

**CADDO LAKE  
AND  
ASSOCIATED WATERSHED**

**A PROPOSAL FOR  
ENVIRONMENTAL INITIATIVES AND  
SUSTAINABLE DEVELOPMENT**

**PRESENTED BY  
CONGRESSMAN JIM CHAPMAN AND  
TEXAS PARKS AND WILDLIFE DEPARTMENT**

**OCTOBER 22,1993**

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**I. EXECUTIVE SUMMARY**

## I. EXECUTIVE SUMMARY

This proposal for Caddo Lake and the Cypress Valley Watershed, presented by Congressman Jim Chapman and the State of Texas through the Texas Parks and Wildlife Department, promotes the protection of the environment while exploring options for sustainable economic development **and** continued traditional uses.

Congressman Jim Chapman is committed to promote economic development that will encourage the creation of new jobs for residents of the area. He has also expressed his commitment to protecting the Caddo Lake ecosystem. Texas Parks and Wildlife Department (TPWD) is a state agency with a mission to manage and conserve the natural and cultural resources for the use and enjoyment of present and future generations. As a major landowner and land manager in the Cypress River watershed, TPWD has a special interest in protection of the Caddo Lake region. Congressman Chapman and Texas Parks and Wildlife recognized the opportunity to work together to promote the protection of Caddo Lake and encourage sustainable development for persons who live, work and enjoy time spent in the region.

The Cypress Valley Watershed occupies approximately 6,000 square miles in all or part of eleven Texas counties and one Louisiana parish. Caddo Lake, occupying 25,400 surface acres, is the centerpiece of the watershed. It has a rich and varied history with extensive use by Native Americans and Europeans from the time of its formation. Extensive commercial navigation existed from Shreveport to Jefferson through Twelvemile Bayou, Caddo Lake, and Big Cypress Bayou beginning in the mid- 1800's and continuing until the late 1800's.

Caddo Lake is as rich biologically as it is culturally. The area supports 44 species of special concern because of their rarity and has the most diverse fish assemblage in the State of Texas. It has historically been a premier duck hunting area and is a haven for over 50% of all the neotropical migrant songbirds (bird species wintering in the tropics of Latin America and nesting in the U.S. and Canada) occurring in North America. In addition to wildlife species, Caddo Lake supports the largest extant inland cypress swamp in Texas and is of the highest quality bottomland hardwood wetlands.

This proposal outlines ideas for both environmental initiatives and sustainable development. The environmental components are centered around the goal of maintaining a healthy ecosystem. Adequate information is needed to conduct long-range planning and management and, therefore, the proposal calls for extensive research on the resource. A comprehensive approach to studying the natural and cultural environment is of top priority. Protection activities are also highlighted to ensure the ecological and cultural integrity of the watershed.

The sustainable development components of this proposal are centered around the goal of providing opportunities to strengthen the economic security of communities. Ecotourism has been identified as a viable economic development strategy being employed by many rural communities to generate income and jobs. Ecotourism or nature tourism represents an alternative to conventional tourism by relying on the observation and study

of natural history and cultural features of an area. Examples include hiking, bird watching, nature photography, wildlife study, camping, canoeing, hunting, fishing, and botanical study. With proper planning, nature tourism offers the promise of employment and increased economic benefits to an area through the promotion of sustainable development. Sustainable development is an effective means of natural resource management that can insure that biological resources not just survive, but even increase with utilization.

The recommendations in this plan are outlined in five broad categories: Research Initiatives, Protection Activities, Sustainable Development, Infrastructure Improvements, and Other Community Initiatives.

### **RESEARCH INITIATIVES**

- o Inventory and evaluate plant communities
- o Inventory wildlife species and prepare checklists
- o Describe physical environmental factors
- o Inventory cultural resources
- o Determine existing recreational values and potential for compatible development
- o Develop a model for recreational carrying capacity
- o Conduct special status studies

### **PROTECTION ACTIVITIES**

- o Assure/accelerate clean-up of Superfund sites at Longhorn Army Ammunition Plant (LHAAP)
- o Disposition of surplus lands at LHAAP
- o Develop demonstration forestry facility
- o Historic site protection
- o Heritage Partnership Program
- o Pursue Department of Defense Legacy Resource Program at LHAAP
- o Conduct restoration activities on Big Cypress Bayou
- o Pursue EPA Clean Lakes proposal
- o Develop watershed management plan
- o Create a land trust
- o Establish a dedicated stewardship fund
- o Study the potential for land protection activities
- o Study the reintroduction of the Louisiana black bear
- o Incentives for conservation efforts

## SUSTAINABLE DEVELOPMENT

- o Trails and scenic byways development
- o Cultural centers
- o National waterways
- o Development of "cottage industries" with environmental sensitivity
- o Ecotourism promotion
- o Development and repair of park facilities
- o Promote environmental education and research center
- o Develop a visitors center
- o Marketing plan for ecotourism

## INFRASTRUCTURE IMPROVEMENTS

- o Utilize existing LHAAP sewage plant for septic wastes
- o Utilize existing LHAAP water treatment plant for water supply
- o Utilize surplus facilities at LHAAP
- o Improve public transportation systems
- o Develop public access for waterfront areas
- o Promote beautification projects

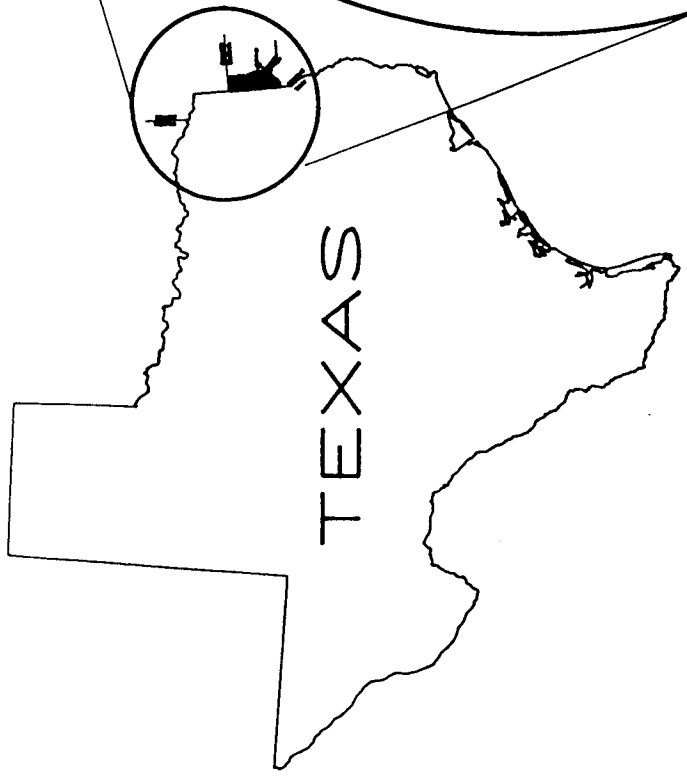
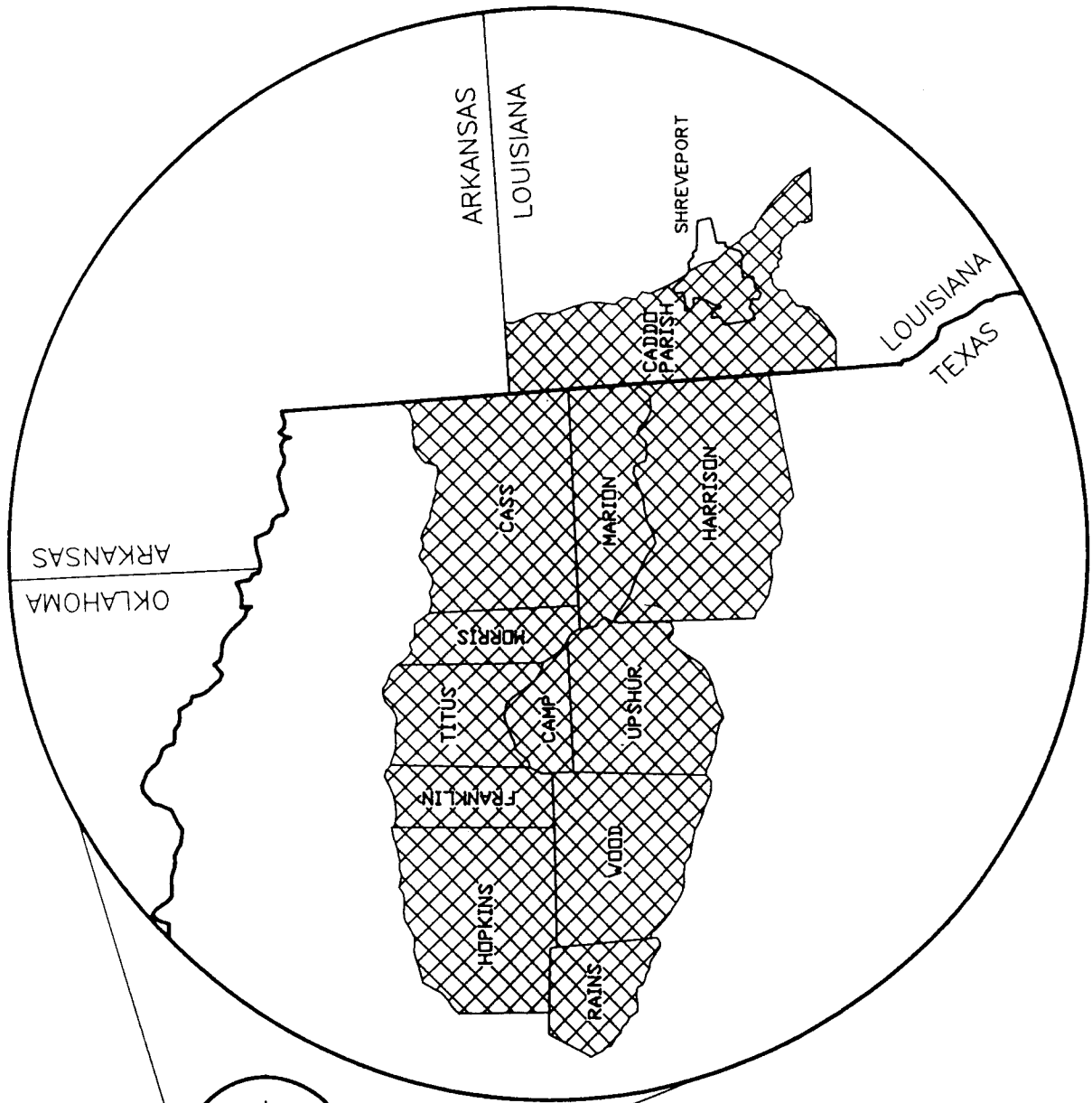
## OTHER COMMUNITY INITIATIVES

- o Implement a National Service Program
- o Technical and vocational training center
- o Minority education assistance

This proposal has not been developed without public input and understanding of community interests. Some of the options have been discussed with interested parties for some time and to a limited extent efforts to review them have begun. Public input is necessary on all of these initiatives to determine if and how they fit within the goals for the watershed.

