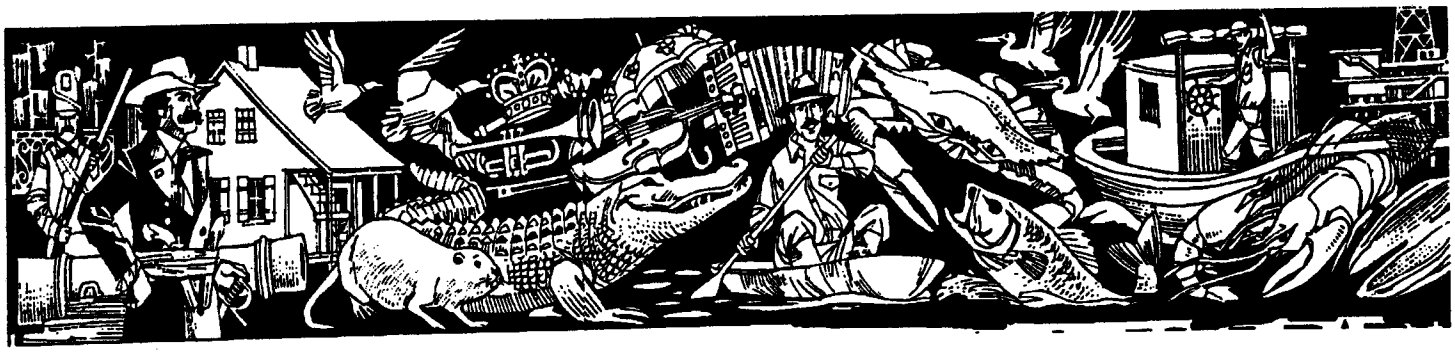
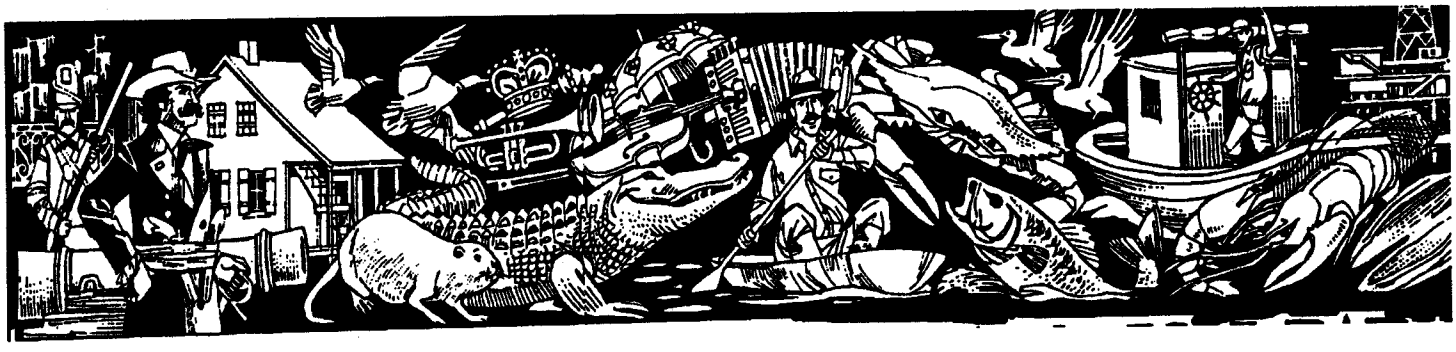
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Jean Lafitte National Historical Park and Preserve

Resource Management Plan

December 1997



Jean Lafitte National Historical Park and Preserve

RESOURCE MANAGEMENT PLAN

December 1997

Recommended by:

David Muth, Chief of Resource Management — Date: 12/31/97

Approved by:

Geraldine Smith, Superintendent — Date: 12-31-97

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I. INTRODUCTION

A. Purpose of the Plan

The Resource Management Plan (RMP) documents Jean Lafitte National Historical Park and Preserve's natural and cultural resources, places those resources in the context of Louisiana's Mississippi River Delta Region, describes and evaluates its current resource management activities, and recommends actions based upon legislative and executive mandates, agency management policies, management zoning, and provisions of related planning documents. Contained within the Plan are needs for resource inventories, monitoring, mitigation actions, and administration. By describing current natural and cultural resource programs and projects and proposed future program needs, this RMP serves as the park's primary planning document for addressing critical resource issues and problems.

A series of specific project statements which comprise resource management objectives make up the major portion of this document. The RMP project statements are maintained in a computerized database allowing frequent updating and analysis of resource programs and unfunded needs.

B. External Participation in Plan Development

The RMP is not the document through which National Environmental Policy Act (NEPA) National Historic Preservation Act (NHPA) compliance is accomplished. Probable compliance instruments for specific actions, however, are identified at the end of each program statement.

Portions of the park are located within Louisiana's legislatively identified Coastal Zone. A draft copy of this RMP will be sent to the State's Coastal Zone Management authority for a consistency finding under the Coastal Zone Management Act (CZMA). This does not release the park from CZMA consistency requirements for implementation of specific actions regulated under that law.

The National Park Service (NPS) Staff Directive 93-2 (NPS 1993b) mandate external involvement in the development of RMPs. The park will provide copies of this plan to members of its Delta Region Preservation Commission and advertise the draft plan's availability in the park's newsletter.

C. Park Purpose and Significance

Jean Lafitte National Historical Park and Preserve (NHP&Pr.) was established by an Act of Congress on November 10, 1978 (Public Law 95-625) in order to

> "...preserve for the education, inspiration, and benefit of present and future generations significant examples of natural and historical resources of the Mississippi Delta region and to provide for their interpretation in such manner as to portray the development of cultural diversity in the region"

This Act was amended on February 16, 1988 by Public Law 100-250 to authorize the establishment of folklife centers in the Acadian region (see appendix D).

Regional Resources and Significance

In creating Jean Lafitte, Congress recognized the lower Mississippi Delta Region as an area of pivotal national significance, both in terms of its natural and its historical resources. The Mississippi Delta Region referred to in the legislation is the area of alluvial lands built by deposition of Mississippi River-borne sediments into the northern Gulf of Mexico during the most recent post-glacial epoch (roughly the last 10,000 years). (By the 1988 amendment, Congress broadened the area of concern by including those areas of Acadiana outside the modern delta region, on older Pleistocene sediments, the "prairie terrace," to the west.) The region comprises the largest and most productive estuarine and wetland system on the continent: barrier islands, alluvial ridges, bottomlands, swamps, fresh to saline marshes, beaches, mudflats, lakes, rivers, bayous, and coastal bays.

Geographic natural resources of the delta region include two active deltas, the "Birdfoot Delta" at the mouth of the Mississippi, and the rapidly building Atchafalaya Delta; the Atchfalaya River, a distributary of the Mississippi that supports North America's largest swamp forest; a series of abandoned deltaic lobes, tracing the geological history of the river's most recent great land-building episode; several barrier island chains, including the Chandeleurs, a remote wilderness, home to the largest breeding tern colonies on the continent; a series of coastal bays stretching from Lake Pontchartrain to Vermillion Bay; the Barataria-Terrebonne Estuary, the largest and most biologically productive estuary in North America; unique geologic features including salt domes and mudlumps; and the prairie region of south-central Louisiana.

Sub-tropical warmth, abundant rainfall, and fertile soils have created an environment that supports a rich assemblage of wildlife resources and biotic communities. The region produces forty percent of the nation's seafood harvest. Reptiles and amphibians thrive, including the American alligator, which has rebounded from the brink of extinction and is now a significant economic resource. Birdlife abounds, from huge colonies of nesting seabirds on barrier islands, vast rookeries of waders, huge concentrations of wintering waterfowl, and the semi-annual spectacle of a gigantic trans-gulf flight by neotropical migrants. Finally, furbearing mammals occur in such concentrations that in the heyday of trapping the region produced more pelts than

the rest of North America combined.

Cultural resources include a network of ancient American Indian middens and ceremonial mounds; the City of New Orleans and its many historic districts, neighborhoods, buildings, cemetaries, streets and roads; antebellum plantation homes along the Mississippi and other rivers and bayous; historic Acadian linear communities stretched along alluvial ridges created by former distributaries such as Bayou Teche and Bayou Lafourche; the historic Acadian towns Lafayette and Eunice of the prairie farming region; battlefields and historic forts, including Forts St. Phillip and Jackson near the mouth of the river, which engaged Admiral Farragut's Union fleet during one of the crucial naval battles of the Civil War.

The central component of the region's historical significance derives from the unique combination of peoples which came together here to form a definable and indigenous *delta* culture, quite unlike any other cultural resource in the United States. Soon after the new land was created by deltaic processes, its rich natural resources were exploited by the American Indians who migrated there. During the colonial period, its strategic importance was recognized by the European powers: France, Spain, and Great Britain each vied for hegemony, but ultimately, because of Thomas Jefferson's vision, the fledgling United States won control, and consolidated its hold at the Battle of New Orleans, the final engagement of the War of 1812. That control provided the fulcrum for U.S. expansion into the Louisiana Territory and beyond, to the Rio Grande and the Pacific.

The region evolved an indigenous culture, a melting pot that paralells the American melting pot, but which is unique and apart because of its different antecedents. These included American Indians; French and French-canadian colonists and other settlers of many nationalities during the French and Spanish period; French-speaking African slaves and free-persons-of-color; former slaves from the Carribean and the defeated Confederacy; Acadians driven from their homes in Canada; Americans of many ethnic backgrounds who arrived with the trade generated from the New Orleans' vast hinterland; and immigrants who poured into New Orleans, one of the nation's largest 19th century ports of entry, from every part of the globe. The park's legislative mandate to interpret the region's resources "in such manner as to portray the development of cultural diversity," requires an emphasis upon the delta's unique, endemic culture. Portraying that culture means not only interpreting its distinctive contemporary manifestations, but also tracing the social, demographic, environmental and political realities that shaped its historical evolution.

Park Significance

Jean Lafitte National Historical Park and Preserve's mandate is to celebrate the totality of the delta region's character through the preservation and interpretation of natural and historical resources. Obviously the park cannot manage or contribute to the preservation and interpretation of *all* of the diverse resources of the delta region. Therefore representative examples were chosen to demonstrate the character of the region as a whole, and preserved within the park's units.

The delta's regional character is a product of its climate, geography, geology, bountiful resources, and the mixing of many diverse peoples. These forged a cultural and environmental symbiosis reflected in the language, architecture, food, music, festivals, customs, and life-ways that make the Delta Region a distinctive and significant component of the United States.

The park focuses its interpretive effort on the interelationship between people and the natural environment. In profoundly important ways, this unique environment shaped the development of the region's unique culture. In an equally profound sense, people have modified the environment of the delta. The interplay of culture and nature in the delta is a paramount theme because the delta environment forced the development of unique cultural adaptions, not found elsewhere in the United States.

However, the modifications of deltaic processes instituted by people have had sytemic effects of such magnitude that the very delta is threatened with physical disappearance, and with it, the culture that depends upon it. In response, a concerted effort among citizens, businesses, and governments at every level has been undertaken to halt and reverse this environmental catastrophe. The park is part of this partnership, not only to help in the preservation of these resources, but also to help in the interpretation of the effort.

Park Resources

The task of accomplishing the broad mandate of Jean Lafitte is being managed through the creation of separate units, each responsible for discrete but significant "examples of natural and historical resources of the Mississippi Delta Region." The park consists of these physically separate units and affiliated sites spread across southern Louisiana. Management of the park is headquartered, by legislative decree, within the boundary of New Orleans' French Quarter. This office provides technical service and program oversight to the three management units: Acadian, Barataria Preserve, and Crescent City. Cooperative agreement sites, not owned by the National Park Service, include the Chitimacha Tribal Cultural Center in Charenton, the Isleño Center in St. Bernard, the Liberty Theater in Eunice, the American-Italian Renaissance Foundation Museum in New Orleans, and the Germanic-American Cultural Center, in Gretna. An average of 1.3 million people visit the park each year.

Acadian Sites

Three Acadian Cultural Centers are located in the towns of Lafayette, Thibodaux and Eunice and are administered collectively as the Acadian Unit. Total National Park Service ownership for the Unit is about 13 acres. Each Cultural Center has an exhibit area where museum objects help in interpreting the history, music, food and other aspects of Acadian culture.

As the largest French-speaking minority in the United States, Acadians (known in the vernacular as "Cajun," which is an American corruption of "Acadian," now widely adopted by the Acadians themselves) number about 250,000 in primarily rural areas of southern Louisiana. Some are descendants of settlers of the first permanent colony in Canada, dating back to 1604. They were forcibly dispersed from Nova Scotia in 1755 to ports across the old and new worlds, and many

were welcomed to Louisiana by the Spanish Colonial government of Louisiana after 1765. They settled in various areas of the state, and adapted to conditions as they found them. The stamp of the Acadians upon southcentral and southwestern Louisiana is so pronounced that in these areas there evolved a multi-ethnic Acadian sub-culture that though recognizably part of the Delta Region's culture, has unique attributes.

Lafayette. The Lafayette site serves as headquarters for the Acadian Unit, as well as a cultural center that interprets and provides orientation to the entire Acadian region. The headquarters and visitor center is on a 6.76 acre tract on the edge of the Bayou Vermillion floodplain in southeast Lafayette, a city of 100,000 people, the largest in Acadiana and the fourth largest in Louisiana. Except for the 14,000 sq. ft. building and 64,000 sq. ft. parking lot, the grounds are undeveloped with a small park-like grove of trees and a mowed grassy area sloping down to a small coulee which drains into nearby Bayou Vermillion. The area is semi-rural, light industrial, with a large regional airport adjacent to the site. Accross the coulee is Vermillionville, a re-created Acadian Village managed as a visitor attraction by a non-profit local government chartered organization.

Eunice: The Prairie Acadian Cultural Center in Eunice interprets life on the prairie (as distinct from the alluvial lands of the modern delta) and emphasizes activities such as farming, cattle-ranching and the rice culture of southwest Louisiana. Situated in downtown Eunice (population 12,004), the three-quarter acre tract is adjacent to the historic (1924), city-owned Liberty Theater, where, through a cooperative agreement with the park, regular programs are offered to the public featuring Acadian, Zydeco, and related vernacular musical forms, storytelling, and other folkways. The property occupies, along with the Liberty Theater, a downtown city block, and is completely developed.

Thibodaux: In Thibodaux, the Wetlands Acadian Cultural Center, concentrates upon those Acadians and others who settled the alluvial ridges of the delta. It emphasizes bayou community lifeways and the cultural life of the sugarcane plantations of the natural levees (as opposed to the agriculture practiced in the Prairie region), and of bayou-side linear communities. Occupations dependent upon the bountiful resources of the wetlands, fishing, shrimping, crabbing, oystering, hunting and trapping, as well as oil and gas exploration and production, shipping, and boat building are also featured. The 6,000-square-foot Wetlands Acadian Culture Center occupies the first floor of the Percy-Lobdell Building and the Thibodaux public library occupies the second floor, through a cooperative agreement. A community playhouse uses the building's modern theater through a special use permit.

The 5.14 acre tract is located in downtown Thibodaux (population 14,125), with a 1,100 foot waterfront along historic Bayou Lafourche maintained as greenspace. The bayou, a former (and perhaps future) distributary of the Mississippi River, and its fertile natural levees form the backbone of Barataria-Terrebonne estuary. The bayou, no longer navigable at Thibodaux, was an important commercial waterway until the early 1900s, when its connection to the river was severed, and roads and railroads began to replace it as an artery of commerce.

Chitimacha Cultural Center. In Charenton, Louisiana, this site interprets the history and tradition of the Chitimachas--a surviving Louisiana Indian Tribe that still produces very fine Native

American baskets. The Chitimacha are the only indigenous delta peoples still occupying a portion of their prehistoric homeland. This site is an affiliated cooperative agreement site.

Barataria Preserve

Fifteen miles south of New Orleans, bordering Lake Salvador and Bayou Barataria, is the Barataria Preserve. The legislative boundary of the Preserve allows for the acquisition of 18,378 acres. To date the park owns approximately 10,385 acres. Of the remaining property, 2,018 acres are held by other pubic agencies. The park is enjoined from purchasing these properties by legislation, and some of these public bodies cannot donate them.

Facilities. The 6,365 sq. ft. Barataria Visitor Center serves as the starting point for orientation to the Preserve. Exhibits deal primarily with human interaction with and dependence upon the delta environment. They display the adaptive and exploitative activities that permitted settlement of the area. There is also a diorama depicting a geological and ecological cross-section of the delta, featuring plants and animals that directly influenced human habitation and cultural development of the delta. A twenty-five minute film, "Jambalaya: A Delta Almanac" provides a broad overview of the geology, natural history, history, culture and folkways of the Delta Region. A cooperating association sales outlet provides visitors with material related to Park themes.

There are nine miles of maintained trails in the Barataria Preserve. These include the Bayou Coquille Trail, a hard-surfaced, boardwalked one-half mile long trail that is fully handicapped-accessible and which enables the visitor to walk through a geological and ecological cross-section of a typical delta environment. Ranger guided walks are conducted on this trail twice daily. Other hard-surfaced or boardwalked trails are the Marsh Overlook, Palmetto, Ring Levee, and Wood Duck Trails. Primitive or only partially improved trails are the Plantation, Old Barataria, and Twin Canals Trails. All trails are open year-round.

Nine miles of waterways are available for non-motorized craft such as canoes, and another twenty miles are available for all types of craft. Because much of the Preserve is accessible only by boat, rangers lead canoe trips on week-ends and moonlit evenings, in order for visitors to experience these wetland areas. Canoes and pirogues can be rented and transported to the Preserve by visitors, and two outfitters deliver to the park.

A 8,250 sq. ft. Environmental Education Center provides a framework for students to use the Preserve as a classroom. It contains an office, field laboratory, library, muti-purpose room, covered and screened amphitheater, kitchen, restrooms, and boardwalk.

Other facilities include a 1,664 sq. ft. office, a 2,400 sq. ft. maintenance building and yard, two 768 sq. ft. outdoor comfort stations and a ten table picnic area in the Pecan Grove, three canoe launches, and parking at the VC, Education Center, Picnic Area, Bayou Coquille Trailhead, Twin Canals, and Bayou des Familles Canoe Launches, and primitive parking at Kenta Canal Canoe Launch, and Jones Point fishing area.

