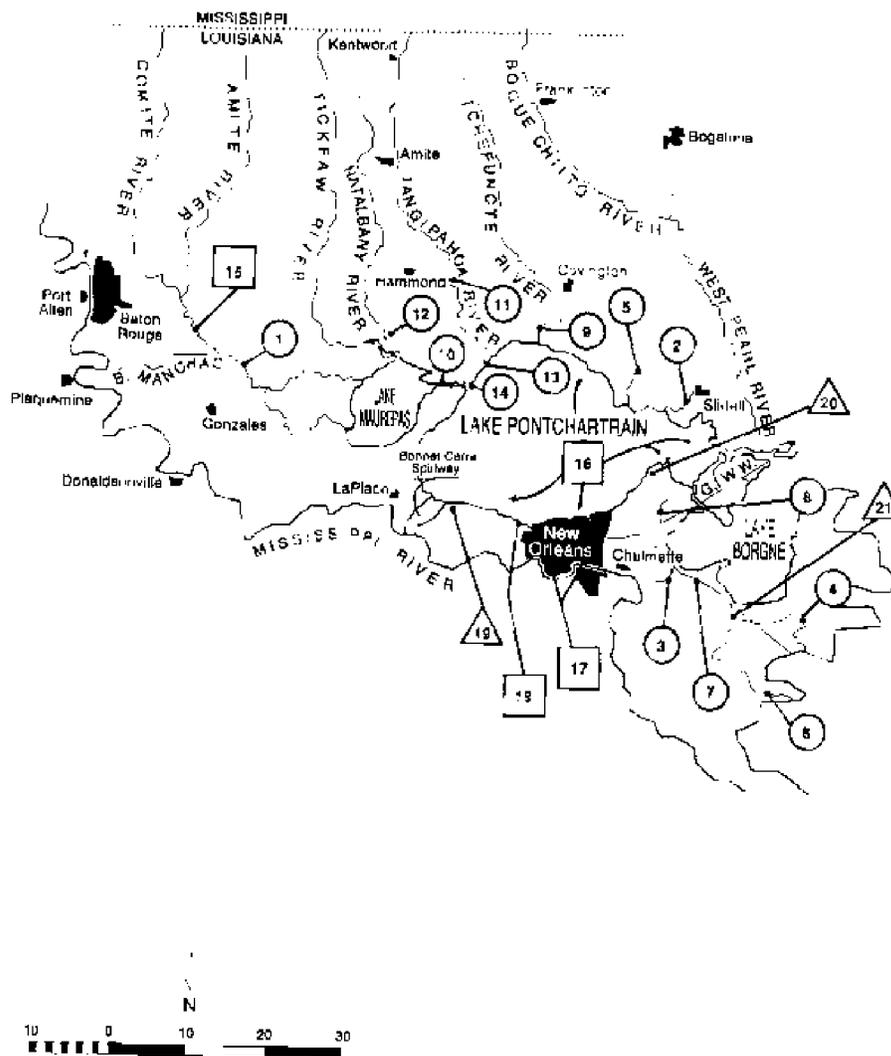
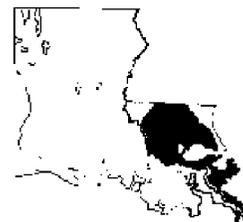


Lake Pontchartrain and Breton Sound Basins



Projects



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Lake Pontchartrain and Breton Sound Basins

Introduction

The Lake Pontchartrain and Breton Sound Basin areas are bounded on the north by the state of Mississippi, on the east by the Pearl River Basin, and on the south and west by the east bank of the Mississippi River. The area is characterized by rolling hills and alluvial lowlands with a fringe of tidal wetlands at the shorelines of Lakes Maurepas and Pontchartrain. Improvements have been authorized or constructed for purposes of navigation, flood control and hurricane protection.

Projects

Amite River and Bayou Manchac

This project was completed in 1928. It

consists of a 7-foot-deep by 60-foot-wide channel from Lake Maurepas to Port Vincent and the removal of channel obstruction between Port Vincent and the Kansas City Southern Railroad Bridge, which crosses Bayou Manchac at about mile 8.5. Although very little commercial traffic has been reported on this waterway in recent years, it is extensively used for recreational purposes.

Year-round opportunities for water-based sports are available along the waterway. Hundreds of private camps are located in the area, and 14 commercial access points provide launching, boats, bait, cabins, and restaurant facilities. State-owned public access facilities are located at U.S. Highway 61 on Reserve Canal, Garyville Canal, Blind River, and Bayou Francois. Other public launching areas are available at Port Vincent and Chinquapin.



Pass Manchac between Lake Maurepas and Lake Pontchartrain

Amite River and Tributaries

Designed for flood control along the Amite River, the completed project consists of the following: a 10.6-mile diversion channel from the Amite River at mile 25.3 to mile 4.8 of Blind River; enlargement of the Comite River from its mouth to Cypress Bayou; clearing and snagging of the Amite River from its conjunction with the Comite at mile 54 to mile 35.7 at Bayou Manchac; enlargement and

realignment of the Amite River from Bayou Manchac to mile 25.3; and clearing and snagging of Bayou Manchac from the Amite River to Ward's Creek.