**This proposal is just that -- a proposal.** Community acceptance and participation in a protection and development plan is the only way a plan will be implemented that fully reflects the interests of the local area. This proposal is intended to initiate a community-wide planning effort to discuss the ideas presented in this plan and other ideas of interest to the community. Local residents must evaluate the community interest in this initiative, determine what needs a proposal like this can meet, examine the benefits of such a plan, look at the costs of lost opportunities if no action is taken, and make decisions that will have positive results for the health of the ecosystem and residents of the area.

To solicit public input on this proposal, three open houses are scheduled in November, 1993 at Jefferson, Caddo Lake State Park, and Marshall. A plan for the future protection and development of Caddo Lake can insure the area continues to be preserved and enjoyed by future generations.



# PROJECT LOCATION MAP

## **II. INTRODUCTION**



## II. INTRODUCTION

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**Working together, a plan for the future protection and development of the Caddo Lake area will ensure this resource is healthy and can be enjoyed by generations to come.**

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This proposal for Caddo Lake and the Cypress Valley Watershed, presented by Congressman Jim Chapman and the Texas Parks and Wildlife Department, promotes the protection of the environment while exploring options for sustainable economic development and continued traditional uses.

Jim Chapman has supported economic development and jobs for East Texans. He has also expressed a commitment to protect the Caddo Lake ecosystem. Texas Parks and Wildlife Department (TPWD) is a state agency with a mission to manage and conserve the natural and cultural resources for the use and enjoyment of present and future generations. As a major landowner and land manager in the Cypress Valley Watershed, TPWD has a special interest in protection of the Caddo Lake region. Together, they recognized a unique opportunity to work together on a plan for the promotion of environmental protection and sustainable economic development for all who live, work and enjoy time spent in the Cypress Valley Watershed area.

This document seeks to involve the community in assessing the important natural and cultural resources of the area, identifying local values, and beginning a process of goal setting and planning for environmental protection and sustainable development. It also identifies specific protection and development options for consideration by local citizens and community leaders.

Caddo Lake and adjacent areas have a rich and varied history and is as diverse biologically as it is culturally. In order to protect the quality of life and environmental values of the Caddo Lake ecosystem, adequate information is needed to conduct long-range planning and management. Jim Chapman and TPWD are fully committed to support substantial research and protection activities to ensure environmental quality and compatible development in the Caddo Lake Watershed.

To meet the goal of promoting economic development and jobs, ecotourism has been identified as a viable economic development strategy being employed by many rural communities to generate income and jobs. Ecotourism or nature tourism represents an alternative to conventional tourism by relying on the observation and study of natural history and cultural features of an area. With proper planning, nature tourism offers the promise of employment and increased economic benefits to an area through the promotion of sustainable development. Jim Chapman and TPWD are ready to work with the citizens and leaders of the region to develop a plan for an effective nature tourism program.

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Protecting the environment and developing a program that creates jobs and increases income are important goals. However, care should be taken to protect community values and quality of life. Communities that recognize the need to preserve the values of local residents and surrounding resources can take active steps to insure those values are imbedded in protection and development activities.

This proposal is intended to initiate a community effort to discuss specific initiatives presented in this plan and other ideas of interest to the community. The proposal is just that -- a proposal. To be successful and effective, it needs to be embraced, developed, and pursued by the citizens in the region. Working together, a plan for the future protection and development of the Caddo area will ensure this resource is healthy and can be enjoyed by generations to come.

### **III. BACKGROUND**

## A. LOCATION

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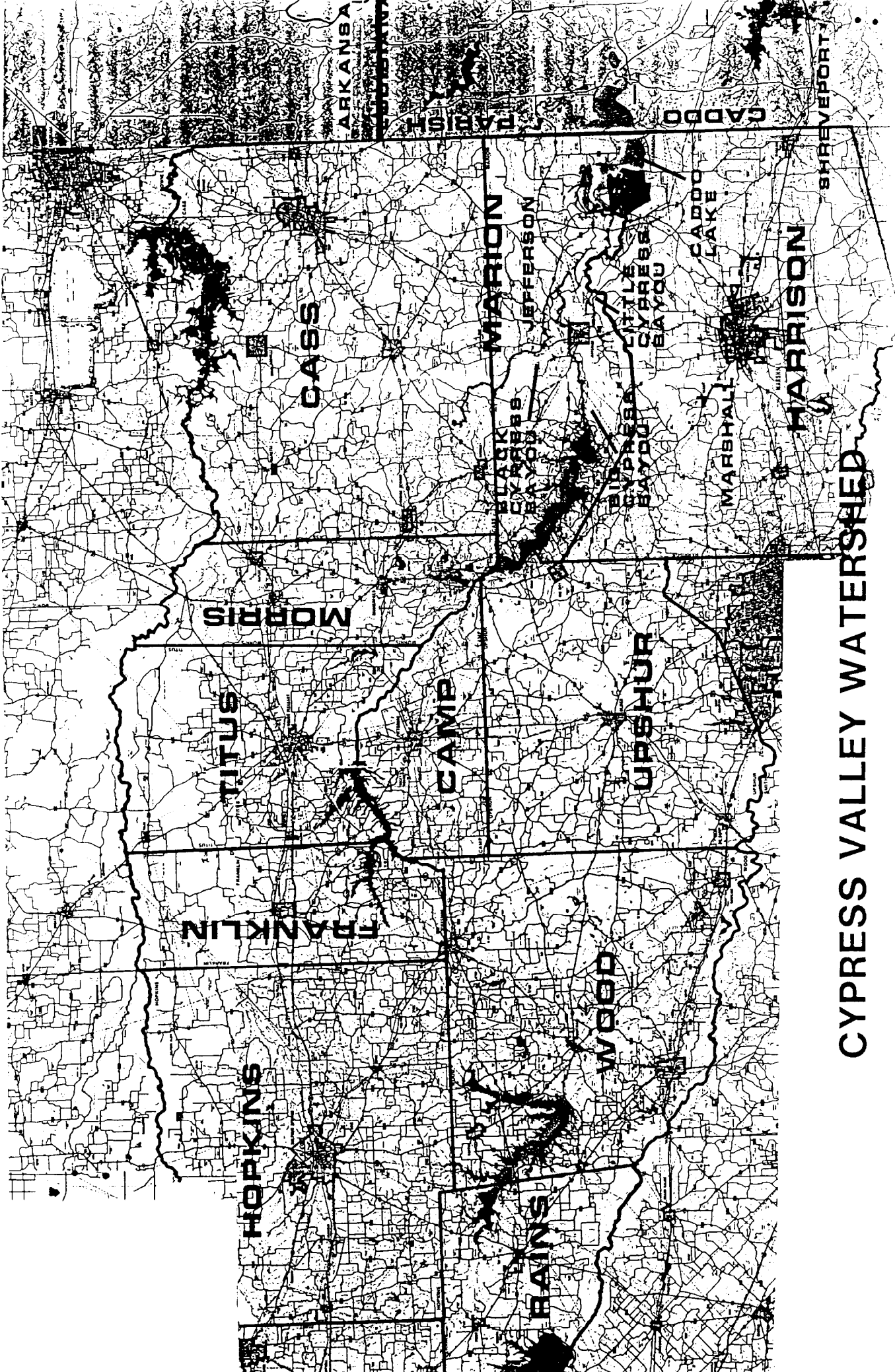
### **Caddo Lake is the centerpiece of the Cypress River Watershed**

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The Cypress River watershed occupies approximately 6,000 square miles in northeast Texas and northwestern Louisiana. The area includes all or part of one parish in Louisiana, Caddo, and eleven counties in Texas: Camp, Cass, Franklin, Harrison, Hopkins, Marion, Morris, Rains, Titus, Upshur, and Wood. Besides Caddo Lake, the Cypress River watershed includes Big Cypress Bayou, Little Cypress Bayou, Black Cypress Bayou, Harrison Bayou, James Bayou, and Twelvemile Bayou.

Caddo Lake is the centerpiece of this watershed area. The Lake, occupying approximately 25,400 surface acres, is located within the Cypress River basin of northeast Texas and northwest Louisiana. Caddo Lake, previously referred to as Ferry Lake and Soda Lake, was once considered to be the largest natural lake in the south and was formed as a result of a massive log jam, the Great Raft, on the Red River in the late 18th century or early 19th century. The Lake was effectively destroyed when the Great Raft was removed from the Red River in 1873. It was restored in a modified condition when the Corps of Engineers constructed a weir along Twelvemile Bayou in 1914.

The region has a rich and varied history with extensive use by Native Americans and Europeans from the very beginning of its formation. A legend of the Caddo peoples suggested that the tribe moved when the Lake was formed. Extensive commercial navigation existed from Shreveport to Jefferson through Twelvemile Bayou, Caddo Lake, and Big Cypress Bayou beginning in the mid- 1800's and continuing until the late 1800's. Caddo Lake had its share of colorful characters and was considered a no-man's land for many years (Dahmer 1988).