Approximately 6.5 miles of state-owned and maintained highways (Highway 45 and Highway 301) cross the Preserve. The NPS owns and maintains 0.6 miles of road (Christmas Plantation Road) and a bridge over Bayou des Familles. Approximately 23.1 of man-made canals are found in the Preserve, not including 9.8 miles of the Bayou Segnette Waterway, maintained by the U.S. Army Corps of Engineers, and 3.1 miles of the Gulf Intracoastal Waterway which forms one boundary. There are 21.0 miles of crude oil pipeline with a pumping facility, 17.3 miles of natural gas pipelines, 16.2 miles of power lines with one transformer station, and 3.1 miles of waterline with a pumphouse within the Preserve.

The Preserve is located in the upper freshwater zone of the Barataria Basin, one of the most productive estuarine wetlands in North America. It contains a portion of an abandoned delta of the Mississippi River and associated ecological zones, including natural levee hardwood forests, baldcypress swamp, and fresh to slightly saline (intermediate) marsh. The marsh anchors the eastern end of one of only four large estuarine floating freshwater marsh systems in the world, with the others in the Amazon, the Nile and the Danube deltas. The unit contains hundreds of archeological sites marking a progression of prehistoric and historic habitations. Inside the Visitor Center are several exhibit cases with tools and equipment relating to life in the swamp. Artifacts and specimens collected within this unit as a result of approved collecting permits are located in off-site repositories. The Barataria Preserve fulfills the legislative requirement to preserve significant natural resources and it is managed as a natural area. Unless indicated, all natural resource issues pertain specifically to this unit.

The delta of the Mississippi River is an area of dynamic geological processes and highly productive ecosystems. The Barataria Preserve Unit contains within its 18,378 acres a representative cross-section of the delta's underlying physical structure and the diverse natural habitats built thereon. The preserve also contains evidence of a succession of human occupations dating back to its very creation by deltaic processes about 2,500 years ago. It compliments the other units of the park and fulfills the park's mission by helping to preserve an important part of the delta, and by providing a framework for interpreting the interrelationship between culture and the physical environment that has shaped this region.

Natural Resources. The natural communities of the preserve fall into three broad types, reflecting the underlying geological structure: hardwood forest, swamp, and marsh. The backbone of the preserve is an abandoned distributary channel of the Mississippi River and its flanking natural levees. The levees are ribbons of firm alluvial soils, the only ground above sea level, on which grows a hardwood forest of ridge and bottomland species. On the backslopes of these natural levees, where the soils are inundated much of the year, grows a baldcypress-water tupelo swamp forest. Portions of both the ridge and swamp forests are nearing maturity and both contain a number of ancient specimens. The preserve's forest is among the finest examples remaining in the delta of this original forest ecosystem. The preserve's marshes occur beyond the swamps, where alluvial soils have subsided well below sea level. Above this sunken surface, generations of marsh plants laid down a layer of peat, often many feet thick. The peat supports a unique floating marsh, known as *flotant.*

The Preserve anchors the eastern end of one of the largest regions of floating marsh in the world,

stretching westward across the delta in a broad, intermittent band to the Atchafalaya basin. In places within the Preserve the flotant is so thick that it supports a unique floating community of shrubs and small trees; elements of this community have their closest affinities fifty miles to the north, in the pine savannahs north of Lake Pontchartrain.

Wildlife is particularly abundant in the delta and each of these communities supports a characteristic fauna. Sub-tropical warmth, high rainfall, and fertile soils combine to create a highly productive ecosystem. Important components include furbearers, wading birds, wintering waterfowl, neotropical migrants, alligators and other semi-aquatic reptiles, amphibians, and juvenile estuarine fish. Invertebrate primary consumers, including crawfish, crabs, and shrimp, help anchor an intricate food chain that supports the more visible wildlife.

Cultural Resources. This fertile estuarine system has provided a rich matrix for human beings throughout its short geologic existence. Within the Barataria Preserve are prehistoric sites representing a nearly complete chronology of habitation within the Mississippi Delta dating back more than 2,000 years, including major ceremonial mounds, village midden complexes, and dozens of smaller sites. Historic sites date back to the late 18th century and include colonial and plantation era agricultural remains, a late-19th and early-20th-century commercial swamp-logging canal system, the ditch system excavated by trappers (trennasses), and 20th century oil and gas exploration roads and canals. These sites are part of the Barataria Historic District on the National Register of Historic Places. The preserve's trail system uses this historic overlay of roads, levees, and canals to provide access to its natural communities.

Crescent City Unit

This administrative unit is comprised of the Chalmette Battlefield, Chalmette Cemetary and the French Quarter Site. All three sites are located in metropolitan New Orleans and focus on the historic and cultural heritage of the city.

Chalmette Battlefield. The 143 acre Chalmette Battlefield, located four miles downriver from the French Quarter, is the site of the American victory on January 8, 1815 in the Battle of New Orleans, which culminated of the War of 1812. Adjacent to the battlefield is a national cemetery that was established in 1864. Also located at this site is the historic Malus-Beauregard House and the Chalmette Monument. This site was designated the Chalmette National Historical Park by the United States Congress on August 10, 1939 and was incorporated as the Chalmette Unit of Jean Lafitte National Historical Park and Preserve in 1978. Today, the battlefield serves as the Unit Headquarters for the Crescent City Unit. The exhibit area in the Chalmette Battlefield Visitor Center contains objects relating to the War of 1812. Some archeological excavations have taken place on the grounds and the artifacts are stored on-site and off-site. The significance of the Chalmette Battlefield lies primarily in the commemoration of the American defense of New Orleans from an invading British army. The American victory in this struggle guaranteed the U.S. retention of New Orleans and control over the area known as the Louisiana Purchase. The battlefield is the foremost resource of the site.

On the site of the battlefield, the Chalmette Monument was built between 1855 and 1908 to

honor those who fell in the New Orleans Campaign. The 1833 Malus-Beauregard House, built after the battle, is an excellent example of typical antebellum-period plantation-style river houses. Interior exhibits interpret the house, and life along the Mississippi from the 1700s to the present.

Chalmette Cemetary. Lying just east of the Battlefield, the 17-acre Chalmette National Cemetery holds the remains of 15,000 United States servicemen and their dependents, and includes four War of 1812 soldiers; soldiers, sailors, and marines from the Civil War, Spanish American War, World War I, World War II, and the Vietnam War.

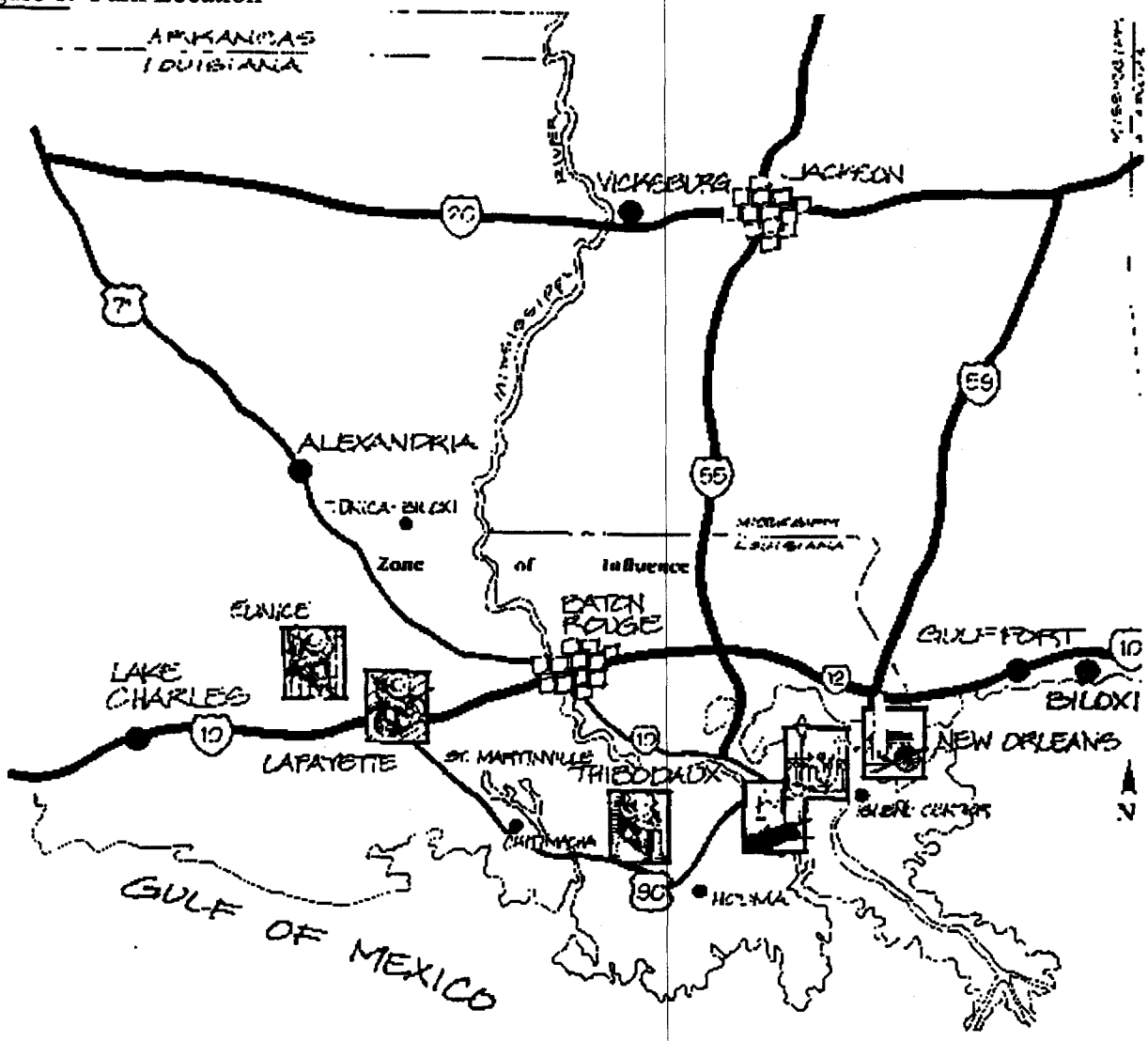
French Quarter Site. The French Quarter Visitor Center is located in the historic French Quarter or *Vieux Carré*, the neighborhood encompassing the original French settlement of New Orleans, founded in 1718 to help secure control of the river and the Louisiana territory by France. The unit interprets the history and cultural heritage of New Orleans and the Mississippi Delta region. The 419 Rue Decatur building complex, currently being renovated by the National Park Service, will serve as its permanent home.

The primary resource of the French Quarter Site is the interpretation of the city's unique history and culture as it is expressed in food, music, language, customs, and architecture. The French Quater location of the Visitor Center provides easy accessibility to most New Orleans visitors. Interpreted by the site are two historic districts, the French Quarter and the New Orleans Garden District, and many structures and sites on the National Register of Historic Places. The French Quarter Site is atypical in that little property is owned by the Federal Government. National Park Service ownership and jurisdiction are limited to the future site of a visitor center and headquarters facility at 419 Rue Decatur. The present visitor center, located on leased property in the French Market, provides orientation to other park units, is the point of embarkation for walking tours, and focuses upon the delta region's history and cultural diversity, particuluarly that of New Orleans.

The French Quarter itself, a 66 block historic district in downtown New Orleans--was established as a state historic district in 1935--one of the two earliest such actions in the United States. It was established as a National Historic Landmark District in 1962, and contains many Natinal Historic Landmarks and other structures on the National Register of Historic Places that have significance architecturally or in relation to historic events.

Important historic structures within the Vieux Carré include the Cabildo, the old Spanish and French capitol building, in which the Louisiana Purchase was signed; St. Louis Cathedral, the oldest functioning cathedral in the United States; the Presbytere, the Cabildo's twin and the seat of the Catholic Church in colonial Louisiana, which is an excellent example of late-18th-century Spanish colonial architecture; the Pontalba buildings, mid-nineteenth century balconied townhouses; and the Ursuline Convent (1750), the oldest building in the Mississippi Valley, now housing the archives of the Archdiocese of New Orleans. Scores of other buildings dating from the time of the Louisiana Purchase to roughly the eve of the Civil War, and decorated with the famed wrought and cast iron balconies of New Orleans, contribute to the special ambiance of the Vieux Carré.

Figure 1. Park Location



Jean Lafitte
National Historical Park and Preserve
- CHALMETTE UNIT
- NEW ORLEANS UNIT
- BARATARIA PRESERVE UNIT
- ACADIAN UNIT

Location

Jean Lafitte
National Historical Park and Preserve
U S Department of the Interior / National Park Service

D. GPRA Goals as they relate to Resource Management

Introduction to GPRA

The Government Performance

E. Resource Management Goals and Objectives

Broad management goals are derived from the enabling legislation, the General Management Plan and the Statement for Management.

Jean Lafitte's overriding resource management goals are:

> to protect representative examples of the natural and historical resources of Louisiana's Mississippi River Delta Region and adjacent areas of Acadiana through ownership and conservation by NPS, and by partnerships which promote such protection;
>
> to provide the means and opportunities for people to experience those resources and to understand how they contributed to the development of a unique culture.

Natural Resource Objectives:

- Manage the Barataria Preserve as a natural area while continuing to protect cultural resources
- Manage the other units of the park in harmony with natural processes to the maximum extent possible
- Acquire such lands, servitudes, or interests in lands as are needed to protect natural processes
- Manage the preserve within the context of its broader ecosystem and coordinate management in conjunction with other resource management entities
- Establish baseline data for understanding ecosystems and for developing natural resource management programs
- Protect representative natural communities
- Re-establish or maintain native wildlife populations representative of natural conditions
- Manage hunting, fishing, and trapping in the preserve as stipulated in the legislation
- Identify and seek means for protecting such other natural resources within the Delta Region as appropriate.

Cultural Resource Objectives:

Minimize loss of information/resources through the following actions:

- Stabilize and monitor known cultural resources including sites, historic structures, artifact collections, museum objects, archives, and the park library
- Inventory, stabilize and monitor unrecorded cultural resources
- Maintain historic structures
- Record oral histories; establish an Oral History resource/research collection
- Expand research base including contextual background for the cultural resources of the park
- Assist cultural groups in maintaining their heritage
- Encourage and participate in the collection and preservation of information on regional cultures and cultural practices as appropriate to the mission of the park
- Acquire such lands, servitudes, or interests in lands as are needed to protect the cultural resources of the Chalmette Battlefield and the Barataria Preserve
- Accomplish these objectives in close cooperation and coordination with the cultural groups affected
- Identify and seek means for protecting such other cultural resources within the Delta Region as are found to be appropriate.

E. Most Critical Resource Management Challenges

In the period between the beginning of European settlement of the Delta Region in 1706 and the creation of the Barataria Preserve in 1978, the Mississippi River was gradually but completely confined by artificial levees, spillways, and channel training devices. The result was sediment and freshwater deprivation to the Barataria estuary, leading to erosion and marsh starvation so severe that much of the preserve may disappear without intervention.

In addition to this systemic problem, land uses within the boundary, past and present, continue to affect park resources. Roads and canals from the mid-20th-century period of oil and gas exploration pervade and influence the hydrology of the entire preserve. Traditional activities, including hunting, fishing, and trapping, authorized by the park's establishing legislation, are still permitted. Because of these human-caused forces, critical resources will continue to be lost without National Park Service intervention.

A complete restoration of the preserve to pre-colonial conditions--even if possible--would not be in accordance with the intent of the enabling legislation. Nevertheless, it will be necessary to

un-do some of the cultural effects upon the system, and to carry out a planned restoration of primitive conditions in order to preserve not only the natural system, but the cultural overlay.

Efforts to restore natural hydrology cannot be undertaken by the park alone. Regional efforts to return freshwater and sediment to the delta are ongoing through the U.S. Army Corps of Engineers and other agencies. The park must actively cooperate in these efforts to work towards the re-creation of healthy and sustainable systems in the delta region.

Other issues, many that commonly afflict urban parks, have resulted in the loss of naturally functioning systems. The following conditions constrain park managers and are the park's most critical resource management challenges:

1) Hydrologic modification throughout the preserve resulting in:

   a. unnaturally accelerated erosion along waterways, and along the Lake Salvador and Lake Cataouatche shorelines;

   b. subsidence with no offsetting sediment deposition;

   c. an extensive system of man-made canals and associated spoil-banks that interrupt sheet-flow, allowing intrusion of salt water, and amplifying tidal effects.

2) Loss of surrounding habitat to development causing:

   a. a levee system that blocks sheet flow from upland to wetland;

   b. urban run-off which introduces pollutants;

   c. source populations for exotic pests;

   d. missing components such as large mammals, predators and naturally occurring fires;

   e. loss of habitat corridors for wildlife.

3) Loss of archeological sites to erosion.

4) Right-of-ways that criss-cross the preserve causing habitat discontinuity.

5) A major industrial corridor, the Gulf Intracoastal Waterway, and several pipelines carrying petrochemicals which pose the danger of spills or hazardous material releases.

6) Lack of sufficient data to make informed decisions.

7) Park boundaries that ignore ecological and cultural landscape principles.

8) Environmental control of museum collection areas in a very humid sub-tropical climate.

9) Preservation of museum objects:

a. in an inhospitable climate;

b. among dispersed park sites.

10) The logistics of maintaining effective and appropriate resource management programs among distant sites with diverse management objectives.

11) Deterioration of historic structures through environmental stresses, aging, neglect, and attack by termites.

12) Maintenance of appropriate historical landscapes.

13) Determination of an appropriate level of involvement with the many cultural organizations within the delta.

14) Assisting regional cultural groups in preserving cultural practices without interfering with traditional culture or affecting its evolution.

15) Improving public understanding of the National Park Service, its mission, and its role, particularly related to funding cooperative efforts.

II. NATURAL RESOURCE STATUS

A. Natural Resource Baseline Information

This subsection assesses the current status of baseline information against the standards prescribed in NPS-75 for three levels of data collection/management: (I) Inventory, (II) Monitoring, and (III) Integration and Special Studies.

