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Atchafalaya
National Heritage Area

MANAGEMENT PLAN / ENVIRONMENTAL ASSESSMENT

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Atchafalaya National Heritage Area Management Plan/ Environmental Assessment

Volume Two

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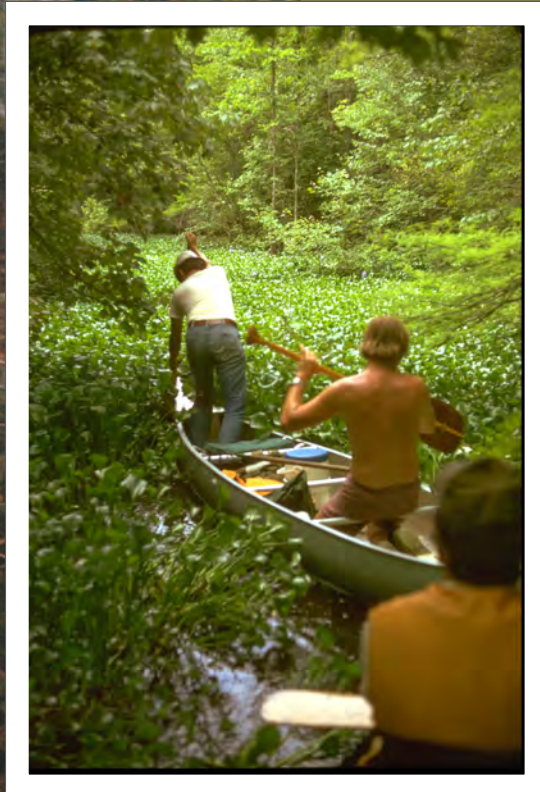
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Chapter 5
*The Alternatives,
Including the
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Above: Lake Warner
Left: Bayou Sorrel
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INTRODUCTION

This chapter presents four alternatives for future management of the Atchafalaya National Heritage Area. The four alternatives are labeled as follows: Alternative A No Action, Alternative B: Focus on Natural Resources and Related Recreation, Alternative C: Focus on History and Current Cultures, and Alternative D: The Heritage Connection – Nature, Culture, History and Recreation. Alternative D is the preferred alternative.

The alternatives outline different management concepts or ways to fulfill the mission, goals, and other legislative requirements of the national heritage area. The desired resource conditions for the heritage area remain the same for all of the alternatives, but each alternative emphasizes different interpretive themes or “stories” and uses those themes to focus on particular kinds of resources and visitor experiences.

DESIRED FUTURE CONDITIONS

Regardless of which management alternative is selected, there are certain conditions that are desired for the future of Atchafalaya National Heritage Area. These conditions are described here.

The Atchafalaya National Heritage Area would be managed as part of a greater ecological, social, economic, and cultural system. Effective management would be accomplished through a network of heritage area partners. Regional cooperation would involve federal, state, and local agencies, American Indians, neighboring landowners, and other concerned parties.

Good relations would be maintained with partners, adjacent landowners, surrounding communities, and private and public groups that affect and are affected by the heritage area. The area would be managed to resolve issues and concerns as they arise, and to ensure that nationally significant resources, stories, and values are not compromised.

Because the heritage area is part of a larger regional environment and the Commission does not own land or have regulatory authority, the Commission would work cooperatively with partners, neighbors, and other interested parties to anticipate, avoid, and resolve potential conflicts; protect resources; address mutual interests; and enhance the quality of life for residents and the overall experience of visitors.

NATURAL RESOURCES

Natural resources would be managed, protected, and promoted within their broader context and in cooperation with heritage area partners. Decisions about natural resources would be based on scholarly research and scientific information, and on consultation with the

Louisiana Department of Natural Resources, Louisiana Wildlife and Fisheries, and other agencies, as appropriate. The ecosystem would be protected. Natural resources and visitors would be managed through collaboration with partners; this collaborative management would take into account the ecological and social conditions of the heritage area. The Commission would work with partners to encourage natural resource management that balances preservation and conservation needs with sustainable economic uses.

Ecological integrity would be maintained or restored in sensitive areas not developed for visitors. The Commission and its partners would adapt to changing ecological and social conditions within and external to the heritage area and continue as partners in regional planning and in land and water management. Visitors and residents would recognize and understand the value of the national heritage area's natural resources and the associated interpretive themes.

The heritage area would be managed from an ecosystem perspective, where internal and external factors affecting visitor use, environmental quality, resource stewardship, and economic sustainability goals are considered at a scale appropriate to their impact on affected resources.

Ecosystem management would be a collaborative approach that integrates scientific knowledge of ecological relationships with resource stewardship practices; the goal of such management would be creating sustainable ecological, cultural, and socioeconomic systems. Approaches to ecosystem management would be varied and would occur at many scales and by both governments and nongovernmental organizations.

Achieving the desired future conditions for natural resources as stated in this plan requires that a regional perspective be considered and that all planning entities recognize that actions taken on lands surrounding the heritage area directly and indirectly affect the heritage area itself.

Cooperation, coordination, negotiation, and partnerships with agencies and neighbors are crucial to meeting or maintaining desired future conditions for the heritage area while still accommodating multiple uses on a regional scale. This approach to ecosystem management may involve many parties or cooperative arrangements with state and local agencies or tribes to obtain a better understanding of issues that cross jurisdictional boundaries.

Biological Diversity

The Atchafalaya ecosystem would be recognized and valued as an outstanding example of resource stewardship, conservation, education, and public use. The area would retain its ecological integrity, including its natural resources and processes and would continue to support a full range of native species. Natural processes would function as unimpeded as possible. Ecosystem dynamics and population fluctuations would occur with as little human intervention as possible. Natural resources would be conserved for the enjoyment of future generations. Heritage area resources and values would be protected through collaborative efforts with neighbors and partners. Potential threats to resources would be identified early and addressed proactively. Visitors and partners would recognize and understand the value of the area's natural resources.

Through partnerships, biologically diverse native communities would be protected and restored when and where appropriate. Particularly sensitive communities would be closely monitored and protected. Endemic species and habitats would be fully protected.

Threatened and Endangered Species

All federal and state listed threatened and endangered species, species proposed for listing, and these species' habitats in the heritage area would be protected. Commission and partner actions would assist and promote species recovery and protection.

Water Quality

The Commission and partners would strive to return water quality within the Atchafalaya National Heritage Area to natural conditions that would support native plant and animal communities and administrative and recreational uses. All water in the heritage area would meet applicable federal and state standards. All human sources of water pollution that are adversely affecting the area would be eliminated, mitigated, or minimized.

Wetlands

The natural values of wetlands would be maintained and protected, and wetland loss would be mitigated as appropriate. Remaining wetlands would be protected in an undisturbed condition unless it is determined through formal processes that disturbance or natural deterioration is unavoidable.

CULTURAL RESOURCES

Cultural resources would be identified, evaluated, managed, protected, and promoted within their broader context and in cooperation with heritage area partners. Management decisions about cultural resources would be based on scholarly research and scientific information and would be made in consultation with the Louisiana state historic preservation officer and associated ethnic groups, as appropriate. The historic integrity of properties listed in or eligible for listing in the National Register of Historic Places would be protected. Visitors and residents would recognize and

understand the value of the national heritage area's cultural resources and the interpretive themes that place them in their historic and contemporary context.

Archaeological Resources

Since a comprehensive archeological survey of the lands within the Atchafalaya National Heritage Area has not been conducted, and such a study would be beyond the means of the Commission to support directly, the Commission would use partnerships to encourage university research, state and local agencies and organizations to support local efforts in completing archeological surveys, especially in areas threatened by development, coastal erosion or other man-made or natural threats.

Ethnographic Resources

To date no traditional cultural properties within Atchafalaya National Heritage Area have been listed in or determined eligible for listing in the National Register of Historic Places. However, some limited interest in exploring the potential for the Atchafalaya Basin to be considered as a traditional cultural property has been expressed in public comment. If interest is sustained, the Commission could partner with those interested and the state historic preservation office to support this effort.

Although various folklife studies and one ethnographic survey covering a portion of the heritage area have been conducted, a comprehensive ethnographic overview and assessment of the heritage area has not been prepared. As the Commission continues to partner with museums, state folklife agencies, university researchers, and others involved in ethnography, strategies for preserving ethnographic resources associated with the heritage area's folklife, traditional subsistence activities, and historic swamp resource exploitation could be developed and implemented.

Historic and Prehistoric Structures

The character of historic structures would be preserved in good condition to retain a high degree of integrity in cooperation with partners. Structures listed in or eligible for listing in the National Register of Historic Places would be managed to ensure their long-term preservation and the protection of character-defining features. Whenever possible, adaptive use of historic structures would be encouraged. The Commission would work with local historic districts, the main streets program, historical societies, and the state historic preservation office to increase awareness of historic structures, and their value to the community, and to tell the stories of the heritage area.

Cultural Landscapes

Cultural landscapes within the Atchafalaya National Heritage Area would continue to represent the ongoing struggles of humans to control the power of nature. Character-defining features and attributes contributing to the national register level of significance of historic properties and engineering structures as cultural landscapes would be appropriately preserved and rehabilitated in cooperation with partners. The Commission would work with university researchers and other to carry out additional inventories to identify cultural landscapes and resources potentially eligible for listing in the National Register of Historic Places.

Museum Collections

The national heritage area would continue to include a number of state and local museums as well as innumerable natural history and historic sites and structures that possess associated site-related museum collections. The Commission would encourage partnerships and improved interpretation and preservation of museum objects. This would support continued use of museum objects in exhibits, furnished historic structures, and other interpretive programs which contribute to visitors to gaining better understanding of the events,

activities, and people commemorated by the heritage area.

VISITOR USE AND EXPERIENCE

Visitors and residents from diverse backgrounds could experience a range of opportunities consistent with the mission, vision, and goals of the Atchafalaya National Heritage Area. Most visitors would understand and appreciate the purpose and significance of the national heritage area and value their stewardship role in preserving natural and cultural features. They would actively contribute to the area's preservation and promotion through appropriate use, behavior, and involvement. Programs and

services would be accessible to all, and conflicts between different user groups would be minimized.

SOCIOECONOMIC ENVIRONMENT

The heritage area would contribute positively to the local economy by supporting local businesses and traditional cultural activities as well as by encouraging sustainable uses of the land and water. Partner activities, including preservation of historic buildings and restoration of natural areas, would have long-term positive effects on the sense of place and quality of life for local residents.

ACTIONS COMMON TO ALL ALTERNATIVES:

Regardless of which management alternative is selected, some actions will occur or continue; these include the following:

- The Atchafalaya Trace Commission would remain the local coordinating entity for the heritage area. The Commission is an agency of the Louisiana Office of Culture, Recreation, and Tourism and is housed in the Department of Tourism.
- The interpretive themes developed in 2006 and refined in 2009 would continue to be used, though the emphasis would vary between alternatives.
- The Atchafalaya National Heritage Area would partner with the Louisiana Byways Program to develop interpretive programming for the designated byways within the heritage area, building on the interpretive themes developed for the heritage area.
- The Commission and heritage area's logo and other identifying comprehensive identity and media will be incorporated into a program to build "brand" and visibility. This program would use some or all of the following media outlets: signs; electronic and print media, including the existing Alliance of National Heritage Areas website; and tourism promotion activities, such as brochures. The emphasis of the program may vary by alternative.
- The National Park Service would provide heritage funds and technical assistance to the Atchafalaya National Heritage Area as provided in the 2006 National Heritage Area Act. However, this funding could be stopped if the management plan is not completed and approved by the secretary of the interior in a reasonable timeframe.

DEVELOPMENT OF THE ALTERNATIVES

The enabling legislation for Atchafalaya National Heritage Area directs the Commission to create a management plan that includes ways to provide the following assistance to units of government and others:

- carrying out programs that recognize important resource values within the heritage area
- encouraging sustainable economic development within the heritage area
- establishing and maintaining interpretive sites within the heritage area
- increasing public awareness of and appreciation for the natural, historic, and cultural resources of the heritage area

The alternative selected must meet these directions as well as the relevant laws and policies listed in chapter 1. Since any of the alternatives would be at least partially implemented through partners and outside funding, public support as provided through public meetings or public comment is also important in comparing the alternatives.

Interpretive themes are the important stories we want to share about the heritage area. As described in chapter one, Volume One, these themes are “Adaptation and Survival,” “Identity Through a Cultural Blend,” and “Influence of the Water on the Land and the People”

The alternatives reflect different emphases of the themes. Alternative B: Focus on Natural Resources and Related Recreation would primarily emphasize the theme “Influence of the Water on the Land and the People.” Alternative C: Focus on History and Current Cultures would emphasize the theme “Adaptation and Survival”, and “Identity Through a Cultural Blend.” These alternatives also reflect initial public scoping comments which seemed to express a desire for natural resources preservation and public access by some respondents and a desire for more focus on culture and history from other members of the public.

The Commission and the National Park Service shared the alternatives with the public through meetings, press releases and mailing 2700 copies of the alternatives newsletter. Based on public comments and evaluation of the environmental impacts and agreement with the legislation, purpose and goals, a preferred alternative (alternative D) was created by the Commission that combined alternative B and alternative C. Further details of development of alternative D are presented in “Chapter Eight: Consultation and Coordination.”

ALTERNATIVE A: NO ACTION

Alternative A, the no action alternative, does not propose any change to the current operation and management of the Atchafalaya National Heritage Area. Current programs and levels of funding would continue to be administered by the Atchafalaya Trace Commission and the Louisiana Office of Tourism, and no increase in federal funding would be provided.

Alternative A would represent a continuation of the state management plan developed in 2003. Under this plan, the heritage area managers have achieved a number of objectives including

- developed a brand and graphic identity package
- created regional map and brochures
- designed some specialty tours
- designed a website organized by resource type and linked to state tourism and parish websites for further information
- partnered to develop and produce Atchafalaya Days festival
- obtained grants in support of cultural festivals
- created program to preserve local heritage and traditional enterprises: the

Atchafalaya Heritage Development Zone, incorporating a tax credit program

- published an educational and promotional DVD

Further, the actions listed in the “Actions Common To All Alternatives” section earlier in this chapter would also occur, such as the marketing efforts and coordination with the byways program. The pace of the implementation of these and other future actions would probably be slower in the no-action alternative than in the other alternatives due to lower funding levels.

Alternative A would not increase the emphasis on any of the six goals or interpretive themes established for the Atchafalaya National Heritage Area; also, there would likely be less focus on coordination and partnering efforts.

According to the legislation, there could be a complete loss of future federal funds if a management plan is not completed and approved in a reasonable timeframe; program funding could be reduced by nearly 50%, affecting the overall effectiveness and success of the heritage area.

ALTERNATIVE B: FOCUS ON NATURAL RESOURCES AND RELATED RECREATION

DESCRIPTION

The Atchafalaya National Heritage Area incorporates unrivaled natural resources, including the nation's largest river swamp. The shape of the land and water systems have influenced where people live, how they travel, and how they use and enjoy the land and water of this special ecosystem. Alternative B highlights the nationally and regionally significant natural and recreation resources of the Atchafalaya National Heritage Area.

In alternative B, the natural resources of the region provide opportunities to experience a variety of ecosystems, from hardwood forests to large coastal wetlands. Recreation options include viewing a variety of bird species, freshwater and saltwater fishing, paddling through cypress-tupelo swamps, hiking nature trails, and bicycling along the River Road. There are also many opportunities to observe how humans have worked to influence nature through their development of locks, levees, and river control structures. The history of the use of the resources from cypress logging, to oil and gas leasing, to aquaculture and agriculture is also available for exploration and learning. Visitors can explore and learn how the landforms, historic floodplains, and current levee systems have influenced development of agricultural systems, settlement patterns, and transportation options throughout the region.

This alternative focuses on protecting natural resources and engaging in natural resource-based recreation. This focus would be used to guide visitors' experiences of the heritage area. Strategies and programs would emphasize resources, attractions, and areawide links that relate to these topics. Programs, educational efforts, and activities

would be directed primarily toward visitors with an interest in these natural resources and recreation related topics. Alternative B would include a number of elements; the heritage area would take the lead regarding the following efforts:

- Existing interpretive and welcome centers would be enhanced to generate more interest in the area and to keep people in the heritage area for longer periods of time. The initial focus would be on improving existing centers at major entry points to the heritage area. Interpretive and welcome centers would orient and provide information to visitors, with an emphasis on experiential opportunities, as well as landforms, and the influences of geology. These centers could serve as both gateways for activities and trailheads for land and water trails.
- Interpretation of natural resources and heritage area themes would be enhanced along existing byways. New byway designations would be proposed where appropriate.
- Topically organized activities, itineraries, and event calendars would be developed to link natural resources and related attractions with eco-tourism and conservation opportunities. These programs and products would be developed to fit within a consistent, area-wide informational, interpretive, and public relations framework.

The heritage area would partner with state and local governments, agencies, nonprofits, and others to implement the following elements:

- The Atchafalaya River and associated trails (both land and water trails)

would serve as a central spine from which programmatic and physical links would be made to adjacent areas and resources.

- Experiential activities involving regional attractions and key resources would be developed. These activities would be both resource-based (e.g., scenic roads, water trails) and program-based (e.g., audio tours) and would be designed to connect clusters of resources.
- Partners with interests, skills, expertise, and resources pertaining to natural resource-related topics and activities would participate in improving natural resource interpretation and education programs and developing links at a regional scale.
- Coordinated programs would be developed with partners to provide conservation, restoration, and ecotourism opportunities for visitors and locals alike. These programs could focus on cleanup, water quality monitoring, native plant restoration, and similar activities.
- Transportation planning for visitors would be emphasized, improving land and water connections, and expanding alternate transportation choices for exploring the heritage area (i.e., bike, paddling, boating, rail, or bus).

Today, circulation patterns are generally east-west within the Atchafalaya National Heritage Area (Interstate 10, U.S. 190). Visitor orientation would be provided along these major transportation routes to intercept the most visitors. These transportation patterns also create the need for improved north-south connections beyond the major highways. Trails and byways along natural ridges and manmade levees could provide a better understanding of landforms and a better opportunity to explore the area. Rivers and bayous generally run north-south and provide

additional connections and means of travel within the heritage area.

There is significant leveraging potential that could be expected for this alternative based on the types of public and institutional support and the level of recognition of the heritage area. Public and institutional support can include grants for education and interpretation, projects, in-kind support, and complementary work that support the goals and objectives of the heritage area. Partner commitments and planned activities can be found in Volume One, “Chapter Three: Implementation Plan.”

POTENTIAL KEY PARTNERS

The heritage area’s broad mission outlined in the enabling legislation invites the participation of public agencies and private organizations. The resources are so numerous that projects cannot be successful without working with many partners. Some, but not all, of the entities the Commission could partner with to implement alternative B are listed below. The Commission’s primary partner is the Department of Culture, Recreation, and Tourism, Office of Tourism.

- U.S. Army Corps of Engineers
- Louisiana Department of Natural Resources Atchafalaya Basin Program
- Louisiana Office of State Parks
- Louisiana Byways Program
- Louisiana State Museum
- Louisiana Wildlife and Fisheries Department
- National Audubon Society, Louisiana Coastal Initiative
- National Wildlife Federation, Coastal Louisiana Program
- Environmental Defense Fund, Coastal Louisiana Project
- The Nature Conservancy, Atchafalaya Program

- Barataria Terrebonne National Estuary Program
- Black Bear Conservation Coalition
- Atchafalaya Basinkeeper
- Sierra Club/Delta Chapter
- Louisiana Wildlife Federation
- Coalition to Restore Coastal Louisiana
- Friends of the Atchafalaya
- Atchafalaya Paddling Trails group
- Acadiana Resource Conservation & Development Council, Inc.
- LSU School of Landscape Architecture

RELATED INTERPRETIVE THEMES

The main interpretive theme that would guide interpretation and visitor experiences under this alternative is as follows:

Influence of the Water on the Land and the People: Water is the distinctive influence on life in this area: through the ages it has created ever-changing landscapes, contributed to subtle and catastrophic natural events, and has been subjected to a long history of human manipulation; this relationship continues to evolve today.

This theme is further explained in “Chapter Four: Interpretation Plan” in Volume One. The theme would provide a focus for interpretation, education, partnerships and future actions. The Atchafalaya River, bayous, and the Inter-coastal Waterway already provide links related to multiple heritage topics. Thus, the associated water/trail system in particular can function as a central, organizing “spine” that ties together sites and experiences throughout the heritage area.

Alternative B would place the greatest emphasis on strategies designed to link resources at an areawide or regionwide level. These strategies include regional-scale protection and restoration of environmental resources, development of outdoor recreational opportunities, establishment of interpretive links, and development of physical links to promote eco-tourism. This alternative would focus education and interpretation on increasing awareness of varied and important natural resources of the Atchafalaya region as well as opportunities to recreate in a natural setting.

ALTERNATIVE C: FOCUS ON HISTORY AND CURRENT CULTURES

DESCRIPTION

The evolution of a rich blend of cultures, traditions, and lifeways has created the special place known as the Atchafalaya National Heritage Area. The combination of people, places, sites, sounds, and smells makes this a one-of-a-kind mosaic of history and culture in the heart of Louisiana. Alternative C capitalizes on this nationally significant and culturally rich region of the country.

Alternative C focuses on current and past communities, sites, buildings, languages, religions, music, foodways, history, and cultural traditions.

The region was originally settled by a number of Native American tribes including the Chitimacha and Tunica, who remain in the area today. Further, the popular cultural identity of the region is strongly associated with the Cajuns, descendants of the French-speaking Acadians who settled in south Louisiana after being deported by the British from Nova Scotia (formerly known as Acadia). Some 2,500 to 3,000 exiled Acadians repatriated in Louisiana, where they proceeded to reestablish their former society. Today, in spite of complex social, cultural, and demographic transformations, Cajuns maintain a sense of group identity and continue to display a distinctive set of cultural expressions.

In addition to Cajun culture, there is an astonishing array of other cultures within these 14 parishes. Outside of New Orleans, the Atchafalaya National Heritage Area is the most racially and ethnically complex region of Louisiana and has been for many years. Indeed, a long legacy of

multiculturalism presents interesting opportunities to examine how so many distinct cultures have survived in relative harmony. There may be interesting lessons to learn from this area as our nation becomes increasingly heterogeneous. The cultural complexity of the region has created a rich tapestry of history and traditions, evidenced by the architecture, music, language, food, and festivals that are unlike those of any other place. (Louisiana Department of Culture, Recreation and Tourism 2002).

Alternative C would focus on establishing visitor information and activities related to historic and cultural sites and areas. Under this alternative, all visitors to the area would be able to find many opportunities to discover the history and cultural traditions of the Atchafalaya region. This alternative caters to local and regional residents, visitors who are passing through, and destination travelers. Information and experiences would be available related to area attractions based on where visitors planned to enter the heritage area and the amount of time they planned to spend in the area.

This alternative would provide specific opportunities for enthusiasts of particular time periods or events and related resources. For example, residents and visitors specifically interested in visiting and learning about Zydeco music history and stories could access information about opportunities to see and learn about the history of the music, the area's musicians, and local music venues past and present. Alternative C would also provide opportunities for destination tourists that may have anywhere from a few days to a few weeks to spend in the area.

Alternative C would include a number of elements; the heritage area would take the lead regarding the following efforts:

- Existing interpretive and welcome centers would be enhanced to generate more interest in the area and keep people in the heritage area for longer periods of time. Initial focus would be on improving the centers at major entry points to the heritage area. In the long term, the desired condition would be for key interpretive centers to offer cultural experiences for visitors such as music, dance, food, or local crafts. These centers could serve as gateways for activities, tours and trails.
- Interpretation of cultural and historic resources and heritage area themes would be enhanced along existing byways. New byway designations would be connected proposed where appropriate.
- Activities, itineraries, and event calendars would be developed to link heritage area cultural resources and associated built attractions. These programs and products would be developed to fit within a consistent, area-wide informational, interpretive, and public relations framework.
- Visitor information and access to the area's unique cultural experiences would be linked by type and topic (such as festivals, parades, or hands-on opportunities).
- Education programs for teachers and students would focus on the history and culture of the heritage area.
- Sustaining the unique cultural identity of the heritage area would be the focus of promotional and economic development initiatives.

The heritage area would partner with state and local governments, agencies, nonprofits, and others to implement the following elements:

- Partners with special interests, skills, and resources pertaining to particular topics and activities would participate in developing links at a regional scale.
- Coordination with partners would help to preserve and restore historic and cultural sites.
- Transportation planning for visitors would be emphasized—improving land and water connections and enhancing alternate means of transportation such as boat, bus, and rail (need to connect cultural festivals, swamp tours, sites, etc.)
- The Atchafalaya River would serve as the spine that connects resources in adjacent communities. Programmatic and physical links would connect resources with related themes.

There is significant leveraging potential that could be expected for this alternative based on the types of public and institutional support and the level of recognition of the heritage area. Public and institutional support can include grants for education and interpretation, projects, in-kind support, and complementary work that supports the goals and objectives of the heritage area. Partner commitments and planned activities can be found in “Chapter 3: Implementation.”

POTENTIAL KEY PARTNERS

The heritage area's broad mission outlined in the enabling legislation invites the participation of public agencies and private organizations. The resources are so numerous that projects cannot be successful without working with numerous partners. Some, but not all, of the entities the Commission could partner with to implement alternative C are listed below. The Commission's primary partner is the Department of Culture, Recreation, and Tourism, Office of Tourism.

- Office of State Parks – Cultural and historic sites

- Office of Cultural Development, Division of Historic Preservation
- Office of Cultural Development, Main Street Program
- Louisiana State Museum
- Louisiana State Library
- Louisiana Endowment for the Humanities
- Louisiana Byways Program
- Friends of the Atchafalaya
- Louisiana Association of Museums
- Louisiana Department of Education
- University of Louisiana, Center for Louisiana Studies
- Louisiana Historical Commission
- Acadian music groups

RELATED INTERPRETIVE THEMES

The two main interpretive themes and associated sub-themes that would guide interpretation and visitor experiences under this alternative are

Adaptation and Survival: The early settlers acquired living skills unique to the environment.

Identity through a Cultural Blend: The region's identity evolved from a blend of many cultures.

These themes are further explained in the interpretation plan. They would provide a focus for interpretation, education, partnerships, and future actions. Tourism information would be organized by type and topic, focusing on particular areas of culture, traditions, or history such as food, music, antebellum life, or cultural festivals. This alternative would focus education and interpretation on the history, traditions, culture, and lifeways unique to the Atchafalaya region.

Alternative C would place the greatest emphasis on strategies designed to provide visitor information and activities tailored to visitors' interests in particular topics or activities. Alternative C would increase the emphasis on community revitalization and preservation of historic structures and landscapes, in contrast with the focus on understanding and protecting natural resources and increasing outdoor recreation opportunities in alternative

ALTERNATIVE D: THE HERITAGE CONNECTION—NATURE, CULTURE, HISTORY, AND RECREATION (THE PREFERRED ALTERNATIVE)

DESCRIPTION

Alternative D would highlight the nationally and regionally significant natural, scenic, cultural, historic, and recreation resources of the Atchafalaya National Heritage Area. This alternative would focus on the area's heritage connection, including the natural features of the area and the area's diverse culture and lifeways. The history of the area and its cultural traditions are inextricably linked to the area's natural resources—one cannot be explained without the other.

Public comments received during the development of this plan reflected the need for a blending of alternatives B and C with a slightly stronger emphasis on the natural environment and associated recreation as identified in alternative B. This slight increase in emphasis on natural resources, to some degree, reflects the current strength of cultural and historical programs throughout the heritage area and the desire to expand environmental, conservation, and recreation programs in the heritage area.

This alternative would focus on providing information and activities that appeal to visitors and residents with a broad range of interests. People would find many opportunities to discover the natural environment, to enjoy the outdoors through recreation, and to explore the culture, traditions, and lifeways of the Atchafalaya region. Information for visitors and residents would be organized around themes and could include options such as taking a music tour, bicycling on trails along bayous, or visiting historic plantations.

The native people of the area, as well as the various groups of migrants to the area, have

used the area's unique natural resources, including the nation's largest river swamp, hardwood forests, coastal wetlands, cypress-tupelo swamps, and freshwater bayous. These resources have, in turn, greatly impacted the blend of cultures that evolved into the distinct Creole culture of today and would be reflected in the cultural interpretation and experiences offered within the heritage area.

Examples of the interrelationship between people and land are everywhere. The region's famous food, such as crawfish, come from its rivers and bayous. This alternative would highlight how land-based agriculture and water-based aquaculture developed from the river and the river's historical floodplain, and how the managed levee system of today continues to provide flood protection and a reliable water source, which allows for productive agriculture. This alternative would provide context for the flood control system and how it provides safety for communities that lie within the historical floodplains. Interpretation would also explain how architectural patterns and building materials are also a direct result of the climate and natural resources of the area.

As in alternative B, trails and byways along natural ridges and manmade levees could provide a better understanding of landforms and a better opportunity to explore the area. Rivers and bayous generally run north-south and provide additional connections and means of travel within the heritage area.

Through this alternative, programs and projects would be created with partners to explore the richness of the cultural and natural resources of the region. Residents and visitors would have the opportunity to

learn and explore the area through ways as varied as music festivals, paddle trips, tours of historic landscapes, and opportunities to participate in preservation and conservation projects. The interplay of the water and land with the varied cultures and traditions of the area would be highlighted to create a strong sense of place that would support livability for residents and enjoyment for visitors.

Alternative D would include a number of elements; the heritage area management would take the lead regarding the following efforts:

- Existing interpretive and welcome centers would be enhanced to generate more interest in the area and to keep people in the heritage area for longer periods of time. The initial focus would be on improving existing centers at major entry points to the heritage area. Interpretive and welcome centers would orient and provide information to visitors, emphasizing both indoor and outdoor experiential opportunities. These centers could serve as both gateways for activities and cultural events and trailheads for land and water trails.
- Activities, itineraries, and event calendars would be developed to create thematic links to natural and cultural resources and associated built attractions and events in the heritage area. These programs and products would be developed to fit within a consistent, areawide informational, interpretive, and public relations framework.
- Interpretation of natural, cultural and historic resources, recreational opportunities and heritage area themes would be enhanced along existing byways. New byway designations would be proposed where appropriate.
- Sustaining the unique cultural and natural landscapes and increasing education and awareness for residents

and visitors would contribute to a sense of place.

- Education programs for teachers and students would focus on the interrelationship of the natural environment and the history and multiple historic and contemporary cultures of the heritage area.

The heritage area management would partner with state and local governments, agencies, nonprofits, and others to implement the following elements:

- The Atchafalaya River and associated trails (both land and water trails) would serve as a central spine from which programmatic and physical links would be made to adjacent areas and resources.
- Experiential activities involving regional attractions and key resources would be developed. These activities would be both resource-based (e.g., scenic roads, water trails, music trails) and program-based (e.g., educational curriculum, audio tours), and would be designed to connect clusters of resources.
- Partners with interests, skills, expertise, and resources pertaining to natural and cultural resource topics and activities would participate in improving interpretation and education programs and developing links at a regional scale.
- Coordinated programs would be developed with partners to provide conservation, restoration, and ecotourism opportunities for visitors and local residents alike. These programs could focus on cleanup, water quality monitoring, native plant restoration, or similar activities. Similar programs would be developed with partners to help preserve and restore cultural and historic sites and landscapes and promote heritage and cultural tourism.

- Transportation planning for visitors would be emphasized—improving land and water connections, and expanding alternate transportation choices for exploring the heritage area (i.e., bike, paddling, boating, rail, and bus).

POTENTIAL KEY PARTNERS

The heritage area's broad mission outlined in the enabling legislation invites the participation of public agencies and private organizations. The resources are so numerous and intertwined that projects cannot be successful without working with numerous partners. Some, but not all, of the entities the Atchafalaya Trace Commission could partner with to implement alternative D are listed below. The Commission's primary partner is the Department of Culture, Recreation, and Tourism, Office of Tourism.

- Louisiana Office of State Parks
- Louisiana Office of Cultural Development, Division of Historic Preservation and Main Street Program
- Louisiana State Museum
- Louisiana State Library
- Louisiana Endowment for the Humanities
- Louisiana Byways Program
- Friends of the Atchafalaya
- Louisiana Association of Museums
- Louisiana Department of Education
- University of Louisiana, Center for Louisiana Studies
- Louisiana Historical Association
- Acadian music groups
- U.S. Army Corps of Engineers
- Louisiana Department of Natural Resources Atchafalaya Basin Program
- Louisiana Wildlife and Fisheries Department

- National Audubon Society, Louisiana Coastal Initiative
- National Wildlife Federation, Coastal Louisiana Program
- Environmental Defense Fund, Coastal Louisiana Project
- The Nature Conservancy, Atchafalaya Program
- Barataria Terrebonne National Estuary Program
- Black Bear Conservation Coalition
- Atchafalaya Basinkeeper
- Sierra Club/Delta Chapter
- Louisiana Wildlife Federation
- Crawfishermen Organizations
- Coalition to Restore Coastal Louisiana
- Atchafalaya Paddling Trails group
- Acadiana Resource Conservation & Development Council, Inc.
- LSU School of Landscape Architecture
- Alliance of National Heritage Areas

RELATED INTERPRETIVE THEMES

Alternative D would include all three main interpretive themes and associated sub-themes to guide interpretation and visitor experiences:

Adaptation and Survival: The early settlers acquired living skills unique to the environment.

Identity through a Cultural Blend: The region's identity evolved from a blend of many cultures.

Influence of the Water on the Land and the People: Water is the distinctive influence on life in this area: through the ages it has created ever-changing landscapes, contributed to subtle and catastrophic natural events, and has been subjected to a long history of human manipulation; this relationship continues to evolve today.

These themes are further explained in “Chapter One: Background” and in “Chapter Four: Interpretation Plan” in Volume One. They would provide a focus for interpretation, education, partnership development, and future actions.

Alternative D focuses on waterways and landforms; outdoor recreation; current and past communities, sites, and buildings; and languages, religions, music, and foods.

Tourism information would be organized by type and topic, focusing on particular areas of outdoor experience, culture, traditions, or history such as food, music, antebellum life, or cultural festivals. This alternative would focus education and interpretation on the natural landscapes and ecosystems, history, traditions, culture, and lifeways unique to the Atchafalaya region.

Alternative D would place the greatest emphasis on strategies designed to provide visitor information and activities tailored to visitors’ interests in particular topics or activities. This alternative would increase the emphasis on community revitalization and preservation of historic structures and landscapes, as in alternative C, and would add focus on understanding and protecting natural resources and increasing outdoor recreation opportunities in alternative B. By combining the best of these two alternatives, there is the unique opportunity to interpret and raise awareness of the inextricable interrelationship between nature and culture. This alternative also best meets the vision, mission, purpose and legal requirements for the heritage area—enhancing and interpreting the natural, scenic, cultural, historic, and recreation resources of the heritage area.

IDENTIFICATION OF THE PREFERRED ALTERNATIVE

The evaluation matrix (table 1) used by the Commission in identifying the preferred alternative reflects how each alternative was rated compared to the legislative requirements, purpose, and heritage area goals. This reflects the outcome of the workshop with the Commission to identify a preferred alternative. “Alternative D: The Heritage Connection” was identified as the preferred alternative.

The elements of this alternative reflect the majority of the public comments on the alternatives. Most comments expressed an interest in the final alternative being a combination of alternatives B and C, with B being the more preferred, followed by C; only a few comments expressed support for the no-action alternative.

Further, the specific items commenters supported in alternative B included conservation and protection of natural resources, ecotourism, birding, satellite business and industry, preservation and stewardship opportunities, volunteerism, canoe launch sites, resource-based/low-impact recreation opportunities, increasing the public’s awareness of and respect for the natural resources, the connectedness, the visitor and interpretive centers as gateways, driving tours, and the restoration of areas affected by oil and gas activities. These items have been included in the preferred alternative.

The specific items commenters supported in Alternative C are volunteerism, the opportunities for the young and old to learn about the cultures and traditions, the emphasis on history and culture, the emphasis on coordinated programs, having interpretive and welcome centers as gateways, relating food and music to the land, festivals and events, floating campsites for paddlers, promotion of current

heritage/cultural centers, focusing on tourism, and education programs. However, some commenters also expressed fear that alternative C appears to have more emphasis on commercialism and might turn the area into a museum or theme park. These comments are reflected in the preferred alternative.

Specific support for additions to the alternatives included

- Place greater emphasis on making the interpretive and welcome centers gateways for activities and for trailheads, including both land and water trails.
- Develop connections, gateways, and east-west, north-south tourist movement throughout the heritage area.
- Increase the number of museums and visitor/tourist points throughout the heritage area.
- Improve access, signage, and interpretation beyond boat tours.
- Place greater emphasis on education.
- Develop scenic byways – interpretation, promotion, and coordination with the heritage themes.
- Develop better water transportation.
- A couple comments suggested the need for facilities, such as campsites and restrooms, to support paddling, one asked if visitor centers could include access to restrooms and showers for paddlers, bikers, and hikers.
- Mobile recreation distributes visitors and enhances economic development, but also maintains authenticity.
- Get younger generations involved.
- Promote eco-businesses.

- People who use the basin for their livelihoods should not be on display for tourists, and they need to be able to continue their way of life without disruption from tourists.
- Certify tourism businesses.
- Emphasize the hospitality of the people.
- Highlight the history of natural resources – logging, oil industry, and development of the spillway, etc.
- Keep commercial ventures outside of the levees.
- Emphasis and support is needed in the center of “the basin” comparable to what is being afforded or suggested for the periphery of the heritage area.
- Include inventory, land marking, and stewardship of old growth cypress.
- Emphasize the negative aspects of oil and gas leasing.
- Offer packages for tourists such as bed and breakfast, dining, entertainment, museums, etc.
- The function of the delta growth in combating land loss should be emphasized.
- Collect [more] oral histories.
- Need improved coordination on websites– linking the Atchafalaya.org website to Parish Tourism websites to the Louisiana Travel website to Scenic Byways, etc.

Many of these comments have been incorporated into the preferred alternative.

Table 1. Evaluation of Alternatives in Relationship to Legislative Requirements and Heritage Area Goals

	Alt. A No Action	Alt. B: Natural Resources and Recreation	Alt. C: History and Current Cultures	Alt D: The Heritage Connection
Meets Legislative Requirements	-	+	+	++
Meets Purpose	-	+	+	++
Goals:				
Build Understanding and Identity	+	++	+	++
Expand Economic Opportunities	+	+	++	+
Strengthen Sense of Place	+	-	+	+
Increase Community Collaboration and Involvement	+	+	+	+
Support a Healthier Atchafalaya Ecosystem	-	++	-	+
Enhance Recreation Opportunities	-	++	+	++
Summary	-	+	+	++

Legend:

- Does not meet legislative requirement, purpose, or goal
- + Meets legislative requirement, purpose, or goal
- ++ Highest opportunity to meet or exceed legislative requirement, purpose, or goal

Note:

This matrix reflects a prior version of the heritage area goals, which were later incorporated into the current goals identified elsewhere in this document.

Chapter 6

The Affected Environment



Top: Crawfish Boil
Center: Liberty Theatre, Eunice, LA
Above: Atchafalaya River,
Louisiana Office of Tourism
Left: Little Bayou Sorrel
Photo credit: Charlie Fryling

INTRODUCTION

Chapter six describes the existing environment of Atchafalaya National Heritage Area. This discussion serves to identify the current conditions in the region that could be affected by the implementation of any of the alternatives in this plan. The chapter begins by discussing the impact topics retained and dismissed for this management plan. The information is

organized around six general topics: natural resources, historic and cultural resources, recreation resources, scenic resources, visitor market, and the socioeconomic environment. This chapter also includes threats to resources and recommendations for future studies.

IMPACT TOPICS

IDENTIFICATION OF IMPACT TOPICS

An important part of planning is seeking to understand the consequences of making one decision over another. To this end, this general management plan is accompanied by an environmental assessment, which identifies the anticipated impacts of possible actions on heritage area resources and on visitors and neighbors. Impacts are organized by topic, such as “impacts on the visitor experience” or “impacts on vegetation.” Impact topics focus the environmental analysis and ensure the relevance of impact evaluation.

Impact topics for this document were identified based on federal laws and other legal requirements, Council on Environmental Quality (CEQ) guidelines, NPS management policies, staff subject matter expertise, and issues and concerns expressed by the public and other agencies early in the planning process. The planning team selected the impact topics for analysis based on the potential for each topic to be affected by the alternatives. Also included here is a discussion of some impact topics that could be addressed in management plans, but that are dismissed from detailed analysis in this plan for the reasons given.

The “Environmental Impacts” chapter contains a detailed description of the impacts that would result from implementing the actions described in the alternatives.

IMPACT TOPICS INCLUDED IN THE ANALYSIS

Natural Resources

The enabling legislation requires that the Atchafalaya National Heritage Area “shall develop a management plan for the heritage

area that incorporates an integrated and cooperative approach to protect, interpret, and enhance the natural, scenic, cultural, historic, and recreation resources of the heritage area.” The extensive natural resources of the Atchafalaya region are of national significance. These resources also are critical to the economy and influenced the culture. Implementing the action alternative could affect natural resources in the region, so this topic is retained for analysis.

Cultural Resources

Given the large number of defined historic and cultural resources within the heritage area, this impact topic will be reviewed in detail. The National Park Service categorizes cultural resources as archeological resources, ethnographic resources, historic and prehistoric structures, cultural landscapes, and museum collections. Each category of cultural resources will be included.

Archeological Resources

Archeological resources are the material remains or physical evidence of past human life or activities, including the record of the effects of human activities on the environment. Archeological resources represent both prehistoric and historic time periods. They are found above and below ground and under water. They include prehistoric and historic period sites, materials found in museum collections, and the records associated with these sites and materials. Information revealed through the study of archeological resources is critical to understanding and interpreting prehistory and history.

A comprehensive archeological survey of the lands within the Atchafalaya National Heritage Area has not been conducted,

although some archeological surveys have been undertaken in association with various development projects. Ground disturbance associated with proposed development has the potential to disturb currently identified as well as unidentified archeological resources. Other impacts to archeological resources may occur from natural forces such as erosion resulting from flooding, while rising levels of visitation may increase opportunities for inadvertent resource damage, vandalism, and looting. Any actions that would adversely affect these resources would be of concern to the national heritage area staff and public. Therefore, archeological resources will be analyzed.

Ethnographic Resources

Ethnographic resources are defined by Director's Order 28 as any "site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it." Ethnographic resources are associated with cultural practices, beliefs, the sense of purpose, or existence of a living community that is rooted in that community's history or is important in maintaining its cultural identity and development as an ethnically distinctive people.

Traditional cultural properties are associated with cultural practices, beliefs, the sense of purpose, or existence of a living community that is rooted in that community's history or is important in maintaining its cultural identity and development as an ethnically distinctive people. To date no traditional cultural properties in Atchafalaya National Heritage Area have been listed in or determined eligible for listing in the National Register of Historic Places.

Although various folklife studies and at least one ethnographic survey have been conducted in the national heritage area, a comprehensive ethnographic overview and assessment of the heritage area has not been

prepared. Strategies for preserving ethnographic resources associated with the heritage area's folklife should be developed. Any change resulting from the proposed actions that could adversely affect these resources would be of concern to the national heritage area staff and public. Therefore, ethnographic resources will be analyzed.

Historic and Prehistoric Structures

Historic and prehistoric structures are defined as constructed works "consciously created to serve some human activity." They are usually immovable, although some have been relocated and others are mobile by design. They include buildings and monuments; dams, millraces and canals; nautical vessels; bridges, tunnels and roads; railroad locomotives, rolling stock, and track; stockades and fences; defensive works; temple mounds and kivas; ruins of all structural types; and outdoor sculpture.

Historic and prehistoric structures are significant for the roles they played in the historical development of the national heritage area. Therefore, historic and prehistoric structures will be analyzed.

Cultural Landscapes

According to Director's Order 28: *Cultural Resource Management Guideline* (1998), a cultural landscape is

a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlements, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

Thus, cultural landscapes are the result of the lengthy interaction between people and the land; they reflect the influence of human beliefs and actions over time upon the natural landscape. Shaped through time by

historical land use and management practices—as well as politics and property laws, levels of technology, and economic conditions—cultural landscapes provide a living record of an area’s past: a visual chronicle of its history. The dynamic nature of modern human life, however, contributes to the continual reshaping of cultural landscapes, making them a good source of information about specific times and places and at the same time rendering their long-term preservation a challenge.

Actions proposed in the alternatives analyzed in this management plan could affect the elements that make up the national heritage area’s cultural landscapes—its structures, topography, vegetation, circulation features, spatial organization, and land-use patterns.

As required by the enabling legislation, the State of Louisiana conducted a cultural landscape assessment for the Atchafalaya National Heritage Area. This report, *The Atchafalaya National Heritage Area: Selected Level 0 Cultural Landscape Assessments*, was used as input to the cultural resources portions of this document and is available through the Atchafalaya National Heritage Area office housed in the Louisiana Department on Culture, Recreation and Tourism.

Museum Collections

According to Director’s Order 28: *Cultural Resource Management Guideline*, museum collections (prehistoric and historic objects, artifacts, works of art, natural history specimens, photographs, maps, and archival and manuscript collections) are important resources in their own right, as well as being valuable for the information they provide about processes, events, and interactions among people and the environment. Natural and cultural objects and their associated records provide baseline data, serving as scientific and historical documentation of the area’s resources and purpose. All resource management records that are

directly associated with museum objects are managed as museum property. These and other resource management records are preserved as part of the archival and manuscript collections because they document and provide an information base for the continuing management of the national heritage area’s resources.

Museum objects used in exhibits, in furnished historic structures, and in other interpretive programs help visitors to gain a better understanding of the events, activities, and people commemorated by heritage areas. The national heritage area includes a number of state and local museums as well as innumerable natural history and historic sites and structures that possess associated museum collections. Therefore, museum collections will be analyzed.

Recreation and Scenic Resources

As noted above, the enabling legislation requires that the Atchafalaya National Heritage Area management plan protect, interpret, and enhance the scenic and recreation resources of the heritage area. Recreation and scenic resources are considered important as contributing factors to visitor experiences within the heritage area. Implementing an action alternative could affect visitor experience in the region, so this topic is retained for analysis.

Socioeconomic Conditions

The National Environmental Policy Act requires an examination of social and economic impacts caused by federal actions. The actions in the management plan / environmental assessment could impact the socioeconomic conditions of communities within the heritage areas, so this topic is retained for analysis.

IMPACT TOPICS DISMISSED FROM ANALYSIS

Impact topics were dismissed from analysis if it was determined that either: (a)

implementing the alternatives would have no effect, a negligible effect, or only a minor effect on the resource, or (b) the resource does not occur in the heritage area.

Air Quality

Four parishes within the national heritage area—East Baton Rouge, West Baton Rouge, Iberville, and Ascension—fall within a nonattainment zone for the 8-hour ozone standard. None of the parishes are nonattainment zones for other air quality components and ozone trends have been improving in the Baton Rouge area over the past decade. However, the relative impact of the potential additional visitation that could result from the activities identified in the heritage area management plan is likely to be overwhelmed by the overall growth and development of the area with a population of over 1.2 million. Therefore, this topic has been dismissed from further analysis.

Soundscapes

According to the National Park Service, a soundscape is defined to be the “total acoustic environment of an area,” which includes both natural and human sounds. The natural soundscape is the combination of all of the natural sounds occurring in an area, absent the human-induced sounds, as well as the physical capacity for transmitting those natural sounds. Natural sounds may range from birdcalls and insect chirps, to sounds produced by physical processes such as wind rushing through leaves on trees, thunder, and rushing and falling water in rivers, creeks, and streams within a park.

The soundscape within the large region of the Atchafalaya National Heritage Area varies from being dominated by less desirable sounds produced by humans to relatively natural soundscapes deep within the unpopulated areas of the Atchafalaya Basin—although even here occasional planes and motorboats may be heard. Potential actions by partners would be short-term and have only localized impacts on soundscapes

in a small area of the region. As a result, this impact topic was dismissed from further analysis in this environmental assessment. However, the attention will be paid to sensitive soundscapes when development activities are proposed in areas valued for quiet and solitude.

Prime and Unique Farmlands

The Farmland Protection Policy Act was passed to minimize the amount of land irreversibly converted from farmland due to federal actions. Prime farmland, as defined by the U.S. Department of Agriculture Natural Resources Conservation Service, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The Atchafalaya National Heritage Area contains several soil associations identified as prime farmland soils, such as silt loams and clays. Roughly 39% of these soils are in agricultural production. The alternatives considered in this environmental assessment would not involve the conversion of areas of prime farmland soils to a new use. Therefore, this topic was dismissed from further analysis in this environmental assessment.

Land Use

There is a diverse mix of land ownership and use within the Atchafalaya National Heritage Area. The federal government owns property for flood control and water management, wildlife protection, and natural and cultural resource preservation. The state of Louisiana owns property for public recreation, natural resource management, and hunting and fishing, among other purposes. Over 1,200 cities, towns and other populated areas lie within the heritage area boundary. Public buildings and parks exist throughout the heritage area and are managed by the respective parish or

town. Much of the land area outside of the west and east guide levees is either in agricultural production or has been developed. Most of the land within the heritage area is held by private owners and subject to parish and municipal zoning, building, and land development codes. The management alternatives in this document would not have an appreciable impact on land use patterns within the heritage area. However, the potential exists for minimal future development of additional public recreation amenities, signs, and interpretation space.

Development projects, if initiated, would likely be financed and constructed by a partner agency or organization and not the heritage area itself. Should the national heritage area finance or construct a project, additional compliance with the National Environmental Policy Act and other federal regulations would be required. Given that the alternatives proposed in this document would have a negligible, almost unnoticeable impact on land use patterns and development within national heritage area boundary, land use has been dismissed as an impact topic.

Environmental Justice

According to the guidance issued by the Council on Environmental Quality, environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies. Executive Order 12898, "General Actions to

Address Environmental Justice in Minority Populations and Low Income Populations," requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. Although parishes within the Atchafalaya National Heritage Area have both minority and low-income populations, the actions proposed in the alternatives would not have disproportionately high health or environmental effects on minorities or low-income populations or communities in these parishes as defined in the Environmental Protection Agency's Environmental Justice Guidance (1998). This is because of the following:

- The Commission and planning team actively solicited public participation as part of the planning process and gave equal consideration to all input from persons regardless of age, race, income status, or other socioeconomic or demographic factors.
- Implementation of any of the alternatives would not result in any identifiable adverse human health effects. Therefore, there would be no direct or indirect adverse effects on any minority or low-income population.
- The impacts associated with implementation of the alternatives would not disproportionately affect any minority or low-income population or community.
- Implementation of the alternatives would not result in any identified effects that would be specific to any minority or low-income community.

Therefore, environmental justice was dismissed as an impact topic.

Climate Change and Carbon Footprint

Climate Change

Climate change refers to any significant changes in average climatic conditions (such as average temperature, precipitation, or wind) or climatic variability (such as seasonality or storm frequencies) lasting for an extended period of time (decades or longer). Recent reports by the U.S. Climate Change Science Program, the National Academy of Sciences, and the United Nations Intergovernmental Panel on Climate Change (IPCC 2007) provide clear evidence that climate change is occurring and will accelerate in the coming decades.

An important goal of this planning effort is to gain a better understanding of potential impacts of climate change and to develop effective strategies to manage for them in cooperation with heritage area partners. In developing this planning document, three key questions were asked:

- (1) What would be the contribution of the alternatives to climate change, as indicated by the amount of greenhouse gases that would be emitted under each alternative (i.e., carbon footprint)?
- (2) What are the potential impacts of climate change on the heritage area resources?
- (3) What management principles could the national heritage area adopt to reduce greenhouse gas emissions and the impacts of climate change on climate-sensitive resources?

Regarding the first question, it has been determined that the implementation of the management alternatives described in this document would emit only a negligible amount of greenhouse gases that contribute to climate change. The impacts of climate change on the national heritage area are not expected to differ among the alternatives, and the lack of qualitative information about

climate change effects adds to the difficulty of predicting how these impacts will be realized in the national heritage area. For example, wetlands and cypress forests may be impacted by sea level rise, and storm frequency and intensity may impact cultural resources and visitor amenities. But these potential impacts cannot be predicted in any clear, measurable way. Therefore, this impact topic has been dismissed from detailed analysis.

Regarding the second question, climate change has the potential to alter resource conditions in different ways through the Atchafalaya National Heritage Area, but the type and intensity of these changes is still uncertain. The range of variability in the potential effects of climate change is large in comparison to what is known about the future under an altered climate regime in the national heritage area in particular, even if large-scale climatic patterns have been accurately predicted for the Gulf Coast (USFS 2009). Much depends on how much temperatures will rise before the effects of climate change diminish the quality of heritage area resources.

Therefore, the potential effects of this dynamic climate on national heritage area resources were included in the “Threats to Resources” section later in this chapter. However, they will not be analyzed in detail in “Chapter Seven: Environmental Impacts,” with respect to each alternative because of the uncertainty and variability of outcomes, and because these impacts are not expected to differ among the alternatives.

Regarding the last question, this document provides comprehensive management goals and strategies, including science-based management principles to help inform and guide the Atchafalaya Trace Commission in partnering with other federal, state, and local governments; nongovernmental organizations; and private partners in addressing future climate change impacts on heritage area resources and reducing greenhouse gas emissions.

Carbon Footprint

For the purpose of this planning effort, “carbon footprint” is defined as the sum of all emissions of carbon dioxide and other greenhouse gases (e.g., carbon dioxide, methane and ozone) that would result from implementation of any of the management alternatives. Understanding the carbon footprint is important to determine the heritage area’s potential contribution to climate change.

It has been determined that implementation of the management alternatives described in this document, including the preferred alternative, would only emit a negligible amount of greenhouse gases that contribute to climate change; therefore, this impact topic has been dismissed from detailed analysis in this plan.

The reasons for dismissing this topic are that 1) new construction of any kind directly associated with the heritage area would be subject to additional NEPA compliance requirements, including a more detailed analysis of the potential for contributions to climate change from greenhouse gas

emissions; 2) there is no reliable way of measuring the potential change in emissions from the current scenario and trend when including the actions in the alternatives—what is certain is that any additional emissions would be negligible. Because of the negligible amount of greenhouse gas emissions that would result from the implementation of the alternatives, a quantitative measurement of their carbon footprint was determined by the planning team not to be practicable.

Development by the Commission under the preferred alternative would be limited to trails, paddle trails, interpretive kiosks, and signs. Consequently, the amount of energy consumption and resulting emissions of carbon dioxide associated with construction would be extremely small; negligible impacts on climate in the local environment and no measurable impacts in a regional, national, or global context would result. Further, the focus on ecotourism and sustainable practices would have positive impacts on carbon footprint over the long term. Therefore, this topic has been dismissed from further analysis.

NATURAL RESOURCES

OVERVIEW

The Atchafalaya region contains the largest river swamp in the United States. The Atchafalaya swamp is a maze of streams and bayous and was once thickly forested with cypress and tupelo trees. The Basin provides habitat for a diverse array of wildlife, including the American bald eagle and Louisiana black bear. The area is home to more than 85 species of fish, crawfish, and other crustaceans; many migratory waterfowl; forest-dwelling mammals (such as deer, squirrel, and beaver); and other commercially important furbearers.

Well over 270 species of birds—some of them endangered—have been recorded in the Basin and its surrounding natural areas. The Basin forms part of the Mississippi Valley Flyway for migratory waterfowl and is a major wintering ground for thousands of these geese and ducks. In general, the Atchafalaya Basin has a significant proportion of North America's breeding wading birds, such as herons, egrets, ibises, and spoonbills.

Natural resources in the Atchafalaya National Heritage Area have attracted attention for centuries and have supported subsistence, transportation/navigation, and commercial uses. Native Americans, early settlers, railroaders, road builders, loggers, and oil and gas explorers have all used the region. Cypress and other hardwood forests provided building material and fuel for fireplaces. Water resources provided transport. The fertile soils made good cropland.

The Atchafalaya Basin is managed by the U.S. Army Corps of Engineers (USACE) mainly for flood control and has been

described as the largest managed floodway in the world. Because of the long history of artificial levee construction on the lower Mississippi, the Atchafalaya River is the only remaining distributary (i.e., a waterway which removes water from a river) above the mouth of the Mississippi. Based on discharge volume, it is also one of the largest rivers in the United States. The Atchafalaya is a highly dynamic hydrologic and geomorphic system and has one of the few remaining actively accreting delta regions within the United States.

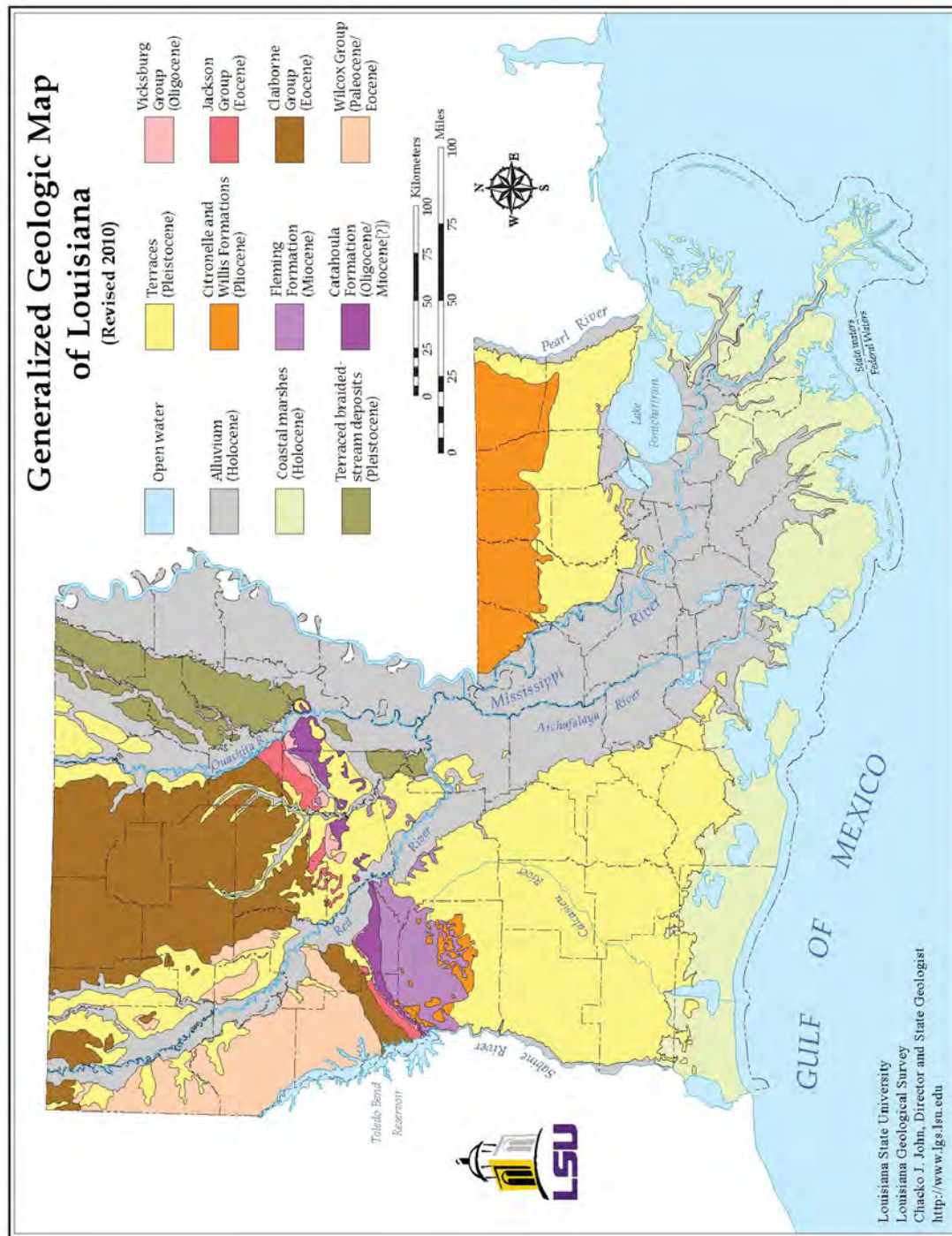
Plant and animal habitat types include riparian zones, agricultural fields, mowed lawns, cypress swamps, hardwood forests, marshes and wetlands, and developed areas.

