ATCHAFALAYA BASIN
The Setting

THE ATCHAFALAYA BASIN IS CHANGING...

Many people agree that the changes are not in the best interest of most individuals and groups who use and depend upon the Basin.

The natural Atchafalaya Basin, generally referred to simply as the "Basin," contains scenic semi-wilderness areas of hardwood forests, cypress swamps, marshes, and bayous — one of the few great wetland semi-wilderness areas left in the nation.

The Basin serves as both a natural and manmade floodway for containing and conveying floodwaters from the Mississippi River, which would otherwise threaten the lives and property of hundreds of thousands of people in Louisiana.

The Basin contains some of the country's most productive habitats for fish and wildlife and is home to the people who carry on the rich Acadian heritage, lifestyle, and cultural traditions.

The Basin is a paradise for sportsmen engaged in hunting, fishing, and boating, for nature photographers, and for outdoor enthusiasts.

The Basin contains urban, agricultural, and industrial development. Within the Basin, important oil and gas fields coexist with farmlands, commercial forests, and a sizable commercial fishing and trapping industry.

The Basin is the location of several industries that provide employment vital to south Louisiana's economy. The Basin also contains important agricultural developments that produce a sizable proportion of the nation's soybeans.

But unfortunately, the Basin is indeed changing...

Both natural and manmade changes threaten many of the values for which the area is highly prized and vitally needed.
This brochure is designed to help all people who care about the Atchafalaya Basin to understand the area and its problems. Included is an explanation of what is being done by the U.S. Army Corps of Engineers, the U.S. Department of the Interior (Fish and Wildlife Service), the U.S. Environmental Protection Agency, and the State of Louisiana (Office of Public Works) to preserve the Basin's values and to develop its resources.

The information is intended to help prepare the public for meaningful participation in a series of public meetings to be held in various locations throughout Louisiana. The meetings will be held to obtain the public's views and suggestions for use in developing a multi-purpose management plan for the Basin - a plan for flood control, for maintaining and preserving the Basin's environmental values, and for operating the Old River project.
The Atchafalaya Basin of Yesterday

The Atchafalaya River Basin takes its name from the Indian word "Chafalia" meaning "long river," though the Atchafalaya was originally more a slow-moving stream than a river. The existence of logjams or rafts at its head near its junction with the Red and Mississippi Rivers hindered water from the Mississippi from entering and enlarging the Atchafalaya.

Until the early 1700's, the Chitamachas Indians were the principal inhabitants of the Basin. They developed a hunting and fishing culture in the lower swamp along Grand Lake, where they remained until they were driven into the inner swamps by French explorers.

Most early settlers regarded the Atchafalaya swamp as dismal and forbidding, preferring to settle instead in drier, more open areas. Nevertheless, in the late 1700's a few of the Acadian exiles from what is now the Canadian province of Nova Scotia chose to settle in the swampland rather than follow the majority to the higher areas to the west. The Atchafalaya settlers lived off the land by hunting, fishing, and rudimentary agriculture.

After the Louisiana Purchase, American settlers moved into the Atchafalaya area, bringing with them modern agricultural techniques that enabled them to plant cotton and sugar cane on the higher lands of the Basin and to raise cattle.

The quiet, languid lives of Atchafalaya residents were interrupted by the Civil War, when the Basin was the scene of a number of battles between Union and Confederate forces. In one instance, federal troops used the Atchafalaya in an unsuccessful attempt to capture the Red River, then an important trade route for the South.

As with so many parts of the South, the Civil War brought with it an end to the traditional ways of life in the Basin. Two great changes occurred in the Basin around that time. One was the extensive commercial logging operations performed to market the vast first-growth cypress forests. The other was a series of attempts to remove the rafts that prevented the Atchafalaya River from being utilized as a waterway.

In an attempt to make the Atchafalaya River navigable, the rafts were removed in 1855. The slow-moving, stream-like river immediately began to widen and deepen and to capture greater amounts of water from the Mississippi River. Flooding in the area became markedly more severe, and most agricultural operations were unable to continue.

The removal of the rafts undoubtedly contributed to the Atchafalaya River's progressive enlargement, though it is not known how long the rafts would have remained in place without man's intervention. Nevertheless, the stage was set for the Atchafalaya to become a dynamic, delta-building river system and a major distributary of the Mississippi River.

