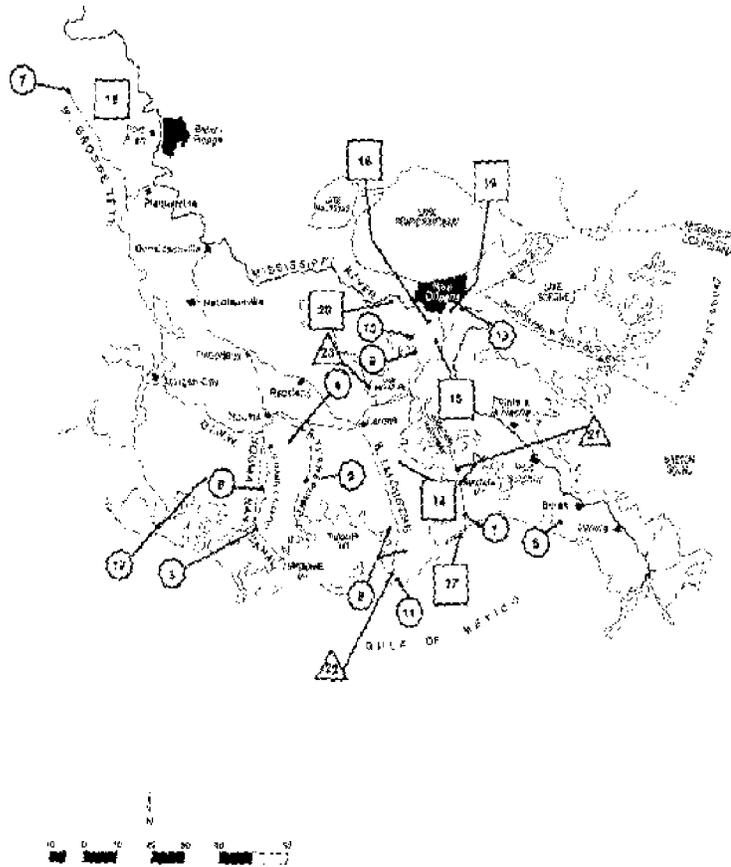


Barataria and Terrebonne Basins



Projects



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Barataria and Terrebonne Basins

Introduction

The Barataria and Terrebonne Basins are located in the lower southeastern region of the state, bordered on the east by the Mississippi River Levees and on the west by the East Atchafalaya Basin Protection levee (EABPL). Improvements have been authorized for purposes of navigation, flood control, beach erosion control, hurricane protection, recreation, and other associated uses.

Projects

Barataria Bay Waterway

The Rivers and Harbors Act of March 1919 authorized a dredged channel, 5 feet deep by 50 feet wide, from Bayou Villars to Grand Isle, a distance of 37 miles. The project was completed in 1925.

A modification was authorized by the Rivers and Harbors Act of 1958 to provide for a channel approximately 37 miles long with a

12-foot depth and 125-foot width at mean low Gulf level from its beginning at the Gulf Intracoastal Waterway to Grand Isle. The channel follows the route of the previous project to mile 15.5, in Bayou St. Denis, thence by a relocated channel along the western shore of Barataria Bay and through Barataria Pass to the 12-foot contour in the Gulf of Mexico, with a 4.3-mile extension of the project to include the westerly 4.3 miles of Bayou Rigaud. The project modification was completed in 1963.

In addition, authority was granted in October 1967, under provisions of the Rivers and Harbors Act of 1915, to enlarge the bar channel from 125 to 250 feet wide between mile -1.26 and the 12-foot contour. The enlargement was accomplished in 1967 at a cost of \$204,400. In 1978, authority was granted to increase project dimensions in the bar entrance channel to a depth of 15 feet mean low Gulf level by 250 feet wide, from mile 0 to the 15-foot contour in the Gulf of Mexico.



Barataria Bay Waterway in the vicinity of Crown Point, LA

When possible, wetlands are created with material dredged during waterway maintenance. In 1990, dredged material was used to create eight acres of wetlands to maintain the integrity of one of six brown pelican nesting sites. In 1996, dredged material was utilized to add another nine acres to Queen Bess Island and also used for wetland development at two other sites along the waterway.

The dune and ridge habitat on Grand Terre Island was rebuilt using dredged material removed from the Barataria Bay Waterway bar channel in 1996. Funding was provided by Section 204 of the Water Resources Development Act of 1992 and the Louisiana Department of Natural Resources. The Grand Terre Island Section 204 project was one of two Section 204 projects that have been constructed in the New Orleans District.