The diversion channel is connected to the Amite River by a control weir that serves to retain low flows in the Amite River. A small navigation channel through the control allows small boats to pass to and from the river and

diversion channel.

The Louisiana Department of Transportation and Development, Office of Public Works, constructed approximately 2.7 miles of the diversion channel and the Comite River enlargement as a substitute for the cash contribution required by the project authorization. The Comite River enlargement is dimensionally greater than planned under the Federal project.

Maintenance of completed works within their respective boundaries is the responsibility of the Ascension and Livingston Parish police juries and the East Baton Rouge Parish Council. Construction of this project was initiated in 1957 and completed in 1964 at a cost of \$3,034,685. Cumulative benefits from flood damages prevented through 1996 are estimated at \$65,413,000.

Comite River Diversion Project

The project was authorized by the Water Resources Development Act of 1996 (WRDA 96). The recommended plan consists of a 12-mile-long diversion channel from the Comite River to the Mississippi River. Major features of the plan include a Diversion Structure, a Channel Stage Control Structure at Lilly Bayou, a closure at Brooks Lake, and an 8-mile levee along the southern bank of the diversion channel. The uncontrolled structures would be constructed of roller-compacted concrete. The plan would contain concrete grade control structures and riprap protection where tributary streams intercept the diversion channel and low flow augmentation pumps downstream of the diversion channel at these tributary streams. The mitigation feature of the plan consists of purchasing 1484 acres of land along the Comite River to offset the environmental losses due to the project. Included in this acreage is 679 acres of cleared land that will be planted with trees. The installation of six gauging stations in the basin would assist in monitoring the project. Detailed design studies were initiated in February 1991 and were completed in 1995. The project is waiting on funding before proceeding to construction. The local sponsor is the

Louisiana Department of Transportation and Development.

Bayou Bonfouca

In 1995, 281,000 tons of crude materials were transported on this waterway. Average annual traffic from 1994-1995 was 201,500 tons.

Completed in 1931, this project consists of an 8-mile-long channel, which is 10 feet deep with a bottom width of 60 feet. The waterway extends from Slidell to deep water in Lake Pontchartrain. Bayou Bonfouca and Bayou Liberty meet at Lake Pontchartrain



The lower end of this project provides access to Lake Pontchartrain from popular boating areas on Bayou Liberty.

Approximately 4,000 feet of Bayou Bonfouca is located within and adjacent to a former EPA Superfund Site. New Orleans District oversaw the cleanup at this site. Remediation included: excavation and incineration of contaminated surface waste piles; incineration of contaminated sediments from Bayou Bonfouca, Eastern Drainage Channel and Western Creek; and treatment of contaminated groundwater. Work commenced on this project in 1989. Remediation activities at the Bayou Bonfouca site were completed in November 1996 when the incinerator was demobilized. The operations and maintenance

phase of the Bayou Bonfouca facility began in July 1996 and is expected to continue for the next eight to ten years.

Bayou Chevee Marsh Creation

The project was authorized by the Coastal Wetlands Planning, Protection, and Restoration Act (Public Law 101-646, Title III) on the 5th Priority Project List. The project is located at the eastern end of Lake Pontchartrain in Orleans Parish, Louisiana. The marsh creation site is between Bayou Chevee and Chef Menteur Pass and is part of the Bayou Sauvage National Wildlife Refuge. The project area consists of brackish marsh in which shoreline erosion rates have ranged from 10 to 20 feet per year. The project was rescoped due to implementation problems with the marsh creation project. The project is now referred to as the Bayou Chevee Shoreline Protection project. It is located in the same area as the original project. The revised project includes an 860 meter long rock dike to protect a 27 acre open water area and an 875 meter long rock dike to protect a 110 acre open water area. The dikes are to be placed near shore at approximately the 3' depth contour. Current design calls for the rock dikes to be constructed to elevation 3.0 feet NGVD with a crown width of 1.2 meters. Current schedule has construction starting in May 98.

Bayou LaBranche Wetlands Marsh Creation

The project was authorized by the Coastal Wetlands Planning, Protection, and Restoration Act (Public Law 101-646, Title III) on the 1st Priority Project List. The Bayou LaBranche Wetlands consist of fresh and intermediate marshes on the south shore of Lake Pontchartrain, in St. Charles Parish, east of the Bonnet Carré spillway. In much of the project area, marshes have deteriorated to open water. The close proximity of an abundant sediment source (Lake Pontchartrain) afforded an ideal opportunity to restore these deteriorated areas of marsh. The project created approximately 254 acres of intermediate marsh and will nourish an additional 87 existing acres. By the end of the 20-year project life, approximately 296 acres

of marsh will remain in the project area. The project involved dedicated dredging of sediments from Lake Pontchartrain to create vegetated wetlands. The work consisted of pumping sediments from Lake Pontchartrain, adjacent to the proposed marsh development site. The marsh development area was confined as needed during construction. Dredge material was pumped to a height conducive to marsh development after settlement and compaction. Construction was completed on April 6, 1994.