GEOLOGY, PHYSIOGRAPHY, AND SOILS

Geology and Physiography

The creation of the Atchafalaya Basin and River occurred during the geologic epoch known as the Holocene, about 12,000 of years ago; the Basin illustrates sedimentation and erosional processes on a continental and regional scale. Louisiana is within the Gulf Coastal Plain and is at the end of the extensive Mississippi River system, which drains more than 40% of the continental United States. The Atchafalaya National Heritage Area is within the Greater Atchafalaya Region. Eight of the fourteen parishes are within the Atchafalaya Basin (Assumption, Avoyelles, Iberia, Iberville, Pointe Coupee, St. Landry, St. Martin, and St. Mary), and the other six (Ascension, Concordia, East Baton Rouge, West Baton Rouge, Lafayette, and Terrebonne) are directly adjacent to the Basin.

Figure 1. Generalized Geologic Map of Louisiana



Soils

According to the Natural Resources Conservation Service, soils within the heritage area are generally very thick, alluvial materials such as clays, silt loams, and mucks that are rich in organic matter, are poorly drained, and are highly susceptible to flooding and water erosion. Figure 3 is a generalized geologic map of Louisiana and shows Holocene alluvium as the predominant deposit in the heritage area, followed by Pleistocene terraces and coastal marshes. Erosive forces cause significant, sometimes dramatic, and long-lasting changes in physiography that include land accretion in some areas and delta erosion and land subsidence in other areas.

Precipitation rates are much greater than evaporation; this creates very high soil moisture conditions throughout the year, which encourages plant growth. Modification by use or development causes loss of soils. This soil damage is quick to heal because of the amount of precipitation and steady plant growth.

Silt loams in the heritage area are very deep, poorly drained, slowly permeable soils. The parent material is loess or loess-like with low sand content. Typical landforms where this soil is found are stream terraces and floodplains within the coastal plain landscape, with slopes from 0-1%. These soils are mainly found in pastures, cultivated areas, or woodlands. Vegetation is predominantly forest species such as water oak, sweetgum, and American elm. (NRCS 2010a)

Clays in the heritage area are very deep, very poorly drained, impermeable soils. The parent material is typically clayey alluvium. Clays are found in meander scars on alluvial plains, and in ponded backswamp areas within the coastal plain landscape, with slopes generally less than 1%. These soils are mainly used for growing timber and for wildlife habitat. Vegetation is predominantly

bald cypress, water tupelo, and red maple. (NRCS 2010a)

Mucks in the heritage area are very deep, very poorly drained soils that have very low permeability. They are continuously saturated and flooded. The parent material is generally highly decomposed organic deposits derived from woody materials. Typical landforms where this soil is found are freshwater swamps on broad floodplains within the coastal plain landscape, with slopes at 0-1%. These soils are mainly kept as forested areas and used as wildlife habitat. Vegetation includes red maple, sweetgum, swamp chestnut oak, water oak, sweet bay (swamp magnolia), ferns, sedges, grasses and mosses. (NRCS 2010a)

FLOODPLAINS

The Atchafalaya National Heritage Area lies within the 100- to 500-year floodplain. At its heart is the Atchafalaya Basin, with its primary purpose as navigation and flood control. The Atchafalaya and Mississippi rivers are levied and have interior drainage systems and diversion channels.

With respect to cubic-feet-per-second discharge, the Atchafalaya River ranks among the top five rivers in the United States. It consists of three floodways: the Morganza Floodway, the West Atchafalaya Floodway, and the Atchafalaya Basin Floodway. The river's average annual flow is 180,000 cubic feet per second and the projected flood flow is 1.5 million cubic feet per second. The Atchafalaya Basin is an important component of the USACE Mississippi River and Tributaries Flood Control Project. The Atchafalaya Basin Floodway is designed to contain 1.5 million cubic feet of water in flood conditions (Cajun Coast 2010).

There is currently only one dam on the Atchafalaya River—the “Old River Control Structure” is operated by the U.S. Army Corps of Engineers, and it is located at river

mile 315 (315 miles from the Gulf of Mexico), approximately at the juncture of Concordia, Pointe Coupee, and West Feliciana Parishes. There are no dams in the lower portion of the Mississippi River.

Floodplains are threatened by the elimination of wetlands due to commercial and residential development and road construction. The loss of wetlands in floodplains means the loss of buffers from hurricanes and storm surges. Development removes vegetation and either removes or compacts the soil; along with paving, this creates an impermeable surface. The more impermeable surface that exists, the more flooding that will occur due to the lack of soil or vegetation resources to absorb the water, thus reducing the functional value of the floodplain.

WETLANDS

Louisiana contains 40% of the nation's coastal wetlands and marshes. The Atchafalaya Basin contains the most extensive overflow riverine wetland and includes the largest contiguous wetland forest in the United States. The Basin includes ten distinct aquatic and terrestrial habitats ranging from large rivers to backwater swamps (Cajun Coast 2010).

Wetlands within the heritage area are either seasonally or permanently flooded, and are dominated by palustrine forest, palustrine scrub/shrub, palustrine emergent, estuarine scrub/shrub, and estuarine emergent vegetation communities (LA DNR 2009b).

These wetlands provide important habitat for crawfish and fish; wading birds and waterfowl; alligators and other reptiles and amphibians; and white-tailed deer, muskrat, otter, and other mammals, all of which are an important economic resource for area residents. The wetlands also provide an important natural buffer for flood control from heavy rains and hurricanes, as they retain and slow rapidly moving floodwaters.

Every year, 25 to 35 square miles of wetlands are lost in the United States, with Louisiana bearing 60-80% of the overall loss. Wetlands are threatened by hydrologic alterations such as in-filling for development; drainage for development and farming; dredging and channelization for navigation and flood control; diking and damming, flow diversion, and the addition of impervious surfaces; pollution from agricultural, industrial, and urban runoff; air pollution from vehicles and factories; toxic effluent from landfills, boat activities, and oil drilling; and damage to vegetation by grazing, logging, the introduction of nonnative species, and peat mining (EPA 2001).

WATER

Water Resources

The heritage area's main surface water resources are the Mississippi and Atchafalaya rivers, which drain about 41% of the conterminous United States, including all or part of 30 states. The Mississippi River Basin, including its distributary (the Atchafalaya River), is the largest river basin in North America and the third largest in the world (USGS 2000).

The Mississippi River runs parallel to the Atchafalaya, bordering or flowing through several parishes within the heritage area. These parishes include Concordia, Pointe Coupee, East Baton Rouge, West Baton Rouge, Iberville, Ascension, and Assumption. The Atchafalaya River begins at the confluence of the Red and Mississippi rivers at approximately the juncture of Concordia, Pointe Coupee, and West Feliciana Parishes. In addition to the Atchafalaya and Mississippi rivers, the heritage area contains many thousands of acres of braided streams that are part of the Atchafalaya Basin's vast distributary network.

The Atchafalaya Basin contains over 400,000 acres of low-current water bodies including

extensive swamps, freshwater marshes, shallow lakes, dead-end canals, and borrow pits. These aquatic communities are in a dynamic state, affected by annual spring floods, sedimentation, regional subsidence, and water management projects. They are exceptionally productive, primarily due to the annual cycle of flooding and dewatering, and the extraordinarily rich nutrient load carried by the river.

The heritage area's water resources are managed by a number of different federal and state entities including the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Geological Survey, Louisiana Department of Natural Resources and Louisiana Lands Office.

Water Quality

The water quality in the Atchafalaya Basin is generally in good condition and continually improving. This determination is based on the level of nitrates and organic nitrogen (dissolved and particulate), dissolved oxygen (DO), and species composition. Issues generally affecting water quality in the heritage area include siltation, agricultural runoff, and impaired water movement.

Nitrates from fertilizers and mineralized soil nitrogen, animal manure, atmospheric deposition, groundwater, soil erosion, urban runoff, and municipal and industrial point sources contribute to the development of temporary hypoxic conditions. Hypoxia occurs when concentrations of dissolved oxygen decrease to less than 2 mg/L, which can cause stress or death in aquatic organisms and generates algal blooms such as those seen in the Gulf of Mexico in the hypoxic zone. This zone is where the Mississippi and Atchafalaya River basins discharge into the Gulf of Mexico (USGS 2000).

According to the U.S. Geological Survey, nitrogen concentrations in the Mississippi River basin have tripled since the late 1950s from a six-fold increase in commercial

fertilizer and soil mineralization. There is year-to-year variability in the amount of nitrate transported through the Basin into the Gulf, based on the amount of precipitation and the amount of soluble nitrate stored in soil and groundwater systems. In dry years, the nitrate flux is low; in wet years, it is high (USGS 2000).

From October 1, 2007 to September 30, 2008, the U.S. Army Corps of Engineers, with the U.S. Geological Survey, performed monitoring and analysis of water quality and fish communities at 40 sites within the Henderson Lake Management Area in the Atchafalaya Basin. During the 12 month period, 19% of the surface DO samples were hypoxic and the average DO for all sites in the area was 0.23 mg/L. Fish abundance sampling identified 13 genera, a total of 101 individuals, at an estimated rate of 0.67 individuals per minute, which had not changed significantly since the previous year (USACE 2009).

The management implications from the 2007-2008 U.S. Army Corps of Engineers and U.S. Geological Survey water quality and fish community analysis state that the hydrographic variability in the Atchafalaya Basin can affect the magnitude and number of incidences of hypoxia. Flushing pulses of water—especially water resources that are high in dissolved oxygen—can help the Basin recover from periods of hypoxia and may possibly decrease or prevent widespread fish kills (USACE 2009).

Under the USACE Mississippi Rivers and Tributaries project, many improvements and flood control measures within the Atchafalaya River Basin have been authorized and constructed. The project directs half of the flow from the Old River, at the top of the Basin down the Atchafalaya Basin Floodway, and the other half down the Mississippi River (USACE 2010).

As part of the Mississippi River and tributaries projects, from Old River to the Wax Lake Outlet, the following projects,

improvements, and flood control measures are in place: the Atchafalaya Basin Floodway System, low sill control structures, overbank control structures, auxiliary control structures, hydroelectric power plant, navigation locks, levees, bank stabilization programs, rehabilitation programs, gated-control structures, drainage structures, landside drainage improvements (such as borrow pit enlargements, drainage canals, bayou enlargements, culverts, and diversion channels and control structures), dredging, floodgates, locks, and the Wax Lake Outlet. (USACE, no date on document, received March 9, 2010) The negative effects of these flood control measures include sedimentation, disrupted natural flows, shoreline erosion, wetland loss, land accretion, and possible detrimental impacts on fish and other wildlife species.

Water quality in the heritage area is continually threatened by the disruption of natural flows due to river control methods and structures; erosion hastened by the dredging of canals for navigation and oil and gas pipelines; and pollution from municipal, industrial and agricultural runoff (National Audubon Society 2010a).

Overall, the system is very productive, the resources respond favorably to the natural cycles. The system is, however, not without its issues, especially when flood control measures are placed in a higher level of importance, over resource protection. The Louisiana Department of Natural Resources, the U.S. Army Corps of Engineers, and other state, federal, and nongovernmental agencies and organizations are working to better protect these water resources—there is a new and expanding consciousness of the need to not be so entirely driven by flood control, that the resources are simply disregarded. Now some protection efforts include activities like flushing the system if it nears hypoxic conditions, directing more flow down the Atchafalaya, bank stabilization projects, and removing old structures that are no longer in use. It is not a perfect system; some of the current threats

will likely continue, such as dredging (as this will always be a navigation canal), water diversion for flood control in major wet seasons and years, hurricanes, oil and gas pipelines, agricultural practices upstream or adjacent to the Basin, and growing urban centers attributing to runoff from the newly created impermeable surfaces. Despite these threats, the agencies and organizations mentioned above are continually working toward improvements as new data, science, techniques, technologies, and engineering advances provide more tools to improve the water quality in the Basin.

VEGETATION

The Atchafalaya River is within the Southeastern Evergreen Forest Region of the Eastern Deciduous Forest biome. It contains the largest remaining bottomland and river swamp in America, and is the largest remaining segment of what was once a 24 million acre forest that covered portions of seven states. Because of the sedimentary history of the Basin, forest types vary from continuously inundated, through seasonally inundated, to natural levee ridge forests that rarely flood. Ongoing sedimentary processes are reflected in many examples of primary succession from aquatic to terrestrial communities. South of the Basin, the successional changes continue through various marsh types to open mudflats forming in Atchafalaya Bay. The diversity of vegetative types is a result of the dynamic nature of the Atchafalaya system. The area exhibits examples of disturbed ecology and succession as the landscape recovers from the impacts of Hurricanes Andrew, Katrina, Rita, Gustav and Ike, with Hurricanes Andrew and Ike doing the most damage in the Basin.

Vegetation Types

Moving from north to south, there are three major vegetation types in the Atchafalaya Basin Region: bottomland hardwoods, bald

cypress-water tupelo swamps, and coastal marshes.

Bottomland Hardwood Forests

Bottomland hardwood forests occupy natural levees and other land built-up by sediments. Such areas are the highest and driest lands in the delta and have always been the first locations to be developed for human use. With the influx of sediments from the Red and Mississippi rivers into the Basin, most of the marshes and swamps in the northern portion have been converted to bottomland hardwood forests. Subsequently, much of this bottomland hardwood forest has been converted to agricultural fields.

The bottomland hardwood communities provide important habitat for both game and nongame species. Of particular importance are the large unfragmented forests that provide resting, feeding, and breeding areas for many species of neotropical migrant birds.

Common forest species in bottomland hardwoods include water oak (*Quercus nigra*), live oak (*Quercus virginiana*), American elm (*Ulmus americana*), sweetgum (*Liquidambar styraciflua*), hackberry (*Celtis occidentalis*), red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), and water tupelo (*Nyssa aquatica*). Palmetto (*Sabal minor*) is frequently in the understory. The overstory on newly accreted sites are willows (*Salix* spp.) along sandbars and cottonwood (*Populus* spp.) and sycamore (*Plantanus occidentalis*) found along river banks.

Bald Cypress-Water Tupelo Swamps

Swamps are forested wetlands that occupy sites with longer hydroperiods (i.e., the amount of time each year that soils are saturated) and more water depth than bottomland hardwoods. Swamps in the region are typically dominated by bald cypress (*Taxodium distichum*) and water

tupelo in association with black willow (*Salix nigra*), red maple, and green ash.

Coastal Marshes

The predominant species in freshwater include bulltongue (*Sagittaria falcate*), softstem bulrush (*Scripus validus*), pennywort (*Hydrocotyle bonariensis*), iris (*Iris giganteaerulea*), smartweed (*Polygonum* spp.), spikerush (*Eleocharis* spp.), and alligator weed (*Alternanthera philoxeroides*). Open water associated with freshwater marshes contain duckweed (*Lemna* spp.) and often have a dense floating mat of water hyacinth (*Eichlornia crassipes*), and exotic, invasive species. Some freshwater marshes also form floating mats, known as flotant marshes, which may support wax myrtle (*Myrica cerifera*) and other shrubs.

Nonnative Invasive Plant Species

Nonnative invasive species compete with native species for nutrients, habitat, and other resources important for the survival and stability of the ecosystem. The presence of invasive species can cause erosion, disturb soil properties, and disrupt ecosystem processes. For example, invasive plant species may affect wildlife populations as they have the ability to outcompete the natural species, thereby reducing vegetation important to wildlife for forage and habitat. The following table lists the nonnative invasive plant species found within the heritage area.

Natural vegetation in the heritage area is threatened by commercial and residential development; logging; road construction; extraction industries, including oil exploration and production; the introduction and proliferation of nonnative invasive species; flood control measures leading to erosion and inundation of brackish water; and natural phenomenon (flooding, hurricanes, etc.)

Table 2. Nonnative Invasive Plant Species

Terrestrial Plants	Chinese tallow (<i>Sapium sebiferum</i>), cogon grass (<i>Imperata cylindrica</i>), purple loosestrife (<i>Lythrum salicaria</i>), catclaw vine (<i>Macfadyena unguis-cati</i>), and privet hedge (<i>Ligustrum spp.</i>)
Aquatic Plants	Alligator weed (<i>Alternanthera philoxeroides</i>), Brazilian waterweed (<i>Egeria densa</i>), common salvinia (<i>Salvinia minima</i>), giant salvinia (<i>Salvinia molesta</i>), Eurasian watermilfoil (<i>Myriophyllum spicatum</i>), parrot feather (<i>Myriophyllum aquaticum</i>), hydrilla (<i>Hydrilla verticillata</i>), water lettuce (<i>Pistia stratioides</i>), water hyacinth (<i>Eichhornia crassipes</i>), and wild taro (<i>Colocasia esculenta</i>)

WILDLIFE

The Atchafalaya Basin represents the largest remnant of the Mississippi River alluvial floodplain forest. It contains the largest population of the original flora and fauna of the Mississippi alluvial ecosystem. The abundant water and variable sedimentary terrain of the Basin have resulted in a diversity of highly productive terrestrial and aquatic habitats. An exceptionally rich assemblage of fish and wildlife occurs, including game mammals, furbearers, and over 100 species of fish, crawfish, crab, and shrimp.

Reptiles

The American alligator (*Alligator mississippiensis*) is designated as the Louisiana state reptile. It generally inhabits freshwater rivers, lakes, swamps, and marshes throughout the national heritage area. The American alligator was once listed as endangered; it was nearly extinct throughout most of its range from overhunting until fully recovered in 1987. Currently, the American alligator is listed as “threatened due to similarity of appearance,” as it resembles several species of threatened or endangered crocodiles and caimans. (USFWS 2008) The main threats to American alligators are habitat loss and encounters with humans. Monitoring, hunting prohibitions, harvest regulations

and legal trade continue to protect the American alligator.

Birds

According to the National Audubon Society, over 270 bird species can be found in the Basin, including many birds of prey, globally significant numbers of wood storks, and world-famous numbers of American woodcock. The Basin offers prime wintering habitat for birds of the Mississippi Flyway and provides important breeding habitat for several species on the Audubon Watch List (a list for species whose declining status merits close scrutiny). Rookeries can be found within the Basin that include the continent’s largest population of breeding heron, ibis, and egret (National Audubon 2010b and Cajun Coast 2010).

Nonnative Invasive Species

Nonnative invasive species compete with native species for nutrients, habitat, and other resources important for the survival and stability of the ecosystem. The presence of invasive species can cause erosion, disturb soil properties, and disrupt ecosystem processes. Invasive plant species also affect wildlife populations as they outcompete and reduce native vegetation important to wildlife populations for forage and habitat. The following table lists the various nonnative invasive species found in the heritage area.

Table 3. Nonnative Invasive Species

<i>Mammals</i>	Nutria (<i>Myocaster coypus</i>), Norway rat (<i>Rattus norvegicus</i>), and feral hogs (<i>Sus scrofa</i>)
<i>Birds</i>	Monk parakeet (<i>Myiopsitta monachus</i>), European starling (<i>Sturnus vulgaris</i>), and cattle egret (<i>Bubulcus ibis</i>)
<i>Fish</i>	Bighead carp (<i>Hypophthalmichthys nobilis</i>), black carp (<i>Mylopharyngodon piceus</i>), common carp (<i>Cyprinus carpio</i>), grass carp (<i>Ctenopharyngodon idella</i>), silver carp (<i>Hypophthalmichthys molitrix</i>), Rio Grande cichlid (<i>Cichlasoma cyanoguttatum</i>), and tilapia (<i>Tilapia</i>)
<i>Mollusks</i>	Asian clam (<i>Corbicula fluminea</i>), brown mussel (<i>Perna perna</i>), apple snails (<i>Pomacea spp.</i>), green mussel (<i>Perna viridis</i>), and zebra mussel (<i>Dreissena polymorpha</i>)
<i>Reptiles</i>	Brown anole (<i>Anolis sagrei</i>)
<i>Insects</i>	Africanized honeybee (<i>Apis mellifera scutellata</i>), Asian tiger mosquito (<i>Aedes albopictus</i>), formosan termite (<i>Coptotermes formosanus</i>), Mexican boll weevil (<i>Anthonomus grandis</i>), and red imported fire ant (<i>Solenopsis invicta</i>)
<i>Other</i>	Australian spotted jellyfish (<i>Phyllorhiza punctata</i>), Chinese mitten crab (<i>Eriocheir sinensis</i>), daphnia (<i>Daphnia</i>), and green crab (<i>Carcinus maenas</i>)

Threats to wildlife include loss of habitat due to commercial and residential development, road construction, encounters with automobiles, competition with nonnative invasive species, disturbances in mating and feeding due to harassment by people, and loss of or changes in habitat due to natural occurrences such as floods and hurricanes.

Threatened and Endangered Species

The 14 parishes of the Atchafalaya National Heritage Area is home to 24 federal- and state-listed threatened or endangered species, or species of concern, and three state-listed special status species (restricted or prohibited harvest).

Louisiana Black Bear

The largest remaining population of Louisiana black bear (*Ursus americanus*

luteolus) (federally and state listed as threatened) is found in the Atchafalaya Basin. The U.S. Fish and Wildlife Service has designated areas of critical habitat for the Louisiana black bear in the Tensas River and Upper and Lower Atchafalaya River Basins of the Lower Mississippi River Alluvial Valley in Louisiana. Of the 15 parishes included within the critical habitat designation, seven are within the national heritage area boundary. They are Avoyelles, Concordia, Iberia, Iberville, Pointe Coupee, St. Martin, and St. Mary (USFWS 2010a).

Threats to the Louisiana black bear's survival include habitat loss and fragmentation of forested habitat from logging and development, and other human-related mortality such as poaching and collisions with automobiles (USFWS 2010a).

*Other Mammals***Table 4. Threatened, Endangered, or Species of Concern: Other Mammals**

Species	Federal Status	State Status	Location(s)	Threats
Finback whale (<i>Balaenoptera physalus</i>)	Endangered	Endangered	Coastal parishes	Development, habitat destruction, and ship collisions. (Whale Center of New England, 2010)
Humpback whale (<i>Megaptera novaeangliae</i>)	Endangered	Endangered	Coastal parishes	Entanglements in fishing gear, collisions with ship traffic, and pollution/habitat destruction of their coastal habitat from human uses. (Whale Center of New England, 2010)
West Indian Manatee (<i>Trichechus manatus</i>)	Endangered	Endangered	Ascension, East Baton Rouge, Iberia, St. Mary, Terrebonne	Collisions with boats; loss of warm water habitat; loss of natural springs from increasing demands on water usage from development pressure; crushing by flood gates and canal locks; fishing lines and trash; natural events (unusually cold winters, red tide blooms); harassment by divers, fishermen, and boaters interrupting feeding and breeding (USFWS, 2010b)

Birds

The Atchafalaya Basin provides important habitat for eleven bird species that are currently on the WatchList maintained by the National Audubon Society and Partners in Flight. (WatchList species are common bird species that are in decline due to environmental challenges such as habitat loss, invasive species, and global warming, and therefore are in need of immediate conservation help.) The WatchList species identified in the Atchafalaya Basin are the wood thrush (*Hylocichla mustelina*), prothonotary warbler (*Protonotaria citrea*), Swainson's warbler (*Limnothlypis swainsonii*), Kentucky warbler (*Oporornis formosus*), painted bunting (*Passerina ciris*),

summer tanager (*Piranga rubra*), indigo bunting (*Passerina cyanea*), great crested flycatcher (*Myiarchus crinitus*), eastern tufted titmouse (*Baeolophus bicolor*), Carolina chickadee (*Poecile carolinensis*), and the Carolina wren (*Thryothorus ludovicianus*) (National Audubon Society 2010b).

The State of Louisiana identifies eight bird species as threatened or endangered, six of which are also listed as either threatened, endangered, or species of concern by the USFWS. The following table shows the state and federally listed bird species.

Table 5. Threatened, Endangered, or Species of Concern: Birds

Species	Federal Status	State Status	Location(s)	Threats
Bachman's warbler (<i>Vermivora bachmani</i>)	Endangered	Endangered (considered extinct or nearly extinct)	Unknown	Alteration or loss of breeding and wintering habitat due to logging, vegetation removal, urbanization, and other land clearing events; hurricanes; lack of known migratory habitat or vegetation associations hampers effective management and protection; a large historic breeding range and low populations makes finding mates difficult for successful reproduction. (USFWS 2010c)
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	Delisted	Endangered	Ascension, Assumption, Avoyelles, Concordia, East Baton Rouge, Iberia, Iberville, Pointe Coupee, St. Landry, St. Martin, St. Mary, Terrebonne, and West Baton Rouge Parishes	Habitat loss, pollution and chemicals such as mercury, persistent organic chemicals and heavy metals (NWF 2010)
Black-capped vireo (<i>Vireo atricapilla</i>)	Endangered	Endangered	Statewide	Threatened by brown-headed cowbird (<i>Molothrus ater</i>) nest parasitism, human disturbance, and loss of habitat to urbanization, fire exclusion, grazing, and brush control. (USFWS 2010d)
Brown pelican (<i>Pelecanus occidentalis</i>)	Delisted	Endangered	Terrebonne, St. Mary, and Iberia Parishes	People, pollution, and ground nests are disturbed by natural events (hurricanes, floods, etc.) (USFWS 2009)
Ivory-billed woodpecker (<i>Campephilus principalis</i>)	Endangered	Endangered (considered extinct or nearly extinct)	Unknown	Loss of habitat, encroachment/urbanization, and pesticides; hurricanes, drought, and beetle outbreaks contributing to habitat loss. (Defenders of Wildlife 2010a)
Least tern (<i>Sterna antillarum</i>)	Endangered	Endangered	Concordia Parish	Decline of natural habitat by the flooding of nesting sites caused by dam construction and channelization; brush and tree overgrowth subtract from remaining nesting areas; increase in recreational use of sandbars is a major threat to the

Species	Federal Status	State Status	Location(s)	Threats
				tern's reproductive success; people disrupt breeding by harvesting eggs, inadvertently destroying nests and killing eggs or chicks by stepping on them or by running them over with off-road vehicles; jet skis causing increased turbidity in shallow waters may also decrease tern foraging success (Bentz 1998).
Peregrine falcon (<i>Falco peregrines</i>)	Species of Concern	Threatened/ Endangered	Terrebonne Parish	People have posed the greatest threat by shooting, taking of eggs and young, poisoning, and habitat destruction. Predators such as raccoons and great-horned owls occasionally take eggs or chicks from the nests. (USFWS 2010e)
Piping plover (<i>Charadrius melodus</i>)	Threatened	Threatened	Known to occur in Louisiana (St. Mary and Terrebonne Parishes within the NHA)	Habitat destruction, human disturbance, and predation continue to be the primary threats to Piping Plovers. Nests and young can be destroyed by unrestricted off-road vehicles, beach-goers, and unleashed pets. Inland plover populations can be threatened by water management practices on river systems; the release of water from dammed areas may flood nests and young and the redistribution of water during drought periods may disrupt nesting and feeding. (National Audubon Society 2010c)

*Fish, Reptiles, Amphibians, Invertebrates***Table 6. Threatened, Endangered, or Species of Concern: Fish, Reptiles, Amphibians, and Invertebrates**

Species	Federal Status	State Status	Location(s)	Threats
Alabama heelsplitter (<i>Potamilus inflatus</i>)	Threatened	Threatened	Ascension and East Baton Rouge Parishes	Destruction of habitat (deforestation, riparian zone destruction) by siltation, dredging, channelization, impoundments, and pollution. Causes of decline in some species may be due to the loss of host fish needed to complete their metamorphosis. Zebra mussels have also had a serious impact on indigenous mussel species in some areas. (USACE 2005)
Alligator snapping turtle (<i>Macrolemys temminckii</i>)	Unlisted	Restricted Harvest	Avoyelles, Concordia, Iberia, and St. Landry Parishes	Loss of native habitat due to commercial and agricultural development of former bottomland hardwood forest and associated freshwater streams, as well as river and bankside modifications that alter or eliminate crucial nesting sites; over-collection of live adult turtles from the wild for human consumption and for export of live animals destined for the pet trade (USFWS 2005).
Diamondback terrapin (<i>Malaclemys terrapin</i>)	Unlisted	Restricted Harvest	Terrebonne Parish	Habitat destruction, road construction and drowning in crab traps. (Defenders of Wildlife 2010b)
Fat pocketbook (<i>Potamilus capax</i>)	Endangered	Unlisted	Concordia Parish	Impoundments and dredging for navigation, irrigation and flood control have altered or destroyed much of this mussel's habitat, silting up gravel and sand habitat and probably affecting the distribution of its fish hosts. Other threats include pollution from agricultural and industrial runoff. These chemicals and toxic metals become concentrated in the body tissues, eventually poisoning it to death. (USFWS 2010f)
Green sea turtle (<i>Chelonia mydas</i>)	Threatened	Threatened	Iberia, St. Mary, and Terrebonne Parishes	Destruction and alteration of nesting and foraging habitats; incidental capture in commercial and recreational fisheries; entanglement in marine debris; and vessel strikes (NMFS 2010)

Species	Federal Status	State Status	Location(s)	Threats
Gulf sturgeon (<i>Acipenser oxyrinchus desotoi</i>)	Threatened	Threatened	Ascension, East Baton Rouge, Iberia, Iberville, St. Mary, and Terrebonne Parishes	Habitat loss was exacerbated by the construction of water control structures, such as dams and "sills," mostly after 1950; habitat disturbances such as dredging, groundwater extraction, irrigation, and flow alterations; and poor water quality and contaminants, primarily from industrial sources. (NMFS 2010)
Hawksbill sea turtle (<i>Eretmochelys imbricata</i>)	Endangered	Endangered	Iberia, St. Mary, and Terrebonne Parishes	Destruction and alteration of nesting and foraging habitats; incidental capture in commercial and recreational fisheries; entanglement in marine debris; and vessel strikes (NMFS 2010)
Kemp's ridley sea turtle (<i>Lepidochelys kempii</i>)	Endangered	Endangered	Statewide (Iberia, St. Mary, and Terrebonne Parishes within the NHA)	Destruction and alteration of nesting and foraging habitats; incidental capture in commercial and recreational fisheries; entanglement in marine debris; and vessel strikes (NMFS 2010)
Leatherback sea turtle (<i>Dermochelys coriacea</i>)	Endangered	Endangered	Iberia, St. Mary, and Terrebonne Parishes	Destruction and alteration of nesting and foraging habitats; incidental capture in commercial and recreational fisheries; entanglement in marine debris; and vessel strikes (NMFS 2010)
Loggerhead sea turtle (<i>Caretta caretta</i>)	Threatened	Threatened	Iberia, St. Mary, and Terrebonne Parishes	Destruction and alteration of nesting and foraging habitats; incidental capture in commercial and recreational fisheries; entanglement in marine debris; and vessel strikes (NMFS 2010)
Paddlefish (<i>Polyodon spathula</i>)	Unlisted	Prohibited	Avoyelles, Concordia, Iberia, St. Martin, and St. Mary Parishes	Loss of spawning and rearing habitat from dam construction, altered water flow and eliminated backwaters; pollution from industrial contaminants, illegal fishing, and overexploitation by commercial and recreational fishermen. (USFWS 2001)
Pallid sturgeon (<i>Scaphirhynchus albus</i>)	Endangered	Endangered	Ascension, Avoyelles, Concordia, East Baton Rouge, Iberia, Iberville, Pointe Coupee, St. Landry, St. Martin, St. Mary, and West Baton Rouge Parishes	Habitat loss through river channelization and dams (USFWS 2006)

Species	Federal Status	State Status	Location(s)	Threats
Smalltooth sawfish (<i>Pristis pectinata</i>)	Endangered	Endangered	Statewide	Extreme vulnerability to overexploitation because of their propensity for entanglement in nets, their restricted habitat, and low rate of population growth; caught and killed as bycatch in various fisheries, especially in gill nets; and the loss of juvenile habitat (such as mangrove forests) due to development. (NMFS 2010)

Plants

There are no federal or state listed threatened or endangered plant species within the national heritage area.

NATIONAL NATURAL LANDMARKS

Established in 1962 and administered by the National Park Service, the National Natural

Landmarks Program recognizes and encourages the conservation of outstanding examples of our country's natural history. It is the only natural areas program of national scope that identifies and recognizes the best examples of biological and geological features in both public and private ownership. Currently, the Atchafalaya National Heritage Area does not contain any identified national natural landmarks.

CULTURAL RESOURCES

INTRODUCTION

Most cultural resources in the Atchafalaya National Heritage Area's built environment are threatened by lack of funding, which can lead to deferred maintenance and loss of integrity, as well as by a lack of expertise in proper treatment of such resources, which can lead to insensitive alterations and loss of integrity.

The Atchafalaya Basin corridor is currently threatened where it exits into the Gulf of Mexico. The British Petroleum disaster of 2010 has adversely affected each of the parishes that are adjacent to the Gulf. These include Terrebonne, St. Mary, and Iberia parishes. The full extent of potential damage is still being surveyed, and it could take months or years for these areas to fully recover ecologically and economically. Another potential issue involves the current hurricane season. There is the threat that underwater, dissolved distillates could affect parishes further inland if a significant storm surge were to occur.

Much of the ecological damage caused by projects related to stormwater management, oil drilling, and levee district work occurred in the mid-20th century. However, current regulations and laws provide for much greater oversight and environmental review before significant activities occur in the basin.

Threats to bayous, such as Bayou Teche, include continued degradation of water channels through abusive practices by speedboats on the water and residents along the banks. Historic sites and landscapes of cultural significance along the bayous are threatened by destructive practices associated with development and by private citizens exercising their private property rights.

Principal sources for information regarding site descriptions in this section include

- Louisiana Department of Culture, Recreation and Tourism, Office of Cultural Development, Division of Historic Preservation, National Register of Historic Places Database, Accessed May 2010 at www.crt.state.la.us/hp/nhl/default.htm;
- Suzanne Turner Associates, Cultural Landscape Assessment: Atchafalaya National Heritage Area, Selected Level O Cultural Landscape Assessments, prepared under contract for the State of Louisiana, Department of Culture, Recreation and Tourism, Office of Tourism, Baton Rouge, Louisiana; and
- Various websites associated with the listed sites.

ARCHEOLOGICAL RESOURCES

General Description

The State of Louisiana Office of Cultural Development divides the state into four regions. The Atchafalaya National Heritage Area falls within two of these regions—the Southwest and the Southeast regions. The Southwest Regional Archeology Program university partner is the Department of Sociology and Anthropology at the University of Louisiana at Lafayette. The Southeast Regional Archeology Program is hosted by Department of Geography and Anthropology at Louisiana State University in Baton Rouge. The Southwest and Southeast Regional Archeology programs promote the preservation and stewardship of cultural resources by providing professional advice to landowners and state land managers, offering presentations and other outreach activities to the public, and

conducting research within the region to identify, record, and interpret significant archeological sites.

Within the Atchafalaya National Heritage Area, there are many important prehistoric and historic archeological resources that directly relate to the interpretive themes developed for the heritage area. Limited areas of the heritage area have been the subject of archeological surveys. Recorded prehistoric sites range from small earth and shell midden deposits to large ceremonial and burial mound sites. No evidence exists of Paleo-Indian (ca. 10,000 BC – 6,000 BC) activities in the present-day Atchafalaya Basin, but any such evidence may have been buried by river deposition or carried away by river shifts and floods. In western areas just beyond the Atchafalaya Basin, Paleo-Indian artifacts have been found. Archaic (ca. 6,000 BC – 500 BC) sites have been found in the older, more elevated landforms of the Basin and areas surrounding it, but not within the swamp itself. Evidence indicates possible Tchefunte occupation at the Bayou Sorrel Mounds and at Schwing Place. Both of these areas represent stable, elevated remnant land forms created by early Mississippi River alluvial deposition. Archeological research indicates that many mound sites and villages on natural levees and along bayous within the Basin date from AD 700 – 1700.

Archeological Resources Designated as National Historic Landmarks

Marksville Prehistoric Indian Site (Interpretive Themes I and II): One archeological resource in the Atchafalaya National Heritage Area—in Avoyelles Parish—is a designated national historic landmark. This 38-acre archeological site, which dates to ca. 100 BC – AD 400, is associated with the Middle Woodland Hopewell period complex that is characterized by mortuary ceremonialism, construction of earthworks and mounds, complex trade networks, decorative pottery, and import and export of certain raw materials. Marksville is the type site for the

Marksville Culture, a southern variant of the Ohio Hopewell. Its discovery in the 1930s led to the recognition that the Hopewellian culture was more widespread than previously thought. It is believed that the area also included a Marksville settlement, although the population's size has not been determined.

The well preserved site includes a number of the culture's characteristic burial mounds. Five ceremonial burial mounds of various sizes and shapes are located within a semi-circular earthen embankment that is 3,300 feet in length and ranges from 3 to 7 feet in height. Other mounds are located outside of the embankment. This embankment is on top of a Pleistocene terrace called the Avoyelles Prairie, which was left by the previous ice age, and the two ends of the embankment terminate at the edge of the terrace bluff.

The site is characterized by three different types of mounds—an unusually wide variety. The large mounds were constructed in several stages over considerable lengths of time. The first stage usually consisted of a flat, low platform approximately 3 feet high and 40 feet in diameter. Burial ceremonies may have been held months or years apart, and those who died between ceremonies were gathered up and buried together. Typically, burial within the mounds was for those of “high status”; individuals were buried with objects made of copper, stone, bone, shell, pottery, and rare minerals. Many of the artifacts uncovered during early archeological examinations of the mounds are now housed in the Smithsonian Institution in Washington, DC.

The State of Louisiana owns and maintains the Marksville Prehistoric Indian Site and ensures the preservation of its significant features. No serious threats exist, as most of the site consists of remnant landforms not subject to erosion. However, the site was closed on July 28, 2010, due to state budget cuts. A skeleton staff at the visitor center continues to patrol the site. Desecration of

mounds is always an issue when full-time security is not available.

Archeological Resources Listed in the National Register of Historic Places

Fort Butler (Interpretive Theme II):

Located at the juncture of Bayou Lafourche and the Mississippi River in Donaldsonville (Ascension Parish) and constructed by Union troops during the winter of 1862-63, Fort Butler is the only known Civil War fortification in the lower Mississippi Valley region that has well preserved foundations, features, and intact middens buried below ground surface. The fort, scene of several significant Civil War battles in June 1863, is a star-shaped earthen fortification which covered an area of approximately 48,000 square feet. The fort was surrounded by a brick-lined moat, and within its walls there were several wooden structures and a brick powder magazine. The fort was leveled and covered in the early 20th century when Bayou Lafourche was dammed and the current Mississippi River levees were built.

DePrato Mounds (Interpretive Themes I and II): The DePrato Mounds archeological site is located in Ferriday (Concordia Parish) and consists of five mounds and an impressive continuum of occupation from the Troyville Culture (AD 400-700) through the Middle Coles Creek Culture (AD 700-800). It is one of the best preserved Troyville Culture and early to middle Coles Creek Culture sites in northeast Louisiana, and one of the few sites in the state that contains buried culture components relating to the transition between the two cultures. Due to flooding, 2-1/2 feet of alluvium covers the site. Consequently, the five mounds appear smaller than they originally were, and the archeological resources remain virtually untouched by modern activities such as road construction and farming. These mounds represent influences of the area's landforms on early peoples and their culture.

Frogmore Archeological Site (Interpretive Themes I and II): Located near the

confluence of Otto Bayou and Brushy Bayou in Concordia Parish, the Frogmore Archeological Site is a single platform mound and village midden site that dates to the Ballina-Balmoral phases (ca. AD 900-1050) of the Coles Creek period (AD 700-1200). It is set in a wetlands environment on a historic cotton plantation of the same name that is also listed in the National Register of Historic Places. Frogmore is one of the best preserved platform Coles Creek period mounds in north Louisiana. Except for two graves and some 1994 archeological investigations, the mound appears to be undisturbed. Archeological investigations have identified the undisturbed remains of a sub-mound, walled, circular structure that compares favorably with other ceremonial circular Coles Creek period structures. Macro botanical remains have been found to be common in the midden fill, indicating that dietary, economic, and seasonal data on a Coles Creek village remains undisturbed.

LSU Campus Mounds (Interpretive Themes I and II): Built more than 5,000 years ago by Native Americans, the two well preserved conically shaped mounds on the Louisiana State University campus in Baton Rouge (East Baton Rouge Parish) constitute an important prehistoric site since the radiometric dates from Mound A indicate that the site dates to ca. 5000 years BP which is the Middle Archaic Period in Louisiana. Based on its proximity to Mound A and its similar stratigraphy, archeologists assume that Mound B was constructed during the same period. To date, Middle Archaic mounds have been identified only in Louisiana and Florida. These mound complexes are older than any known in North America, Meso America, and South America.

These sites have radically changed archeologists' understanding of North American prehistory, since planned large-scale earthworks were previously considered to be beyond the organizational skills of the seasonally mobile hunter-gatherers of the Archaic Period. The LSU mounds constitute

one of eight Middle Archaic mound complexes that have been identified in Louisiana, only six of which remain extant. To date, archaeologists do not know the exact purpose of the LSU Campus Mounds, but the structures do not appear to have been burial places, temples, or houses. Researchers believe the mounds may have been symbols of group identity where peoples living in scattered bands congregated from time to time for religious and ceremonial purposes, and to feast, dance, exchange information, and select mates.

Highland Stockade (Interpretive Theme II): Constructed in 1862, this Civil War-era Union fortification and campsite is located in southern Baton Rouge (East Baton Rouge Parish) on the south side of Highland Road. It is the only Civil War-era Union fortification in the Baton Rouge area with documented *in situ* archeological deposits and extant earthworks. It is an excellent example of the small camps and checkpoints that the Union constructed to guard major roads leading into the city. The site covers approximately 6.65 acres and consists of eight separate earthworks and an adjacent campsite.

New Iberia Shipwreck (Interpretive Themes I and III): Discovered during dredging for a waterfront pump-out facility in 2005, the New Iberia Shipwreck consists of the remains of a 19th century, flat-bottomed and model-hulled, western river steamboat. Such vessels were of critical importance to the economic and social history of the Atchafalaya region, providing a major transportation link for moving people and a variety of manufactured and agricultural products throughout the area.

The wreck is located along the western bank of Bayou Teche near the center of New Iberia (Iberia Parish) and lies roughly parallel to the bank. Steamboat travel and transportation began on Bayou Teche ca. 1819, and continued unabated until the advent and proliferation of railroad lines in

the late 19th century. The depth of these boats was between three and four feet, allowing them to travel far up the bayous and rivers of the Atchafalaya and into its tributaries. In 1840, New Iberia had three steamboat landings: Serrett, Iberia, and Fisher streets. Each of these locations provided wharves and warehouse space for transshipment into and out of the area. The principal goods transported were sugar and molasses, but other products included cotton, lumber, leather, hemp, eggs, chickens, fruits, vegetables, rum, and moss.

The vessel's remains measure approximately 95 feet in length and 20 feet in width and consist of virtually the entire lower hull, including numerous structural elements. Nearly 75% of the vessel lies in the bayou and is covered by up to 2 feet of fine clay silt and 2 feet of water. The wreck is a valuable source of information regarding 19th century boat-building technology.

Threats to the shipwreck include flooding that could obliterate the site and remove the remnant artifacts that are underwater and buried in the silt, and potential damage from passing boats that could snag portions of the site and distort the integrity of the artifact field. However, guide piles have been installed to prevent the latter from occurring.

Immediate threats to the shipwreck include runoff from the surrounding area which is eroding and silting up portions of the site. There is no designated "no-wake" zone in the bayou along the site; thus, waves from passing boats are damaging portions of the exposed archeology. Additionally, trees adjoining the shipwreck site are leaning over the bayou. If they were to fall on the site, they could destroy the artifacts and damage the shipwreck's integrity.

Lee Site (Interpretive Themes I and II): Located near Highland Road in Baton Rouge (East Baton Rouge Parish), the Lee Site consists of a moderately sized midden which apparently formed on the lower slope

of a Prairie Terrace bluff adjacent to a small gully that drains the terrace. Artifacts recovered to date consist primarily of prehistoric ceramics, principally those related to late Tchefuncte (ca. 200 BC – AD 1) and early Marksville (ca. AD 1 – 200) cultures. Other minor ceramic assemblages include those of the Baytown (AD 400 – 700) and Coles Creek (AD 700 – 1200) periods.

Sarah Peralta Archaeological Site (Interpretive Themes I and II): Located near Highland Road in Baton Rouge (East Baton Rouge Parish), this site consists of an organically stained earth midden on colluvial deposits at the base of the Pleistocene Prairie terrace along the western edge of a small swamp-and marsh-filled gully that drains the terrace and directs water flow into the nearby Mississippi River floodplain. That portion of the site not disturbed by borrow pit excavation and trail construction (over 75% of the site area) contains an intact, well-preserved earth midden that, based on limited testing, has provided important data primarily related to early (ca. 500 – 300 BC) and late (ca. 150 to 1 BC) Tchula period occupations of the Tchefuncte Culture. The site, which appears to be associated with a Tchefuncte inland hamlet or village, has yielded Tchefuncte ceramics, many of which can be tied to the Beau Mire phase of the late Tchula period, plus a moderate quantity of vertebrate faunal remains and limited pollen grains.

River Road: Located in Louisiana, the River Road is part of the final route that begins in Minnesota as part of the Great River Road, under the auspices of the Mississippi River Parkway Commission, founded in 1938. It is a collection of roads that originated as local roads for the use of farmers, industry, and residents. The roads served as the main method of transportation besides the Mississippi River.

Significant Archeological Resources Not Listed in the National Register of Historic Places

Indian Mounds of Point Coupee (Interpretive Themes I and II): The ten extant mounds in Point Coupee Parish are associated with time periods relating to various Native American cultures in Louisiana. These cultures include: Poverty Point (ca. 2000 – 600 BC); Marksville (ca. 200 BC – AD 100); Coles Creek (ca. AD 400 – 1100); and Plaquemine (ca. AD 1100).

The largest mound is the Livonia Mound, a 31-foot tall, conical burial mound with a basal diameter of 165 feet that is associated with the Coles Creek Culture. Situated on the east bank of Bayou Grosse Tete, this mound commands a strategic site south of the confluence of Bayous Fordoche and Grosse Tete. Researchers contend that the Livonia Mound could have served as a burial mound for several aboriginal settlements that maintained contact with each other along Bayou Grosse Tete.

The Mound Bayou Mound, located west of Mound Bayou in the Morganza Floodway, is on the periphery of the Sherburne Oil and Gas Field. It is a circular platform, or “temple” mound that is associated with the Coles Creek Culture and measures approximately 190 feet in diameter and 4.4 feet in height. Its western flank appears to have been silted over due to drainage from the nearby Atchafalaya River levee. The Mound Bayou Mound was reportedly 2 feet higher before lumbering projects began in the area.

The Monk’s Mound, a 15.1-foot-high conical or burial mound, is located near Bayou White Vine and the Raccourci-Old River, and measures about 130 feet in diameter. Sherds and chips located at the site suggest affiliation with the Marksville and Coles Creek cultures.

The Thom Site, located midway between the Morganza and Fordoche communities, is

located on the east bank of Bayou Fordoche. The site contains 6 or possibly 7 truncated pyramidal mounds. Five of these “temple” mounds are situated around a plaza that is 370 ft. x 180 ft. Four of these mounds appear to have astronomical associations because they are aligned to the four cardinal points. Six borrow pits on the site have impacted the integrity of the mounds. Archeologists believe that the site is affiliated with the Coles Creek Culture, while sherds that have been found indicate association with the late Coles Creek and Plaquemine cultures.

The Lettsworth Bayou Site, located southwest of the Lettsworth Bayou and several miles from the junction of the Red, Atchafalaya, and Old rivers, is marked by a 9.8-foot truncated pyramidal or “temple” mound. Its basal dimensions are approximately 130 ft. x 120 ft. Surveys have yielded ceramic artifacts associated with the Coles Creek and Plaquemine cultures. Skeletal remains were found in the mound when a member of the family that owns the property dug on the site during the 1950s.

Various other midden sites and possible village sites have been identified throughout Point Coupee Parish, typically on the natural levees of the various bayous and rivers that lace the parish.

Continued siltation of the sites is a continuing problem that has obscured various parts of some mounds while completely covering others. A sudden avulsion (change in river course) by the Mississippi River would likely place all of the mound structures underwater, making them inaccessible to researchers and scientists. Borrow pits in the vicinity of the mounds require the installation of an electronic alarm system to prevent accidental disturbance. Theft by both grave robbers and the curious continues to pose threats to all Native American mounds.

State Historic Sites

A portion of the aforementioned Marksville Prehistoric Indian Site is preserved as the Marksville State Historic Site and is one of the key sites on the state’s Mounds Heritage Trail driving tour.

ETHNOGRAPHIC RESOURCES

General Description

Atchafalaya National Heritage Area is a region of considerable geomorphic and cultural complexity. The decentralized geographic pattern that is centered on the nation’s largest swampland and the fact that the Atchafalaya Basin has been the focus of a complicated, multi-ethnic settlement history both contribute to the complexity. Except for the city of New Orleans, the Atchafalaya Basin area is the most racially and ethnically intricate region of Louisiana. A long legacy of multiculturalism presents opportunities to examine how so many distinct cultures have survived in relative harmony.

Ethnic groups living within the Atchafalaya National Heritage Area include Chitimacha, Houma, and Tunica-Biloxi Indian tribes; Black Creoles; African Americans; Creoles; Cajuns; Colonial Spanish, Latinos, and Islenos; Anglo Americans; Scots-Irish; Italians; Yugoslavians; Croatians; Filipinos; Chinese; and Vietnamese. Linguistic complexity here is the greatest in Louisiana, with all of the major variations of French spoken. Some of these groups continue to participate in traditional subsistence activities such as oystering and shrimping.

Following the Civil War, some of the swamp exploiters spoke English, but most spoke French. The French-speaking Acadians were among the earliest Euro-American settlers of the area, and, consequently, had been among the first dislocated by the expansion of the plantation system prior to the Civil War. These Canadian exiles, whose lifestyles came to be molded by adaptation to south Louisiana environments, became a

distinctive culture group—the Cajuns. Although other ethnic groups are now located in the Basin and all share a rather homogenous set of adaptive strategies pertaining to swamp exploitation, the Cajuns have had the greatest sustained cultural influence.

Cajun, zydeco, and swamp pop music are all heard throughout the area, most notably in Eunice, home to KBON 101.1 FM and the Liberty Center for the Performing Arts. In addition to the music, the area's festivals have become big business and international in scope, bringing people together to celebrate the cultural traditions throughout Atchafalaya. The Courir de Mardi Gras (Mardi Gras Run) is Cajun Country's traditional rural celebration dating back to the earliest days of settlement. The day's festivities end with a fais-do-do (dance) and large amounts of gumbo for Mardi Gras revelers.

Native American Culture

Indian tribes historically associated with lands within Atchafalaya National Heritage Area include the Chitimacha, Attakapas, Opelousa, Houma, Coushatta, Alabama, Tunica-Biloxi, Avoyel, and Taensas. Today three principal Indian tribes—Chitimacha, Houma, and Tunica-Biloxi—maintain cultural affiliation with heritage area lands.

Chitimacha

Around AD 500, the Chitimacha began to establish settlements on lands around the bayous of what is now Southern Louisiana. During the early 1700s, marauding bands of heavily armed Frenchmen, often allied with Acolapissa Indians and other tribes, began slaving raids that touched off conflicts which escalated into a devastating twelve-year war for the Chitimacha. Although many were killed trying to defend their lands and families, and many others were captured and sold into slavery, the Chitimacha legacy survived.

In 1727, a Chitimacha settlement was discovered west of the Mississippi River, although many had thought that the entire tribe was either destroyed or enslaved as a result of the long war. Several years later, more Chitimacha were found living near what is now known as Charenton, Louisiana, the site of today's Chitimacha Reservation.

During the following hundred years, further encroachment from French, Spanish, and United States settlers hampered renewed growth of the remaining Chitimacha. In the mid-1800s, the Chitimacha were forced to sue the United States for confirmation of title to the tribal lands. By the early 1900s, the tribe was down to 6 distinct families, numbering less than 100 people. In 1917, the Chitimacha Tribe was the first to become a federally recognized tribe in Louisiana. The Chitimacha were accorded reservation status in 1925 and allocated 283 acres of land in the Charenton community, southwest of the Atchafalaya Basin.

The Chitimacha are the only tribe in Louisiana that still retains some of its original tribal lands. There is a large tribal contingency in New Orleans, but many Chitimacha tribal members still live on the ancestral lands of the Chitimacha Reservation in Charenton, Louisiana. Today about 350 tribal members live on the Chitimacha Reservation and total tribal membership is approximately 950.

The website of the Chitimacha states the following: "Tribal tradition says that four sacred trees marked the boundaries of the Chitimacha world: One near Marigouin. One to the Southeast of New Orleans. One near the mouth of the Mississippi. And a fourth, a great cypress, at present-day Cypermort Point State Park." Throughout successive centuries, the Chitimacha Nation grew to encompass most of the lower Mississippi River Delta and the Atchafalaya Basin. More than 15 villages would eventually develop throughout this region, clustered on present-day Bayou Teche, Grand Lake,

Grand River, Bayou Plaquemine, and Butte La Rose (Chitimacha 2005).

As great strides have been made in rebuilding infrastructure and social services on the reservation, tribal leadership has also focused on the reacquisition of portions of original Chitimacha land lost through the years. For example, the Chitimacha Tribal School is a state-of-the-art school that teaches traditional language along with standard curriculum for students from pre-school through eighth grade. With increased revenues from gaming and other commercial enterprises, including the Cypress Bayou Casino, the Chitimacha Tribe recently began a process of acquiring additional land contiguous to the reservation. Thus far, nearly 1,000 additional acres have been reacquired.

The Chitimacha continue to use portions of Atchafalaya National Heritage Area for traditional activities and maintain their traditional tribal customs and rituals—a heritage rich in stories, recipes, music and dance, and arts and crafts. The Chitimacha Indian Museum in Charenton features cultural displays and a craft shop offers quality crafts; admission is free.

Threats to the programs of the Chitimacha include the need for continued funding to education of tribal members and maintain the tribe's unique and distinct culture. The land is owned by the tribe, the casino and commercial businesses associated with it are profitable, and federal recognition of the tribe protects members from dislocation or encroachment.

Houma

The Houma tribe, or more properly The United Houma Nation, is native to the Louisiana parishes of East and West Feliciana and Pointe Coupee, about 100 miles north of the town of Houma, which was named for them. The Houma tribe has not yet been federally recognized, although it has been waiting for a response from the

Bureau of Indian Affairs, an agency of the U.S. Department of the Interior, for more than 20 years.

The Houma Indian Nation was originally a part of the Chakchiuma, a people living in present-day central Mississippi. In 1682, however, the Houma separated to become an independent people and situated themselves to the south of the Chakchiuma on the present-day Mississippi / Louisiana border. In the early 18th century the Houma were besieged by neighboring tribes and as a result, uprooted themselves and headed towards New Orleans. By the 1720s, white settlement was encroaching upon Houma territory, and the tribe was again forced to move, this time going just upstream to Ascension Parish. Over the next fifty years, the Houma drifted southwest of New Orleans, where their present-day descendants can be found.

When the Houma separated from the Chakchiuma, they numbered somewhere in the vicinity of 3,000 people. In 1686, the Houma experienced their first European contact. At that time, they were encountered by French explorer Henri de Tonti. In the ensuing years, the Houma learned to associate white faces with death and destruction, either through the British slave traders or the diseases that seemed to inevitably follow wherever whites went. In 1721, a smallpox epidemic reduced the tribe's numbers and by 1768, only 250 Houma were left.

However, that number is not a true reflection of the Houma population, because at that time, large numbers of eastern Indian tribes were moving into the Mississippi area to escape British rule. The Houma absorbed some of these refugees. By the time of the Louisiana Purchase in 1803, there were only about 60 Houma remaining. During the 1800s the Houma language disappeared and was replaced by Cajun French.

Intermarriage with both Whites and Blacks in the 1800s made it difficult to keep reliable

track of tribal numbers. However, the 1910 census stated that the Houma population was 120. By 1930, however, that figure had increased markedly to 639. Today there are some 11,000 members of the Houma Indian Nation living on reservation lands in Louisiana, making them the largest tribe in the state. They have been unable, however, to achieve federal recognition despite the filing of a petition for federal status.

The name Houma means “red”; apparently, it is a shortened form of the name for their original parent tribe, the Chakchiuma, which means “red crawfish.” The Houma have also been known by the names Ouma and Huma and by the derogatory term “sabine.” They spoke the Muskogean language.

The villages of the Houma were built on hillsides away from the Mississippi River to prevent flooding. The houses were wattle-and-daub construction mound type dwellings. They were arranged in a circular pattern of two rows with a large public area in the middle. The Houma were an agricultural people who planted maize, beans, squash, and melons. They were also hunters and fishermen. The Houma were once practitioners of the flattened heads custom, but this practice died out in the 1700s. They continued to make extensive use, however, of tattooing of the face and body. Men wore breechcloths to their knees, while the women wore short skirts. Both men and women wore their hair in loose fashion.

While the majority of the Houma are integrated into the mainstream economy, supplementing their incomes with hunting and gathering activities, a small percentage continue to maintain a hunter-gatherer economic lifestyle. Small gardens, as well as the bayous and swamps around their homes, serve as the primary food source for this small fraction of the overall Houma population.

Houma children did not attend public schools until passage of the 1964 Civil Rights

Act. Before this time Houma children only attended missionary schools (Kniffen and Stokes 1987).

Today, the Houma host a dinner for paddlers who participate in a 4-day Paddle Bayou Lafourche event. The event is held to raise awareness of ecological issues in the region. The dinner includes “great food, fellowship, drumming, and dancing...” (United Houma Nation Website 2011).

Tunica-Biloxi

The Tunica and Biloxi Indians have lived on their reservation near Marksville, Louisiana (Avoyelles Parish,) for over two centuries, during which the tribes intermarried, despite speaking completely different languages. The first half of the motto on the Tunica-Biloxi flag, “Cherishing Our Past,” refers to the Tunica's pre-Marksville history—an odyssey without parallel among Lower Mississippi Valley tribes. As recounted by Dr. Jeffrey P. Brain in “The Tunica Trail,” the Tunica inhabited Quizquiz, a great center of power in northwestern Mississippi when the Spanish explorer De Soto encountered them in 1541. The Tunica exercised influence over a wide territory, encompassing present-day Arkansas, Oklahoma, Missouri, Tennessee, Louisiana, Alabama, and even Florida. They were traders and entrepreneurs of the first order. Under severe pressure from European diseases, famine, and warfare, the Tunica steadily moved southward, following the Mississippi River.

The Biloxi were a tribe on the Mississippi Gulf Coast at present-day Biloxi, Mississippi. They were the first people the French colonizers Jean-Baptiste Le Moyne de Bienville and his brother Pierre Le Moyne d'Iberville encountered in 1669. The Biloxi, like the Tunica, formed a strong alliance with the French, which for a while brought them important economic and political benefits. Later, after the French were expelled, they allied themselves with the Spanish, rulers of Florida.

Through their commercial skills and adaptability, the Tunica accumulated unprecedented quantities of European artifacts, primarily from the French with whom they established close political and military ties, but also from the Spanish. In these economic skills lie the roots of the second half of the Tunica flag motto, “Building For Our Future,” which refers to the intense struggle for federal recognition (achieved in 1981), the ensuing effort to recover the so-called “Tunica Treasure” pilfered from the graves of their ancestors, and finally the building of the Tunica-Biloxi Museum that houses the Tunica Treasure and serves as a shrine to tribal ancestors (Kniffen and Stokes 1987).

