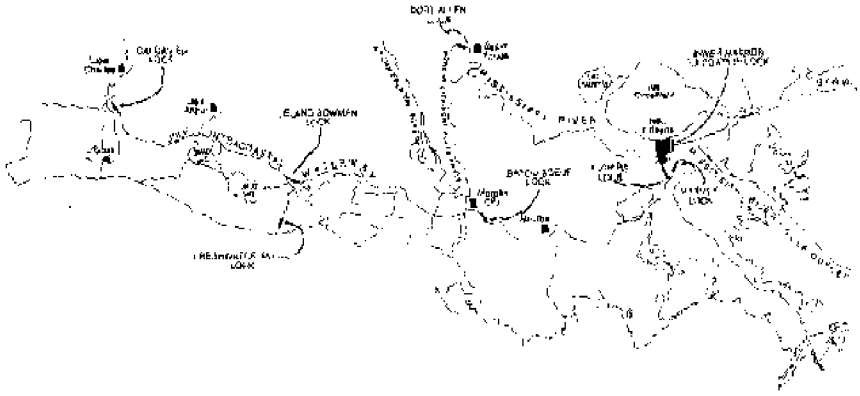
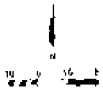
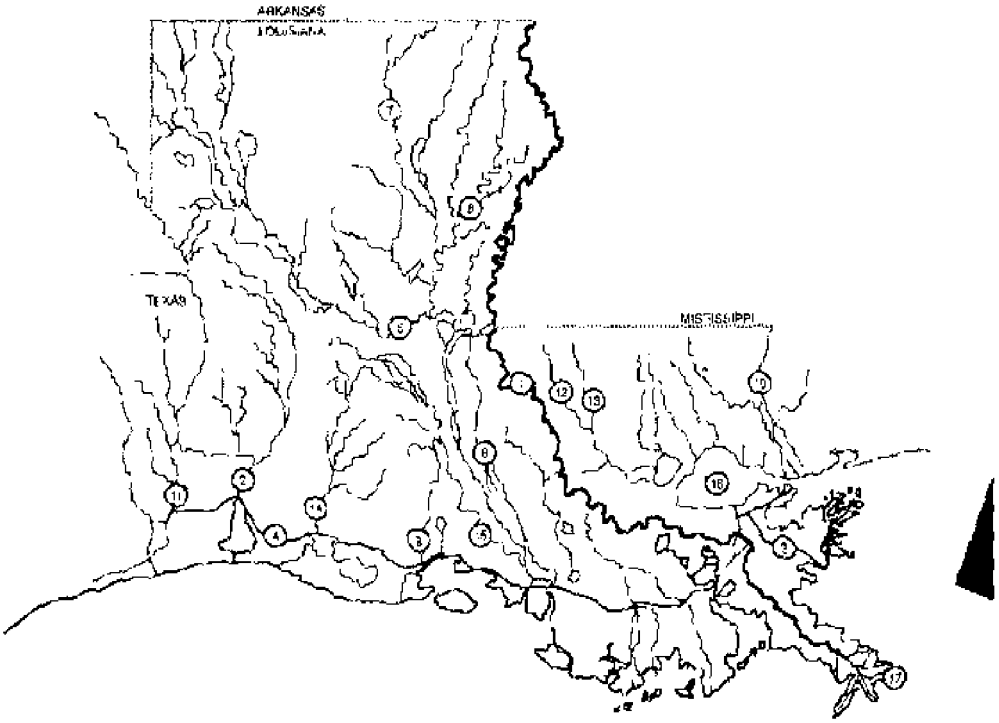
Coastwide Projects



Major Navigable Waterways



Louisiana Waterways



1. MISSISSIPPI R.
2. CALCASIEU R.
3. MR-GO
4. GIWW
5. RED R.
6. TENSAS R.
7. OUACHITA R.
8. ATCHAFALAYA R.
9. VERMILION R.
10. PEARL R.
11. SABINE R.
12. COMITE R.
13. AMITE R.
14. VERMENTAU R.
15. BAYOU TECHE
16. LAKE PONTCHARTRAIN
17. MISSISSIPPI R. DELTA AREA

Coastwide Projects

Introduction

Corps of Engineers improvements that traverse several basins are included in this section. The primary feature is the Gulf Intracoastal Waterway, which extends across the entire lower portion of the state.

The GIWW at the Forked Island Wiggles, miles 170-175

The Port Allen Lock at Baton Rouge on the Mississippi River begins the GIWW alternate route to Morgan City

Projects

Gulf Intracoastal Waterway Between Apalachee Bay, Florida, and the Mexican Border.