Average annual traffic from 1986-1995 was 1,157,000 tons, consisting mainly of oil industry cargo and liquid sulphur. Opportunities for recreational boating and fishing are plentiful throughout the area. The Voyageur, the Bayou Jean Lafitte, and the Mark Twain, three popular excursion boats, operate on regular schedules between New Orleans and Lafitte to show visitors the colorful and historic bayou country.



Queen Bess Island was restored using dredged material from the Barataria Bay Waterway



The Brown Pelican colony on Queen Bess Island was introduced from Florida in 1968 and began nesting by 1971

The waterway and adjacent waters below Lafitte are used extensively by commercial fishermen and oystermen. Special events, such as the pirogue races at Barataria and the fishing rodeos at Grand Isle, add to the value of the waterway for recreational purposes.

Barataria Bay Waterway 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 Barataria Bay Waterway connects Bayou Barataria with Barataria Bay. The marsh creation sites are located between Mile 0, at Barataria Pass and Mile 16, near Bayou St. Denis. Currently, sediments for maintenance of the waterway are placed in designated disposal areas adjacent to the waterway. With implementation of the project, this material would be used beneficially to create new marsh and nourish existing marsh near the waterway. The project involves using maintenance-dredged sediments to create marsh in shallow water areas adjacent to the channel. Eighteen marsh development areas, ranging in size from about 15 to about 133 acres, are proposed between Mile 0 and Mile 16 of the waterway. The enlargement of Queen Bess Island was added at no additional cost to CWPPRA and construction of the 9-

acre cell was completed on October 12, 1996. The channel is dredged about every four years, and an average of about 1,740,000 cubic yards of material is removed. This project is on hold until the marsh development areas are cleared of oyster leases.

Bayou Grosse Tete

Snagging, clearing, and dredging were authorized in 1912 to secure a 29-mile navigation channel 5 feet deep at mean low water and 60 feet wide from the mouth of Bayou Plaquemine to 5 miles above the town of Maringouin. A channel 5 feet deep by 60 feet wide was completed between mile 0 and mile 10.3 in 1914, and a channel 5 feet deep by 40 feet wide was completed to mile 29 in 1916.

Completion of the channel between mile 10.3 and mile 29.0 to project dimensions (5 feet deep by 60 feet wide) has been delayed by lack of dredged material disposal areas within a reasonable distance of the necessary excavation. This uncompleted portion of the work has been classified as inactive.

The work was completed in 1916. Annual traffic for 1995 was 22 tons.

Bayou Lafourche and Lafourche Jump Waterway

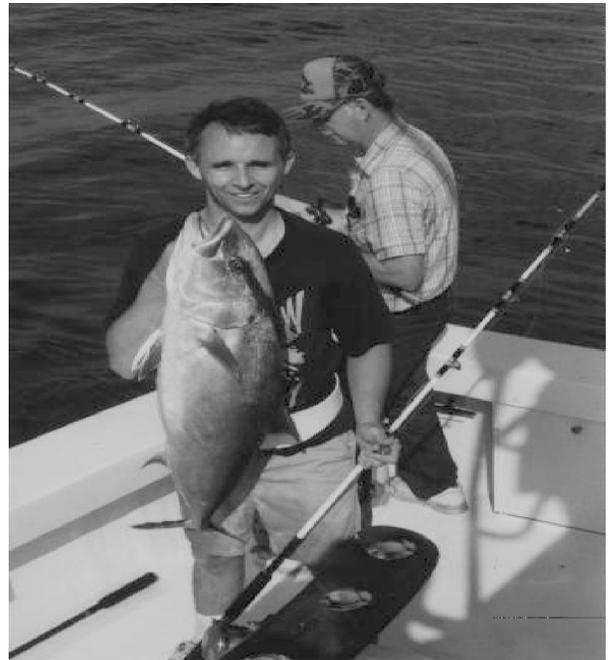
Features of the original project, authorized in 1935, include permanent closure of the head of Bayou Lafourche without a lock, a channel 6 feet deep by 60 feet wide from Napoleonville to Lockport, a channel of the same dimensions from the Gulf Intracoastal Waterway at Larose to the Gulf of Mexico with a jettied entrance at Belle Pass, and the closure of Pass Fourchon.