Status of Natural Resource Inventories

INVENTORY ELEMENT	COMMENTS	POOR	FAIR	GOOD
Hydrologic Resources				
Water Quality	Baseline Water Quality Data Inventory & Analysis Compiled by NPS WRD; continued biweekly monitoring of important parameters			x
Vegetation Resources				
Terrestrial Plant List	Mostly complete for property acquired before 1983			x
Aquatic Plant List	Emergent species included in plant list, some submerged aquatics remain unidentified		x	
Wildlife Resources				
Vertebrate Species List	Bird species complete with on-going breeding and migrant point counts		x	
Invertebrate Species List	Annual butterfly counts since 1996; limited effort to inventory spiders	x		
Protected Species List	No known resident populations or critical habitats for federally-listed species; known locations of state-listed species			x
Game Species Data	Hunting and trapping data mostly complete since 1990, older records are inconsistent; recent effort to establish and maintain long-term data management practices		x	
Air Resources				
Air Quality	No park-specific data has ever been collected	x		
Geologic Resources				
Soil Maps	Multiple large scale maps for Chalmette and Barataria		x	
Geology Maps	Multiple maps in a variety of scales from aerial photographs			x
Aerial Photographs	Multiple sets: black & white, color, & infrared			x

Historic Scientific Collections	Very limited effort to identify collections prior to park establishment in 1978	x		

Hydrologic Resources

The Federal Water Pollution Control Act (Clean Water Act of 1972 and 1977 and 1990 amendments) establishes regulations and contains provisions designed to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." In addition, water quality is protected by provisions of the Safe Drinking Water Act of 1974: the Resource Conservation and Recovery Act (RCRA) of 1974; and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. The entire Barataria Preserve is located within the 100-year floodplain and is regulated under NPS Floodplain Management and Wetlands Protection Guidelines.

More than 95% of the preserve is wetlands. U.S. Fish and Wildlife Service's National Wetland inventory has mapped 40% of the unit as palustrine emergent wetland. Other wetland types include palustrine forested, palustrine scrub-shrub, and estuarine intertidal emergent.

Land Loss. The Barataria Preserve contains a portion of the most recently abandoned deltaic lobe of the Mississippi River. The substrate ranges from firm silt and clay soils to soft highly organic soils. Subsidence is a natural process in the delta and under natural conditions it would be offset by sediment deposited during floods. However, the leveeing of the Mississippi River and its distributaries for flood control now deprive the Preserve of sediment input. Subsidence, coupled with sediment deprivation, will lead to continued inundation of successively higher areas of the preserve.

Subsidence, not offset by deposition, is the greatest long-term threat to the Mississippi Delta Plain, but erosion is causing the greatest land loss within the preserve. The preserve is part of one of the largest floating freshwater marsh systems in the world. Floating marsh is fragile and susceptible to erosion. The Lake Salvador shoreline, the park's western boundary, has eroded dramatically over the last ten years. In cooperation with Jefferson Parish and the U.S. Army Corps of Engineers, the park has undertaken a shoreline protection project in this sensitive area. In addition to the erosion threat posed by the lake, the presence of interior canals cut for logging, oil and gas exploration, drainage and transportation exacerbate the erosion problem.

Canals also allow salt water to intrude into formerly fresh marsh areas. The Barataria basin has experienced the greatest increase in saline marshes and corresponding loss of freshwater marsh in coastal Louisiana. The gradual repacement of fresh marshes with more salt tolerant vegetation has implcations for species diversity and biological productivity. More seriously, in the short term, is outright mortality of non-salt-tolerant species, a problem especially during tropical cyclonic events.

The obvious solution to the dilemnas created by the last two hundred and seventy-five years of managing the lower Mississippi is to remove the levees and the jetties and allow nature to take its course. This will not happen. Development hugs the Mississippi and surrounding waterways. It is impossible to return to the system to its natural equilibrium. Nevertheless, the system that was disrupted by human interference is a highly adaptive one. Many of its natural functions can be successfully mimiced by judicious management of water, nutrients, and sediment. Therefore,

studies of the preserve's hydrology, coupled with management actions that restore freshwater and sediment input and reduce erosion to natural levels, are the park's highest natural resource management priorities.

Water Quality. As a result of its near sea level elevation, all open water within the Preserve is a near expression of the water table. Water movement is controlled by gravity and by the tide. The lunar tide in the Gulf of Mexico averages only about a foot of range each day. This tidal range is reduced by frictional forces as water passes inland to the preserve. The direction and strength of the wind often amplifies the tidal ranges to the point that the lunar tide is reduced to insignificance. Under these circumstaces, flow in and out of the preserve is sluggish, on the order of .01 meters per second. Flow levels are increased by significant rain events, which are not infrequent; by strong frontal passages, regular from September to May; and, often significantly, by rare tropical storms and hurricanes from June to November.

However, water flow through the preserve no longer follows natural patterns. Approximately sixty inches of rainfall is recorded yearly in the area of the preserve. Because much of the preserve's watershed is behind huricane protection levees, rainfall that falls within the levee system must be collected in canals, carried to the levees, and lifted over them by pumps. In most cases these pumps discharge directly into canals or bayous. As a consequence, sheet flow from uplands through lowlands and in to receiving waterbodies does not take place in many areas of the preserve. The interruption of sheet flow profoundly changes the dynamics of freshwater and nutrient distribution. Furthermore, pumped stormwater from developed areas is laden with contaminants, including often elevated nutrient levels. This deprives bypassed wetlands of nutrient input and overloads receiving waterbodies with excessive amounts, leading to eutrophication.

The National Park Service's Water Resources Division compiled a Baseline Water Quality Data Inventory & Analysis for the Barataria Preserve and the surrounding area. This resource compiles approximately 127,000 observations for 364 different water quality paramaters collected in and around the Preserve. This record provides a historical database for most parameters of concern. As funds and staffing allow, the park maintains a biweekly monitoring program for 11 sites in and near the Preserve. This biweekly monitoring program measures salinity, specific conductance, temperature, turbidity, and dissolved oxygen.

The Natural Resource Bibliography project completed for the park in mid-1995 compiled all historical data base resources available in the park library, files, and in all the park units for information on land loss, water quality, and hydrological manipulation. This data base is comprehensive for the park, but resources not held at the park have not been compiled.

The preserve is the subject of a joint NPS/USGS-BRD/USGS-WRD research project to develop a computer model of its hydrology. The project originated in 1992 as an NRPP project. The model is intended to guide management in choosing projects for the restoration of hydrological functions. The data collected for this project includes available historic information for elevation and subsidence. Monitoring hydrology, including water flow, drainage, and elevation is being done for the NRPP study area. In 1996 and 1997, funding was obtained to expand the study area

into adjacent forested wetlands, and to expand the parameters for exploration of marsh nutrient dynamics.

Phase I: Inventory standards have been met in part. Phase II: Monitoring standards are being met for the research area and throughout the park for some parameters. Phase III: Special Studies standards are being met for the research area.

Vegetation Resources

The park's vegetation has been surveyed and mapped several times. Digital data from aerial photographs has produced maps delineating uplands, bottomland hardwoods, forested swamp, scrub/shrub, fresh and intermediate marsh. These maps show the changes in these habitat types over time.

White, Darwin, and Thien completed a study of *Plants and Plant Communities of Jean Lafitte National Historical Park* in 1983. The survey consisted of 20+ field visits to the then roughly 8,600 acre Barataria core area. It produced a checklist of vascular plants and assigned importance value to woody vegetation in characteristic habitats.

The U.S. Fish and Wildlife Service (FWS) produced a preliminary habitat map of the core area in 1983 and revised it in 1984, delineating intermediate marsh, fresh marsh, scrub/shrub, forested wetland, bottomland hardwood, spoil, open water, and urban upland. FWS biologist Thomas W. Michot prepared a "Marsh Vegetation Study" of the park in 1983. Michot sampled 98 square-meter plots along four north-south transects. In 1984 this survey was expanded to six vegetation transect. Species, frequency and percent cover were listed for each study plot in the transect. This study identified species that were not recorded in the White *et al.* checklist. White re-sampled Michot's study plots in 1988 and provided cover rank, percent cover, frequency(%)and frequency rank for all species encountered. As part of the data input phase of the hydrological modelling project (see above), these sites were revisited in 1993, 1994, and 1995.

The hydrological modeling project is characterizing vegetation to species, and percent cover in 1 square meter study plots and describing dominant vegetation at approximately 200 points in the marsh.

A small series of plant specimens were collected by John R. Macgregor, a volunteer, to provide a voucher series of southeast Louisiana flora for the University of New Orleans Biology Department.

The Resource Management Division maintains an updated checklist of confirmed plant species. There are species on this list that were not included on any researcher's checklist, and voucher specimens of many of these species have not been collected or catalogued. The park used this and all other sources to compile the NPFlora database.

The dwarf palmetto (*Sabal minor*) species and related community in the park has been studied in

depth by Ramp (1989). One surprising result of this study estimated some individual specimen within the preserve to be in excess of 400 years old, indicating that parts of the palmetto understory are old growth, despite logging of the overstory.

Though some of the park's submerged aquatic vegetation (SAV) has been inventoried, most has not and no studies of SAV populations or communities have been completed.

Many exotic plant species have been documented in the park. Of these, several are considered species of serious management concern: water hyacinth (*Eichhornia crassipes*) , water spangle (*Salvinia minima*), alligatorweed (*Alternanthera philoxeroides*), Chinese tallow (*Sapium sebiferum*), Johnson grass (*Sorghum halapense*) and hydrilla (*Hydrilla verticillata*), among others. The park attempts to manage floating aquatic exotics Johnson grass, and Chinese tallow-trees on a very small scale. A population projection gor the potential spread of Chinese tallow by Mary Garrison !1995) has been prepared. No other monitoring or integration studies of exotics have been completed, although several have been proposed for various funding initiatives.

Adequate inventories of the distribution of vascular plants are not yet available, and some groups remain completely unknown. Fungi are being inventoried on a volunteer basis by Dr. Frances Weldon of Tulane University. Little is known about the status or habitat needs of rare taxa in the park.

An informal plant list has been compiled for the Chalmette Unit and a floral anaysis was completed (Bretting, 1975). No other vegetation inventories have been completed for that site to date; however, a cultural landscape analysis is underway.

A hazardous tree inventory and assessment was completed for the Acadian Cultural Center in Lafayette in 1997.

Phase I: Multiple aerial photographs collected in coordination with the FWS and the Biological Research Division of USGS (formerly NBS) and plot analysis of the modeling project area provide a framework with which to eventually meet the inventory standards for vegetation mapping. The natural resource bibliography project compiled a list of all historical data available within the park. Phase II: Vegetation monitoring standards for populations, communities, and geography have been met in some areas, especially the marsh. Phase III: Community and ecosystem level studies are on-going in the model study area.

Wildlife Resources

Preliminary surveys, at a minimum, of all vertebrate species have been done for the park. JELA's NPFAUNA database lists all species confirmed in the park. The park does not maintain a computerized database of wildlife observations.
FWS biologists compiled a list of nineteen freshwater fish and six euryhaline saltwater fish from a three day sampling effort in 1984. That list has been expanded by park staff to about 50 species, but no voucher specimens have been taken or catalogued. There is no information for commercial or recreational fishing, activities provided for in the park's enabling legislation.

Surveys of amphibians and reptiles have been completed. Inventories based on field observations have been done by Smalley (1982), and Rossman and Demastes (1989?) completed an extensive survey with some voucher specimens obtained and housed at Louisiana State University Museum of Natural Science (LSUMNS). Rossman and Dundee (19??) summarized all available data, including specimens in collections that predate the existence of the park.

Smalley inventoried bird species during 38 field trips to the core area between March 1980 and October 1981. Park staff and volunteer birders expanded this to a complete list of almost 300 species from repeated field observations. Dunn, Krattter, and Yaukey have censused birds in the park. The park established 100 permanent points for long term monitoring of breeding birds and neotropical migrants.

Mammals have been surveyed by Smalley, and Rossman and Demastes. Bat species have not been systematically inventoried. Occurrence of mammals supported only by recent sight records, such as fox squirrel, bobcat, and gray and red fox, have not yet been confirmed. Lowery (19??) summarizes all known area specimens from a period predating the establishment of the park.

Historical patterns of occurrence for all vertebrate taxa are summarized by Muth in Swanson. Voucher specimens for some fauna, usually obtained as road kills, have been sent to LSUMNS.

FWS produced a habitat evaluation procedures (HEP) analysis for grey squirrel, North American mink, pileated woodpecker, white-tailed deer, wood duck, American alligator, common muskrat, marsh rice rat, and mottled duck in 1984.

The exotic nutria has been studied by the Louisiana Department of Wildlife and Fisheries to determine target harvest numbers. Aerial transects are flown annually to monitor nutria damage throughout the coastal zone. Two transects pass through the preserve.

The Preserve allows hunting of white-tailed deer, squirrel, rabbit, wild boar and feral pigs in accordance with State laws. The park collects data on permitted hunters, daily hunting activity, and game taken. In 1997, a database was established to record all hunting related data in preparation for a white-tailed deer trend analysis in 1998.

No aquatic invertebrate sampling has been done. Since 1996, volunteers and park staff have counted butterflies at Chalmette and Barataria Preserve during the North American Butterfly Association's Fourth of July Butterfly Count. An informal spider inventory is being completed by a park volunteer. All other invertebrates are unknown except for the most abundant and commonly recognized.

Phase I: The bird species list is complete. Phase I, II, and III standards have not been met for any animal resources.

Air Resources

No air resources information has been collected for any park units. Inventories of pollution sources, air quality monitoring stations near the park, resources sensitive to air pollutants, or any other air quality related values have never been done.

Phase I, II, and III standards have not been met for air resources.

Geologic Resources

The US Geological Survey has published topographic maps for all areas of the park. The USGS-BRD National Wetlands Research Center has produced large scale biotic community maps of the park and surrounding areas. National Wetlands Inventory maps for the Barataria Unit are complete. The NRPP research is surveying and mapping to develop the hydrologic model.

The Louisiana State University, Center for Wetland Resources produced an Environmental Atlas and Multi-Use Management Plan for South-Central Louisiana in 1973. It gives elevation, precipitation, mean salinity, soils, vegetation, unique environments, surface water resource management and other information for the Preserve.

Denver Service Center identified soil characteristics for four broad habitat types: bottomland hardwood, freshwater swamp, disturbed area and freshwater marsh in 1981. The Soil Conservation Service (now the Natural resources Conservation Service {NRCS}) published Soil Surveys based on field soil surveys for Jefferson Parish, which include the Preserve, in 1978 and 1983. Four major soil types are found in the Preserve: Sharkey-Commerce, Barbay, Lafitte-Clovelly, and Kenner-Allmands.

The East Central Barataria Cooperative River Basin Study Report was prepared by the NRCS in cooperation with Crescent Soil and Water Conservation District and Plaquemines Soil and Water Conservation District in 1988. The study area includes the Preserve and identifies critical erosion areas, fragile soils areas, marsh types, isohaline lines, land use, and important biological areas.

In 1990 Eustis Engineering completed a geotechnical evaluation of a site within the Preserve for the purpose of construction. Soil was described from surface to 100 feet subsurface.

Numerous other Parish level soil characterizations level have been done by the NRCS for the park units. All are listed in the bibliography of this plan.
The park owns multiple years of infrared, color, and black and white aerial photography of the Preserve. A few color aerials are available for Chalmette.

In 1997, the park is in the process of establishing an ArcView 3.0 geographic information system and acquiring a professional quality global positioning system to support geographic analysis of park resources and threats.

Numerous exploratory oil and gas wells were drilled within the park boundary prior to its establishment. No effort has yet been made to inventory sub-surface cores and profiles which may be held in company or university repositories as a result of this drilling.

Phase I: Inventory standards have been met for geology and soils. Phase II and III have not been met.

B. Natural Resources Condition and Threats

External threats from changing land use and development are major concerns for park resource protection. As the suburbs of New Orleans expand, external problems will become increasingly severe.

Hydrologic Resources

Increasing development is impacting the park's water resources. Water quality has been altered by sources such as industiral effluents, stormwatr runoff, waterway navigation, and the stormwater pumping stations at Lake Cataouatche, Bayou Segnette, Westwego, Ames, Willowdale, Oak Cove, Crown Point, and Isle Bonne. Industrial and non-point source pollution potentially could overtax the marsh's ability to filter nutrients and toxins from water moving through it. Bioaccumulation and magnification has been documented for pollutants in other wetland areas, but no studies have been done specifically for the park.

The surface water quality in the Preserve is typical of that generally encountered in developed coastal areas. Water quality is generally within NPS, EPA and other national and state standards. The water quality analysis compiled by the NPS Water Resources Division (WRD) found 14 parameters that exceeded WRD's screening criteria at least once. Indicator bacteria (total coliform and fecal colifrom) concentrations and turbidity exceeded WRD screening limits for primary-body contact recreation and aquatic life, respectively.

Vegetation Resources

Most vegetation types in the park have been altered to greater or lesser degree by human influence. As a result, the "inherent integrity" of vegetation communities continues to be diminished by unnatural change. Loss of seasonal flooding and the associated subsidence affects elevation and manipulates the vegetative communities of hardwoods, swamp and marsh.
No federally protected plant species have been found within the Preserve. The Louisiana Natural Heritage Program has identified two rare plants that were found within or near the boundaries of the Preserve. Swamp milkweed (*Asclepias incarnata*) and floating antler-fern (*Ceratopteris pteridoides*) are considered to be imperiled in Louisiana. Floating antler-fern is common within the Preserve, but its population fluctuates and may be affected by cold winters. Swamp milkweed has not yet been found inside the boundary. Creeping spike-rush (*Eleocharis fallax*), a species of unknown status in the state has been recorded within the Preserve. The park recently discovered an orchid (*Calopogon sp.)* in the marsh. Two species of this genus are listed as

"critically imperiled in Louisiana."

Exotic vegetation, particularly aquatic species, are detrimental to the integrity of vegetative systems. Small scale control efforts of Johnson grass, water hyacinth, salvinia, and Chinese Tallow trees should be expanded to include other exotic species.

The non-native nutria (*Myocaster coypus*) also impacts vegetation. These large rodents are strict herbivores, preferring roots and especially threesquare grass (*Scirpus olneyi*). Nutria densities are extremely high in the marsh. Impacts are most obvious during the winter when areas of marsh are completely denuded of vegetation. Presumably this species holds the marsh in unnatural succession and displaces native herbivores, however data on long term affects is lacking.