Today, a portion of the Atchafalaya River's floodplain is used as a vital floodway to confine the Mississippi River floodwaters in order to prevent flooding in critical urban areas such as Baton Rouge and New Orleans, as well as many rural areas lining the banks of the Mississippi River and the Atchafalaya Basin Floodway.
The Problem Today

Like most alluvial rivers, the Atchafalaya River is depositing sediments in parts of its floodplain and developing its own delta at its mouth.

Sedimentation (siltation) is the settling out of sand and silt carried by waters that overflow from the river into the overbank areas, swamps, lakes, bayous, and streams. Lifelong residents of the area have been witnessing this phenomenon with dismay for over half a century, and their concern is shared today by environmentalists, sportsmen, flood control experts, and many others who care about the Basin. Their concern is well-founded since this otherwise natural phenomenon has been accelerated by man's intervention.

Sedimentation occurs whenever a river system is developing, and it has long been known that this is the process by which most of southern Louisiana was formed. Most of the land surface of southeastern Louisiana is made up of separate overlapping bodies of sediment, or "deltas," laid down by the Mississippi River over the past 10,000 years. These deltas were created by the tremendous sediment load that the river brings downstream from the heart of the North American continent and deposits into the Gulf of Mexico at the river's mouth.

Over the past 5,000 years, there is evidence that the Mississippi has made major course changes five times, each time forming a new delta. During the river's flood stages, sedimentation is extremely heavy, and over the years, the deltas rose above the sea, forming a land mass that eventually became livable for man.

The same process continues in the Atchafalaya Basin today, as the young Atchafalaya River vigorously emerges as a dynamic river system. After the removal of the rafts in 1855, increasing volumes of water and sediment from the Mississippi and Red Rivers began to divert some of the flows down the Atchafalaya.

Sediments from these waters are settling in the Basin each year during the natural overflow cycle of the Atchafalaya River, when the flows leave the banks. At this time, the flow slows considerably and the coarse sediments simply fall out, raising and forming the natural levees. By trapping water, these natural levees have formed many of the backwater lakes in the Basin which are so important to fish, wildlife, and the overall environment. The introduction of sediment to the backwater swamps and lakes brought about by manmade channels is detrimental to fish and wildlife and also hampers flood control by reducing the floodway's flow-carrying capacity. Scientists view sedimentation as natural, though man's earlier activities have accelerated the process in the Basin.

In addition to filling up the Basin; sedimentation is creating what some geologists are calling the phenomenon of the century. In Atchafalaya Bay, a new delta is rapidly forming at the mouth of the Atchafalaya River, and patches of land covered with vegetation can now be seen where just a few years ago there was only water. High water conditions during three consecutive flood years — 1973, 1974, and 1975 — accelerated the accretion of sediments both in the backwater swamps and in Atchafalaya Bay.

Following these floods, there were about 12 square miles of new land in the Bay. It is estimated that in 50 years, under natural conditions, there will be about 100 square miles of land where only shallow water stood before. Most of this land will be wetlands, with the potential to be highly productive for fish and wildlife. In this case, delta-building is beneficial, since the emerging marshes interspersed with bayous are immensely productive of fish and wildlife resources.

However, in the upper portions of the Floodway, where sedimentation has already filled in many former wetland areas, and where some protection has already been provided, the land is no longer overflowed as frequently as before and has consequently been converted to agricultural uses such as soybean production. This clearing of forest land is generally viewed as disastrous both for the natural environment and for flood control.

The U.S. Fish and Wildlife Service views the continued development and increased agricultural activities that occur in the Basin when flood protection is provided as threats to the Basin's future use as a Floodway. The Fish and Wildlife Service believes that reducing sedimentation and eliminating flood protection within the Floodway would benefit both environmental and flood control values.

**Land Formation in Atchafalaya Basin 1930-2020**

- **Levee**
- **Water**
- **Land**
Seasonal Overflows: The Lifeblood of a Wetland

The significance of wetlands, once considered near worthless, has recently become very apparent. Wetlands improve water quality and serve as a nursery for many kinds of animals, especially sport and commercial fish and shellfish.

