: "U. S. Forest Growth Stunted by Pollution Stress, Report Says" . . . Scientists have found forests showing signs of "environmental stress" up and down the east coast - deterioration that began as long as thirty years ago - the national acid precipitation task force concluded. The study follows a series of alarming reports in recent months that forests in North America and central Europe show unusual signs of dead, dying, and diseased trees. Etc., etc., etc. . .

IX. TP - SI, s-1, p-16, 6-12-84: "Ships Hit, Oil Heads Downriver". A four-mile slick of crude oil spread along the Mississippi River Monday night after a collision between a Greek tanker and a barge-pushing tug, the coast guard said. Etc.

X. TP - SI, s-1, p-16, 6-12-84: "La. Agency to Start Investigation of Acid Rain Problem". The State Department of Environmental Quality concedes that acid rain is becoming a problem in Louisiana, will launch a 1 - 2 year study of the phenomenon in the next two weeks . . . Studies in the northeastern United States and in Canada have linked acid rain to fish kills as well as damage to lakes, forests, and crops . . . In 1982 Dr. J. W. Robinson, Professor of Chemistry at Louisiana State University, found that the acidity of rain in one test in Baton Rouge was seventy times higher than normal . . .

XI. TP - SI, s-1, p-17, 6-13-84: "An Oilslick in River Spreads Seventy Miles After Ships Crash". An oilslick of more than seventy miles long moved down the Mississippi River today after a Greek Tanker and tug boat pushing four barges filled with crude oil collided near Vacherie Monday night. The collision dumped an estimated five thousand barrels, or two hundred thousand gallons, of oil into the river in what the Coast Guard described as a "major oil spill" . . . Coast Guard Lt. Cmdr. Richard Ford told a news conference in New Orleans Tuesday that a 4 - 5 knot current was carrying oil downstream quickly . . . He said he expects "no serious health problems" although a small amount of oil will enter the water intake lines. This is because it is classified as No. 6 heating oil or lubricating oil - which is heavier than crude and will sink below the river's surface. . .

XII. TP - SI, s-1, p-17, 6-13-84: "Bayou is Choked by Plants". That stuff is growing in Bayou St. John again . . . Complaints from are residents, particularly those who live along the southern end of the bayou, have begun to stream into the Louisiana Department of Wildlife and Fisheries this week, said James Manning, an Aquatic Plants Control Specialist. Manning said he contacted the Army Corps of Engineers Tuesday to see if its aquatic plants division could determine the extent of the growth in Bayou St. John. Those Corps officials could not be reached for comment on Tuesday . . . Heavy rains might help by restoring currents in the bayou that would push the algae and plant growth towards Lake Pontchartrain and salty water, which would kill them . . .

XIII. TP - SI, s-1, p-12, 6-14-84: "Beside the Shrill Waters". It is drawn from the Mississippi, a river so polluted by petrochemical waste that it has been called the colon of America.

XIV. TP - SI, s-4, p-12, 6-15-84: "Replanting of Reefs Starts". Ocean Springs, Mississippi. (AP) - Replanting of oyster reefs off the Mississippi coast that were damaged during last years flooding began this week. Radcliffe Materials, Inc. of New Orleans is depositing fifty thousand cubic yards of shells in the Mississippi Sound, according to the State Bureau of Marine Resources officials. The shells, dredged from Lake Pontchartrain and Lake Maurepas, will be deposited onto the reefs at the rate of about three thousand cubic yards a day over about twenty days. The replanting project, which is financed with an emergency grant from the National Marine Fisheries Services, is an attempt to revitalize the reefs. MORE THAN 95% OF THE OYSTERS IN THE WESTERN MISSISSIPPI SOUND WERE KILLED WHEN MISSISSIPPI RIVER WATER RELEASED THROUGH THE BONNE CARRE' SPILLWAY IN MAY AND JUNE OF 1983 DRASTICALLY CUT BACK THE SALT IN THE WATER AND DEPOSITED SEDIMENT ON NEARLY FOUR THOUSAND ACRES OF PRODUCTIVE REEFS . . . THE OPTIMUM SALINITY FOR OYSTERS IN THE REGION IS IN THE RANGE OF TWELVE TO FOURTEEN PARTS PER THOUSAND. SPAWNING DOESN'T OCCUR UNTIL THE WATER REMPERATURE REACHES 70°F . . .