The park does not have a long-term monitoring program for white tailed deer (*Odocoileus virginianus*) and has not systematically assessed their impact on park vegetation. Informal analysis of browse conditions have been routinely conducted by state and university wildlife biologists.

Considering the degree of human interference, the Preserve's vegetation is a remarkably intact and functioning system. Terrestrial exotics have not penetrated very far into established communities. The natural vegetative diversity supports healthy populations of indigenous wildlife.

The Chalmette Unit's vegetation resources are somewhat different from Barataria's. The battlefield area is a low, flat, grassy field that is maintained by mowing. The cemetery is also mowed to maintain a manicured, artificial look. This high maintenance and unnatural vegetation allows a prefect setting for pest species invasion. Management of this areas should be changed to support a hardier, less domesticated turf. Selecting a proper assemblage of species would require reduced maintenance and provide a more attractive setting.

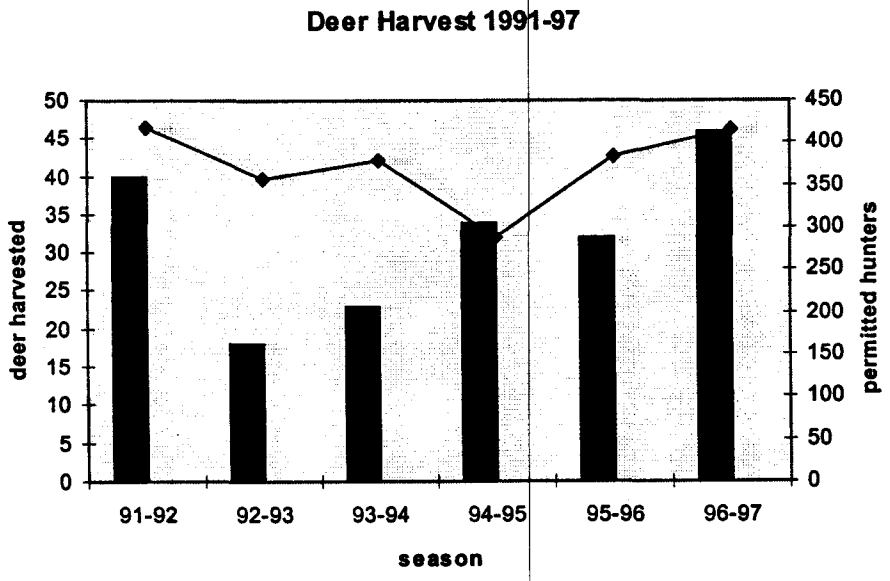
Wildlife Resources

Threats to the park's wildlife are typical of natural areas surrounded by an urban/suburban setting. Concerns such as shrinking corridors for wildlife movement, loss of large range species and top of the food chain predators, and historical species extirpation will always be present. The park will continue to manage the preserve as an oasis for the Delta Region's wildlife resources.
Hunting, trapping and fishing, including commercial fishing, are specifically provided for in the park's enabling legislation. The proper management of game species requires monitoring and research. However, little is known about the population size and health of many harvested species.

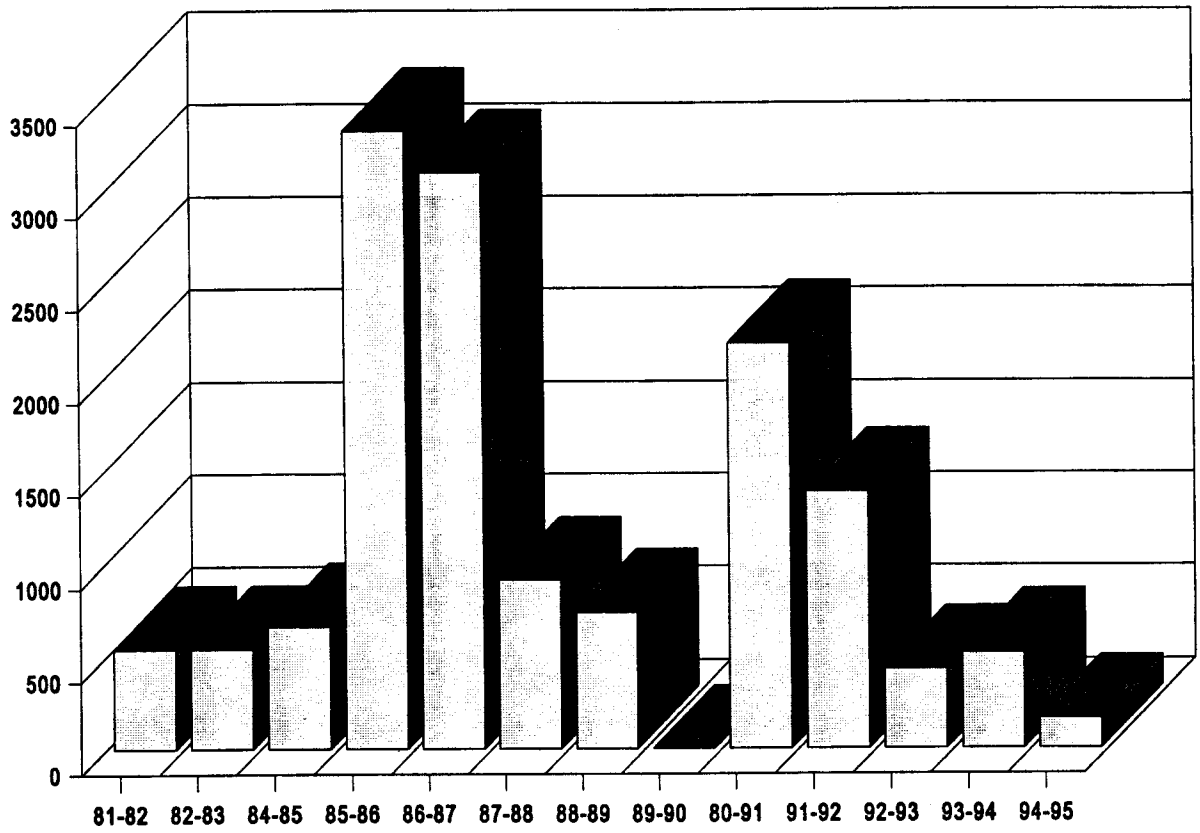
Hunting is permitted in accord with regulations set by the Louisiana Wildlife and Fisheries Department and the park. The preserve designates areas where hunting is permitted and does not allow hunting in areas of high visitor use (see map Appendix 1). Game species include, white-

tail deer, gray squirrel, swamp rabbit, Eurasian wild boars and feral pigs. The chart below illustrates the total deer harvest for the last six years.

The non-native nutria is targeted for trapping in the park. The rodent has altered ecosystem dynamics and displaced native species. Its ability to denude marsh areas leaves them vulnerable to rapid erosion and conversion to open water. Since the 1940's, nutria have been an economically important furbearer in Louisiana and populations were partially controlled by private trappers. During the 1980's the fur industry declined and the demand for nutria pelts all but disappeared. The Lousiana Department of Wildlife and Fisheries estimates a target nutria harvest of 3,00-5,000 animals in the Preserve. The park has an approved trapping management plan in place and designates certain marsh areas as annual trapping leases. Throughout the



1990's, trapping interest has been declining and there has been no trapping activities since the 1994-95 season. Consequently, the park has initiated a direct reduction program that enables resource management and law enforcement personnel to shoot nutria. The nutria trapping data for the last fourteen years is summarized in table 1. The enabling legislation also allows the trapping of other traditionally taken furbearers, including raccoon, nearctic river otter, and mink.



Fishing is a popular activity in the park, but data on fishing days per year, species and number of harvest, and commercial catches are not collected. There is a need for implementation of a fishery management plan. This document would address additional issues such as the effect of consumptive fishing, quantify commercial fishing operations, and provide direction for management actions.

The park does not have any resident species listed under the Endangered Species Act (ESA). Federally listed endangered species that have been observed in the park are: brown pelican (*Pelicanus occidentalis*) as post-breeding wanderers; spring and fall migrant least terns (*Sterna antillarum*) presumed to be from the endangered interior population (*S. a. athaloassos*); and migrant and wintering peregrine falcons (*Falco peregrinus*), including possibly the endangered sub-species (*F. p. anatum*). ESA listed threatened species recorded in the park are: presumed arctic peregrine falcon (*F.p. tundrius*); and bald eagle (*Haliaeetus leucocephalus*), which often forages from nearby nest sites in the upper Barataria basin. Federal candidate ESA Category 2 species that occur in the park are the alligator snapping turtle (*Macroclemys temminckii*), fairly common in deeper water; loggerhead shrike (*Lanus ludovicianus*), a very local breeder and common winterer in the marsh; and migrant cerulean warblers (*Dendroica cerulea*). The Preserve is within the range of the southeastern myotis bat (*Myotis austroriparius*), but it has not

yet been confirmed.

The Louisiana Natural Heritage Program has identified Species of Special Concern for the state. Those that occur in the park include Saltmarsh topminnow (*Fundulus jewkinsi*); Cooper's hawk (*Accipiter cooperii*), which apparently breeds, and is fairly common in migration and winter; American white pelican (*Pelicanus erythrorhynchos*), a common migrant and winter visitor; reddish egret (*Egretta rufescens*), which has been recorded only casually in evening flights to heron rookeries; osprey (*Pandion haliaetus*), common in fall, winter, and spring; American swallow-tailed kite (*Elanus leucurus*), an uncommon spring migrant; broad-winged hawk (*Buteo platypterus*), which may breed in or near the preserve in small numbers, and is an uncommon migrant; least tern (*Sterna antillarum*) of the local coastal population, which appears primarily post-breeding; caspian tern (*S. caspia*), uncommon in most seasons; gull-billed tern (*S. nilotica*), a rare visitor; warbling vireo (*Vireo gilvus*), seen only as a rare migrant; yellow warbler (*Dendroica petechia*), but only as an abundant migrant, not a breeder; worm eating warbler (*Helmitheros vermivorus*), only as a common migrant, not breeding; and migrant, non-breeding, Louisiana waterthrush (*Seiurus motacilla*).

Almost three hundred bird species have been identified in the park. Since 1995, point counts have been conducted for spring and fall migrants as well as breeding birds in the preserve. In 1995 and 1997, the park funded a study to map breeding bird distribution, evaluate habitat preferences, and mating success of breeding birds in the vicinity of interface between the preserve boundary and adjacent developed areas (Yaukey, 1997). The study found that several bird species that nest in the preserve are scarce or virtually absent in nearby urban woodlots, illustrating the importance of maintaining large forested tracts within the park and seeking to reduce forest fragmentation outside of park boundaries.

Very little study of the distribution, population dynamics, and ecology of reptiles, amphibians and invertebrates has been done specifically for the park. Alligators (*Alligator mississippiensis*) appear to be abundant in the park. The park should collect population data as they, like many other reptiles and amphibians, may be experiencing range-wide declines from a variety of anthropogenic factors.

Questions regarding species management, hunting, introduction of extirpated species, protected species monitoring, population studies and other research have gone unanswered due to lack of staff and funding.

Air Resources

The Clean Air Act, as amended in 1977 and 1990, is one of the most important laws protecting air resources in an NPS area. Air quality related values are defined by the NPS as "a feature or property of an area whose vitality, significance, or integrity is dependent in some way upon the air environment, including visibility and scenic, cultural, biological, aquatic, and recreational resources."

The units of Jean Lafitte NHP&Pr. are all located in or very near urban areas. Air quality in the

Barataria Preserve is undoubtedly impacted by its surroundings. There are many producing oil fields and operating oil refineries on the west bank of the Mississippi River, where the Preserve is located. The Preserve is unable to establish baseline data, assess trends, correlate air pollutants with resource impacts, provide meaningful input on proposed new sources of pollution, or meet any other NPS air quality monitoring guidelines at this time. The Chalmette Unit is in a similar situation. The unit is surrounded by development and industry, including an operating oil refinery.

Until the park identifies means for obtaining air quality data, the threats to air quality and related values will be unknown.

Geologic Resources

The most pressing geological resource issue is continuing erosion along all shorelines. The Preserve has over 40 miles of waterways, most of which are modern canals or natural channels that have been altered by straightening or dredging. The park currently lacks the ability to measure erosion and pinpoint areas where management actions would produce positive results. The on-going NRPP research will provide management options for unnatural waterways and shorelines in the marsh. Additionally, it will provide soils information for the 200 sites. The research product will determine the future direction of defensive shoreline restoration actions in the marsh.

The other critical geological resource issue is the natural subsidence of the Bayou des Familles-Bayou Barataria delta lobe. Bayou des Familles was the main channel of the Mississippi River roughly 3,500 to 1,500 years ago. Today it is a small tidal stream, what remains after the river channel was gradually filled with accreted alluvial sediments, the result of decreased flow as the river slowly abandoned the Bayou des Familles course. The land is actively subsiding because the modern delta sits atop thousands of feet of unconsolidated sediments deposited during previous delta building episode. In an unaltered state the delta would be sinking, but subsidence would be off-set by sediment input from seasonal flooding and the river would be accreting land in a new delta. The leveeing of the river has removed the natural balance between subsidence and accretion. As the abandoned deltas sink, new ones are not created. The sediment in the river, the run-off of one-third of the continental United States, is shunted out into the Gulf of Mexico via jetties and other channel training devices, creating no new land.

The U.S. Army Corps of Engineers (COE) is leading a multi-agency effort to divert fresh, sediment laden water from the river into surrounding wetlands. One of these, the Davis Pond Freshwater Diversion Project, is located north west of the Preserve along the northern perimeter of Lake Cataouatche. This offensive approach will attempt to mimic, on a small scale, seasonal overbank flooding. Pouring nutrient laden, often polluted river water into these wetlands will have an unknown effect on the Preserve. The park is currently engaged in a pre-diversion monitoring effort focusing on marsh community distribution, porewater and open water salinity and nutrient dynamics.

III. CULTURAL RESOURCE STATUS

A. Cultural Resources Baseline Information

Cultural Resources Documentation Checklist

Interpretive Prospectus (IP)	1983, 1989
National Catalog of Museum Objects	1994
Historic Resource Study (HRS)	1985
Park Administrative History	Needed
Scope of Collections Statement	1995
Collection Management Plan	1992, update
Collection Storage Plan	1992
Collection Condition Survey	1994
Exhibit Plan	1986, 1988
Historic Furnishings Report	1987, update
Historic Structure Report	1987
List of Classified Structures	1994

Summary Chart for Objects

	ARCH	E	HI	ARV	BIO	PAL	GEO	TOTAL
REG	0	0	0	0	0	0	0	0
REG/CAT	12550	0	3706	39	405	0	3	16703
TOTAL	12550	0	3706	39	405	0	3	16703
BACKLOG	18000	0	200	123	1000	0	0	19323
TOTAL	30550	0	3906	162	1409	0	3	36026

Planning Documents

A General Management Plan (GMP) for the park was completed in 1982. Numerous changes and issues concerning park operations prompted an Amendment to the GMP which was finalized in April 1995. The amendment "provides a framework for interpreting the development of cultural diversity in Louisiana's Mississippi River Delta. The plan also provides for protection of cultural and natural resources at the park sites and a cooperative program to encourage recognition and continuation of these values and of evolving folkways in the region. Additionally, developments to facilitate access to and visitor use of park sites are identified in the

plan." (iii)

The Statement for Management (SFM) was approved in August 1994. It is updated every 2 years. The SFM needs to be updated to reflect the changes within the last several years, particularly with regard to cooperative agreement sites.

Service-wide Inventories, Lists, Catalogs, and Registers

An *Historic Structure Report* (HSR) has been completed for the Malus-Beauregard House (1978) at Chalmette. Apparently, an Historic Structure Reports was completed for the Caretaker's House at Chalmette but there is no record of this report. *An Architectural History of the Property at 417-419 Decatur Street, in New Orleans* was completed by Jay Edwards in 1989 and revised in 1990. Currently under renovation, the building will serve as the park's Headquarters/Visitor Center. An HSR was also completed for the Percy-Lobdell building in Thibodaux, now known as the Acadian Wetlands Cultural Center.

Jerome A. Greene (DSC) completed an Historic Resource Study (HRS) for the Chalmette Unit in 1985. Barbara Holmes (DSC) finished an HRS for the Barataria Preserve in 1984 and in 1988 Betsy Swanson wrote an *Historic Land Use Study of a portion of the Barataria Unit of Jean Lafitte National Historical Park.* All of these works provide a basic cultural resource baseline for the park.

The National Historic Preservation Act requires the evaluation and documentation of all sites on federal land which may qualify for listing on the National Register of Historic Places, either individually or as a portion of a thematic set or district. A study is currently underway to Amend the National Historic District in the Barataria Preserve. This includes incorporating archeological sites and cultural features and completing National Register forms for both historic and prehistoric sites in the Preserve. The 419 Rue Decatur property is located within the Vieux-Carré Historic District bounded by the Mississippi River, Rampart and Iberville Sts., and Esplanade Avenue, but it is not on the National Register of Historic Places. The Chalmette site as well as the Percy-Lobdell Building in Thibodaux are also listed in the National Register.

There are no National Historic Landmarks on park owned property. However, there are numerous landmarks in the Vieux-Carre National Historic District and the Uptown New Orleans Historic District ("Garden District") which are within the interpretive zone of the park.

A *List of Classified Structures* (LCS) includes historic structures, monuments, cemetery features, and historic fields and groves, roads and canals and their relative state of preservation. It was last updated in May 1994. The LCS includes 18 historic formations. The inclusion of the former Nuñez/Molero House/Isleños Center should be deleted from the LCS as it is not NPS property.

The *National Catalog of Museum Objects* is located in the National Catalog Records Center maintained by the NPS in Harper's Ferry, West Virginia. Jean Lafitte National Historical Park and Preserve collection catalog cards (10-254s) are submitted to the National Catalog Records Center annually. The park still has a cataloging backlog of approximately 140,000

objects/specimens.

Basic Cultural Resource Documents

The Mississippi Delta Ethnographic Overview (MDEO, 1979) is the comprehensive base line from which all subsequent cultural, ethnohistorical and folkway research for the park has developed. Based on fieldwork it provided an inventory of human communities in the delta. The study is presently being revised and updated.

The *Collections Management Plan* was completed in 1990.