Ironically, the same wetting and drying cycle that amply nourishes and sustains the Basin's enormous life-giving properties also contributes the sediments that threaten to bury and destroy the wetlands.

In winter and spring, the Atchafalaya River normally overflows from waters contributed by the Red and Mississippi Rivers and deposits the silt-filled waters into many of the Basin's forests and swamps. In summer, the overflow recedes, and much of the Basin is nearly dry by early fall. Although the sediments are a critical problem, this seasonal pattern of wetting and drying makes the Atchafalaya Basin an ideal environment for many species of fish, reptiles, mammals, and birds.

The wetting-drying cycle is especially beneficial to the red swamp crawfish, which in turn plays a vital role in the Basin's food chain. During summer drying, the fertile forest floor produces a lush crop of annual weeds and grasses. At that time, many crawfish burrow into the soft mud at the edge of the receding waters to await the annual blossoming of the aquatic system.

When the waters return during the winter rises of the river system, the adult crawfish, along with many millions of tiny juveniles, emerge from the underground burrows or wells that were their homes during the dry period. They then disperse widely over the wetlands, consuming the decaying vegetation left from the previous season.

These young crawfish provide food for many species of fish, such as bass and catfish. During the winter-spring flooding period, these fish flourish because of the ample food supply, which gives them spectacular growth. During the summer drying, they retreat into the Basin's channels and permanent lakes, where they are sought by sport and commercial fishermen.

Scientists view this plant-to-crawfish-to-fish food chain as one of the simplest and most productive feeding chains known. Solar energy is captured by plants and quickly converted by the crawfish and then the fish to protein usable by man. This simple sequence makes the Atchafalaya Basin's waters one of the most productive large aquatic ecosystems on the North American continent.

And of course man himself is the principal beneficiary. Each year, people from both within and outside the Basin enjoy not only the prolific crawfish harvest, which produces some 23 million pounds of this delicacy annually, but also many other seafoods, all of which help supply the ingredients for South Louisiana's famous cuisine.

In addition to the crawfish and fish populations that thrive on the wetting and drying cycle, numerous other wetland creatures are directly supported by this bountiful land-water environment. Some 26,000 pairs of nesting egrets, herons, night herons, ibises, and anhingas make the Basin their home. Raccoon, mink, and otter share in the aquatic food chain and thrive in the Basin. Plant-eating mammals in the Basin include abundant nutria as well as beaver and muskrat.

White-tailed deer are abundant in the Basin, where they sometimes over-utilize their food resources. Wild turkey and black bear have been stocked in the Basin and are well established in the northern portion, primarily on hunting club lands.

The Basin has long been noted for providing habitats for a sizable woodcock population in winter. Another bird species, the Mississippi kite, is a common summer inhabitant of the Basin, and the rare swallow-tailed kite occurs more frequently in the Basin than in any other part of the state.

The American alligator is classified as an endangered species in the Basin above U.S. Highway 190 and as a threatened species below Highway 190.

The Basin's vast assortment of fish and wildlife makes the area a vital and favored resource for sport and commercial fishermen, for professional trappers and sport hunters, and for nature lovers and photographers.
The Atchafalaya Basin Floodway System and the Old River Control Structures: Vital for Flood Control

In southeast and south-central Louisiana, an efficient system of flood control works is vital. The Mississippi River flows through Louisiana on the final leg of its journey to the Gulf of Mexico. The Mississippi's enormous watershed includes 41 percent of the contiguous United States, and without an effective flood control system, residents of Louisiana would face a devastating loss of life and property. This happened in 1927, when flood control on the Mississippi River relied on levees alone, with no floodway concept built into the system. When the levees failed in many places, over 26,000 square miles were flooded, causing the loss of hundreds of lives as well as property damage of over $200 million — $1 billion in today's dollars.

In developing a comprehensive flood control plan for the Mississippi River, the U.S. Army Corps of Engineers used the Basin's role as a natural floodway in designing the Atchafalaya Basin Floodway, a crucial feature of the Mississippi River and Tributaries (MR&T) flood control project, authorized by Congress in 1928.

The original MR&T project consisted of levees and floodwalls to confine flood flows; bank stabilization and river training works to keep the river aligned and protect the levees; floodways to pass the excess flows past critical areas such as heavily populated urban centers; and improvements in tributary basins. The Old River control structures were added later to keep the Mississippi River from changing course.