Bayou Lacombe

Although heavily used for boating, fishing, and access to Lake Pontchartrain, this waterway's major cargo is gravel from the upper reaches of the bayou. Both public and commercial launching ramps have been constructed by non-Federal interests.

Traffic on the waterway averaged 714 tons annually from 1981-1985. No commerce was reported from 1986-1995. Completed in 1938, the project consists of a 60-foot-wide, 8-foot-deep channel entrance bar in Lake Pontchartrain and removal of snags and overhanging trees from mile 8.2 to the mouth of Bayou Lacombe. The snagging has greatly enhanced this waterway for recreational use.

Bayou Dupre

The oil industry provides the major cargo on this waterway, although it is heavily used by recreational craft moving between Violet and Lake Borgne. Average traffic from 1986-1995 was 159,000 tons.

This project includes a 6-foot-deep channel from the highway bridge at Violet to deep water in Lake Borgne, with widths of 80 feet in the canal and bayou and 100 feet in the lake. In addition to the 7.3-mile channel, the project includes a turning basin 100 feet wide and 200 feet long at Violet. The Violet Lock, a privately owned connection with the Mississippi River, was permanently closed in 1950. The project was completed in 1939.



Submerged grass beds flourish in Lake Pontchartrain at the mouth of Bayou Lacombe

Bayous LaLoutre, St. Malo, and Yscloskey

This 30-mile project has been used by oil companies as a safe inland route for transporting crude oil, drilling equipment, and personnel. The channels are, however, presently used mainly by commercial trappers and fishermen en route to Lake Borgne, Chandeleur Sound, and intervening waterways and marsh areas. Excellent commercial launching and boat rental facilities are available in the area, further enhancing the recreational potential. Annual traffic for 1995 was 31,000 tons.

Initially authorized in 1937 and modified in 1945, the project was completed in 1956. As modified, the project provides for a 5-foot-deep by 40-foot-wide channel from deep water in Lake Borgne to the shoreline at the mouth of Bayou Yscloskey; a 6-by-40-foot channel from deep water in Lake Borgne through Bayous St. Malo, LaLoutre and Eloi, to deep water in Lake Eloi; and a 5-by-30-foot channel in Bayou LaLoutre between Hopedale and Bayou St. Malo.

Bayou Terre Aux Boeufs

This bayou, which serves as a boundary line between Plaquemines and St. Bernard parishes, was snagged and cleared between mile 10.5 and mile 18.25, and excavated, snagged and cleared between mile 18.25 and mile 19.5. Authorized under the provisions of Section 3, Rivers and Harbors Act of 1945 (PL 79-14), this 5-foot-deep by 50-foot-wide navigation channel was completed in 1951.



Speckled trout are pursued by recreational anglers throughout Louisiana's coastal waters

Lake Pontchartrain Stormwater Discharge, Louisiana, Jefferson Parish Demonstration Project

The project is located on the East Bank of Jefferson Parish primarily in the Suburban Canal Subbasin. Specifically, the Project will encompass the design, construction, construction management, and monitoring of improvements to demonstrate a process that will reduce the impacts on water quality of

stormwater discharges from Jefferson Parish to Lake Pontchartrain, by selective diversion of a portion of stormwater runoff to the existing Jefferson Parish East Bank Waste Water Treatment Plant (EBWWTP). The improvements necessary for the Project to function properly to contribute toward compliance with the Federal Water Pollution Control Act include a 20,000 gallon per minute (gpm) stormwater pump station, connected to the existing Jefferson Parish regional sewer force main, a new 48-inch diameter sewer force main routed from the existing regional force main to the existing EBWWTP, and improvements to the wastewater treatment plant deemed necessary to facilitate the treatment of additional stormwater introduced by this Project. The Non-Federal Sponsor plans to construct a 54-inch main (in lieu of the 48-inch) as a betterment, to suit Jefferson Parish requirements. The lift station will be located near the intersection of the Suburban Canal and the West Napoleon Canal (also referred to as Canal No. 4). The new 54-inch diameter sewer force main will be about 12,300 feet long located in existing street and drainage canal servitude and new servitude. The improvements to the EBWWTP include modifications deemed necessary to accommodate the hydraulic and organic loadings imposed by the introduction of stormwater. Extent of the modifications will be based on the capability of the existing EBWWTP to produce the specific effluent limits required by a new National Pollution Discharge Elimination System (NPDES) discharge permit that addresses the increased average daily flows and organic loads imposed on the EBWWTP. A monitoring and modeling program will characterize the water quality of stormwater runoff in the Jefferson Parish East Bank Canal System, quantify pollutant loadings from the stormwater, assess the impacts of the proposed actions and evaluate the applicability of the process to other areas.

Lake Pontchartrain and Vicinity Hurricane Protection

The project provides protection from the Standard Project Hurricane for the New

Orleans Metropolitan area on the east bank of the Mississippi River, which includes portions of Orleans, Jefferson, St. Bernard, and St. Charles Parishes.