XV. TP - SI: "Oyster Beds in Three Parishes Will Re-open Monday". Oyster beds in lower western Terrebonne Parish and lower Plaquemine Parish and Jefferson Parishes will be re-opened to fishermen thirty minutes before sunrise Monday. Dr. Sandra L. Robinson. Secretary of Health and Human Resources, said the areas will be opened because summer weather patterns have improved the water quality. The areas in Terrebonne are Moncleuse Bay, Lake Mechant, Caillou Lake, Oyster Bayou, portions of Four League Bay, Bay Junop, King Lake and Bay Voisin. In Plaquemines and Jefferson; portions of northern Barataria Bay, Bay Batiste, Bay Sans Vois, Lake Washington, Bay de Chenier, portions of Bayou Grande, Bay Ronquestt, Bay Chanafleur, Wilkerson Bay, and portions of Wilkerson Bayou.

XVI. TP - SI, 6-20-84: "River Diversion Project Urged to Ease Erosion, Boost Seafood". Baton Rouge (AP) - Some of Louisiana's dwindling shoreline can be recaptured and seafood production could be increased by sending part of the Mississippi River's flow through marshes north of New Orleans, two Federal studies say. The project would increase oyster production by 7.5 million pounds, as well as enhance the productivity of white shrimp, blue crab, croaker, and menhaden, the studies say. It would also save ten thousand-five hundred acres of marsh and wooded swamp over the next fifty years, according to a feasibility study in an environmental impact statement, both done by the Army Corps of Engineers . . . The diversion facility would be located in St. Charles Parish, thirty-three miles upriver from New Orleans near the Bonne Carre' Spillway . . . The project would result in "favorable salinity for most fish and wildlife", according to the Corps. The diversion would reduce salt water intrustion that kills marsh vegetation and helps break up the marsh. The sediment and nutrients supplied by the diverted water would enhance growth of vegetation and revitalize some areas of marsh and reduce land loss, the Corps report says. Wood swamps in St. Charles Parish and north of Pass Manchac between Lake Maurepas and Lake Pontchartrain would be restored to a healthier condition, the Corps says . . . The project should help catfishing and crabbing in the lake as well as marsh loss, Van Beek said. Another benefit, according to the coastal expert, is that the project would provide better water circulation and help prevent the stratification that other researchers have found to be the cause of low levels of dissolved oxygen in the waters of Lake Pontchartrain during summer months. The project would have a couple of drawbacks in that it would introduce turbidity and chemical pollutants from the river, etc. etc.

XVII. Pathfinder Map no. 14: Lake Cataouatche, Lake Salvador, and Salvador Game Management Area.

XVIII. Pathfinder Map no. 13: Little Lake, Barataria, and Lafitte.

The above cited data casts further controversy on this issue. I have placed numerous phone calls to Councilman Clay Faucheux of Luling, without response. I have spoken to Dave Mekarski, St. Charles Parish Coastal Zone Administrator, and requested any and all data that he may have available on this subject. To date, no data of any sort has been received from that source.

XIX. At the time of the writing of this report, numerous trawl boats are upon Lake Pontchartrain. The shrimp crop is excellent, the crab season is upon us with an abundance of crabs. The lake is alive and well in spite of those deficiencies outlined in the technical draft report of May 11, 1982 pertaining to that lake and without a significant influx of river water through the Bonne Carre' Spillway. River water that does leak through the maze of the Bonne Carre' Spillway traveled through the vegetation grown areas and the flow was reduced whereby the silt and solids precipitated out, and water reaching the lake was essentially clear water.

XX. Lake Des Allemands and the canals in that area were and are producing as normal. The sac-a-lait run, perch and bass returned as is normal. Bayou Des Allemands, Bayou Gauche, Lake Salvador, Bayou Cuba, Lake Cataouatche, Sellers Canal, etc., all have an abundance of catfish, bass, sac-a-lait, perch, crabs, shrimp, and in the western areas of Lake Salvador, redfish, drum, some croakers and specks. Again, all of this without any diversion of water from the Mississippi River into Lake Cataouatche.