The *Scope of Collections Statement* was approved in December 1994. It is currently being revised.

The *Checklist for Preservation, Protection, and Documentation of Museum Property* is on a three-year update interval and is completed in partial fulfillment of Special Directive 80-1. The checklist was updated in 1996.

A *Conservation Needs Assessment Survey* was conducted in 1994.

A park Administrative History is needed. As the park approaches its 20th anniversary it is important to address this deficiency. Such a document would provide an overall perspective and understanding of the park's beginning (including the incorporation of Chalmette National Historical Park), its history, and its administration under four superintendents. In addition, a Collection Storage Plan, Security and Fire Survey, and Housekeeping Plan are needed.

Special Resource Studies and Plans

Barataria Preserve

Numerous archaeological studies associated with the Barataria Preserve have been completed. These include surveys relating to the Kenta Canal, Big Woods area, and Barataria trail system (which includes Coquille Trail). In 1986 an *Archaeological Assessment of the Barataria Unit* was completed.

Terre Haute de Barataria, An Historic Upland on an Old River Distributary Overtaken by Forest in the Barataria Unit of the Jean Lafitte National Historical Park and Preserve (1991) is a revision and enlargement of an historic land use study conducted in 1985-88. This study "details the historic land ownerships and uses, and the resulting human alterations to the natural environment which can be seen in the park today." It was funded jointly by the NPS and Jefferson Parish.

An ethnographic study which addresses traditional uses of cultural and natural resources in the Barataria Preserve is presently being conducted. Information about traditional forms and varieties of resources that associated people define as significant will enable park management to understand the impacts parks have on traditional cultural systems.

Chalmette Site

An *Annotated Archival Source Listing Relevant to the Archaeological, Architectural and Historical Interpretation of the Rodriquez Plantation Buildings* was completed in 1984. Archaeological reports pertaining to excavations conducted on the Chalmette Battlefield are also available.

The HRS mentioned above also is a good resource for this area of the park which was formerly a park in its own right, the Chalmette National Historical Park, before it was incorporated into Jean Lafitte National Historical Park and Preserve.

A Cultural Landscape Study (CLR) for Chalmette is currently underway. This study will address site history and existing conditions with analysis, evaluation and recommended treatment for the historic landscape associated with the battlefield. The Chalmette National Cemetery, with an administrative history independent of the battlefield, will also be included in this study.

A study of Fazendeville, a community begun during the Reconstruction Period by a free man of color, which survived well into the twentieth century as a black residential community, is proposed for this year. It was one of the areas acquired and incorporated into Chalmette National Historical Park in 1961-62.

Other studies which augment the cultural resource baseline for the metropolitan area and its environs include an ethnohistorical study of *The Asian Peoples of Southern Louisiana* (1990), an

ethnography of *Black Social Aid and Pleasure Clubs: Marching Associations in New Orleans* (1989), and an historical study of *African Americans in New Orleans Before the Civil War* (1995).

Acadian Sites

In 1989 three geographically separate Acadian sites at Lafayette, Eunice and Thibodaux were incorporated into Jean Lafitte National Historical Park and Preserve. These sites were established to interpret the prairie and wetland Acadian cultures and to emphasize the adaptability of the Cajun people to their environment. Distinctive lifeways that are reflected in both traditional and contemporary language, music, food and crafts are featured in the cultural centers. The 1987 study *The Cajuns: Their History and Culture*, (Volumes I-V) provided the data base for the planning and development of these three Acadian cultural centers, and especially for museum exhibits and programming.

The ethnographic study on *Zydeco and Mardi Gras: Creole Identity and Performance Genres in Rural French Louisiana* (1986) also provides information on the Creole people and their culture in the Acadian area.

There are other studies (see bibliography) which have been contracted by Jean Lafitte National Historical Park and Preserve. These studies have broadened the knowledge base and understanding of the park and the Delta region. The studies are used by park staff and are available to the public upon request.

Cooperative Agreements/Partnerships

An important goal of the park cultural resource program is to facilitate relationships between the parks and park-associated groups; in particular, those groups who are affected by park resource management. Through partnerships and cooperative agreements the park has worked with African-Americans, American Indians, Cajuns, German-Americans, Italian-Americans, Isleños, and other cultural groups. The park helps maintain affiliated sites through technical support. Working with these communities the park has rehabilitated and restored interpretive exhibits (e.g. at Los Isleños Heritage & Cultural Society Center and the Chitimacha Visitor Center) and helped with interpretive programming. These heritage groups serve as a vital link in preserving and protecting the cultural resources in the region. Jean Lafitte National Historical Park and Preserve was the first park to establish a cooperative agreement with Amtrak (National Railroad Passenger Corporation) to provide on-board educational programs for passengers traveling on trains through southeast Louisiana and southern Mississippi. This program has been expanded and is now being used as a model for future similar programs throughout the National Park System. The park should continue to rely on cooperative agreements and partnerships with interested individuals and organizations to help interpret Louisiana's Mississippi River Delta Region's culture.

Consultation

Consultation is an equally important goal for the cultural resource program. "The short-term goal of exchanging information on a particular project or plan and the longer-term goal of establishing or reconfirming mutually beneficial interactions between NPS staff and traditionally associated communities" is crucial in any planned undertaking. In this park consultation is undertaken for the National Environment Policy Act (NEPA), Archaeological Resources Protection Act (ARPA), American Indian Religious Freedom Act (AIRFA), Native American Graves Protection and Repatriation Act (NAGPRA), and National Historic Preservation Act (NHPA) compliance. The communities are also consulted for developing interpretive exhibits, and in some instances, interpretive programming.

NAGPRA

The park has fulfilled the requirements as outlined in the Native American Graves Protection and Repatriation Act (NAGPRA, 1990). A detailed inventory and assessment of the human remains and associated funerary objects in the park collection has been made. Consultation with representatives of two American Indians tribes in the state: the Chitimacha Tribe of Louisiana and the Tunica-Biloxi Tribe of Indians of Louisiana, in order to determine cultural affiliation has occurred. The Southeast Archaeological Center is in the final stage of information gathering; once this is completed, notification to American Indian tribes about the inventory results will be published in the *Federal Register.*

B. Cultural Resources Conditions and Threats

Archaeological Sites

Barataria Preserve

Jean Lafitte National Historical Park and Preserve contains an estimated 109 archaeological sites. The majority of the sites are located in the Barataria Preserve It is probable that there are a number of undiscovered sites. No Paleo-Indian sites have been recorded for the Delta region. Rising sea level covered most of the present day shoreline of the Gulf of Mexico in southern Louisiana, either precluding human occupation or inundating sites that may have existed. The extant, post archaic archeological sites mark a progression of prehistoric and historic habitations. Land use patterns from a succession of historical occupations, and overlay the natural landscape and provide a matrix for interpretation of the interrelationship between environment and culture. A historic district on the National Register of Historic Places includes the Bayou Coquille archeological site, other prehistoric middens, an 18th century Canary Islanders village, and sites associated with 19th century plantation agriculture. In addition to these cultural sites, the communities of the basin are a living resource, offering opportunities to interpret traditional resource uses and contemporary culture. Historian Betsy Swanson noted that "the entire environment is, to some degree, man-altered, having been exploited by humans for 2000 years."

The *Archaeological Assessment of the Barataria Unit* completed in 1986 needs to be updated

with research conducted since this assessment, e.g. cultural features relating to the Christmas Plantation (1988) and the Canary Island village sites. (See later works by Swanson and Yakubik.)

A prime concern of the park's cultural resource program is the impact on archaeological resources. Archaeological sites constitute a fragile and non-renewable resource. Therefore, efforts must be made to avoid adverse impacts to sites. Direct impact include the development of park facilities, including roads, trails, and buildings. Indirect impacts include visitor use of facilities and changes in hydrology as a result of construction. Impacts also include natural and anthropogenic geomorphological changes, e.g. erosion and subsidence. All of these impacts threaten archaeological sites.

Unrecorded sites are at risk because park managers are unable to protect them, especially during an emergency, since the location and features of the sites are unknown. Consequently, funding to update the archaeological survey is important. During the last several years volunteers from the Delta Chapter of the Louisiana Archaeological Society, with assistance from Betsy Swanson, contributed numerous hours to locate and record sites in the Barataria Preserve.

Section 110 (NHPA, *16 U.S.C. 40h-2*) states all federal agencies are responsible for the identification, evaluation, and nomination of historic properties (e.g. archaeological sites) within their jurisdiction. The park has made great strides in complying with this legislation to properly manage the cultural resources in the Barataria area. At the present time there is a study underway which will revise and enlarge the Barataria Preserve Unit' s National Historic District to include numerous sites not listed on the National Register of Historic Places. All NPS site inventories should be coordinated with the SHPO office to be included in the state's central repository of site files.

The impacts of urban development have already begun to affect the Barataria area. Residential development has proceeded rapidly on Bayou Barataria waterfront property. For instance, an area of bottomland hardwoods across the bayou from the preserve has recently been subdivided. Clearing and house construction has converted this once unbroken tract of forest into a highly fragmented resource. This conversion of land from natural areas to developed areas results in the land being closed to traditional users.

The town of Lafitte provides recreational opportunities for the public vis-a-vis boat rentals and views the Barataria Preserve as a "catalyst to economic development in surrounding communities." The same people who visit the park also support the local businesses in Lafitte.

Existing Jefferson Parish zoning will allow light industry and commercial use on properties adjacent to the park; proposals to create special lanscaping and setback zone overlays on some of these properties are being pursued by parish officials.

Chalmette Battlefield

A number of archeological investigations have been conducted at the Chalmette battlefield.(See Goodwin. 1991) The earliest investigations were conducted in 1957 to determine the original

locations and shape of the Rodriguez Canal and the American defensive line rampart. In 1963 another study was conducted to find the American rampart prior to planned reconstruction of the rampart. Neither of the earlier investigations were successful. Other surveys and excavations conducted from 1983-1990 during park development (e.g. visitor center and bathroom facilities) sought to define the rampart, locate the Rodriguez House which was standing during the Battle of New Orleans, and locate Battery No.3. (Note: The Birkedal report has never been completed.) To this date the American defensive line rampart has not been positively identified. In addition, some professional archaeologists disagree on the findings relating to excavations of the Battery No. 3. In 1993 during the construction of a 4-foot trench to install a water line for the Malus-Beauregard House, tips of three cypress beams which are most probably portions of the rampart were unearthed. Photographs were taken and the data recorded. The trench was backfilled.

Future archaeological research projects relating to the American rampart and British Advanced Battery could shed light on understanding the Battle of New Orleans and lead to enhanced interpretation of the battlefield. Post-battle occupation of the property also needs to be considered. Further research on the buildings associated with the Malus-Beauregard House is warranted. The National Cemetery "was used during the mid-1860s for the interment of freed slaves and Negro hospital workers, along with the Union and possibly Confederate troops. In 1868, nearly 7000 Negroes were exhumed and reinterred in a plot established by the Freedmen's Bureau located immediately west of the National Cemetery." Examination of the historical documentation and limited archeological testing would define the boundaries of this cemetery. Finally, documentation and research could define the post-Reconstruction black community, Fazendeville, which is also within the boundary of the park. This black residential community was occupied until the 1960s when the residents were removed when the land was purchased and incorporated into the park.

The Chalmette Battlefield is located in a Mississippi River shoreline industrial community. No NPS controlled buffer zone surrounds the park and is is therefore affected by major visual as well as physical intrusions (e.g. Kaiser smokestack and tailings disposal mound, and the Chalmette slip and docking facilities). A Parish sewage treatment plan is located within the boundaries of the battlefield causing air and water quality problems, as well as posing a potential health risks. Other concerns include poor drainage because of a high water table, clogged ditches and inadequate pumping capacity.

The National Cemetery headstones and the historic wall are aging and deteriorating due to moist climatic conditions. The high water table and soft ground conditions have saused shifting of the headstones and threaten the historic brick wall.

An active freight railway line borders the park as does a natural gas pipeline right-of-way.

Acadian Sites

Thibodaux. A cultural resource survey of a portion of the Wetlands Acadian Cultural Center land was conducted in developing the site of the c. 1905 Percy-Lobdell Building and surrounding area in Thibodaux for use as an interpretive center. Although past soil disturbances affected much of

the area, the foundations of several 19th and 20th century structures were uncovered which led to the recovery of numerous artifacts. All of the project area has been designated as one site (16LF 164).

Lafayette. A cultural resources survey of a portion of Beaver Park, Lafayette, Louisiana, was conducted in 1989 when the park constructed the Acadian Cultural Center. The soil disturbances had affected the entire area and no intact cultural features or middens were uncovered. No archaeological sites were recorded during the course of the survey.

Eunice. The Prairie Acadian Cultural Center is housed in the building originally known as the Seale Building (c. 1920). The building is eligible for register status but because of the numerous interior renovations prior to NPS purchase it may no longer have integrity. There were no below ground disturbances and thus no cultural resource study was done prior to NPS renovations.

Structures

The Jean Lafitte National Historical Park and Preserve's List of Classified Structures, last updated in 1994, includes 18 historic structures; 11 of these are at Chalmette. The structures vary from monuments to cemetery walls to an historic house. Three of these structures are being used for administrative offices or cultural centers. The renovation and construction of 419 Rue Decatur is not complete at this time.

An *Inventory Condition Assessment Program* (ICAP) module, which is part of the Service's Maintenance Management program, could provide information on the park's historic resources and their condition. Another module/database called the *Historic Property Preservation Database* (HPPD) would provide park management information for setting priorities, allocating resources, and establishing work procedures for historic resource preservation. Completion of these databases and implementation of prescribed preservation treatments have been recently established as Servicewide standards (NPS-28 1994a). Neither database is currently available to the park.

Museum Collections

The park collection contains approximately 160,000 objects. The park's museum collection is divided into two major categories: the natural history collection and the cultural collection.

The natural history collection is divided into three disciplines: biology, geology and paleontology. At present the biology collection consists of 300 herbarium specimens which are housed under a loan agreement at Tulane University. The park has only two *animalia* in the collection: taxidermy species of roosters which are in the Prairie Acadian Cultural Center exhibit. Under geology, core sample and soil samples from the Acadian exhibit areas were accessioned and cataloged into the museum collections. There are no rock or mineral collections at the

present. There are no paleontological specimens in the park museum collection and no active research projects that may generate this type of collection.

The cultural collection is subdivided into three disciplines: archeology, history and ethnology. The Barataria Preserve has had seven archeological projects, which produced approximately 13,000 objects. Six of the seven projects recovered primarily prehistoric material, such as shell, ceramics, and faunal fragments related to the Coquille site. Other projects relate to the Canary Islander village sites, the Christmas Plantation site and additional aboriginal sites. Only a limited amount of historic material was acquired. At Chalmette there have been ten archeological projects with approximately 7,333 objects. The objects from these projects are primarily historic, dating predominately to the eighteenth and nineteenth centuries. In the Acadian Unit there have been four formal excavations, which produced approximately 1,500 objects. All of the objects date from the late nineteenth to the twentieth century. The majority of the artifacts are bottles related to the first use of the Percy-Lobdell building in Thibodaux as a wholesale warehouse for wine.

The history collection includes objects and archival materials that represent the interpretive themes of the park. The collection includes commemorative objects and archival materials relating to the Chalmette National Cemetery, e.g. cemetery records; several original objects such as cannonballs which relate directly to the Battle of New Orleans; a representative sample of subsistence implements that are pertinent to the Barataria Preserve; and numerous artifacts which were acquired for the three Acadian Cultural Centers exhibits.

At the present there are no objects cataloged as ethnology artifacts.

In 1993, the park reported five catalog records on the *NAGPRA Inventory, List of Human Remains and Associated Funerary Objects Identified as Culturally Affiliated With One or More Present-Day Indian Tribes*; these items are reported as potentially requiring repatriation under the Native American Graves Protection and Repatriation Act (NAGPRA).; there are 11 records in the catalogue of items for which no culturally affiliated present-day Indian tribe can be determined.

Curatorial storage and long-term maintenance of the park's collection is a primary concern of the park. At present there are two major curatorial issues. First, the diorama at Barataria is in extremely poor condition because of infestation. All of the taxidermy specimens need to be replaced. Second, the present storage facilities and their environment, security and fire detection/suppression systems are inadequate and do not meet NPS curatorial standards. The storage space planned at 419 Rue Decatur has already been evaluated as too small for the park's collection.

Cultural Landscapes

The importance of cultural landscapes has been addressed at the park. A study of the Chalmette Battlefield and Chalmette National Cemetery is currently underway. The goal is to understand

the remnants of the various historic landscapes that evolved (and were acquired) independently over time to compose the site's contemporary commemorative landscape. The Cultural Landscape Report (CLR) will include additional site history, existing conditions, analysis and evaluation, and treatment recommendations.

A cultural landscape study is also needed for the Barataria Preserve. "The natural setting of the park has been impacted by a spectrum of prehistoric and historic activities typical of [human] occupation of the Mississippi River Delta....The wilderness that is reinstating itself is not natural. It is rather a demonstration of the complex, aberrant interrelationships of natural and human history in the Mississippi River Delta" (Swanson, 3). A CLR would be very applicable to this area because it would also incorporate the ethnographic landscape. Historical trenasses, logging canals (e.g. Kenta Canal), irrigation ditches in the Christmas Plantation area, and a pecan grove make up a part of the cultural landscape.A CLR would document both historic and contemporary settlement patterns and their use and development over time.

Ethnographic Resources

The National Park Service began a "Park Applied Ethnography Program" as part of the Anthropology Division in 1981. This program was in direct response to two major pieces of legislation: the American Indian Religious Freedom Act (1978) and the National Environmental Policy Act (1969) which drew attention to contemporary living peoples who are affected by federal plans. Consequently, the NPS began to look at ethnographic resources.

Jean Lafitte National Historical Park and Preserve has focused its programs on contemporary living peoples/cultural diversity within the Mississippi Delta Region of southern Louisiana. The park's congressional mandate emphasizes the interpretation of resources traditionally associated with contemporary people and cultural systems within the region, as well as traditional natural and historical resources.