Authorized by the Flood Control Act of 1965, the authorized plan consisted of two basic elements: barrier complexes at Lake Pontchartrain's three main tidal entrances, and levees and floodwalls around the protected areas. Construction of the levees and floodwalls in the authorized plan began in 1966, when work was initiated on the barrier complex at Chef Menteur Pass.

In December 1977, the U.S. District Court ruled that the project Environmental Impact Statement (EIS) was inadequate and issued an injunction against construction of the barrier complexes.

In response to the court injunction, a re-evaluation study of the project was conducted. The conclusions of the study were that the barrier plan should be abandoned in favor of a high-level plan. The high-level plan and a supplemental EIS for the project were approved in February 1985.



Suburban Canal improvements in Jefferson Parish

The high-level plan provides for raising and strengthening the existing hurricane protection levee systems in Orleans Parish and Jefferson Parish; completing the protection levee system in St. Bernard Parish; repairing and



Lake Pontchartrain Hurricane Protection Levee protects New Orleans

rehabilitating the Mandeville seawall in St. Tammany Parish; building a new mainline hurricane levee on the east bank in St. Charles Parish, just north of U.S. Highway 61 (Airline Highway); raising and strengthening the existing levee that extends along the Jefferson-St. Charles Parish boundary between Lake Pontchartrain and Airline Highway; and deferring construction of the proposed Seabrook Lock until its feasibility as a feature of the Mississippi River-Gulf Outlet navigation project could be determined. Areas enclosed by the levee and floodwall construction would be provided protection against tidal surge flooding resulting from the Standard Project Hurricane.



St. Charles Parish Hurricane Protection Levee follows US Highway 61

Proposed mitigation for this project would consist of protection of the Manchac Wildlife Management Area from shoreline erosion.

The project will cost an estimated \$712 million, of which approximately \$206 million will be borne by non-Federal interests. Federal construction was initiated in 1967. Federal funds in the amount of \$346,522,000 were made available through September 1997. The estimated project completion date is November 2013. When complete, the project will provide essentially complete flood protection to 105,190 acres of land, which includes 61,900 acres of urban development.

Cumulative flood damages prevented under present conditions with the project in full operation are estimated at \$8,140,489,000 through 1997.

Lake Pontchartrain, North Shore, Louisiana

This project, authorized by the Water Resources Development Act of 1986, provides for the Federal assumption of maintenance of the entrance channel of Bayou Castine and for the restoration of 0.9 mile of beach at Fontainebleau State Park. These features are located on the north shore of Lake Pontchartrain east of Mandeville, Louisiana.

The total first cost (1986) of the project is \$1.3 million, of which \$650,000 is non-

Federal. Detailed design was initiated in 1985, but was discontinued due to lack of funds.

Mississippi River-Gulf Outlet

New Orleans is the gateway to the great system of inland waterways of the central valley of the nation. The Mississippi River-Gulf Outlet (MRGO) affords a tidewater outlet to the Gulf that is about 37 miles shorter than the Mississippi River route.

The channel also provides a potential for harbor development large enough for dispersion of docks and cargo-handling facilities, thus allowing more flexible operation for inland and seagoing commerce. Sailing time, ship turnaround time, navigation hazards, and congestion all tend to be reduced by the project.

The Board of Commissioners of the Port of New Orleans has established containership and roll-on/roll-off facilities and a bulk commodity handling facility on the channel reach.

The project was authorized by the Rivers and Harbors Act of 1956 and approved March 1956.

From the junction of the Gulf Intracoastal Waterway and the Inner Harbor Navigation Canal, the channel follows the Gulf Intracoastal Waterway to the vicinity of Highway 47 (Paris Road), where it proceeds in a southeasterly direction along the south shore of Lake Borgne, through the wetlands, across Chandeleur Sound between Breton and Grand Gosier Islands, and to the 38-foot contour in the Gulf of Mexico. In the inland reach, the channel dimensions are 36 feet deep by 500 feet wide. In the open waters of the Gulf, the channel dimensions increase to 38 feet deep by 600 feet wide.

Construction of the channel was initiated in 1958 and enlargement to full project dimensions was completed in 1968.

A turning basin has been constructed at the intersection of the MRGO channel and the Inner Harbor Navigation Canal. A fixed,

high-level four-lane highway bridge at Paris Road has also been constructed under a reimbursable agreement with the Louisiana Department of Highways. The jetties have been completed to the 6-foot contour. The south dike has been extended about 5.3 miles (mile 14.9 to mile 20.2). Further jetty construction has been deferred, as dredging has proven more economical for maintaining the Breton Sound reach.



Lake Pontchartrain Hurricane Protection floodwall at Westend Marina

Foreshore protection has been provided to arrest bank degradation occurring along the south bank of the MRGO, which could eventually affect hurricane protection levees. A contract for \$7.4 million was awarded in June 1985 for foreshore protection from the Bayou Bienvenue Control Structure to the end of Chalmette hurricane protection levee. It was completed in 1986. Approximately 0.5 miles of foreshore protection between Bayou Bienvenue and the Paris Road Bridge will be constructed in FY 96. Completion of the remaining foreshore protection along the south bank from Bayou Bienvenue to the Inner Harbor Navigation Canal will be scheduled when the need arises. Congress provided \$3.5 million to construct 3.5 miles of rock bank protection, completed in February 1993, on the north shore to protect valuable fish and wildlife habitat.