CYPRESS VALLEY WATERSHED

## B. ENVIRONMENTAL SIGNIFICANCE

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**“Without question, Caddo Lake is one of the most biologically diverse areas in Texas.” (U.S. Fish and Wildlife Service)**

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Caddo Lake and the Cypress River watershed is as rich biologically as it is culturally. The forested wetlands of the area provide habitat for approximately 216 species of birds, 47 mammals, and 90 reptiles and amphibians (U.S. Army Corps of Engineers 1986). Caddo Lake and adjacent areas support 44 species of special concern because of their rarity.

The Lake and Big Cypress Bayou provide a variety of aquatic habitats, consisting of shallow, heavily vegetated open water; sluggish flowing bayous with numerous snags, logs, and stumps; oxbows; sloughs; and backwaters (U.S. Fish and Wildlife, 1993). This habitat supports the most diverse fish assemblage in the State of Texas.

The lake supports one of the few colonies of chimney swifts that still nest in natural cavities and may support the only nesting ruddy ducks in Texas. The area is a haven for over 50% of all the neotropical migrant songbirds (bird species wintering in the tropics of Latin America and nesting in the U.S. and Canada) listed by the U.S. Fish and Wildlife Service as occurring in North America.

Other wildlife species found at Caddo Lake include: wood ducks, mallards, American alligator, barred owl, gray squirrel, green-backed heron, river otter, beaver, and others.

In addition to wildlife species, Caddo Lake and its associated baldcypress swamp and flooded hardwood forest comprise one of the most floristically diverse areas in the state (Campo 1986). Many of these areas are undisturbed tracts, include mature mast-bearing hardwoods, and provides dense canopy cover.

The U.S. Fish and Wildlife Service recently classified this area as a Resource Category 1, which is their highest-valued classification of wetlands. The area is also a candidate for Ramsar Treaty Designation as a wetland of international significance.

## C. ECONOMIC CONSIDERATIONS

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**The economy of the region has historically been dependent on the land and its resources.**

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Economic conditions vary throughout the Texas and Louisiana counties located in the watershed area. The primary area of focus is Marion and Harrison Counties in Texas and Caddo Parish in Louisiana. These two counties and one parish occupy 2187 square miles along the Texas and Louisiana border.

Marion County, with a total population of 9,984, has an economy centered around recreational activities, timber production, oil and gas production, and agriculture. The county is one of the most impoverished in the State with a per capita yearly income of \$11,662 (Dallas Morning News 1991) and a high unemployment rate. According to a recent Dallas Morning News story, Marion County is the poorest county in East Texas and 27th poorest in the State. The largest city and county seat is Jefferson with a population of 2,199. Jefferson has a rich historical heritage based on commercial navigation. Its main source of income is tourism; over 60 bed and breakfast facilities are in the city.

Harrison County, with a total population of 57,483, has a more diversified economy dependent on petroleum and timber production, pottery manufacturing, agriculture, and tourism. While the economy is more healthy than in Marion County, the county has a significant percentage of the population living below the poverty level. The per capita income is \$12,839 (Dallas Morning News 1991). The largest city and County seat is Marshall with a population of 23,682. Marshall has a varied economy and is a cultural center of northeast Texas.

Caddo Parish, with a total population of 247,033, has an extremely diverse economic base. It is part of a Standard Metropolitan Statistical Area encompassing Caddo and Bossier Parishes with a total estimated 1992 population of 335,077. The economy of Caddo Parish is broad based, but primarily dependent on an extensive medical complex, diversified manufacturing industries, government and military facilities, and various service-oriented jobs. The per capita income for Caddo Parish is \$16,337. The largest city and parish seat is Shreveport with a population of 198,525. Shreveport is the major cultural and entertainment center of northern Louisiana.

## **D. HISTORY BEHIND PROTECTION AND DEVELOPMENT EFFORTS**

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**The time is now to pull together and work on an initiative that protects and promotes the Cypress Valley area for present and future generations.**

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For years, members from various communities and interest groups had divergent views regarding the development of a proposed water resource project -- the Daingerfield Reach of the Red River Waterway. The main views generally fell into the categories of pro-environment or pro-economic development. The idea of protection activities coupled with environmentally sustainable economic development presents a unique opportunity for community wide involvement and support for a program that accomplishes both environmental protection and economic development goals for the Caddo Lake area.

The Corps of Engineers Daingerfield Reach feasibility study considered the potential for commercial navigation from the Red River at Shreveport through Jefferson to Daingerfield. The navigation channel was pursued as a means of providing economic development and job promotion for the region. The Vicksburg District of the Corps has stated that the navigation project can not be justified economically and would be too environmentally damaging to the ecosystem.

TPWD received a challenge grant from the North American Wetlands Conservation Council (NAWCC) on March 3, 1992 for the acquisition of approximately 7,500 acres of ecologically sensitive habitat. Approximately 6,900 acres acquired in October 1992 utilizing acquisition funds, NAWCC funds, and the invaluable assistance of the Texas Nature Conservancy. Planning for the protection and utilization of these lands is underway.

Longhorn Army Ammunition Plant (LHAAP) is an approximately 8,500 acre Department of the Army facility located on the south side of Big Cypress Bayou and Caddo Lake and adjacent to Caddo Lake State Park in Harrison County. The plant is government-owned, but contractor operated and its primary mission involves the assembly of ammunition and solid propellant rocket motors. As a result of the downsizing in our Nation's defense spending, the Army will no longer utilize this facility, although the contractor may continue industrial activities. Clean-up of waste disposal areas are necessary, and restoration and renovation is needed at many of the existing facilities. The grounds contain some very high quality bottomland hardwoods and other areas of environmental significance. Plans to fully utilize this asset should be directed toward benefitting the community and environmental resources.

With the recent TPWD land acquisition, the absence of the Daingerfield Reach, the changes at LHAAP, and the people of the area in need of economic assistance, now is the time for the citizens, the communities, and the region to pull together and work for a common initiative that protects and promotes the Cypress Valley area for present and future generations.



**IV. NATURE TOURISM AND  
SUSTAINABLE DEVELOPMENT**

## IV. NATURE TOURISM AND SUSTAINABLE DEVELOPMENT

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**Sustainable development increases only at a rate that allows the quality of the environment and community life to be sustained indefinitely.**

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Usually economic development plans depend heavily on attracting industry, which can cause controversy over the impacts that industry will have on the culture and natural resources of an area. In addition, some locales expend considerable efforts to attract industries that can not locate in their areas because of insufficient amenities and resources that might be needed. In other cases, a community that depends on one or a few large industries can suffer when economic times are tight and layoffs, unemployment, declining tax bases, and other social consequences result. Therefore, one of the goals of any development plan should be to carefully assess the attributes of an area and try to promote and utilize those assets as the basis for new economic development.

Tourism as a diversification industry can yield great benefits to a community. The tourism industry is a good generator of new jobs. It is an industry dominated by small businesses -- which are the backbone of rural areas like East Texas and Northwestern Louisiana. Tourism can increase the general level of economic activity in an area which in turn means more income and profits for businesses and expanded tax revenues for the community. A well planned and balanced tourism industry can also yield cultural benefits for the local residents who learn to take pride in the resources of the area and become facilitators of increased preservation activities.

Ecotourism represents a particularly good method of utilizing the special cultural and natural resources to attract additional income and improve the economy of a local area. This type of nature tourism involves the observation and study of natural history and cultural features of an area. It minimizes impacts to the environment while promoting environmental education and resource conservation. Sustainable development of this type is an effective means of natural resource management that can insure that biological resources not just survive, but even increase with utilization (McNeely 1988). Unlike a conventional tourism program that runs the risk of destroying the character and beauty of the area, eco-tourism is dependent on a healthy environment so that residents and visitors can learn about, respect, and enjoy the natural resources.

Examples of activities that might be considered to be eco-tourism include hiking, bird watching, nature photography, wildlife observation, educational tours, biking, camping, river rafting, canoeing, kayaking, botanical study, and in a broader context hunting and fishing. If packaged and marketed properly, these activities can support preservation activities and at the same time have a significant economic impact to an area.

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**Some statistics about tourism, and specifically activities categorized as ecotourism, highlight the potential economic benefits of this industry.**

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In general, tourism ranks as the second largest industry in the world according to the World Trade Organization (Whelan 1991). In 1988 there were an estimated 390 million tourists worldwide, creating an estimated 74 million jobs (Whelan 1991).

In the U.S. tourism ranks as the third largest industry (Texas Department of Commerce 1992). One out of every 15 jobs in the U.S. is tourist related and approximately 157 million Americans travel for business and pleasure annually. There are over 22 million visitors to the U.S. yearly from foreign countries (Texas Department of Commerce 1992).

Nature tourism represents an ever increasing part of the total tourism market; adventure travel (including ecotourism) comprised 10% of the market in 1989 and is increasing at a rate of 30% per year (Whelan 1992). Ecotourists spend more money than other tourists, at least in Latin America, where national park visitors spend \$1000 more during a two week trip than other tourists (Boo 1990). Nature tourists are relatively wealthy; in Ecuador approximately 25% of the ecotourists had family incomes over \$90,000 a year (Wilson 1987).

Outdoor recreation has a multi-billion dollar impact on the Texas economy. Two studies completed by TPWD in the early 80's showed that Texans spent some \$10 billion annually for outdoor recreation, including equipment, clothing, travel, and related services, such as food, lodging, and fees. Expenditures for outdoor recreation in 1991 were estimated to be over \$13 billion.

The Texas State Park System accommodated approximately 24 million visits in 1992. In a 1987 study TPWD showed that visitor expenditures at 92 state park sites was nearly \$500 million per year. Visitors came not only from Texas, but from other states and foreign countries. The number of park visits has grown 37% since 1980. Besides the obvious benefits to park visitors, the system benefits the communities adjacent or in route to state parks, which makes local government officials increasingly interested in state park locations near them. Economic benefits accrue from state park visitor spending and agency expenditures.