A series of congressional acts has authorized work which has progressively extended and enlarged the navigable channel to afford a practical coastal waterway route along the Gulf Coast. Through the interconnection with the Mississippi River System and other important inland waterways, the Intracoastal Waterway enables small craft and commercial tows to reach many points throughout the eastern and southern seaboards, the Midwest and Great Lakes areas.

The Intracoastal Waterway within Louisiana extends along the coast of the Gulf of Mexico from Lake Borgne Light No. 29, the eastern boundary, to the Sabine River, the western boundary, a distance of 302 miles; from Port Allen to Morgan City, a distance of 64 miles; from Plaquemine to Indian Village, a distance of 7.4 miles; and to the town of Franklin via the Franklin Canal, a distance of 5.15 miles. The project, as authorized by the Rivers and Harbors Act of March 1925 and subsequent modifications through the Rivers and Harbors Act of July 1946, provides for the following channel dimensions in the state of Louisiana:

- Main routes: 12 feet deep by 150 feet wide from Lake Borgne Light No. 29 to the Inner Harbor Navigation Canal, and 12 feet deep by 125 feet wide from the Mississippi River to the Sabine River, including the routes through both Algiers and Harvey locks.
- Alternate routes: 12 feet deep by 125 feet wide from Morgan City to the Mississippi River at Port Allen, and 9 feet deep by 100 feet wide from Plaquemine to Indian Village.
- Franklin Canal: 8 feet deep by 60 feet wide from its confluence with the Gulf Intracoastal Waterway to Franklin.

Dimensions of the locks in operation on the waterway are shown in the following tabulation.

Locks	*Width (ft)*	*Length (ft)*	*Cost ($)*	*Elevation of Sill**	*Opened to Navigation*	*Traffic in 1996 (1000Tons)***
Inner Harbor Navigation Canal	74	640	8,648,492	-31.5	1923	21,544
Harvey	75	415	1,775,132	-12.0	1934	4,017
Leland Bowman	110	1,200	32,200,000	-15.0	1985	40,651
Calcasieu	75	1,194	2,133,527	-13.0	1950	39,815
Algiers	75	760	5,215,700	-13.0	1956	22,131
Bayou Sorrel***	56	790	4,700,948	-14.0	1951	24,283
Bayou Boeuf***	75	1,148	2,754,000	-13.0	1954	25,396
Port Allen	84	1,188	13,902,222	-13.75	1961	25,142

* Mean Low Gulf level, feet.

** Source:Lock Performance Monitoring System.

*** Constructed and operated under the project "Flood Control, Mississippi River and Tributaries."

The Calcasieu and Leland Bowman locks were constructed and are operated to prevent saltwater intrusion into the Mermentau River Basin. These locks are an essential part of the plan of improvement for the Mermentau River project.

The Algiers Lock and Canal route begins 6 miles west of Harvey Lock on the existing waterway and extends to the Mississippi River below Algiers. Federal cost of the project route was $15,896,000, and non-Federal was $2,185,000.

The 64.1-mile-long alternate route from Morgan City to the Mississippi River, a new lock at Port Allen, and the channel in Bayou Plaquemine from Indian Village to the inoperative lock at Plaquemine were begun in 1955 and completed in 1962. In 1961, the Plaquemine Lock on the channel from Indian Village to the Mississippi River was permanently closed. Average annual traffic on the Morgan City-Port Allen route, 1986-1995, was 25,378,000 tons. This modification was completed in 1963 at a Federal cost of $26,869,000 and non-Federal cost of $2,250,000.

The authorized bridge over the waterway at Paris Road in New Orleans has been superseded by the larger bridge, required at the same location for the Mississippi River-Gulf Outlet.

An interim section 8 feet deep by 50 feet wide was completed for the Franklin Canal in 1950 by the Federal government. The canal was enlarged to project dimensions (8 by 60 feet) by local interests in 1953-1954.

All other work authorized through 1946 for this project, except bulkheads and jetties at Lake Borgne and Chef Menteur, have been completed. The bulkheads and jetties are no longer considered necessary and were subsequently deauthorized in 1979. Total cost of the new work in Louisiana under the existing project is $62,402,000, including $14,830,000 non-Federal cost and $72,000 for navigation aids.

The average annual traffic, 1986-1995, on the waterway between Apalachee Bay and the Mexican border was 113,361,000 tons.

The enlargement of the main channel west of the Mississippi River with a bypass south of Houma was authorized by the Rivers and Harbors Act of October 1962. An economically feasible plan to do this work does not appear to exist and the study is being considered for termination.