Inner Harbor Navigation Canal and Lock

A Reconnaissance Report entitled "Mississippi River Gulf Outlet, St. Bernard Parish, Louisiana (Bank Erosion)," recommended structural methods to provide erosion abatement by construction of 30 miles of rock dike along the north bank of the channel. The report concludes that the bank protection along the channel is justified based on monetary and non-monetary benefits. Monetary benefits accrue from the reduction in channel

maintenance dredging and non-monetary environmental benefits from the 2,800 acres of marsh created and preserved by the recommended alternative. This study is suspended due to the lack of a local sponsor to cost share feasibility studies. On May 8, 1997, approval was granted to construct 5.5 miles of north bank foreshore protection. Two miles were completed in 1998.

Studies have been ongoing for years to determine the feasibility, both engineering and economic, of replacing the existing Inner Harbor Navigation Canal Lock, which is 75 feet wide by 640 feet long and 31.5 feet deep. A site located in the canal between Claiborne and Florida Avenues has been identified as the best location for the new lock. Feasibility studies of this site, completed in late 1997, recommend a deep draft lock 36 feet deep by 110 feet wide by 1200 feet long at this site. Congress authorized construction of the project in October 1998. Estimated cost is \$531 million, \$463 million to be cost shared 50-50 between the Inland Waterway Trust Fund and regular Corps appropriations, and \$68 million to be furnished by the Port of New Orleans. In addition, the U.S. Coast Guard is to provide navigation aids at a cost of \$45,000. Initiation of construction is anticipated in late 1999 or early 2000.



Industry and navigation on the MRGO

The average annual traffic on the MRGO from 1986-1995 was 6,826,000 tons. Major types of cargo moving over the channel include non-metallic minerals, basic chemicals and products, building cement, ferroalloys, and iron and steel scrap.

Mississippi River-Gulf Outlet, Michoud Canal

The project provides a 36-foot-deep by 250-foot-wide ship channel, extending from the MRGO along a part of the Gulf Intracoastal Waterway and through the Michoud Canal. An 800-by-800-foot turning basin is located in the northern end of the project.

Michoud Canal currently serves barge traffic to and from plants manufacturing chemicals and Portland cement. The channel serves the added purpose of providing direct foreign export of fertilizers. Public wharf facilities are to abut the turning basin.

The project was authorized by the Rivers and Harbors Act of 1968. The total construction cost was \$2,770,000. Construction was initiated in 1974 and completed that same year.

Mississippi River Gulf Outlet Disposal Area Marsh Protection

The project was authorized by the Coastal Wetlands Planning, Protection, and Restoration Act (Public Law 101-646, Title III) on the 3rd Priority Project List. The project is located on the existing south bank dredged material disposal area for the Mississippi River Gulf Outlet (MRGO), south of the Bayou La Loutre Ridge, from about Mile 36.0 to Mile 30.0 along the MRGO. The project area consists of an 855-acre fresh marsh perched one to four feet higher than the adjacent brackish marsh. The project area is part of an original 4,000-foot-wide diked disposal area used during construction of the MRGO in the early 1960's. Maintenance dredging has not used the rear 2,000 feet which have reverted to an extremely valuable high fresh marsh, especially south of the Bayou La Loutre Ridge. The project would prevent the perched marshes from draining, thus preserving valuable wetland. The project



Marsh near Lake Borgne was nourished with dredged material from the MRGO

will preserve over 755 acres of marsh that will be lost within 20 years if no action is taken. Originally, approximately 28,000 linear feet of dike was to be repaired. However, field investigations determined that two minor breaches were in need of repair. Material for repairing the dikes will come from the adjacent channel. Current schedule calls for construction start in April 1998.



One of the remaining cannons from the 19th Century Battery Bienvenue



Southeast Louisiana drainage canal improvements in Jefferson Parish

Pass Manchac

Pass Manchac provides access to Lakes Pontchartrain and Maurepas, and adjacent areas for fishing, crabbing, and hunting. The Louisiana Department of Highways allows an abandoned highway bridge to be used as a fishing pier.

Average annual traffic from 1984-1995 was 80,170 tons. Major cargoes in the pass are marine shells and crude petroleum. Shell dredging is no longer allowed in Lake Pontchartrain or Maurepas.

Authorized in 1910, the project called for removal of snags, logs and other obstructions from the bars at the entrance of the pass and throughout its length between Lakes Maurepas and Pontchartrain. The 7-mile channel was completed in 1912.

North Pass-Pass Manchac

This project, completed in 1995, provides for the construction of a -9 foot NGVD by 130 foot channel for a distance of 7,000 feet within the south entrance channel in Lake Pontchartrain to Pass Manchac. Intermittent maintenance is required.

The first cost of this project is approximately \$476,000, of which \$95,100 is non-Federal.