Ethnographic resources are recognized as a unique category of cultural resources that must be inventoried, evaluated and managed along with other resources in the National Park System. The important component which binds the wide variety of cultural and natural resources together is the knowledge of contemporary peoples and communities in a specific geographic area about these resources. Ethnographic resources serve to identify a component or aspect of known cultural resources that are significant to contemporary peoples and communities. Ethnographic resources apply to the special knowledge people have about resources and the location of these resources.

At the present time there is no ethnographic resource inventory (ERI) completed for the park. The cultural resource studies funded by the park provide a good foundation toward the identification of ethnographic resources. Documents such as the Mississippi delta ethnographic Overview (MDEO, 1979) detail the diverse cultural history of southern Louisiana. The ethnographic data in this massive work complements the work of other resource specialists. The identification of ethnographic resources in the park and the creation of inventories of specific resource types should be evaluated with reference to the following:

1. Compliance and consultation requirements of law and policy (e.g. NEPA, NHPA, AIFRA and NAGPRA);
2. Incorporation of selected data on resources into the park's interpretive programs;
3. Relationships to other types of cultural resources, natural resources and relevant management policies;
4. Standard types of ethnographic research as specified in NPS-28;
5. Determinations of eligibility for ethnographic resources which meet National Register criteria.

Interpretation programming in the visitor centers and cultural centers involves working with members of the numerous cultural groups. Activities such as craft and cooking presentations, storytelling, music and dance, portray aspects of these cultures to the visiting public. There are both positive and negative aspects to such programming. It can lead to an increased public awareness of the different traditions, cultures and people that are part of the delta region encouraging the conservation and preservation of material culture, and broadening the knowledge base and understanding within the park and the area.

However, it is very difficult to present a holistic view of a culture with interpretive programming. Often only a cursory view of traditional lifeways is provided for park visitors. In fact there is a tendency for visitors to look at ethnic communities "piece meal" when programming is devoted primarily to music, food, or stories. There is also a tendency toward the idealization and commercialization of a culture. Often the public does not see contemporary culture as living, changing, and dynamic, but rather as a stereotype. Often this leads to expectations that these stereotypes should be verified (e.g."How come there isn't a jazz funeral to see today?"). For many, it is more comfortable to keep these cultural images intact, and in fact, to want the cultures themselves to remain "frozen in time." Furthermore, the commercial success of feeding these steotypical images can influence the members of the cultural group. Indeed, the idealized images of one's culture can replace the actual cultural attributes being idealized for the members themselves.

Cajun culture, especially the music and food, has become a 'tourist commodity.' In fact New Orleans is often marketed as part of Cajun Louisiana, despite its historical seperation from Acadiana. This is another example of misconceptions concerning cultural traditions and lifeways which must be recognized in NPS programming.
A holistic approach to resource data collection and analysis is crucial to understanding the cultural diversity of Jean Lafitte National Historical Park and Preserve Ethnohistory studies, oral histories, and life histories of people and communities with traditional associations with park resources will help identify interpretation materials, expressive culture, and aspects of community life for the park. Other studies such as the rapid ethnographic assessment studies in the delta area will also help determine the variety of community views on managing park resources and also help to identify ethnographic resources.

The NPS Cultural Resource Strategic Plan (1997) recognizes the need for parks to identify and research associated cultural resources and to incorporate those resources into the broader

management of the park. The diversified peoples of the delta region are a living, changing, and dynamic resource. It is important for the park to continue to work with its neighbors.

IV. NATURAL RESOURCES MANAGEMENT PROGRAM

A. Overview of Current Program and Needs

The nature and magnitude of natural resource problems at Jean Lafitte reflect:

1. the park's geographic and administrative setting
2. its small size within the larger Delta region
3. proximity to major urban centers
4. threats from external sources; and
5. historic land use patterns.

The most challenging and critical natural issues are:

1. severe and accelerated erosion of shorelines
2. severely altered and unstable ecosystems; and
3. inadequate knowledge about park resources and their context within the delta region.

The management projects that follow in this plan are directed toward protecting and restoring "natural" conditions to the maximum extent feasible and toward fostering a relatively stable environment. Discovery and identification of the natural resource base is the first step in this process.

Ideally, management will not take action unless sound, defensible data are available. Unfortunately, in the past data has not been maintained with due care and valuable information has been lost. The park will treat data as an archivable resource; that is great care will be taken to ensure the preservation of information relevant to the integrity, purpose, and management of the park through time. Undoubtedly actions will be taken when there are information gaps, but every effort will be made to monitor and evaluate the effects of the actions.

In FY'98, the natural resource management program has 1.5 permanent FTE. The staff consists of a GS-9 Natural Resource Management Specialist and the Chief of Resource Management. The park has identified wildlife biologist, general physical scientist, wetlands ecologist, plant ecologist, and a second natural resource management specialist as necessary for a complete natural resource management staff. One seasonal employee, (0.1 FTE) is currently on staff doing data management. Efforts are being made to hire other temporary, part-time employees and interns to assist with many routine activities, particularly in the area of data collection and management.

B. List of Natural Resource Program Statements
Compiled from the RMP Database Program

Priority, Project Number, Project Title

0	JELA-N-001.001 Create Barataria Preserve Wetlands Predictive Model
0	JELA-N-001.002 Expand Barataria Ecological Database
0	JELA-N-001.008 Assess Pre-Diversion Nutrients
15	JELA-N-001.031 Hire Physical Scientist/Hydrologist
17	JELA-N-001.032 Hire Wetlands Ecologist
18	JELA-N-001.033 Hire Natural Resource Management Specialist
19	JELA-N-001.034 Hire Plant Ecologist
20	JELA-N-001.035 Hire Wildlife Technician
21	JELA-N-001.036 Hire Hydrology Technician
11	JELA-N-002.001 Establish And Maintain GIS
39	JELA-N-002.002 Contract Aerial Photography
44	JELA-N-003.001 Investigate And Model Canal Bank Erosion
2	JELA-N-003.003 Design And Construct Shoreline Erosion Barriers Lake Salvador
35	JELA-N-003.004 Construct Shoreline Stabilization Along GIWW
49	JELA-N-003.005 Design & Implement An Elevational
40	JELA-N-003.006 Monitor Subsidence And Vertical Accretion Rates
43	JELA-N-003.007 Determine Sediment Budget And Transport Systems
9	JELA-N-004.006 Monitor Salinity In Barataria Preserve
8	JELA-N-004.007 Develop Wetland Restoration Plan
22	JELA-N-004.008 Evaluate Wetland Seedbank Viability
3	JELA-N-004.009 Backfill Dead-End Canals To Restore Marsh
5	JELA-N-004.010 Ecological Survey Of Aquatic Organisms
4	JELA-N-004.011 Resurvey Of Surface Water Quality At Barataria
6	JELA-N-005.001 Evaluate Impacts And Controls Of Invasive Plant
12	JELA-N-005.003 Design An IPM Plan To Control Chinese Tallow
0	JELA-N-005.004 Monitor Tallow Invasion In Forested Wetlands
0	JELA-N-005.007 Assess Nutria Herbivory Impacts
41	JELA-N-005.008 Design Ipm Plan For Court Yard Wall 419 Decatur
10	JELA-N-005.010 Prepare Integrated Pest Mgmt Plan
0	JELA-N-005.011 Modelling Risk Of Chinese Tallow Invasion
24	JELA-N-007.001 Remove Hazardous Oil Well Heads In Barataria
36	JELA-N-007.003 Develop Oil Spill/Hazmat Contingency Plan
13	JELA-N-007.004 Restore Abandoned Oilfield At Wood Duck Trail
0	JELA-N-007.005 Manage Geophysical Exploration Operations
28	JELA-N-008.001 Create A Fisheries Management Plan
1	JELA-N-008.002 Evaluate And Manage Effects Of Deer Overbrowsing
48	JELA-N-009.001 Monitor Air Quality At The Chalmette Unit
47	JELA-N-009.002 Monitor Air Quality At The Barataria Unit
37	JELA-N-011.001 Monitor Large Mammal Populations
27	JELA-N-011.003 Inventory Fisheries
32	JELA-N-011.005 Inventory Terrestrial Invertebrates

26	JELA-N-011.006 Inventory Aquatic Invertebrates
34	JELA-N-011.008 Monitor Neo-Tropical Migrant Habitat Utilization
38	JELA-N-011.009 Conduct Alligator Survey
0	JELA-N-011.010 Establish Neo-Tropical Migrant Monitoring
14	JELA-N-011.011 Monitor Neotropical Migrant Breeding Population
31	JELA-N-011.012 Inventory Small Mammals
42	JELA-N-011.013 Develop Database For Wildlife Observations
33	JELA-N-011.014 Monitor Reptile And Amphibian Populations
50	JELA-N-013.001 Reintroduce Eastern Wild Turkey
51	JELA-N-013.002 Reintroduce Bobcats In The Barataria Preserve
52	JELA-N-013.003 Reintroduce Fox Squirrel In The Barataria Preserve
30	JELA-N-014.001 Conduct A Botanical Survey Of The Barataria Preserve
25	JELA-N-014.002 Inventory And Map Submerged Aquatic Vegetation
29	JELA-N-014.003 Conduct Botanical Survey Of Chalmette, Acadian Sites
23	JELA-N-014.004 Establish Native Plant Propagation Program
7	JELA-N-014.005 Assess Effects Of Sea Level Rise On Forest Composition
46	JELA-N-015.000 Develop A Fire Management Plan

Total: 59 Projects

C. Project Statements
Taken directly from the RMP Database Program

Project Statement JELA-N-001.001

Last Update: 08/21/98 Priority: 0
Initial Proposal: 1994

Title : CREATE BARATARIA PRESERVE WETLANDS PREDICTIVE MODEL
Sub-title: MONITORING; BASELINE DATA

Funding Status: Funded: 700.00 Unfunded: 0.00

Servicewide Issues : N09 (COASTAL DYNAM)
N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : G00 (Geologic Resources Management)
G05 (Shoreline Management)

10-238 Package Number :

Problem Statement

The Barataria Preserve Unit is greatly influenced by the regional problems of subsidence, salt water intrusion, rapid erosion, sediment deprivation, and excessive herbivory by the non-native nutria (Myocastor coypus). Marsh loss is inevitable and techniques to reduce these losses are very costly and intrusive. More needs to be known before management can begin manipulating this environment to restore natural systems.

Description of Recommended Project or Activity

Develop a user-interactive predictive model for the Barataria Preserve. Historic maps annotating vegetation and historic aerial photography have been collected and interpreted. Maps and data sets have been submitted to a contractor or principle investigator with experience in modeling the Louisiana Delta. A wetlands model will be designed for the park and buffer areas to direct management strategies. The application of the model to fit the Barataria region continues to involve assembling the data, scaling down an existing larger scaled model, tuning and validating the model for Barataria, and evaluating the results of the model with predictive data sets. Scenarios to evaluate the Barataria project will include:

1. Response of the habitat to water level.
2. Effectiveness of various types of water control structures in managing salt and sediment concentrations.
3. Effects of introduction of freshwater and sediment into managed areas.
4. Effects of local subsidence on habitat distribution.
5. Effects of installation and later abandonment of structures (such as weirs, flap-gates and impoundments).
6. Effects of eustatic sea level rise.
7. Effects of breaching spoil banks.
8. Effects of nutria herbivory ("eat-outs").

Results will consist of a Marsh Management computer model with an assessment of the level of predictive capability to be expected with various kinds of data input. Potential management strategies will be evaluated with respect to the modeling results and will cover management stratagies through 2050.

BUDGET AND FTEs:

			FUNDED		
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1994:	FED-OTHER	RES	One-time	100.00	0.00
	PKBASE-NR	ADM	One-time	10.00	0.10
	PKBASE-NR	RES	One-time	20.00	0.00
	NRPP	RES	One-time	100.00	0.00

			Subtotal:	230.00	0.10
1995:	FED-OTHER	RES	One-time	100.00	0.00
	PKBASE-NR	ADM	One-time	10.00	0.10
	FED-OTHER	RES	One-time	50.00	0.00
	NRPP	RES	One-time	100.00	0.00
			Subtotal:	260.00	0.10
1996:	NRPP	RES	One-time	100.00	0.00
	FED-OTHER	RES	One-time	100.00	0.00
	PKBASE-NR	ADM	One-time	10.00	0.10
			Subtotal:	210.00	0.10
			Total:	700.00	0.30

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-001.002

Last Update: 12/09/97 Priority: 0
Initial Proposal: 1996

Title : EXPAND BARATARIA ECOLOGICAL DATABASE
Sub-title:

Funding Status: Funded: 82.40 Unfunded: 0.00

Servicewide Issues : N09 (COASTAL DYNAM)
N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : G00 (Geologic Resources Management)
G05 (Shoreline Management)

10-238 Package Number :

Problem Statement

Marsh on the western boundary of the Barataria Preserve is eroding at a rate up to 30 feet per year. Man-made canals facilitate salt water intrusion, divert freshwater and nutrients from the marshes, and erode protective spoil banks with their widening channels. The Preserve has been cut off from mineral sediment input for decades. Herbivory by the exotic nutria (Myocastor coypus) can lead to increased erosion. In late 1993 the park began an NRPP project with Dr. Tom Doyle of the National Biological Service and Dr. Chris Swarzenski of the U.S. Geologic Survey to create a predictive model to address these problems. Based on data collected within the marsh and in waterways, the model will predict outcomes from various scenarios such as installation of water control structures, introduction of freshwater and sediment, and habitat response to changes in water levels.

The combined contribution of money and resources achieved through this interagency partnership allowed the park to receive far more product than what NRPP funded. Their data collection includes: installing and maintaining 16 continuous water and marsh level recorders; monitoring salinity and inundation at over 200 points, repeated dozens of times; total and monthly biomass measurements using clip-plots at 30 locations; determining species composition by

sorting all clip plots to the species level; conducting replicate nutrient and sulfides tests over the past two years; characterizing the substrate using sediment cores; and conducting elevation surveys throughout the study area. Field technicians have been working in the park approximately every other week since the project began. Once the model is complete a much less intense monitoring regime will be necessary to reflect current conditions in the park.

This project will end in September 1996. The park would like to continue this collaboration, at a less intense level, for two more years to expand the research effort into the swamp forest.

In these wetlands, elevational differences of only a few centimeters result in striking changes in vegetation (Darwin & Thien 1983). The park's swamp and intermediate swamp communities are close to marsh elevation. The swamp community, co-dominated by bald cypress and water tupelo, with sub-dominants swamp red maple, pumpkin ash, wax-myrtle and button-bush, is susceptible to changes in hydroperiod caused by subsidence or increased water levels. Bald cypress and water tupelo regeneration appears restricted to nurse stumps and small mounds. As water level rises more of this forested zone will be flooded and likely to convert to marsh or ponded condition. Increasing salinities could also impact the swamp. "Ghost forests" exist south of the Preserve where saltwater intrusion is suspected to have killed entire wetlands complexes. Additionally, research in Louisiana has demonstrated nutria herbivory plays a role in forest degradation, and can prevent cypress regeneration in swamps.

Continuing the wetlands research started with the NRPP project allows us to use the existing research team and infrastructure already in place. The existing dataloggers, specially modified airboat, survey information, and the expertise of the researchers would be impossible to replicate if the park attempted to re-start the project after an extended break.

Description of Recommended Project or Activity

The park will continue some monitoring in the current study area and expand the project to include forested wetlands to the east. Dr. Tom Doyle at the National Biological Survey and Dr. Chris Swarzenski at the U.S. Geologic Survey will remain the principal investigators. Existing equipment will be relocated and used to the extent possible.

Study Objectives

This study will characterize the hydroperiod and extent of forest flooding, existing salinities, and effects of nutria herbivory in the Preserve's swamp forests. Specific tasks are:

1. Survey and contrast the Bayou des Familles east slope and Bayou Barataria ridge for differences in structure and function.

2. Identify and characterize the fragmented units of forest origin and condition within the Preserve.

3. Monitor hydrological flow and water level for select hydrologic units in the marsh and forest.

4. Conduct elevation surveys across forest ridge and slope along natural distributaries.

5. Collect and manage field data for data storage, analysis, and mapping into existing resource database.

6. Assess differences in hydroperiod in select forest basins for use in landscape simulation model and evaluating ecosystem management alternatives.

Study Methods

Existing dataloggers in the field will be prioritized by location in marsh and forest dominated management units to sustain a water level monitoring program for the Preserve's wetland complex. Select dataloggers will relocated into hydrologic station in the network will be visited monthly to download data.

Laser level survey equipment will be provided by the National

Wetlands Research Center to conduct a series of cross ridge surveys of landform by distributray and hydrologic unit. Transects will be uniformly distributed along select reaches of the natural forest ridges to approximate land elevation and slope. Surveys will tie in newly installed hydrostations to calibrate actual water heights based on National Geodetic Vertical Datum (NAV88).

Assessments of vegetative type, structure, and condition will accompany survey transect points every 30-50 meters through the forest interior and marsh transition zone.

Nutria herbivory will be measured by using test cypress plantings. Two treatments, cypress seedlings with herbivore excluders and cypress seedlings without herbivore excluders, will be compared to a control site (no plantings).

Data gathered for each station and transect will be verified and transformed into digital format for processing. Assessments of differences in hydrologic regime will be completed with a partial data set to contrast water level conditions in various subbasins. Data will be added to the user-interactive predictive model for the Barataria Preserve. Results will include an interactive computer model with an assessment of the level of predictive capability to be expected with various kinds of data input and will evaluate management alternatives to sustain and enhance forest function.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1996:	RG-RM-NAT	RES	One-time	32.40	0.70
1997:	RG-RM-NAT	RES	One-time	50.00	0.30
			Total:	82.40	1.00

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

If the park does not continue the on-going research in the Preserve we will not be able to finish the work we have started. It will be difficult, if not impossible, to replicate the resources available to the park through this project. The principal investigators have made use of contractors, volunteers, co-op students, and colleagues at their agencies to provide the park the best available science at the lowest possible cost. The predictive model could be completed without including the swamp forest but will not provide as comprehensive a picture of effects from park actions and inactions.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-001.008

Last Update: 04/15/98 Priority: 0
Initial Proposal: 1995

Title : ASSESS PRE-DIVERSION NUTRIENTS
Sub-title: RESEARCH & MONITORING

Funding Status: Funded: 80.50 Unfunded: 0.00

Servicewide Issues : N20 (BASELINE DATA)
N11 (WATER QUAL-EXT)

Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number :

Problem Statement

The U.S. Army Corps of Engineers (USCOE) is planning a major diversion of Mississippi River water into the Barataria Basin, including the park's Barataria Preserve Unit. The Davis Pond Freshwater Diversion Structure, with a point of delivery some four miles northwest of the Preserve, is scheduled to open in 1999. When functional, this structure will pump approximately 10,000 cfs of sediment, nutrient, and pollutant laden waters into the Preserve's wetland environment.