Of the features of the MR&T project, the Atchafalaya Basin Floodway System and the Old River control structures are the two items that profoundly influence conditions in the Basin.

LEGEND

I. Atchafalaya Basin Floodway System
II. Red River Backwater Area
III. Drainage East of Atchafalaya Basin Floodway
Levees
Control Structures
West Atchafalaya Floodway
Morganza Floodway
Lower Floodway
The Atchafalaya Basin Floodway System

The area comprising the entire Atchafalaya Basin Floodway has three parts: to the north are (1) the West Atchafalaya Floodway and (2) the Morganza Floodway with its control structure, both of which along with the Atchafalaya River pass floodwaters into (3) the Atchafalaya Basin Floodway ("Lower Floodway"). The Lower Floodway is designed to carry one-half of the water contained in a "project flood." Such a flood is the result of extremely adverse weather conditions occurring simultaneously in the upper Mississippi River Valley. Excessive rainfall in several tributary basins, timed so that greatest flows pass through the lower Mississippi River system simultaneously, would produce the project flood. This flood would consist of 3 million cubic feet per second of water descending on Louisiana at the latitude of Old River.

Under project flood conditions, waters from the West Atchafalaya Floodway and Morganza Floodway flow into the Lower Floodway, along with flows from the Atchafalaya River (formed by flows from the Red and Mississippi Rivers). Altogether, the waters flowing into the Lower Floodway comprise one-half of the project flood or 1.5 million cubic feet per second.

The floodwaters are conveyed from the lower end of the Floodway to the Gulf of Mexico via two outlets — the Lower Atchafalaya River and the Wax Lake Outlet. The other half of the project flood is carried to the Gulf by way of the Mississippi River itself, with the exception of some 250,000 cubic feet per second diverted away from New Orleans by the Bonnet Carré Spillway.

At present, the Lower Floodway has a safe capacity of only 850,000 cubic feet per second, only about half the capacity needed to convey its share of the project flood safely to the Gulf of Mexico.

The principal features of the Lower Floodway are protection levees forming the eastern and western boundaries, a channel to assist in obtaining the Basin’s assigned flood-carrying capacity by reducing sedimentation during periods of low to moderate flow, and the two outlets for passing the floodwaters out of the Floodway to the Gulf.

Of the three principal features of the Floodway, only the levees were under construction as of this writing (late-1978). Known as the East and West Atchafalaya Basin Protection Levees, they are a permanent system of manmade levees, portions of which have been constructed on natural ridges formed over the centuries by bank overflows. Other parts of these levees have been constructed through swamps.

The major problem in building and maintaining the levees is that they must continually be raised higher and higher because the Floodway’s flow-carrying capacity continues to be decreased by sediment build-ups. Even without sedimentation, the levees built in swampy areas would need to be raised, as they invariably settle or sink because of poor foundation conditions, and, consequently, regular maintenance of the levees is required.

Dredging of a centrally located channel through the Lower Floodway and closure of the channel’s distributaries were begun in the early 1950’s to avoid excessive raising of the levees. It was determined that these measures would also reduce the amount of overbank flows, along with the accompanying sedimentation.

Although channel dredging and distributary closure reduced sedimentation, they unfortunately also dried wetlands surrounding the channels. Consequently, commercial crawfish production was eliminated in the West Atchafalaya and Morganza Floodways, where land clearing was then accelerated, and fishery production south of U.S. Highway 190 was also reduced.

Moreover, the location of the sedimentation problem moved southward to the swamps surrounding Buffalo Cove; Belle River; and Bayous Cocodrie, Pigeon, and Sorrel.
Even before dredging of the central channel began, the channel was enlarging itself naturally, though the sediments would have accumulated much faster if the channel had been permitted to develop by itself. Dredging of the central channel was stopped in 1968 when all available funds had been used up. Also, the National Environmental Policy Act of 1969 established requirements for a full environmental review and preparation of an environmental impact statement (EIS).