Southeast Louisiana

This project, authorized by the Fiscal 1996 Energy and Water Development Appropriations Act (Sec 108), and the Water Resources Development Act of 1996 (Sec 533), provides for flood protection in Jefferson, Orleans, and St. Tammany Parishes.

The channel and pumping station improvements in Orleans and Jefferson Parishes will support the Parishes' master drainage plans and, generally, provide flood protection on a level associated with a ten-year rainfall event. The improvements will also reduce flood damages for larger events. St. Tammany Parish plans will provide flood protection against varying levels of rainfall events, but also mostly focus on ten-year rainfall events. Authorized improvements in Jefferson Parish are located on the east and west banks of the Mississippi River in the vicinity of New Orleans. Improvements in Orleans Parish are located in the city on the east bank of the river. Improvements in St. Tammany Parish include areas of Slidell, and areas in or near the cities of Covington, Mandeville, Lacombe, and Abita Springs.

The total first cost of the project is \$455 million, of which \$114 million is non-Federal. Detailed design was initiated in 1996 and the first construction contracts were awarded in 1997. The estimated completion date for the work in Orleans Parish is September 2011, and September 2012 for Jefferson Parish. The work in St. Tammany has not commenced, pending the execution of Project Cooperation Agreements. As local sponsors are identified for various plans, implementation schedules will be developed.

Tangipahoa River

This project, completed in 1884, provides for removal of overhanging trees, snags and obstructions on the lower 53.5 miles of the river. Intermittent maintenance is required. Excellent opportunities for water-based recreation are available and enhanced by this waterway.

Tangipahoa River Navigation

A boat channel was completed in 1971 through the bar in Lake Pontchartrain at the mouth of

the Tangipahoa. Authorized under section 107 of the Rivers and Harbors Act of 1960, the project provides a 8-foot-deep by 100-foot-wide navigation bar entrance channel in Lake Pontchartrain.

Tchefuncte River and Bogue Falaya

This waterway, which is approximately 14 miles in length, furnishes excellent fishing, boating, and other recreational opportunities. Adjacent high lands are rapidly being developed for private homes and campsites. The Tchefuncte River and Bogue Falaya project was authorized in 1881 and modified in 1930 and 1958. The original 8-foot project

from Covington to Lake Pontchartrain was completed in 1919.

The present project provides for a 10-foot-deep by 125-foot-wide navigation channel from a 10-foot depth in Lake Pontchartrain to about mile 3.5 of the Tchefuncte River. The channel remains 8 feet deep from mile 3.5 to Washington Street in Covington, via the Tchefuncte and Bogue Falaya Rivers.

The 10-foot-deep enlargement below mile 3.5 was completed in 1959. Average annual traffic from 1981-1995 was 24,000 tons.



The Tchefuncte River flows through rural St. Tammany Parish in 1974

Tickfaw, Natalbany, Ponchatoula and Blood Rivers

These beautiful waterways provide excellent opportunities for fishing, boating and skiing. Public access is available at Wadesboro and Springfield. There was no commercial traffic reported from 1980-1995.

Authorized work includes removal of obstructions in the Tickfaw River from its mouth to mile 26, in the Blood River from its mouth to the head of navigation, about mile 4, and in the Natalbany and Ponchatoula rivers for a distance of 15.5 miles. The project was completed in 1921.



Yesteroaks neighborhood was damaged by flooding from the heavy rains of May 1995

Emergency Flood Activities (PL-84-99).

Flood fighting is authorized under this law. In May 1995 a powerful combination of weather patterns resulted in record rainfall amounts in the Pontchartrain Basin. The initial rainfall of 9.69 inches in a three hour period set a new record for the weather station at the New Orleans Airport. This was followed by up to 16 inches of rain during the next 24 hours on the north and south shores of Lake Pontchartrain. Streams, rivers, bayous, and drainage canals quickly overflowed their banks and caused wide spread flooding. Technical assistance, including the loan of 3 pumps, was provided to the affected parishes.

The parishes of Ascension, Assumption, Jefferson, Lafourche, Orleans, St. Bernard, St. Charles, St. James, St. John the Baptiste, St. Tammany, Tangipahoa, and Terrebonne were declared disaster areas by President Clinton.

Emergency Projects

Natural Disaster Assistance (PL 93-288). Under this law the Corps of Engineers is authorized to cooperate with FEMA in providing assistance to state and local governments in dealing with natural disasters.

On May 8 and 9, 1995, excessive rainfall deposited up to 18 inches of water in Orleans, Jefferson, St. Charles, and St. Tammany Parishes. It caused widespread flooding and was responsible for the deaths of seven people and damages of more than \$100 million. Water stood 4 to 5 feet deep in many areas and rose to over 10 feet in some St. Tammany Parish subdivisions. The President of the United States declared twelve parishes disaster areas. U.S. Army Corps of Engineers personnel and equipment assisted other Federal and local agencies in conducting damage surveys and flood recovery operations.