XXI. Anyone who believes that water can be diverted from the Mississippi River into either Lake Pontchartrain and/or Lake Cataouatche, Bayou Cuba, Lake Salvador, with impunity should note that the Bonne Carre' is full of river sand, that the area south of the railroad bridge in Morgan City on the Atchafalaya River is essentially one huge series of river sand dunes extending out into the Atchafalaya Delta area.

XXII. Within the last few years there were articles in the Reader's Digest pertaining to the new delta accumulating in the Gulf of Mexico at the mouth of the Atchafalaya River, as were companion articles pertaining to the building and maintaining of sand dunes and beaches on sea coasts of Mississippi.

XXIII. There have been studies conducted by various oceanographic industries, and published in Ocean Industry magazine documenting the increased water level, intensity of storms and heights of waves in the Gulf of Mexico within the last ten years.

XXIV. If the stated purpose of the Corps of Engineers is to deposit more sediment in the Breton Sound area, an ideal method of doing that would be utilizing the Mississippi River Gulf Outlet. Maintenance thereof should be borne by those parties utilizing that facility.

If the Corps statement that it must combat salt water intrusion into the Barataria Basin is a valid cause, it is suggested that any salt water diversion to accomplish that purpose by introduced at the head of Bayou Lafourche in the area of Donaldsonville, Louisiana. This is an historical outlet and should be utilized.

V. The article cited pertaining to the oyster beds are self-explanatory, the oyster beds along the coast of Mississippi which were destroyed by the turbidity and silt from river water flowing through the Bonne Carre' Spillway to Lake Pontchartrain should cause even the staunchest advocate of this project to pause and perhaps think. The companion article relative to re-opening oyster beds in Jefferson Parish, Terrebonne Parish, and Plaquemines Parish is a historical occurrence that has been occurring with regularity within the last fifteen years. These beds are closed whenever the pollution levels get high enough to warrant that action. The major source of that pollution is the Mississippi River and the Intracoastal Waterway. Pollution must be controlled at its source. Opening and closing oyster beds, etc., is not a solution.

There are numerous syphons crossing the levee in Plaquemines Parish providing river water to the delta areas. However, those are in areas that have historically been part of the natural delta. The ecology there is compatible with river water and river sand. That process is utilized to control the salinity and thereby the various parasites and fish (drum) preying on established oyster beds. Those individuals traveling by vehicle on I-10 west, by boat in Lake Pontchartrain, and/or aircraft, will note numerous dead cypress trees extending from Kenner, Louisiana to the northern estuarian areas of Lake Pontchartrain and Lake Maurepas. Cypress trees are not dying from salt water intrusion, they are dying from chemical pollution, in particular, vapors from various acid plants, in particular, Monsanto Chemical Plant for over 20 years, drifting in what has always and historically has been the predominant wind patterns from southeast to northwest. It has been a common occurrence for the last twenty or so years driving from Ama, Louisiana to Luling, Louisiana on La. highway 18 in the early morning to observe the yellow plumes of acid vapors extending from Monsanto Chemical Plant all the way across Pass Manchac. They are not alone. At the present time, extensive acid vapor is being released by the American Cyanamid Plant; everyone is familiar with the emission problem that existed at the Good Hope Refinery, and emissions from the entire petrochemical corridor from Myrtle Grove to north Baton Rouge for the past forty years.

The ecology of Louisiana has been prostituted upon the altar of Industrial Colonialism disguised as progress. I would propose a moratorium on any further depletion, destruction, alteration, etc., of our waterways, wetlands, swamps, forests, etc. I would further suggest a moratorium on any further industrial expansion in St. Charles Parish without adequate ecological studies or safeguards.

To propose diverting the Mississippi River water on both the east and west sides of St. Charles Parish into our lakes and estuarian areas is the cruelest hoax of all. Even if this proposed river diversion program could be proven to be ecologically beneficial and practical, why, I ask, must St. Charles Parish and the citizens thereof be the sacrificial goat; why destroy our way of life to hopefully provide what we already have for others by the year of 2035?