Louisiana Coastal Area

This study reviewed reports on coastal area projects. The study determined the advisability of improvements or modifications to existing projects in the interest of hurricane protection, prevention of saltwater intrusion, preservation of fish and wildlife, decreased rates of land erosion, and related water resources purposes.

Under this study, a final feasibility report on freshwater diversion to Barataria and Breton Sound basins was completed in September 1984. The report recommended that a diversion site at Davis Pond in the Barataria Basin and at Caernarvon in the Breton Sound Basin be implemented under the authorized Mississippi Delta Region project described earlier.

A post-authorization change report recommending the Davis Pond site as a substitute for the Myrtle Grove feature of the Delta Region project was completed in October 1984 and has been approved. The Caernarvon freshwater diversion project is complete.

Initial evaluation reports on land loss and marsh creation, water supply, and shore and barrier island erosion were completed in November 1984. The reports recommend that plans for wetlands creation, water supply, and erosion control warrant more detailed investigation. Feasibility studies on land loss and wetlands creation and shore and barrier island erosion were initiated in March 1985. The Shore and Barrier Island Erosion Study was terminated in September 1988; however, the state of Louisiana is continuing to share the costs of the Land Loss and Marsh Creation Study.

Construction of the Davis Pond Freshwater Diversion structure required the relocation of the railroad, LA Hwy. 18, and the Mississippi River Levee

The Land Loss and Marsh Creation Study area is divided into two portions. The report for the St. Bernard, Plaquemines and Jefferson parishes portion of the study was submitted to the Lower Mississippi Valley Division in the summer of 1990. Recommendations for wetlands creation included sites for major and minor sediment diversions as well as sites for placement of dredged sediments. The Feasibility Report (St. Bernard, Plaquemines, and Jefferson parishes) is currently being revised and is scheduled for completion in

May 1993. The report for the Lafourche to Sabine portion of the study is scheduled for completion in the summer of 1993. As a result of passage of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA), PL 101-646 on November 29, 1990, the Land Loss and Marsh Creation study efforts were terminated. Further investigations have been continued under the CWPPRA, which provides Federal funds to prepare short-term and long-term lists of coastal wetland restoration projects to address the coastal wetland loss problem in Louisiana. In addition, the CWPPRA provides for 75 percent of the cost of implementing coastal wetland restoration projects to be borne by the Federal government.

The Mississippi River Delta Study and the Louisiana Comprehensive Coastal Wetlands Study were reconnaissance studies initiated in 1988. The Mississippi River Delta Study was terminated after completion of the reconnaissance phase because no economically justified alternative was identified. The Louisiana Comprehensive Coastal Wetlands Study was terminated in 1991 and the study objectives are being pursued under the CWPPRA.

A reconnaissance study of hurricane protection for communities in coastal Louisiana was initiated in 1987. The study investigated future increases in hurricane-induced flooding across coastal Louisiana as a result of anticipated loss of wetlands. In 1988, the reconnaissance report recommended proceeding into the feasibility phase of study for an area on the west bank of the Mississippi River in St. Charles Parish. The New Orleans District and Lafourche Basin Levee District signed a feasibility cost-sharing agreement in February 1990. Alternative levee alignments were presented to the sponsor for review in October 1990. In 1991, the Lafourche Basin Levee District sent notification it will no longer participate in the study and the study has been terminated.

Water hyacinths flourish in the freshwater at Twin Canals

Removal of Aquatic Growth

The water hyacinth was introduced into the United States from Central or South America and exhibited at the 1884 Cotton Exposition in New Orleans. By 1898 the noxious aquatic plant had spread throughout southern Louisiana and Florida to such an extent that Congress was requested to intercede. The U.S. Army Engineers made a report in that year, and operations to control growth of the plant began in 1900.

From 1902 to 1937, the Corps controlled the water hyacinth by treating it with sodium arsenite. During that time, operations were confined to about 300 miles of navigable waterways per year. Because of the hazards connected with handling and use, treatment with this chemical was abandoned in 1937 in favor of destruction by mechanical means. Since the late 1940s, use of the plant hormone 2, 4-D gradually replaced mechanical destruction, except in unusual cases.

Removal of the aquatic growth is a continuing project for which funds are appropriated annually. Authorized under the project is extermination or removal of plants which are or may become obstructions to navigation within the navigable waters of the states of Florida, Alabama, Mississippi, Louisiana, and Texas. The estimated annual cost for maintenance in Louisiana is $1.7 million.

There are presently 6.2 million acres of water in Louisiana, of which it is estimated that 500,000 acres are infested with hyacinth, or are subject to infestation. With the completion of the Intracoastal Waterway, which connects many streams, the problem has been accentuated, and today operations are conducted on about 3,000 miles of waterway annually.