Construction of channel improvements below Larose was completed in 1941 at a cost of \$524,024. That portion of the project between Thibodaux and the head of the bayou at Donaldsonville was deauthorized in 1967, and the work between Thibodaux and Lockport is inactive because of the lack of rights-of-way and dredged material disposal areas.

The project was modified by the Rivers and

Harbors Act of 1960 to provide for a channel 9 feet deep and 100 feet wide from Golden Meadow to Leeville and a channel 12 feet deep and 125 feet wide from Leeville to the Gulf, including modification and extension of the jetties to the 12-foot depth contour if advisable. Enlargement of Bayou Lafourche between Golden Meadow and the Gulf of Mexico has been completed.

Average annual traffic on Bayou Lafourche from 1986-1995 was 1,859,000 tons.



The greater amberjack is a prized catch at the oil rigs south of Barataria Bay

Bayou Segnette

Improvements were made along this waterway under the Rivers and Harbors Acts of 1945, 1948, and 1951. Those made in 1948 consisted of re-establishing a usable navigation channel 6 feet deep and 40 feet wide between Bayou Bardeaux and the westward end of the Westwego Canal, a distance of about 6 miles.

Improvements made in 1951 consisted of channel enlargement to provide an 8-foot-deep by 50-foot-wide clear channel between mile 1.5 and mile 5.5.

Bayou Segnette Waterway

Construction of a 9-foot-deep channel over a bottom width of 60 feet was authorized by the Rivers and Harbors Act of 1954.

The authorization for this project provides for maintenance to a 6-foot depth only until such time as, at the discretion of the Chief of Engineers, maintenance to a greater depth (not to exceed 9 feet) is justified. An interim channel 8 feet deep over a bottom width of 80 feet, including overdepth, was completed in 1957 at a cost of \$238,828. The estimated cost of construction for the authorized project is \$374,000 (1957).

The channel begins at the southern end of Company Canal at Westwego and follows the existing channel of Bayou Segnette (including its cutoffs) southward to approximately mile 5.6, then runs southerly, via new land cut lying to the east of Lake Salvador, to the Intracoastal Waterway at Bayou Villars and the head of the Barataria Bay Waterway.

The project, 12.2 miles long, affords the larger modern fishing and shrimping boats a shorter and direct route to the packing and canning industries on Bayou Segnette. The average annual traffic on the waterway from 1984-1995 was 2,700 tons, most of which was crude petroleum.



Breakwaters on the north side of Grand Isle were constructed with rocks from the Wax Lake Outlet weir

Bayou Terrebonne

Crude petroleum represents the major cargo on this waterway, which was completed in 1916 at a cost of \$120,089. The waterway also serves as an access route for fishing and hunting in the coastal region. Average annual traffic from 1986-1995 was 230,000 tons.

The authorization for this project provides for a 6-foot-deep channel of suitable width from Bush Canal to the St. Louis Cypress Company Bridge at Houma, a distance of 24 miles. The channel was authorized in 1910, with modifications in 1912, 1913, 1959 and 1964. The 1959 and 1964 modifications authorized abandonment of about 1 mile of the channel in Houma.

Choctaw Bayou

This Section 205 project provided flood protection to an area of 9,200 acres, just west of Port Allen, by snagging, clearing and excavating a channel on Choctaw Bayou and its tributaries. The project was approved in 1968; construction was initiated in 1973 and completed in 1976. The total Federal cost of the project was \$840,700; the total non-Federal cost has not been finalized.

Grand Isle Hurricane Protection and Beach Erosion

Grand Isle is located on the Gulf of Mexico in Jefferson Parish and is one of the low barrier islands separated by bays and passes, which form a part of the shoreline of Louisiana. It is a base of operation for large offshore petroleum and sulphur industries and is a commercial and sport fishing center. It is also an important recreational area for residents of Louisiana and nearby states. Improvements on the island are subject to damage from erosion along its gulf shore and from the combined effects of winds and tides generated by hurricanes.

The current project, authorized in October 1976 under the authority of Section 201 of the Flood Control Act of 1965 (PL 89-298), provides for hurricane protection and prevention of beach erosion for the island. The plan of improvement provides for the construction of a sandfilled berm and a

vegetated and sandfilled dune extending the length of Grand Isle's gulf shore, and jetties to stabilize the ends of the island. The jetty on the western end of the island has been constructed by the State of Louisiana and has been credited toward the state's share of the project's first cost. The dune and vegetation contract was completed in the summer of 1985.