Caddo Lake State Park, a 483 acre park in Harrison County abutting Caddo Lake and Big Cypress Bayou, attracted approximately 250,000 visitors last year and in a 1987 study TPWD estimated that the direct economic impact of the Park to the local economy was nearly \$1.4 million (based on a 1987 visitor total of 201,634). Similar 1987 figures for Daingerfield State Park, located in the upper portion of the Cypress River Basin are 166,864 visitors and over \$883 thousand in economic impact.

Visitation at state parks and wildlife management areas will continue to increase as the population of the state grows and new public lands continue to be opened and acquired. Data suggests visitation will grow slightly faster than the population. If the annual growth in visitation experienced in the 1980's continues, over 32 million people could visit by the end of 1998.

Texans and visitors purchased about 1 million hunting and 1.9 million fishing licenses in fiscal year 91. Hunters and fishers represent 6.5% and 10.0% of the population. Sport fishing and commercial fishing in Texas has \$7.2 billion in economic impact each year. Hunting related activities add another \$3.9 billion to the state economy. For north-east Texas hunting and fishing expenditures (in millions) are \$209.9 for hunting and \$391.2 for fishing.

A number of recent studies have documented the value of a very specific kind of ecotourism, bird watching or birding. In 1981 expenditures by birders exceeded \$20 billion (Wiedner and Kerlinger 1990). The USFWS (1985) found that over 61 million Americans engaged in birding annually. The economic impact of birders to one famous birding locale, Cape May, New Jersey, is over \$10 million annually. At High Island, Texas, a popular bird watching locale on the upper Texas coast, Ted Eubanks estimates that the total economic impact of birding to the local economy is from \$4-\$6 million annually.

**V. OPTIONS FOR PROTECTION  
AND SUSTAINABLE DEVELOPMENT**

## V. OPTIONS FOR ENVIRONMENTAL INITIATIVES AND SUSTAINABLE DEVELOPMENT

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**The goal of this proposal is to examine activities that protect and promote the natural and cultural attributes of Caddo Lake and the Cypress River Watershed, yet provide economic advancement for the local area.**

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### A. GOALS AND OBJECTIVES

This proposal outlines some general ideas for environmental protection and economic development, but also includes some very specific options. The recommendations are outlined in five broad categories: Research Initiatives, Protection Activities; Sustainable Development; Infrastructure Improvements; and Other Community Initiatives.

The environmental research and protection components of this plan are centered around the goal of maintaining a healthy ecosystem. Sam Rayburn, the late great Speaker of the House of Representatives and an East Texan, said, "The greatest domestic problem facing our country is saving our soil and water. Our soil belongs also to unborn generations. Because of the diligent work of Rayburn and others, this region remains as one of the last vestiges of natural harmony, people living and working in unison with the land. We are responsible for protecting this resource, but also for developing ways to enjoy and learn from the resource.

The sustainable development components of this plan are centered around the goal of providing opportunities to strengthen the economic security of communities in order to maintain the quality of life for current residents and future generations. The economy of this area has historically been dependent on the land and its resources -- timber, cotton, cattle, poultry, lignite coal, iron ore, and oil. This plan embraces ecotourism as a viable economic development strategy. Ecotourism can be an economic force within the community that maintains a respect for the natural resources. Unlike a conventional mass tourism program that runs the risk of destroying the character and beauty of the area, ecotourism is dependent on a healthy environment so that residents and visitors can learn about, respect, and enjoy the natural resources.

Using the objectives of this particular proposal and developing additional considerations of interest to the community, a plan of action can be developed that stimulates sustainable economic development while preserving the rich natural resources.

# **1. RESEARCH INITIATIVES**

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**The goals of the specific options outlined in this plan  
are centered around a number of objectives**

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**B. SPECIFIC OPTIONS**

- \* Promote nature tourism through environmentally compatible activities
- \* Utilize existing facilities and resources
- \* Protect natural habitats
- \* Restore/protect historical and archaeological resources
- \* Conduct research on natural and cultural features
- \* Promote environmental education and awareness
- \* Promote job training and job creation
- \* Develop watershed protection plan
- \* Prepare marketing plan for proposed actions



# 1. RESEARCH INITIATIVES

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**Part of the uniqueness of the Caddo Lake ecosystem is its complexity. A comprehensive approach to the natural and cultural environment of this locale is of top priority. Without a commitment to quality research and the collection of adequate data for long-range planning and management, the quality of life and environmental values of the Caddo Lake ecosystem cannot be protected nor sustained.**

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The primary goal of research for the area is the characterization (inventory and evaluation) of the natural and cultural resources. Specific research on neotropical migratory birds (birds wintering in the tropics and nesting in North America), migratory waterfowl, biodiversity, and forested wetland systems ecology should be given special emphasis. Other possible studies include development of best management practices guidelines for timber harvesting and wetland restoration/creation technology. A comprehensive approach is necessary to understand the uniqueness of this area.

This effort would include the establishment of cooperative research and training partnerships with colleges in Northeast Texas and Northwest Louisiana and provide support for the Caddo Lake Scholars Program, an existing program established by Don Henley, the prominent singer/entertainer and environmental activist, to encourage research and scholarship by local universities at Caddo. The research would also rely on the assistance of TPWD and the Department of Interior's National Wetlands Research Center located in Lafayette, LA and lead to the establishment of a satellite research station on Caddo Lake, Texas. Federal assistance (Soil Conservation Service, Environmental Protection Agency, Forest Service, U.S. Fish and Wildlife Service, National Park Service, U.S. Army Corps of Engineers, etc.), state assistance (TPWD, Texas Natural Resource Conservation Commission, Texas General Land Office, etc.), and assistance from national environmental and conservation organizations will also be utilized to carry out research activities.

THE FOLLOWING RESEARCH PROJECTS ARE PROPOSED TO ESTABLISH THE COMPREHENSIVE UNDERSTANDING OF THE CULTURAL AND NATURAL RESOURCES:

INVENTORY AND EVALUATE PLANT COMMUNITIES:

A thorough search of the existing literature and plant collections may be supplemented by additional field studies to document plant species and plant communities in the area. The history of the Lake and Watershed could be reconstructed using historical surveys, tree ring growth analysis, and pollen studies. Establishment of forest inventories

could assist in monitoring the health and management needs. A map of the vegetation of the Watershed may be produced to support protection activities.

#### INVENTORY WILDLIFE SPECIES AND PREPARE CHECKLISTS:

Surveys concentrating on neotropical bird species, waterfowl, reptiles and amphibians, mammals, fish and aquatic invertebrates could be conducted. Surveys would also focus on species of special concern because of their rarity or declining populations. Checklists of all species could be compiled, and additional ecological studies may be conducted.

#### DESCRIBE PHYSICAL ENVIRONMENTAL FACTORS AND IMPACTS:

The collection and analysis of the water chemistry and hydrological data would be a priority for research as a result of the concern over the health of the Caddo Lake ecosystem. This could include preparing a history of hydrological variables (rainfall, instream flows, land cover, etc.) for the entire Cypress River and Watershed. Efforts could be made to describe major sources of pollution of Caddo Lake and potential impacts of these pollutants.

#### INVENTORY CULTURAL RESOURCES:

Through the use of literature and new historical and archaeological surveys, a complete assessment of the cultural resources may be initiated.

#### DETERMINE EXISTING RECREATIONAL VALUES AND POTENTIAL FOR COMPATIBLE DEVELOPMENT:

An analysis of existing recreational resources in the Watershed of both states is a critical need. In combination with an assessment of projected future needs, this research could provide the basis for a recreational carrying capacity model for the Lake.

#### DEVELOP A MODEL FOR RECREATIONAL CARRYING CAPACITY FOR THE AREA:

A Geographic Information System (GIS) may be developed for the Watershed to begin the integration of data necessary for the construction of an accurate recreational carrying capacity model. GIS computer technology allows unlimited variables (i.e. vegetation, species of special concern, roads, structures, wetlands, etc.) to be considered concurrently, and in a visual format, when planning resource management and protection activities. Demographic and biological data could be utilized to identify proper levels of use compatible with sustaining the natural qualities of the lake.

#### CONDUCT SPECIAL STATUS STUDIES:

Studies may be necessary to support national and international wetland designations and outstanding state resource water designations.

## **2. PROTECTION ACTIVITIES**

## **2. PROTECTION ACTIVITIES**

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**Protecting the ecological and cultural integrity of Caddo Lake is necessary for future generations to be able to enjoy and appreciate this unique resource.**

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The U.S. Fish and Wildlife Service reported, “without question, Caddo Lake is one of the most biologically diverse areas in Texas.” Protecting the natural and cultural resources of this Lake area is an important goal and a top priority of this proposal. The ability to maintain the quality of the environment and attract sustainable development is ultimately dependent on a healthy ecosystem. Care should also be taken to protect community values and quality of life.

**THE FOLLOWING PROTECTION ACTIVITIES ARE PROPOSED IN SUPPORT OF MAINTAINING THE ECOLOGICAL AND CULTURAL RESOURCES OF THE AREA**

### **ASSURE/ACCELERATE CLEAN-UP OF SUPERFUND SITES AT LHAAP:**

Under provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CEXCLA), the Superfund Act, existing landowners are responsible for remediation of hazardous waste disposal sites such as those that exist on the Longhorn Army Ammunition Plant (LHAAP). The Department of the Army has already agreed to clean-up the area, but on a long-term schedule. An accelerated schedule for remediation of the site could improve the opportunity to utilize lands or facilities at LHAAP.

### **DISPOSITION OF SURPLUS AREAS OF LHAAP:**

If all or a portion of the LHAAP becomes surplus to the needs of the Department of the Army and its contractor, Thiokol Corporation, the facility could serve as an asset that could meet several of the objectives outlined in this proposal. A study would be beneficial to determine which lands will be available for utilization or transfer, who should receive those lands, which structures might be considered for utilization, how Superfund sites will impact other aspects of this proposal, and what the possibilities might be for a cooperative management agreement for Harrison Bayou, a high quality bottomland hardwood forest natural area located on the LHAAP.

### **DEVELOP DEMONSTRATION FORESTRY AREA:**

Upland forests, including those at LHAAP, might be utilized for a sustainable forestry demonstration research area designed to develop innovative management techniques that would seek to protect ecosystems and associated wildlife species while permitting an economically viable timber harvesting program.