Frequent checks are made on all of the waterways in the state to determine the existing conditions and plan future operations. The control of unwanted aquatic vegetation has been achieved through (1) control structures to prevent drift from infested areas into main waterways; (2) drifting the vegetation to salt water and self-destruction; (3) mechanical destruction by means of multiple semi-submerged saws to shred vegetation in place; (4) chemical treatment; and (5) biological control.

The work has been extended into many streams hitherto blocked to navigation and the number of pleasure craft entering the newly opened areas has increased greatly.

The Corps has performed extensive research to develop new methods of control. New herbicides, equipment, and application methods are continually being investigated for effectiveness and environmental safety. Research is also being conducted to locate and develop biological agents to control the plant. Since 1900, the Corps has spent $16,205,758 on control of aquatic growth in Louisiana, through FY 94.

Recreation on Bayou Coquille in the Jean Lafitte National Park

Aquatic Plant Control Program

A review of the project, "Removing the Water Hyacinth," was authorized in 1945. The review report prepared by the U.S. Army Engineers in cooperation with the U.S. Department of Agriculture, U.S. Fish and Wildlife Service and the U.S. Public Health Service has been published as House Document No. 37, 85th Congress, 1st Session. As a result of this study, Congress,

in 1958, authorized a separate comprehensive project to control and progressively eradicate the water hyacinth, alligatorweed, and other noxious aquatic plant growths from the navigable waters, tributary streams, connecting channels, and other allied waters in the states of North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas.

Amended by PL 89-298 in 1976, the project now includes the control and eradication of Eurasian watermilfoil. All states are now included in the program.

Benefits from the project accrue to navigation, flood control, drainage, agriculture, fish and wildlife conservation, public health, and related water resources development purposes. Research for development of the most effective and economic control measures is an integral part of the project. The Corps is studying the feasibility of mechanical harvesting of unwanted aquatics. Two mechanical harvesters are used to supplement chemical control operations.

The project is administered by the Chief of Engineers under the direction of the Secretary of the Army and in cooperation with other Federal and state agencies. Local interests are required to hold and save the United States free from claims that may occur from operations under the project and to participate to the extent of 50 percent of the cost of the program.

Total cost of the project, under PL 89-298, is limited to $10 million annually, allocated on a priority basis, depending upon the urgency and need of each area and the availability of local funds.

Planning work in Louisiana was initiated in 1959. Corps of Engineers crews work in the larger streams, and Louisiana Department of Wildlife and Fisheries crews carry operations beyond this point into the feeder areas and lakes in north Louisiana.

Work in Pearl River Basin (Vicksburg District) is carried out under the expanded program by the Department of Wildlife and Fisheries, which is under contract with New Orleans District. Additional work, which can be done effectively by the state crews, is assigned on a cost-reimbursable basis depending on the availability of funds.

As a result of this work, recreation activities along Louisiana's numerous waterways have increased greatly. New channels to pleasure spots have been made available for general public use. The U.S. Army Corps of Engineers has spent the sum of $12,948,372 on this project in Louisiana since 1959.