Redfish are commonly pursued by recreational anglers in Barataria Bay

In late 1985, the Grand Isle project was damaged by Hurricanes Danny, Elena, and Juan. Approximately 6,000 feet of dune were completely lost, about 14,000 feet were partially lost, and the remaining 18,000 feet sustained no damage. It is estimated the dune was instrumental in preventing an estimated \$12 million in damages.

Restoration of the project was accomplished by two separate contracts. The first was completed in 1988 and provided for jetty extensions and sandbar removal. The second contract provided for full restoration of the beach and dunes and was awarded in 1990. Construction began in 1990 and was completed in 1991.

Additional damage was sustained during Hurricane Andrew in 1992. The FY 1992 Dire Emergency Supplemental Appropriations Act authorized \$5,500,000 to repair the Grand Isle and Vicinity project from damages caused by Hurricane Andrew on 24 August 1992. Two contracts were awarded to accomplish

this effort. The first contract was awarded in June 1993 and completed in March 1994 to replace sand and clay in areas damaged by Hurricane Andrew. The second contract was awarded in September 1994 and completed in April 1995 to construct 23 segmented breakwaters offshore of the eastern end of Grand Isle. The breakwaters are necessary to compensate for continued offshore subsidence that has caused increased erosion on Grand Isle. Dune damage occurred again in 1995 by Hurricane Opal and in 1996 by Tropical Storm Josephine. Cost sharing by sponsors has been unavailable and repairs are necessary.

Current project cost is \$40 million (\$27.1 million Federal and \$12.9 non-Federal). As of October 1996, the project has prevented almost \$50 million in flood damages.

The Water Resources Development Act of 1996 authorized the construction of \$17 million of additional improvements to the current project. These improvements are intended to provide flood control and erosion protection to the north side of Grand Isle and the adjacent Cheniere Caminada. A report is being prepared documenting the technical, economic, and environmental feasibility of these improvements. This report is scheduled for completion in 1999, pending execution of a cost sharing agreement with the local sponsor, the Grand Isle Independent Levee District.

Rock removed from the Wax Lake Outlet Control Structure was used to construct segmented breakwaters on the north side of Grand Isle to protect the backside of the island from wave-induced erosion from Caminada Bay. This project was completed in April 1995.

Cheniere Caminada Breakwater

A project to protect Louisiana Highway 1 (LA 1) from erosion is currently under construction in Grand Isle. The project is authorized under Section 103 of the River and Harbor Act of 1962, as amended. The existing conditions in Caminada Bay cause wind-induced waves to erode the north side of LA 1 at Cheniere Caminada. Cheniere Caminada is a strip of

land that lies between Caminada Bay and the island of Grand Isle.

The only protection that currently exists for LA 1 is undersized riprap installed by the local residents and Texaco Oil Company. The riprap is very unstable and requires frequent replenishment due to the erosion of its sand base by high-energy waves. LA 1 traverses Cheniere Caminada and provides the only access to the town of Grand Isle. The loss of LA 1 to shoreline erosion would be devastating to the local community. The constructed project consists of nine, 400-foot-long segmented breakwaters placed in Caminada Bay, approximately parallel to the shoreline. The breakwaters were positioned in a stair-step configuration with 50-foot gaps between segments to allow for water circulation and sediment deposition. Construction was completed in April



1998.

Offshore breakwaters in the Gulf of Mexico at Grand Isle

Harvey Canal-Bayou Barataria Levee

This project consists of construction of a levee along the Gulf Intracoastal Waterway in Jefferson Parish, between Roussel Pumping Station and Cousins Canal; enlargement of the existing levee from Cousins Canal to mile 6; and a new levee from mile 6 to Louisiana State Highway 45 near Crown Point. The plan for improvement also included

construction of a new pumping station by local interests. However, the Environmental Protection Agency has invoked Section 404(c) of the Clean Water Act, so no pumping station will be built.

The levee embankment was to have been constructed in two lifts. Construction of the first lift was initiated in 1971 and completed in 1974. Work on the second lift has not begun. The estimated project cost (1976) is \$1 million Federal and \$5.02 million non-Federal. The \$1 million Federal portion was expended on the first lift and the project was turned over to the local assuring agency (Jefferson Parish Council) for project completion. Construction of the Westwego to Harvey Canal levee would remove the necessity to complete this levee.