## **HISTORIC SITE PROTECTION:**

Appropriate historic site designation and protection could be examined. Examples include: historic site designation for Jonesville; inventory of historical and archaeological sites on Big Cypress Bayou and Caddo Lake; management plans for protecting cultural resources at Lake 0' The Pines; registry and protection of significant structures in the Cities of Jefferson and Marshall, etc.

## **EXAMINE HERITAGE PARTNERSHIP PROGRAM:**

The increasing demand for technical assistance, new parks, and other cultural and preservation initiatives from Congress, State and local governments, and private interests, is taxing the availability of funding and personnel within the National Park Service. To recognize and facilitate appropriate protection and management of these important heritage areas, the National Park Service is working to establish a Heritage Partnership Program. A heritage area is an identifiable region with outstanding natural, cultural, scenic, esthetic, and recreational resources whose integrity is worthy of national recognition. Exploring how this program may benefit the Cypress Valley Watershed may result in recreational, educational, and economic opportunities.

## **PURSUE DEPARTMENT OF DEFENSE LEGACY PROGRAM AT LHAAP:**

The Department of Defense's (DOD) Legacy Resource Management Program was created to provide management, conservation, research, and restoration of biological, geophysical, and historical resources which exist on DOD-held public lands and facilities. Key to the Legacy Program is the encouragement of partners such as other Federal and State agencies, private organizations and volunteers. The two main areas of activity are Demonstration Projects and Program Development. Funding through the Legacy program could be pursued to promote environmental protection and education activities.

## **CONDUCT RESTORATION ACTIVITIES ON BIG CYPRESS BAYOU:**

At the time of construction of Lake 0' The Pines, downstream influences of impoundments were not as well documented and understood as today. Retroactive compensation for these losses of fish and wildlife habitat can be pursued through the Corps of Engineers Section 1135 Program for the reach of Big Cypress Bayou from Lake 0' The Pines downstream to Jefferson. Remedial measures for restoration and enhancement of fish and wildlife habitat could center around reforestation of stream banks and adjacent sites. Native plant species indigenous to the locale could be re-established to stabilize soils, enhance wildlife habitat and improve water quality.

## **PURSUE ENVIRONMENTAL PROTECTION AGENCY CLEAN LAKES PROPOSAL:**

Broad public support for preserving and protecting lakes in the U.S. gave rise to the Clean Lakes Program in 1972 under the authority of Section 34 of the Federal Water Pollution Control Act. The program provides financial assistance to state and local governments to help fund programs for lake restoration and management projects. The program con-

sists of a diagnostic study, implementation of a water quality restoration plan, and ongoing monitoring to determine the success of the clean-up. This program may have application to Caddo Lake.

#### **DEVELOP WATERSHED MANAGEMENT PLAN:**

The only way to assure that the Caddo Lake area continues to remain a viable, healthy ecosystem is to protect the watershed of the lake, the Cypress River Basin. The watershed occupies all or part of **11** counties (Camp, Cass, Franklin, Harrison, Hopkins, Marion, Morris, Rains, Titus, Upshur, and Wood) and Caddo Parish in Louisiana, an area approximately 6,000 square miles. A management plan would classify the resources of the entire watershed -- both natural and man-made (i.e. soils, streams, topography, vegetation types, highways, structures, etc.) and merge them into a single map, through Geographic Information System (GIS) technology, so these features can be considered in a consolidated way. The plan would identify the assets of the watershed, determine threats to these assets, and seek to find ways to address the threats in order to provide long-term protection for the watershed.

#### **CREATE A LAND TRUST:**

A land trust is a private, nonprofit organization. Land trusts not only offer protection for open space through a broad range of real estate transactions but also advocate land use planning and influence public policy as it affects land development and open space. A land trust can 1) act quickly to conserve resource lands; 2) operate free of political and statutory regulations; 3) solicit donated monies from various sources; 4) manage land for which other organizations are unwilling to accept fiscal responsibility, and 5) make money available from a revolving fund, a loan, a foundation or donations.

#### **ESTABLISH A DEDICATED STEWARDSHIP FUND:**

Perpetual stewardship requires more than a sincere commitment to conservation. Lack of financial planning results in inadequate stewardship; failure to monitor, enforce, and research; and loss of public confidence. A "stewardship fund", segregated from operating monies, could be established to address stewardship costs.

#### **STUDY THE POTENTIAL FOR LAND PROTECTION ACTIVITIES:**

Land acquisition can provide much needed economic benefits through outdoor recreational tourism; ensure the future survival of game, non-game, and threatened and endangered species; and preserve a legacy of representative examples of natural and cultural heritage. Land protection activities should focus on five critical issues including: outdoor recreational opportunities with a strong focus on environmental education; the preservation of important wildlife habitat; the preservation of representative examples of the States' natural and cultural heritage (i.e. biodiversity and cultural diversity); the protection and enhancement of sensitive open space and environmental areas, and the protection and consolidation of existing public land holdings.

## **STUDY THE REINTRODUCTION OF THE LOUISIANA BLACK BEAR:**

The Louisiana black bear, a federally threatened species, was extirpated from the area around Caddo Lake earlier in this century. The species has recently been listed as threatened under the Endangered Species Act and efforts are being planned to study the potential for the introduction of the bear to Mississippi, Louisiana and eastern Texas. A comprehensive recovery plan for reintroduction of the bear may allieviate the impact on the agriculture and forestry industries that a federally threatened species designation may have. A study would assess the public's attitude toward reintroduction and whether sufficient habitat occurs for reintroduction of the bear in this region.

## **INCENTIVES FOR CONSERVATION EFFORTS:**

Incentives may be examined to encourage landowners to conserve high-quality natural lands by providing matching funds for long-term stewardship projects. Programs may be available to help restore or improve marginal habitats, provide incentives for reforestation, wildlife enhancement and other sound forestry wetland practices.

### **3. SUSTAINABLE DEVELOPMENT**



### **3. SUSTAINABLE DEVELOPMENT**

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**The most outstanding assets of the Cypress River watershed, its cultural and natural resources centered at Caddo Lake, have potential for bringing additional economic development to the region.**

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As was mentioned earlier in this proposal, one of the goals of any development plan should be to carefully assess the attributes of an area and try to promote and utilize those assets as the basis for new economic development. Ecotourism can draw on the natural resources to attract additional income and improve the economy of the local area. Sustainable development increases only at a rate that allows the quality of the environment and community life to be sustained indefinitely. An area may indeed grow, but in a manner that the way of life of the community is not jeopardized, and the environment does not deteriorate (Hill 1992).

**THE FOLLOWING ACTIVITIES ARE PROPOSED AS COMPATIBLE ECONOMIC DEVELOPMENT PROPOSALS THAT OFFER THE PROMISE OF EMPLOYMENT AND INCREASED INCOME TO THE LOCAL COMMUNITIES WHILE PROTECTING THE NATURAL AND CULTURAL RESOURCES:**

#### **TRAILS AND SCENIC BYWAYS DEVELOPMENT:**

The development of trails and scenic byways can provide multiple benefits to the community. They recognize significant and/or historic areas for protection, they demand improvement and better maintenance of the specific corridors, and they provide tourists and residents better access to the natural resources. Trails are a key attraction for ecotourists who want to view and explore a natural setting.

One example includes the Old Stagecoach Road leading from Marshall to near Karnack. Stagecoach replicas and/or carriages could be utilized to carry visitors along this tree-covered avenue, pointing out significant sites, accessing the lake, or connecting with other modes of transportation to explore other locales. Other sites for carriage trails may also be explored.

A connecting network of trails and byways could be developed for longer excursions or to maximize exposure to the different areas around Caddo Lake. The Ft. Worth District of the U.S. Army Corps of Engineers has conducted a comprehensive recreation study for the area. The study explored connecting trails of various kinds -- equestrian, nature, bicycle, walking, etc.

Inclusion of a proposed trail in the National Trails System could provide federal assistance for management and protection of these significant trailways. Such a designation would highlight the unique environment of the area and help advertise the region to the ecotourism community.

### **CULTURAL CENTERS:**

Centers and museums to interpret the culture and heritage of local areas have been successfully developed in a number of areas in the southern United States. Facilities also have been developed to provide local artisans a centralized outlet for the production and sale of arts, crafts, and products of the natural environment. Other sites have been developed to pay tribute to the Native American cultures. This type of folk art center can attract tourists to the local areas and can stimulate festivals and other events. Examples of successful models include the Museum of Appalachia in Norris, Tennessee; the Folk Arts Center and Guild Crafts both near Asheville, North Carolina, and the Ozark Folk Center in Arkansas. Detailed plans would be needed to determine the viability of a center, design for a state-of-the-art facility and site location in the Cypress Valley basin.

### **NATIONAL WATERWAYS:**

Big Cypress Bayou originates in the southern part of Franklin County and flows eastward into Camp, Titus, Morris, Marion, and Harrison Counties. Two major water impoundments, Lake O' The Pines and Caddo Lake, are located on the Bayou. Big Cypress Bayou flows for approximately 38 miles in its upper reaches and an additional 34 miles between Lake O' The Pines and Caddo lake. The Bayou system provides excellent recreational opportunities and is of historical significance. Inclusion of some of these routes in the National Wild and Scenic Rivers System or National Rivers and Trails System would highlight their historical and aesthetic significance, protect these byways, and improve the ability for the public to recognize and enjoy these waterways.

### **ECONOMIC DEVELOPMENT OF "COTTAGE INDUSTRIES" WITH ENVIRONMENTAL SENSITIVITY:**

Efforts can be made to stimulate local, low-impact industries to deal exclusively with promotion and establishment of economic enterprises attuned to or compatible with the natural environment of the ecosystem. Establishment of the "Caddo Lake Small Business Development Center" or utilization of existing small business development organizations, can assist in encouraging existing business expansion and initiating new business start-up as a result of the economic impact of ecotourism. A small business development center can assist in estimating market potential for new businesses; provide training in business and environmental awareness; assist with business plans; loan packaging, technical information, demographic data, and other services in support of business evaluation, start-up, and expansion. An exclusive Caddo Lake center could coordinate business activities to enhance and/or preserve both economic opportunity and environmental awareness and protection.