The Tunica-Biloxi Cultural and Educational Resources Center includes a museum, gift shop, library, conservation and restoration laboratory, auditorium, conference and meeting rooms, classrooms, distance learning facility, and additional office space for tribal government operations. The facility is located on the south side of Marksville, Louisiana, and is intended to serve as a Tribal information and distribution hub and to advance and develop a Tribal educational, cultural, and artistic presence in and around the local and surrounding area. The Tunica-Biloxi Department of Cultural and Historic Preservation manages the growing tribal work and responsibilities in this area, beyond just the work related to the museum (Tunica-Biloxi Web Page 2011; www.tunicabiloxi.org).

The museum is not yet open to the public. They are awaiting display cases for artifacts currently in the lab. The gift shop is also being developed and is expected to open in the coming weeks. Therefore, no official public hours are available at this time.

In addition to the Cultural and Educational Resources Center, the tribe owns the Paragon Casino Resort, which is located on the Tunica-Biloxi Reservation in Marksville. The casino was the first land-based casino in

Louisiana and the first full-scale Indian-owned casino in the south (Tunica-Biloxi Web Page 2011; www.tunicabiloxi.org).

Each fall, the Louisiana Indian Heritage Association sponsors the spring and fall powwows. These events are open to the public with a minimal entrance fee for adults, and include intertribal dancing, storytelling, craft demonstrations, and children’s activities.

Folklife and Traditions

Various folklife studies have been conducted in Atchafalaya National Heritage Area. The most comprehensive program documenting Louisiana’s folk and ethnic traditions was the Louisiana Folklife Program, which was discontinued in 2009. Central to the state’s goals for cultural conservation, official folklorists were assigned to cultural regions throughout the state. One of the purposes of the state program is to provide in-depth documentation of folk traditions and to facilitate the use of this information by the public and in cultural tourism activities.

The Louisiana Regional Folklife Program, which was a cooperative endeavor between Louisiana universities and the Louisiana Folklife Program within the Louisiana Division of the Arts, Department of Culture, Recreation and Tourism, defined folklife as “living traditions currently practiced and passed along by word of mouth, imitation, and observation over time and space within groups, such as family, ethnic, social class, regional, and others.”

The Louisiana Regional Folklife Program further defined folklife/folklore as meeting the following criteria:

- Living traditions passed down over time and through space. Since most folklore is passed down through generations, it is closely connected to community history.
- Shared by a group of people who have something in common: ethnicity,

family, region, occupation, religion, nationality, age, gender, social class, social clubs, school, etc.

- Learned informally by word of mouth, observation, and/or imitation.
- Made up of conservative elements (motifs) that have longevity or remain the same through many transmissions, but are dynamic and adaptable in that folklore also changes in transmission (variants).
- Usually anonymous in origin.

The Louisiana Division of the Arts acknowledges a variety of traditional activities as art forms. In addition to Performing Traditions (e.g., music, dance, storytelling) and Traditional Arts and Crafts (e.g., domestic, decorative, ritual, and occupational crafts), folklife expressions may concern religious traditions (e.g., dinner on the grounds, saints' day processions, St. Joseph Day altars), festive traditions (e.g., building a Mardi Gras float), occupational traditions (e.g., boatbuilding, making hunting horns), and foodways traditions (e.g., Czech pastries, filé making).

Many religious traditions are tied to the cultural practices of West Africa. Ring shouts, possessions ("shouting" amongst the Baptist and other groups), dance, drumming and speaking-in-tongues (ecstatic speech) are features of African religions. One may view voodoo and its variants as part of this aspect of a massive cultural Diaspora that has survived despite efforts to suppress it. African cultural retention is also evident in the best known food in Louisiana's culinary galaxy: gumbo, rooted in *nkombo*, the West African word for "okra." The River Road African American Museum in Donaldsonville, Ascension Parish, provides excellent interpretation of the cultural contributions of Africans arriving by ship to Louisiana. (Louisiana Folklife Program, Siler 2001)

The Courir du Mardi Gras is found on the prairies of southwest Louisiana where people of French heritage have long had farms and cattle and where a tradition of horsemanship has been well established. This form of Mardi Gras (historically on Mardi Gras itself but now also on preceding days) is community-based and involves a costumed group of people (traditionally men but now women "run" their own courirs) on horseback or in wagons who make a circuit of farmsteads and other points to request contributions for a communal meal to be enjoyed at the end of the day. They may seek money or contributions of food with the donation of a live chicken, which the Mardi Gras must run after to catch, being a prized trophy. The participants are expected to dance for or with donors (and an accompanying band plays a traditional Mardi Gras song). The participants may come as humble supplicants or may swagger on their horses and play pranks as an unmasked capitaine and his assistants attempt to control the group.

The history of this form of Mardi Gras probably stems from medieval European celebrations which involved license, parody, and role reversal. Some types of costume still in use—such as the capuchin, a pointed hat which resembles medieval courtier's hat—may have come down from ancient attempts of the celebrants to poke fun at their social betters.

Mardi Gras, of course, falls toward the end of winter, a time when historically stored food might be running short. The gathering of food for a communal meal served the practical purpose of providing a fine feast for the whole community at this time by the ritual pooling of resources. Whereas the structure of New Orleans Carnival suggests the social diversity and division of the metropolis, the communal gatherings in rural French areas suggest the social solidarity and unity of smaller, country communities. Taking part in the run for the first time also serves as a rite of passage for young men. The Courir du Mardi Gras can

be observed in the St. Landry Parish communities of Eunice and Grand Prairie and the Lafayette Parish community of Ossun. (Louisiana Folklife Program, de Caro 1999)

Traiteurs, or “treaters” in English, are the traditional folk medicine healers of south Louisiana, who gained popularity in the early days because of the scarcity of doctors. Today, Cajuns, Creoles, and Native Americans all participate in this Catholic healing ritual, and there are many types of *traiteurs*; some use herbal remedies (*remèdes*), some use gestures such as the sign of the Cross or the laying on of hands, and some use material objects such as a *cordon*—a knotted string which is tied around the affected area—in their treatments, but all of them use prayer. Faith in God’s power to heal is the heart of this practice. *Traiteurs* can treat a wide variety of ailments, including but by no means limited to warts, sunstroke, bleeding, arthritis, and asthma, but their services are not for sale. It is usual for patients to reciprocate by offering a gift of appreciation, but not even the empty-handed will ever be refused treatment. The gift of treating is usually passed from an older traiteur to a younger person, often in the same family. Sometimes this gift can be shared with another, but sometimes passing involves the transference of the gift; slight variations in belief are common among both treaters and patients. Many of these characteristics are also typical of other Christian folk healing traditions that were likewise influenced by Native American healing practices, such as powwowing among the Pennsylvania Dutch, or Latin American *curanderismo*. One would access a traiteur through word-of-mouth referral. (Louisiana Folklife Program, Swett 2009)

The Louisiana Division of the Arts plays a significant role in documenting, preserving, and encouraging engagement with Louisiana regional folklife resources. The division maintains a website which connects people to research and documentation projects, opportunities to experience folklife and

traditions, and education resources for teachers.

Other folklife related efforts and organizations include the following:

- **Louisiana Folk Roots** - This nonprofit organization organizes events and a variety of experiential, immersive learning opportunities including opportunities to experience music, food, dancing, native crafts, language and oral traditions, and natural history of Louisiana. The organization focuses on the Creole and Cajun cultures.
- **Center for Cultural & Eco-Tourism, University of Louisiana at Lafayette** – This institute works to enhance cultural tourism and eco-tourism in Louisiana through six avenues: its extensive online tourism guide, research archives, an annual statewide tourism conference, interaction and research of its fellows, fieldwork, and community outreach.
- **Louisiana Folklore Society** – The society was founded in 1956 to encourage the study, documentation, and accurate representation of the traditional cultures of Louisiana. Members include university professors, professional folklorists in the public sector, secondary school teachers, museum workers, graduate students, and other individuals interested in Louisiana's traditions and cultural groups.

Ethnographic Survey

A rudimentary ethnographic survey of the Atchafalaya Basin was conducted by John P. Lenzer, Robert B. Gramling, and Charles Ray Brassieur as part of the USACE Feasibility Study for the Atchafalaya Basin Floodway System in 1982. The draft study, which included areas both inside and outside the boundaries of the present-day Atchafalaya National Heritage Area, was entitled *Archeology and Ethnology on the Edges of the Atchafalaya Basin, South Central*

Louisiana: A Cultural Resources Survey of the Atchafalaya Protection Levees. Although the study is somewhat dated and its scope was primarily limited to the Atchafalaya Basin Floodway System and immediately adjacent areas, its identification and description of ethnic groups, culturally distinct life ways, and folk cultures provides insights for understanding the ethnography of the national heritage area.

The ethnographic survey listed five common features for defining ethnic groups:

- Ethnicity and Common Ancestral Origin
- Language and Ethnicity
- Race and Ethnicity
- Religion and Ethnicity
- Ethnicity and Culture

Using these five features, the ethnographic study identified eight separate ethnic units within the scope of its study area:

- Chitimacha
- Cajuns
- Black Creoles
- Anglo-Americans
- African Americans
- Italians
- Vietnamese
- Jews

The study noted that various combinations of ethnically pertinent attributes distinguished each of the eight ethnic groups from one another. However, considerable difficulty plagued attempts to divide the French-speakers of the area into ethnic constituents. Thus, those populations were classified into two ethnic units: the Cajuns and the Black Creoles.

The study also found that some characteristics of social groups in the swamp area suggested that folk societies still existed.

Relatively small communities of individuals who shared intimate communications through daily face-to-face relationships were noted along the fringes of the Atchafalaya Basin. In many cases, these communities were populated by individuals who shared a set of generally homogenous customs. Some of the societies, particularly those composed of Cajuns, Black Creoles, and Chitimacha Indians, have powerful, sacred components that seem to touch nearly every aspect of social life.

However, the ethnographic study's authors concluded that "folk culture" articulated upon exploitation of swamp resources could not be ascribed to any particular social group. Anglo-Americans, Cajuns, Indians, and members of other social units shared a more or less homogenous set of adaptive strategies pertaining to swamp exploitation. These folk activities included wetland lumbering, fishing, crawfishing, crabbing, frogging, trapping, alligator hunting, game hunting, and the turtle, bee, and moss industries.

The study's authors observed that "folk culture" has been defined as shared conventional folk understandings. Folklore, which embodies verbal or nonverbal behavioral or material forms, is the analytical unit that put the researcher in touch with folk culture. Thus, the study of folk culture was necessarily a study of folklore.

During the 20th century, the Atchafalaya Basin, according to the study's authors, had changed from a watery cypress wilderness to a semi-wild spillway that was rapidly on course to total mastery by a dominant industrial civilization. In 1980, there were still living culture bearers of a way of life that adapted to the great swamp in its pristine conditions. One could still hear stories of cypress stands that defied comparison to anything then growing in the basin; of catfish longer and heavier than the fisherman who dragged them out of the swamp; of panthers that could swim faster than a pirogue; of

entire fishing communities built on piers in the middle of the swamp; of great floods in 1882, 1912, and 1927; and of steamboats that plied Atchafalaya and Bayou Teche waters. However, in the near future, the bearers of these folk memories would no longer be around to share the understandings of a landscape and cultural adaptation that was doomed to extinction. As significant cultural resources, regional folklore and the bearers of Atchafalaya Basin folk culture deserved considerable attention (USACE 1982b).

National Register of Historic Places Listing With Ethnographic Associations

Places of traditional cultural use may be eligible for inclusion in the National Register of Historic Places as traditional cultural properties (TCPs) because of their association with cultural practices or beliefs of a living community that are rooted in that community's history and are important in maintaining the continuing cultural identity of the community. Ethnographic resources eligible for listing in the national register as traditional cultural properties are identified by ethnographic studies, rather than by isolated surveys and casual interviews. Systematic consultations with associated groups and studies that include consultations address the implications of nominating ethnographic resources to the national register and identify the groups' preferred forms of treatment for the resources whether or not they are nominated.

Various folklife studies have been conducted in the Atchafalaya National Heritage Area; however, except for the aforementioned rudimentary ethnographic survey, a comprehensive ethnographic overview and assessment has not been prepared for the heritage area, and inventories of traditional and ethnic communities and their associated ethnographic resources do not exist. Thus, there are no formally identified traditional cultural properties in the heritage area. While some information is available on

ethnicity in census data, population and community composition continues to change, particularly since Hurricanes Katrina and Rita in 2005 and Gustav and Ike in 2008.

The State of Louisiana National Register Database, which is maintained by the Louisiana Department of Culture, Recreation, and Tourism, Office of Cultural Development, Division of Historic Preservation, lists the following properties in the national heritage area as having significance in the areas of the Performing Arts, Recreation/Entertainment, and Ethnic Heritage/African American Heritage—areas of significance that have general association with and are most closely related to the topic of ethnographic resources. Properties in the heritage area having significant associations with other ethnic groups are not delineated in the database. Properties in the database, which directly relate to the interpretive themes developed for the heritage area, include the following:

Prince Hall Masonic Temple (Interpretive Themes II and IV): Constructed in 1924, this four-story Neo-Classical building in Baton Rouge (East Baton Rouge Parish) housed two facilities, the Temple Theatre and the Temple Roof Garden ballroom, both of which were entertainment focal points for the area's African Americans. The theatre and ballroom continued to play significant roles in post-World War II African American life.

Edwin Epps House (Interpretive Themes II and IV): This house in Bunkie (Avoyelles Parish) is significant because of its close association with the famous Black slave narrative *Twelve Years A Slave*, published in 1853. Epps was the slave Northrup's master for the last ten of his 12-year enslavement, and the house figures prominently in the narrative.

Plaisance School (Interpretive Themes II and IV): Constructed in 1920, this school in Plaisance (St. Landry Parish) is a rare survivor of the most ambitious school

building program for African American children in the state during the early 20th century. Of the 393 Rosenwald schools constructed between 1914 and 1932, this is one of two surviving school buildings.

Leland College (Interpretive Themes II and IV): Established in 1870, Leland College (or University) was one of four African American institutions of higher learning chartered in Louisiana during or soon after Reconstruction. Constructed between 1923 and 1930, the five extant buildings on the campus in Baker (East Baton Rouge Parish) are significant because they are the only remaining structures of a Black educational institution having statewide importance.

McKinley High School (Interpretive Themes II and IV): Built in 1926 and opened in 1927, McKinley High School was the first school in Baton Rouge (East Baton Rouge Parish) constructed solely for the purpose of providing a high school education for the area's African American students. For many years it served as the only secondary educational facility for Blacks within a 40-mile radius of Baton Rouge.

Scott Street School (Interpretive Themes II and IV): Constructed in 1922, Scott Street School is significant because it represents and is the only survivor of the "coming of age" effort to provide public-funded education for the African American children of Baton Rouge (East Baton Rouge Parish).

Southern University Archives Building (Interpretive Themes II and IV): Southern University was one of four African American institutions of higher learning chartered in Louisiana during or soon after Reconstruction. Today the university is one of the state's two publicly funded African American colleges. The Archives Building, which dates from the 1840s, was the first building on the Baton Rouge (East Baton Rouge Parish) campus of the university, which had been originally established in New Orleans in 1880; it is a visual reminder

of the institution's re-establishment in the Scotlandville area of Baton Rouge in 1914.

Southern University Historic District (Interpretive Themes II and IV): Six buildings in the approximately seven-acre historic district are associated with the early 20th century history of the school after it was relocated from New Orleans to Baton Rouge in 1914. These include the Laundry/Riverside Hall (1921), Industrial Building for Girls (1920), Machine Shop (1921), Industrial Building for Boys (1920, but doubled in size in 1940), Martin L. Harvey Auditorium (1928), and Southern University Archives Building (1870). These buildings reflect Booker T. Washington's late 19th and early 20th century educational philosophy that African Americans must establish themselves economically through industrial, technical, and vocational education before agitating for social and political equality.

St. John Baptist Church (Interpretive Themes II and IV): Constructed ca. 1871, this frame church building is associated with the settlement and early historical development of the small African American community of Dorseyville (Iberville Parish). Dorseyville takes its name from Rev. Bazile Dorsey, first pastor of the church and founder of the community. The structure is Dutch Romanesque, and is constructed primarily of brick with stone trim. The Cathedral maintains a museum on the church grounds which displays vestments, documents, and other items related to church history.

Holy Rosary Institute (Interpretive Themes II and IV): Holy Rosary Institute was established in 1913 in Lafayette (Lafayette Parish) by Rev. Philip Keller, a priest of the Diocese of Galveston, Texas (now the Diocese of Galveston/Houston). At its inception, the institute provided vocational and technical education for Black females, thus embodying Booker T. Washington's educational philosophy. Later, Holy Rosary served as a Normal School to

train teachers for rural Black schools and is presently one of the few remaining Black Catholic high schools in the United States.

Since 1913, Holy Rosary Institute has been staffed by the Sisters of the Holy Family, a congregation of African American religious women founded in New Orleans during the 1850s. The priests and brothers of the Society of the Divine Word, a religious congregation of men dedicated to the spiritual care and welfare of Blacks, have been associated with the school since 1930.

Our Lady of the Assumption School (Interpretive Themes II and IV): This school in Carencro (Lafayette Parish) is significant as a rare representation of the important role played by the Roman Catholic Church in the education of African Americans in rural southern Louisiana during the late 19th and early 20th centuries. Constructed in 1934, the school provided the only opportunity to obtain an education available to the town's African American children until the first public school for Blacks opened in 1959.

St. Paul Lutheran Church (Interpretive Themes II and IV): This small frame building operated as a combination church and school from its construction in 1916 until the late 1930s when it ceased to be a school. It is significant because it represented the only educational opportunity available for local African American children in the rural community of Lutherville, two miles north of Mansura (Avoyelles Parish).

S. H. Kress Building (Interpretive Themes II and IV): This building in Baton Rouge (East Baton Rouge Parish) is significant for its association with the Civil Rights Movement of the 1950s and 1960s. On March 28, 1960, five male and two female African American students from Southern University were arrested for staging a "sit-in" at the Kress Building's lunch counter in an effort to desegregate such facilities.

Cohn High School (Interpretive Themes II and IV): When it opened in the fall of 1949, this high school in Port Allen (West Baton Rouge Parish) represented the first time secondary education was available for the parish's African American children. The school continued to serve as the Blacks only source for secondary education until integration began impacting the parish's educational program in the 1960s.

Evan Hall Slave Cabins (Interpretive Themes II and IV): These two single-story brick structures in the McCall sugar mill community on the Mississippi River three miles west of Donaldsonville (Ascension Parish) have ethnographic associations with the area's historic plantation slave system. They represent unusually fine surviving examples of a once common antebellum building type which has all but disappeared.

St. Joseph's School (Interpretive Themes II and IV): Constructed in 1892, this frame Greek Revival galleried cottage in Burnside (Ascension Parish) is a rare representation of the important role the Roman Catholic church played in educating African Americans in rural Louisiana during the late 19th and early 20th centuries.

Olivier Pigeonnier (Interpretive Themes II and IV): Constructed in 1827, this outbuilding on the grounds of the Henri Penne House is a rare surviving example of the housing for pigeons found on French Creole plantations. Pigeonniers are one of the most direct architectural links with provincial France. Although now located in St. Martin Parish (Breau Bridge), it was moved to this location from Iberia Parish. One of 30 pigeonniers remaining in Louisiana, the Olivier Pigeonnier is the only one with a midway drip cap, a feature found on most of the numerous surviving pigeonniers in France.

Marksville Prehistoric Indian Site (Interpretive Themes I and II): Dating to the time of 100 BC – AD 400, this site contains three different types of mounds and

is characterized by the Native American Marksville culture of elaborate mortuary ceremonialism and mound construction containing burials, complex trade networks, and decorative pottery. The similarity to the Hopewell Native American culture in the Ohio Valley demonstrates interaction and exchange between the two cultures.

Academy of the Sacred Heart (Interpretive Themes II and IV): The Academy in Grand Coteau of St. Landry Parish was founded in 1821 and holds the longest record of continual existence among the 212 Sacred Heart convents over 5 continents. The Flemish Bond patterned, two-story building reflects a growing Anglo influence in French Louisiana, not unusual since both the Convent's Mother Superior Xavier Murphy and the builder were of Anglo-Saxon origin. The opening of the Academy of the Sacred Heart is considered a milestone in Louisiana education history, addressing a need for schooling in rural Louisiana. The history includes a saintly intervention, resulting in the miraculous cure of a new member of the religious order.

St. Martin de Tours Catholic Church (Interpretive Themes II and IV): The church was founded in 1765 by a group of Acadian exiles who arrived in St. Martinville (St. Martin Parish). This group of refugees was one of many driven from Canada by the English. The church was the center of religious and cultural activities, a haven of sorts for strangers in a strange land. The Church continues to maintain a prominent presence in the historic community.

Old Castillo Hotel (Interpretive Themes I, II, III and IV): The Old Castillo Hotel was built in 1835-1840 adjacent to the St. Martin de Tours Catholic Church. The hotel served the Cajun community through the years as a restaurant and tavern and as a setting for community activities including balls, parties, and banquets. Today, however, local citizens recognize its commercial and social significance in serving the steamboat trade

on Bayou Teche, and reflecting St. Martinville's heritage as steamboat town.

Adam Ponthieu Store/Big Bend Post Office (Interpretive Themes I, III and IV): The general mercantile was built in 1927 and contains original shelving, letter boxes, and various pieces of equipment. It is a rare survivor of a once common archetype within Avoyelles Parish, and is described as a "time warp" in its national register listing. It functioned as a commercial and social center for the rural French community of Big Bend until 1994, providing household and farming goods to residents; the owner using a ledger to track long-term credit granted to customers. Residents visited with one another as they awaited the arrival of the daily mail, while the owner shared news of the outside world after reading his newspaper. Saturday night movies were shown on a screen painted on the outside of the store, and politicians addressed residents from the mercantile's porch.

PREHISTORIC AND HISTORIC STRUCTURES

General Description

The fourteen parishes within Atchafalaya National Heritage Area contain approximately 400 properties that are listed in the National Register of Historic Places (<http://www.nps.gov/nr/research/>) and directly relate to the interpretive themes developed for the heritage area. The majority of these properties are historic buildings and structures. Given the breadth and depth of historic resources, it is not possible to list each individually within this document. These historic properties vary greatly. They include plantations such as Shadows-on-the-Teche and the Parlange, Nottaway, Madewood, and Southdown Plantation Houses; churches and buildings associated with religious activities such as St. John's Cathedral in New Iberia and the Holy Rosary Institute in Lafayette; sites of commercial importance such as the Conrad

Rice Mill in New Iberia; and historic districts such as Carville, Cinclare Sugar Mill, Franklin, Grand Coteau, and Donaldsonville.

National Historic Landmarks Having Associations With Prehistoric and Historic Structures

Parlange Plantation House (Interpretive Themes II and IV): This house was erected during the late 18th century or early 19th century by Vincent de Ternant, Marquis of Dansville-sur-Meuse, whose descendents still occupy the structure. The largely intact and well-preserved Parlange Plantation House is one of the best examples of a French Colonial plantation residence of the two-story raised-cottage type. The house, which fronts the False River in the vicinity of Mix (Pointe Coupee Parish), exemplifies the style of a semi-tropical Louisiana river country house. The main floor is set on a brick basement with brick pillars to support the veranda of the second story. These stucco pillars are constructed of wedge-shaped bricks and have square bases and capitals.

The raised basement is of brick, manufactured by slaves on the plantation. The walls, both inside and out, were plastered with a native mixture of mud, sand, Spanish Moss, and animal hair, then painted. The walls and ceiling throughout the house were constructed of close fitting bald cypress planks. The ground floor contains seven service rooms, including a laundry, wine cellar, and provision storage.

A gallery or veranda with a light balustrade extends around all four sides at the second level. This main living level, or first floor in the French sense, is pierced by shuttered doors providing cross ventilation in all directions. Slender, turned cypress “colonnettes” atop the brick pillars support the high, hipped, dormered roof covered with split cypress shingles. The main floor contains seven rooms arranged in a double line. Each room on the upper story has a

fireplace on the partition wall, the three served by two chimneys. The hipped roof extends at a lower pitch over the galleries.

Parlange has remained largely unchanged through the years, with the mid-19th century front stairs being the major alteration. The principal public rooms of the house still contain furniture that dates from the house’s construction period, including rugs, furniture suites, tapestries, and paintings of seven generations of the Parlange family. A small rear wing was added during the late 20th century, connected to the main house by a breezeway. As was typical of Louisiana colonial houses, the original stairs would have been entirely within the cover of the gallery to afford easy and protected exterior circulation.

The river front of the house is ornamented by two dovecotes or pigeonnaires flanking the main house. These structures are built of brick and are hexagonal in form with the first floor used for storage and the upper level for birds. These structures, with two full masonry stories, are the only polygonal examples of pigeonnaires to survive in Louisiana. With high-pitched octagonal roofs crowned with turned finials, they are as elaborate as the details of the house’s interior, thus giving a certain formality to the otherwise romantic landscape.

Vincent de Ternant received the plantation grounds from a French land grant and developed the 10,000 acres into an active indigo plantation. When de Ternant’s son Claude inherited the plantation, he changed the cash crop from indigo to sugar cane and cotton. When Claude de Ternant died, his second wife Virginie remarried. Her husband, another Frenchman, was Colonel Charles Parlange, from whom the plantation took its name.

The Parlange family has carefully stewarded its homeplace through many generations, thus maintaining the property’s historic integrity. Walter Charles Parlange, Jr., died

in May 2010, leaving his widow Lucy Brandon Parlange as sole owner. While it is the intent of the present owner and potential heirs to maintain the property as a family residence, there is always the possibility that, should the property be sold outside the Parlange family a new owner might not identify stewardship of the historical integrity of the property as a priority. Thus, preservation of the resource's historic fabric and integrity could be compromised.

Acadian House (Interpretive Themes II and IV): Constructed ca. 1815, this house, also called Maison Olivier, is the central feature in Longfellow-Evangeline State Historic Site in St. Martinville (St. Martin Parish). It is associated with the removal of the Acadians from eastern Canada to Louisiana. During the early 1800s, Pierre Olivier Duclozel de Vezin purchased the property, which had been part of a royal French land grant; he raised cotton, cattle, and sugar cane.

Acadian House is significant for being an authentic survivor of a once common regional building type adapted to climate and constructed with immediately available building materials. Very few Acadian houses of this size and condition remain in Louisiana, and the Acadian House is a superior example of this unique architectural form.

The early Acadian structure consists of a two-story main house with a brick lower floor and columns and an upper floor constructed of cypress timbers in-filled with *bousillage* (an infilling of mud reinforced with Spanish Moss) and covered with clapboards. Construction methods used in the upper floor are an example of *bousillage en poteau* which was a common form of home construction in early Louisiana. The cypress beams used in construction are hand-hewn and fastened with wooden pegs. A kitchen is connected to the structure by a Whistlers Walk, and a store house is located nearby.

Established in 1934, Longfellow-Evangeline State Historic Site was the first park in the Louisiana state park system. Acadian House has been associated with the legend which serves as the basis for Henry W. Longfellow's "Evangeline," but documentation does not support such this association.

Threats to the Acadian House include damage from hurricanes and tornados and from termite infestation of its wood elements. Threats from flooding are minimal. Because the house is located in a state park, the State of Louisiana maintains the structure and ensures preservation of its significant features, therefore, threats from contextual intrusion are minimal.

Shadows-on-the-Teche (Interpretive Themes II and IV): Built during 1831-34 for cotton and sugar cane planter David Weeks and his wife Mary Clara Conrad Weeks, this two-story "porticoed" mansion near New Iberia (Iberville Parish) was constructed of locally fired coral-colored brick. Built on the edge of one of Weeks's four plantations in the Felicianas and Attakapas region, the structure was designed as a town house for social life and entertainment.

It is a superb example of a planter's house before the height of a period of competitive ostentation; decorations were limited and designed to blend into and set off the building's brick construction. The application of Greek Revival style to the traditional French Colonial house plan resulted in a house type distinctive to Louisiana. A simple porticoed façade of eight columns marks the exterior, and columns help to support a second-floor veranda.

The architectural design of the Shadows was atypical for rural Louisiana at the time, representing a marriage of the Louisiana form of Greek Revival with the Creole. The house has one of the first monumental galleries in Louisiana, but retained French features such as exterior stairs, open loggias

between the two rear rooms, and a dining room on the ground floor with parlor above. This typical Louisiana Colonial floor plan included broad galleries, no interior hallways or major staircases, and numerous opposing windows and doors for cross-ventilation in Louisiana's sub-tropical climate.

Shadows-on-the-Teche was owned by four generations of the Weeks family. Thus, the house and surrounding landscape represent the continuity of ownership of a single family creating a site with continually overlapping layers of American history. During the mid-19th century the family commissioned artist Adrien Persac to produce front and back portraits of the home that today serve as important documentation of the home's historic appearance.

Shadows-on-the-Teche served as the headquarters for Union Maj. Gen. William Buel Franklin during the Civil War. Beginning in 1922, William Weeks Hall, great-grandson of David and Mary Weeks, began restoration of the house and its surrounding landscape—which had fallen into decline—with the help of New Orleans restoration architect Richard Koch. A "Square Garden" was also designed and developed upon the remnants of his great-grandmother's garden.

Shortly before Hall's death in 1958, he donated the house and grounds to the National Trust for Historic Preservation, which has continued to present the site to the public as well as conduct research and update the interpretation of the home, its surrounding landscape, and the Weeks family. The Weeks Family Papers, consisting of some 17,000 documents dating from 1782 to 1958, are currently housed in the Special Collections of Hill Memorial Library at Louisiana State University, Baton Rouge.

Shadows-on-the-Teche no longer receives funds from the National Trust for Historic Preservation; operational grants from the

Institute of Museum and Library Services have also ended. The museum house is currently 100% self-supporting: approximately 25% of its budget comes from visitation (current visitation is approximately 50 % of what it was before Hurricane Katrina) and the remaining funds come from fund-raising efforts in the local community. Despite a strong and loyal friends organization and successful annual fund-raising events, continued funding is a pressing issue.

Currently, the site has a staff of four persons, down from eight before Hurricane Katrina. Lack of sufficient staff to operate programs and exhibits properly is tied to reduced funding.

Madewood Plantation House

(Interpretive Themes II and IV): Amid a grove of towering oaks and magnolias, this plantation house, which faces Bayou Lafourche in Napoleonville (Assumption Parish), represents the purest Greek Revival style of architecture and is one of the premiere properties in the region. Constructed between 1840 and 1848 by Thomas Pugh, who immigrated to Louisiana from the east coast of North Carolina, Madewood represents the architectural influence of the Tidewater region of the East Coast and the arrival of Anglo-American architectural influence in Louisiana as opposed to the French Creole and Acadian influences associated with earlier settlers. Pugh retained the services of Henry Howard, one of the most famous Louisiana architects of the time, who was known for his designs of antebellum homes in New Orleans' Garden District that emphasized balance, symmetry, and formal beauty.

Madewood, which represents a Tidewater mansion within the center of French Acadian Louisiana, features a front-facing gable, Ionic portico, columns, and wing pavilions as characteristic Greek Revival traits. It has an 18-foot-wide central hall that extends the full length of the house, a single front door, inside-end chimneys, and

interior stairs. The structure contains more than 600,000 individual bricks; the foundation courses reach eight feet underground; and the home's internal columns are of brick construction covered with plaster. The structure's walls are 24 inches thick at ground level, tapering upward to 18 inches at the structure's peak.

The façade, characterized by Greek Revival ornamentation, has six Ionic pillars supporting an overhanging portico and pediment. Georgian symmetry is reflected by two matching wings flanking the main structure. One of the wings houses a 24 x 48-foot ballroom, pantry, and kitchen, while the other wing houses living arrangements for the current owners. Flooring, porches, shutters, and roof support are all cypress, harvested onsite from the back-swamps of the plantation.

Threats to Madewood are associated with its nearness to the Gulf of Mexico and the related weather events it is subject to. The plantation house is constructed primarily of brick, mortar, and stucco, and its owners have preserved it with effective maintenance and renovation programs; thus, the main structure has been largely protected from decay.

National Register of Historic Places Listings Having Associations With Historic Structures

Plaquemine Lock State Historic Site (Interpretive Themes I and III): As a distributor of the Mississippi River and a route to the heartland of Louisiana through the Atchafalaya Basin, Bayou Plaquemine was used as a navigable artery centuries before the age of European exploration. From the early 1700s, Bayou Plaquemine served as a commercial transport route, promoting settlement and economic prosperity in southwest and northern Louisiana via the Atchafalaya, Red, and other rivers. The Plaquemine Lock, which is an early example of hydraulic engineering, was designed by Col. George W. Goethals

(1858-1928), assistant to the chief engineer of the U.S. Army Corps of Engineers. Goethals later gained distinction as chairman and chief engineer of the Isthmian Canal Commission for the design and construction of the Panama Canal. The Plaquemine Lock was constructed over a 15-year period. When completed in 1909, the lock was significant for having the highest fresh water lift of any lock in the world—51 feet—and a unique engineering design that employed the principle of gravity flow. At one time the lock stood as the northernmost terminus of the Intracoastal Canal, allowing cargo to be transported within the Atchafalaya Basin and on to Texas.

The Plaquemine Lock House is significant architecturally because of its Dutch influence. The building was constructed with white glazed ceramic tiles that reflect light to make it visible to boatmen.

Increased boat traffic during and after World War II put a strain on the lock and led to demand for a larger lock. Ultimately, a new lock was constructed at Port Allen in 1961, and the Plaquemine Lock was decommissioned after 52 years of operation. In 1974, the U.S. Army Corps of Engineers built a levee across the mouth of Bayou Plaquemine, permanently closing its access to the Mississippi River.

Once the bayou was closed off from the Mississippi, it began to degrade, its fish population dropping because of stagnant water, lower water levels, and increased bacteria. The Corps of Engineers, Louisiana Department of Wildlife and Fisheries, and City of Plaquemine worked together to pump fresh water back into the bayou and re-establish its fish population. In 2006, Bayou Plaquemine began receiving fresh water again from the Mississippi River as a result of the Fresh Water Pump Project.

The 14-acre Plaquemine Lock State Historic Site is located in Plaquemine, the seat of Iberville Parish. Today the lock house serves as a visitor center and museum for the

historic site. However, this site was closed due to budget cuts on July 26, 2010. The City of Plaquemine, Iberville Parish, and a newly formed friends organization are attempting to combine efforts and resources to reopen the site using local resources.

The lock, which was continuously used for more than 50 years until 1961, is in need of restoration. No renovation work has been undertaken since that time. Although the lock house has minor cracking due to settling, it has been renovated and maintained. Support structures and maintenance sheds are all in working order.

Edwin Epps House (Interpretive Themes II and IV): Built in 1852, this single-story frame Creole cottage is currently located on Highway 71 on the outskirts of Bunkie in Avoyelles Parish. Despite its move from the north bank of Bayou Boeuf near Holmesville and replacement of architectural fabric, the structure still conveys its historic appearance and consequently its association with the famous African slave narrative, *Twelve Years A Slave* (1853).

Evan Hall Slave Cabins (Interpretive Themes II and IV): These two single-story brick structures are located in the McCall sugar mill community on the Mississippi River three miles west of Donaldsonville (Ascension Parish). They represent unusually fine surviving examples of a once common antebellum building type which has all but disappeared.

Carville Historic District (Interpretive Themes I and IV): The Carville Historic District in Iberville Parish encompasses the historic campus of U.S. Public Health Service Hospital No. 66. Now known as the Gillis W. Long Hansen's Disease Center, the facility has served as the national leprosarium of the United States since it was taken over by the Public Health Service in 1921. All major buildings, including the Infirmary (1934) and other structures (1939-41) are in the Classical Revival style; thus,

they represent a landmark of Louisiana's early 20th century eclectic architecture.

The facility is located on the site of a 19th century sugar plantation called Indian Camp. The anchor of the historic district is the Indian Camp Plantation House, one of Louisiana's Grand River Road mansions that was designed and built by noted New Orleans architect Henry Howard in 1859 for sugar planter Robert C. Camp. It is a raised stucco over brick transitional Greek Revival Italianate mansion featuring a central mass with a "hexastyle" double gallery and flanking two-story wings.

Nottaway Plantation House (Interpretive Themes II and IV): Nottaway Plantation House is located along Louisiana's historic Great River Road two miles north of White Castle in Iberville Parish. The house was designed by noted New Orleans architect Henry Howard in 1858 and completed in 1859 for wealthy Virginia planter John Hampden Randolph, his wife, and 11 children. Nottaway, a palatial three-floored, 64-room mansion, is one of the largest remaining antebellum mansions in the southern United States and is sometimes referred to as an "American castle." It is essentially an Italianate plantation house that features striking asymmetrical composition, monumental galleries, Renaissance Revival details, and fine carved interior woodwork. A dramatic, multimillion dollar renovation has recently taken place to upgrade its appearance for visitors.

Houmas House (Interpretive Themes II and IV): The Houmas House, near Burnside in Ascension Parish, was designed and built by John Smith Preston for owner John Burnside in 1828. With 800 slaves, it was the largest economic unit in the prevailing slave economy of the state's pre-Civil War period. The house was designed in the peripteral mode of the Greek Revival style; thus, it represents an important regional variation of the Greek Revival style which typified many of the grandest residences in the Deep South. Features from the plantation period

include a garconniere, caretaker's house, potato storage shed, gardener's cottage, carriage house, and foundations for a greenhouse. During the 1940s, owner Dr. George Crozat added several structures and axial formal gardens that extend to the sides and rear of the house.

Robert Penn Warren House (Interpretive Theme IV): Located near rural Prairieville in Ascension Parish, this frame 1-1/2 story Colonial Revival house served as Robert Penn Warren's home during 1941-42, while he was a member of the Louisiana State University faculty. Warren was one of America's most prominent men of letters, producing 10 novels, 16 volumes of poetry, a cycle of books relating to the Civil War, and 2 treatises on literature. Warren fondly referred to this home in his reminiscences.

Darby House (Interpretive Themes II and IV): Located in Baldwin in St. Mary Parish, the Darby House is one of the nation's finest examples of Classical Louisiana French Colonial style architecture. Constructed ca. 1827, the house, which demonstrates considerable Creole architectural influence, was once the center of a 1,386-acre plantation.

Southdown Plantation House (Interpretive Themes II and IV): Southdown Plantation House, located near Houma in Terrebonne Parish, is a 19th century sugar manor house that was constructed in 1859 as a one-story Greek Revival residence by sugar planter William J. Minor. His son, Henry C. Minor, added the second floor and various Victorian-style architectural features in 1893. The Southdown sugar plantation remained in the Minor family until 1932; during the 1920s, the owners helped save the sugar industry in Louisiana by propagating a sugar cane variety resistant to mosaic disease. In 1975, Valhi, Inc., a subsidiary of Southdown Sugar, Inc., donated the Southdown Plantation House and Servant's Quarters to the nonprofit Terrebonne Historical and

Cultural Society, who turned the property into a museum.

Cinclare Sugar Mill Historic District (Interpretive Themes I and IV): The Cinclare Sugar Mill Historic District, located north of Brusly in West Baton Rouge Parish, consists of 46 buildings and two structures, including a sugar mill and associated support buildings, a "big house" or owner's house and other management facilities, including housing for workers and managers. The surviving buildings date from 1855, when the original plantation house was built, to 1947, when the concrete block laborers' houses were constructed.

The existence of the land holding as a working plantation can be traced back to the Louisiana Purchase of 1803, and it has been owned by the same family, the Laws of Ohio, since 1878. Initially four different properties owned individually by Jacques Molaison, Louis Daigle, Valentin Hebert, and Lyocade Hebert, these properties were consolidated into a single land holding in 1855. The historic district's landscape underwent three major periods of change: the antebellum and post-bellum (1803-80); modern factory (1880-1930); and contemporary (1930-2005). The Cinclare Sugar Mill was the last working sugar mill in West Baton Rouge Parish when it ceased operation in 2005.

The group of buildings at Cinclare is significant because it is a rare surviving example of a South Louisiana sugar complex. Sugar is still grown on the acreage surrounding the historic district, but most of the support structures are no longer serving their historic functions. They are either vacant or being used for storage. As a collection of structures and landscape patterns, however, Cinclare is still a recognizable example of a complete south Louisiana sugar mill plantation complex with remnant elements representing the continuum of the 19th and 20th century elements of sugar cane growth and refining. Today, barely a handful of these complexes remain to illustrate the important role sugar

played in the economy of the state's southern region. Its sugar mill, despite additions and modernization, survives to represent a major chapter in sugar production in Louisiana, which saw the displacement of individual plantation sugar mills with large central factories. These buildings also stand as a rare example of a company town from the late 19th and early 20th centuries.

Cinclare is no longer a working sugar mill. Thus, the remnant parts of the complex's industrial operations are in jeopardy because they no longer serve a function beyond public education, historic preservation, and community cultural resource preservation. Some structures, including the mule barn, have been damaged significantly by recent hurricanes, but repairs are currently underway. The facilities have been placed in "mothballs" and are maintained on a cyclical schedule. The housing structures are maintained as rental properties and are currently occupied. However, without a plan for adaptive reuse or the opening of the site as a cultural tourism venue with significant state or local support, the Cinclare complex will likely not survive through future generations, due to the fragile nature of many of its wooden structures.

Conrad Rice Mill (Interpretive Themes I and IV): Located in New Iberia, the little altered Conrad Rice Mill is the oldest continuously operating rice mill in America, and its brand is regionally recognized due to the longevity of the company and its reputation for quality. The mill, consisting of a pair of 2- to 3-story, frame, metal-sided structures, is also one of the leading tourist attractions in this area of the Bayou Teche. Phillip A. Conrad founded the Conrad Rice Mill and Planting Company in 1912. In the 1950s, "KONRIKO" was trademarked as an acronym for Conrad Rice Company. The original part of the mill was built in 1914 and received additions in 1917 and 1930. The mill, which was purchased by Mike Davis in 1975, is significant for its historic role in rice production in Iberia Parish. It is also

significant because it is a rare surviving example of early rice processing in Louisiana, as well as a factory operated by using a shaft belt-drive power transmission system.

As with any enterprise that is based on agricultural commodities, a drop in prices could adversely affect the Conrad Rice Mill's operations. Hurricanes and severe storms are always issues with architectural buildings and engineering machinery. However, ongoing maintenance of the facility appears to be adequate and appropriate for this historic property.

Site visitation has declined since Hurricane Katrina in 2005 and the national economic decline in 2007-08. However, the mill does not depend on tourism revenues for continued operations, and thus its integrity has not suffered.

Franklin Historic District (Interpretive Themes II and IV): Franklin, which is located on Bayou Teche and serves as the seat of St. Mary Parish, provides an interesting study in town structure and layout. The town was founded in 1800 by Guinea Lewis, an English immigrant and resident of Pennsylvania who named the settlement in honor of Benjamin Franklin. The majority of the first settlers were primarily of English descent from the Atlantic seaboard, and many of its early settlers arrived after the Louisiana Purchase of 1803. Thus, Franklin has very few Creole or Acadian structures, although it served as the inland gateway to the Teche sugar cane region. The town is one of the centers of Greek Revival architecture within the Acadian parishes. The district contains nine Greek Revival homes, each of which would qualify as plantation houses if located in the country. Franklin's First United Methodist Church was organized in 1806, making it one of the first Protestant churches to be established in Louisiana.

Because the town's primary development occurred during the steamboat and railroad

eras, its historic structures are associated with these periods. The early pre-Civil War development of Franklin is not well represented with historic structures. One reminder of the antebellum period is Shadowlawn, a home that was rebuilt in 1926 following a fire. The other reminder is an area on the south end of Main Street that includes six large Greek Revival houses with spacious lawns and gardens.

The commercial district along Willow Street retains roughly 60% of its original structures, although its intrusions are relatively insignificant. The City Market, which is a rare surviving example of its architectural type, remains a feature of the commercial area.

The last developed portion of the historic district is the area associated with the growth of railroad commerce and the sawmill industry. These houses fall within three categories: shotgun houses, raised cottages with late 19th century details, and L-shaped houses with side gables and semi-octagonal bays.

The historic district contains 420 structures, 72% of which are late 19th and early 20th century structures. Most old town central business districts in Louisiana date largely from the turn-of-the-20th century. Of these, Franklin's commercial district stands well above average in terms of architectural quality.

The Franklin Historic District is located inland from the Gulf of Mexico but still very close to the coast. As such, hurricanes are always a threat to its historic architecture. The State of Louisiana has identified the historic district as potentially threatened because of its large inventory of turn-of-the-20th century working class homes. Older working class areas are not as likely to survive as are more pretentious neighborhoods because they are often the targets of highway projects, urban renewal, and other modernization efforts. Other threats to the historic district include lack of

a downtown identity, building vacancies, economic disinvestment, and population out-migration.

Frogmore Plantation and Cotton Gin (Interpretive Themes I, II, and IV): The Frogmore Plantation in Concordia Parish is a 1,800-acre modern working cotton plantation with a 900-bales-per-day computerized cotton gin. The plantation also has 18 rehabilitated/ restored early 19th century structures in addition to the main plantation house. One of the pre-Civil War buildings houses a Munger steam cotton gin. Robert Samuel Munger added suction to the gins, and also created the continuous ginning system with the double-box press, all patented in 1884.

Threats to the Frogmore Plantation and Cotton Gin include weather-related damage and other Deep South issues such as rot and insect infestation. The current owners continue to upgrade and maintain the facilities at Frogmore and its surrounding lands.

The most immediate threat to Frogmore is the planned relocation of Highway 84 from the perimeter of the property to a new location which would bisect the property and destroy the plantation's historic integrity. Relocation of the highway would also adversely affect the owner's EPA permit for the computerized cotton gin, because the gin and highway would then become contiguous and exceed federal mandates for air quality.

Grand Coteau Historic District/Sacred Heart Academy (Interpretive Themes II and IV): Located north of Lafayette in St. Landry Parish, the Grand Coteau Historic District is located on a prairie complex landform along a relict channel of the Mississippi River in the Bayou Teche Valley. During its early history, Grand Coteau was a "Vacherie" or cattle ranching area, but in the early 19th century it became a center of Roman Catholic religious and education activity. The district includes more than 70

buildings that reflect Creole, French, Acadian, Anglo-American, and Victorian architectural styles in historic homes, commercial buildings, and religious institutions. The historic district is considered to have the largest concentration of Acadian-style houses in Louisiana. The district also has religious and educational significance, since it was one of the earliest and most important centers of Catholic education in Louisiana.

One of the district's landmark buildings is the Academy of the Sacred Heart, constructed in 1821. The academy, which has operated continuously since that date, is the second oldest institution of higher learning for women west of the Mississippi River. Built in several sections, the Academy features fine Federal and Greek Revival architectural details. It is one of the largest pre-Civil War institutional buildings in Louisiana, and its 3-story, 22-bay cast iron colonnade is probably the largest Victorian cast iron gallery in the state.

In 2006, the St. Berchmans School was established as a Catholic boys' school. A small chapel on the grounds of the Sacred Heart Academy serves as a shrine to St. John Berchmans, who was determined to be instrumental in the miraculous recovery of Mary Wilson, a young postulant in 1866.

The College of St. Charles was founded at Grand Coteau in 1835 by Archbishop Blanc of the Society of Jesus. In 1891 the college was converted to a seminary and served that function until 1922.

The Sacred Heart Academy has a friends group that supports the school and churches and helps to maintain the structures and grounds. The school has a stable enrollment, and the recently opened St. Berchmans School enhanced enrollment. While the school is close to Bayou Teche, it is located on higher prairie, and thus potential flooding threats are minimal. The surrounding area is primarily rural and agrarian, resulting in

minimal threats from inappropriate intrusions.

Donaldsonville Historic District (Interpretive Themes II and IV): The Donaldsonville Historic District, located at the confluence of Bayou Lafourche and the Mississippi River and encompassing an area of about 50 blocks in Ascension Parish, includes 635 buildings, dating mainly from the period of 1861 – 1933. Donaldsonville is the seat of Ascension Parish, and briefly served as the state capital in 1830-31. After much of the town was destroyed during the Civil War, the arrival of the New Orleans, Mobile, and Chattanooga Railroad in 1871 brought a new period of rapid development. It is this post-bellum reconstruction during the late 19th and early 20th centuries that is represented by the historic district.

The structures include residences, commercial, and public buildings, five churches, and three cemeteries, associated with the Roman Catholic, Protestant, and Jewish faiths. The historic district is architecturally significant because it contains buildings dating from the pre-Civil War era to 1933, the finest collection to be found in any of the Mississippi River parishes above New Orleans. Far from being unique, Donaldsonville is essentially similar in character to other Great River Road communities; it is just more impressive.

Comparable to other Mississippi River towns in Louisiana, Donaldsonville contains a number of pretentious Queen Anne Revival and Eastlake residences and a number of Italianate commercial buildings as well as some plainer frame commercial buildings. The town includes few examples of monumental architecture, the one exception being Ascension Roman Catholic Church, a community landmark that approaches the scale of a cathedral.

Donaldsonville is unusual in that it retains a sizable complement of working class areas complete with housing that include some 375 shotgun houses, cottages, and

bungalows, as well as neighborhood stores. Historic working class areas are often the targets of urban renewal efforts or have suffered considerable loss due to fire or abandonment. Donaldsonville's working class areas are well preserved with little alteration. Moreover, they contain some fine examples of shotgun houses with elaborate Eastlake galleries both front and side. Side galleries are unusual among shotgun houses.

Donaldsonville is noteworthy because of its fine collection of late 19th and early 20th century commercial buildings. It possesses a broader range of commercial structures than is usually found in most Mississippi River towns north of New Orleans. In addition to the usual false-front structures and provincial Italianate buildings, the town possesses several neo-classical buildings and two fine Romanesque Revival office buildings. A Romanesque Revival Courthouse, the site of which was part of the 1807 plan for Donaldsonville, is located on Houmas Street. Moreover, the Lemann Store, located at 314 Mississippi Street, is probably the finest Italianate commercial building in any Mississippi River town north of New Orleans. With its cast-iron gallery, its three-story sprawling mass, and its rich ornamentation, the Lemann Store, built in 1878, stands as a monument to architect James Freret, the first New Orleans architect to study at the Ecole des Beaux-Arts in Paris. Overall, the mixture of commercial structures yields a two-story scale and a far more impressive urban architectural style than is usually found in Great River Road towns.

Donaldsonville, a small town in an economically disadvantaged area with limited economic prospects, faces threats because homeowners and property owners are unable to maintain or upgrade their structures appropriately. Threats to historic fabric in the historic district include residents' waning interest in maintaining the area's extensive stock of homes, commercial structures, churches, and cemeteries. There are many vacant buildings,

and "demolition by neglect" is a continuing issue. Although the historic district is not threatened by the Mississippi River and is far enough inland not to be in severe danger from hurricanes, it did suffer damage during Hurricanes Katrina and Gustav. Homeowners and property owners are still repairing damages.

Holy Rosary Institute (Interpretive Themes II and IV): The aforementioned Holy Rosary Institute was founded in the eastern outskirts of Lafayette in 1913 by Rev. Philip Keller, a priest of the Diocese of Galveston, Texas (present-day Diocese of Galveston/Houston). The original building housed dormitories, convent, and classrooms, and serves as the core of the campus. Construction of the building began in 1913 and the building was dedicated in the spring of 1914. It was funded by a donation from Sister Katherine Drexel, heir to the investment banking firm of Drexel, Morgan & Company of Philadelphia and well-known benefactress of American Indian and African American missions throughout the United States. Drexel was canonized by the Catholic Church in 2000. Initially, the institute provided vocational and technical education for African American females. Later the institute served as a Normal School for training teachers for rural African American schools.

The main building, which serves as the centerpiece of the campus, is currently severely deteriorated. Without immediate funding and rehabilitation or restoration efforts, this building and others on the campus will continue to deteriorate. The institute was first placed on the Louisiana Preservation Alliance's (now the Louisiana Trust for Historic Preservation) list of ten most endangered properties in 1999. This served as the catalyst for the development of a friends group and efforts to save the structures. In 2010 the institute was placed on the Louisiana Trust for Historic Preservation's list of ten most endangered properties, thus qualifying it for technical historic preservation assistance. Currently,

the institute and its associated properties, which include a strip mall adjacent to the main campus and a 200-unit apartment complex, are being transferred from the Catholic Diocese of Lafayette to the sisters of the Holy Family and the friends organization.

Robin House and Barn (Interpretive Themes II and IV): Located on the east bank of Bayou Teche near Arnaudville in lower St. Landry Parish, the Robin House and Barn are both 1-1/2 stories tall and of frame construction. The ca. 1820-35 house combines French Creole and Greek Revival architectural features, while the ca. 1820 barn is an excellent example of an extant utilitarian antebellum barn with French Creole features.

The Robin House is significant because its design and construction represent important vernacular architectural traditions that characterized the area during its early period of settlement. The well-preserved house has undergone relatively little alteration to its original fabric. Notable characteristics of the modest-sized French Creole house include an asymmetrical façade; *bousillage* walls; framing held together with mortise, tenon, and pegs; umbrella roof with gabled ends; floor plan of gallery, central *salle* flanked by rooms of equal size, and rear cabinet and loggia with curved steep stairs leading from loggia to attic; exposed beaded ceiling beams and boards; two wrap-around mantels; sets of batten double doors featuring beading; and the structure being raised on brick piers.

In addition to its French Creole features, the Robin House includes Greek Revival characteristics. These elements include two frontal roof dormers featuring pilasters with molded capitals and pedimented gables with raked cornices, boxed columns with molded capitals creating a symmetrical gallery with five bays (the center bay being slightly more narrow than the others), and a simple entablature outlining the gallery roof.

The extant antebellum barn is significant because most 19th century barns and other smaller agricultural outbuildings in Louisiana have typically been demolished or left to deteriorate once they lost their utilitarian value. The State Division of Historic Preservation estimates that less than ten antebellum barns survive in Louisiana. Of the surviving antebellum barns in the state, only two possess French Creole features—one at Whitney Plantation and this one on the Robin Farm. The barn is constructed using a unique French architectural technique known as *piece-sur-piece*, found only in this structure and in the Pointe Coupee Parish Museum. This method is thought to have originated in the early 17th century in Nova Scotia when military engineers built a fort at the first North American French settlement. It was adopted into vernacular use and spread throughout Canada and the Mississippi Valley. Individual squared logs were either locked together with half- or full-dovetailed corner notches, or retained in corner posts by tongue-and-groove. The technique provided better insulated, more durable walls requiring less repairs than *columbage* (half-timber or *bousillage*).

It is unclear whether or not the Robin House is currently inhabited. If not, the house and barn are vulnerable to weather-related elements, fire, and vandalism. Building renovation and maintenance efforts are needed to preserve the historic integrity of the structures.

St. John's Cathedral (Interpretive Themes II and IV): Built between 1913 and 1916 in the town of Lafayette in Lafayette Parish, St. John's Cathedral features notable Romanesque architecture. The cathedral's national register designation includes the cathedral, an adjacent Bishop's resident, a rear cemetery, and landscaped front lawn with its single large oak. Initially constructed as St. John's Church, the church became St. John's Cathedral less than two years after its construction when southwest Louisiana was

declared an independent diocese with Lafayette as its seat.

There are no known threats to St. John's Cathedral other than typical Louisiana-associated extreme weather events.

Montegut School (Interpretive Themes II and IV): Located in the town of Montegut, this two-story frame vernacular school building, which opened in 1912, was built by local residents and represented the "coming of age" of the educational system in lower Terrebonne Parish. As one of the first consolidated schools in the rural parish, it brought vast improvements to the quality of education received by the parish's children. The new facility had a library, office, auditorium, four classrooms with accompanying cloakrooms, and modern school furniture. For the first time, area students could be separated by grade and educational levels, and teachers were not allowed to instruct more than two grades. Consolidation encouraged better attendance, eliminated tardiness, and opened the children's previously limited horizons to the outside world by transporting them beyond their immediate neighborhoods.

The Montegut School exhibits classically influence architectural features. The original structure was a symmetrical frame structure with a three-part articulation. Originally built a full story above ground level on heavy piers, the lower floor was closed in as more space was need for additional facilities, and flanking wings were added in 1954, creating an "H-shaped" footprint. These additions replicated the look and materials of the original; thus, no discernible reduction in integrity occurred.

Montegut is located on the natural levee banks of Bayou Terrebonne and is not as vulnerable to river flooding as other structures. However, it has been threatened by storm surge flooding from hurricanes. Wind damage, as well as typical Louisiana-related threats to frame and wood

structures, will continue to affect its historic fabric. Because the structure was designed during the early 20th century, it could be threatened by obsolescence in the future. Currently, the local community maintains the structure and ensures its integrity.

State Historic Sites Having Associations with Historic Structures

Plaquemine Lock State Historic Site: The aforementioned Plaquemine Lock is managed as a state historic site.

Longfellow-Evangeline State Historic Site (Interpretive Themes II and IV): (St. Martinville) Historic structures at Longfellow-Evangeline State Historic Site help to explore the cultural interplay among the diverse peoples along the famed Bayou Teche. Acadians and Creoles, Indians and Africans, Frenchmen and Spaniards, slaves and free people of color—all contributed to the historical tradition of cultural diversity in the Teche region.

Henry Wadsworth Longfellow's 1847 epic poem *Evangeline* made people around the world more aware of the 1755 expulsion of the Acadians from Nova Scotia and their subsequent arrival in Louisiana. In this area, the story was also made popular by a local novel based on Longfellow's poem, *Acadian Reminiscences: The True Story of Evangeline*, written by Judge Felix Voorhies in 1907.

Several historic buildings are showcased at the 157-acre state historic site: Acadian House (the aforementioned designated National Historic Landmark); a ca. 1790 Acadian Cabin; and a reproduction 19th-century Acadian Farmstead that includes the family home with an outdoor kitchen and bread oven, slave quarters, and a barn. Also at the site is Maison Olivier, a ca. 1815 plantation house built by wealthy Creole Pierre Olivier Duclozel de Vezin; it serves as an excellent example of a Raised Creole Cottage—a simple and distinctive

architectural form which shows a mixture of Creole, Caribbean, and French influences.

Louisiana Main Street Districts

The State of Louisiana Office of Cultural Development also has prioritized preservation through designating main street districts within Louisiana communities. Within the Atchafalaya National Heritage Area, the cities of Donaldsonville (Ascension Parish), Eunice (St. Landry Parish), Franklin (St. Mary Parish), Houma (Terrebonne Parish), Morgan City (St. Martin and St. Mary Parishes), New Iberia (Iberia Parish), New Roads (Pointe Coupee Parish), Opelousas (St. Landry Parish), Plaquemine (Iberville Parish), and St. Martinville (St. Martin Parish) are designated Main Street Communities. Currently Louisiana Main Street is a comprehensive revitalization program designed to promote the historic and economic redevelopment of traditional commercial areas in rural Louisiana through organizational relationships among downtown stakeholders, economic restructuring to promote business expansion, promotion and marketing, and physical design enhancement. The program encourages visitors to travel roads between “Main Street Communities” each November through its annual “Louisiana Main to Main: A Cultural Road Show” promotional program. This program collectively showcases the state’s culture, commerce, history, and creative and natural assets and features cultural, recreational, and tourism events such as food and music festivals, antiques fairs, art and crafts shows, performances and exhibits, holiday parades, agriculture and waterways tours, and museum and house tours.