Sincerely,

Charles J. Beckendorf

Charles J. Beckendorf
Ama, St. Charles Parish, Louisiana

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If I had any say so about this critical condition, I would fill up all of the canals that the oil companies dug throughout the years, build back the levees on the main streams, build the levees wide and high, therefore when the levees are completed, willow trees will grow and other vegetation.

Then you hire large suction dredges to pump the sand out of the main pass in the place where you have taken the mud to build the levees. If this job is done right, the water will go through the main stream instead of going through the marshes. Navigation will be safer because the passes will stay open because of more water going through them.

Another serious matter we have is that big offshore boats and large crewboats and ships navigate entirely too fast. The ships and big offshore crewboats wash the main river banks away. The smaller crewboats tear up the smaller passes. That is what the oil companies want. But if you want to keep Louisiana, you will have to slow the oil companies down.

If all oil company boats and ships would run at a normal speed, they would not lose too much running time.

Now let us go to Fort St. Phillip. They have a hell of a big washout in the levee. How it got there, I really do not know. But for damn sure it is not helping our problem. In fact, it should have being taken care of way before now. It is one of the biggest hazards that we have.

When the river is rising, that water runs over the bank bringing in whatever pollution that is in the river and also killing whatever vegetation that is around. It covers a big area. It emties into Bay Couquille carrying with it a deadly silk, which is a soft sand. When it reaches the bays it will drop its sand on top of the oysters and kill them. It also kills the brown shrimp spawn.

The river will start rising between November and December. Between January and February the shrimp are on their way in. They come in with the tides. If when they are on their way in, they are so small you can not see them with your own eyes.

Around the Main Pass area, the tides will be traveling to the west, which will be going toward Battise Collette and the Louisiana marsh. When these shrimp hit this cold sandy river water, it will kill the biggest part of them.

At one time Bay Couquille and the Louisiana march was one of the best oyster, fishing and shrimping grounds that we had. Now because of this break in the river, it is giving the fishermen a great problem. This matter must be corrected. Speaking of it will not solve the problem.

River water is good. Too much is no good. So much for that, let us go to Battise Collette. It also at one time was a beautiful place. Now it is one big mess. They have canals dug all over the place. At one time Texaco and Gulf had oil leases in that area. Gulf Oil Company is still there. It is a shame. They have pipes scattered all over. They were too busy making money to realize what was going on. The land has been sinking for years, that is why our vegetation is gone. In high rivers we are flooded out. In low rivers, the sea tide is back into our marshes and eventually will kill all of our vegetation.

They used to call this Sports Paradise. I don't know what to call it now, but it is dying fast. The deer and the cattle are starving to death in high rivers.

I could go on for hours but the time is running short. Any information or help that I could give to this matter, I would be more than happy to assist.

July 31, 1984

To whom it may concern —

My name is David Spears, and I represent the New Orleans Group of the Sierra Club. In the past, the Sierra Club has spoken out against many Corps of Engineers projects, and in certain circles we have a reputation as obstructionists, standing in the way of progress simply for the sake of halting progress. This is not the case. We are sincerely concerned about the quality of the natural environment for the sake of the plants and animals that live there, but above all we are concerned for the quality of life for human beings. High-quality living can be achieved only in an ecologically sound environment.

The loss of wetlands is a serious threat to the soundness of our environment and our quality of life, especially in Southern Louisiana, where we all depend directly or indirectly on wetlands for sustenance and recreation. We recognize that saltwater intrusion is the most significant factor in wetlands loss and therefore applaud the efforts of the Corps to reverse this alarming trend. We support the plans for a freshwater diversion project for Barataria and Breton Sound Basins, and hope that few obstacles lie in the way of speedy completion of the necessary structures.

We also urge that the Corps of Engineers be prepared to take steps to preserve any populations of wild plants or animals that may be threatened by the construction itself.

Sincerely,

David B. Spears

[redacted] - Conservation Committee Co-Chair
New Orleans Group, Sierra Club

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