## ECOTOURISM PROMOTION

Sample businesses that can be created or expanded to support the ecotourism industry can include:

- 0 Expanding conventional food services to include catering, farmers markets, wineries, excursion meals, chuckwagon/farm breakfasts, etc.
- 0 Expanding conventional accommodations to include house boats, bed & breakfasts, small scale retreat centers, farm vacations, etc.
- 0 Expanding conventional transportation to include shuttle services, carriage rides, hot air balloons, equestrian services, trolleys, boat rides, etc.
- 0 Expanding the arts to include art galleries, art shows, art villages, performing arts, etc.
- 0 Expanding educational programs to teach about local arts, cultural resources, botanical study, environmental appreciation, archeology, etc.
- 0 Expanding recreational activities to include outfitters, guide services, canoe rentals, bicycle rentals, hiking services, boat tours, nature photography tours, hunting, fishing guides, trail rides, bird watching, educational tours, camping, wildlife study, etc.

## DEVELOPMENT AND REPAIR OF PARK FACILITIES:

Development of the existing Caddo Lake State Park and the newly acquired State Park and Wildlife Management Area can facilitate economic development by providing increased recreational activities for residents and visitors. The development would be low-density in nature and limited to that necessary for protection of the resource, adequate control, and for visitor access, safety, and interpretation. State-of-the-art enhancement of recreational opportunities for persons with disabilities can improve access to these areas for all persons. These activities would be considered in association with the development of the management plan.

## DEVELOPMENT OF A HISTORIC AND ENVIRONMENTAL EDUCATION CENTER:

This facility can act as the center for a sustainable development and environmental protection plan. The goal of such a center is to mesh the cultural and natural heritage so that visitors and residents can better understand these relationships. The center would attract the ecotourist, but would also serve residents of the community in a number of ways. For example, the center would be a place to:

- Provide environmental education to the diverse ethnic groups, cultures and socioeconomic groups in the area.

- 0 Develop environmental education curricula for the school systems.
- 0 Give hands-on conservation experiences to university students.
- 0 Train conservation professionals.
- Create opportunities for public access and volunteer activities focusing on natural resource protection.
- 0 Educate public officials and citizens about the biodiversity and natural/cultural resources in the area.
- 0 Develop a mass media campaign to educate about economic growth and conservation.
- 0 Provide workshops, conferences, brochures, and videos.
- 0 Reach out to youth at risk and the elderly.

The center might feature interpretive exhibits, films, a theater/auditorium, education classrooms, research facilities, a library and administrative offices. Research and learning about environmental and cultural concerns is intended to raise awareness of the local community and ecotourists that visit the area in the preservation of the natural resources.

#### **DEVELOP A VISITOR CENTER:**

A visitor center can be an important facility that serves the ecotourist and the community. It can offer complete information about the local area, its attractions, events, facilities and services. The center can also serve as an attraction itself. The significant historic and natural resources of the region lend themselves to study and a visitor center could include a resource library, exhibits, an educational theatre, and displays of photographs and historical artifacts of the region.

#### **MARKETING PLAN FOR ECOTOURISM:**

Marketing is an important element of any economic development and ecotourism plan. A marketing plan must identify demographics, geographic, and psychological attributes of users and potential users. Once the market is defined, reaching target markets through advertising using a variety of media campaigns is required.

Marketing activities must recognize environmental stewardship as a business development responsibility and growth opportunity. Environmental marketing is not only an end in itself, but a new perspective from which to approach everyday marketing planning and business decision making. Regulations, management, product development, advertising, public relations, and promotional campaigns must include environmental sensitivity and commitment in order to attract the ecotourist and ensure environmental protection of the region.

## **4. INFRASTRUCTURE IMPROVEMENTS**

## 4. INFRASTRUCTURE IMPROVEMENTS

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**The natural and cultural features at Caddo Lake are significant, however, the infrastructure must be in place to support the experience of both residents and ecotourists.**

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Improvements to infrastructure and community appearance are necessary components of both an environmental protection and economic development plan. With added ecotourism development there may be more demand on public facilities and services such as transportation; parking; informational signs; water supply; sewage and trash disposal; and police, fire, and medical protection. While these added demands can be looked at as a cost of promoting ecotourism, they can also provide great benefits to the local residents. Better and more attractive infrastructure “promotes pride in a neat, beautiful hometown; reflects the kind of people who live there; provides a more pleasant and desirable place to live and raise a family; becomes more attractive as a place for retirement; appears more inviting for tourists to visit and stay; attracts people who want to relocate their business to the community; exists in harmony with the natural beauty that surrounds the community; increases property values; conveys an asset instead of a liability to future generations” (Koth, Kreag, and Sem 1991).

Getting started on providing improved infrastructure does not have to be complicated or expensive. The community should do a careful assessment of what needs to be done to support and protect the existing environment and community facilities and then look for ways to make additional improvements. Some needs may already be apparent to local residents and others may have to be identified through an inventory, touring the area, and meeting with professionals. Along with local, state, and federal government resources, church, civic, business groups and volunteers can play critical roles in making infrastructure improvements. All infrastructure improvements should be environmentally compatible and acceptable to the community.

THE FOLLOWING INFRASTRUCTURE IMPROVEMENTS ARE PROPOSED TO SUPPORT AND PROTECT THE ENVIRONMENT AND ENHANCE THE ABILITY TO DEVELOP AN ECOTOURISM INDUSTRY:

UTILIZE THE EXISTING SEWAGE TREATMENT FACILITY AT LONGHORN ARMY AMMUNITION PLANT TO TREAT WASTES GENERATED IN THE LOCAL COMMUNITY:

The sewage treatment plant at LHAAP may be available for use in the immediate vicinity of the Caddo Lake area, including Karnack, Uncertain, Pine Island, and other existing housing and business establishments associated with the south shore in Harrison County. The septic tanks and field lines along the lake’s south shore have

existed for many years. Continued septic use may have detrimental environmental effects. Representatives from LHAAP have indicated that the sewage treatment plant has more than sufficient capacity to meet LHAAP needs and additional use. In order to accommodate existing facilities, lift stations and transfer lines would be required. A planning, design, and engineering study would be necessary to facilitate providing waste water treatment to subject areas.

#### UTILIZE THE EXISTING WATER TREATMENT FACILITY AT LONGHORN ARMY AMMUNITION PLANT TO PROVIDE DRINKING WATER TO THE LOCAL COMMUNITY:

The water treatment plant at LHAAP may also be available for use by existing residents in the vicinity of the Caddo Lake area. A planning, design, and engineering study would be necessary to determine the ability to provide this service to the community.

#### UTILIZE SURPLUS FACILITIES AT LONGHORN ARMY AMMUNITION PLANT:

With the reduced level of activities at LHAAP, a number of facilities and structures may be available for other uses. These structures must be evaluated to determine their utility and what repairs or modifications would be required to support specific uses. Options include research, education, or cottage industries. With its industrial infrastructure, LHAAP would not have to be completely abandoned for industrial purposes that would be compatible with the environment.

#### IMPROVE PUBLIC TRANSPORTATION SYSTEMS:

Public transportation in the local areas can serve the community and promote ecotourism efforts. First and foremost, the area should be served by adequate access roads. In addition, developing a road corridor to be designated as a scenic route and included on state maps can increase visitors to an area. Mass transit for rural areas can include a public bus and/or a trolley system. Increased Amtrak service to more local areas also might be considered. A plan should be developed to map out a public transportation network for this area.

#### DEVELOP PUBLIC ACCESS FOR WATERFRONT AREAS:

Caddo Lake State Park, private boat launches at restaurants and homes along the lake, and the few public boat launch areas are the main access points to the lake. Private boat tour operations also provide a service to let the public enjoy and learn about the lake and its history. However, access to the waterfront can be improved by providing additional launch sites and improved parking at launch facilities for boating visitors.

Examples of waterfront areas include canoe facilities. Canoeists have an economic impact because they usually spend the night at local lodging facilities and eat in local restaurants and use the waterways during the day. They do not require launch

sites with boat ramps and picnic tables, but they do require mini parks where they can park their cars and launch their canoes. A series of mini canoe parks might be established along the tributaries and bayous of Caddo Lake. These could be launch areas inaccessible to motor boats to encourage canoeists to explore undeveloped and scenic areas.

In addition, restoration of the historic Jefferson port area could provide improved access and economic development opportunities in this area. This restored area could be utilized by private tour operators and individual boaters who want to use this as a launch site for exploring Big Cypress Bayou. This facility might include public parking, restrooms, fuel resources, and boat launches. The restoration activities would be constructed in a manner that their landscaping and architectural designs would be aesthetically pleasing and consistent with guidelines for historic preservation requirements. This waterfront facility would be a focal point in the Jefferson downtown area and could be utilized in conjunction with Jefferson festivals and activities.

### **BEAUTIFICATION PROJECTS FOR ENHANCING COMMUNITY APPEARANCE AND PRIDE:**

Beautification efforts can both improve the appearance of an area and lend to environmental protection efforts. These projects can range from small repairs of community facilities to landscaping and clean-up efforts to policies that protect the natural resources. The Caddo Lake Clean-up, part of the state General Land Office clean-up program, is a positive step that encourages community volunteer participation, improves the appearance of the lake, and contributes towards the protection of the resource. This activity can be a good beginning to additional beautification efforts such as removal of debris from streets and open areas, improvements to storefronts and public park areas, elimination of graffiti, and landscaping around main attractions. Additional beautification tasks that would require community planning and support may include a community tree planting program, adoption of a signage plan that utilizes a uniform design, establishment of visual pollution controls such as requiring screening of objectionable sites, promote lighting for significant areas and sites, etc.



## **5. OTHER COMMUNITY INITIATIVES**

## 5. OTHER COMMUNITY INITIATIVES

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### **Improving job skills and professional development for local residents will have a positive effect in the community**

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A wide range of additional activities that do not necessarily fall into the areas of protection or development could be implemented for the benefit of the communities in this area.