Historically, the northern end of the Barataria Basin, including the 18,500 acre Preserve, was freshwater wetlands. Rainfall and seasonal flooding by the Mississippi River kept salinity very low and these marshes support a variey of salt intolerant emergent vegetation. Since 1927, the flood control levees around the Mississippi River have completely cut off the river's freshwater and sediment input in the basin. As a result of this freshwater and sediment deprivation and resulting subsidence, shoreline erosion and increased salinity threaten the integrity of this dynamic coastal environment.

The USCOE Davis Pond Diversion is designed to restore the historical salinites in the basin by bringing nutrient rich freshwater into the

upper Barataria, including the Preserve. Unfortunately, the waters of the Mississippi River to be diverted contain the agricultural and industrial effluents of almost one-third of the continental United States. Diversion waters are expected to contribute beneficial sediment and freshwater as well as harmful herbicides, pesticides, fertilizers, petrochemical processing waters, and other pollutants.

The effects of these substances on this wetland system are unknown. Of particular concern is the unique floating marsh communities that could convert to open water if the below ground decomposition rate increases enough to destabilize the floating vegetative mat or the Midwest herbicide "flush" reduces the viability of the marsh vegetation. Similar floating marshes in another low-salinity region of the Mississippi River Delta plain have converted to open water and organic "soups" when subjected to increased input of Mississippi River water. Elevated nutrients may cause shifts in species of emergent vegetation. In particular, Typha spp. may become much more dominant in the park. Typha spp. have invaded areas of Everglades National Park near areas where phosphorus-rich waters are discharged, displacing established plants, such as saw-grass. Suspended microphytes, such as algaes and phytoplankton, and submerged aquatic vegetation (SAV) may also be impacted by the changes in nutrient concentrations.

Dr. Charles Sasser, a leading floating marsh expert, published Vegetation Dynamics in Relation to Nutrients in Floating Marshes in Louisiana, USA in April 1994. One of the five research needs he targets is nutrient budgets: "In general, data on the nutrient status of floating marshes in the [Mississippi River Delta Plain] are incomplete or lacking. Studies are necessary to obtain adequate data to develop nutrient mass balances for the floating marsh types."

This lack of information makes it difficult for the park to predict effects of the diversion on the Preserve and to assess changes and impacts from the diversion once it is operational.

Description of Recommended Project or Activity

RESEARCH

Phase 1: Since 1996, the park has been working with the USGS to

implement this phase of pre-diversion monitoring. This research has been funded by park operating funds, NPS regional science funds, the USGS district office, and the USGS-BRD.

1) Above-ground vegetation Peak above ground productivity by species will be monitored at sites selected for current emergent vegetation, and location relative to the expected entry of diverted water into the park. Productivity will be measured twice annually, in June and September, using replicate plots.

2) Below-ground roots Below ground productivity is measured using bags stuffed with matrix to capture root growth. Growth is measured once a year by retrieving the bags.

3) Porewater Porewater nutrients (Total Kjehldahl nitrogen, ammonia, nitrate+nitrite, and total and total and soluble reactive phosphorus) are sampled at 15, 45 and 80 cm depth, corresponding to the mobile and stationary portions of the substrate. Sampling occurs nine times each year.

4) Turbidity Suspended sediment in open water is measured relative to water clarity using a secchi disk.

5) Plant tissue Total NPK and other micro-nutrients is measured form select species once a year.

6) Substrate At 15 and 45 cm depth, total N and P is measured once a year.

7) Root-mat integrity The integrity is determined by measuring mineralization rates in mid-summer, by quantifying rubbed fiber content, and by measuring schlerencyhma content of below-ground tissue.

8) Water levels Changes to marsh flooding parameters will be evaluated for depth duration and frequency of marsh inundation using existing gages.

Phase II: If funded, the following parameters will be added to the existing pre-diversion monitoring effort.

9) Open Water Nutrients Open water samples from canals, bayous, ponds, and lakes will be analyzed for total Kjehldahl nitrogen, ammonia, nitrate+nitrite, and total and soluble reactive phosphorus. Samples will be taken monthly with increased sampling during storm

episodes.

10) Suspended Microphytes Open water samples from canals, bayous, ponds, and lakes will be analyzed for chlorophyll content as a indication of algae and phytoplankton productivity.

11) Expansion of Typha spp. Existing aerial photography will be photo-interpeted adn ground-truthed to determine pre-diversion distribution adn abundance of Typha patches.

RESEARCHERS
Research activities are supervised by two investigators who have worked extensively in the park. The researchers are Dr. Chris Swarzenski of the USGS Water Resources Division in Baton Rouge, Louisiana, and Dr. Thomas Doyle fo the USGS Biological Resources Division in Lafayette, Louisiana.

ANTICIPATED PRODUCTS
A) Written report in both hardcopy and digital formats that contains:
    a. description of pre-diversion conditions based on monitored parameters
    b. descriptions of monitoring techniques used
    c. recommendations for post-diversion monitoring
B) Written summary report not exceed five pages
C) Spatial data in both in both digital (ArcView 3.0) and hardcopy
D) All original data sheets, maps, lab records, and field notes to be accessioned in the park's archives

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			FUNDED		
1996:	FED-OTHER	RES	One-time	12.00	0.10
	RG-RM-NAT	MON	One-time	5.00	0.10
	RG-RM-NAT	RES	One-time	21.50	0.10

		Subtotal:	38.50	0.30
1997:	FED-OTHER RES	One-time	12.00	0.10
	RG-RM-NAT RES	One-time	21.50	0.10
		Subtotal:	33.50	0.20
1998:	RG-RM-NAT MON	One-time	8.50	0.10
		Total:	80.50	0.60

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

If pre-diversion monitoring is not undertaken, it will be difficult or impossible to assess the impact of the diversion on park resources. Consequently, it will not be possible to differentiate between diversion impacts and other more controllable impacts (ie. subdivision stormwater pumping) to this fragile environments. More fundamentally, quantitative pre-diversion and post-diversion monitoring demonstrates responsible park stewardship and our efforts to understand this dynamic environment.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-001.030

Last Update: 08/21/98 Priority: 15
Initial Proposal: 1995

Title : HIRE WILDLIFE BIOLOGIST
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 212.00

Servicewide Issues : N24 (OTHER (NATURAL))

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W09 (Hunted and Trapped Species Management)

10-238 Package Number :

Problem Statement

The park's enabling legislation specifically provides for hunting, trapping, oil and gas activities, commercial fishing, and recreational fishing in the Barataria Preserve Unit. The impact of these activities on the park's wildlife resources and habitats appears to be extensive, but has not been adequately evaluated. Additionally, the park has numerous responsibilities related to basic inventory and monitoring of wildlife resources and their habitats. Currently the park lacks the expertise to effectively evaluate wildlife resource condition or make scientifically- valid and legally-defensible management decisions regarding these activities. A GS-486-07/09/11 Term Wildlife Biologist (NTE 2 years) is needed to help the park immediately address several major wildlife issues.

Two GPRA goals in particular will be extremely difficult to attain without additional staff with wildlife expertise:

1a1A. By September 30, 2002, 50% of JELA's natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and clutral context.

1b01. By September 30, 2002, complete five of the resource

baseline inventories listed in the Resource Managmenet Plan and monitoring activitis are ongoing.

The most pressing wildlife needs to be addressed during the tenure of this position are as follows:

- Attempts to gain funding to contract with Louisiana State University to fund development of a Hunting Management Plan have failed repeatedly, thus the park still has no basis on which to establish hunting seasons and restrictions as provided for in our enabling legislation. Many areas of the park appear to be overbrowsed, and seedling regeneration is low in areas closed to hunting. A deer study as previously designed will be conducted in-house with limited technical assistance provided by various NPS offices and local experts. Based on the results of the deer study, a hunting management plan will be developed and implemented.
- As a result of court action, an approved Trapping Management Plan is in place but its success in meeting established nutria reduction goals remains unevaluated and some legal requirements are poorly met due to lack of staff. Nutria eat-outs will be more comprehensively assessed and trapping pressure will be targeted to those areas. Additionally, the effectiveness of the current trapping and direct reduction programs will be evaluated.
- A complete fisheries inventory does not exist for the park and recreational and commerical fishing activities continue at undetermined levels with unknown effects on aquatic communities. Existing fisheries data for the park will be compiled and data gaps will be identified. RMP project statements and funding proposals will be developed as needed to address inadequacies.
- Harvested fin- and shell- fish are of unknown suitability for human consumption as the area has many problems with heavy metal and organochloride contamination. While government agencies and academic institutions often conduct fish tissue analysis in the Barataria basin, the park lacks the staff and expertise to attract such research to the park. The park will more fully participate in regional efforts related to this issue in order cooperate in tissue sampling programs.
- A five year study was initiated in 1998 for the Acadiana-Pontchartrain Assessment area (including the Barataria Preserve) of the USGS National Water Quality Assessment program. This regional study represents an opportunity to gather much needed ecological data related to aquatic wildlife populations and habitats; however, the park lacks the staff and expertise to fully realize the potential of this program to address many management issues.

Description of Recommended Project or Activity

Obtain FTE, write position description, advertise and fill the position. This position would most likely be a GS-0486-11.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	Recurring	50.00	1.00
Year 2:	ADM	Recurring	52.00	1.00
Year 3:	ADM	Recurring	54.00	1.00
Year 4:	ADM	Recurring	56.00	1.00
		Total:	212.00	4.00

(Optional) Alternative Actions/Solutions and Impacts

If a wildlife biologist is not hired, many pressing wildlife issues will continue to go unaddressed. There is a very real potential that legal action, especially regarding hunting and commerical fishing, will force wildlife issues into the courtroom where resource management decisions will be made by judges and juries.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.1

Project Statement JELA-N-001.031

Last Update: 08/21/98 Priority: 16
Initial Proposal: 1995

Title : HIRE PHYSICAL SCIENTIST/HYDROLOGIST
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 212.00

Servicewide Issues : N24 (OTHER (NATURAL))

Cultural Resource Type:

N-RMAP Program codes : G00 (Geologic Resources Management)

10-238 Package Number :

Problem Statement

Massive hydrological and sediment resource modifications and rapid urbanization have altered water and sediment flow within the preserve, leading to severe erosion and degraded water quality. A position is needed to coordinate with other agencies involved in a larger effort, basin-wide efforts to restore hydrology and sediment distribution in the estuary as a whole. Duties would include design and monitoring of erosion control projects and water control structures; monitoring water and air quality; monitoring hydrology, sediment distribution, nutrient movement, subsidence, accretion and erosion; and coordinating efforts to improve water quality from non-park sources.

Description of Recommended Project or Activity

Obtain FTE, write position description, advertise, and fill the position. This position would most likely be classified as a GS-1301-11.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	Recurring	50.00	1.00
Year 2:	ADM	Recurring	52.00	1.00
Year 3:	ADM	Recurring	54.00	1.00
Year 4:	ADM	Recurring	56.00	1.00
		Total:	212.00	4.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP.2, 1.1

Project Statement JELA-N-001.032

Last Update: 08/21/98 Priority: 17
Initial Proposal: 1994

Title : HIRE WETLANDS ECOLOGIST
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 252.00

Servicewide Issues : N24 (OTHER (NATURAL))
N20 (BASELINE DATA)

Cultural Resource Type:

N-RMAP Program codes : V00 (Vegetation Management)

10-238 Package Number :

Problem Statement

Jean Lafitte is situated in the delta of the Mississippi River. The Barataria Preserve Unit consists of approximately 20,000 acres of hardwood forest, cypress swamp and freshwater marsh. Rapid marsh erosion, salt water intrusion, exotic species proliferation, water quality deterioration, and the unique managment challenges of a flotant marsh system are a few of the issues that must be specificly addressed to maintain the integrity of this threatened natural area. The region is undergoing a massive effort at research and planning by federal and state agencies, university and private researchers, and concerned citizens to address the needs to the nation's largest and most thrreatened wetland area. Relying on state, NBS, and other non-NPS wetlands experts for consultation is no longer adequate to meet resource management needs, or to remain connected to the rapidly changing scientific and management picture. The most recent park operations evaluation iterated this deficiency in the resource management program.

The incumbent would have responsibility for the supervision and coordination of the Natural Resource Branch of the Resource Management Division. Duties would include leading natural resource management team planning and implementation, conducting and overseeing research on ecological functions, and overseeing resource

management plan implementation.

Description of Recommended Project or Activity

Write a position description for a wetlands ecologist within the resource management organization at the GS-12 level as outlined in the park operations evaluation. This grade level ensures candidates will have the experience and professional stature to determine, design and execute long term wetlands management goals. Advertise and fill the position as soon as possible.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	Recurring	60.00	1.00
Year 2:	ADM	Recurring	62.00	1.00
Year 3:	ADM	Recurring	64.00	1.00
Year 4:	ADM	Recurring	66.00	1.00
		Total:	252.00	4.00

(Optional) Alternative Actions/Solutions and Impacts

The alternative is no wetlands specialist being hired. The park would continue operating without the necessary expertise to most effectively manage its threatened natural areas.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.1

Project Statement JELA-N-001.033

Last Update: 08/21/98 Priority: 18
Initial Proposal: 1995

Title : HIRE NATURAL RESOURCE MANAGEMENT SPECIALIST
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 212.00

Servicewide Issues : N24 (OTHER (NATURAL))

Cultural Resource Type:
N-RMAP Program codes : E00 (Environmental Planning and Compliance)

10-238 Package Number :

Problem Statement

The positiion is needed as a headquarters office position to coordinate environmental compliance activities, IPM program management, and other natural resource management functions that affect all park units. Duties would include preparation of environmental compliance documents under NEPA and Environmental Assessments for park projects; coordination of Coastal Zone Management Act and federal wetlands regulation compliance and consistency; coordination of all mining and minerals activities, including on-going oil and gas operations; implementation of the park-wide IPM program; review of scientific research proposals and issuance of collection permits; and threatened and endangered species program coordination.

Description of Recommended Project or Activity

Obtain FTE, write position description, advertise, and fill the position. This position would most likely be a GS-401-11.

BUDGET AND FTEs:

FUNDED				
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			Total:	0.00	0.00

UNFUNDED				
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:		ADM	Recurring	50.00	1.00
Year 2:		ADM	Recurring	52.00	1.00
Year 3:		ADM	Recurring	54.00	1.00
Year 4:		ADM	Recurring	56.00	1.00
			Total:	212.00	4.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Description of Recommended Project or Activity

The park has acquired and maintains an ESRI ArcView GIS system and acquire data layers as needed. Park personnel have been trained in it's use and an appropriate metadata collection system is in place. The park also participates as appropriate in the interagency Lower Mississippi Valley GIS Steering Committee. Digital data acquitision is on-going.

Project Statement JELA-N-001.034

Last Update: 08/21/98 Priority: 19
Initial Proposal: 1995

Title : HIRE PLANT ECOLOGIST
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 212.00

Servicewide Issues : N24 (OTHER (NATURAL))

Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V04 (Exotic Plant Management)

10-238 Package Number :

Problem Statement

The position is critically needed to help the park manage relict natural levee forests, mature baldcypress forests, old growth palmettos, and the unique plant communities of the preserve's marsh, a portion of the largest floating marsh system on the continent. Duties would include inventorying plant species, vegetation mapping and GIS management; threatened and endangered species; monitoring populations; exotic species monitoring and control; and coordination with other agencies.

Description of Recommended Project or Activity

Obtain FTE, write position description, advertise, and fill the position. This position would most likely be at GS-408-11 (Botanist).

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	Recurring	50.00	1.00
Year 2:	ADM	Recurring	52.00	1.00
Year 3:	ADM	Recurring	54.00	1.00
Year 4:	ADM	Recurring	56.00	1.00
		Total:	212.00	4.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP.2, 1.1

Project Statement JELA-N-001.035

Last Update: 08/21/98 Priority: 20
Initial Proposal: 1995

Title : HIRE WILDLIFE TECHNICIAN
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 132.00

Servicewide Issues : N24 (OTHER (NATURAL))

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W05 (Exotic Animal Management)

10-238 Package Number :

Problem Statement

The position is critically needed to help the park manage legislatively mandated hunting and trapping programs, severe threats from exotic species, and to meet policy and sound resource management needs. Duties would include assisting project leader (Wildlife Biologist) in conducting and directing research on animal populations; preparing inventories; monitoring populations; game population monitoring for hunting; furbearer monitoring for trapping; threatened and endangered species inventory and monitoring; monitoring colonial waterbird rookeries, neotropical migratory birds; exotic species impacts and control; and species re-introductions.

Description of Recommended Project or Activity

Obtain FTE, write position description, advertise, and fill the position.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	Recurring	30.00	1.00
Year 2:	ADM	Recurring	32.00	1.00
Year 3:	ADM	Recurring	34.00	1.00
Year 4:	ADM	Recurring	36.00	1.00
		Total:	132.00	4.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP.2, 1.1

Project Statement JELA-N-001.036

Last Update: 08/21/98 Priority: 21
Initial Proposal: 1995

Title : HIRE HYDROLOGY TECHNICIAN
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 132.00

Servicewide Issues : N24 (OTHER (NATURAL))

Cultural Resource Type:

N-RMAP Program codes : G00 (Geologic Resources Management)

10-238 Package Number :

Problem Statement

This position is needed to assist program leader in undertaking field work. Massive hydrological and sediment resource modifications and rapid urbanization have altered water and sediment flow within the preserve, leading to severe erosion and degraded water quality. Duties would include assisting in the design and monitoring of erosion control projects and water control structures; monitoring water and air quality; and monitoring hydrology, sediment distribution, nutrient movement, subsidence, accretion and erosion, and water quality from non-park sources.