Louisiana Cultural Districts

Additionally, the State of Louisiana Department of Culture, Recreation, and Tourism administers a Cultural Districts Program to revitalize communities and their historic buildings and structures by creating hubs of cultural activity. Within the

Atchafalaya National Heritage Area the following cultural districts have been designated:

- Baton Rouge Arts & Entertainment Cultural District (Baton Rouge – East Baton Rouge Parish)
- Mid City Cultural District (Baton Rouge – East Baton Rouge Parish)
- Perkins Road Arts District (Baton Rouge – East Baton Rouge Parish)
- Downtown Historic New Iberia Cultural District (New Iberia – Iberia Parish)
- West End Historic Cultural District (New Iberia – Iberia Parish)
- Downtown Lafayette Cultural District (Lafayette – Lafayette Parish)
- Deux Bayous Cultural District (Arnaudville – St. Landry/St. Martin Parishes)
- Eunice Prairie Cajun Cultural District (Eunice – St. Landry Parish)
- Houma Cultural District (Houma – Terrebonne Parish)

Under this program, local governments are permitted to designate cultural districts in which income and corporate franchise tax credits for eligible expenses are allowed for rehabilitation of owner-occupied or revenue generating historic structures. The program also provides an exemption from sales and use taxes for proceeds received from the sale of original, one-of-a-kind works of art from locations established within the cultural districts. For the purposes of the Cultural Districts Program, a “work of art” is defined as “original, one-of-a-kind, visual art; conceived and made by hand of the artist or under his direction; and not intended for mass production, except for limited editions.” Examples of eligible visual art media and products include visual arts and crafts, including but not limited to drawing, painting, sculpture, clay, ceramics, fiber, glass, leather, metal, paper, wood, installation art, light and digital sculpture,

wearable art, or mixed media, and traditional and fine crafts; and limited, numbered editions (up to 100) of lithographs, photography, silk screen, intaglios, and etchings.

CULTURAL LANDSCAPES

General Description

The Atchafalaya National Heritage Area contains a nationally distinct landscape resulting from patterns of human activity shaped by geography. According to the heritage area's enabling legislation, its history, culture, and natural and recreational resources are of national significance. Designated national historic landmarks and properties listed in the National Register of Historic Places comprise the principal elements of the heritage area's cultural landscape.

National Historic Landmarks Having Cultural Landscape Associations

Parlange Plantation House (Interpretive Themes II and IV): While the present-day setting of the aforementioned plantation house consists of magnificent oaks and cedar trees, pigeonaires, and a barn to the left of the house that is used for hay and vehicle storage, the house is said to have originally been surrounded by a formal garden. During the Civil War, Parlange served as headquarters for Union Maj. Gen. Nathaniel Banks and later as a Confederate headquarters for Maj. Gen. Richard Taylor. The garden was purportedly destroyed during the Civil War. Today a smaller informal garden graces the right-hand side of the house, designed by the late landscape designer Steele Burden.

Shadows-on-the-Teche (Interpretive Themes II and IV): By the early 1920s, the designed landscape surrounding this aforementioned mansion had deteriorated. Beginning in 1922, William Weeks Hall, great-grandson of David and Mary Weeks, determined to not only restore the house

with the help of New Orleans restoration architect Richard Koch, but also to design a "Square Garden" upon the remnants of his great-grandmother's garden. Continuity with the past generations of his family was very important to Hall. He surrounded the garden with a dense bamboo hedge to shut out the gasoline stations and other signs of 20th century "progress" that increasingly began to interfere with the serenity of the Shadows. Since the house and surrounding grounds were donated to the National Trust for Historic Preservation in 1958, the Trust has presented the site to the public while continuing to conduct research and update the interpretation of the site, its surrounding landscape, and the Weeks Family.

Madewood Plantation House (Interpretive Themes II and IV): The aforementioned Madewood Plantation House is surrounded by six picturesque acres representative of the dominant landscape form that was popular in mid-19th century England, Scotland, and Ireland. As an intact assemblage of cultural landscape components—including the main house, grounds, workers' quarters, overseer's office, sugar mill, maintenance sheds and other auxiliary buildings, and surrounding agricultural lands—Madewood is a rare and excellent example of a sugar plantation representing Tidewater and Anglo-American influence in the midst of French and Acadian Louisiana.

Because Madewood is located on Bayou Lafourche, which is a distributary channel of the Mississippi River and was actually an earlier delta course of the Mississippi between 1,000 and 300 year BP, the high natural levee on which the plantation property exists has a similar width—between one and two miles—as existing levee systems along the current course of the river, with the plantation home situated approximately ¼ mile from the banks of the bayou.

One difference between Madewood and earlier plantations is the spatial organization of its buildings and landholdings, which

consists of a “nodal-block” form. Because earlier settlers of French origin already owned most of the land along the rivers or bayous, later settlers, of necessity, were forced to purchase wider rectangular blocks of land further back from watercourses with small landholdings projecting toward the water body on which they were located and by which they transported their goods to the river or bayou banks. Thus, the Madewood Plantation House was located near the bayou, while the workers’ housing, sugar mill, overseer’s office, and other auxiliary buildings necessary for operating a sugar cane plantation were located in a “block” pattern separated from the main house and back from the river or bayou.

***National Register of Historic Places
Properties Having Cultural Landscape
Associations***

Donaldsonville Historic District (Interpretive Themes II and IV): The aforementioned Donaldsonville Historic District encompasses an area of about 50 blocks in Ascension Parish, including about 635 buildings, dating mainly from the period of 1861-1933. The development of Donaldsonville began in 1806 when William Donaldson, owner of lands at the confluence of Bayou Lafourche and the Mississippi River, hired Barthelemy Lafon, surveyor and planner for most of the Garden District in New Orleans, to prepare street plans with allowance for public parks. The town’s urban cultural landscape, which is significant in the area of community planning because it incorporates formal planning features, included a number of grand public spaces: a semicircular park and drive along the Mississippi River (Crescent Park and Drive) and Louisiana Square, which are still extant. After the majority of the town was destroyed during the Civil War, the town’s recovery came in the form of the New Orleans, Mobile and Chattanooga Railroad, which began regular service between Donaldsonville and New Orleans in 1871. It is this post-bellum reconstruction during the

late 19th and early 20th century that is represented by the extensive historic district.

Four factors set Donaldsonville Historic District apart from other Mississippi River towns and qualify it as a significant urban cultural landscape. First, the historic district is unusually large and cohesive. It has 635 structures closely packed in a 50-block area with only 23% modern nonhistoric intrusions. No other Mississippi River town in Louisiana north of New Orleans can match this. Second, Donaldsonville is unusual in that it retains a sizable well-preserved complement of working class areas complete with housing and commercial stores. Third, Donaldsonville is noteworthy because its fine collection of late 19th and early 20th century commercial buildings comprise a broader range of commercial structures than is usually found in most Mississippi River towns north of New Orleans; the overall mixture of its commercial structures yields a two-story scale and far more impressive urban style than is usually found in Great River Road towns. Fourth, Donaldsonville is one of only three Mississippi River towns in the state north of New Orleans, which go beyond the normal speculative grid plan. Donaldsonville’s plan incorporates baroque features such as a semicircular park and an axial street leading to an open public square. Although the towns of St. Joseph and Beauregard Town in Baton Rouge are the other two towns that incorporate formal planning features, Donaldsonville represents the best extant example of formal town planning in the Mississippi River parishes above New Orleans.

Franklin Historic District (Interpretive Themes II and IV): The aforementioned Franklin Historic District provides an interesting study for small-town urban cultural landscape layout and development. When first established, its original linear orientation followed Bayou Teche; then later development was clustered in proximity to the railroad after it arrived during the late 19th and early 20th centuries.

Because the town's primary historic development occurred during the steamboat and railroad eras, the majority of its historic structures are associated with those periods. The early pre-Civil War-era development of the town is not well represented with historic structures. Because most of the original town was built over again when the railroad came, many of the surviving mid-19th century structures are grand monuments scattered in an essentially turn-of-the-century landscape. With its wide median and live oaks, the south end of Main Street with its six Greek Revival houses and their associated spacious lawns and gardens constitutes one of the most stately boulevards to be found in Louisiana.

Grand Coteau Historic District/Sacred Heart Academy (Themes II and IV):

Located in St. Landry Parish, the aforementioned Grand Coteau Historic District includes more than 70 buildings that reflect significant Creole, French, Acadian, Anglo-American, and Victorian architectural styles in historic homes, commercial buildings, and religious institutions. The location of the district is along a relict channel of the Mississippi River in the Bayou Teche Valley. Grand Coteau literally translates to "large hillock," but the landform is actually a prairie complex and is mostly flat.

In 1835, Madame Xavier Murphy began to embellish the academy's grounds, patterned on the French gardens of Bishop Bousuet. In front of the main building, a formal garden was designed with flower beds raised and bordered by masonry. The surrounding grounds were laid out in gardens featuring octagons, circles, and squares as well as shrubs, flowering plants, and olive trees. The St. Berchmans School, a Catholic school for boys, was established on the academy's grounds in 2006. A small chapel on the grounds of the Academy serves as a shrine to St. John Berchmans due to the miraculous recovery of Mary Wilson, a young postulant in 1866.

In 1835, the College of St. Charles (which later was converted to a seminary from 1891-1922) was founded at Grand Coteau in 1835 by Archbishop Blanc of the Society of Jesus. The site was chosen due to the beauty of the landscape and proximity to other Catholic institutions in the city. An avenue of live oaks was planted leading toward the site of the college building. The district's cultural landscape is significant because it is traversed by almost three miles of oak alleys, representing one of the longest and most extensive groupings of oak alleys in Louisiana.

Holy Rosary Institute (Interpretive Themes II and IV): The picturesque grounds of the aforementioned Holy Rosary Institute at Lafayette, Louisiana, contain many massive live oaks and significant statuary. During the massive Mississippi River flood of 1927, the institute's grounds were used as a tent camp for displaced African American refugees from the region's flooded parishes.

Cinclare Sugar Mill Historic District (Interpretive Themes I and IV): The aforementioned Cinclare Sugar Mill Historic District comprises a landscape that is representative of much of south Louisiana where sugar cane cultivation and refining has been dominant for the past two centuries. The principal patterns that organize the landscape are the arpents of the land grants, based upon the French survey system; the ditch and field patterns; and the cluster arrangement of the buildings. As sugar cane production became increasingly mechanized over time, dependence on manual labor decreased, and, in turn, the land patterns were altered to conform to the scale of the equipment that began to replace the individual hoe and later, mule-drawn plows.

The form of the Cinclare landscape experienced three major historical periods of change: antebellum and post-bellum (1803-80); modern factory (1880-1930); and contemporary (1930-2005). During the

antebellum and post-bellum period, plantation labor was manual, the Mississippi River was used to transport sugar to market, and the layout of the plantation was linear and oriented to the river. The modern factory period was characterized by development of a centralized factory system, with the larger mills becoming the refiners of sugar, and more marginal properties shipping their cane to these central mills for processing. The Cinclare mill was modernized and expanded as it became a central factory, processing sugar from smaller plantations within a 75-mile radius. Railroads emerged as the transportation mode for transporting the sugar to market. A new big house was constructed in 1906, more akin to architectural styles of the Eastern Seaboard, and the original house was moved to a new row of houses for the emerging management class. Additional laborers' houses were constructed, including a "hotel," or boarding house for seasonal labor. The additions to the housing stock gave the layout a more clustered plan than the linear one that likely characterized the earlier housing arrangement. In 1927, the year of the Great Flood, the company, now the Harry L. Laws Company, purchased five nearby plantations.

During the contemporary period, a "Great Sugar Decline" forced the sugar industry to find new efficiencies through increased mechanization and computerization in both the factory and the field. Louisiana Highway 1 and cane trucks became the principal means of transporting sugar to market. The arrangement of plantation elements from the previous period continued with the addition of more housing, but most of the housing was used for management and factory workers with a dramatic decrease in field labor. In 2005, the mill was closed because of economic factors. Today, sugar is still grown on the acreage surrounding the Cinclare Sugar Mill Historic District, but most of the support structures are either vacant or are used for storage and are no longer serving their historic functions. As a collection of historic structures and landscape patterns,

however, Cinclare is still a recognizable example of a complete south Louisiana sugar mill plantation complex, with remnant elements representing the continuum of 19th and 20th century sugar cane cultivation and refining.

Calumet Plantation House (Themes II and IV): The Calumet Plantation House is located in a park-like setting on the east bank of Bayou Teche near Patterson in lower St. Mary Parish. The house is the product of three major periods of construction—ca. 1830, ca. 1850-70, and ca. 1950—and is significant as an example of a successful conversion and major enlargement of an early 19th century "cottage" sized house into a mid-19th century plantation house. Of architectural as well as landscape significance are numerous professional and detailed photographs, measured drawings, and narrative inventories and descriptions of the plantation house, its adjoining house garden, and the entire plantation complex ca. 1870-79. The 1879 house garden plan is an unparalleled document in Louisiana garden historical research, documenting the house and grounds when it was owned by its most important residents: Daniel Thompson, sugar planter, 1871-1900, and Harry Williams, lumber magnate and aviator, and his wife Marguerite Clark, a noted actress.

Darby Plantation (Themes II and IV): The Darby Plantation House, built near New Iberia in 1813-20 for Francois St. Marc Darby and his wife Felicite de St. Amant, is one of the oldest structures in Iberia Parish. The house is an excellent example of rural Louisiana colonial architecture, particularly that found in the Teche region. Because of its rural character, the house possesses less elaborate detailing, but it remains a fine complement to its landscape setting amid giant live oaks and sugar cane fields.

Enterprise Plantation (Themes I, II, and IV): Located two miles west of Jeanerette in Iberia Parish, the Enterprise Plantation is the oldest complete working sugar plantation in

the United States. Founded by Simeon Patout of Usay, France, in 1825, the two-story wood and brick plantation house was completed in 1835. Originally intended as a vineyard, the plantation was converted to sugar cane. The estate has grown from a mill that produced of a few hogsheads a year in 1835 to a mill that presently grinds some 5,000 tons of cane per day. M.A. Patout & Son, Ltd., has the distinction of being the oldest sugar producing and sugar cane agricultural company in the United States. The present-day sugar mill was constructed in 1959 after the original mill was destroyed by fire.

Moundville Plantation House (Themes II and IV): The Wartelle House at Moundville Plantation, located near Washington in St. Landry Parish, is a 1-1/2 story Creole structure, the first portion of which was completed in 1827-29 by Capt. Pierre Wartelle who had previously served with Napoleon. The much expanded house, which is bounded by Bayous Cocodrie, Carron, and Courtableau, features tree-studded meadows and a 1820s-era formal flower garden, or parterre, off the front gallery of the house. The house was the focal point of a 2,000-acre cotton and sugar estate worked by nearly 200 slaves before the Civil War. The plantation took its name from Indian mounds in the area. An avenue of water oaks, considered to be one of the longest and most beautiful such avenues in Louisiana, is somewhat unusual because its primary path is to Bayou Courtableau rather than to the house.

Oaklawn Manor (Themes II and IV): In 1837, the Oaklawn Manor Plantation House, located near Franklin in St. Mary Parish, was constructed of hand-made brick in the Greek Colonial style. The approximately 76 acres surrounding the house constitute a relatively natural landscape: the land has never been cultivated and features a large number of live oak trees, many of which were brought from Tennessee during the 1920s. The grounds also feature nearly three acres of intact historic gardens.

Old Joseph Jefferson House (Themes II and IV): In 1869, Joseph Jefferson, a noted 19th century actor who immortalized Rip Van Winkle in a play by that name, purchased a plantation at Orange Island (now Jefferson Island), ten miles west of New Iberia in Iberia Parish. Using the former plantation as a hunting preserve, Jefferson built a house, which he called Bob Acres. Native cypress trees on the island were cut to build the house which featured Moorish, Gothic, and French architectural styles. After World War II, J. L. Bayless, Jr., planted an "Old Fashioned Camellia Garden" and East Lawn near the house and azaleas in the nearby wooded area. In 1965, an English horticulturist was engaged to develop an "English Garden in a Tropical Setting" on the island. Various flowering plants, shrubs, and trees are mingled among the moss-draped live oaks on the island.

Significant Cultural Landscapes Not Listed in the National Register of Historic Places

Great River Road (Interpretive Themes I, II, III, and IV): The Great Mississippi River Road consists of a cultural landscape corridor approximately 70 miles in length located on each side of the river between Baton Rouge and New Orleans. The Great River Road area includes the river, levees, adjacent lands, cultural resources, and the state's most famous and recognizable group of monumental plantation houses.

The grand homes in the Great River Road area were built in the Greek Revival style by wealthy sugar planters prior to the Civil War. A limited number of Creole houses also remain in the area and are relics of French colonial Louisiana. The Italianate style is also represented among the region's majestic plantation homes. From a practical standpoint, the plantations also had a large number of buildings such as the sugar house and the slave quarters.

Before the Civil War, milling took place in numerous small mills (known as sugar

houses) located on individual plantations. After the war, improvements in sugar technology combined with shortages of labor and capital forced the closure of many of these mills, which were then allowed to decay. Historic sugar houses gradually disappeared from the plantation landscape and today only a few badly deteriorated ruins survive.

Slave quarters have suffered a similar fate. Today, a state might have six or so surviving examples. However, the standard row arrangement (once the norm across the South but virtually unheard of today) can still be seen on one Great River Road Plantation—Evergreen.

During the 20th century, dredging the river bottom to accommodate ocean-going vessels ushered in an era of industrial development that changed the character of many parts of the River Road. Due to the encroachments of the Mississippi, federal action, owner disinterest, fragmented ownership, demolition by industry, and a weak economy, many historic properties were lost.

Much has been said about the impact of industry along the Great River Road, but there have been cases in which industry and preservationists have cooperated with spectacular results. During the 1920s and 1940s, the region's revival began with the restoration of Oak Alley and other area landmarks.

Today's Great River Road is a study in contrast, with broad cane fields, antebellum mansions, petrochemical plants, and suburban strip developments, all jumbled together in a chaotic mixture that provides a challenge for interpretation. Nevertheless, much of the past remains of the Great River Road's cultural landscape resources and features.

The Great River Road corridor suffers from a distinct identity crisis resulting from the lack of a unified identification system for the

road in its entirety and the shift throughout the 20th century away from the riverfront to faster and wider (and oftentimes safer) arterial highway systems. Currently, there are no design standards for new construction or development along the road. One of the most recent threats is from a casino that is locating in lower East Baton Rouge Parish. Casino owners are requesting relocation of the road away from the river levee and batture to provide additional land on which to construct their facility.

Alma Plantation, Sugar Mill, and Quarters (Interpretive Themes I, II, and IV): Alma Plantation, located along the False River east of Lakeland in southeastern Pointe Coupee Parish, is privately owned by the Hampton P. Stewart family, one of the parish's largest sugar producers, and the site of Pointe Coupee's only functioning sugar mill, its last competitor having closed in 1925. Alma's landscape significance lies in the fact that the mill is still fully operational, demonstrating a factory that has evolved through the process of modernization, surviving the challenges of economic downturns and natural disasters to become the centralized mill for the area. In 1991, Alma ground a combined total of 346,000 tons of sugar cane from its own 2,000 acres and from 35 other growers.

The site includes an extant plantation store that dates from the late 19th century – early 20th century and is unique in that it continues to function as a store for plantation residents. The store, which faces the plantation road, was moved to its present location in the 1930s to be nearer the residents that it serves. There are also a group of workers' houses in their original locations, as well as the plantation bell located to the side of the plantation road. Through the history of Alma Plantation, one can trace the history of sugar cane production in Pointe Coupee Parish for the past century.

Alma Plantation was purchased by Julien Poydras de Lalland, a native of Nantes, France, who arrived in New Orleans in 1768

and managed to accumulate enough capital to purchase significant land holdings in Pointe Coupee and West Baton Rouge parishes. After the death of Poydras, David Barrow, a member of one of Louisiana's most prominent families, purchased the property. The early 20th century Steward family residence at Alma is located along Highway 416, set back from the road and nestled in a grove of mature live oak trees. A picket fence encloses a small ornamental garden; the entire residential property is planted with mature live oaks. A remnant of a drainage ditch to the east of the house has been landscaped with iris and other wetland plants.

Currently, there are no known threats to Alma Plantation. As long as the economy of sugar cane production holds steady, and the weather—including hurricanes and early freezes—doesn't become more severe, Alma Plantation seems secure. However, the uncertainty of sugar tariffs and the fate of federal legislation that favors domestic sugar production continues to be a concern for Louisiana sugar growers.

Old River Control Structure/Old River Locks Complex (Interpretive Theme III): Old River is a distributary channel between the Mississippi and Red rivers where they join to form the Atchafalaya River and Basin. Just as the Red River was partially blocked by logjams that made it impassable for navigational purposes, so was the Old River. Originally, the Red River looped toward the Mississippi, and during high water in the spring, the Mississippi overflowed its banks and joined this loop to form the Atchafalaya. During the second quarter of the 19th century, Capt. Henry Shreve cut a channel directly through the loop to allow navigation down the Red River directly into the Atchafalaya.

At that time, a massive logjam still blocked Old River between the Mississippi and the Atchafalaya, preventing steamboats from traversing what was a much shorter and quicker route to the Gulf of Mexico and

Texas. In 1863, the state of Louisiana authorized removal of the logjam, thus beginning the gradual expansion of Old River, the Atchafalaya Basin, and the building of land along the Gulf of Mexico at the river's terminus.

The Mississippi River Commission reported to Congress in 1953 that the Mississippi River would eventually experience an "avulsion" and change course so that the primary river flow would be down the Atchafalaya and out to the Gulf at Morgan City. This would render the old Mississippi River channel a saline estuary, and would also make it unusable as the primary mode of river traffic for the nation's heartland.

The Old River Control Structure/Old River Locks Complex is a hydraulic engineering artifice built by the U.S. Army Corps of Engineers at the divergence of the Mississippi and Atchafalaya Rivers at Ferriday/Lettsworth in Concordia and Point Coupee Parishes to maintain the water distribution between the two, at 70% and 30%, respectively. This was done in response to the increasing amounts of water flowing from the Mississippi into the Atchafalaya, due to the latter's shorter and increasingly steeper course to the Gulf of Mexico. The floodgate system, which included a Low Sill and Overbank structure, was completed in 1963. The complex is located at river mile 315 on the lower Mississippi—315 miles up the river from the Gulf of Mexico.

The U.S. Army Corps of Engineers has maintained the precarious balance between the Mississippi and Atchafalaya rivers. They have succeeded by first reinforcing the Low Sill structure, which almost failed in 1973, and then by opening new distributary outlets below Old River at the Morganza Spillway and other auxiliary structures to transport excessive flooding from the Mississippi River.

As a cultural landscape driven by river water and the surrounding levee systems that

contain its overflow, the Old River Control Structure/Old River Locks Complex is the most significant historical feature between the Mississippi and Atchafalaya rivers and serves as the primary source of navigation and water flow through the Atchafalaya Basin.

Threats to the complex would primarily be the sudden and catastrophic avulsion in which the Mississippi River permanently changed course. The Corps of Engineers has undertaken extensive efforts to prevent this threat, and the efforts are ongoing. Boat ramps at the Old River Lock and Old River Control are maintained by the U.S. Army Corps of Engineers, and campgrounds without hookups and picnic areas are located at the lock complex.

Avery Island (Interpretive Theme III):

One of five salt domes that border the state's Gulf of Mexico coastline, Avery Island has been the home of the McIlhenny family since 1868. At that time, Judge Daniel Dudley Avery, for whom the island is named, brought the island under a single ownership. Of the 5,000 acres that comprise Avery Island (ten miles in diameter), 2,500 acres are underlain by a salt dome. Not technically an island, the dome is surrounded on all sides by bayous, salt marsh, cypress swamps, and Bayou Petite Anse.

Avery Island and other Louisiana salt domes are geological structures called upthrusts; because of their unique elevations, they support a wide variety of habitats that do not exist in the surrounding marshes and prairie terraces. The soil, a fertile brown loam, averages about ten feet in thickness, enabling the land, where the slope permits, to support agricultural activities such as growing sugar cane and capsicum peppers.

The Indians boiled the island's briny spring water to extract salt, which they traded to other tribes as far away as present-day central Texas, Arkansas, and Ohio. Archeologists have used basket fragments, stone implements, and pottery excavated on

the island to date the first salt brining industry on Avery Island to AD 1300. Andrew Jackson's troops are said to have used Avery Island salt in the Battle of New Orleans in 1815. The island would later support one of the most profitable plantations in Iberia Parish. However, the beginning of the Civil War in 1861 interrupted life on the island.

During the war, Avery managed salt mining on the island, supplying salt to the blockaded Confederate states until the invasion and capture of the island and salt works by Union troops in 1863. The Averys and the McIlhennys (who married into the family in 1859) spent the rest of the war in Texas; upon their return, they found the island in ruins. Edmund McIlhenny took advantage of the fertile island soil and turned his focus to growing peppers. For additional income during the difficult Reconstruction period, he sold sauce made from the peppers and in 1868, McIlhenny established the McIlhenny Company and began manufacturing Tabasco brand pepper sauce. Avery Island continues to produce the sauce today.

McIlhenny also made major contributions to the preservation of the environment and landscape of Avery Island, converting it into a natural paradise inhabited by exotic plant and animal species from around the world. He was also an enthusiastic amateur botanist and horticulturist, bringing to the island many exotic plants from his extensive travels. When oil was discovered on the island in 1942, McIlhenny ensured that production crews bypassed live oak trees and buried pipelines (or painted them green) to preserve the island's natural beauty, wildlife, and utility as a wildlife refuge.

Avery Island was hit hard by Hurricane Rita in September 2005. The McIlhenny family is spending \$5 million on construction of a 17-foot-high levee, pumps, and back-up generators to ensure that future hurricanes will not disrupt Tabasco sauce production.

The retreating coastline of Louisiana poses a threat to the stability of the geology and ecology of Avery Island's salt domes. The island's loss of mature forest canopy during recent hurricanes has left it more vulnerable to erosion and devastation from severe storms.

Jungle Gardens is supported by the family corporation and is a minor part of its business, probably requiring an annual subsidy. As an important part of the cultural history of the island, the future of the gardens may be in jeopardy since they require more than simple maintenance. The gardens will require management, extensive replanting, and long-range planning if they are to survive as a recognizable entity.

MUSEUM COLLECTIONS

There are nearly 90 museums in the 14 parishes of the Atchafalaya National Heritage Area that contain museum collections relating to the cultural and natural history of the region and the interpretive themes developed for the heritage area. The museums and their associated artifact and archival collections range in scope from major publicly owned state institutions covering the broad spectrum of regional cultural and natural history to small parish, community, and privately owned museums with topically focused and site-related collections of historical and natural objects, specimens, artifacts, and archives. The principal museum collections relating to cultural resources in the Atchafalaya National Heritage Area are located at and associated with state museums, state historic sites, cultural centers administered by Jean Lafitte National Historical Park, and tribal or cultural museums such as the Tunica-Biloxi Cultural and Educational Resources Center and the Chitimacha Indian Museum. Additionally, numerous communities and historic and cultural sites in the national heritage area maintain site-related and local artifact and archival collections. The

conditions under which the museum collections are preserved, protected, documented, managed, exhibited, and made accessible for research and interpretation vary according to the facilities in which they are housed and the professional standards maintained by their conservators.

Some documentary collections associated with cultural sites in Atchafalaya National Heritage Area are housed in offsite repositories. One example is the Weeks family papers which are associated with the four generations of the Weeks family that owned Shadows-on-the-Teche National Historic Landmark. In 1984, the Weeks family papers were donated to the Louisiana and Lower Mississippi Valley Collection at Louisiana State University, Baton Rouge, and are now housed as part of the university's Special Collections in Hill Memorial Library.

State Museums

Louisiana State Museum, Patterson (Interpretive Themes I, II, IV, and V): This is the official state aviation and cypress sawmill industry museum and houses two significant collections. The Wedell-Williams Aviation Collection focuses on the legacy of Louisiana aviation pioneers Jimmie Wedell and Harry Williams, who established an air service in Patterson in 1928. Both men became nationally prominent during what was known as the Golden Age of Aviation. The museum contains collections and exhibits including aircraft, air racing trophies and memorabilia, and air racing films.

The Patterson Cypress Sawmill Collection documents the history of the cypress lumber industry in Louisiana. Lumbering became the state's first significant manufacturing industry, and the town of Patterson, which was once home to the largest cypress sawmill in the world, was designated as the cypress capital of Louisiana by the state legislature in 1997. Exhibits in the museum feature a variety of artifacts, photographs, and film

that tell the story of this significant regional industry.

Louisiana State Museum, Baton Rouge (Interpretive Themes I, II, IV, and V): This museum features thematic exhibits on the diverse aspects of Louisiana history, industry, and culture. The museum includes two permanent exhibitions, entitled “Grounds for Greatness: Louisiana and the Nation” and “Experiencing Louisiana: Discovering the Soul of America.” Topics range from the Louisiana Purchase of 1803 to Sportsmen’s Paradise to Mardi Gras traditions throughout the state. Artifacts include a 48-foot wooden shrimp trawler; a Civil War-era submarine; a record-breaking Marlin; a krewe of lawnmowers, a New Orleans Lucky Dog cart; and musical artifacts from noted musicians including Fats Domino, Buddy Guy, Clarence Gatemouth Brown, and Aaron Neville.

State Historic Site Museums

Longfellow-Evangeline State Historic Site (Interpretive Themes II and IV): The aforementioned state historic site in St. Martinville explores the cultural interplay among the diverse peoples—Acadians, Creoles, Indians, Africans, French, Spanish, slaves, free people of color—along Bayou Teche. The site includes the aforementioned Acadian House and Maison Olivier, a ca. 1815 plantation house with period furnishings and exhibits that serves as an excellent example of a Raised Creole Cottage. A reproduction Acadian Farmstead, along with period furnishings and exhibits, is situated along the bank of Bayou Teche and is an example of how a typical single-family farm would have appeared around 1800. The farmstead includes the family home with an outdoor kitchen and bread oven, slave quarters, and a barn.

Plaquemine Lock State Historic Site (Interpretive Theme III): The aforementioned state historic site includes the historic Plaquemine Lock and the Gary James Hebert Memorial Lockhouse, which

serves as a museum and visitor center. Hebert worked to prevent destruction of the lock by the Corps of Engineers and campaigned to have the area preserved as a historic site. Facilities also include a stylized adaptation of the Lockmaster’s House that provides open-air pavilion space to display various watercraft used when the lock was operational.

Cultural Centers Administered by Jean Lafitte National Historical Park

Atchafalaya National Heritage Area partners with Jean Lafitte National Historical Park. Two of the national historic park’s sites—Acadian Cultural Center in Lafayette and Prairie Acadian Cultural Center in Eunice—are located in the national heritage area. Each relates to Interpretive Themes II and IV and contains museum collections, artifacts, films, and exhibits. The Acadian Cultural Center tells the stories and traditions associated with the origin, migration, and settlement of the Acadians and other cultures in the area, while the Prairie Acadian Cultural Center interprets the life of Louisiana’s prairie Cajuns and their musical contributions.

Tribal Cultural Museums

Tunica-Biloxi Cultural and Educational Resources Center (Interpretive Themes I, II, and IV): Located on the Tunica-Biloxi Reservation in Marksville, this recently constructed facility combines interpretation and education with facilities for tribal meetings. The center includes exhibits, a library, conservation and restoration laboratory, auditorium, conference and meeting rooms, classrooms, and distance learning center.

Chitimacha Indian Museum (Interpretive Themes I, II, and IV): Located on the Chitimacha Indian Reservation near Charenton, this museum features cultural displays of Chitimacha basketry and exhibits documenting Chitimacha lifestyles, customs, and ceremonies from the earliest aboriginal

settlements to current achievements as a self-governing tribe. The museum also features a craft shop that offers quality Chitimacha craft items.

The Chitimacha Indian Reservation originated as twelve distinct villages throughout the Mississippi River Delta and Atchafalaya Basin. It is located on Bayou Tèche in St. Mary Parish.

Other Historical and Cultural Museums

Ascension Parish

Historical Donaldsonville Museum (Interpretive Themes II and IV): Devoted to the preservation of the heritage of Donaldsonville, the museum is located in the historic B. Lemann & Brothers Building, the oldest department store in Louisiana.

River Road African American Museum (Interpretive Themes II and IV): This museum is dedicated to the preservation and display of the history and culture of African Americans in rural areas along the Mississippi River between Baton Rouge and New Orleans. Located in Donaldsonville, it features exhibits and source materials for genealogical research.

Concordia Parish

Frogmore Plantation and Cotton Gin (Interpretive Themes II and IV): Located in Frogmore, this museum features an early 19th century working plantation with a rare Munger cotton gin as well as a present-day computerized cotton gin. Costumed guides provide educational tours regarding cotton harvesting, the slave culture, and the plantation system.

East Baton Rouge Parish

Louisiana State University Rural Life Museum (Interpretive Theme II): This museum, located on the Burden Research Plantation, is owned by Louisiana State University. Living history demonstrations

interpret historical activities on Louisiana plantations and farms during the 19th century.

Magnolia Mound Plantation (Interpretive Theme II): Located in Baton Rouge, this historic house museum features a collection of late 18th and early 19th century furnishings, arts, antiques, and historical artifacts. Other historic buildings on the plantation that feature furnishings and artifacts include an open hearth kitchen, overseer's house, slave cabin, carriage house, and pigeonier.

Zachary Historic Village (Interpretive Themes I, II, IV): Devoted to the history of Zachary and the surrounding area, the village includes three historic homes. A "Native American Settlement" has recently been added to the collection.

Iberia Parish

Shadows-On-The-Teche House and Museum (Interpretive Theme II): Operated by the National Trust for Historic Preservation, this historic house museum features the plantation house (constructed between 1831 and 1834) and gardens, along with historic furnishings, artifacts, and site-related documentary collections.

Nottaway Plantation House (Interpretive Theme II): The aforementioned Nottaway Plantation House, which includes plantation grounds and a museum about the Randolph family and the history of the plantation, is a member of the Plantation Parade Association, which promotes the heritage of plantations along the Great River Road.

Lafayette Parish

Mississippi Valley Museum at Acadian Village (Interpretive Themes I and II): Located in Lafayette, this folklife museum consists of a replica of a late 19th-century Acadian village that features both restored and rehabilitated historic homes furnished with native Louisiana antiques depicting Acadian culture and heritage. A log building

resembling a frontier mission of the Mississippi River region houses a museum that presents a unique combination of Native American artifacts and scenes illustrating missionary experiences among the tribes in the territory drained by the Mississippi and its tributaries.

Cajun and Creole Folklife and Heritage Park (Interpretive Themes II and IV): Located along the banks of Vermilionville Bayou in Vermilionville, the heritage park's grounds are laid out as a historic village containing 18 structures (including six restored homes) to portray the lifestyle of Acadian settlers during the period from 1765 to 1890. In most of the structures, costumed interpreters demonstrate traditional crafts or musical styles.

Pointe Coupee Parish

Pointe Coupee Parish Museum (Interpretive Theme II and IV): Located on the west bank of False River near Parlange Plantation, this historic house museum, which is listed in the National Register of Historic Places, features a rare example of an early 19th century log cabin Creole-type residence.

St. Martin Parish

Olivier Plantation House (Interpretive Theme II): Located next to the Memorial Building in the St. Martinville Cultural Heritage Center, this museum features more than 3,000 names of Acadian refugees from early Louisiana records, engraved on bronze plaques and framed in granite. Their stories are portrayed by costumed actors.

African American Museum (Interpretive Themes II and IV): Located in the St. Martinville Cultural Heritage Center, this museum portrays the story of the arrival of Africans in southwest Louisiana during the 18th century, their enslavement, and the celebration of their freedom.

St. Martin de Tours Catholic Church (Interpretive Theme II): Built in 1836, this

church in St. Martinville is considered to be the “mother church” of the Acadians. It is the fourth oldest church in Louisiana and features the statue of Evangeline keeping watch over its cemetery.

St. Mary Parish

International Petroleum Museum and Exposition (Interpretive Themes I and II): Located in Morgan City, this museum and exposition preserves oil drilling artifacts and equipment and features exhibits associated with the offshore petroleum industry that are used for training oilfield workers and educating visitors about the impact and significance of the offshore oil and gas industry. The museum's features include the “Mr. Charlie Oil Rig” which was designed and constructed in 1953, placed into service in 1954, and used to drill hundreds of wells off the coast of Morgan City in the Gulf of Mexico until 1986.

Mr. Charlie was one of the first submersible, offshore drilling rigs of its kind. Designed by naval engineer Alden J. “Doc” LaBorde to provide an easier and cheaper way to drill for oil offshore, Mr. Charlie was a floating city that provided living quarters for up to 58 workers. The rig was built on top of a barge that was 220 feet long and 85 feet wide with a platform 60 feet above the barge. The drilling equipment and living quarters were built above the barge. The drilling rig was transported to a location to drill and, once in position, the barge would fill its tanks with water, submerging the barge to the Gulf floor and creating a stable drilling platform. Once the drilling was completed, water was pumped out, and the barge and all equipment were floated to the next location.

LaBorde's original rig was named after Charles H. Murphy, owner of the Murphy Oil Corporation who inspired him to develop and perfect this method of submersible offshore drilling platforms. The Murphy Oil Corporation was the first oil company to buy into the idea of the submersible rig and provided the initial

funding for its creation. The Shell Oil Company wanted to open a new drilling area off the coast, but the traditional methods for offshore drilling were not cost effective. In 1954, Shell hired the Mr. Charlie Oil Rig for its first offshore well near the mouth of the Mississippi River with one stipulation: If the Mr. Charlie could perform as described by LaBorde, Shell would hire the rig to do all of the drilling in the entire area. The rig worked as planned and was in continuous operation until 1986.

The museum receives no state funding and is entirely maintained by training revenue and stipends from oil companies. Due to the current moratorium on deepwater offshore drilling, training operations have essentially ceased, and the museum's primary revenue stream has been reduced substantially. Once the ban is lifted, management believes that revenues will return to normal levels.

Terrebonne Parish

Southdown Plantation House Museum (Interpretive Themes I, II, and IV):

Located near Houma, the plantation house has been turned into a museum by the Terrebonne Historical and Cultural Society. Museum exhibits include original bedroom furniture of the Minor family and other antique furnishings; rooms devoted to history and culture, Mardi Gras, Native Peoples, local artists, sugar industry, and porcelain birds; rooms that house the Charles Gilbert art collection and the Thad St. Martin literature collection; a re-creation of the Washington, DC, office of U.S. Senator Allen J. Ellender; and a restored 1880s plantation workers' cabin.

West Baton Rouge Parish

West Baton Rouge Parish Museum

(Interpretive Theme II and IV): Housed inside the former courthouse in Port Allen, the museum features historical artifacts and exhibits related to the history of West Baton Rouge Parish. Special collections and artifacts include the pre-Civil War Allendale Plantation Cabin and more than 1,300 historic photographs.

RECREATIONAL RESOURCES

GENERAL DESCRIPTION

Atchafalaya National Heritage Area was partially established in recognition of the many recreational opportunities within the region. Key public facilities are listed in this section, including associated recreational opportunities at the various sites; a complete listing of private facilities is more extensive than possible in this document.

A review of the 2009 – 2013 Louisiana Statewide Comprehensive Outdoor Recreation Plan (SCORP) reveals some trends and areas of need regarding recreation in the state. The plan identifies the availability of a variety of nearby recreation opportunities as a key factor in the quality of life for Louisianans. In general, the interests and needs presented in the plan align well with the recreation related goals of the Atchafalaya National Heritage Area as developed by the Commission. Collaboration with other entities has the potential to help the heritage area support quality of life.

Table 7. Top 10 Important Outdoor Recreational Activities among households (2008)

Rank	Activity	% of households
1	Fishing/Crabbing	58.9%
2	Running/Jogging	48.2%
3	Campground Camping	43.7%
4	Public Access to State Waters	42.7%
5	Hunting	41.3%
6	Spectator Sports	35.9%
7	Swimming/Spray Parks	34.9%
8	Botanic Gardens	34.0%
9	Walking/Hiking	32.5%
10	Picnicking	30.2%

The state took a regional approach to this comprehensive outdoor recreation plan; Region 4 essentially aligns with the heritage area. The survey results from residents show high interest and participation in non-structured outdoor activities (see Table 8). The survey of public recreation providers showed the need for additional funding; a need which is being compounded by reduced state spending on recreation, per the comprehensive outdoor recreation plan.

Table 8. Resident Top 3 Important Activities and Participation for Outdoor Recreation Louisiana Region 4

Important Activities	Percentages	Highest Participation Rates	Percentages
Visiting Natural Places	63.5%	Fishing	67.3%
Fishing	61.5%	Driving for Pleasure	65.4%
Campground Camping	51.9%	Camping	57.7%

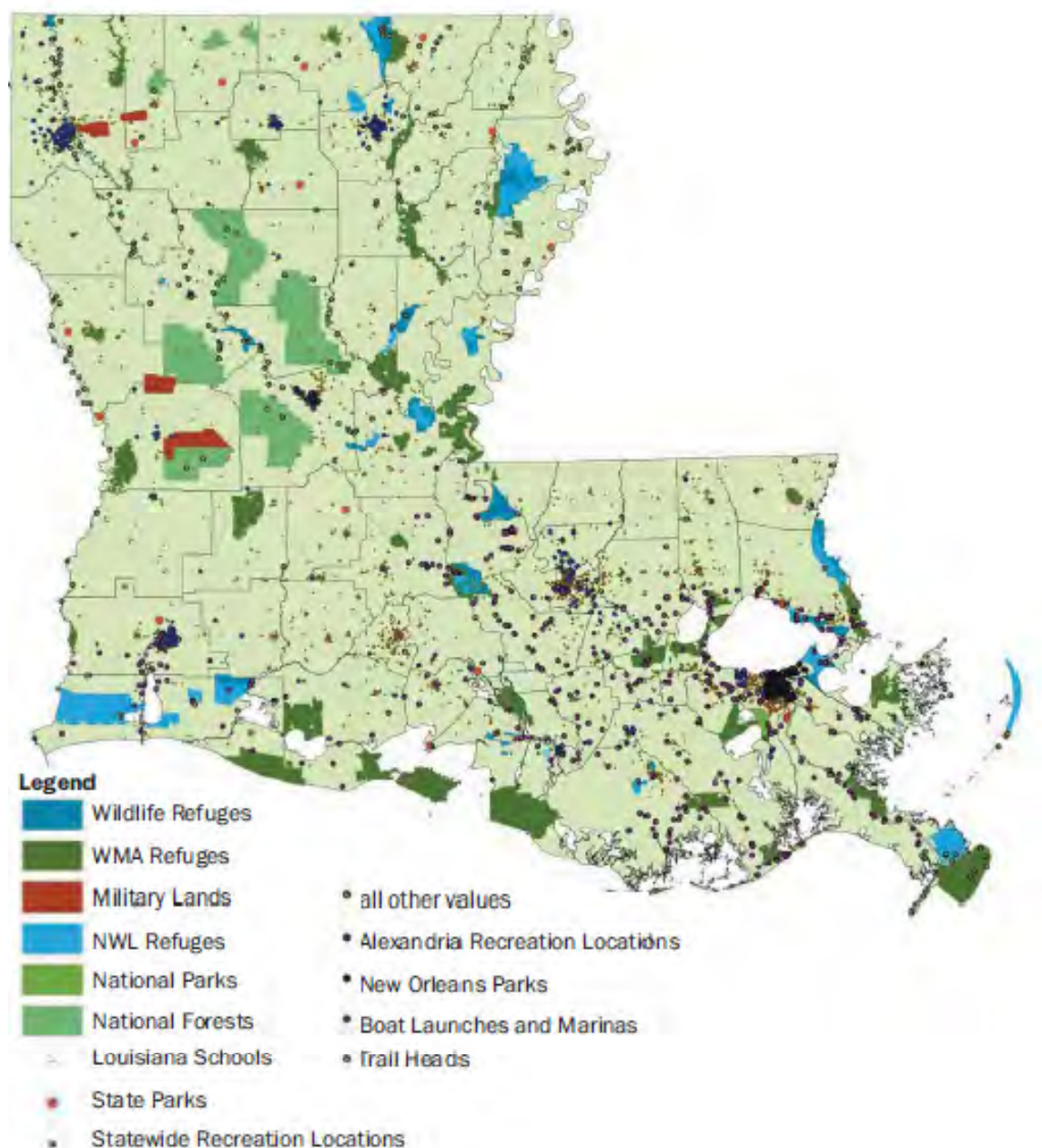
Source: Louisiana 2009 SCORP, 2008 Residents Survey

Table 9. Recreation Provider Limitations and Priorities, Louisiana Region 4

Limits to Participation	Percentage	Priority Needs	Percentage
Cost to Participate	0.0%	Funding	66.7%
Lack of Facilities	40.7%	More Facilities, Wider Activity Variety	38.9%
Lack of Land	38.9%	More Public Lands	31.5%
Lack of Improvements	37.0%	New Improvements	31.5%
Safety	22.2%	Safety Upgrades	24.1%
Distance from Household	20.4%	Closer Facilities	16.7%
Lack of Information	16.7%	Promotion	13.0%
Lack of Access	0.0%	Access Upgrades	7.4%
Maintenance Concerns	11.1%	Facility Maintenance	7.4%
Other	7.4%	Other	3.7%
Health Needs	13.0%	Health Upgrades	1.9%

Source: Louisiana 2009 SCORP, 2008 Providers Survey

Figure 2. Composite Map of Louisiana Recreation Opportunities



Source: Louisiana 2009 SCORP

NATIONAL PARKS

Jean Lafitte National Historic Park and Preserve: This historic park and preserve is part of the national park system and is composed of six separate locations, two of which are within the Atchafalaya National Heritage Area.

Acadian Cultural Center (Interpretive Themes II and IV) in Lafayette tells stories of the origins, migration, settlement, and contemporary culture of the Acadians (Cajuns) and other area groups. Ranger programs, films, exhibits, and events share a variety of local traditions including music, story-telling, dance, and food, and explore

the mysteries of the Atchafalaya Basin, Louisiana's wildest place. In spring and fall, ranger-guided boat tours on the good ship Cocodrie cruise Bayou Vermilion, first settled by American Indians and later home to farmers, trappers, and traders.

Prairie Acadian Cultural Center (Interpretive Themes II and IV) in Eunice represents the life of Louisiana's prairie Cajuns through ranger programs, exhibits, artifacts, and films. Regular programs include Cajun dance and cooking lessons and the "Cajun Grand Ole Opry."

The remaining four Jean Lafitte units—the French Quarter Visitor Center in New Orleans, the Wetlands Acadian Cultural Center in Thibodeaux, Chalmette Battlefield and National Cemetery in Chalmette, and Barataria Preserve in Marrero—are all located just outside the Atchafalaya National Heritage Area and provide varied experiences: pirates demonstrating cannon firing, holiday socials at the Malus-Beauregard House, and opportunities to explore and learn about Louisiana's abundant natural resources, including wetlands, bayous, swamps, marshes, forests, alligators, nutrias, and over 300 species of birds.

Natchez Trace Parkway (Interpretive Themes II, III and V) begins just beyond the northeast boundary of the Atchafalaya National Heritage Area in Natchez, Mississippi and extends 444 miles through Mississippi, Alabama, and Tennessee. The parkway commemorates an ancient trail used by animals and people that connected southern portions of the Mississippi River, through Alabama, to salt licks in today's central Tennessee. Today, visitors can experience this National Scenic Byway and All-American Road through driving, hiking, biking, horseback riding, and camping.

STATE PARKS

The Louisiana Office of State Parks maintains both recreational and historic parks within the state. The Atchafalaya National Heritage Area includes seven properties managed by the Office of State Parks. The historic sites are included in the previous section on cultural and historic resources. The recreational sites are listed below and relate to Interpretive Theme V.

Lake Fausse Pointe State Park: Located in St. Martinville, this park offers camping, cabin lodging, fishing, and paddle trails on Lake Fausse Pointe.

Cypremort Point State Park: Located in Cypremort Point, just a few miles from the Gulf of Mexico, this park provides facilities for relaxing, picnicking, and enjoying the water. It also affords an opportunity for fishing, crabbing, water skiing, windsurfing, and sailing. A boat launch just outside the park's entrance is only a few miles from the Gulf of Mexico. A 100-foot fishing pier is situated on Vermilion Bay. Overnight visitors also have access to adjacent boat docks. The 185-acre park holds a special attraction for nature enthusiasts: located in the heart of a Louisiana marsh, the site contains an abundance of wildlife.

Chicot State Park: Located just outside the Atchafalaya National Heritage Area near Ville Platte, this park provides a variety of recreational activities. The park covers over 6,400 acres of rolling hills and water in South Central Louisiana. Lake Chicot is known for fishing. An extensive hiking/backpacking trail completely encircles Lake Chicot and visitors are able to stay at several primitive campsites along the trail. Much of the trail is geared toward mountain bikers, and all cyclists are welcome to ride the roadways throughout the park. The park facilities include cabins, a group camp, a lodge, picnic areas and playgrounds, a swimming pool, a boat launch, fishing piers, and a dock with rental boats.

ATCHAFALAYA BASIN PROGRAM

The Department of Natural Resources, Atchafalaya Basin Program is primarily focused on water quality and water management within the Basin, but also has several projects underway to improve boat access to the Atchafalaya. The Atchafalaya Basin Program has a number of ongoing recreation projects. These projects, or stages of projects, are already funded, and Cooperative Endeavor Agreements already exist. These projects include Assumption Veterans Park, Avoyelles Interpretive Plaza, Avoyelles Sarto Bridge, Avoyelles Simmesport Park, Belle River Park, Camp Atchafalaya, Cajun Coast Tourism Center, Catahoula Park, Dick Davis Park, Eagle Point Park, Harry Hewes House, Iberville Welcome Center, Lake End Park, LePromenade de Pont Breaux, Opelousas Gateway, Pointe Coupee Doris Park, Stephensville Park, Myette Point Boat Launch, and Big Alabama Boat Launch. Additional boat launches are planned and under design at Bayou Sorrel and at Krotz Springs. (LA DNR 2010)

U.S. ARMY CORPS OF ENGINEERS RECREATION FACILITIES

The U.S. Army Corps of Engineers (USACE) Atchafalaya Basin Floodway Program owns three management areas within the Atchafalaya Basin. The program encompasses 595,000 acres of the largest contiguous tract of bottomland hardwoods in the United States. The Atchafalaya Basin is a scenic semi-wilderness area of hardwood forests, cypress stands, marshes, and bayous. It is one of the last remaining great river swamps in the nation. The Atchafalaya River and hundreds of miles of bayous bring life to this wild area. Recreation activities supported within the USACE lands include biking, boating, camping, fishing, hiking, visiting historic and cultural sites, horseback riding, hunting, off highway vehicle riding, recreational vehicle use, water sports, outdoor photography, and bird and wildlife

viewing. The U.S. Army Corps of Engineers manages the Bayou Des Ourses Area, the Indian Bayou Area and the Shatters Bayou Area.

Bayou Des Ourses Area (Interpretive Themes III and V), located in St. Martin parish, is managed in conjunction with U.S. Fish and Wildlife Service's Atchafalaya Wildlife Management Refuge and the Louisiana Department of Wildlife and Fisheries (LDWF) Sherburne Wildlife Management Area. The Sherburne Wildlife Management Area, the Atchafalaya National Wildlife Refuge and the USACE lands combine to form a 44,000 acre tract. The area is managed as one unit by the Louisiana Department of Wildlife and Fisheries. Recreation opportunities include birding, wildlife observation, boating, bird and game hunting, target and skeet shooting, archery, camping, hiking, and wildlife photography.

- **Indian Bayou Area (Interpretive Themes III and V)** comprises 28,480 acres and is located north of I-10 in St. Martin and St. Landry Parishes. It contains productive wildlife habitat, and is enjoyed by hunters, fishermen, bird-watchers, boaters, nature photographers, and outdoor enthusiasts. Hiking, mountain biking, and all-terrain vehicle trails are available. The area is located in the heart of the Atchafalaya Basin, the world's largest freshwater swamp wilderness, and protects bottomland hardwood areas.

WILDLIFE MANAGEMENT AREAS, WILDLIFE REFUGES

The mission of U.S. Fish and Wildlife Service (USFWS) and the national wildlife refuge system is to administer a national network of lands and waters for the conservation, management and where appropriate, restoration of the fish, wildlife and plant resources, and their habitats within the United States for the benefit of present and

future generations of Americans. The U.S. Fish and Wildlife Service manages ten wildlife refuges in Atchafalaya region:

Atchafalaya National Wildlife Refuge (Interpretive Themes III and V) is 15,000 acres of the largest bottomland hardwood swamp in the country. This beautiful swampland offers a multitude of recreational options. Hunting, fishing, hiking, and some of the best wildlife viewing opportunities in the country exist in this refuge. The refuge is managed cooperatively with the Louisiana Department of Wildlife and Fisheries Sherburne Wildlife Management Area and the U.S. Army Corps of Engineers Atchafalaya Spillway Water Diversion Project.

Bayou Cocodrie National Wildlife Refuge (Interpretive Themes III and V), near Ferriday, is an 11,255 acre site. The bottomland hardwoods at Bayou Cocodrie National Wildlife Refuge have been noted as some of the last remaining, least disturbed timber in the Mississippi River Delta.

Bayou Teche National Wildlife Refuge (Interpretive Themes III and V) is a 9,028-acre wildlife refuge located near Franklin, Louisiana. Bayou Teche National Wildlife Refuge goals include providing habitat and refuge for the threatened Louisiana black bear, providing the highest quality migratory bird habitat possible, allowing compatible public use, promoting research and restoration of the Louisiana black bear, and providing an opportunity for environmental education and interpretation.

Grand Cote National Wildlife Refuge (Interpretive Themes II and V) was established in 1989 to provide valuable waterfowl habitat in the Mississippi/Red River floodplain as part of the *North American Waterfowl Management Plan*. The 6,000 acre refuge is located in Avoyelles Parish outside of Marksville, Louisiana. Due to its location in east-central Louisiana, the refuge is influenced by both the Mississippi and Central Flyways; the large expanses of

shallow wetlands draw a diversity of waterfowl, wading birds, and shore birds. Recreational opportunities include hunting, fishing, wildlife observation, birding, and photography.

Lake Ophelia National Wildlife Refuge (Interpretive Themes II and V) near Marksville is named for the largest water body in the area; the refuge was established in 1988 to protect the important Mississippi/Red River floodplain ecosystem. The refuge was once part of a vast bottomland hardwood wilderness. Levees have changed the hydrology, but the underlying ridge/Saale topography supports a variety of habitat types. This 18,000 acre refuge is a mix of bottomland hardwood forests, open fields, and croplands crisscrossed with meandering bayous, streams, lakes, ponds, and the Red River that provide homes for a diversity of wildlife. Its most prominent water body, the 350-acre Lake Ophelia, was at one time a channel of the nearby Red River. Recreational opportunities include hunting, fishing, wildlife observation, birding, and photography.

Mandalay National Wildlife Refuge (Interpretive Themes III and V) near Houma is only accessible by boat and provides habitat for bald eagle and the American alligator. Recreation opportunities include birding, wildlife observation, and photography.

Shell Keys National Wildlife Refuge (Interpretive Themes III and V) is a small group of islets located in the Gulf of Mexico about 3 1/2 miles south of Marsh Island, LA. It was established in 1907 and is one of the oldest refuges in the national wildlife refuge system. It is also a testimony to the fast eroding shoreline of Louisiana. Its boundary was and still is rather loosely described. The boundary of the refuge has been interpreted to be those areas in this vicinity that are above mean high tide. Recreation opportunities include birding, wildlife observation, and photography.

The Louisiana Department of Wildlife and Fisheries (LDWF) manages a number of wildlife management areas and wildlife refuges totaling about 1.4 million acres. The goals for these lands are to provide quality examples of Louisiana habitats, ensure viability of these lands' wildlife populations, and to provide the opportunity for quality outdoor recreational experiences—and commercial opportunities where compatible. Three LDWF wildlife areas are located within the Atchafalaya National Heritage Area.

Sherburne Wildlife Management Area (Interpretive Themes III and V), located in the Morganza Floodway System of the Atchafalaya Basin, is situated in the lower portion of Pointe Coupee, and upper portion of St. Martin, and Iberville Parishes, between the Atchafalaya River and the East Protection Guide Levee. The Sherburne Wildlife Management Area, Atchafalaya National Wildlife Refuge, and the U.S. Army Corps of Engineers lands combine to form a 44,000-acre tract. The area is managed as one unit by the Louisiana Department of Wildlife and Fisheries. Recreation opportunities include birding, wildlife observation, boating, bird and game hunting, target and skeet shooting, archery, camping, hiking, and wildlife photography.

Marsh Island Wildlife Refuge (Interpretive Themes III and V), owned and operated by the state of Louisiana, is located between Vermilion Bay and the Gulf of Mexico in Iberia Parish. Although the island was 76,664 acres when originally deeded, current acreage is closer to 70,000, due to erosion. The refuge is generally composed of brackish marsh types, is virtually treeless, and is very flat. Marsh Island is very important as wintering grounds for blue and snow geese. Recreation opportunities include fishing, birding, wildlife observation, hiking, and wildlife photography.

Terrebonne Barrier Islands Refuge (Interpretive Themes III and V) consists of three barrier islands in the Isles Dernieres Chain located across the shoreline of Terrebonne Parish. Wine Island, Whiskey Island, and Raccoon Island were acquired in June of 1992 from Louisiana Land and Exploration Company via a 25-year free lease. The three islands comprise a total of approximately 630 acres, although the lease agreement covers several thousand acres of water. Recreation opportunities include fishing, birding, wildlife observation, hiking, and wildlife photography.

SCENIC RESOURCES

The Atchafalaya River and Basin, with its landscapes ranging from coastal wetlands to rolling hills and prairies, allows visitors to experience and enjoy a variety of habitats including fresh and saltwater marshes, cheniers, upland pines, cypress-tupelo swamps, bottomland hardwood forests, and open meadows. This amazing scenic backdrop provides some of the best birding and paddling opportunities in the country.

LOUISIANA NATURAL AND SCENIC RIVERS SYSTEM

The Louisiana Department of Wildlife and Fisheries manages the Louisiana Natural and Scenic Rivers System, which was created in 1970 by the Louisiana Legislature. The system was developed for the purpose of preserving, protecting, developing, reclaiming, and enhancing the wilderness qualities, scenic beauties, and ecological regimes of certain free-flowing Louisiana streams.

Today, there are approximately 3,000 miles of Louisiana waterways designated as natural and scenic rivers. These rivers, streams, and bayous, and segments thereof, are located throughout the state and offer a unique opportunity for individuals and communities to become involved in the protection, conservation, and preservation of two of Louisiana's greatest natural resources: its wilderness and its water. Portions of three rivers and creeks within the Atchafalaya National Heritage Area are part of this program. They include Bayou Cocodrie in Concordia Parish, Comite River in East Baton Parish, and Blind River in Ascension Parish.

Bayou Cocodrie (Interpretive Themes I and V) includes 55 miles in Concordia Parish, portions of which flow through

remnants of vast bottomland forests that once covered the area. Three historical sites, all Native American cultural sites, are recorded on the stretch.

Comite River (Interpretive Themes I and V) is an area that consists primarily of upland hardwood forests, scattered blocks of bottomland hardwoods, mixed pine-hardwoods, and highly scattered open pastures. Fish and wildlife habitat diversity is high. Along the Comite River, four prehistoric Native American sites and one historic cemetery are documented. Recreation use is high on the lower stretches.

Blind River (Interpretive Themes I, III, and V), in Ascension Parish, is designated as scenic and the surrounding habitat is composed of deep, wooded swamp with Spanish moss draped bald cypress and water tupelo. Fish and wildlife species are diverse and include furbearers, swamp rabbit, whitetail deer, and many species of birds, along with game fish, like black bass, sunfish, catfish, and gar. Two recorded archaeological sites are found along the corridor. This stream is one of the least developed, most natural river areas designated as scenic. The natural setting fosters good scenic quality. The river is popular for fishing and power boating. Canoeing and water skiing are common sports along Blind River.

NATIONAL AND STATE SCENIC BYWAYS

The State of Louisiana manages eight national and state scenic byways. The National Scenic Byways website was the source of information on scenic byways. More information can be found at www.byways.org.

Bayou Teche Scenic Byway (Interpretive Themes II, III and V) meanders for 125 miles through the heart of Acadiana. The Teche is home to giant oaks covered with Spanish moss, opulent Greek Revival mansions, and small towns.

Colonial Trails Scenic Byway (Interpretive Themes II, III and V) is a 300-mile section of road that passes through historically rich areas within the Atchafalaya National Heritage Area. It stops in towns such as Vidalia, where Hernando de Soto died; Marksville, home of the Tunica-Biloxi Indian Tribe; and Natchitoches, the oldest city in Louisiana. Travelers are able to see and experience areas of exceptional natural beauty, colonial remnants, and Civil War sites.