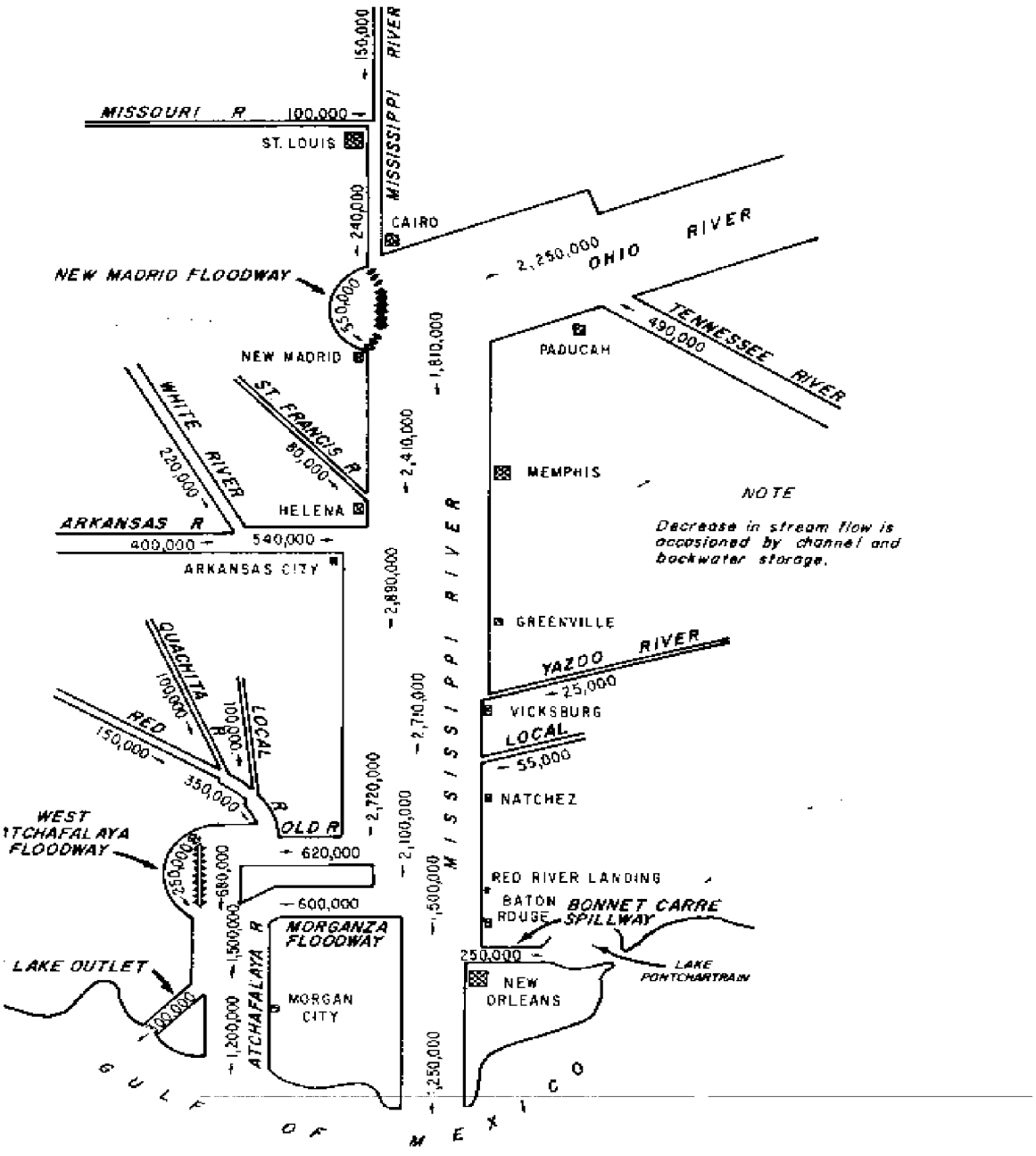
Aquatic growth control spraying in Lake Boeuf

Surveys

Intracoastal Waterway Locks, La.

Intracoastal Waterway Locks, Louisiana Study is an interim study under the Gulf Intracoastal Waterway (GIWW) Study to determine the need for and the feasibility of increasing the capacity of the locks for waterborne commerce on the GIWW system west of the Mississippi River. In reconnaissance studies, Bayou Sorrel Lock was identified as having the most immediate need of a capacity increase. Bayou Sorrel Lock passes navigation through the West Atchafalaya Basin Protection Levee. The lock is structurally sound but must be replaced because it is deficient in elevation because the project flood flow line in the Atchafalaya Basin Floodway has been raised. Feasbility studies of the lock replacement are scheduled for completion in 2000.

Bayou Sorrel Lock allows navigation between Port Allen and Morgan Morgan City


MISSOURI R
100,000
ST. LOUIS
150,000
MISSISSIPPI RIVER
240,000
CAIRO
2,250,000
OHIO RIVER
NEW MADRID FLOODWAY
350,000
NEW MADRID
1,810,000
PADUCAH
TENNESSEE RIVER
490,000
WHITE RIVER
220,000
ST. FRANCIS R
80,000
2,410,000
MEMPHIS
HELENA
ARKANSAS R
400,000
540,000
ARKANSAS CITY
2,890,000
GREENVILLE
YAZOO RIVER
25,000
VICKSBURG
LOCAL
55,000
NATCHEZ
QUACHITA
100,000
RED
150,000
100,000
LOCAL
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OLD R
2,720,000
2,710,000
2,100,000
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WEST
TCHAFALAYA
FLOODWAY
620,000
600,000
RED RIVER LANDING
BATON ROUGE
BONNET CARRE SPILLWAY
250,000
LAKE PONTCHARTRAIN
NEW ORLEANS
MORGANZA FLOODWAY
1,500,000
LAKE OUTLET
MORGAN CITY
1,200,000
ATCHAFALAYA R
1,250,000
GULF OF MEXICO
NOTE
Decrease in stream flow is occasioned by channel and backwater storage.
PROJECT DESIGN FLOOD
(58A-EN)
CUBIC FEET PER SECOND