Houma Navigation Canal

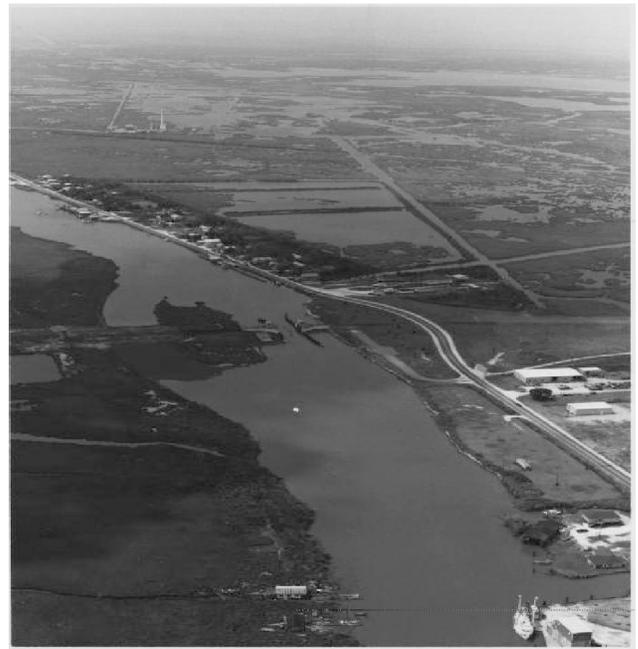
The channel, 15 feet deep at mean low Gulf level over a bottom width of 150 feet, allows navigation from the Gulf Intracoastal Waterway near the western edge of Houma to the Gulf of Mexico. Federal maintenance of this canal, completed by non-Federal interests in 1962, was officially assumed in 1963. Maintenance cost to date is \$18,827,749. Authority was granted in August 1973 to increase the channel dimensions to 18 feet deep by 300 feet wide between mile 0 and the 18-foot contour in the Gulf of Mexico. Material dredged during channel maintenance will generally be used to restore wetlands and barrier islands. The Corps spent \$150,000 restoring Wine Island with dredged material in 1990.

During the period from 1986-1995, traffic on this waterway averaged 1,124,000 tons annually, with the oil industry contributing the major cargo.

Lake Salvador Shoreline Protection

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 project is located on the eastern shore of Lake Salvador in Jefferson Parish, LA. The Jean Lafitte National and Historical Park and Preserve is located east of Lake Salvador.

The park consists mostly of fresh and intermediate marshes, cypress swamps, and ridges of hardwood trees. Wind generated waves from Lake Salvador are eroding the eastern shore of the lake and the western (right-descending) bank of the Bayou Segnette Waterway. Without shoreline protection the eastern shore of Lake Salvador would continue to erode. The eventual breaching of the narrow point of land separating the Lake and the Bayou Segnette Waterway could allow wind-driven waves to erode the marshes of the park. The CWPPRA Task Force authorized the expenditure of a maximum of \$60,000 for design of the project. The design features included a wavebreak with an earthen dike behind it to plant and support the growth of willow trees, followed by fill material up to the shoreline to reestablish the marsh. The design was completed in March 1996. Construction of the project, funded by the National Park Service, was completed in April 1997.



Golden Meadow floodgate on Bayou Lafourche



CWPPRA project - Lake Salvador shoreline protection

Larose to Golden Meadow Hurricane Protection

This project, authorized by the Flood Control Act of 1965, protects highly developed residential and commercial areas along Bayou Lafourche between Larose and Golden Meadow from storm tides and hurricane floodwaters. The project area is of great economic importance to the state of Louisiana

and includes lands and improvements having an aggregate value of approximately \$193,715,000 (1994 prices). The project includes enlargement of 3 miles of existing levees and construction of about 13 miles of new levees, 8 miles of low interior levees, two major floodgates in Bayou Lafourche, and several flap-gated drainage culverts. At the request of local interests, the culverts have been replaced with pumping stations. Local interests will bear the difference in cost. The estimated Federal cost (October 1997) is \$80 million; the non-Federal cost is \$34 million. Project construction was initiated in 1975 and is currently scheduled for completion in 2008. Approved mitigation for this project consists of water level management for marsh preservation on the Pointe au Chien Wildlife Management Area. Construction of the first lift of the mitigation feature is complete. As of 1996, the project has prevented \$15 million in flood damages.