Cajun Corridor Jean Lafitte Scenic Byway (Interpretive Themes II and V) covers 178 miles; however, only a portion of the byway lies within the heritage area—a section of Highway 90, just outside New Iberia and north to Lafayette. Lafayette is home to Acadian festivals, the Jean Lafitte National Historical Park and Acadian Cultural Center, museums, art galleries, and a mixture of architectural styles.

Louisiana Scenic Bayou Byway (Interpretive Themes II, III and V) explores the back roads in 13 parishes and covers 512 miles, 6 of which are within the heritage area (Ascension, Assumption, Iberville, Pointe Coupee, and East and West Baton Rouge). Along the byway are numerous properties listed in national register historic districts, and three national historic landmarks.

Promised Land Scenic Byway (Interpretive Themes I, II, III and V) travels through the vast natural areas in close proximity to the Atchafalaya Basin. It travels through Henderson, St. Martinville, and Breaux Bridge; travelers can drive along the levee road and see historic homes and moss draped oak trees.

River Road Scenic Byway (Interpretive Themes II, III and V) includes 216 miles of the larger Great River Road. It follows the Mississippi River where visitors encounter shipyards and the lock at Plaquemine.

Wetlands Cultural Trail (Interpretive Themes II, III and V) lies at the southern edge of the heritage area and provides visitors the ability to view the water environment that makes south-central Louisiana unique. Visitors are able to catch a glimpse of shrimp boats, sugar mills, plantation houses, and Cypress trees and knees.

Zydeco Cajun Prairie Scenic Byway (Interpretive Themes II, III and V) crosses three Louisiana parishes—Acadia, St. Landry, and Evangeline. Along its 233 miles, it runs through multiple towns, historic districts, agricultural areas, and open prairieland. Along the byway, travelers are able to visit and experience Eunice and Opelousas, two communities within the heritage area, and take advantage of fishing, boating, and camping opportunities.

SOCIOECONOMIC ENVIRONMENT

By law, the coordinating entity of a national heritage area is tasked with encouraging sustainable economic development within the heritage area.

The socioeconomic baseline is explored here to assist with comparison of impacts the alternatives would have on these characteristics.

Characteristics of the socioeconomic environment to be described below include the following:

- Population and growth
- Economic base and trends, including major industries, the tourism industry in specific, and employment rates
- Socioeconomic status and trends, including income, poverty, educational attainment, and way of life
- Tourism levels and impact on the local economy

The heritage area encompasses a significant portion of the state of Louisiana, including 14 parishes of 64 in the state. Economic characteristics vary throughout the heritage area. For the purposes of analyzing the socioeconomic environment, the heritage area is divided into four regions: 1) Upper Atchafalaya, which includes Concordia, Avoyelles, and Pointe Coupee parishes; 2) Between Two Rivers, which includes East and West Baton Rouge, Ascension, and Iberville parishes; 3) Bayou Teche, which includes Lafayette, Iberia, St. Landry, and St. Martin parishes; and 4) Coastal Zone, which includes Terrebonne, St. Mary, and Assumption parishes. Data was gathered generally at the parish level, and characteristics of the individual parishes are noted where appropriate.

As the often called “last wilderness of the south,” the area’s economics have in the past

and still do rely on the vast river basin, and opportunities for resource extraction or harvest, water transportation, and river containment. Over the years, economic activity has shifted from a heavy reliance on plantation farming to other industries, such as trade and services. Some of the most visible industries are tourism, petroleum, government, shrimping and fishing, and cotton and sugarcane farming. The service sector, manufacturing, and construction are also strong forces in the economy.

The heritage area has been greatly affected by tropical storms, especially from hurricanes Katrina and Rita in 2005. In addition to direct damage to the infrastructure in much of the coastal area that has made it more difficult or impossible to do business, the storms caused a decline in travel to the area, which has also impacted key parts of the local economy. On the other hand, government emergency relief spending has put dollars into the economy and allowed for the opportunity to reconstruct infrastructure. Approximately \$13.4 billion was appropriated by Congress through the U.S. Department of Housing and Urban Development—of that amount, \$10.7 has been expended in the state. While most of the relief funds went towards Orleans and Bernard Parishes (outside of the heritage area), many of the heritage area parishes were greatly affected. As of October 2010, the heritage area parishes have expended \$262 million in housing funding, \$12 million in economic development funding, and \$3 million in infrastructure funding. The heritage area parishes have another \$14 million allocated for infrastructure, which has not been expended as of October 2010 (Louisiana Division of Administration 2010b).

POPULATION GROWTH

The population of the heritage area is estimated at 1.25 million people (U.S. Census Bureau). Most residents live in the East Baton Rouge, Lafayette, Terrebonne, and St. Landry parishes. Population hubs are located in the Baton Rouge, Lafayette, and Houma metropolitan areas, as well as along transportation corridors such as interstates 49 and 10. Least populated parishes include Assumption, Concordia, Pointe Coupee, and West Baton Rouge. The majority of the river basin is sparsely populated.

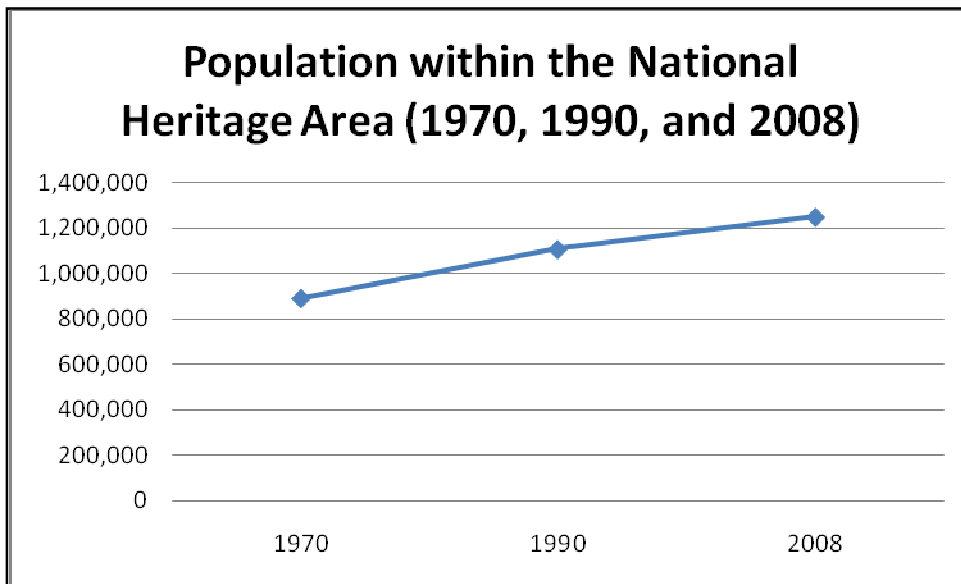
The population of the entire area has grown 40% since 1970. The Baton Rouge area and Lafayette area have experienced the greatest growth, as have areas most accessible to New Orleans, such as in Terrebonne Parish. Populations in some parishes have declined or remained flat, such as in St. Mary, Concordia, and Pointe Coupee Parishes. The entire area's population grew at almost twice the rate of the state of Louisiana (23% growth since 1970), but at a lesser rate than the United States (50% growth since 1970). Population growth or decline is the result of a mix of factors, including work

opportunities; the business climate; local natural and human resources; accessibility to air, water, and road transport; location in relation to business hubs; recreational and cultural amenities; and the regional economy.

Through 2020, seven of the parishes are projected to grow in population. These include Ascension, Avoyelles, Iberia, Lafayette, St. Landry, St. Martin, and Terrebonne Parishes. The other seven parishes are expected to lose population. These include Assumption, Concordia, East Baton Rouge, Iberville, Pointe Coupee, St. Mary, and West Baton Rouge Parishes (Blanchard).

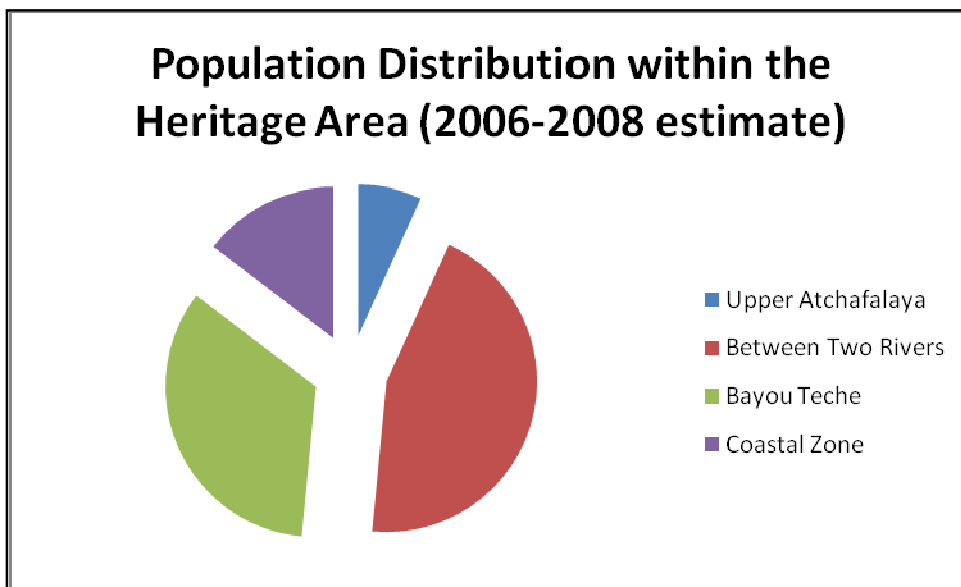
Population growth can affect the socioeconomics of an area in many ways: it can expand economic opportunities including the labor force and tax base, and can, at the same time, create some negative and positive social impacts such as increased congestion and diversity. The opposite can also be true for declining populations.

Figure 3. Population Within the Heritage Area



Source: U.S. Census, 2010

Figure 4. Population Distribution Within the Heritage Area



Source: U.S. Census, 2010

HIGHLIGHTED DEMOGRAPHICS

Race

Heritage area residents are primarily white (62 percent) or Black or African American (35 percent). Since 2000, the Black or

African American and Asian populations have increased as a percentage of the population (2% and 1% increase, respectively), while the white population has decreased as a percentage of the population (2% decrease) (U.S. Census Bureau).

Table 10. Population by Race for all parishes within the Heritage Area, 2008

Race	Population	Percentage
White	795,995	62%
Black or African American	445,460	35%
Asian	20,469	2%
American Indian and Alaska Native	15,253	1%
Some other race	9,101	1%
Native Hawaiian and Other Pacific Islander	222	0%

Source: U.S. Census

Ancestry

The most represented ancestries are found in the table below. However, many other ancestries are found within the heritage area, although each made up less than 1 percent of the total population. Acadian and Cajun ancestries were not separated out from the catchall “other” group that the census

reports on, however, in past years, the population claiming Acadian or Cajun ancestry has made up 2 percent of the heritage area population (U.S. Census Bureau, 2000).

Table 11. Population by Ancestry for all parishes within the Heritage Area

Ancestry	Population	Percentage
French	232,860	18%
American	119,808	9%
German	87,088	7%
Irish	69,740	6%
English	67,270	5%
French Canadian	61,047	5%
Italian	50,109	4%
Scots-Irish	14,746	1%
Scottish	10,250	1%
Subsaharan African	8,405	1%

Source: U.S. Census

Religion

Residents of the heritage area are more likely to be members of a religion than are residents of the state or of the U.S (59%, 55%, and 37% respectively). Roman Catholic, evangelical protestant, and other protestant religions are predominant in the

area. The Roman Catholic tradition has the most members of any major religious tradition in the heritage area. This contrasts with the state of Louisiana and the U.S., where evangelical protestant religions have the highest numbers of members.

Table 12. Major Religious Traditions

Major Religious Tradition	Congregations	Members	% of Total Population Who Are Members
Roman Catholic	199	355,816	28%
Evangelical Protestant	995	196,467	15%
Other	327	74,974	6%
Historically Black Protestant	112	58,924	5%
Mainline Protestant	153	48,728	4%
Jehovah's Witnesses	32	9,050	1%
Latter-day Saint (Mormon)	14	5,246	0%
Jewish Congregations	6	725	0%
Buddhist	1	300	0%
Hindu	2	300	0%
Orthodox Christian	3	250	0%
Islamic	3	150	0%
Total	1847	750,930	59%

Source: The Association of Religious Data Archives and InfoGroup.

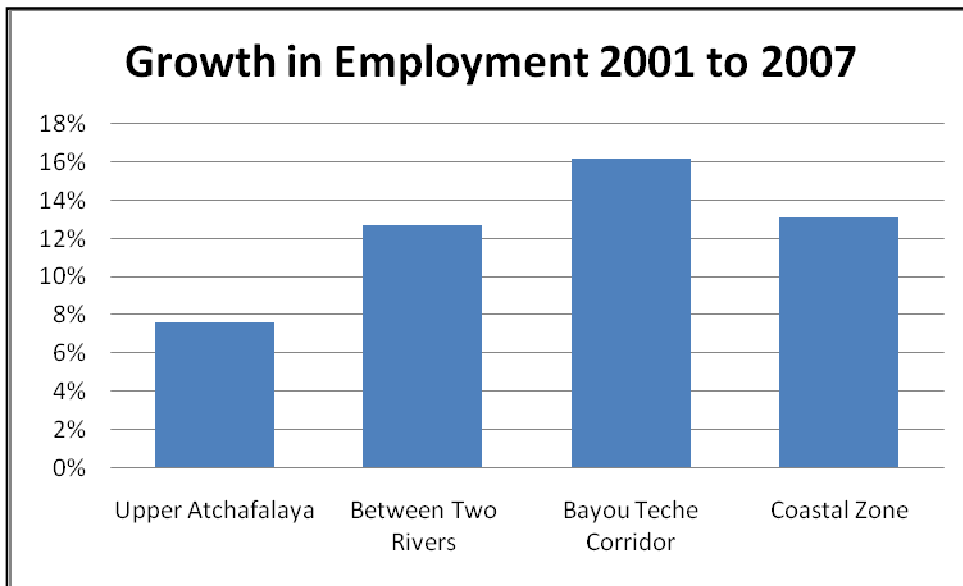
ECONOMIC OVERVIEW

Employment

The number of jobs in the area has grown 14% between 2001 and 2007. A decline in jobs occurred in Assumption Parish;

however, all other parishes experienced job growth within the range of 2 and 32% during the same years. Ascension, Terrebonne, and St. Landry parishes had the greatest job growth during that time. (BEA 2009b)

Figure 5. Growth in Employment, 2001-2007

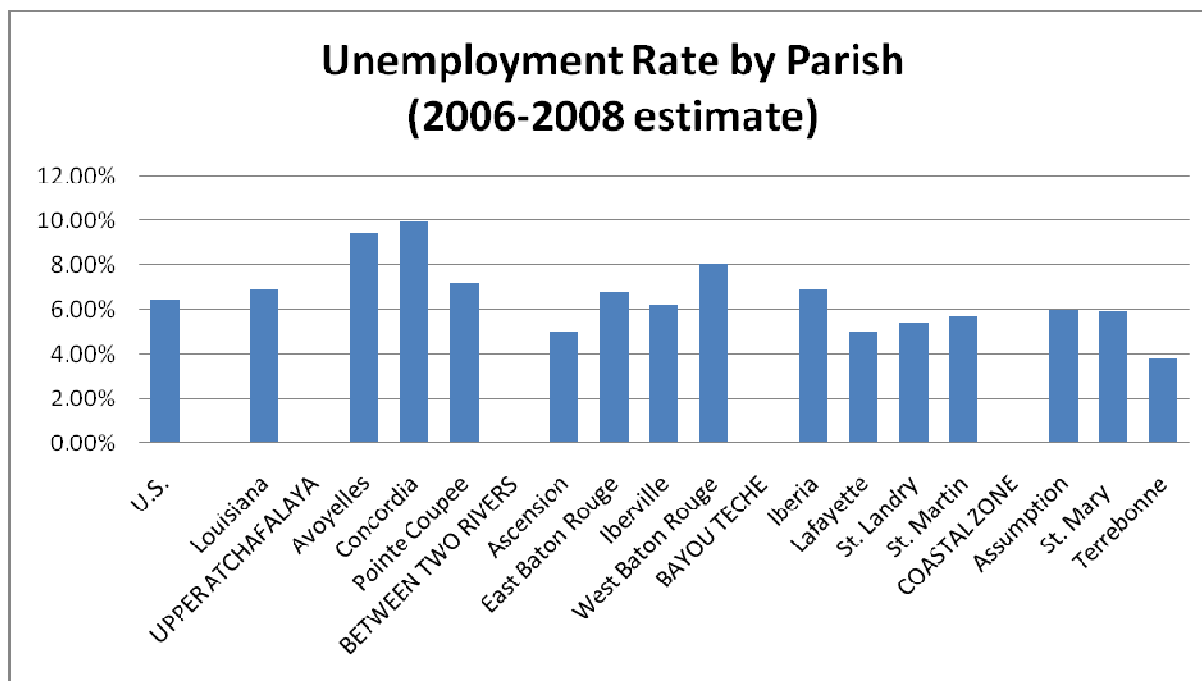


Source: Bureau of Economic Analysis 2009b

Unemployment

Unemployment lessened between 2000 and 2006-2008. Unemployment rates were lower in eight of the fourteen parishes than in the overall U.S. Only Terrebonne, Ascension, and Lafayette had unemployment of 5% or less. Avoyelles and West Baton Rouge

parishes had the highest unemployment rates. However, the recession in 2009 impacted unemployment across the country, raising unemployment 2.1% points in Louisiana to 6.9% in 2009. The U.S. unemployment in the same period (2008 to 2009) rose to 9.3%.

Figure 6. Unemployment Rate by Parish, 2006-2008 Estimate

Source: U.S. Census, 2010

Industry

In the past, many of the area's residents were economically tied to the land, water, and resources. While most residents today are employed in the mainstream economy, the traditional cultural economy is still active, and is recognized and encouraged by the state of Louisiana and local residents.

Employment data from 2007 highlight the differences between the regions of the heritage area. Compared to the other three regions of the heritage area, the Upper Atchafalaya has high levels of government employment. Agriculture also plays a larger role in this area than in the rest of the heritage area, although agriculture employment was more prevalent in the past. Today, the area has a strong trades and services economy. A casino is one of the largest employers in the area.

The area called Between Two Rivers has a history of cotton and sugarcane farming. Access to transportation via water was

critical. The state capitol in Baton Rouge is also here. The Between Two Rivers area has an economy anchored in trades and services. Manufacturing of petrochemicals is also a major industry in the area. This part of the heritage area has more residents and employees than the other three areas combined.

The Bayou Teche Corridor's economy is trade and services oriented, and also has a high level of industrial employment, as compared with the rest of the heritage area. Oil and gas extraction contributes to the industrial employment figure. The metropolitan area of the Bayou Teche Corridor is Lafayette, which has had success in attracting a greater diversity of employment opportunities, including the university, services, and oil and gas.

The Coastal Zone has historically been a center for the fishing, shrimping, and crawfishing industries. It became a hub for oil and gas extraction starting in the 1930s. The Houma Tribe and Chitimacha Tribe

also have past and present ties to this area. Trade and services, as well as industrial employment, are the core of the economy. Mineral extraction is still a large part of the Coastal Zone economy. The area has seen a reduction in farm employment in the past half century, turning towards industrial and service industries.

Oil and gas is a prominent industry in the area, and in Louisiana. All parishes in Louisiana produce oil or gas. Within the heritage area parishes, 31,000 people were employed in oil and gas extraction, refining, and pipeline industries (Scott 2007) and over \$2 billion in wages were paid within those fields. This makes up 4% of employment and 6% of wages for the heritage area (Bureau of Economic Analysis 2009b). Approximately half the oil and gas employment and wages in the industry were generated in Lafayette Parish, which also ranks highest in the state for oil and gas employment.

The crawfishing industry is an important part of the culture of the Atchafalaya Basin.

Louisiana harvests the most crawfish in the nation, making up 90% of domestic crop. Approximately 800 commercial fishermen harvest crawfish, primarily in the Atchafalaya Basin. Additionally, 1,600 Louisiana farmers produce crawfish (Louisiana Crawfish Promotion and Research Board 2010).

The Atchafalaya National Heritage Area Development Zone (ANHADZ) was created as a vehicle to administer a tax credit program designed to stimulate economic development within the 14-parish Atchafalaya National Heritage Area. Since its inception, the program has awarded \$48,000 in tax credits to businesses that make use of the cultural, historical, and natural heritage of the area. Artists, photographers, musicians, innkeepers, fishermen, and farmers, among others, have benefited from this program. Other institutions support the heritage of the area through grants and technical assistance to authentic cultural practitioners, including the Louisiana Division of the Arts.

Table 13. Employment by Major Category, 2007

	Total Employment	Agriculture¹	Industry²	Trade and Services³	Government⁴
Upper Atchafalaya	34,100	8%	18%	38%	23%
Between Two Rivers	408,813	0%	27%	55%	16%
Bayou Teche Corridor	266,163	1%	30%	57%	11%
Coastal Zone	106,297	2%	40%	44%	13%

Source: Bureau of Economic Analysis, 2009a

Some employment was not broken down into major category to avoid disclosure of confidential information, but the estimates for these items are included in the total employment figures.

1 Includes farming, forestry and logging, hunting and fishing, and agricultural support activities.

2 Includes mining, utilities, construction, manufacturing, transportation and warehousing, and administration and waste services.

3 Includes wholesale and retail trade, information services, finance and insurance, real estate, professional and technical services, management of companies, educational services, health care, arts and recreation, accommodation and food services, and other services.

4 Includes federal, state and local government.

Socioeconomic Status

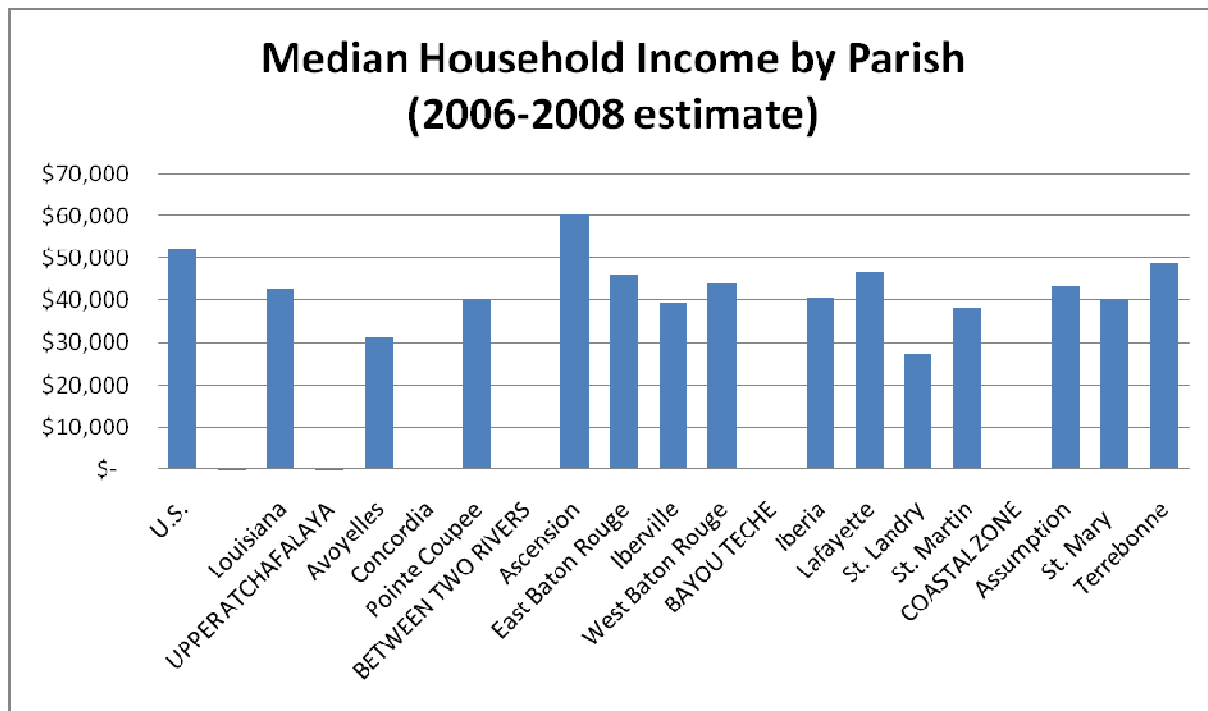
Income, poverty, and educational attainment measures indicate that the heritage area is doing less well than the state of Louisiana and the U.S. overall in these areas of the economy. However, this varies by parish: the parishes of Ascension, Lafayette, Terrebonne, and East and West Baton Rouge are faring better than the state in many ways, while other parishes are not doing as well by these measures.

The heritage area's goal to expand economic opportunities would indicate a need to look at the overall socioeconomic picture.

As of 2008, eight of the fourteen parishes had lower median household incomes than

the state of Louisiana. And the state in turn had a lower median household income than the United States, overall. St. Landry and Avoyelles Parishes had the lowest median incomes of about \$30,000. Louisiana's median household income was \$42,000 in 2008. The highest median income was in Ascension, at about \$60,000. Only six of the fourteen parishes had median incomes higher than the state's, indicating that the area as a whole has less income. Income in the heritage area grew slightly more in the previous 8 years (2000 to 2008) than did income in the state. Parish employment figures are generally better than state figures, but incomes are lower, which may be due to under-employment and lower wages.

Figure 7. Median Household Income by Parish



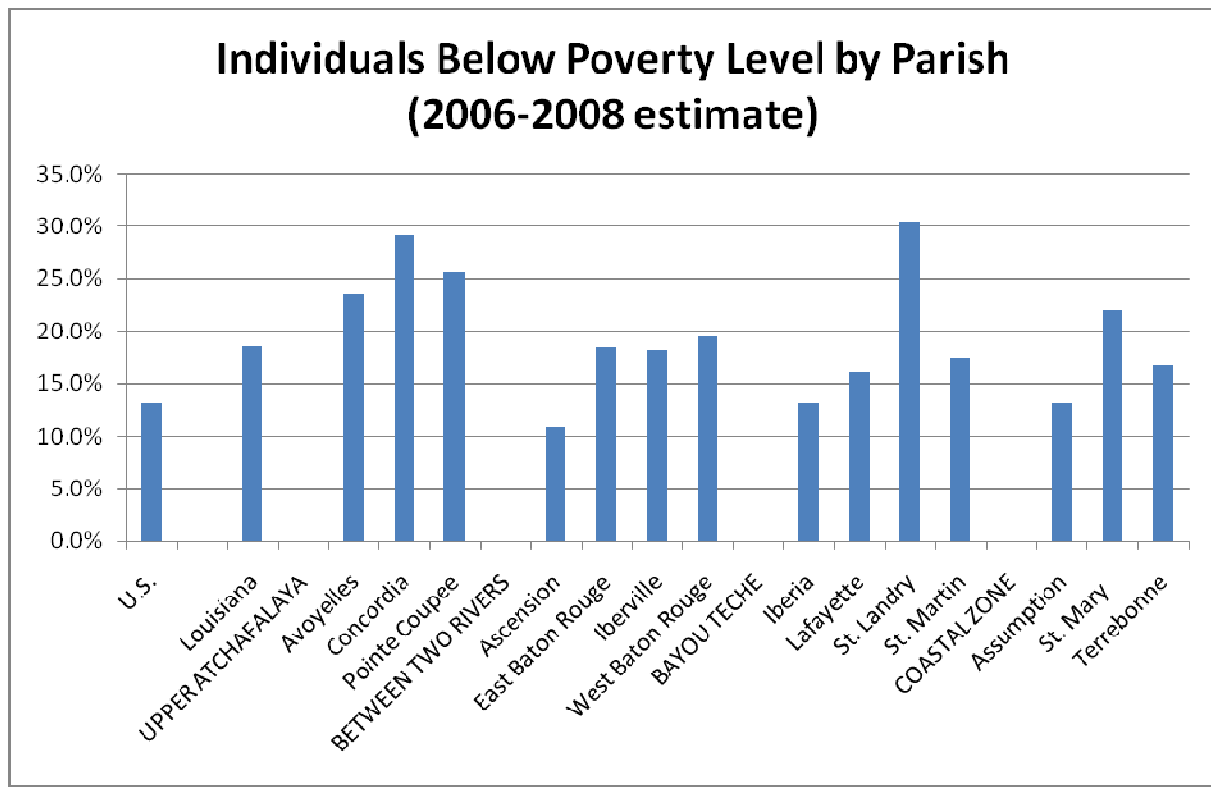
Source: U.S. Census, 2010

Another perspective on the economic welfare of residents is presented by data on poverty rates. While the United States has a poverty rate of 13%, the heritage area parishes had rates from 11% to 30%, with 12 of the 14 parishes having higher poverty levels than the overall U.S. However, the heritage area poverty levels are on par with state poverty levels. The area improved in this measure since 2000 due to economic growth in the mid-2000s; however, the economic downturn beginning in 2008 is likely to have increased poverty rates.

Educational attainment levels help to paint a picture for the labor market. Assumption,

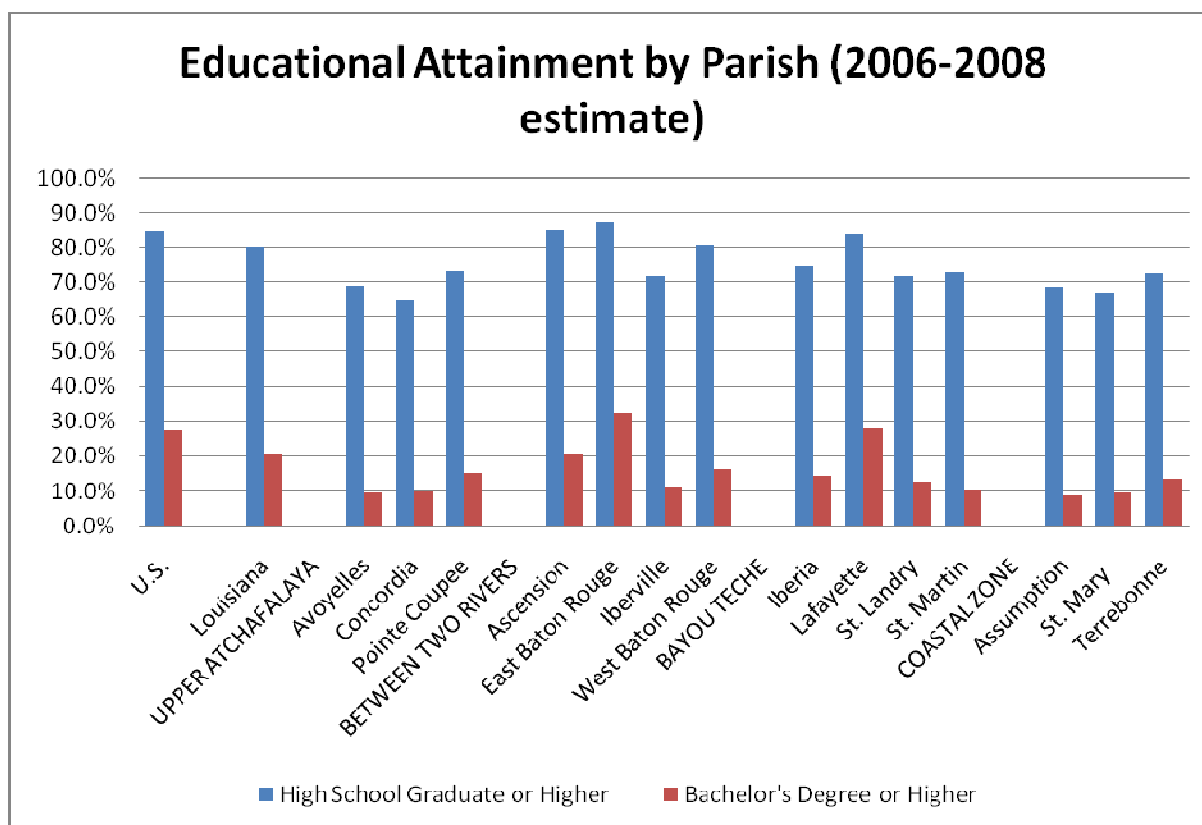
Avoyelles, and St. Mary's parishes have the lowest levels of high school (70%) and bachelor's degrees attainment (under 10%). Ascension, East Baton Rouge, and Lafayette parishes have the highest levels, at over 83% having graduated high school or higher, and over 20% having a bachelor's degree or higher. The overall U.S. has levels for having graduated high school or higher is 84%, and having a bachelor's degree or higher is 27%. Educational attainment is lower in most of the parishes than in the United States as well as compared with the state. Lower educational attainment levels may limit the possibilities for diversifying the economy.

Figure 8. Percentage of Individuals Below Poverty Level by Parish



Source: U.S. Census, 2010

Figure 9. Educational Attainment by Parish



Source: U.S. Census, 2010

TOURISM

Levels of Use for Atchafalaya Heritage Area Welcome Centers

Atchafalaya Welcome Center

The most visited of the welcome centers; the Atchafalaya Welcome Center received 149,361 visitors in 2009. Hurricanes Katrina and Rita in 2005 severely hurt travel to the area during the following years, but visitation has since rebounded.



Atchafalaya Welcome Center

Capitol Park Welcome Center

The Capitol Park Welcome Center in Baton Rouge opened in 2006. Located on the Capitol campus (which includes a new state history museum, as well as other state buildings), the welcome center had 3,706 visitors in 2009.



Capitol Park Welcome Center

Vidalia Welcome Center

In the northern portion of the heritage area, Vidalia Welcome Center also received fewer visitors in the years immediately following hurricanes Katrina and Rita, and may have been further impacted by the economy woes of 2008. In 2009, the center's visitation has rebounded somewhat to 18,955 visitors.

Table 14. Welcome Center Visitation, 2004 to 2009

	2004	2005	2006	2007	2008	2009
Atchafalaya	56,779	123,974	100,137	83,946	73,614	149,361
Capitol Park	0	0	130	2,482	5,017	3,706
Vidalia	28,153	22,181	21,936	16,739	14,246	18,955
TOTAL	84,932	146,155	122,203	103,167	92,877	172,022
Annual Growth		72%	-16%	-16%	-10%	85%

Heritage Area Visitor Characteristics

An excellent source of data on the visitor market is the visitor survey completed between May and September 2009 for the heritage area. The Louisiana Department of Culture, Recreation and Tourism commissioned The University of New Orleans, Hospitality Research Center to survey visitors and develop a summary report. Surveys were distributed at the welcome centers, and a total of 367 surveys were returned and analyzed. (Louisiana Department of Culture, Recreation and Tourism 2009)

The following list includes results of the 2009 visitor survey and report:

- 52.9% of respondents were first time visitors to the Atchafalaya Heritage Area.
- Over half (53.3%) of respondents were either “not sure” or were not familiar with the Atchafalaya National Heritage Area. Just 11.7% considered themselves very familiar.
- 52.5% of respondents indicated their visit was part of an overnight trip.
- Over one-third (36.0%) of overnight visitors stayed in an area hotel, followed by campgrounds (20.5%), and with friends/relatives (19.9%).
- 46.4% of respondents visited the Atchafalaya National Heritage Area for a pleasure trip, followed by visiting friends or relatives (21.4%), and for business (13.3%). 10.8% of visitors came to the heritage area for a special event or regional festival.
- Over two-thirds (67.7%) of day trip visitors spent 6 hours or less in the local area. The average number of hours spent was 5.4.
- The majority (62.6%) of overnight visitors spent between 1 and 3 nights in the local area. The average number of nights spent was 4.4.
- The most common region ever visited by respondents was Baton Rouge (79.3%), followed by Lafayette (63.5%), Breaux Bridge (52.0%), and New Iberia (48.3%).
- The most commonly visited region by respondents on their current trip was Baton Rouge (64.1%), followed by Lafayette (37.2%), Breaux Bridge (28.2%), and New Iberia (24.4%).
- 58.3% of respondents reported that one or more the heritage area communities was their trip’s primary destination.
- Over half (54.3%) of respondents went to a heritage area visitor center during their trip. The majority (75.5%) of visitors had 1 to 2 adults in their party. The average number of adults per party was 2.9.
- Of visitors whose parties included children, the average number of children was 2.1. The average party size—adults and children together—was 5.
- The largest percentage of visitors came from Louisiana (39.0%), followed by Texas (12.2%), Florida (4.9%), and Mississippi (4.0%).
- Of reported international visitors, France and Germany were the most represented countries (each with 33.3%).
- 41.7% of respondents learned about the Atchafalaya National Heritage Area by visiting an information center, followed by friends or word-of-mouth (32%), and a highway or road sign (17.8%).
- Respondents were equally divided between males and females.
- The 56 to 65 age group represented the largest number (23.9%) of respondents, closely followed by the 46 to 55 age group (23.3%).

- 55.6% of respondents had an income of over \$50,000.
- Over half (52.4%) of respondents had at least an undergraduate degree.
- The majority (61.7%) of visitors spent \$41 or more on their visit to the Atchafalaya National Heritage Area.
- Although awareness of the Atchafalaya National Heritage Area is low, those that did visit the heritage area were satisfied with their visit as indicated by the high percentage who would recommend the area to others (98.2%).

The results of the visitor survey indicate the heritage area is a draw not only for repeat visitors but also for first time visitors (53%). Whether they are first time visitors or repeat visitors, they contribute to the economy of the heritage area. Visitors typically spend money on food, accommodations, entertainment, and travel.

Half of visitors stayed overnight and over half of those stayed in a hotel or campground. For day visitors, the average number of hours spent in the area was almost 6, which indicates that at least one meal would be eaten during the visit. Visitors have a high median income as compared with much of the heritage area, and while average spending data is not available, it can be assumed that most visitors are spending money within the area.

Over half of the surveyed visitors were unfamiliar with the Atchafalaya National Heritage Area, although they were within it and visiting one of its welcome centers. This suggests a need to increase general awareness of the heritage area.

Impact of Visitation to Louisiana Parishes

The Travel Industry Association completed a report on the impact of travel and tourism on the Louisiana economy in 2007. This report showed that Hurricane Katrina and

Hurricane Rita in 2005 dramatically affected the travel industry in Louisiana; travel spending decreased 11% from 2005 to 2006, and 22% from 2004 to 2006. Travel-generated payroll is the income paid to employees who are directly serving travelers within the industry sectors from which these travelers purchase goods and services. One dollar of travel spending generates different amounts of payroll income within the various travel industry sectors, depending on the labor content and the wage structure of each sector.

Travel

Travel spending has a significant social and economic impact on the heritage area. Economic impact data is detailed in the tables below. Traveler spending goes to the purchase of goods and services; some of these dollars stay within the heritage area and some may leave the area—for example, for materials bought originally outside the area by the vendor. Dollars that go directly to residents of the heritage area may be spent again within the area, multiplying the impact of every dollar spent. Traveler spending also impacts employment. Traveler spending contributes to local government tax revenue, supporting government services within the area. The social impacts of tourism can be qualitatively described, and may encourage the development of cultural attractions and pride in local ways of life, but it also may bring intrusions, such as additional traffic, perhaps tourist-trap type development, chain retail and restaurants, and other support infrastructure.

Heritage tourism, as defined by the National Trust for Historic Preservation, is “traveling to experience the places, artifacts, and activities that authentically represent the stories and people of the past and present.” Heritage tourism, for which the Atchafalaya National Heritage Area provides opportunities, generates higher levels of visitor spending: \$994 per trip compared to \$611 for all U.S. travelers. (National Trust for Historic Preservation). The National

Trust for Historic Preservation also indicates that “in addition to creating new jobs, new business, and higher property values; well-managed tourism improves the quality of life and builds community pride. . . Perhaps the biggest benefits of cultural heritage tourism, though, are diversification of local economies and preservation of a community’s unique character.”

The following tables show the levels and impacts of travel spending. The first (table 15) depicts the drop in spending in 2005 within the heritage area parishes, with gradual recovery. While the entire state saw decreased visitor spending in both 2005 and 2006, the heritage area saw increased visitor spending in 2006. Orleans Parish had accumulated over 40% of the state’s visitor spending in 2004 and 2005, but that has decreased in 2006 and 2007 to 34% and 37% respectively. The heritage area contributed 17% of total visitor spending in 2004 and 2005, and increased the percentage in 2006 and 2007 to 23% and 21% respectively.

Table 17 depicts visitor spending in individual parishes. East Baton Rouge Parish and Lafayette Parish are very popular with travelers, and were two of the top five parishes in the state in regards to travel expenditures.

East Baton Rouge Parish posted \$678 million in domestic expenditures to rank second. These expenditures benefited parish residents with nearly \$124 million in payroll as well as 6.3 thousand jobs for parish residents. Travel in East Baton Rouge Parish contributed \$42 million in state and local tax revenues.

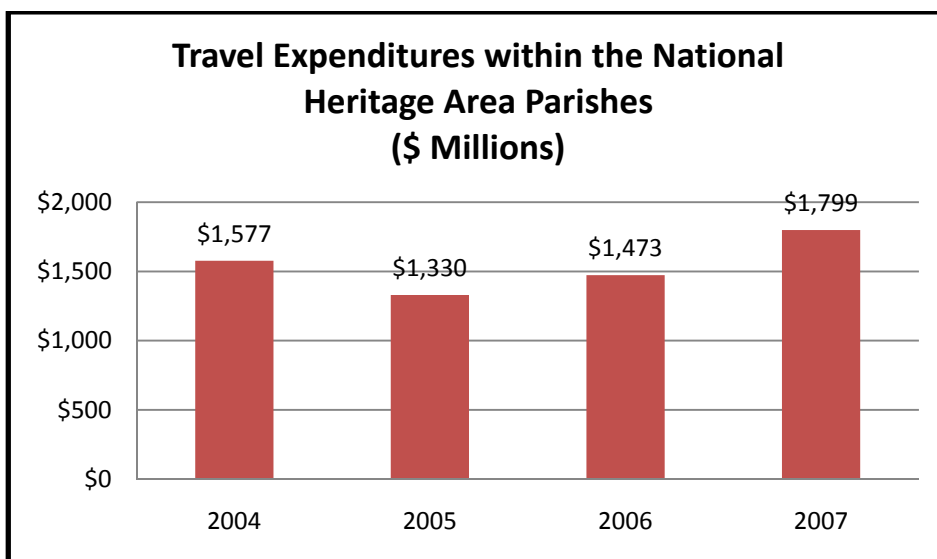
Lafayette Parish ranked fifth with \$338 million travel spending from domestic

visitors. This spending generated \$58.2 million in payroll and more than 3.1 thousand jobs, as well as \$21.9 million in state and local tax revenues.

The other parishes in the heritage area all had travel expenditures in the millions or tens of millions of dollars in 2006. The entire heritage area is estimated to have had \$1.4 billion in travel expenditures, contributing \$268 million in payroll and \$90 million in tax revenues. The revenues taken in by the heritage area parishes constitute about 1/5 of the state of Louisiana’s travel revenues (Travel Industry Association 2008). In Louisiana, every \$86,000 spent by visitors directly supports one job (Travel Industry Association 2008). State data also indicates that the average day trip party expenditures total \$188 and the average 3-day overnight trip expenditures total \$614 in 2007 (TNS 2008). Travel expenditures and related economic impacts relate to any primary reason a visitor travels to the area; for example, visiting family, a business trip, or visiting heritage area resources.

Ecotourism and nature-based tourism is something the heritage area plans to provide to visitors. The state of Louisiana has identified nature or outdoor recreation as a growth area, and noted that in 2009, while 8% of Americans traveled with a primary purpose of outdoor recreation, Louisiana only captured 4% of travelers with that as their primary purpose (Louisiana Office of Tourism 2010). Nature-based tourism makes up \$4.7 billion of the Louisiana economy and one of the main areas in which to promote nature-based tourism is within the Atchafalaya National Heritage Area.

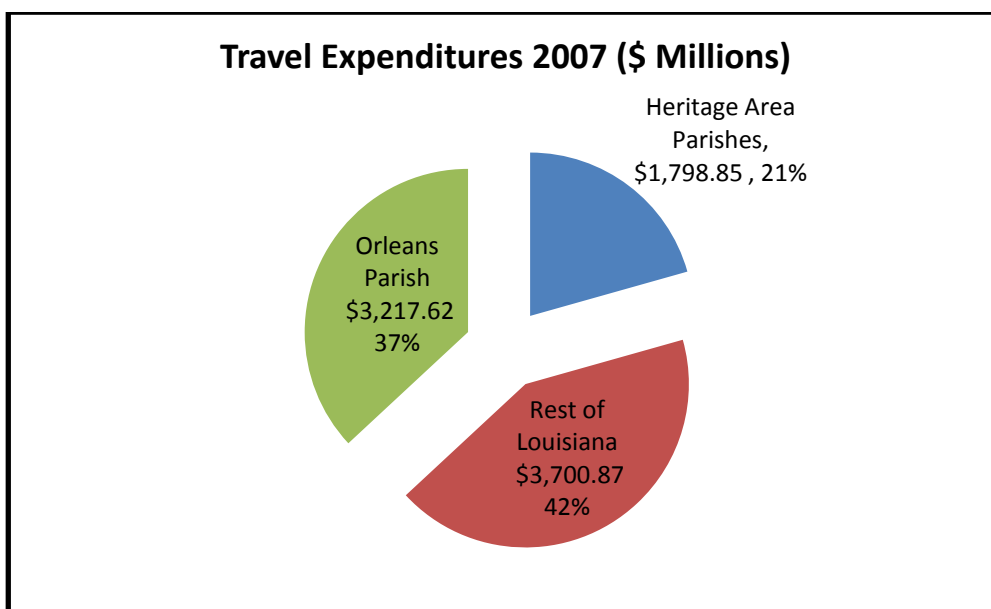
Table 15. Traveler Spending (Heritage Area Parishes), 2004-2007



Source: Travel Industry Association, 2008

Note: Travel expenditures are from all visitors to the area, not just those visiting heritage area sites or events

Table 16. Traveler Expenditures in the Heritage Area and the State, 2007



Source: Travel Industry Association, 2008

Table 17. Domestic Travel Impact, Alphabetical by Parish (Heritage Area Parishes), 2006

Parish	Expenditures (\$ Millions)	Payroll (\$ Millions)	Employment (Thousands)	State Tax Receipts (\$ Millions)	Local Tax Receipts (\$ Millions)
• Ascension	48.06	6.63	0.42	2.61	0.75
• Assumption	7.52	0.95	0.06	0.40	0.17
• Avoyelles	82.22	22.25	1.18	2.00	1.27
• Concordia	9.40	1.32	0.08	0.47	0.42
• East Baton Rouge	678.19	123.91	6.33	30.15	11.84
• Iberia	30.38	5.29	0.32	1.47	0.52
• Iberville	14.44	2.49	0.13	0.74	0.58
• Lafayette	337.52	58.17	3.09	15.96	5.99
• Pointe Coupee	7.02	1.06	0.07	0.33	0.17
• St. Landry	74.78	10.06	0.63	4.15	2.05
• St. Martin	16.39	2.33	0.12	0.83	0.89
• St. Mary	67.85	17.65	0.96	1.99	1.10
• Terrebonne	70.83	11.48	0.70	3.74	1.21
• West Baton Rouge	28.79	4.42	0.27	1.63	0.53
• Atchafalaya National Heritage Area Totals	\$1,473.39	\$268.01	14.36	\$66.47	\$27.49
• State Totals	\$6,425.02	\$1,529.27	86.60	\$269.59	\$148.13

Source: Travel Industry Association, 2007

LAND USE**Generalized Land Cover**

The national heritage area totals 10,457 sq. mi.: 8,363 sq. mi. of land and 2,091 sq. mi. of water. Twenty percent of the total area of

the heritage area is water, consisting mostly of wetlands. (Louisiana Gazetter 2010)

There are four regions within the heritage area: Upper Atchafalaya, Between Two Rivers, Bayou Teche, and the Coastal Zone.

The predominant land cover type within all four regions is wetlands, followed by agriculture lands in the Upper Atchafalaya, Between Two Rivers, and Bayou Teche, and open water in the Coastal Zone. The following charts (figure 10) show the breakdown of total land and water cover for all four regions within the Atchafalaya National Heritage Area.

National and State Parks

National Parks

There are two National Park Service units within the Atchafalaya National Heritage Area. They are Jean Lafitte National Historic Park and Preserve and Natchez Trace Parkway. More detail about these sites is provided in the section on recreational resources.

State Parks

The Louisiana Office of State Parks maintains both recreational and historic parks in the state. The Atchafalaya National Heritage Area includes seven properties managed by the Office of State Parks. The historic and recreational sites include Lake Fausse Pointe State Park, Cypremort Pointe State Park, Chicot State Park, Audubon State Historic Site, Longfellow-Evangeline State Historic Site, Marksville State Historic Site, and Plaquemine Lock State Historic Site. More detail about these sites is provided above in the sections on cultural resources and recreational resources. Land coverage for state parks mentioned above is about 19.84 sq. mi. or much less than 1% of the total area of the national heritage area.

Other Federal and State Lands

Atchafalaya Basin Program

The Department of Natural Resources, Atchafalaya Basin Program is primarily focused on water quality and water

management within the basin, but also has several access projects underway to improve boat access to the Atchafalaya. The Atchafalaya Basin Program has a number of ongoing recreation projects. Funded projects include Assumption Veterans Park, Avoyelles Interpretive Plaza, Avoyelles Sarto Bridge, Avoyelles Simmesport Park, Belle River Park, Camp Atchafalaya, Cajun Coast Tourism Center, Catahoula Park improvements, Dick Davis Park, Eagle Point Park, Harry Hewes House, Iberville Welcome Center, Lake End Park, Le Promenade de Pont Breaux, Opelousas Gateway, Pointe Coupee Doris Park, Stephenville Park, Myette Point Boat Launch and Big Alabama Boat Launch. Additional boat launches are planned and under design at Bayou Sorrel and Krotz Springs. (2010 Atchafalaya Basin Annual Report.)

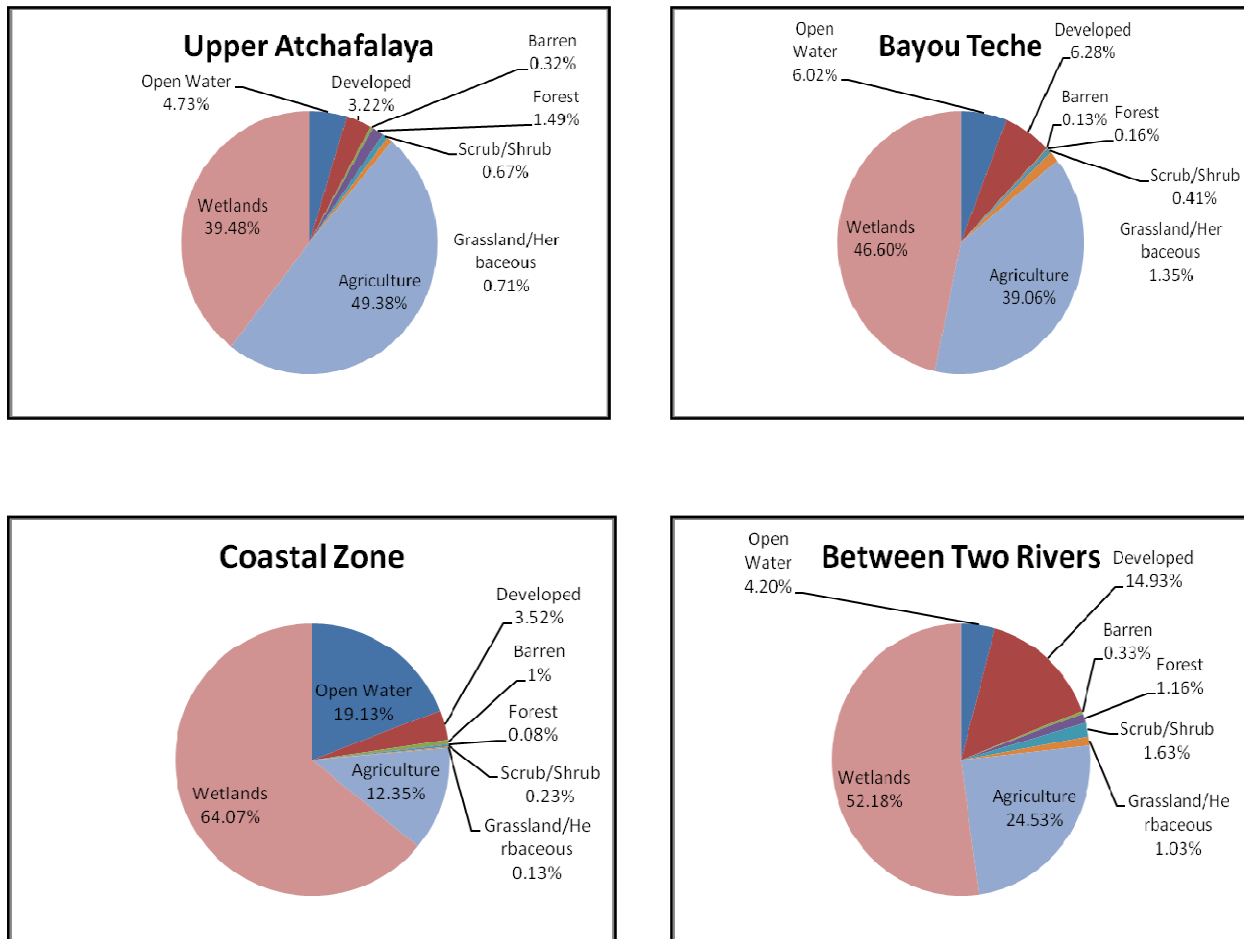
U.S. Army Corps of Engineers Recreation Facilities

The U.S. Army Corps of Engineers Atchafalaya Basin Floodway Program owns several management areas within the Atchafalaya Basin. The Program encompasses 595,000 acres of the largest contiguous tract of bottomland hardwoods in the United States. The Corps of Engineers has acquired 111,689 acres of comprehensive easement toward an authorized 367,000 acres within the basin.

Public lands – Wildlife Management Areas, Wildlife Refuges

The Louisiana Department of Wildlife and Fisheries manages a number of wildlife management areas and wildlife refuges. Three are located within the Atchafalaya National Heritage Area and total approximately 89,000 acres.

Figure 10. Land Cover for the Four Regions



Source: USGS 2001

Parishes

The Atchafalaya National Heritage Area is comprised of fourteen parishes: Ascension, Assumption, Avoyelles, Concordia, Iberia, Iberville, Lafayette, East Baton Rouge, Pointe Coupee, St. Landry, St. Martin, St.

Mary, Terrebonne, and West Baton Rouge. Sources of parish information in the following table include the Louisiana Gazetteer (2010) and the Economic expert.com website: at www.economicexpert.com.

Table 18. Parish Information

Parish	Size in Square Miles	Number of Population Centers**
Ascension (12)*	Total: 303 Land: 292 Water: 11 (3.75% of total)	48 3 are incorporated
Assumption (11)	Total: 365 Land: 339 Water: 26 (7.10% of total)	62 1 is incorporated
Avoyelles (6)	Total: 866 Land: 832 Water: 33 (3.84% of total)	54 9 are incorporated
Concordia (7)	Total: 749 Land: 696 Water: 53 (7.05% of total)	49 4 are incorporated
East Baton Rouge (10)	Total: 471 Land: 455 Water: 15 (3.21% of total)	515 4 are incorporated
Iberia (3)	Total: 1,031 Land: 575 Water: 456 (44.21% of total)	70 4 are incorporated
Iberville (8)	Total: 653 Land: 619 Water: 34 (5.24% of total)	61 6 are incorporated
Lafayette (13)	Total: 270 Land: 270 Water: less than 1 (0.17% of total)	28 6 are incorporated
Pointe Coupee (9)	Total: 591 Land: 557 Water: 33 (5.67% of total)	78 4 are incorporated
St. Landry (4)	Total: 939 Land: 929 Water: 10 (1.08% of total)	77 12 are incorporated
St. Martin (5)	Total: 816 Land: 740 Water: 77 (9.38% of total)	39 4 are incorporated
St. Mary (2)	Total: 1,119 Land: 613 Water: 506 (45.23% of total)	84 5 are incorporated
Terrebonne (1)	Total: 2,080 Land: 1,255 Water: 825 (39.66% of total)	62 1 is incorporated
West Baton Rouge (14)	Total: 204 Land: 191 Water: 12 (6.10% of total)	44 3 are incorporated

*numbers in parenthesis refer to relative size in square miles; 1 is the largest of the 14 parishes, 14 is the smallest.

**Population centers include cities, towns, and other populated areas (neighborhoods, subdivisions, and settlements).

THREATS TO RESOURCES

CLIMATE CHANGE

The Atchafalaya National Heritage area has a humid, subtropical climate, with long, hot summers and short, mild winters. In the summer the average daily maximum temperature is 91°F. Humidity averages from 63% to 89% annually. Rainfall averages 51.7 inches annually. In the winter, the average daily minimum temperature is 40°F. The area is vulnerable to tropical cyclones, hurricanes, flooding, and frequent thunderstorms. How the climate might change in the region is not completely understood at this time, nor is the rate of potential change.

Climate change has the potential to adversely affect the future resource conditions of the Atchafalaya National Heritage Area. As global and regional climates continue to change, a management approach that enhances the protection and resiliency of climate-sensitive resources is becoming increasingly important. The following section outlines a strategy that adapts to our growing understanding of climate change influences and the effectiveness of management to contend with them.

Climate change science is a rapidly advancing field, and new information is continually being collected and released; yet the full extent of climate change impacts on resource conditions is unknown. As such, park managers and policy makers have not determined the most effective response mechanisms for minimizing impacts and adapting to change. Because of this, this proposed management strategy does not provide definitive solutions or directions; rather it provides science-based management principles to consider when implementing the broader management direction of the preferred alternative.

Implementation of projects or programs to address climate change and associated impacts would be undertaken through partnerships.

DEVELOPMENT AND URBANIZATION

Development and urbanization are a threat well beyond the geographic boundary of the 14 parishes of the heritage area. The Atchafalaya River is a major tributary of the Mississippi River and therefore, development and urbanization upstream has the potential to negatively impact resources in the heritage area. These impacts include changes in sedimentation and deposition rates, pollution from upstream agriculture and urban areas and changes in hydrology including increase in flood pulse due to increased impervious cover and channelization.

Within the heritage area, urbanization and development pose a threat to cultural, historic, and natural resources. This threat is due to the likelihood of continued patterns of low-density, sprawling development. These patterns replace natural resources with human development and have the potential to adversely impact cultural and historic resources.

The projected location, extent, and rate of development and urbanization over the next 10 to 15 years are beyond the scope of this document.

The conversion of natural areas to urbanized or developed areas poses a number of threats to heritage area resources. The following list is not exhaustive. Development in many of the heritage area parishes, particularly in the southern parishes, has the potential to lead to wetland reduction and/or loss of ecological services wetlands

provide. Wetlands perform many beneficial functions, such as sediment and toxicant retention, flood flow alteration, and habitat for animals and plants, among others.

- Development and urbanization has the potential to lead to discontinuous, fragmented habitats for wildlife.
- Conversion from agricultural uses to urban land uses has the potential to threaten traditional cultural landscapes, traditional foodways, and the supply of locally grown food.
- The conversion of pervious surfaces to impervious surfaces has the potential to increase urban storm water problems and negatively affect water quality and the life that depends on clean water.
- Development in the form of increased transportation structure, particularly car based infrastructure, has the potential to reduce air quality. Air quality is not solely a localized phenomenon, and development and urbanization outside the heritage area can affect its resources.

Development or redevelopment has the potential to also impact cultural resources. The state and parishes have a variety of programs and tools which can be used to help protect historic resources. The Louisiana Cultural Districts Program was created by Act 298 of the 2007 Regular Session of the Legislature. The primary goal of this initiative is to spark community

revitalization based on cultural activity through tax incentives. The program allows a local government to designate a “Cultural District” for the purpose of revitalizing a community by creating a hub of cultural activity. Benefits include income and corporate franchise tax credits for eligible expenses involved in the rehabilitation of owner-occupied or revenue generating historic structures in a Cultural District, and an exemption from sales and use taxes for proceeds received from the sale of original, one-of-a-kind works of art from locations established within the Cultural District. Nine local governments in the national heritage area have taken advantage of this opportunity and have designated cultural districts: Lafayette, Baton Rouge (3), Arnaudville, Eunice, Houma, and New Iberia (2).