Conservationists, aware of the adverse effects of leveeing and channelization in the Floodway system, began questioning the impacts of further channel enlargement on the remaining backwater swamps and forests in the Floodway. Therefore, work to enlarge the central channel was postponed in accordance with an agreement between the Executive Vice-President of the National Wildlife Federation and the Chief of Army Engineers until an EIS could be prepared. No further work on the central channel has been done since that time pending preparation of the statement.

Even so, the channel and its natural banks are continuing to enlarge. As a result, increasing amounts of sediments confined to the self-enlarging channel are reaching Atchafalaya Bay and forming a new delta. This process has been underway for several decades, but was vastly accelerated by the floods of 1973, 1974, and 1975. After these floods, new deltas emerged in the Gulf of Mexico below the two Floodway outlets, impeding efficient flow of floodwaters to the Gulf.

Nearby, the town of Morgan City and other adjacent communities located east of the Floodway face increased threats from Floodway operations, since floodwaters that are going around the lower end of the eastern Floodway levee tend to block normal drainage patterns for these areas.

To further complicate Floodway operations, the two outlets at the lower end of the system, Wax Lake Outlet and the Lower Atchafalaya River, have been competing for the larger share of available flows, with Wax Lake Outlet taking a greater amount because of its shorter route to the Gulf. Resulting reductions in low water flows in the Lower Atchafalaya River have caused deterioration of that channel and a corresponding reduction in its flood-carrying capacity.

Working closely in the 1960's with federal, state, and local agencies interested in preserving the Basin's fish and wildlife values, the Corps of Engineers improved existing fresh water channels to help distribute water from the Atchafalaya River into backwater swamps and bayous. The Corps also constructed access channels to allow pleasure craft and commercial boats to cross the Basin.

Another measure taken to help reduce adverse impacts on the Floodway environment was to construct dikes to contain dredged material. Before these dikes were constructed, dredged material was allowed to flow freely into valuable wetlands and open waters.

In coordination with local fishing interests, the Corps developed plans to install overbank structures to provide additional fresh water for both the east and west portions of the Floodway. These plans were not implemented because adequate agreements with landowners could not be reached to allow flowage over their lands. Subsequent land clearing for agriculture within the affected areas has further complicated the problem of obtaining such agreements.
The Old River Control Structures

The other Corps project that affects the Basin is the Old River project, which controls the amount of water flowing into the Basin from the Mississippi River. In the 1950's, engineering studies indicated that the Mississippi River would change its course once again—this time to take a shorter route to the Gulf by making the Atchafalaya River its main channel rather than simply a distributary.

Such a course change would have been a catastrophe for Louisiana's economic and social well-being as well as for the safety of many of Louisiana's people, who depend on the Mississippi River's remaining on its present course—past the cities of Baton Rouge and New Orleans to the Gulf of Mexico.

A course change in the mid-70's, as predicted, would have been disastrous. Fresh water supplies for cities and industries would no longer have been available, and the Mississippi River in south Louisiana would quickly have become a saltwater estuary. Also, the present flood control plan for south Louisiana would have had to be abandoned, and a new one designed and constructed.

To prevent the Mississippi River from changing course, Congress authorized the Corps to construct the Old River project to maintain the flow distribution of the Mississippi and Atchafalaya Rivers as it was in 1950. This dictates that 70 percent of the combined Mississippi and Red River flows continue down the Mississippi River to the Gulf and that 30 percent be allowed to take the shorter route down the Atchafalaya River.

The Old River control structure complex is located in a manmade channel that joins the Mississippi River with the Red River just north of the confluence of the Red and Atchafalaya Rivers. The project includes the Old River low sill control structure, which operates all the time; an overbank control structure, which operates only during floods; a navigation lock for barge traffic; and an earthen dam that closes off the natural Old River channel. These authorized project features were completed in the mid-1960's.
Floodway Usage
Private Land Use

Most of the land in the Lower Floodway is privately owned (over 80 percent or 480,000 of about 590,000 acres). Naturally, landowners in the Floodway want to retain their present complete control over how their land is used.

In the past, most of the lands in the Lower Floodway were flooded frequently, and public access was largely unrestricted, allowing fishermen and hunters to go wherever they wished.

However, as the lands become drier because of sedimentation and development of the Atchafalaya Basin main channel, areas that once flooded frequently have now become suitable for such purposes as farming.