Little Caillou Bayou

Completed in 1929, this 20-mile channel, 5 feet deep and 40 feet wide, from Robinson Canal to the head of Little Caillou Bayou, cost \$77,761. Average annual traffic from 1986-1995 was 880,000 tons, consisting mostly of crude petroleum.

Marsh Creation East of the Atchafalaya River - Avoca Island

The project was authorized by the Coastal Wetlands Planning, Protection, and Restoration Act (Public Law 101-646, Title III) on the 6th Priority Project List. The project is located in St. Mary Parish south of Morgan City, La. on Avoca Island. The total project area is 2,000 acres of open water. Avoca Island is a failed agricultural impoundment that became flooded when the levee broke in 1927. The objective of the project is to create marsh with dredged material. The project consists of the beneficial use of dredged material from the "Crew Boat Chute" and placing it in the Avoca Island open water area. Due to low cost effectiveness, the project is prosed for deauthorization.

Port Fourchon

Port Fourchon is located near the mouth of Bayou Lafourche in southern Lafourche Parish. This project was authorized by the Water Resources Development Act of 1996 and is designed to improve access to Port Fourchon from the Gulf of Mexico. The project calls for enlarging the access channel to Port Fourchon to a project depth of -24 feet MLLW over a 300 foot bottom width and the use of all dredged material for wetlands creation and preservation. The offshore access channel will be dredged to -26 feet MLLW. The estimated total first cost of the project is \$4,800,000, including \$2,500,000 Federal and \$2,300,000 non-Federal. Benefits for the project will accrue to mobile oil drilling rigs which use the port for inspection,

maintenance, and repair. Construction will begin once Federal funds are appropriated. The non-Federal sponsor is the Greater Lafourche Port Commission.

West Belle Pass Headland Restoration

The project was authorized by the Coastal Wetlands Planning, Protection, and Restoration Act (Public Law 101-646, Title III) on the 2nd Priority Project List. The project area is 2,459 acres of coastal wetlands located just west of Port Fourchon, LA. The project area is bounded by Timbalier Bay on the west, Bayou Lafourche and Belle Pass on the east, and the Gulf of Mexico on the South. Timbalier Bay is encroaching into the marshes on the west side of Bayou Lafourche, and wave action is eroding its banks. Openings in the banks are causing tidal scour in the interior marshes. The project will reduce the encroachment of Timbalier Bay with the use of dedicated dredged materials to create wetlands, and the construction of dams and controls on channel cross sections. About 2,500,000 cubic yards of material will be dredged from Bayou Lafourche and used to build 184 acres of marsh on the west side of Belle Pass. The Evans Canal cross section will be stabilized and plugs will be placed on other canals. About 17,000 feet of rip rap will be placed on the west side of Belle Pass and Bayou Lafourche from the jetty, north. The construction contract was awarded on 23 Jan 98 for \$4.8 million. This project was completed in June 1998.



CWPPRA project - West Pass Headlands restoration at Evan's Canal

Waterway from Empire to the Gulf of Mexico

Authorized in 1946 and completed in 1950 at a cost of \$1,068,142, this project consists of a 9-foot-deep by 80-foot-wide channel from Doullut Canal, near Empire, southward to the Gulf. Extension of the existing jetties from the 6-foot contour to the 9-foot contour is authorized. The jetties will be extended if it becomes apparent that such extension would be more economical than maintenance dredging.

The needs of a large fishing fleet and those of adjacent offshore oil operations are served by this 10-mile channel from Empire to the Gulf of Mexico. The Mississippi River Delta and the Gulf of Mexico in the vicinity of Empire abound in opportunities for fishing and hunting, and the waterway is heavily utilized by sportsmen throughout the year. Average annual traffic for the period 1986-1995 was 1,104,000 tons.

Waterway from the Intracoastal Waterway to Bayou Dulac

This waterway, 5 feet deep and 40 feet wide, extends from the Gulf Intracoastal Waterway at Houma, through Bayous LeCarpe, Pelton, and Grand Caillou to Bayou Dulac, a distance of about 16.3 miles. The project was completed in 1938.

Modification of this project to provide a channel 10 feet deep and 45 feet wide in Bayou LeCarpe from the Gulf Intracoastal Waterway to the Houma Navigation Canal was authorized by the Rivers and Harbors Act of 1962. The modification was completed in 1964, at a Federal cost of \$78,342. The average annual traffic over this waterway from 1986-1995 was 393,000 tons.