Small Projects

Mississippi River-Gulf Outlet, Mi. 14 to Mi. 11, Marsh Creation, St. Bernard and Plaquemines Parishes, LA. This study was conducted under the authority of Section 204 of the Water Resources Development Act of 1992 (Public Law 102-580). The proposed project provides for the unconfined placement of approximately 1,600,000 cubic yards of material, dredged from miles 14.0 to 12.0 of the navigation channel, into shallow water adjacent to the south jetty at about mile 15.5 to an elevation conducive to marsh establishment. Approximately 50 acres of saline to brackish marsh and adjacent shallow water will be created. The jetty will provide protection from waves caused by the prevailing winds in the area and thus reduce erosion of the new marsh. The project is scheduled for construction in February 1999.

Snagging and clearing were completed on the following streams in the Lake Pontchartrain Basin under the authority of Section 2 of the Flood control Act of 1937, which was amended by Section 208 of the Flood Control Act of 1954.

Stream	Length (miles)	Date	Cost (\$)
<i>Bayou Vincent*</i>	1.4	1947	13,000
<i>Bayou Francois*</i>	8.2	1948	13,500
<i>New River*</i>	8.7	1948	31,500
<i>Ponchatoula Creek</i>	3.3	1949	10,464
<i>Selsers Creek</i>	4.5	1950	4,958
<i>Yellow Water River</i>	2.8	1950	3,136
<i>Natalbany River*</i>	5.0	1954	71,043
<i>Tickfaw River</i>	16.3	1958	50,107

* Also improved by enlargement.

Programs and Surveys

Flood Plain Information Reports

Baton Rouge No. 1. A flood plain information report on Bayou Fountain in Baton Rouge was completed and published in 1971.

Baton Rouge No. 2. A flood plain information report on Ward's Creek and tributaries in Baton Rouge was completed in 1972.

Baton Rouge No. 3. A flood plain information

report on the Claycut Bayou and Jones Creek area in the vicinity of Baton Rouge was completed in 1974.

Baton Rouge No. 4. A flood plain information report on Hurricane Creek, Monte Sano Bayou and tributaries in and near the city of Baton Rouge was completed in 1976.

Baton Rouge No. 5. A flood plain information report for areas of East Baton Rouge and Baker that would be flooded from the Comite River, Cypress Bayou, and tributary streams (the South, East, and West Laterals, and Gibbens Lateral) was completed in 1976.

Covington. A flood plain information report on the Covington area was completed in 1971.

Gonzales. A flood plain information report on the Gonzales area was completed in 1971.

Slidell. A flood plain information report on Slidell and vicinity was completed in 1971.

Flood Insurance Studies

Insurance studies that have been completed, and/or are ongoing in the Lake Pontchartrain and Breton Sound Basins:

Abita Springs
 Ascension Parish
 Baton Rouge, East Baton Rouge, and Baker
 Covington
 East Baton Rouge Parish*
 Gonzales
 Gramercy
 Harahan (Type 19)
 Harahan
 Jefferson Parish
 Jefferson Parish (Type 19)
 Kenner (Type 19)
 Kenner
 Livingston Parish
 Lutcher
 Madisonville
 Mandeville
 Orleans Parish (Type 19)
 Orleans Parish
 Pearl River

Plaquemines Parish
Slidell
Sorrento
St. Tammany Parish (Type 19)
St. Helena Parish
St. Bernard Parish
St. John the Baptist Parish
St. Tammany Parish
St. Charles Parish

Surveys Authorized or Under Way

Amite River and Tributaries. The purpose of the study is to investigate the feasibility of providing improvements for flood control and other water related needs, including water supply, water quality control, recreation, and fish and wildlife enhancement. The study area has experienced four major floods between 1972 and 1983: 1973, 1977, 1979 and 1983. Flood damages in 1983 exceeded \$170 million. A reconnaissance scope study was initiated in 1983 and completed in 1984. The reconnaissance study indicated that enough of the improvements were economically feasible to warrant proceeding to the feasibility phase. Feasibility phase studies were initiated in 1985.

The Feasibility Phase was divided into five flood control studies. They are:

Comite River Basin
East Baton Rouge Parish
Livingston Parish
Ascension Parish
Darlington Reservoir

The Comite River Diversion project was authorized for construction by the Water Resources Development Acts of 1992 and 1996. The Darlington Reservoir Feasibility Study was completed in September 1992. It was determined that the construction of a flood control dam and reservoir on the upper Amite River is not economically feasible. The FY 96 Appropriations Act included \$200,000 to complete a reconnaissance level re-study of the Darlington Reservoir. Additional funds have been provided and the reconnaissance study was completed in September 1997. Feasibility studies will be conducted contingent on

identifying a cost sharing partner. Ascension Parish studies were eliminated because the parish constructed flood control measures on their own precluding the need for additional work. A feasibility report for East Baton Rouge Parish was completed in December 1996 and the project is awaiting Congressional authorization. Planning, Engineering and Design studies have been initiated. A report recommending no Federal action for Livingston Parish was completed in 1997.

Bayou Bonfouca. This study would determine if the existing project should be modified in any way, particularly in regard to providing a more favorable alignment between Lake Pontchartrain and the shipyards at Slidell. The study had been funded but was deauthorized in 1987.