THE FOLLOWING COMMUNITY INITIATIVES ARE PROPOSED IN SUPPORT OF THE GOALS OF THIS PROGRAM:

IMPLEMENT A NATIONAL SERVICE PROGRAM:

The new National Service program is designed to engage Americans in service to their country and local communities. Model programs focus on getting school-age youth and adult volunteers involved in the community, educating and empowering individuals through community service, providing research opportunities, promoting the understanding of issues -- such as environmental protection and cultural and historical significance, etc. A National and Community Service program could be implemented in the local area to focus on environmental protection and sustainable development activities. The LHAAP facility could be used to house and train participants in this new program. This activity could be coordinated through many of the 14 colleges and universities that are located within 75 miles of LHAAP.

HOUSE A TECHNICAL AND VOCATIONAL TRAINING CENTER FOR CONSERVATION AND CULTURAL VOCATIONS:

A local educational institution or institutions could play an important role in providing conservation and cultural resource training. Environmental certification programs could be developed into school curricula. Coupled with environmentally sensitive cottage industries at LHAAP, a technical and vocational training center could provide environmentally sensitive job training for the existing job market.

MINORITY EDUCATION ASSISTANCE:

The EPA has been provided funding to initiate an environmental education grant program for minority institutions. This program is designed to provide research funding for minority students to study the environment, support to examine the issue of environmental equity, and environmental education and outreach to minority communities. The Caddo Lake Scholars Program and other interested organizations may want to pursue this grant program in support of Caddo Lake research and outreach with a minority focus.

## **VI. STATUS OF PROTECTION AND DEVELOPMENT OPTIONS**

## VI. STATUS OF PROTECTION AND DEVELOPMENT OPTIONS

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### **Protection and development activities are ongoing in the Cypress Valley Watershed area.**

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It has been stressed that this is a proposal that needs support and input from the community before being implemented. However, it has not been developed in a vacuum. Some of the options outlined in the proposal have been discussed by interested parties for some time. Therefore, in several cases, efforts have already begun to examine some of the options outlined in earlier sections of this proposal more closely. It is important to report the status of those projects that are currently undergoing review. In all cases, these projects are in the study phase or early planning for implementation. Time remains for public input on these efforts so a determination can be made as to whether and how they fit within the goals for the watershed.

#### WATERSHED MANAGEMENT PLAN:

A watershed management plan will play a significant role in protection and sustainable development activities for the watershed. United States Fish and Wildlife Service officials from the National Wetlands Research Center and the Texas Parks and Wildlife Department have participated in discussions about the scope of such a plan. Congressman Jim Chapman has secured funding from the Interior Department and included an amendment in the Interior Appropriations Bill that “supports participation in the preparation of a Caddo Lake/Cypress Bayou management plan in Northeast Texas and Northwest Louisiana.” Strong grassroots support was provided from citizens in Texas and Louisiana urging the appropriate congressional representatives to support this effort. Discussions with FWS and TPWD officials about the scope and timeline of this study should begin in the coming months.

#### REINTRODUCTION OF THE LOUISIANA BLACK BEAR:

Efforts to reintroduce the Louisiana Black Bear have been ongoing for several years. The bear is listed as a threatened species under the Endangered Species Act. The Black Bear Conservation Committee is a broad based coalition of landowners, state and federal agencies, private conservation organizations, forestry representatives, agriculture interests, and university professors formed to act as the principal organization focusing on this issue. There is also extensive congressional involvement in this issue. Current efforts are focused on studying the feasibility and public acceptance of reintroduction and seeking a means for restoring the bear to sufficient population levels so that it can be removed from the Endangered Species list.

**VII. MEANS FOR ACCOMPLISHING  
GOALS AND OBJECTIVES**

## **RESTORATION ACTIVITIES ON BIG CYPRESS BAYOU:**

Funding has been provided to the Corps of Engineers to proceed with Section 1135 restoration activities (re-establishment of bottomland hardwood forests and enhancement of wildlife and fish habitat) on Big Cypress Bayou from Lake 0' The Pines downstream to Jefferson. Texas Parks and Wildlife Department has agreed to be the cost sharing partner on this project. The Corps and Texas Parks and Wildlife Department will begin to study and develop plans to address environmental enhancement and protection of this area in the coming months.

## **CADDO LAKE RESEARCH AND EDUCATION OUTREACH:**

The Caddo Lake Scholars Program, a university consortium to promote the preservation of Caddo Lake, has solicited support from the U.S. Fish and Wildlife Service National Wetlands Research Center to support cooperative research and outreach activities. Congressman Jim Chapman has secured funding from the Interior Department and included an amendment in the Interior Appropriations Bill "for environmental studies, education, and outreach activities at Caddo Lake." There was strong grassroots support from citizens in Texas and Louisiana for this initiative. Planning for the use of these funds will begin in the coming months. This effort may lead to the establishment of a field station/research center on Caddo Lake.

## **DEVELOP PUBLIC ACCESS FOR WATERFRONT AREAS:**

Local officials, community leaders and residents in Jefferson, Texas, are interested in exploring the option of restoring the historic Jefferson port area. To date, only the concept of developing a historic waterfront area has been outlined; however, funding provided to the Corps of Engineers will allow for a feasibility study to be conducted. A study will determine the design, scope, historic preservation guidelines, environmental guidelines, public acceptance, and timeline for such an initiative. Discussions with the Corps are just beginning.

## **PURSUE DEPARTMENT OF DEFENSE (DOD) LEGACY PROGRAM AT LHAAP:**

Officials from Thiokol Corporation, the contractor at LHAAP, have developed several proposals to pursue funding through the DOD Legacy Program. The proposals include: preparing a database for plant and animal species at the LHAAP plant; identifying all the wetland areas on the plant grounds; determining species abundance and productivity of neotropical birds in bottomland hardwoods and other environs; and establishing watchable wildlife sites at the LHAAP plant. These proposals were submitted to the Army for consideration in September, 1993.

## VII. MEANS FOR ACCOMPLISHING GOALS AND OBJECTIVES

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**Identifying sources of assistance is a challenging task, but with dedication and innovation a very wide array of resources can be made available to make protection and development plans successful.**

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Countless resources are available to assist with implementing various components of a protection and sustainable development plan -- federal, state, local, and private resources (including staff, in-kind services, programs and funding), numerous reference materials, experts in the tourism field, local, state and national environmental organizations, and East Texans who live in the effected communities. Some of the available resources are outlined here to provide a better understanding of the wide variety of resources that can potentially support protection and development efforts. Community involvement and support would be necessary to take full advantage of these potential resources for assistance in order to implement the goals of this proposal.

### A. CONGRESSIONAL:

Congressional support can come in the form of identifying federal programs to assist with these efforts, coordinating the implementation of specific projects, securing congressional appropriations for programs, and securing planning, financial and technical support from government agencies.

Congressman Jim Chapman is a Member of the House Appropriations Committee and is committed to seeking federal recognition and backing for these initiatives. The Texas delegation is also well represented in the Congress and is eager to lend support for this initiative. Congressmen and Senators from the State of Louisiana have been briefed on this initiative and will be of critical assistance in supporting this plan.

### B. STATE:

State assistance can come in a variety of forms. While state financial resources are constrained, state funding resources (loans, grants, bonds, etc.) should still be pursued. State agencies and organizations can also provide assistance in planning, marketing, advertising, developmental work, infrastructure improvements, training, technical assistance and information sharing.

A sample of State agencies that may provide assistance include: Texas Agricultural Extension Service (Department of Recreation, Park, and Tourism Sciences at Texas A&M University), Texas Commission on the Arts, Texas Department of Commerce, Texas Department of Housing and Community Affairs, Texas Department of Transportation, TPWD, Texas General Land Office, Texas Forest Service, Texas Natural Resource Conservation Commission, and the Texas Historical Commission.

A sample of Texas organizations that may provide assistance include: Keep Texas Beautiful, Inc., Texas Association of Convention Visitors Bureaus, Texas Association of Fairs and Expositions, Texas Association of Museums, Texas Festivals Association, Texas Historic Hotel Association, Texas Rural Communities, Texas Natural Resources Information System, Texas Recreation and Park Society, Texas Travel Industry Association, and the Texas Tourism and Recreation Information Program.

#### C. FEDERAL GOVERNMENT:

Numerous federal government agencies and programs offer assistance related to development, tourism, and environmental protection. Federal assistance can come in many forms: grants; loans; donation of property and goods; use of property, facilities, and equipment; counseling and advisory services; technical information; training; program implementation; etc.

A sample of federal agencies which focus on programs for environmental protection and development that could participate in support of these efforts include: Department of Agriculture (Farmers Home Administration, Soil Conservation Service, Forest Service); Department of Commerce (Economic Development Administration, Minority Business Development Agency, United States Travel and Tourism Administration); Department of Defense (U.S. Army Corps of Engineers); Department of the Interior (U.S. Fish and Wildlife Service, National Park Service, Bureau of Reclamation); Small Business Administration, and the Environmental Protection Agency.

The federal programs these agencies operate present many opportunities for assistance. Sample federal programs that could be implemented in support of components in this proposal include: Clean Lakes Program; Legacy Resource Management Program; Rivers and Trails Conservation Assistance; Intermodal Surface Transportation Efficiency programs; Wild and Scenic Rivers; National Trails System; National Register of Historic Places; North American Wetlands Conservation Council; Land and Water Conservation Fund; Aid to Wildlife Restoration; Section 1135 Restoration; Environmental Education Grants; and Small Business Development.

#### D. LOCAL ASSISTANCE:

Local support and assistance is key to successful implementation of any plan. The extent of local support will be determined by the ability of the leadership in the community to generate support for the plan. Area citizens have special knowledge about the community and have a personal interest in supporting activities that contribute to the overall health and quality of life of the area.

Assistance may come in the form of in-kind services, fundraising, financial contributions or packaging, professional advise, training, technical assistance, staff resources, research, etc. Local participation may be expected from: Youth Groups (4-H, Scouts, etc.); Service Clubs; Civic Organizations; local businesses; Chamber of Commerce, local media, colleges and universities; local government; financial institutions; cultural groups, historical societies; extension services; natural resource interest groups; etc.