Other programs include establishing National Register districts that give properties within district boundaries the opportunity to apply for federal historic rehabilitation tax credits.

Downtown Development Districts and Cultural Districts are the doorway to state historic preservation tax credits. Communities with local historic districts have historic district commissions. Some of these communities have design guidelines in place and some do not. All communities with local historic districts do have a historic district commission in place to review construction projects for appropriateness.

Table 19. Historic and Cultural Protection Districts in Atchafalaya NHA

	National Register District	Downtown Development District	Cultural District	Main Street	Local Historical District
Donaldsonville	x	x		x	x
Eunice			x	x	x
Franklin	x	x		x	x
New Iberia	x	x	x	x	x
Houma	x	x	x	x	x
New Roads				x	x
Opelousas	x	x		x	x
Plaquemine	x			x	x
Morgan City	x			x	x
St. Martinville	x			x	x
Arnaudville			x	x	x
Lafayette	x	x	x		
Ferriday	x				x
Baton Rouge	x	x	x		x
Jeanerette					x

The tools above, such as the establishment of cultural districts and local historic districts, primarily serve to protect historic and cultural resources. Protection of natural resources, such as wetlands requires other types of tools, including zoning and development controls. A prime example in the heritage area is Terrebonne Parish. Terrebonne Parish currently has zoning in the greater Houma vicinity and participates in a parishwide comprehensive planning process with the Houma-Terrebonne Regional Planning Commission. The parish's comprehensive plan will continue to protect

wetlands in Terrebonne Parish from development encroachment; 92% of the parish's one million acres are environmentally sensitive areas (wetlands). Developments that encroach into wetlands require a USACE 404 Permit. In most cases, development is denied unless the developer is willing to pay the mitigation cost for damage done to wetlands due to development. Terrebonne Parish also has strict drainage requirements which protect wetlands from urban runoff and require retention ponds and canals to create zero runoff effects.

FUTURE STUDIES NEEDED

In light of the Deepwater Horizon oil spill in Mississippi Canyon of the Gulf of Mexico on April 20, 2010, and the unknown impacts on natural resources, cultural resources including traditional lifeways, as well as economic impacts, we recommend a comprehensive study of the impact of the spill and recommendations on how to interpret the impacts and recovery efforts and recommendations for further protection of lifeways. The Atchafalaya National Heritage Area would support others completing needed studies, but would not have the resources or expertise to perform those studies.

ARCHEOLOGICAL RESEARCH

- Archeological Overview and Assessment
- Archeological Identification/Evaluation Studies

ETHNOGRAPHIC RESEARCH

- Ethnographic Overview and Assessment
- Cultural Affiliation Studies
- Rapid Ethnographic Assessment Project (REAP)

HISTORICAL RESEARCH

- Historic Resource Study
- Cultural Resources Base Map(s)

CULTURAL LANDSCAPE RESEARCH

- Cultural Landscapes Inventory (In conjunction with the Historic Resource Study and Cultural

Landscapes Inventory, existing National Register of Historic Places nominations should be amended to reflect new scholarship and new approaches to documenting cultural resources. These amendments should address landscape features and incorporate the findings of the various ethnographic studies that are recommended.)

NATURAL RESOURCES RESEARCH

- Due to the oil spill, the following natural resources research is recommended:
- Environmental injury assessments, damage assessments, and initial rapid assessments of water quality, vegetation, wetlands, and wildlife in areas likely to be impacted by the oil spill.
- Long-term Monitoring/Reporting:
 - Successful breeding efforts by affected species - monitor fish larvae and eggs, hatching and fledging success of birds within the spill zone, etc.
 - Wetland recovery (ability and/or the amount of time it takes to recover)
 - Effectiveness of delta bulrush in recovery (ecosystem resilience)
 - Species tagging to follow recovery and effects
 - Measurement of pollutant stress on plants and animals
 - Effects of heavy metals on marine species
 - Recovery rate studies/monitoring - ecosystem health studies
 - Post-spill shoreline ecology report

- Evidence of impacts to benthic invertebrate communities

SOCIOECONOMICS RESEARCH

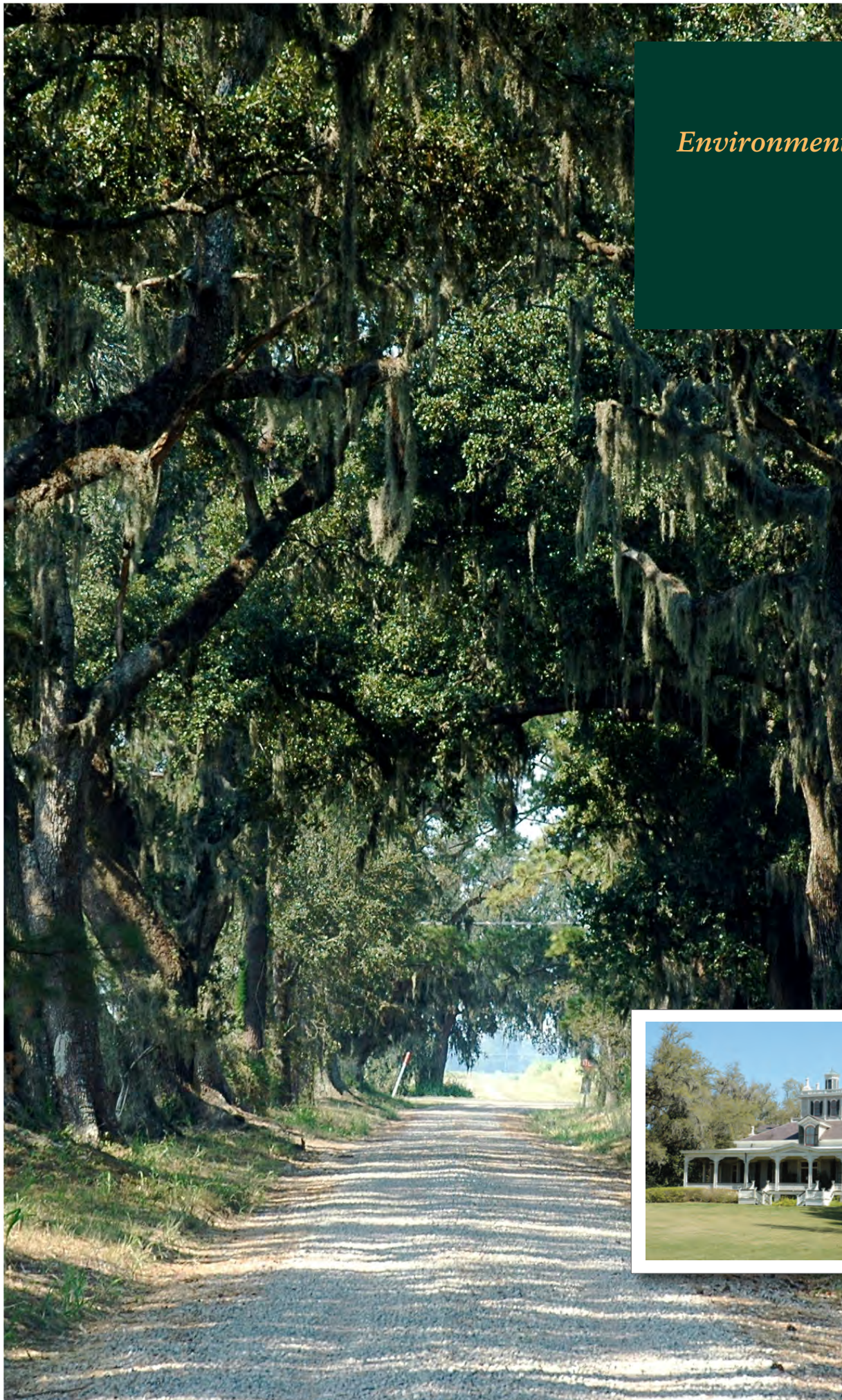
Evaluate direct and indirect impacts on local economy from oil spill, including impacts to tourism, fishing, and oil and gas industry.

VISITOR EXPERIENCE RESEARCH

Continue visitor surveys related to heritage area awareness and other metrics to support future evaluation.

Chapter 7

Environmental Impacts



Above: Rip Van Winkle House,
Jefferson Island
Left: Oak and Pine Alley,
East of St. Martinville, LA
Photo Credit: Charlie Fryling

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PURPOSE AND NEED

This environmental assessment considers the potential impacts of the implementation of the Atchafalaya National Heritage Area and its management plan on resources in the region. It addresses changes likely to occur as a result of implementation, and both the positive and negative anticipated impacts of those changes. The extent to which the anticipated changes meet the goals of the management plan provide the basis for determining the effectiveness and desirability of implementation under three different management models and, ultimately, the success of the Atchafalaya Commission in fulfilling its roles and responsibilities.

The analysis of potential impacts is based on actions that are expected to occur under four basic alternatives: a no action alternative, in which the Commission continues to operate under the state management plan (2002); and the three action alternatives in which the plan's strategies are implemented to the best of the Commission's ability to catalyze, coordinate, and support appropriate preservation, development, interpretation, and promotion of the area's resources.

The purpose of the plan is to identify public and private partnerships and strategies; prepare a comprehensive interpretation plan and a strategy to further recreational opportunities; propose programs to protect, interpret, and promote the heritage area's cultural, historic, recreational, educational, scenic, and natural resources; recommend criteria and sources for financial assistance; and foster cooperative relationships between federal, state, regional, and local agencies. Informed by an extensive public participation process, the plan integrates the ongoing efforts of multiple partners over a broad region, helping to prevent duplication of activity and resolve conflicts of interest.

The strategies of the management plan are intended to guide a coordinated effort, led by the Atchafalaya Trace Commission (the Commission), to protect, develop, interpret, and promote the national heritage area's resources, in ways that reflect the area's national significance, for the benefit of current and future generations. Because the plan's strategies are comprehensive and programmatic in scope, impacts are discussed on a general, regional level and are not project or site-specific. Implementation of certain strategies outlined in the plan may require additional site specific assessment in the future as required by the National Environmental Policy Act (NEPA).

In addition to fulfilling NEPA requirements for the plan, this environmental assessment can also serve as a tool for evaluating the effects of different factors on implementation—in particular, different levels of commitment by the Commission's partners and funding sources. The extent to which the anticipated impacts meet the goals of the Plan can help provide the basis for determining the desirability and, ultimately, the effectiveness of implementation by the Commission.

While this assessment seeks to anticipate a full spectrum of impacts likely to occur under implementation of plan strategies, some unanticipated impacts may occur. The plan is designed to be flexible to adapt to varying factors, and the Commission is intended to be an actively engaged organization that reserves the right to reverse course or initiate new actions to mitigate unforeseen impacts. Where negative impacts are anticipated, the Commission is committed to mitigating actions as required. The Commission will continually monitor the impacts of its actions under the plan through regular evaluations of its projects and programs, consultations with state

agencies and other partners, and an ongoing and active public engagement process including regular communications and recurring community forums.

Because implementation of the management plan will depend upon a number of factors,

including levels of funding and actions by federal, state and local agencies, as well as nonprofit groups and private stakeholders, impacts on resources are evaluated qualitatively, not quantitatively.

METHODOLOGY FOR ANALYZING IMPACTS TO ALL NON-CULTURAL RESOURCES

INTRODUCTION AND GENERAL DEFINITIONS

The environmental consequences discussion for each impact topic addresses the potential effects for the no action and action alternatives. Each action alternative is compared to the no-action alternative, or baseline condition of the project area, to determine resource or socioeconomic impacts. Potential impacts are described in terms of type (beneficial or adverse); context; duration (short- or long-term); and (for adverse impacts) intensity (negligible, minor, moderate, major). Definitions of these descriptors include the following:

Beneficial: A change that enhances the condition or appearance of the resource or a change that moves the resource toward a desired condition.

Adverse: A change that degrades and/or moves the resource away from a desired condition or detracts from its appearance or condition.

Context: Context is the affected environment within which an impact would occur, such as local, regional, global, affected interests, society as a whole, or any combination of these. Context is variable and depends on the circumstances involved with each impact topic.

Duration: The duration of the impact is described as short-term or long-term.

- **Short-term:** Impacts are temporary (less than one year) without lasting effects.
- **Long-term:** The impacts last one year or longer and may be permanent in nature.
- **Intensity:** Because definitions of impact intensity (negligible, minor,

moderate, and major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed. Major impacts are considered significant impacts in the context of the National Environmental Policy Act. These definitions are applied for adverse impacts only, and are not used to qualify beneficial effects.

DEFINITIONS OF INTENSITY LEVELS

Natural Resources – Soils and Water Quality

Negligible: The impact is barely detectable and/or would result in no measureable or perceptible changes to soils or water quality.

Minor: The impact is slight, but detectable, and/or would result in small but measurable changes in soils or water quality; the effects would be localized.

Moderate: The impact is readily apparent and/or would result in easily detectable changes to soils or water quality; the effects would be localized.

Major: The impact is severely adverse or exceptionally beneficial and/or would result in appreciable changes to soils or water quality; effects would be regionally important.

Natural Resources – Floodplains

Negligible: Impacts would occur outside the regulatory floodplain as defined by “Procedural Manual #77-2. NPS Floodplain Management” (100-year or 500-year floodplain, depending on the type of action), or there would be no measureable or perceptible change in the ability of the

floodplain to function naturally. There would be essentially no risk to life or property.

Minor: Actions within the regulatory floodplain would slightly degrade or improve natural floodplain values (e.g., river processes or aquatic habitat) in a localized area. There would be a slight increase in the risk of damage to property, but there would be little risk to life.

Moderate: Actions within the regulatory floodplain would interfere with or enhance natural floodplain values (e.g., river processes or aquatic habitat) in a substantial way or in a large area. There would be a noticeable increase or decrease in the risk to life or property.

Major: Actions would permanently alter or improve natural floodplain values or substantially alter or improve natural river processes or aquatic habitat. There would be a substantial increase or decrease in the risk of loss of life and severe damage to property.

Natural Resources – Wetlands

Negligible: Changes would be barely detectable and would have effects that would be considered slight and localized. There would be no measurable or perceptible changes in wetlands size, integrity, or functions.

Minor: Changes would be measurable, although the changes would be relatively small in terms of area and the nature of the changes. Although there could be a small change in integrity or continuity, the overall viability and functions of the wetland would not be affected.

Moderate: The changes would be readily apparent in a relatively small, localized area. There could be a small change in the size, integrity, continuity, and a few functions of the wetland, including a small, but permanent, loss of acreage.

Major: The effects would be readily apparent over a relatively large area, and would be very noticeable. The change would permanently alter the size, integrity, continuity and functions of the wetland, such as the permanent loss of large wetlands.

Natural Resources – Vegetation and Wildlife

Negligible: The action would result in a change in vegetation or wildlife, but the change would not be measureable or would be at the lowest level of detection.

Minor: The action would result in a detectable change, but the change would be slight and have a local effect on a population. This could include changes in the abundance or distribution of individuals in a local area, but not changes that would affect the viability of local populations. Changes to local ecological processes would be minimal.

Moderate: The action would result in a clearly detectable change in a population and could have an appreciable effect. This could include changes in the abundance or distribution of local populations, but not changes that would affect the viability of regional populations. Changes to local ecological processes would be of limited extent.

Major: The action would be severely adverse to a population. The effects would be substantial and highly noticeable, and they could result in widespread change and be permanent. This could include changes in the abundance or distribution of a local or regional population to the extent that the population would not be likely to recover. Important ecological processes would be altered, and “landscape-level” (regional) changes would be expected.

Natural Resources – Threatened and Endangered Species

Negligible: Impacts on state or federally listed plant and wildlife species would not be

observable or measureable and would be well within the range of natural variability.

Minor: Impacts on species or their habitat would be detectable, but still within the range of natural variability both spatially and temporally. No interference with feeding, reproduction or other activities affecting population viability would result from the impacts. Sufficient functional habitat would remain to support viable populations.

Moderate: Impacts on species habitats and activities necessary for survival can be expected on an occasional basis, but are not anticipated to threaten potential or continued existence of the species in the heritage area. Changes to population characteristics could be outside the natural range of variability spatially or temporally, but would not be anticipated to result in loss of population viability.

Major: Impacts on state- or federal -listed plant and wildlife species or their habitats would be detectable, outside of the natural range of variability, both spatially and temporally, and would be anticipated to result in loss of viability at the population level.

Visitor Experience

Negligible: Most visitors would likely be unaware of any effects associated with the implementation of the action.

Minor: Changes in visitor opportunities or setting conditions would be slight but detectable, would affect a few visitors, and would not appreciably limit key experiences in the heritage area.

Moderate: Changes in visitor opportunities or setting conditions would be noticeable, would affect many visitors, and would result in some changes to important experiences in the heritage area.

Major: Changes in visitor opportunities or setting conditions would be highly apparent, would affect most visitors, and would result in several changes to important experiences.

Socioeconomics

Negligible: Effects on community members, businesses, agencies, and social conditions would be barely detectable and have no discernible impact on local social or economic structure.

Minor: Effects on community members, businesses, agencies, and social conditions would be small, but detectable, localized in terms of geographic area, and not expected to alter the established social or economic structure.

Moderate: Effects on community members, businesses, agencies, and social conditions would be readily detectable across a several communities, and would have noticeable effects on the established social or economic structure.

Major: Effects on community members, businesses, agencies, and social conditions would be highly observable, extend across much of a region, and have a substantial influence on the established social or economic structure.

METHODOLOGY FOR ANALYZING IMPACTS TO CULTURAL RESOURCES

SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT AND IMPACTS TO CULTURAL RESOURCES

In this environmental assessment, impacts to cultural resources are described in terms of type, context, duration, and intensity, which is consistent with the regulations of the Council on Environmental Quality (CEQ) that implement the National Environmental Policy Act (NEPA). These impact analyses, however, are not intended to comply with the requirements of Section 106 of the National Historic Preservation Act.

Given the conceptual nature of the actions in this document, it is not feasible to make determinations regarding adverse effects of the actions, as required by Section 106 of the National Historic Preservation Act. As detailed implementation plans with site-specific information are developed, consultations under Section 106 of the National Historic Preservation Act will be undertaken with the state historic preservation office and, as necessary, associated populations.

DEFINITIONS OF INTENSITY LEVELS

Archeological Resources

Negligible: Impact is at the lowest level of detection. Impacts would be measurable with no perceptible consequences.

Minor: Minor impacts would be detectable and measurable, but would not diminish the overall integrity of the resource. The impact would not result in changes to defining features or aspects of integrity that contribute to eligibility for listing in the national register.

Moderate: Moderate impacts would be sufficient to cause a noticeable change, and would result in loss of overall integrity that would consequently jeopardize a site's national register eligibility. Impacts would include measurable change to character-defining elements.

Major: Disturbance of a site(s) would be substantial and very noticeable, and would result in the loss of most or all of the site and its potential to yield important information. Impacts would result in the loss of overall integrity and substantial changes to character-defining elements to the extent that it would no longer be eligible for national register listing.

Ethnographic Resources

Negligible: Negligible impacts would be at the lowest levels of detection and barely perceptible. Impacts would alter neither resource conditions, such as traditional access or site preservation, nor the relationship between the resource and the affiliated group's body of practices and beliefs.

Minor: Minor impacts would be slight but noticeable and would appreciably alter neither resource conditions, such as traditional access or site preservation, nor the relationship between the resource and the group's body of beliefs and practices.

Moderate: Moderate impacts would be apparent and would alter resource conditions or interfere with traditional access, site preservation, or the relationship between the resource and the affiliated group's beliefs and practices, even though the group's practices and beliefs would survive.

Major: Major impacts would alter resource conditions. Proposed actions would block or greatly affect traditional access, site preservation, or the relationship between the resource and the group's body of beliefs and practices to the extent that the survival of a group's beliefs or practices would be jeopardized.

Historic and Prehistoric Structures

Negligible: Negligible impacts would be at the lowest levels of detection—barely perceptible and not measurable.

Minor: Impacts would not affect the character-defining features of a structure listed or eligible for listing in the national register. Impacts would be detectable but would not diminish the overall integrity of the resource.

Moderate: Moderate impacts would alter a character-defining feature(s) of a significant historic structure, and would diminish the overall integrity of the resource to the extent that its national register eligibility could be jeopardized.

Major: Major impacts would result from substantial and highly noticeable changes that would alter the character-defining features of a historic structure, and diminish the integrity of the resource to the extent that it would no longer be eligible to be listed on the national register.

Cultural Landscapes

Negligible: Negligible impacts would be at the lowest levels of detection—barely perceptible and not measurable.

Minor: Impacts would be detectable but would not affect the character-defining features or patterns of a cultural landscape listed in or eligible for listing in the national register.

Moderate: Moderate impacts would alter a character-defining feature(s) or pattern(s) of a cultural landscape, diminishing the overall integrity of the resource to the extent that its national register eligibility would be jeopardized.

Major: Major impacts would result from substantial and very noticeable changes that would alter the character-defining features or pattern(s) of a cultural landscape, diminishing the overall integrity of the resource to the extent that it would no longer be eligible to be listed in the national register.

Museum Collections

Negligible: Impact is at the lowest levels of detection—barely measurable, with no perceptible consequences.

Minor: Impact(s) would affect the integrity of few items in the museum collection but would not degrade the usefulness of the collection for future research and interpretation.

Moderate: Impact(s) would affect the integrity of many items in the museum collection and diminish the usefulness of the collection for future research and interpretation.

Major: Impact(s) would affect the integrity of most items in the museum collection and destroy the usefulness of the collection for future research and interpretation.

CUMULATIVE IMPACTS METHODOLOGY

ACTIONS OF OTHERS

The Council on Environmental Quality (CEQ) regulations, which implement the National Environmental Policy Act of 1969 (42 USC 4321 et seq.), require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative impacts are considered for all alternatives, including the no-action alternative.

Cumulative impacts are considered for the no action and action alternatives and were determined by combining the impacts of the alternative being considered with impacts of other past, present, or reasonably foreseeable future projects or plans in the study area. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects within Atchafalaya National Heritage Area and, if applicable, the surrounding region. The analysis of cumulative effects was accomplished using four steps:

1. Fully identify impacts of the alternatives (the impact topics discussed in this chapter).
2. Identify an appropriate spatial boundary for each resource (generally limited to Atchafalaya NHA and some activities outside the boundaries of the heritage area).
3. Determine which actions may affect the resources identified (described in the following table).
4. Summarize the cumulative impact, which are the effects of the proposed

action plus other actions affecting the resource.

Actions and projects considered under cumulative impacts analysis include the following:

Atchafalaya National Heritage Area

- Improved signage
- Improved and expanded interpretation for scenic byways (in partnership with the Louisiana Byways Program)
- Coordination with partners to help protect, preserve, and interpret historic and cultural sites
- Exploration of opportunities to increase National Register of Historic Places listings

Louisiana Main Street Program

- Promotion of “Main to Main” Program

U.S. Army Corps of Engineers

- Construction of new visitor center in Morgan City
- Construction of new boat ramps and boat ramp upgrades within Atchafalaya Basin
- Construction of new campgrounds within Atchafalaya Basin

The Nature Conservancy

- Construction of new visitor center in Beaux Bridge

Louisiana Department of Natural Resources

- Construction of new boat ramps and primitive campground within Atchafalaya Basin

Louisiana Office of State Parks

- Purchase of a Civil War-era black encampment site
- Construction of Camp Atchafalaya for disabled persons (in partnership with the Louisiana Department of Natural Resources)
- Construction of new visitor center at Longfellow-Evangeline State Historic Site
- Construction of new campground in St. Martinville
- Upgrading of campground and cabins at Lake Fausse Point
- Development of new park on Raccourci Island
- Purchase of additional land and construction of new museum at Marksville Prehistoric Indian Site
- Construction of new arboretum, cabins, and lodges at Chicot State Park

2010 OIL SPILL

In addition to the actions and plans discussed previously, there are potential cumulative impacts from the 2010 Mississippi Canyon oil spill in the Gulf of Mexico. On April 20, 2010, the British Petroleum Deepwater Horizon oil rig, located approximately 40 miles off the coast of Louisiana, exploded and sank two days later on April 22. The blown-out well began leaking oil on April 24, and as of July 1, 140.6 million gallons of oil had emerged from the blow-out and the flow continued uncontained until it was capped on July 15, resulting in the largest accidental oil spill ever in the Gulf of Mexico.

The tourism industry has been greatly impacted by the effects of the oil spill. Visitors stayed away from water-based activities, the decreased visitation and visitor spending mainly affected coastal communities, but it was also felt in neighboring areas as people vacationed elsewhere. However, lodging in coastal

communities has benefitted from cleanup personnel and reporters filling room reservations.

The effects on recreation include closures of areas to fishing and offshore activities including swimming and beach closures affecting locals and visitors. Impacts on birds, wildlife, and scenery, such as reduced forage and displacement, habitat loss, and oil-coated birds, wildlife, beaches, wetlands, and marshes, has lead to reduced wildlife viewing, birding, and outdoor photography opportunities in the coastal regions of the heritage area.

Some of the effects on cultural resources in the area from the oil spill are directly related to the traditional lifeways of residents in the area, including offshore fishing and shrimping. The National Park Service is currently conducting a study on the impact to cultural resources in the area and this study is expected to be available in late 2011.

Anecdotal evidence of coyotes, alligators, and scavengers eating oil-soaked birds and research showing oil droplets in post-larval blue crab which are eaten by many fish and shore birds are additional examples of how oil is entering the food chain. The use of chemical dispersants could also have short- and long-term adverse impacts on coastal wildlife, fish, shellfish and plant life.

The US Fish and Wildlife Service has listed birds, marine mammals, sea turtles, shellfish, fish and plants as species impacted by impacted by the oil spill. Oil can persist in the coastal environment, having long term effects on habitat and fish and wildlife populations; impacts have been detected in sediments 30 years after other spills (USFWS 2010g). Further, the dwarf seahorse (*Hippocampus zosterae*) may be facing extinction due to loss of habitat and forage, exposure to oil toxins, as well as exposure to dispersants, and the burning of seagrass mats (University of British Columbia 2010). The level and duration of impact is still being determined for many species.

One beneficial item of note in regard to the oil spill is the presence of delta bulrush in the Mississippi Delta region. Delta bulrush (*Schoenoplectus deltarum*) is an oil-tolerant plant that can possibly transmit oxygen to underwater microorganisms capable of decomposing some of the chemicals in oil. The delta bulrush may be able to reduce the impacts of the oil spill in the marshes along the coastal and riverine areas of the Gulf of Mexico; however, it is unknown how much oil the bulrush can tolerate (Academy of Natural Sciences 2010).

The overall assessment of impacts from the oil spill is on-going and it is too early to determine the actual impacts on natural and

cultural resources, visitor experience, and the socioeconomic environment. As of early 2011, the Louisiana Department of Tourism expects some negative impacts from the oil spill to continue into 2013.

NOTE: Not every project occurring in the heritage area has been identified. For example, small roadway improvements being implemented by the Louisiana Department of Transportation and Development are not analyzed as part of the cumulative impacts. Only large projects or developments directly tied to the heritage area are included.

COMPARISON OF ALTERNATIVES

The following table was developed which compares the impacts for the alternatives. Please refer back to chapter five for more detailed description of the alternatives. More details on the affected environment

are found in the previous chapter and discussion of specific impact topics follow later in this chapter.

Table 20. Summary of Direct and Indirect Impacts of the Alternatives

Impact Topic	Alternative A: No Action	Alternative B: Focus on Natural Resources and Recreation	Alternative C: Focus on History and Current Cultures	Alternative D: The Heritage Connection – Nature, Culture, History and Recreation
NATURAL RESOURCES				
Soils	<i>Minor to Moderate, Long-term, Adverse Impact</i> due to soil compaction and erosion by visitors, and the development of new user-created, unofficial routes.	<i>Long-term, Beneficial Impact</i> due to increasing visitor understanding and appreciation of natural resources and support for expanded emphasis on outdoor recreation opportunities. <i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.	<i>Long-term, Beneficial Impact</i> due to increased interpretation of the resources and supporting expanded opportunities to experience the resources. <i>Negligible to Minor, Long-term, Adverse Impact</i> due to compaction and erosion from visitor use.	<i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts. <i>Long-term, Beneficial Impact</i> due to increased interpretation of the resources and supporting expanded opportunities to experience the resources. <i>Negligible to Minor, Long-term, Adverse Impact</i> due to compaction and erosion from visitor use.
Floodplains	<i>Negligible to Minor, Long-term, Adverse Impact</i> due to	<i>Long-term, Beneficial Impact</i> due to increasing	<i>Negligible to Minor, Short- or Long-term, Adverse</i>	<i>Long-term, Beneficial Impacts</i> due to partnership programs

Impact Topic	Alternative A: No Action	Alternative B: Focus on Natural Resources and Recreation	Alternative C: Focus on History and Current Cultures	Alternative D: The Heritage Connection – Nature, Culture, History and Recreation
Floodplains (continued)	compaction or erosion of floodplain soils, resulting in greater runoff and flooding.	<p>visitor understanding and appreciation of natural resources and support for expanded emphasis on outdoor recreation opportunities.</p> <p><i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p>	<p><i>Impacts</i> due to compaction or erosion that could result from increased use.</p> <p><i>Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.</p>	<p>that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p> <p><i>Negligible to Minor, Short- or Long-term, Adverse Impacts</i> due to compaction or erosion that could result from increased use.</p> <p><i>Overall Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.</p>
Wetlands	<i>Negligible to Minor, Long-term, Adverse Impacts</i> due to wetland soil compaction and vegetation trampling.	<p><i>Long-term, Beneficial Impact</i> due to increasing visitor understanding and appreciation of natural resources and support for expanded emphasis on outdoor recreation opportunities.</p> <p><i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p>	<i>Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.	<p><i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p> <p><i>Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.</p>

Impact Topic	Alternative A: No Action	Alternative B: Focus on Natural Resources and Recreation	Alternative C: Focus on History and Current Cultures	Alternative D: The Heritage Connection – Nature, Culture, History and Recreation
Water Quality	<i>Negligible to Minor, Long-term, Adverse Impacts</i> due to littering, commercial uses, and USACE activities; and new user-created, unofficial boating and paddling routes that could increase littering and fuel emissions from boats.	<p><i>Long-term, Beneficial Impact</i> due to increasing visitor understanding and appreciation of natural resources and support for expanded emphasis on outdoor recreation opportunities.</p> <p><i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p>	<i>Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.	<p><i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p> <p><i>Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.</p>
Vegetation	<i>Negligible to Minor, Long-term, Adverse Impacts</i> due to trampling from increased use and the creation of unofficial routes.	<p><i>Long-term, Beneficial Impact</i> due to increasing visitor understanding and appreciation of natural resources and support for expanded emphasis on outdoor recreation opportunities.</p> <p><i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p>	<p><i>Negligible to Minor, Short- or Long-term, Adverse Impacts</i> due to compaction or erosion that could result from increased use.</p> <p><i>Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.</p>	<p><i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p> <p><i>Negligible to Minor, Short- or Long-term, Adverse Impacts</i> due to compaction or erosion that could result from increased use.</p> <p><i>Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for</p>

Impact Topic	Alternative A: No Action	Alternative B: Focus on Natural Resources and Recreation	Alternative C: Focus on History and Current Cultures	Alternative D: The Heritage Connection – Nature, Culture, History and Recreation
				protection and restoration of resources.
Wildlife	<i>Negligible, Adverse Impacts</i> resulting in no measureable change as animals currently avoid or are habituated to areas where people are present.	<p><i>Long-term, Beneficial Impact</i> due to increasing visitor understanding and appreciation of natural resources and support for expanded emphasis on outdoor recreation opportunities.</p> <p><i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p>	<p><i>Negligible to Minor, Short- or Long-term, Adverse Impacts</i> due to increased noise and human presence, and damage to habitat and forage from trampling or removal that could result from increased use.</p> <p><i>Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.</p>	<p><i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p> <p><i>Negligible to Minor, Short- or Long-term, Adverse Impacts</i> due to increased noise and human presence that could result from increased use.</p> <p><i>Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.</p>
Threatened & Endangered Species	<i>Minor to Moderate, Long-term, Adverse Impacts</i> due to changes in habitat and forage resulting from visitor use.	<p><i>Long-term, Beneficial Impact</i> due to increasing visitor understanding and appreciation of natural resources and support for expanded emphasis on outdoor recreation opportunities.</p> <p><i>Long-term, Beneficial Impacts</i> due to partnership</p>	<p><i>Negligible to Minor, Short- or Long-term, Adverse Impacts</i> due to increased noise and human presence, and damage to habitat and forage from trampling or removal that could result from increased use.</p> <p><i>Long-term, Beneficial Impacts</i> due to greater</p>	<p><i>Long-term, Beneficial Impacts</i> due to partnership programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.</p> <p><i>Negligible to Minor, Short- or Long-term, Adverse Impacts</i> due to increased noise and human presence, and damage to</p>

Impact Topic	Alternative A: No Action	Alternative B: Focus on Natural Resources and Recreation	Alternative C: Focus on History and Current Cultures	Alternative D: The Heritage Connection – Nature, Culture, History and Recreation
Threatened & Endangered Species (continued)		programs that would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts.	interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.	habitat and forage from trampling or removal that could result from increased use. <i>Long-term, Beneficial Impacts</i> due to greater interpretation of and experiences within the NHA, increasing support for protection and restoration of resources.
CULTURAL RESOURCES				
Archeological Resources	<i>Primarily nonexistent direct impacts. Indirect negligible, adverse impacts possible due to increased visitation and corresponding ground disturbance.</i>	<i>Almost no direct impact on archeological resources. Long-term, negligible to minor, adverse and localized impacts possible as a result of increased visitation and recreational use.</i>	<i>Overall, long-term, negligible, adverse impacts possible due to increased visitation and use of the area. Long-term, beneficial impacts resulting from efforts to identify and protect archeological resources.</i>	<i>Overall, long-term, negligible, adverse impacts possible due to increased visitation and use of the area. Long-term, beneficial impacts resulting from efforts to identify and protect archeological resources.</i>

Impact Topic	Alternative A: No Action	Alternative B: Focus on Natural Resources and Recreation	Alternative C: Focus on History and Current Cultures	Alternative D: The Heritage Connection – Nature, Culture, History and Recreation
Ethnographic Resources	<i>Long-term, negligible, adverse impacts due to lack of funding and increased use at highly visited points and popular areas.</i>	<i>Long-term, negligible, adverse impacts due to increased visitation and recreational use of the area that could increase audible or visual disturbances that could compromise the integrity of some resources.</i>	<i>Long-term, negligible to minor, adverse impacts due to increased visitation and recreational use of the area that could increase audible or visual disturbances that could compromise the integrity of some resources.</i>	<i>Overall, long-term, negligible to minor, adverse impacts due to increased visitation and recreational use of the area that could increase audible or visual disturbances that could compromise the integrity of some resources.</i> <i>Long-term beneficial impacts due to improved coordination of preservation and educational programs among partners.</i>
Historic and Prehistoric Structures	<i>Long-term, minor, adverse impacts due to lack of funding and continued deterioration and lack of adequate protection and awareness.</i>	<i>Long term, beneficial impact due to better coordination of resources and preservation efforts, such as documenting the integrity of the historic fabric and the historical and architectural values of the heritage area's historic and prehistoric structures</i>	<i>Long-term, beneficial impacts due to efforts to raise awareness of significant structural resources and increased coordination of resources and efforts related to preservation of historic and prehistoric structures.</i>	<i>Long term, beneficial impacts due to enhanced understanding and awareness of historic and prehistoric resources (potential for greater financial resources and political will to preserve them) and increased coordination of resources and partners to preserve historic and prehistoric structures.</i>

Impact Topic	Alternative A: No Action	Alternative B: Focus on Natural Resources and Recreation	Alternative C: Focus on History and Current Cultures	Alternative D: The Heritage Connection – Nature, Culture, History and Recreation
Cultural Landscape Resources	<i>Long-term, minor, adverse impacts on cultural landscape resources because significant cultural landscape features would likely continue to deteriorate over time, and some could be lost due to inadequate funding and protection in some cases.</i>	<i>Long-term, negligible to minor, adverse impacts primarily due to the potential for increased human activity in the heritage area.</i> <i>Long-term, beneficial impacts due to efforts to raise awareness and document and inform about these resources, as well as additional funding for preservation efforts.</i>	<i>Long-term, negligible, adverse impacts primarily due to the potential for increased human activity in the heritage area.</i> <i>Long-term, beneficial impacts due to efforts to coordinate preservation, interpretation, and educational programs and efforts throughout the heritage area, as well as additional funding for preservation efforts.</i>	<i>Long-term, negligible, adverse impacts primarily due to the potential for increased human activity in the heritage area.</i> <i>Long-term, beneficial impacts due to efforts to coordinate preservation, interpretation, and educational programs and efforts throughout the heritage area, as well as additional funding for preservation efforts, including enhancing identification of resources and prioritizing threats to promote their preservation.</i>
Museum Collections	<i>No impacts are anticipated because the heritage area would not take actions that would impact museum collections.</i>	<i>Long-term, beneficial impacts on the heritage area's museum collections, primarily due to increased education, interpretation, and coordination with partners.</i>	<i>Long-term, beneficial impacts on the heritage area's museum collections, primarily due to increased education, interpretation, and coordination with partners.</i>	<i>Long-term, beneficial impacts on the heritage area's museum collections, primarily due to increased education, interpretation, and coordination with partners.</i>
VISITOR EXPERIENCE				
Recreation Resources	<i>Long-term, beneficial impact on recreation resources and access due to increase in infrastructure</i>	<i>Long-term, beneficial impact (greater than no action) on recreation resources and access due to</i>	<i>Long-term, beneficial impact (greater than no action) on recreation resources and access due to</i>	<i>Long-term, beneficial impact (greater than no action) on recreation resources and access due to increased coordination related</i>

Impact Topic	Alternative A: No Action	Alternative B: Focus on Natural Resources and Recreation	Alternative C: Focus on History and Current Cultures	Alternative D: The Heritage Connection – Nature, Culture, History and Recreation
Recreation Resources (continued)	access by partners.	increased coordination related to recreation resources by NHA and increase in access and programs by partners and others.	increased coordination related to cultural experiences by NHA and increase in access and recreation programs by partners and others.	to recreation resources and cultural experiences by NHA and increase in access and recreation and cultural programs by partners and others.
Scenic Resources	<i>Long-term, beneficial impact on scenic resources due to improved interpretation in partnership with Byways Program.</i>	<i>Long-term, beneficial impact (greater than no action) due to increased coordination, preservation, education, and interpretation of scenic resources and increased protection of these scenic resources by partners.</i>	<i>Long-term, beneficial impact (greater than no action) on scenic resources due to increased coordination, preservation, education, and interpretation of scenic resources and increased protection of and access to these scenic resources by partners.</i>	<i>Long-term, beneficial impact (greater than no action) on scenic resources due to increased coordination, preservation, education, and interpretation of scenic resources and increased protection of and access to these scenic resources by partners.</i>
SOCIOECONOMIC CONSIDERATIONS				
Socioeconomic Environment	<i>Long-term, beneficial-impact due to continued funding, visitor spending, and strengthened local partnerships.</i>	<i>Long-term, beneficial impact due to increased funding and visitor spending, and strengthened local partnerships. However, minor to moderate long-term adverse impacts could occur due to increased visitation in rural areas.</i>	<i>Long-term, beneficial impact due to increased funding and visitor spending, and strengthened local partnerships. However, minor to moderate long-term adverse impacts could occur due to increased visitation in rural areas.</i>	<i>Long-term, beneficial impact due to increased funding and visitor spending, and strengthened local partnerships. However, minor to moderate long-term adverse impacts could occur due to increased visitation in rural areas.</i>

POTENTIAL IMPACTS TO NATURAL RESOURCES

INTRODUCTION

Due to the conceptual nature of this management plan, potential impacts to natural resources do not vary greatly among the three action alternatives: alternative B, alternative C, and alternative D (the preferred alternative). Thus, this section will discuss the potential impacts of the action alternatives in relationship to the no-action alternative. **Also, the cumulative effects will be addressed separately at the end of this section** and not integrated into the discussion of each alternative.

Analysis of impacts to natural resources (soils, floodplains, wetlands, water quality, vegetation, wildlife, and threatened and endangered species) was based on research, knowledge of the area's resources, and the best professional judgment of planners, natural resource specialists, and biologists who have experience with similar types of projects. Information on the area's natural resources was gathered from several sources. As appropriate, additional sources of data are identified under each topic heading.

The following section describes the impacts of the proposed alternatives on Atchafalaya National Heritage Area's natural resources retained for analysis. Natural resource impact topic categories include (1) soils; (2) floodplains; (3) wetlands; (4) water quality; (5) vegetation; (6) wildlife; and (7) threatened and endangered species.

The section "Actions Common to All Action Alternatives" discusses the impacts of proposed actions on natural resources regardless of which management alternative is selected. These actions would generally have long-term, beneficial impacts on all seven natural resource topics.

Alternative A, the no action alternative, does not propose any change to current operations and management of the Atchafalaya National Heritage Area. Implementation of the no-action alternative would generally result in long-term moderate adverse impacts on all seven natural resource impact topic categories.

The natural resource impacts are discussed by category (i.e., soils, wetlands, vegetation, etc.) Each resource category includes natural resources described in "Chapter Six: The Affected Environment." These resources are widespread and prominent within the heritage area and a major reason for the region's distinction.

When actions are common between alternatives B or C and alternative D (the preferred alternative), the impacts will be discussed only once.

For actions under each of the alternatives, partnership support would be encouraged and used to implement appropriate management actions for the purposes of resource protection. Management actions could include, but would not be limited to, educational and informational programs, restoration programs, installation of signs, and development of appropriate recreational opportunities, visitor services, and facilities.

POTENTIAL IMPACTS ASSOCIATED WITH THE ALTERNATIVES

Actions Common to All Action Alternatives

No new development is proposed in any of the action alternatives; existing facilities would continue to be used. This, accompanied with additional protection measures of the action alternatives, would

generally result in long-term, beneficial impacts on all seven natural resource categories. Development involved with providing new recreational opportunities, such as trails, boardwalks, boat ramps/docks, bus stops, roads, and campgrounds, is a possibility; however, at this time it is unknown what the level of development would be, what organization would fund it, and where it would take place. Therefore, if the heritage area management does become involved with any future development, the commission would be required to perform the appropriate level of NEPA analysis.

All of the action alternatives encourage the establishment of physical links between areas of interest. This would be accomplished by identifying roads, trails, and scenic byways that connect particular areas of interest, link tour routes and resource-based activities, and connect existing scenic byways. These actions would have negligible to minor, long-term, adverse impacts to the soils within the heritage area due to soil compaction and topsoil removal on trails from increased use and from incidences of vehicles pulling off onto the roadside.

The establishment of physical links between areas of interest would have negligible, long-term, beneficial impacts to the floodplains within the heritage area due to increased knowledge and understanding of floodplains, wetlands, and water quality. These physical links would have no effect on natural flows and flood regimes.

These actions would have negligible to minor, short- and long-term, adverse impacts on the vegetation within the heritage area due to vegetation trampling on trails from increased use and visitors going off-trail, and from incidences of vehicles pulling off onto the roadside.

The establishment of physical links between areas of interest would have negligible to minor, long-term, adverse impact to wildlife,

including threatened and endangered species, and their habitat within the heritage area due to increases in noise and human presence, as well as from trampling of habitat or forage in incidences when visitors go off-trail and visitors pulling off onto the side of the road.

The action alternatives all have the potential to increase tourism. More people on existing trails or creating unofficial trails would result in long-term, negligible to minor, adverse impacts to heritage area soils and floodplains due to compaction or erosion of soils from increased use, thus increasing the impermeability of floodplain soils resulting in greater runoff and increased flooding.

More tourists on land or water trails could create unofficial trails, resulting in long-term, negligible to minor, adverse impacts to heritage area wetlands, water quality, and vegetation due to erosion and increased runoff; damage, removal, or trampling of wetland vegetation; and compaction of wetland soils from increased use.

More tourists on new or existing trails or creating unofficial trails would result in long-term, negligible to minor, adverse impacts to heritage area wildlife, including threatened and endangered species, and their habitat due to damage of habitat and displacement or noise associated with an increase in human use.

Soils

Alternative A: No Action

Under this alternative, soils in the heritage area would likely continue to be compacted and eroded by hikers, fishermen, bird and wildlife viewers, and other recreational enthusiasts. In some areas, new user-created, unofficial routes may be created from visitation, particularly in areas with traditionally higher visitor numbers, such as those with certain points of interest. This would result in long-term, adverse impacts

that would likely be minor to moderate and localized.

Alternative B

This alternative would focus on increasing understanding and appreciation of natural resources in the heritage area and of people's efforts to influence and control nature. As a result of these efforts and expanded emphasis on outdoor recreation opportunities that would occur under this alternative, support for protection and restoration of natural resources and processes, is expected to increase. This would result in long-term, beneficial impacts to heritage area soils.

Alternative B and Alternative D (Preferred Alternative)

Both of these alternatives call for programs to be developed with partners to provide conservation, restoration, and ecotourism opportunities for visitors and residents. These programs would focus on clean-up, water quality monitoring, native plant restoration, and other similar efforts. Native plant restoration would help stabilize soils and reduce or prevent erosion, resulting in long-term, beneficial impacts to heritage area soils.

Alternative C and Alternative D (Preferred Alternative)

These alternatives would focus primarily on providing interpretation and experiences related to the unique culture, history, nature, and living traditions of the Atchafalaya National Heritage Area. The culture evolved partially as a response to the land, water, and natural resources. Increased interpretation of these resources and expanded opportunities to experience the resources within the heritage area would increase support for protection and restoration of the natural resources and processes in order to maintain culture, history, and living traditions that have been shaped by these resources. This would result in long-term, beneficial impacts on heritage area soils.

Under alternative C and alternative D, visitor experiences would include promoting established annual festivals and parades, as well as developing new annual events. A potential increase in the number of events, or in the number of attendees at established events, could result in short- or long-term, negligible to minor, adverse impacts on heritage area soils due to compaction and erosion from visitor use.

Floodplains

Alternative A: No Action

Floodplains in the heritage area would likely continue to be impacted by visitors walking through areas of the floodplain, compacting soils and trampling vegetation. Also, in some areas, new user-created, unofficial routes may be created as a result of visitation, particularly in areas with traditionally higher visitor numbers such as those with certain points of interest. These activities would result in long-term, negligible to minor, adverse impacts to the floodplains within the heritage area due to compaction or erosion of soils, resulting in greater runoff and flooding.

Alternative B

This alternative would focus on increasing understanding and appreciation of natural resources in the heritage area and of people's efforts to influence and control nature. As a result of these efforts and expanded emphasis on outdoor recreation opportunities, support for protection and restoration of natural processes is expected to increase. This would result in long-term, beneficial impacts to heritage area floodplains.

Alternative B and Alternative D (Preferred Alternative)

Under these alternatives, partnership programs would be developed to provide conservation, restoration, and ecotourism opportunities for visitors and locals. These programs would focus on clean-up, water quality monitoring, native plant restoration

and other similar efforts. These efforts would result in long-term, beneficial impacts to heritage area floodplains.

***Alternative C and
Alternative D (Preferred Alternative)***

Under these alternatives, visitor experiences would include promoting established annual festivals and parades, as well as developing new annual events. A potential increase in the number of events, or in the amount of attendees at established annual events, could result in short- or long-term, negligible to minor, adverse impacts on heritage area floodplains due to compaction or erosion that could result from increased use.

These alternatives would focus primarily on providing interpretation and experiences related to the unique culture, history, and living traditions of the Atchafalaya National Heritage Area. The culture evolved partially as a response to the land, water, and natural resources. Greater interpretation of and experiences within the heritage area would increase support for protection and restoration of the natural resources, and processes in order to maintain culture, history, and living traditions that are and have been shaped by these resources. This would result in long-term, beneficial impacts on heritage area floodplains.

Wetlands

Alternative A: No Action

In this alternative, wetlands in the heritage area would likely continue to be impacted by visitors walking through wetlands, compacting soils and trampling vegetation. Also, in some areas, new user-created, unofficial land and water routes may be created from visitation, particularly in areas with traditionally higher visitor numbers such as those with certain points of interest. These activities would result in long-term, negligible to minor, adverse impacts to the wetlands within the heritage area due to wetland soil compaction and vegetation trampling.

Alternative B

This alternative would focus on increasing understanding and appreciation of natural resources in the heritage area and of people's efforts to influence and control nature. As a result of these efforts and expanded emphasis on outdoor recreation opportunities, support for protection and restoration of natural resources and processes is expected to increase. This would result in long-term, beneficial impacts to heritage area wetlands.

***Alternative B and
Alternative D (Preferred Alternative)***

Under these alternatives, increased coordination by the heritage area management would encourage partnership programs to provide conservation, restoration, and ecotourism opportunities for visitors and local residents. These programs would focus on clean-up, water quality monitoring, native plant restoration, and other similar efforts. These efforts would result in long-term, beneficial impacts to heritage area wetlands.

***Alternative C and
Alternative D (Preferred Alternative)***

These alternatives would focus primarily on providing interpretation and experiences related to the unique culture, history, and living traditions of the Atchafalaya National Heritage Area. The culture evolved partially as a response to the land, water, and natural resources. Greater interpretation of and experiences within the heritage area would increase support for protection and restoration of the natural resources and processes in order to maintain culture, history, and living traditions that are and have been shaped by these resources. This would result in long-term, beneficial impacts on heritage area wetlands.

Water Quality

Alternative A: No Action

Water quality in the heritage area would likely continue to be impacted by visitor use (which is generally low impact, but may result in littering), commercial uses and USACE activities which will largely be unchanged by the plan. In some areas, new user-created, unofficial boating and paddling routes may be created from visitation, particularly in areas with traditionally higher visitor numbers such as points of interest. These activities would result in long-term, negligible, adverse impacts to the water quality within the heritage area due to increased littering and fuel emissions from boats.

Alternative B

Alternative B would focus on increasing understanding and appreciation of natural resources in the heritage area and of people's efforts to influence and control nature. As a result of these efforts and expanded emphasis on outdoor recreation opportunities, support for protection and restoration of natural resources and processes is expected to increase. This would result in long-term, beneficial impacts to heritage area water quality.

Alternative B and Alternative D (Preferred Alternative)

These alternatives would include increased coordination by the heritage area management to encourage partnership programs providing conservation, restoration, and ecotourism opportunities for visitors and local residents. These programs would focus on clean-up, water quality monitoring, native plant restoration, and other similar efforts. These would result in long-term, beneficial impacts to heritage area water quality.

Alternative C and Alternative D (Preferred Alternative)

These alternatives would focus primarily on providing interpretation and experiences related to the unique culture, history, and living traditions of the Atchafalaya National Heritage Area. The culture evolved partially as a response to the land, water, and natural resources. Greater interpretation of and experiences within the heritage area would increase support for protection and restoration of natural resources and processes in order to maintain culture, history, and living traditions that are and have been shaped by these resources. This would result in long-term, beneficial impacts on heritage area water resources and quality.

Vegetation

Alternative A: No Action

Under alternative A, visitor access to the heritage area would continue to be dispersed with no officially designated routes. Visitor use levels in the heritage area in the future may lead to vegetation loss due to the formation of user-created, unofficial routes in or near popular use areas. As a result, more native vegetation might be adversely affected in localized areas. These impacts could affect the presence and distribution of some native plants in localized areas in the heritage area. Thus, under alternative A, visitor use would likely continue to have a long-term, negligible to minor, adverse impact on native vegetation in localized areas due to trampling from increased use and the creation of unofficial routes.

Alternative B

Alternative B would focus on increasing understanding and appreciation of natural resources in the heritage area and of people's efforts to influence and control nature. As a result of these efforts and expanded emphasis on outdoor recreation opportunities, support for protection and restoration of natural resources and processes is expected to increase. This

would result in long-term, beneficial impacts to heritage area vegetation.

***Alternative B and
Alternative D (Preferred Alternative)***

These alternatives include increased coordination by the heritage area management to encourage partnership programs to provide conservation, restoration, and ecotourism opportunities for visitors and locals are proposed under this alternative. These programs would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts. These efforts would result in long-term, beneficial impacts to heritage area vegetation.

***Alternative C and
Alternative D (Preferred Alternative)***

Under these alternatives, visitor experiences would include promoting established annual festivals and parades, as well as developing new annual events. A potential increase in the number of events or in the amount of attendees at established annual events could result in short-term, negligible to minor, adverse impacts on heritage area vegetation due to trampling from increased use.

These alternatives would focus primarily on providing interpretation and experiences related to the unique culture, history, and living traditions of the Atchafalaya National Heritage Area. The culture evolved partially as a response to the land, water, and natural resources. Greater interpretation of and experiences within the heritage area would increase support for the protection and restoration of natural resources and processes, in order to maintain culture, history, and living traditions that are and have been shaped by these resources. This would result in long-term, beneficial impacts on heritage area vegetation.

Wildlife

Alternative A: No Action

Few actions in this alternative would affect the heritage areas' wildlife populations or habitats. Wildlife populations and habitats have already been altered by the presence of extraction industries (such as logging and oil and gas), flood control measures, development, and visitors. Animals sensitive to human activities already avoid these areas when people are present. Wildlife that occupy these areas, such as various reptiles, birds, and small mammals, are mostly adapted to the presence of people and would not be noticeably affected by the actions being taken in alternative A.

Some animals would probably continue to be attracted to food offered by visitors or to areas where food and trash receptacles are present, such as at parking areas and trailheads.

Overall, the adverse impacts on wildlife populations from visitor use in alternative A would be localized and negligible, resulting in no measurable changes to wildlife populations and habitats, as the animals currently avoid or are habituated to areas where people are present.

Alternative B

Alternative B would focus on increasing understanding and appreciation of natural resources in the heritage area and of man's efforts to influence and control nature. As a result of these efforts and an expanded emphasis on outdoor recreation opportunities, support for protection and restoration of natural resources and processes is expected to increase. This would result in long-term, beneficial impacts to heritage area wildlife and their habitat.

***Alternative B and
Alternative D (Preferred Alternative)***

Under these alternatives, increased coordination by the heritage area management to encourage partnership

programs would provide conservation, restoration, and ecotourism opportunities for visitors and locals are proposed under this alternative. These programs would focus on clean-up, water quality monitoring, native plant restoration, and other similar efforts. These efforts would result in long-term, beneficial impacts to heritage area wildlife and their habitat.

***Alternative C and
Alternative D (Preferred Alternative)***

Under these alternatives, visitor experiences would include promoting established annual festivals and parades, as well as developing new annual events. A potential increase in the number of such events, or in the number of attendees at established events, could result in short-term, negligible to minor, adverse impacts on heritage area wildlife and their habitat due to increased noise and human presence.

These alternatives would focus primarily on providing interpretation and experiences related to the unique culture, history, and living traditions of the Atchafalaya National Heritage Area. The culture evolved partially as a response to the land, water, and natural resources. Greater interpretation of and experiences within the heritage area would increase support for the protection and restoration of natural resources and processes, in order to maintain culture, history, and living traditions that are and have been shaped by these resources. This would result in long-term, beneficial impacts on heritage area wildlife.

Threatened and Endangered Species

Alternative A: No Action

No impacts on state and federal threatened and endangered plant species would occur as there are currently no threatened or endangered plant species in the heritage area.

However, future visitor use in the heritage area may lead to the loss of some habitat for

threatened and endangered wildlife species, due to the formation of user-created, unofficial trails near popular use areas. This continued visitor activity could limit vegetation growth through soil compaction and the removal of vegetation and food sources. As a result, these species might be adversely affected in local areas. These impacts could affect species communities in the heritage area. Thus, visitor use could possibly have a long-term, minor-to-moderate, adverse impact on the heritage area's threatened and endangered species in localized areas due to changes in habitat and forage resulting from visitor use.

Alternative B

This alternative would focus on increasing understanding and appreciation of natural resources in the heritage area and of man's efforts to influence and control nature. As a result of these efforts and expanded emphasis on outdoor recreation opportunities, support for protection of natural resources, restoration, and natural processes is expected to increase. This would result in long-term, beneficial impacts to heritage area threatened and endangered species and their habitat.

***Alternative B and Alternative D
(Preferred Alternative)***

Under these alternatives, heritage area management support for increased coordination of partnership programs would lead to increased conservation, restoration, and ecotourism opportunities for visitors and locals are proposed under this alternative. These programs would focus on clean-up, water quality monitoring, native plant restoration and other similar efforts. These efforts would result in long-term, beneficial impacts to heritage area threatened and endangered species and their habitat.

***Alternative C and Alternative D
(Preferred Alternative)***

Visitor experiences would include promoting established annual festivals and parades, as well as developing new annual festivals and parades. A potential increase in the amount of festivals and parades, or in the amount of attendees at established annual festivals and parades, could result in short-term, negligible to minor, adverse impacts on heritage area threatened and endangered species and their habitat due to increased noise and human presence and damage to habitat and forage from trampling or removal.

These alternatives would focus primarily on providing interpretation and experiences related to the unique culture, history, and living traditions of the Atchafalaya National Heritage Area. The culture evolved partially as a response to the land, water, and natural resources. Greater interpretation of, and experiences within, the heritage area would increase support for protection of the natural resources, restoration, and natural processes in order to maintain culture, history, and living traditions that are and have been dependent upon and shaped by these resources. This would result in long-term, beneficial impacts on heritage area threatened and endangered species and their habitat.

**POTENTIAL CUMULATIVE IMPACTS
TO NATURAL RESOURCES**

Actions Considered

Transportation plans and projects could modify roadways and subsequently affect many natural resources and processes. Roadway projects would also likely result in erosion and generate urban pollutants that would adversely impact soils, water quality within the floodplain, wetlands, vegetation, and wildlife.

Conversely, certain projects would reduce the amount of erosion and improve the

conveyance of water, which would have beneficial impacts to floodplains, wetlands, and water quality, as well as native vegetation and wildlife.

Projects aimed at improving ecosystems and enhancing natural resources could result in adverse cumulative impacts in the short term, but these impacts would be outweighed by long-term improvements to the integrity and function of floodplain processes.

The same would be true for actions associated with the management of adjacent public lands, where near-term projects could have short-term adverse impacts on natural resources, but actions to achieve long-term objectives of improved natural systems would have long-term, beneficial cumulative impacts on floodplain processes, other water resources, native vegetation, and wildlife.

Regional land protection efforts would continue to preserve and protect water resources and native wildlife habitat. Actions associated with the management of private lands in the region would continue to have both adverse and beneficial impacts on natural resources and processes, depending on the nature of land use and stewardship practices.

Soils

Soils in most of the heritage area have been altered by past land use practices (logging, oil and gas, flood control, and agriculture) and development.

No-action Alternative

In the future, some soils would likely be eroded and lost, and soil properties would likely continue to be altered by land use practices and by new developments in the area.

All Alternatives

The existing recreation facilities and new recreation development that would bring more visitors to the area in all management alternatives would have localized adverse

effects on soils due to removal or compaction from development and use of trails, boat docks, bus stops, etc.

However, action alternatives B, C, and D would also have beneficial effects on soil conditions in other areas, by utilizing existing roads, trails, and facilities, or developing roads and trails in previously disturbed areas. Alternative A would have the least amount of adverse effect from new recreation and the least beneficial effect from natural restoration.

Thus, the loss and alteration of soils due to past land uses and future external actions likely would result in a minor to moderate, adverse impact on area soils.

When the potential minor effects from increased recreation development and visitation in the heritage area in any of the action alternatives are added to the past and future impacts external to the heritage area, there would be a long-term, minor to moderate, adverse cumulative impact on area soils. However, the actions in any of the alternatives would contribute a very small increment to the overall impact.