If their land were to become suitable for farming or other purposes, many landowners might choose to clear the forest. Moreover, most of the forest land that remains unsuitable for development has already been leased by private hunting and fishing clubs, a trend that restricts public access.

Existing Easements

In the West Atchafalaya Floodway, the Corps has acquired simple flowage easements over 154,000 acres, which allows the Corps to overflow the land and any improvements only during major floods on the Mississippi River.

In the Morganza Floodway, the Corps has obtained comprehensive easements, which prohibit construction of buildings for permanent human habitation. The comprehensive easements not only allow the Corps to overflow the land but also to construct, maintain, and operate channels, levees, flood control structures, bridges, and other structures.

For both the West Atchafalaya and Morganza Floodways, the existing easements do not give the federal government absolute control over land usage, such as clearing for agriculture, except when flood control would be affected by such actions.

In the Lower Atchafalaya Floodway, the Corps currently has acquired simple flowage easements for only about 9,000 acres or about 2 percent of the private land in the Floodway. Provisions of recent legislation (Section 404 of the Federal Water Pollution Control Act of 1972) give the Corps of Engineers jurisdiction over dredge and fill activities in wetlands.

Fear has been expressed by some that continued development of Floodway lands would inhibit the Corps from operating the Lower Floodway during high water conditions. These fears are based on the assumption that a large flood on the Mississippi River would bring pressure from property owners not to operate the Floodway, since property between the Atchafalaya Basin protection levees would undoubtedly be damaged or destroyed.

It must be stressed, however, that the Corps regards the use of the Floodway for flood control as vital — the Floodway system will be operated when necessary regardless of any property development between the levees.

Public Land Use

Many people would like the Corps to acquire a multi-purpose easement over Floodway lands — one that would not only give overflow rights during flooding but that would also restrict development incompatible with the operation of the Floodway and insure retention of the Floodway as a fish and wildlife habitat.

Other people think that the government should purchase the entire Floodway outright for flood control, fish and wildlife, and public recreation.

Although many landowners profess a keen appreciation for wildlife and environmental values, and some have said they would not mind public use of their land, these landowners still want to get the best return on their investment and are opposed to governmental regulation of land usage on their property. Other interests, such as private hunting clubs, oppose any government action that would open privately owned lands to the public.

Many Publics

Thus, we can see that the "public interest" in the Atchafalaya Basin is really the many interests of many publics. These publics include environmentalists; landowners; farmers; hunters; trappers; commercial and sport fishermen; industrial concerns; and people and agencies concerned about flood control.
What is being done about the Atchafalaya Basin’s problems?

Obviously, since many different publics depend on the Basin, these publics frequently have conflicting views about how to manage this all-important multi-use area.

Recognizing the Basin’s flood control, environmental, recreational, cultural, and economic values, a federal/state inter-agency group is working together to develop a multi-purpose program for managing the Atchafalaya Basin.

Known as the Agency Management Group (AMG), the government agencies involved are the U.S. Army Corps of Engineers, which is chairing the group, the U.S. Environmental Protection Agency, the U.S. Department of the Interior (Fish and Wildlife Service), and the State of Louisiana (Office of Public Works). The AMG is now conducting detailed engineering, biological, ecological, sociological, and economic analyses of conditions in the Basin under a Congressionally authorized study, the Atchafalaya Basin Land and Water Resources Study. The purpose of the study is to find solutions to a number of important problems that have to do with the operation and management of the two Corps projects that affect the Basin — the Atchafalaya Basin Floodway system and the Old River control project.

The study includes the areas extending generally from Simmesport, Louisiana, on the north, to the Gulf of Mexico near Morgan City, on the south, a distance of some 100 miles. From east to west, the Basin extends for about 35 miles (15 miles from levee to levee). In addition, the study area includes the Red River Backwater Area in central Louisiana, which extends from the vicinity of Monroe, Louisiana, to Simmesport. In this area, backwaters of the Mississippi and Red Rivers cause flooding problems on some 850,000 acres. The Red River Backwater Area is included in the study because farmers experiencing backwater flooding during the growing season feel that this problem could be alleviated by modifying operations of the Old River control structures.

What is the Multi-Purpose Plan?