## **E. PRIVATE ORGANIZATIONS:**

Sources of assistance from private and non-government organizations (NGO) are quite diverse and broad based. Funding from private organizations are limited, but are, nevertheless, very important to local communities in implementing proposals such as this.

An exhaustive list of private organizations that are of potential assistance in an effort to develop ecotourism and sustainable development is not within the scope of this document. However, examples of private organizations and the type of assistance they might provide include the Nature Conservancy, the Conservation Fund, and the Trust for Public Lands who assist in developing land protection strategies and establishing local land trusts; the Ecotourism Society, a professional society designed to support and promote ecotourism; various conservation groups such as the National Wildlife Federation and National Audubon Society who can provide information to private landowners on ways to encourage wildlife on their property; and the Wetland Habitat Alliance of Texas (WHAT) who can provide expertise to private landowners on wetland creation and management of lands for the benefit of waterfowl, and Ducks Unlimited.

## **F. REFERENCE MATERIALS:**

Publications are available which can provide valuable research and educational information regarding development of ecotourism strategies. Encompassing each study and each developmental model of tourism are the invaluable resulting studies, histories, and reports which can provide guidance for the development of options or examples to emulate. (See Bibliography)

## **G. FORMS OF ASSISTANCE:**

Beyond the more conventional forms of assistance -- grants, local government funds, etc. -- there are numerous creative approaches to supporting community proposals. For example, charitable gifts of land; public/private ventures, easements, donations, enterprise zones, employee participation plans, festivals and special events, fundraising, private foundations, press and buyers tours, and volunteerism. These are just a few of the mechanisms in which to raise funds that are outlined in the Texas Department of Commerce's booklet entitled "Sources of Assistance for Tourism in Texas". This is just one of the many resource books available to begin the process of identifying support for specific initiatives.

## **VIII. LOCAL INVOLVEMENT AND PARTICIPATION**

## A. ORGANIZATION AND COOPERATION

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**Through a coordinated effort, ideas can be examined and tested, problems identified and solved, themes developed, and cooperative activities implemented to extend the abilities of a group of individuals or businesses to reach common goals.**

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There are numerous citizens who have an interest in both environmental protection and sustainable economic development in the Caddo Lake area. If the goals of the region are to be realized, it is vital that groups and individuals acknowledge the roles and priorities of each other, and work together with this sensitivity in mind.

Organizational activities should include representatives from all groups because those affected by the ultimate decisions need to be involved in the decision-making process. Strong community support, communication, and maximum cooperation are a must if protection and development activities are to be accomplished.

LOCAL GROUPS WITH AN INTEREST, EITHER DIRECTLY OR INDIRECTLY, IN PROTECTION AND DEVELOPMENT ACTIVITIES MAY INCLUDE:

- Business groups
- Chamber of Commerce
- City Council
- Regional development organizations
- Colleges and Universities
- Financial institutions
- Historical societies
- Environmental groups
- Local elected officials
- Housing organizations
- Military institutions
- Tourist bureaus
- Local governments
- Individuals of the general public
- Council of Governments

All interested parties should develop a plan of action to coordinate the components of a successful environmental protection and sustainable development program.

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**The result of communities and groups pulling in different directions can only dilute or even negate the intended success of enhancing the area.**

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## B. SETTING GOALS

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**Values and goals of the community should be identified so they can be integrated into protection and development plans.**

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The activities undertaken by the region are an expression of the life, geography, history and culture of the community. Community values should be the standard by which protection and development proposals are measured and judged. With community values identified, a vision for the future can be outlined that identifies a clear direction for protection measures and sustainable development.

Having a vision of the future not only helps the community develop goals, but can act as a target to keep the community focused on protection and development tasks. Goals need to be outlined that include very specific actions, timetables, and measurable outcomes. Goals also need to be realistic and achievable.

## C. IMPLEMENTING THE PROPOSAL

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**Implementation of the proposal does not just happen,  
the community must make it happen.**

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When changes are proposed for an area there is often great concern by local residents that the interests, values, and goals for their community not be exploited. This proposal encompasses ideas for a very large geographic area and the residents of these areas might not always have the same vision for protection and development activities. Therefore, it is important that local residents become involved in the planning for future protection and development activities so that their values and ideas are incorporated into these efforts. With community participation, decisions can be made that have positive results for the area.

As has been stated, this proposal is just that -- a proposal. It should be used as a tool to begin a community-wide planning effort for protection and development activities. Local residents must evaluate the community interest in this proposal, determine what needs a proposal like this can meet, examine the benefits of such a proposal, and look at the costs of lost opportunities if nothing is done to both promote and protect the area.

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**Implementation of the proposal does not just happen,  
the community must make it happen.**

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## **1. PUBLIC PARTICIPATION**

Three open houses have been scheduled to hear concerns and responses to this proposal. During the open houses, comments will also be taken on the management plan for TPWD's new State Park and Wildlife Management Area. Support and participation from citizens, local government representatives, businesses, and community organizations is encouraged. All are invited to attend and provide comments.

The first open house will be held in Jefferson at the Marion County Courthouse on November 8, 1993, from 3:00 to 8:00 pm.

The second open house will be held at Caddo Lake State Park on November 9, 1993, from 3:00 to 8:00 pm.

The third open house will be held at the Starr Home in Marshall on November 10, 1993, from 3:00 to 8:00 pm.

Written comments on the protection and development proposal may also be mailed to:

Congressman Jim Chapman  
2427 RHOB  
Washington, DC 20515

After the open houses are held, all comments received on the management of TPWD's State Park and Wildlife Management Area will be tabulated and analyzed by TPWD. These comments will be incorporated in a draft management plan that will be provided to the public.

All comments received on the protection and development proposal will be categorized and evaluated. These findings will also be shared with the public.

## **2. IMPLEMENTATION**

The success of this proposal is dependent on a community strategy for implementation. As critical as an implementation plan is to the long-term success of a proposal, there are numerous ways to develop this strategy. Outlined below are ideas that Congressman Jim Chapman and TPWD have explored and might be considered by the community. Consensus on an action plan is the next step that must be taken to achieve the goals of this proposal.

Options for implementation include, but are not limited to:

- 1) Various components of a plan can be pursued independently by organizations, private citizens, or governmental entity.
- 2) An existing non-governmental organization can be asked to lead the efforts to implement a plan.
- 3) A broad based coalition or steering committee of citizens, organizations, and agencies can organize to implement the plan.
- 4) A new organization can be formed for the sole purpose of pursuing initiatives in a protection and development plan.

Extensive assistance is available to help the community make decisions about how to develop and implement a plan. For example, the United States Department of Agriculture Cooperative Extension Service has a program that offers community tourism planning, assessment, and development. The National Park Service has a program that provides expertise to help local areas inventory resources, promote citizen-based planning, develop visions and plans for resource protection and sustainable development, promote partnerships, and implement strategies to achieve results. The Federal Tourism Task Force, a coalition of federal departments and agencies that are involved in activities related to rural development and tourism, appoints a federal advocate for local programs who helps guide in obtaining resources for the specific local initiatives.

A forum could be held with representatives from these and other groups that provide expertise in community planning, ecotourism, rural tourism, sustainable development, and resource protection. Such a forum would allow the community to hear the options available to them, learn about strategies being employed in other areas across the nation, and facilitate action on a plan.

By working together, a plan for the future protection and development of the Caddo area can ensure this resource will be enjoyed by generations to come.

## Bibliography

- Anton, J.;** C. Davis; C. Teller; & E. Bergman. 1993. Ecotourism in Tyrrell County: Opportunities, Constraints, and Ideals for Action. Institute for Economic Development, University of North Carolina, Chapel Hill, North Carolina.
- Boo, E. 1990. Ecotourism: the potential and pitfalls. Washington, D.C. World Wildlife Fund - U.S.
- Dahmer, E. 1988. Caddo Was...a short history of Caddo Lake. Everett Companies, Bossier City, Louisiana.
- Dallas Morning News. 1991. Texas Almanac: 1991-1992. A.H. Belo Corporation, Dallas, Texas.
- Eubanks, T.L., Jr. No date. Economics in the Environment Age: A Case Study of Avitourism. 11p. unpublished.
- Hill, B.J., September 1992. Sustainable Tourism. Parks & Recreation: Vol. 27, No. 9.
- Koth, B.; G. Kreag; J. Sem. 1991. Rural Tourism Development. Minnesota Extension Service, University of Minnesota Tourism Center.
- McNeely, J.A. 1988. Economics and Biological Diversity: Developing and Using Economic Incentives to Conserve Biological Resources. International Union for Conservation of Nature and Natural Resources. Gland, Switzerland.
- Texas Department of Commerce. 1992. Developing Tourism in Your Community. Tourism Division, Austin, Texas.
- Texas Department of Commerce. 1992. Sources of Assistance for Tourism in Texas. Texas Agriculture Extension Service, Department of Recreation, Park & Tourism Sciences, Texas A&M University.
- Texas Parks and Wildlife. 1990. TORE-Assessment and Policy Plan. Comprehensive Planning Branch, Parks Division, Austin.
- University of Missouri-Columbia. 1991. Tourism USA: Guidelines for Tourism Development. Department of Parks and Recreation and Tourism, University Extension.
- Whelan, T. 1991. Ecotourism and Its Role in Sustainable Development. In T. Whelan. Nature Tourism. Island Press, Washington, D.C.
- Wiedner, D. & P. Kerlinger. 1990. Economics of Birding: A National Survey of Active Birders. American Birds 44(2).



Wilson, M. 1987. Nature-Oriented Tourism in Ecuador: Assessment of Industry Structure and Development Needs. Forestry Private Entrapping Initiative Working. Raleigh, North Carolina State University.

U.S. Fish & Wildlife Service. 1989. The 1985 National Survey of Fishing, Hunting, and Wildlife - Associated Recreation. U.S. Fish & Wildlife Service, Washington, DC.