Camps on Lake Pontchartrain in New Orleans East



Heavy rains flooded New Orleans in May 1995

St. Tammany Parish. The purpose of this study is to determine the feasibility of measures that would alleviate rainfall flooding and improve the water quality of stormwater discharges in St. Tammany Parish.

Flooding has been a problem in St. Tammany Parish with major floods occurring in 1995, 1988, 1980, 1979, 1974, and 1973. Flooding also resulted from Hurricanes Juan (1985), Camille (1969), and Betsy (1965).

The reconnaissance phase was completed in July 1996. Features of this study were authorized for engineering, design, and construction in October 1996, by the Water Resources Development Act of 1996 as features of the Southeast Louisiana Project.

Lake Pontchartrain, West Shore. The purpose of the study is to investigate the feasibility of providing hurricane protection and flood control in St. James and St. John the Baptist parishes and that portion of St. Charles Parish west of the Bonnet Carré Spillway. Previous studies of the area were not successful at identifying an economically justified plan.

The study area was heavily damaged by Hurricane Juan in 1985 and Hurricane Andrew in 1992. Continued development in the area along with a low level of existing protection

and new techniques for levee construction resulted in identifying several economically justified alternatives during the reconnaissance study. The reconnaissance report was completed in July 1997. The Pontchartrain Levee District has indicated its intent to serve as the non-Federal sponsor for the feasibility study. The feasibility study is scheduled for initiation in the spring of 1998 and should take approximately three years to complete.

Tangipahoa, Tchefuncte, and Tickfaw Rivers.

The purpose of the study is to investigate the feasibility of providing improvements for flood control, hurricane protection and other water related needs for the area north of Lakes Pontchartrain and Maurepas. A reconnaissance study was completed in 1991.

Jefferson and Orleans Parishes. During the period 1977-86, numerous occurrences of heavy rainfall caused extensive residential and street flooding in Orleans and Jefferson parishes. The New Orleans District completed a reconnaissance study in 1992 that identified several feasible measures for reducing damage due to rainfall flooding in the two parishes. Both Jefferson and Orleans parishes agreed to cost-share urban flood control feasibility studies. The Jefferson Parish Feasibility Study was initiated in January 1994 and the Orleans Parish Feasibility Study began in June 1994.

On May 8 and 9, 1995, a severe storm event devastated Orleans, Jefferson, and St. Tammany parishes and deposited up to 18 inches of water within a six-hour period. It caused widespread flooding and was responsible for the deaths of seven people and damages of more than \$1 billion for the three parishes.

As a result of the May 1995 event, Congress authorized for construction all economically feasible alternatives identified by the 1994 Reconnaissance Report for Orleans and Jefferson parishes. These features comprise the Southeast Louisiana (SELA) Project.

The reconnaissance study concentrated on areas experiencing the most damage due to

flooding. The ongoing feasibility studies for Orleans and Jefferson Parishes were rescoped following the authorization of SELA to develop additional features that benefit those areas not fully addressed during reconnaissance. All feasibility analyses are performed under the assumption that SELA features are constructed or "in-place". The Jefferson Parish feasibility study is scheduled for completion in September 1999, and the Orleans Parish feasibility study will be completed by September 2000.

Two technical reports were prepared for Jefferson Parish and two were prepared for Orleans Parish in response to SELA. The first technical report for Jefferson Parish discussed improvements on both the east and west banks of the Mississippi River. This report identified east bank drainage improvements on the Suburban Canal, Canal #3, and the Elmwood Canal, and west bank improvements on Avenue D, Two Mile, and Gardere Canals and on the Westwego Pump station.

The second technical report for Jefferson Parish identified drainage improvements on 21 canals and construction or modification of 4 pump stations. Canal modifications to improve drainage included concrete lining, improved earthen channels, concrete box

culverts, concrete flumes, and concrete pipes. Drainage canal modifications on the east bank were proposed for the Elmwood and Soniat Canals. West bank modifications were proposed for the Whitney, Heebe, Terry Parkway, Brown, Keyhole, Railroad, Dugues, Mayronne, Brickwall, Grand Cross, Justice, Two-mile, Swift, Canal A, First, Cousins, Pipeline, Woodmere, and Sunnymead Canals. Increased pump station capacity (+2,400 cfs each) was proposed for the Suburban and Elmwood pump stations and new pump stations were proposed for Whitney Canal (2,000 cfs) at Bayou Baratavia and for Grand Cross Canal (1,200 cfs) in Westminster.

The first technical report for Orleans Parish discussed the increased pumping capacity of the Broad Street Pumping Station (Station #1). The proposed work consists of installing two new 1,200 cfs pumps and enlarging the discharge basin of the pump station

The second technical report for Orleans Parish discussed the increase of the Oleander Pump Station capacity and the construction of new pump stations at Peoples and Dwyer Road Canals. Canal modifications, which include concrete lining and concrete box culverts, were proposed for the Peoples, Dwyer Road, Oleander, Dublin Street, Nashville, Napoleon, and General Taylor Canals.



Lake Pontchartrain Hurricane Protection Levee at the Causeway