The impression is frequently given that a specific “multi-purpose plan” already exists to provide the means to keep the Basin’s wetlands suitable for fish, wildlife, and recreation; to maintain the Atchafalaya Basin as a floodway; to protect the interests of private landowners; and to control sedimentation in the backwater swamps. This plan — called “the plan with a heart” — is being enthusiastically hailed and widely advertised, and the public is being eagerly prevailed upon to “support the multi-purpose plan.”

The Agency Management Group is taking a multi-purpose approach to solving the Basin’s problems, but the plan is presently in a study stage only, and there is, as yet, no specific “multi-purpose plan.” However, the Agency Management Group is committed to developing a multi-purpose plan that will both protect south Louisiana from Mississippi River floods and maintain the long-term productivity of the Atchafalaya Basin’s natural environment.
Study Goals

The Agency Management Group has developed specific goals and objectives in the Atchafalaya Basin Land and Water Resources Study. The primary goal is...

...to develop an implementable Multi-Purpose Plan that will...
(1) protect south Louisiana from Mississippi River floods while...
(2) retaining and restoring the unique environmental features and long-term productivity of the natural environment.

Within this overall goal the specific objectives are:
- Flood Control — Implement, as soon as possible, a flood control system that will safely pass the project flood to the Gulf of Mexico in an environmentally sound manner and reduce to the maximum extent practical the deposition of sediment that robs the Floodway of its ability to pass this flood.
- Natural Environment — Retain and restore the unique environmental features and maintain or enhance the long-term productivity of the wetlands and woodlands.
- Agricultural Activities and Mineral Development — Allow agricultural activity and mineral development provided such activity does not interfere with flood control and the natural environment.
- Delta Formation — Optimize natural delta formation in Atchafalaya Bay while providing for navigation and passage of the project flood.
- Public Accessibility — Improve the natural environment’s accessibility to the public.
Alternatives for a Multi-Purpose Plan

In creating a multi-purpose plan, the Agency Management Group is currently developing a full range of alternatives to present to the public for consideration at the upcoming public meetings. The alternatives fall into six general categories, each of which contains several options:

I: ALTERNATIVES FOR OPERATING THE OLD RIVER CONTROL STRUCTURE
   (1) Continue the operation as it is now (30 percent of flows through the Floodway).
   (2) Increase flows through the Floodway to benefit fish and wildlife.
   (3) Decrease flows through the Floodway to benefit agriculture and timber products.

II: ALTERNATIVES FOR PASSING MAJOR FLOODS THROUGH THE ATCHAFALAYA BASIN FLOODWAY FROM KROTZ SPRINGS TO MORGAN CITY, LOUISIANA
   (1) Only raise the levees.
   (2) Both raise the levees and enlarge the main channel. (Levees would be much lower than with Alternative No. 1 above.)
   (3) In addition to any of the above, the plan would include measures for reducing sedimentation in the Floodway to enhance both environmental values and the flood control program.

III: ALTERNATIVES FOR MANAGING REAL ESTATE IN THE FLOODWAY.
   (1) Acquire only flood control easements.
   (2) Acquire multi-purpose easements for flood control, fish and wildlife, and recreation.
   (3) Purchase by government of all land in the Floodway.
   (4) No additional real estate acquisition.

IV: ALTERNATIVES FOR PRESERVING FISH AND WILDLIFE IN THE LOWER FLOODWAY.
   (1) Build structures to improve water quality and control water levels in all parts of the Lower Floodway.
   (2) Improve water quality and control water levels in some parts of the Lower Floodway.

V: ALTERNATIVES FOR PASSING MAJOR FLOODS OUT OF THE FLOODWAY PAST MORGAN CITY, LOUISIANA.
   (1) Improve the outlet at the Lower Atchafalaya River.
   (2) Improve Wax Lake Outlet.
   (3) Improve both the Lower Atchafalaya River and Wax Lake Outlet.
   (4) In addition, the plan could consist of construction of a new overbank outlet for the Floodway.
   (5) The plan could consist of a combination of any of the above (1) through (4).

VI: ALTERNATIVES FOR REDUCING BACKWATER FLOODING EAST OF MORGAN CITY, LOUISIANA.
   (1) Extend the levee that now exists along the east bank of the Lower Atchafalaya River south of Morgan City, Louisiana (Avoca Island Levee).
   (2) Construct a new levee system along Bayous Boeuf and Black from Morgan City to a point near Houma, Louisiana.
   (3) Restrict land use in areas east of the Floodway that would be flooded by rising floodwaters.