Floodplains

Floodplains in most of the heritage area have been altered by past land use practices (logging, oil and gas, flood control, and agriculture) and development. In the future, some floodplain soils would likely be eroded and lost, and floodplains would likely continue to be altered by land use practices and by new developments in the area. The loss and alteration of floodplains due to past land uses and future external actions likely would result in a minor to moderate, adverse impact on area floodplains.

No-action Alternative

When the potential minor effects from increased visitation in the heritage area in alternative A are added to the past and future impacts external to the heritage area, there would be a long-term, minor to moderate, adverse cumulative impact on

area floodplains. However, the actions in alternative A would contribute a very small increment to the overall impact.

Action Alternatives

All action alternatives include actions that provide for the restoration of natural areas and ecological processes, which directly and indirectly help protect floodplains.

When the likely effects of implementing the actions contained in the action alternatives are added to the effects of other past, present, and reasonably foreseeable actions, there would be a long-term, minor to moderate, beneficial cumulative impact on floodplain processes.

Wetlands

Wetlands in most of the heritage area have been altered by past land use practices (logging, oil and gas, flood control, and agriculture) and development. In the future, some wetlands would likely be lost and continued to be altered by land use practices and new developments in the area. The loss and alteration of wetlands due to past land uses, development, and future external actions likely would result in a minor to moderate, adverse impact on area wetlands.

No-action Alternative

When the potential minor effects from increased visitation in the heritage area in alternative A are added to the past and future impacts external to the heritage area, there would be a long-term, minor to moderate, adverse cumulative impact on area wetlands. However, the actions in alternative A would contribute a very small increment to the overall impact.

Action Alternatives

All action alternatives include actions that provide for the restoration of natural areas and ecological processes, which directly and indirectly help restore wetland functions.

When the likely effects of implementing the actions contained in the action alternatives are added to the effects of other past, present, and reasonably foreseeable actions, there would be a long-term, minor to moderate, beneficial cumulative impact on wetlands.

Water Quality

Several sources of water pollution external to heritage area management and operations have affected, and are likely to continue affecting the area's water quality, depending on the type and quantity of pollutants that enter the heritage area waters.

No-action Alternative

When added to the water quality impacts of Alternative A, there could be a minor to moderate, long-term, adverse cumulative impact. However, the increment added by the no action alternative would be relatively small compared to the impact from pollutants being added from actions outside of the heritage area management and operations.

Action Alternatives

Alternatives B, C, and D include actions that provide for the restoration of natural areas and ecological processes, which directly and indirectly help restore the natural hydrologic regime.

When the likely effects of implementing the actions contained in the action alternatives are added to the effects of other past, present, and reasonably foreseeable actions, there would be a long-term, minor to moderate, beneficial cumulative impact on water quality.

Vegetation

Actions outside the heritage area would likely continue to affect the area's native vegetation. Over time, many native vegetation communities have been affected by human activities such as logging, oil and gas operations, agricultural uses, and

development. New developments would likely result in the loss of some additional native vegetation. Thus, in the heritage area, there have been minor to moderate adverse impacts to native vegetation.

No-action Alternative

When the impacts of the no action alternative are added to actions that have occurred and are likely to occur in the area, there would be a minor to moderate, long-term, adverse cumulative impact on the area's native vegetation. However, the actions in alternative A would add a relatively small adverse increment to this overall impact, given how much change has already occurred to the native vegetative communities that were once abundant and the resiliency of the native vegetative communities that still have greater presence.

Action Alternatives

All of the alternatives include actions that provide for natural restoration, education, and stewardship, which would have beneficial effects on native vegetation.

Alternatives B, C, and D include actions that would provide additional benefits for native vegetation and habitat by utilizing existing roads, trails, and facilities, or developing roads and trails in previously disturbed areas. However, alternatives B, C, and D would also yield some adverse effects by expanding visitor access and recreation development in some areas which might lead to vegetation loss or trampling.

When the likely effects of implementing the actions contained in the management plan alternatives are added to the effects of other past, present, and reasonably foreseeable actions, there would be a long-term, minor to moderate, beneficial cumulative impact on vegetation and wildlife habitat. Although impacts of the action alternatives on local special status species in the project area would be mitigated to minimize potential impacts, the impacts from urbanization of the region would continue to result in native

vegetation loss and therefore would be adverse. The cumulative impact to native vegetation would be adverse; however, the management plan actions would have a small mitigating impact on this impact.

Wildlife

Wildlife populations and habitats have already been altered by visitors, as have wildlife habits and movements. The greater amount of human use in the heritage area is concentrated in developed areas and along trails and waterways. Animals sensitive to human activities already avoid these areas when people are present.

No-action Alternative

Few actions in alternative A would affect the heritage area's wildlife populations or habitats. Some animals would continue to occasionally be injured or killed by motor vehicles on roads. Some animals also probably would continue to be attracted to food offered by visitors or to areas where food and trash receptacles are present, such as at picnic areas. Overall, the impacts of visitor use on wildlife populations in Alternative A would be localized and negligible, resulting in no measureable changes to the heritage area's wildlife populations or their habitat.

Action Alternatives

All of the action alternatives include actions that provide for natural restoration, education, and stewardship, which would have beneficial effects on wildlife species and their habitat. Alternatives B, C, and D include actions that would provide additional habitat benefits by utilizing existing roads, trails, and facilities, or developing roads and trails in previously disturbed areas. However, alternatives B, C, and D would also yield some adverse effects by expanding visitor access and recreation development in some areas, which might lead to damage to or removal of wildlife habitat or forage.

When the likely effects of implementing the actions contained in the management plan alternatives are added to the effects of other past, present, and reasonably foreseeable actions, there would be a long-term, minor to moderate, beneficial cumulative impact on wildlife species habitat. Although impacts on wildlife species and their habitat in the project area would be mitigated to minimize potential impacts, the impacts from urbanization of the region would continue to result in habitat loss and therefore would be adverse. The cumulative impact to most wildlife species and their habitat would be adverse, however, the management plan actions would have a small mitigating impact on this overall impact.

Threatened and Endangered Species

Threatened and endangered species populations and habitats have already been altered by visitors, as have wildlife habits and movements. The greater amount of human use in the heritage area is concentrated in developed areas and along trails and waterways. Animals sensitive to human activities already avoid these areas when people are present.

No-action Alternative

Few actions in alternative A would affect the heritage area's threatened and endangered species populations or habitats. Some animals would continue to occasionally be injured or killed by motor vehicles on roads. Some animals also probably would continue to be attracted to food offered by visitors or to areas where food and trash receptacles are present, such as at picnic areas. Overall, the impacts of visitor use on threatened and endangered species populations in alternative A would be localized and negligible, resulting in no measureable changes to the heritage area's threatened and endangered species populations or their habitat.

Action Alternatives

All of the action alternatives include actions that provide for natural restoration,

education, and stewardship, which would have beneficial effects on threatened and endangered species. Alternatives B, C, and D include actions that would provide additional habitat benefits by utilizing existing roads, trails, and facilities, or developing roads and trails in previously disturbed areas. However, alternatives B, C, and D would also yield some adverse effects by expanding visitor access and recreation development in some areas, which might lead to damage to or removal of threatened and endangered species habitat or forage. When the likely effects of implementing the actions contained in the action alternatives are added to the effects of other past, present, and reasonably foreseeable actions,

there would be a long-term, minor to moderate, beneficial cumulative impact on threatened and endangered species habitat.

Although impacts on threatened and endangered species and local special status species and their habitat in the project area would be mitigated to minimize potential impacts, the impacts from urbanization of the region would continue to result in habitat loss and therefore would be adverse.

The cumulative impact to most threatened and endangered or special status species and their habitat would be adverse, however, the management plan actions would have a small mitigating impact on this overall impact.

POTENTIAL IMPACTS TO CULTURAL RESOURCES

INTRODUCTION

The following section describes the impacts of the proposed alternatives on Atchafalaya National Heritage Area's cultural resources and values. Cultural resource impact categories include (1) archeological resources, (2) ethnographic resources, (3) historic and prehistoric structures, (4) cultural landscape resources, and (5) museum collections.

The section "Actions Common to All Alternatives" discusses the impacts of proposed actions on cultural resources regardless of which management alternative is selected.

Alternative A (no action alternative) does not propose any change to current operations and management of Atchafalaya National Heritage Area. This section discusses the impacts on cultural resources if current programs and levels of funding continue.

The sections "Alternative B," "Alternative C," and "Alternative D (Preferred)" discuss the impacts to cultural resources of proposed actions under those three alternatives.

ACTIONS COMMON TO ALL ALTERNATIVES

Development of an interpretation plan to guide the implementation of a comprehensive and coordinated interpretive program for Atchafalaya National Heritage Area would provide management with the knowledge to better preserve and more effectively interpret the multiple layers of historic development associated with the heritage area's significant archeological, ethnographic, and cultural landscape

resources; historic and prehistoric structures; and museum collections. Thus, development of an interpretation plan and the implementation of a comprehensive and coordinated interpretive program would have long-term, beneficial impacts on the heritage area's cultural resources.

Atchafalaya National Heritage Area's partnership with the Louisiana Byways Program to expand the program in the heritage area and develop improved interpretive programming based on the heritage area's interpretive themes would not only enhance the area's cultural resource preservation and interpretive programs but also enable those programs to be linked and coordinated with other local, state, and regional preservation and interpretive programs. Thus, the partnership between the heritage area and the Louisiana Byways Program would result in long-term, beneficial impacts to the heritage area's archeological, ethnographic, and cultural landscape resources; historic and prehistoric structures; and museum collections.

Atchafalaya National Heritage Area Commission's efforts to improve signs and implement a comprehensive identity and media program to build "brand" and visibility for the heritage area would have long-term, beneficial impacts on the area's archeological, ethnographic, and cultural landscape resources; historic and prehistoric structures; and museum collections, because the program would (1) increase and enhance awareness, appreciation, and support for the heritage area's cultural resources, and (2) provide unifying definition to the heritage area's cultural resource preservation and interpretive programs.

The Commission's efforts to establish and foster effective partnerships with Louisiana state departments and agencies; associations,

institutions, and commissions; non-governmental organizations such as the Friends of Atchafalaya and Acadian musical groups; and private landowners to support development of interpretive centers and cultural resource preservation and interpretive programs would result in long-term, beneficial impacts on the heritage area's archeological, ethnographic, and cultural landscape resources; historic and prehistoric structures; and museum collections because such partnerships would (1) create appreciation and support for the heritage area's cultural resources, and (2) increase avenues through which governmental entities, communities, and visitors could engage with the heritage area to preserve and interpret those resources.

Heritage funding and technical assistance provided to Atchafalaya National Heritage Area by the National Park Service under the provisions of the National Heritage Act of 2006 would provide heritage area management with tools and financial resources to implement cultural resource preservation and interpretive programming and enhance welcome center interpretation. However, this funding could end if a management plan is not completed and approved by the Secretary of the Interior within a reasonable timeframe. Such actions would result in long-term, beneficial impacts to the area's archeological, ethnographic, and cultural landscape resources; historic and prehistoric structures; and museum collections.

Overall, the actions common to all alternatives would generally have long-term, beneficial impacts on all five cultural resource categories.

ARCHEOLOGICAL RESOURCES

Alternative A – No Action

Analysis

A comprehensive archeological survey of the lands within the Atchafalaya National

Heritage Area has not been conducted, although some archeological surveys have been undertaken in association with various development and planning projects. Furthermore, comprehensive consultations with American Indian tribes regarding archeological sites with ethnographic significance in the heritage area are needed.

Because current programs and levels of funding would continue under alternative A, the need for additional comprehensive survey work and consultations as well as the need for cultural resource preservation programs would likely continue. Thus, prehistoric and historic archeological resources in Atchafalaya National Heritage Area under alternative A would generally continue to be subject to potential deterioration and lack of adequate protection in some cases. Increasing visitation and recreational activity also could result in inadvertent damage to these resources due to new user-created, unofficial routes.

Without further funding and implementation of cultural resource preservation programs, private development and commercialization would continue in the heritage area, resulting in potential ground disturbance to currently identified—as well as unidentified—archeological resources and potential negative visual impacts due to development. In some areas, particularly those having traditionally higher visitation numbers, the potential for archeological resource deterioration or loss would tend to be greatest.

Marksville Prehistoric Indian Site, a national historic landmark, and national register-listed archeological sites would continue to receive protection and preservation treatment as opportunities and their landowners' financial resources become available. However, these sites would also be subject to many of the aforementioned impacts.

Under alternative A, adverse impacts to archeological resources in Atchafalaya National Heritage Area would be expected to be permanent and of minor intensity because of uncoordinated and fragmented preservation efforts resulting from lack of knowledge and adequate funding, natural processes, and increasing development, commercialization, and visitation.

Cumulative Impacts

In the past, human activities, private development, lack of sufficient resource monitoring and protection programs have resulted in the loss or disturbance of archeological resources. Because much of the heritage area has not been surveyed and inventoried for archeological resources, some decisions about site development have been made that, in hindsight, may have resulted in the loss or disturbance to an unknown number of archeological sites. An unknown number of archeological sites on lands within the heritage area would likely continue to be adversely impacted by current and ongoing human activities such as private development and commercialization; increasing visitation and recreational activities; and natural processes and erosion.

Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as improved signage, enhanced Welcome Center interpretation, and improved interpretation for scenic byways within the heritage area; the purchase of a Civil War-era camp occupied by Blacks by the Louisiana Office of State Parks; and purchase of additional land for the Marksville Prehistoric Indian Site would be expected to have long-range beneficial impacts on archeological resources in the heritage area. Recent, current, and reasonably foreseeable non-NHA development projects and undertakings on or near lands within the heritage area, such as construction of visitor centers, new boat ramps, boat ramp

upgrades, campgrounds, and improvements in state parks, such as upgraded cabins, lodges, and other visitor accommodations and facilities, would potentially have permanent adverse impacts on archeological resources.

When the likely effects of implementing the actions contained in alternative A are added to the effects of other past, present, and reasonably foreseeable actions as described above, impacts to archaeological resources would be expected to be permanent and of minor intensity. The actions contained in alternative A would contribute a very small increment to this cumulative impact.

Impacts from actions contained in this alternative would not result in impairment of archeological resources in the national heritage area.

Actions Common To Alternatives B, C, and D (Preferred Alternative)

The National Park Service would encourage archeological surveys and/or monitoring before construction activities, in order to avoid known archeological resources to the greatest extent possible during construction. If national register-eligible or national register-listed archeological resources could not be avoided, an appropriate mitigation strategy would be developed in consultation with the state historic preservation officer and, if necessary, associated ethnic groups. Adverse impacts to archeological resources that could not be avoided during construction would be permanent and minor to moderate in intensity.

Increased visitation could impact archeological sites. Archeological sites adjacent to or easily accessible from visitor use areas or trails would be vulnerable to inadvertent damage and vandalism. Emphasis on visitor education regarding the significance and fragility of archeological resources and how visitors can reduce their impacts to resources would discourage vandalism and inadvertent impacts and

minimize adverse impacts. Adverse impacts due to increased visitation would be negligible to minor and long-term or permanent.

Alternative B

Analysis

This alternative would focus on increasing visitors' understanding and appreciation of natural and recreational resources in the heritage area and of human efforts to use, influence, and control nature. Nevertheless, the historical development of the area and its cultural traditions—a significant component of which are the heritage area's archeological resources—are intricately linked to these resources. As a result of the expanded emphasis on outdoor recreation and education, support for protection and preservation of all area resources may be expected to increase. Thus, actions under this alternative would likely result in long-term, beneficial impacts on cultural resources, including archeological resources.

Under alternative B, the use of existing interpretive and welcome centers instead of building new facilities would generally result in long-term, beneficial impacts on archeological resources in the heritage area, since no new construction would occur.

For alternative B, the impacts of increased visitation and transportation changes are addressed in the "Actions Common to All Alternatives" section above.

Under this alternative, coordinated programs with partners to provide and expand conservation, restoration, educational, and ecotourism opportunities for visitors and locals would focus on ecosystem rehabilitation, water quality monitoring, native plant restoration, and related efforts. These programs, which would include earth disturbing activities, could adversely impact the integrity of some archeological resources while others might be lost. Any adverse impacts would be permanent and of minor intensity.

Cumulative Impacts

Cumulative effects of alternative B would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area include the expansion of natural resource-based recreation activities that are linked to the history of the area, and the exploration of opportunities to protect the area's natural resources and their intricately associated cultural resources. These would be expected to have long-range beneficial impacts on archeological resources in the heritage area.

Other development projects and undertakings on or near lands within the heritage area, such as the heritage area's support for coordinated, expanded, and improved transportation planning and development of land and water trails, would potentially have permanent adverse cumulative impacts of minor intensity on archeological resources because the integrity of some archeological sites could be compromised while others might be lost.

Conclusion

Based on all these actions and impacts, implementation of alternative B would generally result in long-term, beneficial impacts to archeological resources in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be permanent and of minor intensity.

The adverse impacts of alternative B, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect on archeological resources. The adverse effects of alternative B would be a very small component of the adverse cumulative impact.

Alternative C

Analysis

Alternative C would focus primarily on developing partnerships to increase awareness of the heritage area's unique history and culture by providing interpretive and educational experiences based on the region's cultural resources and traditions. Providing greater interpretation of the heritage area and increased opportunities for experiences within the heritage area, along with exploring opportunities to increase national register listings, would increase support and appreciation for protection and preservation of the area's cultural resources, including archeological resources. Thus, actions under this alternative would result in long-term, beneficial impacts on the area's archeological resources.

Under alternative C, the use of existing interpretive and welcome centers instead of building new facilities would generally result in long-term, beneficial impacts on archeological resources because no additional archeological resources would be potentially impacted by new development.

Although actions under alternative C could result in some of the same adverse impacts to archeological resources as those identified for alternative A, the heritage area's support for history and cultural programs would likely limit such impacts. Heritage area management would work to protect archeological resources from unauthorized removal or other destructive actions, and efforts would be undertaken to avoid known or discovered archeological sites.

Under this alternative, Marksville Prehistoric Indian Site, a national historic landmark, and national register-listed archeological sites would generally be expected to receive enhanced protection and preservation treatment as a result of expanded cultural resource preservation funding and an increased emphasis on partnerships among to encourage, expand, and coordinate cultural resource

preservation and interpretive programs. Thus, actions under alternative C would be expected to have long-term, beneficial impacts on archeological resources.

For alternative C, the impacts of increased visitation and transportation changes are addressed in the "Actions Common to All Alternatives" section above.

Under alternative C, visitor experiences would include promoting established annual festivals and parades, as well as developing new annual events and thematic trails based on food, music, culture, and history. A potential increase in the number of festivals, parades, and thematic trails, or in the number of attendees at established annual events or on trails, could result in the integrity of some archeological resources being compromised or others being lost. Any adverse impacts on the heritage area's archeological resources would be localized and of negligible to minor intensity.

Cumulative Impacts

Cumulative effects of alternative C would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as the heritage area's emphasis on exploring opportunities for increasing the number of historic properties listed in the National Register of Historic Places and coordination with partners to help preserve, rehabilitate, restore, and interpret cultural resources would have long-term, beneficial impacts on archeological resources in the heritage area.

Other development projects and undertakings on or near lands within the heritage area, such as the heritage area's support for coordinated, expanded, and improved transportation planning, development of thematic trails based on food, music, culture, history, and promotion of cultural festivals and parades, would potentially have permanent adverse impacts

of negligible to minor intensity on archeological resources.

Conclusion

Implementation of alternative C would generally result in long-term, beneficial impacts to archeological resources in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be permanent and of negligible to minor intensity. The adverse impacts of alternative C, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect on archeological resources. The adverse effects of alternative C would be a very small component of the adverse cumulative impact.

Alternative D (Preferred Alternative)

Analysis

Under alternative D, the heritage area managers would establish programs and projects with partners that are designed to explore the richness and interplay of the region's natural and cultural resources and create a strong sense of place, which supports livability for residents and enjoyment for visitors. These efforts, along with an expanded emphasis on outdoor natural-resource based recreational and educational opportunities and increased interpretive opportunities would be expected to increase support and appreciation for protection and preservation of the heritage area's cultural resources, including archeological resources. Thus, actions under this alternative would likely result in long-term, beneficial impacts on cultural resources, including archeological resources.

Under this alternative, there would be greater emphasis on partnerships among cultural resource preservation agencies and organizations to encourage, expand, and coordinate cultural resource preservation,

education, and interpretive programs. There would likely be increased funding, too. Thus, Marksville Prehistoric Indian Site, a national historic landmark, and national register-listed archeological sites would generally be expected to receive enhanced protection and preservation treatment. Thus, actions under alternative D would be expected to have long-term, beneficial impacts on archeological resources.

Under this alternative, the use of existing interpretive and welcome centers for enhanced interpretation and information dissemination instead of building new facilities would generally result in long-term, beneficial impacts on archeological resources because additional archeological resources would not be impacted by new development.

Although actions under this alternative could result in some of the same adverse impacts to archeological resources as those listed under alternative A, the heritage area's support for cultural resource preservation programs in collaboration with partners would likely minimize such impacts. Heritage area management would work with partners to help preserve, rehabilitate, and restore cultural resource sites and increase the number of properties listed in the National Register of Historic Places. Such activities would include efforts to protect archeological resources from unauthorized removal or other destructive actions, and efforts would be undertaken to avoid or mitigate known or discovered archeological sites during construction and development. Overall, such actions would have long-term, beneficial impacts on archeological resources.

For alternative D, the impacts of increased visitation and transportation changes are addressed in the "Actions Common to All Alternatives" section above.

Under this alternative, coordinated programs with partners to provide and expand conservation, restoration,

educational, and ecotourism opportunities for visitors and residents would focus in part on ecosystem rehabilitation, water quality monitoring, native plant restoration and related efforts. These programs, which would include earth-disturbing activities, could adversely impact the integrity of some archeological resources while others might be lost. Any adverse impacts would be permanent and of negligible to minor intensity.

Implementation of this alternative would likely result in increasing recreational visitation, ecotourism, and heritage tourism to Atchafalaya National Heritage Area. However, as a result of enhanced cultural resource preservation and educational programs that encourage and promote enhanced cultural preservation practices and values, such adverse impacts would be expected to be permanent and of negligible to minor intensity.

Cumulative Impacts

Cumulative effects of alternative D would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on lands in or near the heritage area include the following: the linking of natural resource-based recreation activities and ecotourism with awareness and appreciation for the historical development of the area and its cultural traditions, the purchase of a Civil War-era camp occupied by Blacks and additional land for the Marksville Prehistoric Indian Site, the exploration of opportunities to protect the area's natural resources and their intricately associated cultural resources, and an increase in the number of historic properties listed in the National Register of Historic Places. These would be expected to have long-term, beneficial impacts on archeological resources in the heritage area.

Other development projects in or near the heritage area, such as the heritage area's support for coordinated, expanded, and

improved transportation planning, development of land and water trails, and promotion of cultural festivals, parades, and events would potentially have permanent adverse cumulative impacts of negligible to minor intensity on archeological resources because the integrity of some archeological sites could be compromised while others might be lost.

Conclusion

Implementation of alternative D would generally result in long-term, beneficial impacts on archeological resources in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be permanent and of negligible to minor intensity.

The adverse impacts of alternative D, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect on archeological resources. The adverse effects of alternative D would be a very small component of the adverse cumulative impact.

ETHNOGRAPHIC RESOURCES

Alternative A – No Action

Analysis

Under alternative A, the integrity of cultural resources in Atchafalaya National Heritage Area with ethnographic associations, such as those associated with ethnic community historical development and cultural identity, traditional subsistence activities, and adaptive strategies pertaining to swamp resource exploitation, would likely continue to be compromised by expanding private development and commercialization. Such additional development may not allow for adequate surveys for ethnographic resources, resulting in the potential loss or disturbance of these resources.

Without further funding for cultural resource protection and preservation programs designed to identify and preserve ethnographic resources in the heritage area, increasing visitation and recreational activity, particularly in traditionally popular areas and at highly visited points of interest, would continue to adversely impact the integrity of and access to sites associated with traditional subsistence activities, swamp resource exploitation, and cultural identity. Any adverse impacts would be long-term and minor in intensity.

Cumulative Impacts

In the past, human activities, lack of sufficient resource monitoring and protection programs, and natural processes have likely resulted in the loss or disturbance of an unknown number of cultural resources with ethnographic associations such as those associated with ethnic community historical development and cultural identity, traditional subsistence activities, and adaptive strategies pertaining to swamp resource exploitation. Because much of the heritage area has not been surveyed and inventoried for ethnographic resources, some decisions about site development have been made that, may have resulted in the loss or disturbance to an unknown number of ethnographic resources. An unknown number of ethnographic resources on lands within the heritage area would likely continue to have long-term, minor, adverse impacts due to current and ongoing human activities such as private development and commercialization—which could result in disturbance or loss of resources during construction—and increasing visitation and recreational activities—which could result in visual or audible impacts to sites associated with cultural identity or traditional activities. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as improved signage, enhanced Welcome Center interpretation, and improved interpretation for scenic byways within the heritage area;

the purchase of a Civil War-era camp occupied by Blacks; and the purchase of additional land for the Marksville Prehistoric Indian Site would be expected to have long-term, beneficial impacts on ethnographic resources in the heritage area because such actions would increase awareness and appreciation for such resources.

Recent, current, and reasonably foreseeable development projects and undertakings on or near lands within the heritage area, such as construction of visitor centers, new boat ramps, boat ramp upgrades, campgrounds, and improvements in state parks, such as upgraded cabins, lodges, and other visitor accommodations and facilities, would potentially have long-term adverse impacts of minor intensity on cultural resources with ethnographic associations because such actions would potentially compromise the integrity of, and limit access to, such resources by changing the physical context of the area surrounding the resources or by disturbance during construction.

Conclusion

Implementation of alternative A would result in long-term, adverse impacts of minor intensity on cultural resources with ethnographic associations in Atchafalaya National Heritage Area.

The adverse impacts of alternative A, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect to ethnographic resources. The adverse effects of alternative A would be a very small component of the adverse cumulative impact.

Actions Common to Alternatives B, C, and D (Preferred Alternative)

Under the action alternatives, the use of existing interpretive and welcome centers

instead of building new facilities would generally result in long-term, beneficial impacts on cultural resources with ethnographic associations since no new construction would occur, therefore avoiding potential disturbance during construction and visual impacts due to development of new structures.

New transportation circulation patterns and systems—including roads, land and water trails, and scenic byway connections—would be developed. The action alternatives also provide for improved and expanded transportation routes and systems, which could lead to the development of associated bicycle trails, bus stops, boat docks, rail stops, and air-related facilities. Such actions could compromise the integrity of some cultural resources with ethnographic associations (by disturbing buried resources without documenting them). The location of new development could also block or limit access to sites associated with cultural identity and traditional activities. Adverse impacts resulting from these projects and developments would potentially have long-term adverse impacts of minor intensity on cultural resources with ethnographic associations. However, alternative modes of transportation through the heritage area would reduce number of automobiles and therefore, the need for additional parking, thus resulting in long-term, beneficial impacts on ethnographic resources because additional resources would not be impacted by construction of new parking lots.

All action alternatives would likely result in increasing heritage tourism to Atchafalaya National Heritage Area. Increasing numbers of tourists would potentially have long-term, adverse impacts on the integrity and access to some cultural resources with ethnographic associations. However, as a result of enhanced and coordinated cultural resource preservation programs and educational efforts with partners, such impacts would be expected to be of negligible to minor intensity.

Alternative B

Analysis

Although this alternative would focus on increasing visitors' understanding and appreciation of natural and recreational resources in the heritage area and of human efforts to use, influence, and control nature, the historical development of the area and its cultural traditions and activities—significant components of which are the heritage area's cultural resources with ethnographic associations—are intricately linked to the history of the area's natural resources and human use of and interaction with those resources. As a result of these efforts and expanded emphasis on outdoor recreational and educational opportunities, support for protection and preservation of natural resources and processes, as well as human use and interaction with those resources and processes, may be expected to increase. The integrity of cultural resources in Atchafalaya National Heritage Area with ethnographic associations, such as those associated with cultural identity, traditional subsistence activities, and adaptive strategies pertaining to swamp resource exploitation, would likely be improved under this alternative.

Nevertheless, actions under alternative B would result in many of the same adverse impacts to cultural resources with ethnographic associations as those listed under alternative A. Thus, cultural resources with ethnographic associations in Atchafalaya National Heritage Area would generally continue to be subject to potential deterioration, lack of adequate protection in some cases, increasing development and commercialization, and possible loss of integrity from natural processes and rising levels of visitation. Any adverse impacts would be long term and of minor intensity.

Under this alternative, coordinated programs with partners to provide and expand conservation, restoration, educational, and ecotourism opportunities for visitors and locals would focus on ecosystem rehabilitation, water quality

monitoring, native plant restoration and related efforts. Although the integrity of some cultural resources with ethnographic associations could be compromised by these activities and programs (long-term adverse impacts of minor intensity), heritage area management would work with American Indian tribes and ethnic groups and communities to protect and preserve cultural resources with ethnographic associations that are significant to their historical development and cultural identity, traditional subsistence activities, and adaptive strategies pertaining to swamp resource exploitation, thus resulting overall long-term, beneficial impacts on such resources.

Cumulative Impacts

Cumulative effects would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as the heritage area's support for linkage between expansion of natural resource-based recreation and ecotourism and the historical development of the area and its cultural traditions and values, exploration of opportunities to protect the area's natural resources and their intricately associated cultural resources, purchase of a Civil War-era camp occupied by Blacks, and purchase of additional land for the Marksville Prehistoric Indian Site, would be expected to have long-term, beneficial impacts on cultural resources with ethnographic associations in the heritage area.

Recent, current, and reasonably foreseeable development projects and undertakings on or near lands within the heritage area, such as the support for coordinated, expanded, and improved transportation planning and the development of land and water trails, could change the physical context of the area surrounding the resources or disturb the resource during construction, potentially affecting the integrity of and access to such

resources, resulting in long-term, adverse impacts of minor intensity on cultural resources with ethnographic associations.

Conclusion

Implementation of alternative B would generally result in long-term, beneficial impacts to cultural resources with ethnographic associations in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long-term and of minor intensity.

The adverse impacts of alternative B, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect to ethnographic resources. The adverse effects of alternative B would be a very small component of the adverse cumulative impact.

Alternative C

Analysis

Alternative C would focus primarily on developing partnerships to increase awareness of the history, traditions, culture, and lifeways unique to Atchafalaya National Heritage Area by providing interpretive and educational experiences based on the region's current and past communities, cultural resource sites, historical development, languages, religions, music, foods, and cultural traditions and festivals. Providing greater interpretation of and experiences within the heritage area, along with exploring opportunities to expand the number of national register listings, would increase support and appreciation for protection and preservation of the area's cultural resources, including those with ethnographic associations. The integrity of cultural resources in Atchafalaya National Heritage Area with ethnographic associations, such as those associated with ethnic community historical development and cultural identity, traditional subsistence

activities, and adaptive strategies pertaining to swamp resource exploitation, would be improved through coordinated preservation and educational programs between the heritage area and partners.

Although actions under alternative C could result in some of the same adverse impacts to cultural resources with ethnographic associations as those listed under alternative A, support for enhanced preservation, education, and interpretive programs would likely limit such impacts. Adverse impacts would be expected to be long-term and of negligible to minor intensity.

Under this alternative, heritage area management would work with partners, such as American Indian tribes and ethnic groups and communities, to protect, preserve, and interpret cultural resources with ethnographic associations that are significant to their historical development and cultural identity, traditional subsistence activities, and adaptive strategies pertaining to swamp resource exploitation, thus having overall long-term, beneficial impacts on such resources.

Under alternative C, visitor experiences would include promoting established annual cultural festivals and parades, as well as developing new annual events and developing thematic trails based on food, music, culture, and history. A potential increase in the number of events and the development of thematic trails, or an increase in the number of attendees at established events or on trails, would result in long-term, beneficial impacts heritage area's cultural resources having ethnographic associations because they would celebrate and generate appreciation of the heritage area's cultural identity, traditions, and values. At the same time, increasing numbers of events and expanding trail use could increase audible or visual disturbances that could compromise the integrity of some cultural resources with ethnographic associations, resulting in long-

term, adverse impacts of negligible to minor intensity on such resources.

Cumulative Impacts

Cumulative effects under alternative C would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors, development projects, and programmatic undertakings on or near lands within the heritage area, such as the heritage area's emphasis on exploring opportunities for increasing the number of historic properties listed in the National Register of Historic Places, coordination with partners to help preserve, rehabilitate, restore, and interpret cultural resource sites, purchase of a Civil War-era camp occupied by Blacks and purchase of additional land at the Marksville Prehistoric Indian Site, would have long-term, beneficial impacts on cultural resources with ethnographic associations in the heritage area.

Recent, current, and reasonably foreseeable development projects and undertakings on or near lands within the heritage area, such as the heritage area's support for coordinated, expanded, and improved transportation planning and development of land and water trails, would potentially have long-term adverse impacts of minor intensity on cultural resources with ethnographic associations. By changing the physical context of the area surrounding the resources or by disturbing an area during construction, the integrity of and access to such resources could be compromised.

Conclusion

Implementation of alternative C would result in minor adverse impacts of permanent intensity. The adverse impacts of alternative C, in combination with both the long-term beneficial impacts and the permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect to ethnographic resources. The adverse effects

of alternative C would be a very small component of the adverse cumulative impact.

Alternative D (Preferred Alternative)

Analysis

Through alternative D, the heritage area would establish partnership programs designed to explore the richness and interplay of the region's natural and cultural resources and create a strong sense of place that supports livability for residents and enjoyment for visitors. As a result of these efforts, along with expanded emphasis on outdoor natural-resource based recreational and educational opportunities; interpretive experiences featuring the area's cultural resources, traditions, and values; and exploration of opportunities to expand the number of national register listings, support and appreciation for protection and preservation of the area's cultural resources with ethnographic associations may be expected to increase. The integrity of cultural resources in Atchafalaya National Heritage Area with ethnographic associations—such as those associated with ethnic community historical development and cultural identity, traditional subsistence activities, and adaptive strategies for swamp resource exploitation—would be improved through coordinated preservation and educational programs among partners.

Under this alternative heritage area management would work with partners, such as American Indian tribes and ethnic groups and communities, to protect, preserve, and interpret cultural resources with ethnographic associations that are significant to their respective historical development and cultural identity, traditional subsistence activities, and adaptive strategies for swamp resource exploitation, thus having overall long-term, beneficial impacts on the heritage area's ethnographic resources.

Although actions under this alternative could result in some of the same adverse

impacts to cultural resources with ethnographic associations as those listed under alternative A, the heritage area's support for cultural resource preservation, education and interpretive programs in collaboration with partners would likely minimize such impacts. Heritage area management would work with partners to help preserve, rehabilitate, and restore cultural resource sites. Such activities would include efforts to preserve and provide access to cultural resources with ethnographic associations. Overall, such actions would generally have long-term, beneficial impacts on cultural resources with ethnographic associations.

Cumulative Impacts

Effects would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on lands in or near the heritage area, such as the heritage area's support for linkage between expansion of natural resource-based recreation and ecotourism and the historical development of the area and its cultural traditions and values, exploration of opportunities to protect the area's natural resources and their intricately associated cultural resources and increase the number of historic properties listed in the National Register of Historic Places, coordination with partners to help preserve, rehabilitate, restore, and interpret natural and cultural resource sites, and purchases of a Civil War-era camp occupied by Blacks and additional land for the Marksville Prehistoric Indian Site, would be expected to have long-term, beneficial impacts on cultural resources with ethnographic associations.

Recent, current, and reasonably foreseeable development projects and undertakings on lands in or near the heritage area, such as the heritage area's support for coordinated, expanded, and improved transportation planning and development of land and water trails, would potentially have long-term adverse impacts of negligible to minor

intensity on cultural resources with ethnographic associations. By changing the physical context of the area surrounding the resources or by disturbance the resources during construction, the integrity of and access to such resources could be compromised.

Conclusion

Implementation of alternative D would generally result in long-term, beneficial impacts to cultural resources with ethnographic associations in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long term and of negligible to minor intensity.

The adverse impacts of alternative D, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect to ethnographic resources. The adverse effects of alternative D would be a very small component of the adverse cumulative impact.

HISTORIC AND PREHISTORIC STRUCTURES

Alternative A – No Action

Analysis

Because current programs and levels of funding would continue under alternative A, historic and prehistoric structures in the heritage area would generally continue to be subject to potential deterioration, incremental and piecemeal approaches to preservation and maintenance, lack of adequate protection in some cases, and loss of integrity from natural processes and from rising levels of visitation. Additionally, some historic structures, such as those associated with the Cinclare Sugar Mill Historic District, are in jeopardy because they are vacant, not maintained, and subject to vandalism. Without further funding and

implementation of comprehensive cultural resource protection, preservation, and education programs, some historic and prehistoric structures could be lost while historic fabric could be lost on others, compromising the integrity of their documented historical and architectural values. Without significant funding and implementation plans for adaptive use or development of vacant historic sites as cultural tourism venues, it is likely that some vacant historic structures will not survive beyond the near future because of the fragile nature of their building materials.

Cumulative Impacts of

In the past, human activities, lack of sufficient resource monitoring and protection programs have compromised the integrity or resulted in the loss of historic and prehistoric structures. The documented historic and architectural values of an unknown number of historic and prehistoric structures on lands within the heritage area would likely continue to be lost or compromised by ongoing human activities such as private development and commercialization and increasing visitation and recreational activities. Adverse impacts from such past and ongoing activities, practices, and processes would be long-term and of minor intensity.

Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as improved signage, enhanced Welcome Center interpretation, construction of new visitor centers, and improved interpretation for scenic byways within the heritage area, would be expected to support greater appreciation for the documented historic and architectural values of historic and prehistoric structures. Thus, such projects and programs would be expected to have long-term, beneficial impacts on historic and structures in the heritage area.

Conclusion

Implementation of alternative A would result in long-term, minor to moderate, adverse impacts to historic and prehistoric structures in Atchafalaya National Heritage Area.

The adverse impacts of alternative A, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative A would be a very small component of the adverse cumulative impact.

Actions Common Alternatives B, C, and D (Preferred Alternative)

Analysis

Alternatives B, C, and D would all include seeking resources for more surveys and research for cultural resources. These are necessary to determine eligibility of structures, districts, and landscapes for listing in the National Register of Historic Places, to understand their significance, and to determine how such places should be managed in the future. This would have a beneficial impact on historic and prehistoric structures.

Under the action alternatives, partnership programs to provide educational and interpretive opportunities for visitors and locals would focus on the appropriate themes for that alternative. Although the integrity of some historic and prehistoric structures could be compromised and some historic fabric could be lost as a result of these activities and programs (long-term adverse impacts of negligible to minor intensity), heritage area management would work with communities and private landowners to protect and preserve the documented historic and architectural values of designated national historic

landmarks and national register-listed historic structures and develop implementation plans for adaptive use or conversion of vacant buildings as cultural tourism venues. Rehabilitation of historic buildings, done within the Secretary of Interior's standards, preserves the historic character of the structural, while allowing for additions and alterations to accommodate compatible contemporary use, thus resulting in overall long-term, beneficial impacts on these resources.

Conclusion

The action alternatives have the potential to increase visitation, heritage tourism, and natural resource-based experiential activities in the heritage area. Increasing numbers of tourists and visitor-related activities would potentially have adverse impacts on the integrity of historic fabric and the documented historical and architectural values of some historic and prehistoric structures. Historic structures could suffer wear and tear from increased visitation and unstaffed or minimally staffed structures could be more susceptible to vandalism. Emphasis on visitor education regarding the significance and non-renewable nature of such resources, and how visitors can reduce their impacts to them, would discourage inadvertent visitor impacts and vandalism and minimize adverse impacts. Any adverse impacts would be minor and long-term.

Alternative B

Analysis

While this alternative would focus on increasing visitors' understanding and appreciation of natural and recreational resources in the heritage area and of human efforts to utilize, influence, and control nature, the historical development of the area and its cultural traditions, a significant component of which are the heritage area's historic and prehistoric structures, are intricately linked to the history of the area's natural resources and human use of and interaction with those resources. As a result

of these efforts and expanded emphasis on outdoor recreational and educational opportunities, support for protection and preservation of natural resources and processes, as well as human use and interaction with those resources and processes, may be expected to increase. Due to this increased understanding of human efforts and the research and surveys mentioned in the common to all section, the integrity of the historic fabric and the documented historical and architectural values of the heritage area's historic and prehistoric structures that are designated National Historic Landmarks or listed in the National Register of Historic Places would likely be improved under this alternative.

Actions under alternative B would result in some of the same adverse impacts to historic and prehistoric structures as those listed under alternative A. Thus, the integrity of the historic fabric and documented historical and architectural values of historic and prehistoric structures in Atchafalaya National Heritage Area would generally continue to be subject to potential deterioration from and human activity. Any adverse impacts would be expected to be long term and of minor intensity.

Cumulative Impacts

Cumulative effects would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as the heritage area's support for linkages between expansion of natural resource-based recreation and ecotourism, appreciation for the historical settlement and development of the area and human interaction with its natural resources, and exploration of opportunities to protect the area's natural resources and their intricately associated cultural resources, would be expected to have long-term, minor beneficial cumulative impacts on historic and prehistoric structures in the heritage area.

Implementation of alternative B would generally result in long-term, beneficial impacts to historic and prehistoric structures in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long-term and of negligible to minor intensity.

Conclusion

Implementation of alternative B would generally result in long-term, beneficial impacts to historic and prehistoric structures in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long-term and of negligible to minor intensity.

The adverse impacts of alternative B, in combination with the long-term and permanent beneficial impacts and the minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative B would be a very small component of the adverse cumulative impact.

Alternative C

Analysis

Alternative C would focus primarily on developing partnerships to increase awareness of the heritage area's unique history and culture by providing interpretive and educational experiences based on the region's cultural resources and traditions. Providing greater interpretation of and experiences within the heritage area, along with exploring opportunities to increase national register listings, would increase support and appreciation for protection and preservation of the area's cultural resources, including its historic and prehistoric structures. The integrity of the historic fabric and the documented historical and architectural values of the heritage area's historic and prehistoric structures that are designated national historic landmarks or listed in the National Register of Historic

Places would be improved through coordinated preservation, interpretive, and educational programs among the heritage area and partners.

Although actions under alternative C could result in some of the same adverse impacts to historic and prehistoric structures as those listed under alternative A, enhanced cultural resource preservation, education, and interpretive programs would likely limit such impacts. Adverse impacts would be expected to be long-term and of negligible to minor intensity.

Under alternative C, visitor experiences would include promoting established annual cultural festivals and parades, as well as developing new annual events and thematic trails based on food, music, culture, and history. A potential increase in the number of festivals and parades, the number of people at these events, or the number of people on thematic trails would result in long-term, beneficial impacts to the heritage area's historic and prehistoric structures because they would promote and celebrate cultural identity, traditions, and preservation values, but could also result in increased visitation and the associated adverse impacts as discussed in the "Actions Common to All Action Alternatives" section. However, such long-term, adverse impacts would be expected to be negligible to minor intensity.

Cumulative Impacts

Cumulative effects under alternative C would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as the heritage area's emphasis on exploring opportunities for increasing the number of historic properties listed in the National Register of Historic Places and coordination with partners to help preserve, rehabilitate, restore, and interpret cultural resource sites, would have long-term, beneficial cumulative impacts on the documented historic and

architectural values of historic and prehistoric structures in the heritage area. Recent, current, and reasonably foreseeable development projects and undertakings on or near lands within the heritage area, such as the heritage area's support for coordinated, expanded, and improved transportation planning, would potentially have long-term adverse cumulative impacts of negligible to minor intensity on historic structures and their immediate surroundings because improved transportation planning would encourage increased visitation and potential wear and tear on the historic fabric of historic and prehistoric structures.

Conclusion

Implementation of alternative C would generally result in long-term, beneficial impacts to historic and prehistoric structures in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long-term and of negligible to minor intensity.

Implementation of alternative C would result in minor adverse impacts of permanent intensity. The adverse impacts of alternative C, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative C would be a very small component of the adverse cumulative impact.

Alternative D (Preferred Alternative)

Analysis

Through alternative D, the heritage area would establish programs and projects with partners that are designed to explore the richness and interplay of the region's natural and cultural resources and create a strong sense of place, which supports livability for residents and enjoyment for visitors. As a result of these efforts, along with enhanced interpretation and information

dissemination at existing interpretive and welcome centers, expanded emphasis on outdoor natural-resource based recreational and educational opportunities, expanded interpretation featuring the area's cultural resources, and exploration of opportunities to expand the number of national register listings, support and appreciation for protection and preservation of area's historic and prehistoric structures may be expected to increase. Moreover, the integrity of the historic fabric and the documented historical and architectural values of the heritage area's historic and prehistoric structures that are designated national historic landmarks or listed in the National Register of Historic Places would be improved through coordinated preservation, interpretive, and educational programs among the heritage area and partners. Thus, actions under this alternative would result in long-term, beneficial impacts on the documented historic and architectural values as well as the historic fabric of the heritage area's historic and prehistoric structures.

Although actions under alternative D could result in some of the same adverse impacts to historic and prehistoric structures as those listed under alternative A, enhanced cultural resource preservation, education, and interpretive programs would likely minimize such adverse impacts. Any adverse impacts would be expected to be long term and of negligible to minor intensity.

Implementation of alternative D would generally result in long-term, beneficial impacts to historic and prehistoric structures in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long term and of negligible to minor intensity.

Cumulative Impacts

Cumulative effects under alternative D would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors

and programmatic undertakings on lands in or near the heritage area, such as the heritage area's support for linkages between expansion of natural resource-based recreation and ecotourism, appreciation for the historical settlement and development of the area and human interaction with its natural resources, exploration of opportunities to protect the area's natural resources and their intricately associated cultural resources and increase the number of historic properties listed in the National Register of Historic Places, and coordination with partners to help preserve, rehabilitate, restore, and interpret cultural resource sites, would be expected to have long-term, beneficial cumulative impacts on historic and prehistoric structures in the heritage area. Recent, current, and reasonably foreseeable development projects and undertakings on lands in or near the heritage area, such as the heritage area's support for coordinated, expanded, and improved transportation planning, would potentially have long-term adverse cumulative impacts of negligible to minor intensity on historic and prehistoric structures because such activities would encourage increased visitation and potentially compromise their documented historical and architectural values through wear and tear.

Conclusion

Implementation of alternative D would generally result in long-term, beneficial impacts to historic and prehistoric structures in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long-term and of negligible to minor intensity.

The adverse impacts of alternative D, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative D would be a very small

component of the adverse cumulative impact.

CULTURAL LANDSCAPE RESOURCES

Alternative A – No Action

Analysis

Because current programs and levels of funding would continue under alternative A, cultural landscapes and their associated resources and features in the heritage area would generally continue to be subject to potential deterioration, incremental and piecemeal approaches to preservation and maintenance, lack of adequate protection in some cases, and from rising levels of visitation, recreation, and commercialization. Without further funding and implementation of comprehensive cultural resource protection, preservation, and education programs, additional cultural landscape resources and features, such as the Jungle Gardens on Avery Island, could be lost. Additionally, abandoned cultural properties and their associated cultural landscape features, such as those in the Cinclore Sugar Mill Historic District, are in jeopardy because they are vacant, not maintained, and subject to vandalism. In some areas, particularly those having traditionally higher visitation numbers, the potential for cultural landscape deterioration or loss would tend to be greatest. Although many of the heritage area's cultural landscapes have generally retained their integrity, the incremental and piecemeal approach to their preservation and maintenance, as well as their various adaptive uses to accommodate pressures from rising private development, commercialization, visitation, and recreation, have resulted in the loss of views and vistas, changes in vegetation and structures, and in some cases, changes in land use and circulation patterns. These have resulted long-term, minor, adverse impacts because significant cultural landscape features have been compromised or lost.

Cumulative Impacts

In the past, human activities, lack of sufficient resource monitoring and protection programs, and climatic and natural processes have resulted in the loss of cultural landscapes and their associated resources and features. The historical values and features of an unknown number of cultural landscapes on lands within the heritage area would likely continue to be lost or compromised by ongoing human activities such as private development and commercialization and increasing visitation and recreational activities. Adverse impacts from such past and ongoing activities, practices, and processes would be long-term and of moderate intensity.

Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as improved signage, enhanced Welcome Center interpretation, construction of new visitor centers, and improved interpretation for scenic byways within the heritage area, would be expected to support greater appreciation for the documented historical values of cultural landscapes and their associated resources and features. Thus, such projects and programs would be expected to have long-term, beneficial impacts on cultural landscape resources in the heritage area.

Conclusion

Implementation of alternative A would result in long-term, minor, adverse impacts to cultural landscape resources in Atchafalaya National Heritage Area. The adverse impacts of alternative A, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative A would be a very small component of the adverse cumulative impact.

Actions Common to Alternatives B, C, and D (Preferred Alternative)

Analysis

Alternatives B, C and D all include partnership programs to provide a variety of educational, interpretive, conservation, preservation, and ecotourism opportunities for visitors and residents. Although the integrity and documented historical values of some cultural landscapes could be compromised or lost as a result of these activities and programs (resulting in long-term adverse impacts of minor intensity), heritage area management would work with communities, parishes, and private landowners to protect and preserve the documented historical values of notable cultural landscape resources, such as the Jungle Gardens on Avery Island, and develop implementation plans for adaptive use or conversion of abandoned cultural properties, such as the Cinclare Sugar Mill Historic District.

In these alternatives, new transportation circulation patterns and systems, including roads, trails, and scenic byway connections between areas of interest or areas for outdoor recreation, would be developed. This could also lead to the development of associated bicycle trails, bus stops, boat docks, rail stops, and air travel—related facilities. Such actions could compromise the integrity and historical values of some cultural landscape resources and features and some could be lost or changed—particularly historic circulation patterns, vegetation, and views and vistas. Adverse impacts on cultural landscape resources resulting from these projects and developments would be expected to have long-term, adverse impacts of minor intensity.

Conclusion

Alternatives B, C, and D all have the potential to increase visitation and experiential activities in the heritage area. Increasing numbers of tourists, visitors, and

natural resource-based experiential activities would potentially have adverse impacts on the integrity and documented historical values of some cultural landscape resources as a result of inadvertent visitor activity and wear and tear. Any adverse impacts, however, would be expected to be long term and of minor intensity.

Alternative B

Analysis

Alternative B would focus on increasing visitors' understanding and appreciation of natural and recreational resources in the heritage area and human efforts to use, influence, and control nature. However, the historical development of the area, a significant component of which are the heritage area's cultural landscape resources and features, are intricately linked to the history of the area's natural resources and human use of and interaction with those resources.

Under alternative B, there would be efforts to increase understanding of the areas cultural landscape resources, enhance interpretation and information dissemination at existing interpretive and welcome centers, and expand emphasis on outdoor recreational and educational opportunities. As a result of these efforts, support for protection and preservation of natural resources and processes, and human use and interaction with those resources and processes may be expected to increase. The integrity and documented historic values of the heritage area's cultural landscapes and their associated resources and features—such as those associated with historic plantations, settlements, towns and communities, educational and religious institutions, water control, and agricultural/industrial production—would likely be improved under this alternative. Thus, actions under this alternative would likely result in long-term, beneficial impacts on the historical values of the heritage area's cultural landscape resources.

However, actions under alternative B would result in some of the same adverse impacts to cultural landscape resources as those identified under alternative A. Thus, the integrity, setting, and documented historical values of cultural landscape resources and features in Atchafalaya National Heritage Area would generally continue to be subject to potential deterioration and loss from erosion and natural processes, adaptive use, and human activity. Any adverse impacts would be expected to be long term and of minor intensity.

Cumulative Impacts

In the past, human activities, lack of sufficient resource monitoring and protection programs, and natural processes have resulted in the loss of some cultural landscapes as well as the loss or disturbance of significant features in others, thus compromising the integrity of the documented historical values of the heritage area's cultural landscapes. In the absence of comprehensive surveys and inventories of the area's cultural landscapes, some decisions about development and adaptive use have been made that, in hindsight, have compromised the integrity of numerous cultural landscapes as well as the loss of an unknown number of cultural landscape resources and features. An unknown number of cultural landscape resources and features within the heritage area would likely continue to be adversely impacted by current and ongoing human activities such as private development and commercialization, increasing visitation and recreational activities, and adaptive use. These activities could result in loss of views and vistas, changes in vegetation and structures, and in some cases changes in land use and circulation patterns.

Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as the Commission's support for linking expansion of natural resource-based recreation and

ecotourism with the historical settlement and development of the area, and for exploration of opportunities to protect the area's natural resources and their intricately associated cultural resources, would be expected to have long-term, beneficial impacts on the documented historic values of cultural landscape resources and features in the heritage area. Recent, current, and reasonably foreseeable development projects and undertakings on or near lands within the heritage area, such as support for coordinated, expanded, and improved transportation planning and development of land and water trails, could potentially change vistas, views or vegetation, and cause other visible or audible changes to cultural landscapes, resulting in long-term minor adverse impacts on cultural landscape resources.

Conclusion

Implementation of alternative B would generally result in long-term, beneficial impacts to cultural landscape resources and features in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long term and of minor intensity.

The adverse impacts of alternative B, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative B would be a very small component of the adverse cumulative impact.

Alternative C

Analysis

Alternative C would focus primarily on developing partnerships to increase awareness of the heritage area's unique history and culture by providing interpretive and educational experiences based on the region's cultural resources and traditions.

Greater cultural interpretation of and experiences within the heritage area, along with enhanced interpretation and information dissemination at existing interpretive and welcome centers, and exploring opportunities to increase national register listings, would increase support and appreciation for protection and preservation of the heritage area's cultural landscape resources and features. The integrity of the heritage area's cultural landscape resources that are listed in the National Register of Historic Places—such as those associated with historic plantations, settlements, towns, and communities, educational and religious institutions, and agricultural/industrial development—as well as non-national-register-listed cultural landscapes associated with Louisiana's fabled Great River Road, Alma Plantation's ongoing sugar mill operations, Avery Island's natural landscape, and water control structures, would be improved through coordinated preservation, interpretive, and educational programs among the heritage area and partners. Thus, actions under this alternative would result in long-term, beneficial impacts on the integrity and documented historical values of the heritage area's cultural landscape resources and features.

Although actions under alternative C could result in some of the same adverse impacts to cultural landscape resources as those identified under alternative A—such as increasing development and commercialization and loss of integrity from erosion, siltation, other natural processes, and from rising levels of visitation and recreational activity—enhanced cultural resource preservation, education, and interpretive programs would likely minimize such adverse impacts. Any adverse impacts would be expected to be long term and of negligible to minor intensity.

Under alternative C, cultural identity values would be enhanced through the promotion of established annual cultural festivals and parades, as well as the organization of new annual events and the development of

thematic trails based on food, music, culture, and history. A potential increase in the number of festivals and parades, the number of attendees at established annual events, or the number of visitors on thematic trails would result in long-term, beneficial impacts to the heritage area's cultural landscape resources because they would promote and celebrate cultural identity, traditions, and preservation values. At the same time, these increases could compromise the integrity and documented historical values of some cultural landscape resources in the heritage area through wear and tear, although such long-term adverse impacts would be expected to be of negligible to minor intensity.

Cumulative Impacts

In the past, human activities, lack of sufficient resource monitoring and protection programs, and natural processes have resulted in compromising the integrity and documented historical values of cultural landscape resources and features. In the absence of comprehensive surveys and inventories of the area's historic structures, some decisions about development and adaptive use have been made that, in hindsight, have compromised the integrity of cultural landscape resources as well as the loss of an unknown number of cultural landscape features. An unknown number of cultural landscape resources within the heritage area would likely continue to be adversely impacted by current and ongoing human activities such as private development and commercialization, increasing visitation and recreational activities, adaptive use, and natural processes, which could result in loss of views and vistas, changes in vegetation and structures, and in some cases changes in land use and circulation patterns.

Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as the Commission's emphasis on exploring

opportunities for increasing the number of historic properties listed in the National Register of Historic Places and coordinating with partners to help preserve, rehabilitate, restore, and interpret cultural resource sites, would have long-term, beneficial impacts on the documented historical values and cultural landscape resources in the heritage area.

Recent, current, and reasonably foreseeable development projects and undertakings on or near lands within the heritage area, such as the support for coordinated, expanded, and improved transportation planning, would potentially have negligible to minor, long-term, adverse cumulative impacts on cultural landscape resources because improved transportation planning would encourage increased visitation and potential development in the heritage area and surrounding region. This could impact the cultural landscape resources by changing vistas, views or vegetation, and causing other visible or audible changes to cultural landscapes.

Conclusion

Implementation of alternative C would generally result in long-term, beneficial impacts to cultural landscape resources in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long term and of negligible to minor intensity.

The adverse impacts of alternative C, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative C would be a very small component of the adverse cumulative impact.

Alternative D (Preferred Alternative)

Through alternative D, the heritage area would establish programs and projects with partners that are designed to explore the richness and interplay of the region's natural and cultural resources and create a strong sense of place, which supports livability for residents and enjoyment for visitors. As a result of these efforts, along with enhanced interpretation and information dissemination at existing interpretive and welcome centers, expanded emphasis on outdoor natural-resource based recreational and educational opportunities, expanded interpretive experiences featuring the area's cultural resources, and exploration of opportunities to expand the number of national register listings, support and appreciation for protection and preservation of the area's cultural landscape resources and features may be expected to increase.

Moreover, the integrity and documented historic values of the heritage area's cultural landscapes and their associated resources and features—such as those associated with historic plantations, settlements, towns and communities, educational and religious institutions, water control, and agricultural/industrial production—would be improved under this alternative through coordinated preservation, interpretive, and educational programs among the heritage area and partners. Thus, actions under this alternative would likely result in long-term, beneficial impacts on the integrity and historical values of the heritage area's cultural landscape resources.

Although actions under alternative D could result in some of the same adverse impacts to cultural landscape resources as those identified under alternative A, enhanced and coordinated heritage area cultural resource preservation, education, and interpretive programs with partners would likely minimize such adverse impacts. Any adverse impacts would be expected to be long term and of negligible to minor intensity.

Cumulative Impacts

Cumulative effects under alternative D would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on lands in or near the heritage area, such as the heritage area's emphasis on exploring opportunities for increasing the number of properties listed in the National Register of Historic Places and coordination with partners to help preserve, rehabilitate, restore, and interpret natural resources and their intricately associated cultural resources, support for linkage between expansion of natural resource-based recreation and ecotourism, and appreciation for the historical settlement and development of the area and human interaction with its natural resources, would be expected to have long-term, beneficial impacts on the documented historical values of cultural landscape resources and features in the heritage area.

Recent, current, and reasonably foreseeable development projects and undertakings on lands in or near the heritage area, such as the heritage area's support for coordinated, expanded, and improved transportation planning and development of land and water trails, would potentially compromise the integrity and documented historical values of some of the heritage area's cultural landscape resources. Expanded transportation systems and trail development, along with anticipated increases in natural resource-based recreational opportunities, would be expected to have negligible to minor long-term adverse cumulative impacts on the integrity and documented historical values of the heritage area's cultural landscape resources because improved transportation planning would encourage increased visitation and potential development in the heritage area and surrounding region. This increased development could result in the loss of views and vistas, cause changes in vegetation and structures, or result in changes in land use and circulation patterns,

thus resulting in impacts to cultural landscape resources.

Conclusion

Implementation of alternative D would generally result in long-term, beneficial impacts to cultural landscape resources in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long-term and of negligible to minor intensity.

The adverse impacts of alternative D, in combination with both the long-term, beneficial impacts and the permanent, minor, adverse impacts of other past, present and reasonably foreseeable future actions, would result in a long-term, minor, adverse cumulative effect. The adverse effects of alternative D would be a very small component of the adverse cumulative impact.