Westwego to Harvey Canal, Louisiana, Hurricane Protection

This project, authorized by the Water Resources Development Act of 1986, will provide Standard Project Hurricane protection to the urban area west of the Harvey Canal between Westwego and Harvey Canal. The Lake Cataouatche and East of Harvey Canal areas were included in the project by WRDA 1996. The total project consists of new and enlarged levees, floodwalls, and a sector gate on the Harvey Canal. The project plan includes mitigation, which will be provided by the acquisition and management of 1,024 acres of wooded wetlands and construction of a timber pile breakwater to prevent erosion in the vicinity of the Salvador Wildlife Management Area. The estimated Federal cost (October 1997) is \$183 million and the non-Federal cost is \$97.3 million. The first construction contract was awarded in 1991. The Westwego feature is about 30 percent complete. The project completion date is 2011.



Westwego to Harvey Hurricane Protection Levee and pump station at Orleans Village

Small Projects and Studies

Barataria Bay Waterway, Grand Terre, Jefferson Parish, LA. This project was constructed under the authority of Section 204 of the Water Resources Development Act of 1992. (Public Law 102-580). The project, completed in September 1996, provided for the placement of 660,000 cubic yards of dredged material, removed from miles -1.0 to -3.8 of the Barataria Bay Waterway (BBWW) bar channel, on West Grand Terre Island to retard erosion, repair an overwash breach area caused by Hurricane Andrew, nurture and protect approximately 125 acres of existing wetlands, and create approximately 77 acres of additional wetlands. The newly created and protected wetlands will provide habitat for many animal species, including the clapper rail and the diamondback terrapin. Dune habitat was restored which will benefit the least tern and other shore birds and may benefit the threatened piping plover. The shallow water habitat behind the island will be protected benefitting numerous saline and estuarine fish species.

Dredged material from the BBWW would normally be placed in an Ocean Dredged Material Disposal Site (ODMDS). Instead, it was used beneficially for aquatic habitat protection and restoration and creation of wetlands. A new study is underway to



Shrimp boat in the Gulf of Mexico

determine the costs and benefits of placing dredged material from the BBWW bar channel in the shallow water behind West Grand Terre Island to create additional wetlands.

Bayou DuLarge. This project is being constructed to increase the efficiency of navigation in Bayou Dularge. Traffic on Bayou Dularge consists mainly of commercial fishing vessels. The NED plan is to clear and snag the bayou from Grand Pass to Falgout Canal. Plans and Specifications are being prepared for this project. Construction is scheduled for FY 98.

Bayou Plaquemine Restoration. The study is being conducted under the authority of Section 1135 of the Water Resources Development Act of 1986. The objective of the study is to investigate methods of introducing oxygenated water into the bayou and decreasing the temperature of bayou waters. The bayou is currently experiencing aquatic habitat degradation from decreased water circulation and eutrophication due to the closure of the Bayou Plaquemine Lock in 1961. The project feasibility report is scheduled for completion in April 1998.

Houma Navigation Canal, Cat Island Pass. This study is being conducted under the authority of Section 204 of the Water Resources Development Act of 1992. The purpose of this study is to investigate alternatives to disposing of material, dredged from the bar channel reach of the Houma Navigation Canal, in the Ocean Dredged Material Disposal Site. Alternatives under investigation include disposal of material at Wine Island or East Island; or disposing of the material at locations where littoral drift will carry the material to sites where land will be created.

Houma Navigation Canal, Mile 12 to 31.4. This study is being conducted under the authority of Section 204 of the Water Resources Development Act of 1992. The purpose of this study is to determine if the use of dredged material to repair the canal banks in order to protect adjacent wetlands, is justified.

Virgin Island Emergency Streambank Protection, Pierre Part, Louisiana. This project was constructed under Section 14 (PL 526, as amended) of the USACE Continuing Authorities Program which provides emergency bank protection to historic sites. The St. Joseph Catholic Church requested Federal assistance, to prevent further bank erosion at Virgin Island, within Bayou

Grosbec in the community of Pierre Part, Louisiana. The project consisted of constructing a tieback sheetpile wall around the island, which is approximately 250 feet long by 45 feet wide, and placing dredged material in the existing eroded areas. This project was completed in January 1998 at a total cost of \$341,000.