When all the possible alternatives are put together in their various combinations, the potential number of “multi-purpose plans” becomes enormous. Moreover, it is evident from looking at the alternatives that many of the problems in the study area have noncompatible solutions. For example, agricultural interests in the Red River Backwater Area would like to have a plan for the Old River Control Structure (Category I) that would reduce flooding during the growing season. Yet such an alteration in the natural overflow cycle in the Floodway would reduce flows just when they are needed for crawfish and other fishing interests.

There are many similar conflicts inherent in implementing a successful plan for the Atchafalaya Basin. In such cases, the overall public interest will dictate the decisions that are finally made. Compromises and trade-offs will be necessary to assure that a plan is adopted to benefit both flood control and environmental quality.
What can you do
to help the Basin?

A great deal of further study remains before an acceptable multi-purpose plan for the Basin can be fully developed. The above alternatives will be presented to the public for review at a series of public meetings, which will be held beginning in early 1979. The public will be asked to present oral and written statements at these meetings or to mail in their comments. These comments will be considered in developing the best combination of alternatives for a multi-purpose plan for solving the Basin's many problems.

At the first public meeting, the public will be asked to give opinions about each of the six groups of alternatives. After the six groups of alternatives are screened down to include the most feasible course of action in each category, a tentative multi-purpose plan will be recommended in a draft report accompanied by a draft environmental impact statement. Both of these documents will be made available to the public and to all interested federal and state agencies. A second public meeting will then be held to discuss the tentative multi-purpose plan and the draft environmental impact statement.

Once a multi-purpose plan has been developed and modified, it must be determined which features of the proposed plan can be implemented as part of existing congressional authorization and which features are not yet authorized. Such unauthorized work would have to be submitted to Congress for consideration and authorization before the work could be accomplished. The Administration would also have to include congressional appropriations in the national budget.

When an acceptable multi-purpose plan has been developed and presented to the public, shown to be environmentally sound, and authorized and funded as necessary by Congress, the Corps of Engineers will be responsible for implementing the project.

There is only one certainty about any multi-purpose plan that ultimately is adopted... Few, if any, people or groups will be completely satisfied with the final plan. Compromises and trade-offs will undoubtedly be included.

It is hoped that this publication will help concerned citizens become better informed about the Atchafalaya Basin and its problems so that all interested people and groups will become involved in the Basin's future in a meaningful way.

The place for this involvement is the upcoming public meetings. Watch for a public notice giving explanations of the date, time, and place of the public meeting in your area. The public notice will contain detailed descriptions of the alternatives being studied in developing a multi-purpose plan. Come to the meeting prepared to discuss the specific alternatives in each category (See page 12).

For additional information, contact:
Agency Management Group
U.S. Army Engineer District
P. O. Box 60267
New Orleans, Louisiana 70160

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GOALS AND OBJECTIVES OF AGENCY MANAGEMENT GROUP FOR THE ATCHAFALAYA BASIN WATER AND LAND RESOURCES STUDY

THE PRIMARY GOAL IS TO DEVELOP AN IMPLEMENTABLE MULTI-PURPOSE PLAN THAT WILL:

- Protect South Louisiana from Mississippi River Floods
- Retain and restore the unique environmental features and long-term productivity of the Basin’s natural environment

FLOOD CONTROL. Implement, as soon as possible, a flood control system that will safely pass the project flood to the Gulf of Mexico in an environmentally sound manner and reduce to the maximum extent practical the deposition of sediment that robs the Floodway of its ability to pass this flood.

NATURAL ENVIRONMENT. Retain and restore the unique environmental features and maintain or enhance the long-term productivity of the wetlands and woodlands.

AGRICULTURAL ACTIVITIES AND MINERAL DEVELOPMENT. Allow agricultural activity and mineral development provided such activity does not interfere with flood control and the natural environment.

DELTA FORMATION. Optimize natural delta formation in Atchafalaya Bay while providing for navigation and passage of the project flood.

PUBLIC ACCESSIBILITY. Improve the natural environment’s accessibility to the public.