MUSEUM COLLECTIONS

Alternative A – No Action

Analysis

Under alternative A, the principal museum collections in the heritage area's major repositories—including state museums, state historic sites, cultural centers administered by Jean Lafitte National Historical Park, and tribal/cultural museums such as the Tunica-Biloxi Cultural and Educational Resources Center and the Chitimacha Indian Museum—would likely continue to be preserved and used for research, exhibit, and interpretation in energy efficient facilities with appropriate temperature and humidity controlled environments and fire protection systems in accordance with professional museum standards. However, because current programs and levels of funding would continue under alternative A, expansion of such museum collections and enhanced use for new exhibits and interpretive programs would be limited. Furthermore, some museum collections in

smaller community and site-related museums would continue to be vulnerable to potential deterioration, lack of adequate protection in some cases, and possible loss of integrity and usefulness because the facilities in which they are housed and the standards under which they are maintained and used would not be in compliance with professional museum standards. Additionally, space limitations in smaller community and site-related museums would likely hinder the expansion and use of some museum collections for interpretive exhibits and research purposes. Without further funding and implementation of professional museum collections preservation programs, the integrity and usefulness of some museum collections in the heritage area could be compromised because of the loss of cultural and natural artifacts and archival documentation. Thus, actions under alternative A would result in long-term adverse impacts of minor intensity to museum collections.

Privately owned collections of cultural and natural objects, artifacts, and archival materials would likely continue to remain in private ownership or be deposited with organizations or institutions at the discretion of the owners. As a result, such collections could potentially be degraded, lost, or scattered, thus reducing or eliminating their future usefulness for research, exhibit, and interpretation. Any adverse impacts would be expected to be long term and of minor intensity.

Actions under alternative A would generally be expected to have long-term, minor, adverse impacts on museum collections in Atchafalaya National Heritage Area because of uncoordinated and fragmented collection and preservation efforts resulting from lack of adequate funding, knowledge, facilities, and application of professional museum standards.

Cumulative Impacts

In the past, elements of museum collections in Atchafalaya National Heritage Area, such as objects, specimens, artifacts, and archival documentation, have been degraded, lost, or scattered because they have not been collected, maintained, exhibited, and utilized in accordance with professional museum collection protection and preservation programs. Furthermore, some museum collections have been housed in facilities that do not meet professional museum standards. An unknown number of museum collections, including artifacts, objects, and archival documents, that are associated with the heritage area's cultural and natural resources would likely continue to be adversely impacted by current and ongoing fragmented and uncoordinated programs and inadequate museum facilities that do not meet professional museum standards. Any adverse cumulative effects would be expected to be long-term or permanent and of minor intensity.

Privately-owned collections of cultural and natural objects, artifacts, and archival materials would likely continue to remain in private ownership or be deposited with organizations or institutions at the discretion of the landowners. As a result, such collections could potentially be degraded, lost, or scattered, thus reducing or eliminating their future usefulness for research, exhibit, interpretation, and research. Any adverse effects would be expected to be long-term or permanent and of minor intensity.

Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as enhanced Welcome Center interpretation and construction of a new museum at the Marksville Prehistoric Indian Site, would be expected to have long-term, beneficial cumulative impacts on museum collections in the heritage area. Recent, current, and reasonably foreseeable development

projects and undertakings on or near lands within the heritage area, such as construction of new visitor centers featuring interpretive exhibits, would potentially have long-term, beneficial impacts on museum collections in the heritage area.

Conclusion

Implementation of alternative A would result in long-term, minor, adverse impacts on museum collections in Atchafalaya National Heritage Area.

The adverse impacts of alternative A, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative A would be a very small component of the adverse cumulative impact.

Alternative B

Analysis

This alternative would focus on increasing visitors' understanding and appreciation of natural and recreational resources in the heritage area and of human efforts to use, influence, and control nature. However, the historical development of the area and its cultural traditions, a significant component of which are the heritage area's museum collections, are intricately linked to the history of the area's natural resources and human use of and interaction with those resources. Under this alternative, heritage area programs coordinated with partners to provide conservation, restoration, ecotourism, and natural resource-based experiential opportunities for visitors and residents would focus on ecosystem rehabilitation, water quality monitoring, native plant restoration, and related efforts. These efforts would not only provide opportunities for the expanded collection of objects, specimens, artifacts, and archives associated with the heritage area's natural

resources and human use of those resources, but they would also provide opportunities to implement programs for the enhanced protection, preservation, exhibit, and use of museum collections in facilities that meet professional museum standards. As a result of these efforts, enhanced interpretation and information dissemination at existing interpretive and welcome centers, expanded emphasis on outdoor recreational and educational opportunities, and support for expanded and enhanced collection, protection, preservation, and use of museum collections would be expected to increase. Thus, actions under this alternative would likely result in long-term, beneficial impacts on the heritage area's museum collections.

Nevertheless, actions under alternative B would result in many of the same adverse impacts to museum collections as those identified under alternative A. Although the principal museum collections in the heritage area's major repositories would likely continue to be expanded, preserved, and used for research, exhibits, and interpretation in facilities that meet professional museum standards, some museum collections in smaller community and site-related museums could be vulnerable to continuing potential deterioration, lack of adequate protection in some cases, and possible loss of integrity and usefulness because the facilities in which they are housed and the standards under which they are maintained would not meet such standards. Thus, the integrity and usefulness of some museum collections in the heritage area could be compromised because of the loss of some cultural and natural artifacts and archival documentation. Any adverse impacts would be expected to be long term or permanent and of minor intensity.

Under alternative B, privately owned collections of cultural and natural objects, artifacts, and archival materials would likely continue to remain in private ownership or be deposited with organizations or institutions at the discretion of the owners.

As a result, such collections could potentially be degraded, lost, or scattered, thus reducing or eliminating their future usefulness for research, exhibit, interpretation, and research. Any adverse impacts would be expected to be long term or permanent and of minor intensity.

Cumulative Impacts

Cumulative effects of alternative B would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as enhanced Welcome Center interpretation, expansion of natural resource-based recreation and ecotourism, and construction of a new museum at the Marksville Prehistoric Indian Site, would be expected to have long-term, beneficial cumulative impacts on archeological resources in the heritage area. Recent, current, and reasonably foreseeable development projects and undertakings on or near lands within the heritage area, such as construction of new visitor centers featuring interpretive exhibits, would potentially have minor, long-term, beneficial impacts on museum collections in the heritage area.

Privately-owned collections of cultural and natural objects, artifacts, and archival materials would likely continue to remain in private ownership or be deposited with organizations or institutions at the discretion of the landowners. As a result, such collections could be potentially be degraded, lost, or scattered, thus reducing or eliminating their future usefulness for research, exhibit, interpretation, and research. Any adverse effects would be expected to be long-term or permanent and of minor intensity.

Conclusion

Implementation of alternative B would generally result in long-term, beneficial impacts on museum collections in Atchafalaya National Heritage Area. Any

adverse impacts would be long-term or permanent and of minor intensity.

The adverse impacts of alternative B, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative B would be a very small component of the adverse cumulative impact.

Alternative C

Analysis

Alternative C would focus primarily on developing partnerships to promote and encourage heritage tourism and increase awareness of the history, traditions, culture, and lifeways unique to Atchafalaya National Heritage Area by providing interpretive and educational experiences based on the region's cultural resources. Providing greater cultural resource-based interpretation, expanded cultural resource-based visitor experiences within the heritage area, and enhanced interpretation and information dissemination at existing interpretive and welcome centers, while exploring opportunities to increase national register listings, would increase support and appreciation for protection and preservation of the area's cultural resources, including museum collections. Additionally, these partnership efforts would not only provide opportunities for the increased collection of objects, artifacts, and archives associated with the heritage area's cultural and natural resources, but they would also provide opportunities to implement programs for the enhanced protection, preservation, and utilization of museum collections in facilities that meet professional museum standards.

Visitor experiences under this alternative would also include promoting established annual festivals and parades, as well as developing new annual events and thematic

trails based on food, music, culture, and history. A potential increase in the number of events and the development of new thematic trails, as well as the expected increase in the number of persons attending events and using the thematic trails, would result in increased support and appreciation for the heritage area's museum collections as well as increased opportunities for development of interpretive exhibits and programs using the heritage area's various museum collections. Thus, actions under this alternative would result in long-term, beneficial impacts on the area's museum collections in terms of their preservation and use for exhibits, interpretation, and research.

Nevertheless, actions under alternative C would result in some of the same adverse impacts to museum collections as those identified under alternative A. Although the principal museum collections in the heritage area's major repositories would likely continue to be expanded, preserved, and used for research, exhibits, and interpretation in facilities in accordance with professional museum standards, some museum collections in smaller community and site-related museums could be vulnerable to continuing potential deterioration, lack of adequate protection in some cases, and possible loss of integrity and usefulness because the facilities in which they are housed and the standards under which they are maintained and used would not be in compliance with such standards. Thus, the integrity and usefulness of some museum collections in the heritage area could be compromised. Any adverse impacts would be expected to be long term or permanent and of negligible to minor intensity.

Under alternative C, privately owned collections of cultural and natural objects, artifacts, and archival materials would likely continue to remain in private ownership or be deposited with organizations or institutions at the discretion of the owners. As a result, such collections could potentially be degraded, lost, or scattered, thus reducing

or eliminating their future usefulness for research, exhibit, interpretation, and research. Any adverse impacts would be expected to be long-term or permanent and of minor intensity.

Cumulative Impacts

Cumulative impacts of alternative C would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on or near lands within the heritage area, such as enhanced Welcome Center interpretation, construction of a new museum at Marksville Prehistoric Indian Site, construction of new visitor centers featuring interpretive exhibits, and the heritage area's emphasis on exploring opportunities for increasing the number of historic properties listed in the National Register of Historic Places and coordination with partners to help preserve, rehabilitate, restore, and interpret cultural resource sites would have long-term, beneficial impacts on the expansion, preservation, and utilization of museum collections in the heritage area.

Privately-owned collections of cultural and natural objects, artifacts, and archival materials would likely continue to remain in private ownership or be deposited with organizations or institutions at the discretion of the landowners. As a result, such collections could be potentially be degraded, lost, or scattered, thus reducing or eliminating their future usefulness for research, exhibit, interpretation, and research. Any adverse effects would be expected to be long-term or permanent and of minor intensity.

Conclusion

Implementation of alternative C would result in long-term, beneficial impacts on museum collections in Atchafalaya National Heritage Area. Any adverse impacts would be long-term or permanent and of negligible to minor intensity.

The adverse impacts of alternative C, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative C would be a very small component of the adverse cumulative impact.

Alternative D (Preferred Alternative)

Analysis

Through alternative D, the heritage area would establish programs and projects with partners that are designed to explore the richness and interplay of the region's natural and cultural resources and create a strong sense of place, which supports livability for residents and enjoyment for visitors. This alternative would focus on developing partnerships to promote and encourage ecotourism and heritage tourism and increase awareness and appreciation for the heritage area's natural and cultural resources by providing expanded interpretive and educational programs. As a result of these efforts, along with enhanced interpretation and information dissemination at existing interpretive and welcome centers and exploration of opportunities to expand the number of national register listings, support and appreciation for protection, preservation, and use of the area's numerous museum collections may be expected to increase.

Under this alternative, heritage area programs coordinated with partners would help preserve, rehabilitate, restore, and interpret historic sites and cultural landscapes and develop natural resource-based ecosystem conservation, rehabilitation, and restoration programs. Moreover, expanded emphasis on outdoor recreational opportunities and cultural resource-based thematic educational programs, events, and festivals would be expected to increase support for enhanced collection, protection, and preservation of

museum collections. These partnership efforts would not only provide opportunities for the increased collection of objects, specimens, artifacts, and archives associated with the heritage area's cultural and natural resources, but they would also provide enhanced opportunities to preserve museum collections in facilities that meet professional museum standards. Thus, actions under this alternative would likely result in long-term, beneficial impacts on the integrity and cultural values of the heritage area's museum collections.

Nevertheless, actions under this alternative would result in some of the same adverse impacts to museum collections as those identified under alternative A. Although the principal museum collections in the heritage area's major repositories would likely continue to be expanded, preserved, and used for research, exhibits, and interpretation in facilities in accordance with professional museum standards, some museum collections in smaller community and site-related museums could be vulnerable to continuing potential deterioration, lack of adequate protection in some cases, and possible loss of integrity and usefulness. Thus, the integrity and usefulness of some museum collections in the heritage area could be compromised. Any adverse impacts would be expected to be long term or permanent and of negligible to minor intensity.

Under alternative D, privately owned collections of cultural and natural objects, artifacts, and archival materials would likely continue to remain in private ownership or be deposited with organizations or institutions at the discretion of the owners. As a result, such collections could potentially be degraded, lost, or scattered, thus reducing or eliminating their future usefulness for research, exhibit, interpretation, and research. Any adverse impacts would be expected to be long term or permanent and of negligible to minor intensity.

Cumulative Impacts

Cumulative effects of alternative D would be similar to those listed under alternative A. Other recent, current, and reasonably foreseeable planning endeavors and programmatic undertakings on lands in or near the heritage area, such as enhanced Welcome Center interpretation, expansion of natural resource-based recreation and ecotourism, construction of a new museum at the Marksville Prehistoric Indian Site, construction of new visitor centers featuring interpretive exhibits, and the heritage area's emphasis on exploring opportunities for increasing National Register listings and its coordination with partners to help preserve, rehabilitate, and restore natural landscapes and cultural properties, would be expected to have long-term, beneficial cumulative impacts on museum collections in the heritage area.

Privately-owned collections of cultural and natural objects, artifacts, and archival materials would likely continue to remain in private ownership or be deposited with organizations or institutions at the discretion

of the owners. As a result, such collections could potentially be degraded, lost, or scattered, thus reducing or eliminating their future usefulness for research, exhibit, interpretation, and research. Any adverse impacts would be expected to be long-term or permanent and of minor intensity.

Conclusion

Implementation of alternative D would generally result in long-term, beneficial impacts on museum collections in Atchafalaya National Heritage Area. Any adverse impacts would be expected to be long term or permanent and of negligible to minor intensity.

The adverse impacts of alternative D, in combination with both the long-term beneficial and permanent, minor adverse impacts of other past, present and reasonably foreseeable future actions, would result in long-term minor adverse cumulative effect. The adverse effects of alternative D would be a very small component of the adverse cumulative impact.

POTENTIAL IMPACTS TO VISITOR EXPERIENCE

RECREATION RESOURCES

Potential impacts on visitor experience were considered for the management alternatives and associated activities. Topics that contribute to a positive visitor recreation experience at Atchafalaya National Heritage Area include a variety of cultural, historic and outdoor recreation opportunities, public access, visual quality, sounds, and opportunities to experience solitude and unique natural environment of the nation's largest river swamp. The impacts to these attributes are analyzed in this section, and the assessment is best professional judgment based on research and site visits, and on discussions with commission members and potential partners.

Alternative A: No Action

The level and patterns of recreation would change in only minor ways as a result of implementing the no-action alternative. Existing and new recreation opportunities created by others would not be cohesively promoted, coordinated, or linked by a thematic focus, so the recreation experience would remain largely the same, but would not likely experience significant deterioration. The impacts of the no-action alternative would be long-term and neutral to recreational resources and experiences.

Alternative B

An increase in the quality of interpretation along interpretive trails, hiking and biking trails, water access points, paddle trails, and campgrounds within the Atchafalaya region could provide richer outdoor recreation experiences. Topically organized activities, itineraries, and event calendars would connect visitors and residents with a variety of programs coordinated by partners to provide and expand conservation, restoration, education, and ecotourism

opportunities. Such activities would focus on ecosystem rehabilitation, water quality monitoring, native plant restoration, and related efforts. The coordination by the heritage area managers would make it easier for residents and visitors to engage with the natural environment in new ways and would provide more varied visitor experiences. This alternative would provide more ways to access recreation opportunities than the no-action alternative, would have long-term, beneficial impacts on recreation, and would offer a greater benefit than alternative A.

Alternative C

An increase in the quality of interpretation along interpretive trails and in association with cultural festivals, and greater opportunities to be immerse in cultural experiences would provide more varied recreational experiences in more locations. Topically organized activities, itineraries, and event calendars would connect visitors and residents with a variety of programs related to preservation and conservation of cultural resources, and would make it easier for residents and visitors to engage the historic and cultural environment in new ways. This alternative would provide more cultural recreation opportunities than the no-action alternative and would result in long-term, beneficial impacts on the visitor experience.

Alternative D (Preferred Alternative)

Alternative D would provide the highest level of both natural and cultural recreational experiences. Through alternative D, the heritage area would establish programs and projects with partners that are designed to enhance experiences of the region's natural and cultural resources and create a strong sense of place which supports livability for

residents and enjoyment for visitors. This alternative would focus on developing partnerships to promote and encourage ecotourism and heritage tourism and increase awareness and appreciation for the heritage area's natural and cultural resources by providing expanded interpretive and educational programs. Enhanced interpretation and information dissemination at existing interpretive and welcome centers would provide more exposure to the number, variety, and quality of visitor recreation experiences available.

Under this alternative, topically organized activities, itineraries, and event calendars would connect visitors and residents with a variety of heritage area programs coordinated with partners to help preserve, rehabilitate, restore, and interpret historic sites and cultural landscapes. These partnerships would also develop natural resource-based ecosystem conservation, rehabilitation, and restoration programs; which would also contribute to the variety and quality of recreational experiences. Therefore, this alternative would have the highest degree of long-term, beneficial impacts compared to the no action alternative.

Cumulative Impacts Related to the Implementation of Alternatives A, B, C, or D (Preferred Alternative)

Under alternative A, existing and new recreation opportunities created by others would not be coordinated, so the recreation experience would remain largely the same, but would not likely experience significant deterioration.

If implemented, the projects associated with alternatives B, C, and D would increase the variety and quality of recreation experiences as well as access to those opportunities within the Atchafalaya National Heritage Area. Other reasonably foreseeable planning endeavors and programmatic undertakings in the heritage area, such as the emphasis on coordination with partners to help preserve,

rehabilitate, restore, and interpret natural resources and their intricately associated cultural resources; support for expansion of natural resource-based recreation and ecotourism; and appreciation for the historical settlement and development of the area and human interaction with its natural resources, would be expected to have long-term, beneficial cumulative impacts on the recreational resources and opportunities in the heritage area.

In alternatives B and D, partner-organized natural resource restoration actions would enhance the quality of outdoor recreation. In alternatives C and D, partner actions to preserve cultural and historic resources would enhance cultural recreation experiences.

The support in all of the action alternatives for coordinated, expanded, and improved transportation planning and development of land and water trails, would potentially improve recreational access within the heritage area. Expanded transportation systems and trail development, along with anticipated increases in natural resource-based recreational opportunities, would be expected to have long-term, beneficial cumulative impacts on recreational resources and access. There may be some reduction in quiet and solitude in areas where access is increased, which could have an adverse impact for some visitors. Overall, the projects outside the management plan would have a long-term, beneficial impact on recreation resources and access.

When the likely effects of implementing the actions contained in the management plan alternatives are added to the effects of other past, present, and reasonably foreseeable actions, there would be a long-term, beneficial cumulative impact on recreation resources and access. The actions in alternative D would contribute an appreciable amount to this beneficial impact, the actions in alternative A would have a very limited contribution to the cumulative impact.

SCENIC RESOURCES

Contributing to positive scenic qualities within the Atchafalaya region are a variety of cultural, historic, and natural landscapes. The impacts to these landscapes are analyzed in this section, and the assessment is based on field observations during site visits and during discussions with commission members and potential partners.

Alternative A

The scenic resources would change in minor ways as a result of implementing the no-action alternative. Development and lack of preservation could result in loss or degradation of scenic resources; new construction could negatively impact more natural landscapes. However, coordination with the Louisiana Byways Program could result in improved interpretation of scenic byways within the heritage area and therefore some increase in appreciation and protection of scenic resources would occur. The overall impacts of the no-action alternative would be long term, negligible to minor, and adverse.

Alternative B

Under alternative B, interpretation of scenic resources would increase. Interpretation would focus on the scenic value and quality of natural resources in the heritage area. Improved interpretation of natural landscapes could increase understanding and awareness of the landscapes, interest in preserving remaining natural landscapes, and the potential for restoring damaged landscapes. Coordination with the Louisiana Byways Program could result in improved interpretation of scenic byways within the heritage area. The higher level of coordination, preservation, education, and interpretation under this alternative would result in increased appreciation and protection of these scenic resources. The impacts would be long-term and beneficial.

Alternative C

Under alternative C, interpretation of scenic resources would increase, and would be focused on historic resources and cultural landscapes. Improved interpretation of historic and cultural landscapes would increase understanding and awareness of the area's history and culture. A more educated populous may lead to additional opportunities to preserve historic buildings, districts, and evolved cultural landscapes. The Commission could prioritize efforts in this area and help provide potential future funds to partners for work in protecting historic and cultural scenic resources. Further, coordination with the Louisiana Byways Program could result in improved interpretation of scenic byways within the heritage area. The higher level of coordination, preservation, education and interpretation under this alternative would result in increased appreciation and protection of these scenic resources. The impacts would be long-term and beneficial.

Alternative D (Preferred Alternative)

In alternative D, scenic resources would have increased interpretation, with a balance between natural resources and historic resources and cultural landscapes. This alternative would create the most beneficial impacts, by highlighting the inter-related nature of the natural and cultural resources and encouraging preservation of both natural and cultural scenic resources. The Commission could prioritize efforts in providing potential future funds to partners for work in protecting both natural and historic and cultural scenic resources. The impacts would be long term and beneficial.

Cumulative Impacts Related to the Implementation of Alternative A, B, C, or D (Preferred Alternative)

If implemented, the actions in Alternative A, would do little to prevent adverse impacts to scenic resources due to a lack of coordination to prevent development impacts.

If implemented, the projects identified in alternatives B, C, or D would increase the variety and quality of scenic experiences as well as access to those opportunities within the Atchafalaya National Heritage Area. Other reasonably foreseeable planning endeavors and programmatic undertakings in the heritage area, such as the emphasis on coordination with partners to help preserve, rehabilitate, restore, and interpret natural resources and their intricately associated cultural resources; support for expansion of natural resource-based recreation and ecotourism; and appreciation for the historical settlement and development of the area and human interaction with its natural resources, would be expected to have long-term, beneficial, cumulative impacts on the scenic resources and opportunities in the

heritage area. The support in all of the action alternatives for coordinated, expanded, and improved transportation planning and development of land and water trails, would potentially improve scenic byways within the heritage area. However, there could be some reduction in the quiet and solitude in areas where access is increased, which could have an adverse impact on how some visitors perceive the scenic views.

When the likely effects of implementing the actions contained in any of the management alternatives are added to the effects of other past, present, and reasonably foreseeable actions, there would be a long-term, beneficial cumulative impact on scenic resources.

POTENTIAL IMPACTS TO THE SOCIOECONOMIC ENVIRONMENT

This section explores the impacts of the alternatives on socioeconomic characteristics of the area. Socioeconomic characteristics include such factors as changes to employment, income, industry structure, business strength, and poverty levels. Socioeconomics also address changes to the way of life for residents, including topics such as congestion, livability, aesthetics, quality of landscapes and structures, and community character.

This analysis is qualitative, due to the broad nature of the strategies proposed in the alternatives.

Alternative A: No Action

Under this alternative, the heritage area would continue under its current management and existing funding. The Commission would continue to support projects, which would impact the local and regional economy. For example, the identity and media program, and the interpretation associated with the byways program both contribute to increasing visitor travel to and within the area. Beneficial impacts on the economy from visitor spending would occur, and would be expected to increase over time as the marketing and interpretive programs mature. Continuing to collaborate with partners would result in projects and programs that employ people, as well as encourage travel to the area. As a part of the Louisiana Department of Culture, Recreation, and Tourism, the heritage area would assist in achieving goals set by the office regarding increased visitors, visitor spending, tourism jobs, and welcome center visitors. In 2007, average travel party spending per trip was \$518 in all of Louisiana (TNS 2008).

Economic impacts from visitor travel would likely be concentrated near existing attractions, including Baton Rouge, Lafayette, Breaux Bridge, and New Iberia (2009 Visitor Profile). Economic impacts would also occur where visitors purchase lodging, food, gas, and entertainment. Visitor spending and spending by the Commission and partners would contribute to higher levels of employment, business profit, and tax revenues. Visitors support employment in the tourism, food services, accommodation, recreation, and entertainment industries. On the other hand, jobs in the tourism industry often garner lower pay than other industries due to their often part-time and seasonal nature.

Projects such as conservation of natural areas or historic buildings would provide employment in those higher-paying industries, although each project would likely be short-term. However, as a whole, successive projects add up to a long-term, beneficial impact, by strengthening incomes, jobs, and tax revenues.

Under current management and funding, the Commission would be able to achieve some of the goals of this plan, but likely not the full extent. Collaboration with partners would continue to occur, strengthening the ties among jurisdictions in the heritage area. Additional interpretation would add to local knowledge and pride in the area.

Alternative A would result in long-term beneficial impacts on social characteristics throughout the heritage area, as projects and partnerships would be emphasized in all parishes.

Overall, socioeconomic impacts would be beneficial and long-term.

Alternative B

Strategies and actions proposed in alternative B focus on the natural resources of the area and related recreation. Proposals aim to bring more visitors in to the heritage area through events, ecotourism, interpretation, improved connections, and other means. As a part of the Louisiana Department of Culture, Recreation, and Tourism, the heritage area would play a role in achieving goals set by the office regarding increased visitors, visitor spending, tourism jobs, and welcome center visitors. In 2007, average travel party spending per trip was \$518 in all of Louisiana (TNS 2008).

The beneficial impacts on the economy due to visitor spending would likely be similar to those of alternative A, but somewhat greater in this alternative, because efforts by the Commission and partners would be focused on an action strategy. Beneficial impacts would likely occur in locations that currently do not attract many visitors, in addition to currently well-visited areas, particularly in locations where educational and recreational experiences would be developed and enhanced. Travelers may stay for longer visits, therefore increasing overall spending and related beneficial economic impacts.

Funding could be somewhat higher in this alternative than in alternative A, due to the increased capability for fundraising with a focused strategy. Projects and programs funded by the Commission and collaborating organizations would support jobs in construction, natural area preservation, cultural resource conservation, and associated fields. Prioritizing the use of local traditional skills also would benefit income and employment figures. Collaboration with other organizations to achieve the goals of the management plan could also result in greater beneficial economic impacts on the area. Partners significantly add to the possibilities for leveraging investments.

Alternative B would result in both short-and long-term, beneficial impacts on employment, income, and industry diversification, and would likely be of a greater magnitude than impacts of alternative A. Beneficial economic impacts would be felt throughout the heritage area.

Under alternative B, the focus on natural resources and recreation would result in both beneficial and adverse impacts on the social characteristics of the area. On the positive side, natural area conservation and education would help enhance the health of the ecosystems, which in turn would benefit ways of life that rely on the water and the land. Recreational opportunities are often most frequented by residents, and along with conservation of natural areas, increased recreation would enhance the quality of life in the area.

Alternative B also proposes actions that could greatly enhance local pride in the area, resulting from increased interpretation and opportunities to explore the natural and cultural resources. A coordinated effort to implement the alternative through partnerships would result in a higher level of civic engagement and pride in local heritage.

The focus of alternative B would result in long-term, beneficial impacts on the social character of the area, particularly in areas where additional interpretation would occur, as well as nearby areas where recreational opportunities would exist. Beneficial impacts would likely be greater in alternative B than under current management.

However, alternative B would likely bring additional visitors to the area, which could cause increased congestion and intrusion of crowds on rural landscapes. Changes may most affect areas where additional recreational opportunities would be located, and would likely be most apparent in rural areas attracting new visitors. However, some tourism is usually not an adverse impact on a way of life and, in this case, the expected

long-term adverse impact would be minor to moderate and localized in those rural areas not currently receiving a lot of tourism.

Overall, Alternative B would result in socioeconomic impacts that would be long term and beneficial, and greater than those in Alternative A. However, long-term minor to moderate adverse impacts could occur due to increased visitation in rural areas.

Alternative C

Actions in alternative C are focused on emphasizing the history and culture of the area. Proposals aim to bring more visitors to the heritage area, through events, enhanced visitor centers, activities that link geographic areas, alternative transportation, and rehabilitation of historic structures. As a part of the Louisiana Department of Culture, Recreation, and Tourism, the heritage area would assist in achieving goals set by the office regarding increased visitors, visitor spending, tourism jobs, and welcome center visitors. In 2007, average travel party spending per trip was \$518 in all of Louisiana (TNS 2008).

The beneficial impacts on the economy due to visitor spending would likely be similar in nature, but somewhat greater in this alternative than in alternative A, because efforts by the Commission and partners would be focused around an action strategy. However, beneficial impacts would likely occur in locations that currently do not attract many visitors, as well as areas that do, particularly in locations where educational and cultural tours or activities are developed or enhanced.

Funding could be somewhat higher in this alternative than in alternative A, due to the increased capability for fundraising with a focused strategy. Projects and programs funded by the Commission and collaborating organizations would support jobs in construction, cultural resource conservation, historical architecture, tourism, and associated fields. Prioritizing

the use of local traditional skills also would benefit income and employment figures. Prioritization of community revitalization projects would cause possible beneficial impacts on employment, business strength, incomes, and poverty levels. Collaboration with other organizations to achieve the goals of the management plan could also result in greater beneficial economic impacts on the area. Partners significantly add to the possibilities for leveraging investments.

Alternative C would result in both short and long-term beneficial impacts on employment, income, and industry diversification, and would likely be of a greater magnitude than impacts from alternative A. Beneficial economic impacts would be felt throughout the heritage area.

Under alternative C, the focus on history and culture would result in both beneficial and adverse impacts on the social characteristics of the area. On the positive side, preservation and community revitalization would be beneficial to many quality of life characteristics, including aesthetics, pride in local area, and enhanced heritage knowledge. Alternative C proposes actions that would celebrate the history and culture, and would encourage preserving local language, food, dance, music, ways of life, and skills. The resulting pride in revitalized communities would likely serve as an additional catalyst for change. A coordinated effort toward implementing the alternative through partnerships would result in a higher level of civic engagement.

The focus of alternative C would result in long-term, beneficial impacts on social character of the area, particularly in areas where additional interpretation and cultural preservation work would occur. Beneficial impacts would likely be greater in alternative C than under current management.

However, alternative C would also likely bring additional visitors to the area, which could cause increased congestion and intrusion of crowds on rural landscapes.

Changes may most affect areas where additional cultural events and preservation would take place. Some tourism is usually not an adverse impact on way of life, and in this case, the expected long-term adverse impact would be minor to moderate and dispersed to many areas of the heritage area.

Overall, Alternative C would result in socioeconomic impacts that would be long term and beneficial, and greater than those in Alternative A. However, long-term, minor to moderate, adverse impacts could occur due to increased visitation in rural areas.

Alternative D (Preferred Alternative)

Alternative D would result in both short and long-term beneficial impacts on employment, income, and industry diversification, and would likely be of a greater magnitude than impacts from alternative A. Beneficial economic impacts would be felt in areas with existing high visitation, but also in areas without much current visitation, if additional attractions were developed.

As a part of the Louisiana Department of Culture, Recreation, and Tourism, the heritage area would assist in achieving goals set by the office regarding increased visitors, visitor spending, tourism jobs, and welcome center visitors. In 2007, average travel party spending per trip was \$518 in all of Louisiana (TNS 2008).

The beneficial impacts on the economy due to visitor spending would likely be similar in nature, but somewhat greater in this alternative than in alternative A, because efforts by the Commission and partners would be focused around an action strategy.

The combined focus on the history, culture, education, and recreation would likely attract a wider range of visitors, including those primarily interested in cultural tourism opportunities, those primarily interested in recreational activities, and those interested

in the combination of opportunities available.

Funding could be somewhat higher in this alternative than in alternative A, due to the increased capability for fundraising with a focused strategy. Projects and programs funded by the Commission and collaborating organizations would support jobs in construction, natural area preservation, cultural resource conservation, and associated fields. Prioritizing the use of local traditional skills also would benefit income and employment figures. Collaboration with other organizations to achieve the goals of the management plan could also result in greater beneficial economic impacts on the area. Partners significantly add to the possibilities for leveraging investments.

Alternative D would result in both short- and long-term, beneficial impacts on employment, income, and industry diversification, and would likely be of a greater magnitude than impacts of alternative A. Beneficial economic impacts would be felt throughout the heritage area.

Under alternative D, the focus on nature, culture, history, and recreation would result in both beneficial and adverse impacts on the social characteristics of the area. On the positive side, preservation, community revitalization, conservation, and heritage education would be beneficial to many quality of life characteristics, including aesthetics, pride in local area, enhanced ecosystems, and enhanced ability to pursue traditional ways of life.

Recreational opportunities are often most engaged in by residents, and along with conservation of natural areas, these opportunities would enhance the quality of life in the area. Alternative D also proposes actions that would celebrate the history and culture, and take part in preserving local language, food, dance, music, ways of life, and skills. The resulting pride in revitalized communities would likely serve as an

additional catalyst for positive change. A coordinated effort towards implementing the alternative through partnerships would result in a higher level of civic engagement with heritage area goals.

Alternative D would result in long-term, beneficial impacts on the social character of the area, particularly in areas where additional interpretation, recreation, conservation, and cultural preservation work would occur. Beneficial impacts would be greater in alternative D than under current management.

Alternative D would also likely bring additional visitors to the area, which could cause increased congestion and intrusion of crowds on rural landscapes. Changes may most affect areas where visitor opportunities are made available. However, some tourism is usually not an adverse impact on a way of life, and in this case, the expected long-term, adverse impact would be minor to moderate and dispersed to many areas of the heritage area; although they would be mostly localized in areas where projects and programs would occur.

Overall, Alternative D would result in socioeconomic impacts that would be long term and beneficial, and greater than those in Alternative A. However, long-term minor to moderate adverse impacts could occur due to increased visitation in rural areas.

Cumulative Impacts Related to the Implementation of Alternative A, B, C, or D (Preferred Alternative)

Actions that are proposed in each of the alternatives would affect the regional and local socioeconomics within the heritage area. The economy of the heritage area would be influenced by the management plan alternatives and actions taken by others. Projects completed by other agencies have the potential to generate economic activity via project and visitor spending.

Several of the other agency actions would interact with action in the management alternatives to generate a cumulative impact on the area socioeconomics. These include projects that would expand cultural and recreational sites and interpretation. For example, visitor centers are planned for Morgan City by the USACE and in Breaux Bridge by the Nature Conservancy. Other examples include additional campgrounds, land and water trails, and new state park sites. All of these actions would encourage increased visitation to the area, in conjunction with national heritage area actions that would also encourage increased visitation. The likely result is that visitors would stay longer or visit more frequently.

Travelers visiting the area play an important role in sustaining the tourism industry of the area through generating business for area hotels, restaurants, retail shops, tour guides, and other tourism support businesses. Attractions prompted by the Atchafalaya National Heritage Area plan and other entities contribute to a critical mass of opportunities, encouraging out of town visitors to explore the area. This combination or “package” of attractions and tourist opportunities in and around the heritage area could result in a sustainable, thriving tourist industry. This industry directly contributes to the local and regional economy.

The implementation of actions in each management plan alternative would promote open space preservation, numerous recreation opportunities, facilities, and other amenities that make the area an attractive component of the region. This quality of life contribution also has a beneficial effect on the economy. By providing aesthetic, community, and recreational values, the national heritage area would help make the area an attractive place for companies and individuals to call home, thereby encouraging local businesses to stay and grow in the area.

Inconveniences due to construction projects would result in short-term, negligible adverse, impacts on the area socioeconomics; however, over the long-term, residents who use the new trails and new recreational and educational opportunities would enjoy the benefit.

When the likely effects of implementing the actions contained in each of the

management plan alternatives are added to the effects of most other past, present, and reasonably foreseeable actions, a long-term, beneficial, cumulative impact on the socioeconomics would result. While the impact would not be as great for alternative A as it would be for the action alternatives, it would still occur.

Chapter 8

Consultation and Coordination



Top: Gene's Old Cypress Crafts,
Butte La Rose Welcome Center,
St. Martin Parish
Above: Drew Landry Playing Music
Pie Day Festival, St. Martin Parish
Photo Credits: Gene Seneca
Left: Atchafalaya Swamp
Photo credit:
Louisiana Office of Tourism

back of divider

PUBLIC INVOLVEMENT

SCOPING

Scoping is an early and open process to determine the breadth of environmental issues and alternatives to be addressed in an environmental assessment. The Atchafalaya Heritage Area Commission conducted public scoping with the public and interested and affected groups and agencies between March 2008 and February 2009.

The scoping process defined the purpose and need, identified potential actions to address the need, determined what the likely issues and impact topics would be, and identified the relationship, if any, of the proposed action to other planning efforts in the national heritage area.

March 2008 to February 2009

Public scoping began with meetings with State of Louisiana representatives in March 2008. This effort defined roles between the state and the National Park Service and developed the overall public involvement strategy for the planning effort. This scoping visit also provided the planning team with the opportunity to visit 7 of the 14 parishes in the Atchafalaya National Heritage Area. This initial meeting was followed by a meeting between the NPS Denver Service Center and the Atchafalaya Trace Commission (the management entity identified in the enabling legislation) in June 2008 to familiarize the Commissioners with the planning process and requirements of the National Environmental Policy Act, and to incorporate their input into the public outreach plan.

Prior to public meetings in June, a public scoping newsletter was sent to approximately 2,600 people. The mailing list was identified from Conventions and Visitors' Bureaus, the Commission, and the

Executive Director. This newsletter introduced the conversion of the state heritage area to a national heritage area, outlined the planning steps, and announced public meetings. The newsletter provided a comment card which asked for input on a number of topics, including the meaning of the heritage area, what people like and dislike about the heritage area, their vision for the heritage area, and their priorities for the plan. In June 2008, eight public meetings were held in seven parishes. Attendees provided input on the same questions as those asked in the scoping newsletter. Comments from the mailed in comment cards and from the public meeting were collected, compiled, entered into the NPS planning database and analyzed. These comments were shared with the public in a second newsletter distributed in February 2009. Links to detailed and summary reports were also posted on the heritage area's website.

Plan Development – March 2009 to August 2010

In March 2009, work on the plan began in earnest. The NPS Denver Service Center team members met with the Commissioners in small groups and updated the vision and mission for the heritage area. Additional goals were also developed. Regular conference calls were held to further refine objectives associated with the goals, to review and expand the resource inventory, to revise the interpretive themes and sub-themes, and to identify potential partners. Resources were also associated with various interpretive themes. This work was all completed by August 2009 in preparation for an alternatives workshop.

In September 2009, the NPS Denver Service Center hosted an alternatives workshop with the Commission and Convention and

Visitors Bureau representatives. The group developed two alternatives focused on different themes. The planning team shared these draft alternatives with key governmental partners immediately after the workshop and updates were made to the alternatives as a result. The planning team further refined the alternatives in preparation for a partners' alternatives workshop in February 2010. Another round of refinements and enhancements were made to the alternatives following the partners' alternatives workshop.

The preliminary alternatives were then shared with the public in a third newsletter in April 2010, which requested public feedback regarding the alternatives. Comment cards were provided as well as links to the NPS planning website so people could respond directly online. The comment cards asked which portions of the alternatives should be included in the management plan; which portions should be eliminated; if there were important strategies, themes or elements that had been missed regarding future management; and for any other comments. This newsletter was sent to approximately 2,700 people. In addition, press releases were sent to each parish newspaper of record to announce public meetings which were held in May 2010 in Iberville, West Baton Rouge, St. Landry, Avoyelles, St. Mary, and St. Martin parishes. These meetings were designed to gather feedback on the same questions posed in the newsletter comment cards.

The input from the comment cards, from the website, and from the public meetings was collected, compiled, entered into the NPS planning website database, and analyzed. This data was summarized and provided to the Commission to help inform the selection of a preferred alternative. The planning team then held a workshop with the Commission in June 2010, which resulted in the development of the preferred alternative D, incorporating elements of both alternatives B and C.

Preparation and Public Review of the Plan

Preparation of the *Management Plan and Environmental Assessment* was completed for state and partner review in September 2010, and submitted for NPS regional office review in October 2010, with NPS Washington office review following in November 2010.

TRIBES, AGENCIES, AND ORGANIZATIONS CONTACTED

In April and May of 2008, formal consultation letters were sent to the following agencies and tribes:

Federal Agencies

- Advisory Council on Historic Preservation
- US Fish and Wildlife Service

Tribes

- Chitimacha
- Coushatta
- Houma
- Jena Choctaw
- Tunica-Biloxi

State Offices

- Louisiana Division of Historic Preservation (State Historic Preservation Officer)
- Department of Wildlife and Fisheries

OTHER CONSULTATION

During the course of the planning effort, various individual and group meetings were held with federal, state and local agencies, and nongovernmental organizations. Phone calls, emails, workshops, and newsletters were also used as means to communicate with these organizations. In addition to the formal consultation letters noted above, the

following groups were contacted during the plan development:

Federal Agencies

- U.S. Army Corps of Engineers Atchafalaya Basin Program
- US Fish and Wildlife Service
- US Forest Service
- US Geological Survey

Louisiana State Offices

- Louisiana Division of Historic Preservation (State Historic Preservation Officer)
- Department of Wildlife and Fisheries
- Department of Agriculture and Forestry – Office of Forestry
- Department of Culture, Recreation and Tourism
- Office of Tourism
- Office of State Parks
- Office of Cultural Development
- Office of Cultural Development – Main Street Program
- State Library
- State Museum
- Department of Natural Resources, Office of Coastal Management, Atchafalaya Basin Program

Partners/Stakeholders

- Friends of the Atchafalaya
- National Audubon Society
- National Wildlife Foundation
- Environmental Defense Fund
- The Nature Conservancy
- Black Bear Conservation Coalition
- Atchafalaya Basinkeeper
- National Sierra Club/Delta Chapter
- Louisiana Wildlife Federation
- Coalition to Restore Coastal Louisiana

- Louisiana Association of Museums

Parish Presidents

- Ascension
- Assumption
- Avoyelles
- Concordia
- East Baton Rouge
- Iberia
- Iberville
- Lafayette
- Pointe Coupee
- St. Landry
- St. Martin
- St. Mary
- Terrebonne
- West Baton Rouge

Convention and Tourism Bureaus in the following parishes

- Ascension
- Assumption
- Avoyelles
- Concordia
- East Baton Rouge
- Iberia
- Iberville
- Lafayette
- Pointe Coupee
- St. Landry
- St. Martin
- St. Mary
- Terrebonne
- West Baton Rouge

LIST OF RECIPIENTS OF THE DOCUMENT

Federal Agencies

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Advisory Council on Historic Preservation
- U.S. Forest Service
- National Park Service – Jean Lafitte National Historic Park and Preserve

Indian Tribes

- Chitimacha
- Coushatta
- Houma
- Jena Choctaw
- Tunica-Biloxi

State Agencies

- Louisiana Division of Historic Preservation (State Historic Preservation Officer)
- Department of Wildlife and Fisheries
- Department of Agriculture and Forestry– Office of Forestry
- Department of Culture, Recreation and Tourism
- Office of Tourism
- Office of State Parks
- Office of Cultural Development

- Office of Cultural Development - Main Street Program
- State Library
- State Museum
- Department of Natural Resources, Office of Coastal Management, Atchafalaya Basin Program

Local Agencies

- Parish Government for all 14 parishes

Organizations

- Convention and Visitors Bureaus for all 14 parishes
- Friends of Atchafalaya
- National Audubon Society
- National Wildlife Foundation
- Environmental Defense Fund
- The Nature Conservancy
- Black Bear Conservation Coalition
- Atchafalaya Basin Keeper
- Louisiana Wildlife Federation
- Coalition to Restore Coastal Louisiana
- Louisiana Association of Museum

SUBSTANTIVE COMMENTS AND RESPONSES

Any substantive comments requiring response will be addressed in the NEPA Decision Document.

LETTERS OF SUPPORT/COMMITMENT FROM PARTNERS

BOBBY JINDAL
GOVERNOR



Post Office Box 94004
Baton Rouge, LA 70804-9004

April 29, 2011

David Vela, Regional Director
National Park Service
100 Alabama Street, SW
1924 Building
Atlanta, GA 30303

Dear Regional Director Vela:

The Draft Atchafalaya National Heritage Area Management Plan and Environmental Assessment proposes a cooperative approach involving multiple state agencies and programs. It provides an excellent framework for protecting, interpreting and enhancing the natural, scenic, cultural, historic and recreational resources in the 14-parish region.

The plan combines efforts of the public, state and federal agencies and non-profit organizations to implement programs that will increase the public awareness and appreciation for the resources and support cultural economic development opportunities. The plan provides direction for multiple interests and disciplines to work together to preserve and enhance one of the nation's greatest assets. As you are aware, the State of Louisiana has long recognized the value of this resource and has invested heavily in this resource through its Atchafalaya Basin Program's implementation of the State Master Plan for the Atchafalaya Basin.

The public should now be notified of the draft plan and given an opportunity to comment. We look forward to the public comment period and incorporation of relevant comments that are made during this period and anticipate endorsement of the plan upon review of the final product. The Atchafalaya Heritage Area is critically important to Louisiana for its cultural significance and its vast natural resources and as such we look forward to implementation of a Management Plan for this area that best enhances and preserves these features.

Sincerely,



Bobby Jindal
Governor



JAY DARDENNE
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR

POST OFFICE BOX 44243
BATON ROUGE, LA 70804

April 15, 2011

David Vela, Regional Director
National Park Service
100 Alabama Street, SW
1924 Building
Atlanta, GA 30303


Dear Regional Director Vela:

I am pleased to endorse the *Draft Atchafalaya National Heritage Area Management Plan and Environmental Assessment* developed by the Atchafalaya Trace Commission and look forward to the formal public comment.

The Plan is a model of collaboration among public agencies and private organizations. Continuing the momentum of successful, initial Heritage Area projects, the Plan offers a structure for the State Departments of Parks, Historic Preservation, Main Street, Cultural Development, Tourism, Museums, Economic Development, Transportation and Natural Resources, as well as non-profits and the fourteen parishes to demonstrate what can be accomplished through a concerted effort.

The Louisiana Department of Culture, Recreation and Tourism is honored to continue to partner with the Atchafalaya National Heritage Area on the programs and strategies that will protect, interpret and promote the cultural, historic, natural and recreational resources of one of the nation's greatest resources.

Sincerely,


Jay Dardenne
Lieutenant Governor
State of Louisiana

PHONE (225) 342-7009 • FAX (225) 342-1949 • WWW.LTGOV.LA.GOV

Friends of the Atchafalaya



P.O. Box 82508
Baton Rouge, LA 70884-2508

<http://www.basinbuddies.org>

<http://www.atchafalaya.info>

<http://www.FATday.com>

August 13, 2010

Debra Credeur, Director
Atchafalaya National Heritage Area
LA Department of Culture, Recreation and Tourism
P.O. Box 94291
Baton Rouge, La 70804-9291

Ms. Credeur,

The Friends of the Atchafalaya Board of Directors commend you on the work that you, the Trace Commission and the Parks Service have done in developing the Management and Implementation Plans for the Atchafalaya National Heritage Area. We feel that the Area is an important component of the multi-partner effort to educate the public, conserve the resources, and preserve important aspects of the culture of the various areas known to many as the "Atchafalaya Basin."

The work of the Heritage Area, as currently being defined in the Plans, blends well with the mission of the Friends of the Atchafalaya (FOA). Our common vision is that of a healthy and sustainable environment that supports plant, wildlife and human existence.

The FOA continues to work with the Atchafalaya National Heritage Area and the Atchafalaya Trace Commission to educate and inform local residents and visitors about the value of and the challenges facing the various floodways, lakes, streams, swamps, marshes, forests, and agricultural lands that make up the historic Atchafalaya Basin. We are embarked on our second year of organizing Experience Atchafalaya Days, the annual October (Atchafalaya Month) collection of public outreach events, and we enjoy the support of the Heritage area staff and commissioners.

FOA members consider the health of the entire Basin area important and dependent upon efforts by many organizations in order to restore a balance among resource extraction, plant and wildlife regeneration, and sustainable patterns of habitation and recreational use. We consider the adoption of the Heritage Area Plans important steps on the path toward improvements to that balance. We support the blending of Alternatives B & C as proposed by the Commission.

Although the Atchafalaya Basin Program bears primary State responsibility for environmental protection and restoration of the Atchafalaya Basin Floodway System, additional conservation efforts are needed outside the Atchafalaya Protection Levees, and the Heritage Area can provide a mechanism for collecting public input and coordinating environmental, recreational and cultural conservation efforts across a wider area than that inside the Floodway.

The members and Board of the FOA look forward to continuing our partnership with the Atchafalaya National Heritage Area as we strive together to conserve all of the important resources that comprise the Atchafalaya Basin, in all its interpretations, by all of its constituents.

Regards,

Charles Caillouet, President
Board of Directors
Friends of the Atchafalaya

<mailto://charles@basinbuddies.org>



JAY DARDENNE
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF STATE MUSEUM

CHARLES R. DAVIS
DEPUTY SECRETARY

ROBERT WHEAT
INTERIM ASSISTANT SECRETARY

March 14, 2010

Debra Credeur
Atchafalaya National Heritage Area
P.O. 94291
Baton Rouge, LA 70804-9291

Dear Debra,

I am writing in support of the Management Plan the Atchafalaya Trace Commission will soon be implementing.

The Plan involves many interpretive initiatives on which the Office of State Museum anticipates partnering with the Atchafalaya National Heritage Area and Commission. We are excited about assisting you with educational programs, exploring new exhibit possibilities and, of course, continuing the current traveling exhibit *Voices of Atchafalaya*.

We look forward to working with you on interpreting this area's wonderful resources.

Regards,

A handwritten signature in cursive script that reads "Memory Seymour".

Memory Seymour
Education Director
Louisiana State Museum



SCOTT ANGELLE
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF HISTORIC PRESERVATION

PAM BREAU
SECRETARY



September 24, 2010

Debra Credeur
Atchafalaya National Heritage Area
Department of Culture, Recreation & Tourism
Louisiana Office of Tourism
P. O. Box 94291
Baton Rouge, LA 70804

Dear Debra:

On behalf of the Louisiana Main Street Program I would like to offer our support for the Atchafalaya National Heritage Area Management Plan. The plan reflects a thoughtful approach to preservation efforts, ensuring sustainability for our cultural and historic resources. In addition, the Plan supports many of the small, authentic businesses and artists that make a Main Street community what it is.

We look forward to working with the Atchafalaya National Heritage Area on many collaborative initiatives as the Management Plan is implemented.

Sincerely,

Ray W. Scriber, Director
Louisiana Main Street



JAY DARDENNE
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF THE ARTS

PAM BREAU
ASSISTANT SECRETARY

March 11, 2011

Debra Credeur
Executive Director
Atchafalaya National Heritage Area
Louisiana Office of Tourism
P. O. Box 94291
Baton Rouge, LA 70804-9291

Dear Debra:

I am writing to support the Atchafalaya National Heritage Area's Management Plan. As director of the Louisiana Folklife Program, I see that we share similar missions and goals. Both of our programs are concerned about supporting Louisiana's traditions and communities in addition to educating the public and residents about them.

I am glad that I have been able to work with you on your interpretation initiative and look forward to sharing the research about our folk artists and communities that the Folklife Program has compiled since 1979.

I look forward to doing other projects together and being one of your partners.

Sincerely,

A handwritten signature in cursive script that reads "Maida Owens".

Maida Owens
Director
Louisiana Division of the Arts Folklife Program
www.louisianafolklife.org



SCOTT A. ANGELLE
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF TOURISM

PAM BREAU
SECRETARY

JIM HUTCHINSON
ASSISTANT SECRETARY

August 30, 2010

Debra Credeur
Executive Director, Atchafalaya National Heritage Area
P.O. 94291
Baton Rouge, LA 70804-9291

Dear Debra,

I am writing in support of the Atchafalaya Trace Commission's Management Plan that will be implemented in the Atchafalaya National Heritage Area. The direction of the Preferred Alternative which combines the area's history and traditions with the enjoyment of the natural resources provides a framework for many projects on which the Louisiana Scenic Byways program can collaborate with you in the future.

We look forward to working with you to implement this Plan in the near future.

Yours truly,

A handwritten signature in black ink, appearing to read "Doug Bourgeois".

Doug Bourgeois
State Coordinator
Louisiana Byways Program



October 15, 2010

Debra Credeur
Atchafalaya National Heritage Area
Louisiana Office of Tourism
P. O. Box 94291
Baton Rouge, LA 70804

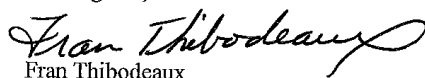
Dear Debra:

This letter is to pledge our support for the Atchafalaya National Heritage Area Management Plan.

We are pleased to have been involved in the planning process and look forward to staying involved as the plan is implemented. Our shared goals of promoting cultural and eco-tourism, interpreting our culture, and developing visitor amenities form a solid basis for our partnership with the Heritage Area.

We look forward to working with you on many projects that will enhance our region and develop our regional identity.

Best regards,


Fran Thibodeaux
Executive Director



P.O. Box 1415
Opelousas, LA 70571-1415
cajuntravel.com

ST. LANDRY

P • A • R • I • S • H
TOURIST COMMISSION

337-948-8004
1-877-948-8004
Fax: 337-948-1579

October 19, 2010

Debra Credeur
Atchafalaya National Heritage Area
Louisiana Office of Tourism
P. O. Box 94291
Baton Rouge, LA 70804

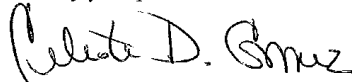
Dear Debra:

On behalf of the St. Landry Parish Tourist Commission, I respectfully submit this letter as a sign of our continuing support for the Atchafalaya National Heritage Area Management Plan.

We are well aware of the time and effort that was invested in becoming a nationally recognized Heritage Area. And as we have participated in the planning process of the Management Plan, we look forward to working toward its implementation. Our shared goals of promoting cultural and eco-tourism, interpreting our culture, and developing visitor amenities form a solid basis for our partnership with the Heritage Area.

It is an exciting time for the Atchafalaya National Heritage Area and we are honored to be a part of the team and the process. And I do want to take this opportunity to thank you for your dedication and leadership in seeing that the process has gotten this far.

Sincerely your partner in tourism,



Celeste D. Gomez, Director
St. Landry Parish Tourist Commission

ARNAUDVILLE
CANKTON
EUNICE

GRAND COTEAU
KROTZ SPRINGS
LEONVILLE

MELVILLE
OPELOUSAS
PALMETTO

PORT BARRE
SUNSET
WASHINGTON

Appendixes, References, Preparers and Consultants



Above: Little Bayou Sorrel
Photo Credit: Charlie Fryling

Back of divider

APPENDIX C: LIST OF CULTURAL LANDSCAPES

AS - Archeological Site,
CL - Cultural Landscape,
HD - Historic District,
HE - Heritage Event,
HR - Historic Road,
HS -Historic Site,
MS - Main Street Program,
MU - Museum,
NF - National Forest, Grassland, etc,

NRO - Natural Resource Other,
NWR - National Wildlife Refuge,
Rec - Recreation Area, SF - State Forest,
SP - State Park,
SWR - State Wildlife Refuge,
SWMA - State Wildlife Management Area
NRHP -National Register of Historic Places
NHL-National Historic Landmark

Type	Resource	City	Parish	Theme	NRHP	NHL
CL	Alma Plantation,Sugar Mill & Quarters Arch Site No. 16PC76	Lakeland	Pointe Coupee	II, IV		
NRO	Atchafalaya Basin-outdoor recreation, environment, land	Multi	Multi	V,III		
AS & NRO	Avery Island	Avery Island	Iberia	III		
HS	Bayou Plaquemine & U.S. Government Lock	Plaquemine	Iberville	I, III	1	
HD/CL	Cinclare Sugar Mill Historic District	Brusly	W. Baton Rouge	I	1	
HS	Conrad Rice Mill	New Iberia	Iberia	II	1	
HD	Franklin Historic District	Franklin	St. Mary	II	1	
HS	Frogmore Plantation & Cotton Gin/ Originally Piazza Gin	Ferriday	Concordia	II	1	
HD	Grand Couteau Historic District	Grand Coteau	St. Landry	II	1	
	Sacred Heart Academy	Grand Coteau	St. Landry			
CL	Great River Road		Ascension, East Baton Rouge, Pointe Coupee, Iberville, West Baton Rouge	III		
HD	Historic Donaldsonville District	Donaldsonville	Ascension	III	1	
HS	Holy Rosary Institute	Lafayette	Lafayette	II, IV	1	

APPENDIXES, REFERENCES, PREPARERS AND CONSULTANTS

Type	Resource	City	Parish	Theme	NRHP	NHL
AS	Indian Mounds of Pointe Coupee		Pointe Coupee	I		
AS	Chitimacha Indian Reservation	Charenton	St. Mary	I		
HS	Madewood Plantation	Napoleonville	Assumption	II	1	1
HS	Marksville Prehistoric Indian Site	Marksville	Avoyelles	I, II	1	1
HS	Montegut School 1137 LA 55, Montegut	Montegut	Terrebonne	I, IV	1	
HS	Mr. Charlie Oil Rig	Morgan City	St. Mary	I		
AS	New Iberia Shipwreck (161B80) in Bayou Teche	New Iberia	Iberia	III		
NRO	Bayou Teche	Multi	Multi	II,III,V		
HS	Old River Control Structure - USACE/Old River Locks	Ferriday/Lettsworth	Concordia/Pt Coupee	III	1	
HS	Maison Olivier (Olivier Plantation House)	St. Martinville	St. Martin	II, IV	1	1
HS	Parlange Plantation House	New Roads	Pointe Coupee	II	1	1
HS	Robin House and Barn (private ownership)	Arnaudville	St. Landry	II	1	
HS	Shadows-on-the-Teche	New Iberia	Iberia	II	1	1
HS	St. John's Cathedral	Lafayette	Lafayette	II, IV	1	

Total NRHP Listings 17

Total NHL Listings 5

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APPENDIXES, REFERENCES, PREPARERS AND CONSULTANTS

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PREPARERS AND CONSULTANTS

NPS Denver Service Center – Planning Division

Tracy Atkins, PE, PMP, Community Planner and Project Manager; B.S. Architectural Engineering; M.S. Construction Engineering and Management; M.S. Community and Regional Planning. Registered Civil Engineer, Certified Project Manager; 22 years experience, 3 years with the National Park Service

Nell Blodgett, GIS Specialist; B.A., Geography; M.S., GIS Science; 5 years with the National Park Service

Sarah Bodo, Community Planner; B.S., Finance; Master of Urban and Regional Planning; 4 years with the National Park Service

Andrew Coburn, Community Planner; B.A., Economics; B.S., Business Administration; Master Urban and Regional Planning, Land Use and Environmental Planning; Master of Public Administration; 3 years with the National Park Service

Christina Miller, Natural Resource Specialist; B.S. in Biology, B.A. in Geography, M.A.S. in Environmental Policy and Management (for Natural Resource Management); 6 years with the National Park Service

Patrick Kenney, Branch Chief, B.S. Zoology; 23 years experience, 20 years with the National Park Service

NPS Denver Service Center — Publication Services

Ruth Eitel, Visual Information Specialist, B.F.A., 32 years with the National Park Service

June McMillen, writer/editor; B.A. Anthropology, M.En., Environmental Science; 31 years experience, 23 years with the National Park Service

NPS Southeast Region

Chris Abbett, Assistant Regional Director, Partnerships

K. Lynn Berry, Heritage Area Program Coordinator

Patty Wissinger, Heritage Area Program Coordinator (former)

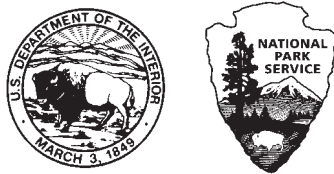
Local Planning Team

Debra Credeur – Executive Director, Atchafalaya National Heritage Area. Department of Culture, Recreation and Tourism, Louisiana Office of Tourism

Maida Owens –Department of Culture, Recreation and Tourism, Louisiana Folklife Program

Consultants

Susan Turner, John Welch; Suzanne Turner and Associates, Baton Rouge, LA



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

NPS ABF/P77/107232 SEPTEMBER 2011



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