Virgin Island in Pierre Part, LA

Wine Island Pass, Houma Navigation Canal, Louisiana. This project modification was constructed under the authority of Section 1135(b) of the Water Resources Development Act of 1986, as amended. This project provided for the restoration of Wine Island in Terrebonne Parish, Louisiana, by the construction of a rock dike enclosing a 48-acre area at Wine Island Shoals on the Gulf of Mexico. Approximately 600,000 cubic yards of dredged material from the maintenance dredging of Wine Island Pass was pumped into the diked area at an elevation conducive to marsh creation. The project modification was completed in 1991. The total project modification cost was \$1,007,000. The Federal cost was \$607,000 and the non-Federal cost was \$400,000.

Programs and Surveys

Flood Insurance Studies

Under the National Flood Insurance Act of 1968 (PL 90-448) and Flood Disaster Protection Act of 1973 (PL 93-234), the Corps of Engineers conducted flood insurance studies for U.S. Department of Housing and Urban Development. The Federal Emergency Management Agency (FEMA) now has that responsibility. Insurance studies have been completed in the Barataria and Terrebonne Basins as follows:

Ascension Parish
Donaldsonville
Gretna
Harahan
Harvey-Gretna
Houma
Jefferson Parish
Lafourche Parish
Lockport
Louisiana Gulf Coast
Terrebonne Parish
Westwego

Surveys Authorized or Under Way

Fisher School Basin Feasibility Study, Jean Lafitte, LA. A report is being prepared by the New Orleans District to summarize the

findings of a flood protection feasibility study in Jean Lafitte, Louisiana. The study is authorized under Section 205 of the 1948 Flood Control Act, as amended. The town of Jean Lafitte is located on the eastern bank of Bayou Barataria in Jefferson Parish. The study area encompasses portions of the town of Jean Lafitte known as the Fisher School Basin.

The existing levee system is insufficient due to its varying height and gaps in the alignment and provides minimal protection from Bayou Barataria and high gulf stages. The mainline Mississippi River and Tributaries levee system protects the study area from river overflow. Local officials requested that the feasibility study concentrate on more frequent flooding events caused by rainfall, Bayou Barataria stages, and tidal influences.

The recommended plan would increase the height of the existing levee and close any gaps in the alignment. The levee height was optimized during feasibility to provide protection from a 10-year storm event and will follow the existing alignment as closely as possible. Any changes in alignment are based on environmental or cost related concerns. Construction is scheduled to begin in late 1999 and should be accomplished in two years.

Rosethorne Basin, Jean Lafitte, LA. A flood protection feasibility study is currently underway for the Rosethorne Basin in Jean Lafitte, Louisiana. The study is authorized under Section 205 of the 1948 Flood Control Act, as amended. The study area is located on the eastern bank of Bayou Barataria in Jefferson Parish and encompasses portions of the town of Jean Lafitte known as the Rosethorne Basin.

The existing levee system is insufficient due to its varying height and gaps in the alignment and provides minimal protection from Bayou Barataria stages. The mainline Mississippi River and Tributaries levee system protects the study area from river overflow. Local officials requested that the feasibility study concentrate on more frequent flooding events caused by rainfall, Bayou Barataria stages, and tidal influences.

Alternative solutions are being developed to address the areas having the highest level of structural flooding damages and provide adequate relief from flooding, using the 10-year design event as a minimum. The existing levee alignment will be used as much as possible to minimize project costs and adverse impacts of the plans on the natural environment and social well being. The study is scheduled for completion in July 1998.

Other Studies. The New Orleans District has initiated four new studies to determine the feasibility of providing increased flood protection to several communities along Bayou Barataria in Jefferson Parish, Louisiana. The studies are authorized under Section 205 of the 1948 Flood Control Act, as amended. The study areas under consideration are Crown Point, Barataria (Paillet), Goose Bayou, and Lower Lafitte.

All of the existing levee systems are insufficient due to varying height and gaps in the alignment. The mainline Mississippi River and Tributaries levee system protects the study area from river overflow. The West Jefferson Levee District requested that the feasibility studies concentrate on more frequent flooding events caused by rainfall, Bayou Barataria stages, and tidal influences.

Flood protection measures will provide protection from a 10-year storm event as a minimum and follow the existing levee alignment as closely as possible. Both structural and non-structural alternatives will be considered during the feasibility study. All four feasibility studies are scheduled to be complete in two years.



Barataria Bay Waterway above Lake Salvador