Description of Recommended Project or Activity

Obtain FTE, write position description, advertise, and fill the position.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	Recurring	30.00	1.00
Year 2:	ADM	Recurring	32.00	1.00
Year 3:	ADM	Recurring	34.00	1.00
Year 4:	ADM	Recurring	36.00	1.00
		Total:	132.00	4.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP.2, 1.1

Project Statement JELA-N-002.001

Last Update: 08/21/98 Priority: 11
Initial Proposal: 1994

Title : ESTABLISH AND MAINTAIN GIS
Sub-title: RESEARCH; BASELINE DATA

Funding Status: Funded: 2.50 Unfunded: 40.00

Servicewide Issues : N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : C00 (Collections and Data Management)
C03 (GIS/Data Management)

10-238 Package Number :

Problem Statement

Desktop GIS capabilities (ArcView) are used for analysis and manipulation of multiple data sets in resource management decision making. Data acquisition and management is an on-going activity. Additionally, as the technology is rapidly evolving, staff training and software/hardware upgrades are an on-going need.

The delta region has a large number of Federal, State and Parish land management agencies, and is the subject of a concerted effort at increased data collection. Existing data sets relevant to the park have been compiled but need to be acquired for the park's system. Data sets include topographical maps, land use maps, hydrological maps, hydrological data, soils maps, wetlands and floodplain maps.

More complex GIS needs should be addressed through an interagency agreement with the USGS-BRD National Wetlands Research Center, located in Lafayette, Louisiana, which has a state-of-the-art GIS mapping facility.

Description of Recommended Project or Activity

The park has acquired and maintains an ESRI ArcView GIS system and acquire data layers as needed. Park personnel have been trained in it's use and an appropriate metadata collection system is in place. The park also participates as appropriate in the interagency Lower Mississippi Valley GIS Steering Committee. Digital data acquitision is on-going.

For more complex GIS needs, we will establish an interagency agreement to codify the desired GIS sharing between the National Wetlands Research Center and Jean Lafitte NHP&Pr. The agreement should outline an initial stage for establishing park specific databases and allow for a long term cooperation.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1997:	PKBASE-NR	RES	One-time	2.50	0.10
			Total:	2.50	0.10

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	10.00	0.10
Year 2:	RES	Recurring	10.00	0.10
Year 3:	RES	Recurring	10.00	0.10
Year 4:	RES	Recurring	10.00	0.10
		Total:	40.00	0.40

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-N-002.002
Priority: 39

Last Update: 04/02/97
Initial Proposal: 1994

Title : CONTRACT AERIAL PHOTOGRAPHY
Sub-title: MONITORING; BASELINE

Funding Status: Funded: 0.00 Unfunded: 48.00

Servicewide Issues : N20 (BASELINE DATA)
N04 (NON-NAT ANIMAL)

Cultural Resource Type:
N-RMAP Program codes : G00 (Geologic Resources Management)
G05 (Shoreline Management)

10-238 Package Number :

Problem Statement

Jean Lafitte uses aerial photographs to monitor and document: rates of marsh loss and shoreline erosion; short and long term vegetative succession; areas of pest damage; identify cultural sites and landscape changes; and monitor boundary encroachments and adverse uses. This type of broad scope data cannot be adequatly assessed from ground observations. Without periodic aerial photographs the park does not know if resource management projects in these important areas have been successful and cannot identify areas of future concern.

Description of Recommended Project or Activity

The park does not have the equipment or personnel to conduct overflights. Other federal or state agencies will be contracted to take aerial photographs of the park at least twice a year. This would provide enough information to assess the damage caused by erosion and pests, monitor resources, and to aid in management planning.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	Recurring	12.00	0.20
Year 2:	MON	Recurring	12.00	0.20
Year 3:	MON	Recurring	12.00	0.20
Year 4:	MON	Recurring	12.00	0.20
		Total:	48.00	0.80

(Optional) Alternative Actions/Solutions and Impacts

Without aerial photographs the park will not be able to locate new sites of vegitative damage, monitor areas of succession, or determine the rate the park is eroding. Lacking this information, projects to control these impacts will not be adequately designed and implemented and these negitative forces will continue to irreversibly damage the park.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-N-003.001
Priority: 44

Last Update: 03/21/96
Initial Proposal: 1994

Title : INVESTIGATE AND MODEL CANAL BANK EROSION
Sub-title: MONITORING; BASELINE DATA

Funding Status: Funded: 0.00 Unfunded: 30.00

Servicewide Issues : N06 (LAND USE PRAC)
N09 (COASTAL DYNAM)

Cultural Resource Type:
N-RMAP Program codes : G00 (Geologic Resources Management)
G05 (Shoreline Management)

10-238 Package Number :

Problem Statement

Many man-made canals cross the Barataria Preserve Unit. These waterways are subject to varying intensities of boat traffic and tidal scour. Sediment and shoreline loss is experienced in all canals. This land loss threatens to alter topography and corresponding community architecture. Rates of canal bank erosion should be studied to assist the park in formulating means of mitigating or preventing these losses.

Description of Recommended Project or Activity

Design and implement a study of canal bank erosion in Barataria. Historical maps and aerial photographs will be used to estimate long term rates of loss. Monitoring sites will be developed to determine areas of rapid erosion. The study will be designed to illuminate current erosion processes as well as predict future problems. Information collected will be used in the design of canal bank erosion control projects in areas of concern, and to formulate future regulations.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	10.00	0.20
Year 2:	MON	One-time	10.00	0.20
Year 3:	MON	One-time	10.00	0.20
		Total:	30.00	0.60

(Optional) Alternative Actions/Solutions and Impacts

No action would perpetuate the continued loss of sediment due to man-made physcial alternations in the park. This is inconsistant with NPS management policies. If erosion control is not implemented these processes along with the erosion occuring on the Lake Salvador shoreline could lead to the eventual loss of critical habitat.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP.2, 1.6

Project Statement JELA-N-003.003

Last Update: 03/21/96 Priority: 2
Initial Proposal: 1994

Title : DESIGN AND CONSTRUCT SHORELINE EROSION BARRIERS
Sub-title: LAKE SALVADOR

Funding Status: Funded: 2000.00 Unfunded: 2000.10

Servicewide Issues : N09 (COASTAL DYNAM)

Cultural Resource Type:
N-RMAP Program codes : G00 (Geologic Resources Management)
G05 (Shoreline Management)

10-238 Package Number :

Problem Statement

Shoreline erosion on the east shore of Lake Salvador is taking place at a rate measured at up to 30 feet per year. Valuable estuarine wetlands are disappearing at a rate in excess of the natural rate of erosion. This accelerated rate of erosion is a consequence of human alterations to the delta envrironment primarily due to the leveeing and channelizing of the Mississippi River and the subsequent depletion of fresh water and sediment inputs into the marshes. In addition, the building of several canals has resulted in the isolation of the lakeshore marshes from nourishing sheet flow.

Description of Recommended Project or Activity

A plan of action needs to be established with other agencies affected or involved with shoreline erosion on Lake Salvador. A method must be found to reduce wave action on the delicate Lake Salvador shoreline and to encourage the building of new marsh.

This will involve the construction of barriers to reduce the force of waves which are breaking up the organic marsh substrates along

the shoreline. Ideally, these barriers should be designed in such a way as to encourage the deposition of suspended lake sediments and the creation of new marsh. New sources of sediment should be identified and transport mechanisms designed and implemented.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1994:	ST-LOCAL	MIT	One-time	1000.00	0.00
1995:	LUMP$-CON	MIT	One-time	1000.00	0.00
			Total:	2000.00	0.00
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:		MIT	One-time	0.00	0.01
Year 2:		MIT	One-time	2000.00	0.01
		ADM	One-time	0.10	0.01
			Subtotal:	2000.10	0.02
			Total:	2000.10	0.03

(Optional) Alternative Actions/Solutions and Impacts

No action would perpetuate the continued loss of hundreds of acres of marsh and the eminent breakthough by Lake Salvador into interior marshes and subsequent loss of valuable habitat and dependent biological diversity.

Compliance codes : EA (ENV. ASSESSMENT)
ARPA (ARCH. RES. PROT. ACT.)

Explanation:

Project Statement JELA-N-003.004

Last Update: 01/21/98 Priority: 35
Initial Proposal: 1995

Title : CONSTRUCT SHORELINE STABILIZATION ALONG GIWW
Sub-title: BARATARIA PRESERVE UNIT

Funding Status: Funded: 0.00 Unfunded: 885.00

Servicewide Issues : N09 (COASTAL DYNAM)

Cultural Resource Type:
N-RMAP Program codes : G00 (Geologic Resources Management)
G05 (Shoreline Management)

10-238 Package Number :

Problem Statement

The Barataria Preserve Unit borders the Gulf Intracoastal Waterway (GIWW) for approximately 2.5 miles along the Preserve's southeastern boundary. This stretch of the GIWW was created by channelizing Bayou Barataria. Preserve land along the waterway is characterized by a mature bottomland hardwood forest growing on the natural levee of the bayou. State highway 301 parallels the shoreline on Preserve property and provides the only access to the community of Isle Bonne.

Waves created by watercraft in the GIWW have severely eroded the bank of old Bayou Barataria. From a project width of 90 feet, the waterway has grown in places to more than 300 feet wide. Important habitat is continuously being lost. In places, erosion threatens Highway 301. Shoreline stabilization is needed to protect these resources. Traditional concrete rip-rap armoring is often used on adjacent private property. These structures can be expensive and unsightly, may contribute to increased erosion of shoreline and do not rebuild lost habitat. In addition, the effectiveness of these methods has never been evaluated.

The Preserve should develop and monitor environmentally compatible erosion control in this area of severe land loss.

Description of Recommended Project or Activity

The Preserve should utilize the existing interagency agreement with the New Orleans District of the U.S. Army Corps of Engineers to design and construct an environmentally compatible erosion control project along this shoreline. The park and ACOE are currently working on shoreline stabilization projects along the Lake Salvador shoreline and a variety of innovative techniques have been developed to arrest erosion in this dynamic landscape.

Accepted methods, such as geotextile tubing and/or breakwaters, should be considered. Small study areas could be developed to determine the most effective techniques before the entire project is constructed.

Wave dampening devices must be designed to allow sediment to accrete as well as slow erosion.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	60.00	0.50
	MON	One-time	10.00	0.50
		Subtotal:	70.00	1.00
Year 2:	MIT	One-time	800.00	2.00
Year 3:	MON	Recurring	10.00	0.50

Year 4:	MON	Recurring	5.00	0.50
			==========	==========
		Total:	885.00	4.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement

JELA-N-003.005
Priority: 49

Last Update: 08/21/98
Initial Proposal: 1994

Title : DESIGN & IMPLEMENT AN ELEVATIONAL SURVEY
Sub-title: MONITORING; BASELINE DATA

Funding Status: Funded: 0.00 Unfunded: 30.00

Servicewide Issues : N20 (BASELINE DATA)

Cultural Resource Type:

N-RMAP Program codes : G00 (Geologic Resources Management)

10-238 Package Number :

Problem Statement

Knowledge of the park's topography and corresponding biotic communities and cultural landscapes is essential to develop salutary resource management initiatives. Elevation statistics must be kept current in the rapidly subsiding deltaic environment. No recent elevation survey of the park's units has been executed to fill this need.

Description of Recommended Project or Activity

An elevation survey of the Barataria Preserve Unit, and other units as needed, will be undertaken and a current topographical map produced. The park's civil engineer will develop and implement the survey in conjuction with outside contractors, if necessary.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	30.00	0.20
		Total:	30.00	0.20

(Optional) Alternative Actions/Solutions and Impacts

If no survey is implemented the park will continue to operate without basic topographical information. This could lead to uninformed management decisions and unintentional adverse effects.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-003.006

Last Update: 08/21/98 Priority: 40
Initial Proposal: 1994

Title : MONITOR SUBSIDENCE AND VERTICAL ACCRETION RATES
Sub-title: MONITORING; WETLANDS

Funding Status: Funded: 0.00 Unfunded: 70.00

Servicewide Issues : N06 (LAND USE PRAC)
N12 (WATER FLOW)

Cultural Resource Type:

N-RMAP Program codes : G00 (Geologic Resources Management)

10-238 Package Number :

Problem Statement

The Barataria Preserve Unit's marsh substrate is under constant pressure from natural, geological and biological forces and from human manipulation. Aerial photographs and ground observations show areas of intense erosion, limited natural accretion, and opening and . Changes in elevation provide suitable substrate for discrete "islands" of different habitat types, but elevation levels can change rapidly in this environment. The park currently does not monitor these changes and therefore, cannot predict trends or observe effects of substrate movement. This information would be useful in the design of many natural resource monitoring and assessment projects, and would be particular relevent to marsh erosion control initiatives.

Description of Recommended Project or Activity

Design and implement a plan to monitor long term subsidence and accretion rates in the park. Elevation maps should be produced on a regular basis to illuminate areas of change. The park's civil engineer as well as outside consultants will be involved in all phases of the monitoring program.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	25.00	0.20
Year 2:	RES	Recurring	15.00	0.20
Year 3:	RES	Recurring	15.00	0.20
Year 4:	RES	Recurring	15.00	0.20
		Total:	70.00	0.80

(Optional) Alternative Actions/Solutions and Impacts

If the park does not monitor subsidence and vertical accretion this inevitable process will continue unchecked. The park will not be able to completly consider the effects of this process when designing and implementing other resource management projects.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-003.007

Last Update: 08/21/98 Priority: 43
Initial Proposal: 1994

Title : DETERMINE SEDIMENT BUDGET AND TRANSPORT SYSTEMS
Sub-title: MONITORING; BASELINE DATA

Funding Status: Funded: 0.00 Unfunded: 70.00

Servicewide Issues : N20 (BASELINE DATA)
N06 (LAND USE PRAC)

Cultural Resource Type:

N-RMAP Program codes : Q00 (Water Resources Management)

10-238 Package Number :

Problem Statement

Understanding historical and current sediment movement is critical to the wise management of wetland areas, including those in the Barataria Preserve Unit. The upper Barataria estuary has been starved of sediment as a result of major hydrological modifications, including wholesale canal building and leveeing of developed areas. Most critical, however, has been the deprivation of riverine sediments resulting from the leveeing of the Mississippi River, the prevention of overbank flooding, and the blocking of distributary channels. The rate of erosion in the park is not offset, as it should be, by sediment input, and rates of vertical accretion in subsiding marshes may no longer be sufficient to prevent conversion to open water. Efforts are now underway to restore sediments to the upper Barataria Estuary. Existing mechanisms of sediment transport, deposition, and accretion have to be investigated and assessed in order to effectively design and utilize future sediment input and transport systems. A monitoring program is needed to assess changes and measure effects.

Description of Recommended Project or Activity

A plan to monitor sediment flow in and to the park will be implemented. Sediment flow monitoring stations will be established in representative areas through out the park. Sediment traps that are the least disruptive to aquatic systems will be used. Samples will be analyzed by the Louisiana Geological Survey or other competant agency. The USGS-BRD National Wetland Research Center can assist the park in analyzing the data collected.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	30.00	0.20
Year 2:	RES	One-time	20.00	0.20
Year 3:	RES	One-time	20.00	0.20
		Total:	70.00	0.60

(Optional) Alternative Actions/Solutions and Impacts

(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM 2 APP. 2, 1.6

Project Statement JELA-N-004.006

Last Update: 08/21/98 Priority: 9
Initial Proposal: 1994

Title : MONITOR SALINITY IN BARATARIA PRESERVE
Sub-title: MONITOR; BASELINE STUDY

Funding Status: Funded: 6.60 Unfunded: 104.60

Servicewide Issues : N11 (WATER QUAL-EXT)
N09 (COASTAL DYNAM)

Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number :

Problem Statement

The Barataria Preserve Unit has miles of canals that have fundamentally altered its hydrology. These canals are at the terminus of an estuarine system of canals that have short-circuited the natural system, allowing tidal and saline reach deep into formerly completely fresh areas, interior penetration of storm surges, and direct conduits of upland run-off and nutrients past interior wetlands. In 1956 it was estimated that over 90% of the Barataria marsh was fresh. A vegetation analysis in 1983 concluded that approximately 50% has converted to intermediate marsh (Hanley, 1983).

The park needs to update the existing salinity monitoring plan to track daily, seasonal, and long term changes in salinity. This data is critical to understanding the effects of increased salinity, establishing a baseline as a basis for comparing the effects of future management actions, and for refining future management actions. The existing plan does not meet current NPS standards and is not easily compared to the data collected by other agencies in the basin. Additionally, the existing program is labor intensive and fixed station monitoring should be explored to provide more consistent and comprehensive data collection while reducing time spent collecting.

Description of Recommended Project or Activity

If fully funded, a fixed-station monitoring system will be set up in the park. Stations will be positioned in as many diverse habitat types as possible. Monitoring will occur 24 hours a day. This will record salinity peaks associated with winds, tides, and storm events. Readings will be compiled in a data base format for reference. The status of salinity will be assessed before any water control structures or other broad scope marsh management plans are enacted.

If partially funded, synoptic sampling using a portable meter could be conducted on a biweekly or monthly basis. The readings will be compiled into a data base format for reference and shared with the Dr. Chris Swarzenski at the USGS office in Baton Rouge.

BUDGET AND FTEs:

	FUNDED			
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1997:	PKBASE-NR	RES	Recurring	4.00	0.10
	PKBASE-NR	MON	Recurring	0.30	0.10
			Subtotal:	4.30	0.20
1998:	PKBASE-NR	RES	Recurring	2.00	0.10
	PKBASE-NR	MON	Recurring	0.30	0.10
			Subtotal:	2.30	0.20
			Total:	6.60	0.40

UNFUNDED	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	50.00	0.20
	MON	Recurring	1.30	0.10
		Subtotal:	51.30	0.30
Year 2:	RES	One-time	50.00	0.20
	MON	Recurring	1.30	0.10
		Subtotal:	51.30	0.30
Year 3:	MON	Recurring	1.00	0.10
Year 4:	MON	Recurring	1.00	0.10
		Total:	104.60	0.80

(Optional) Alternative Actions/Solutions and Impacts

If the salinity monitoring program is not revised, the park will continue to manage its resources without this critical data. The surface water management objectives focus on the expectation of increasing salinity. Without baseline data NPS management projects cannot be properly implemented and the effects of NPS and other agency projects (e.g. Freshwater Diversion at Davis Pond) cannot be assessed.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-004.007

Last Update: 09/09/98 Priority: 8
Initial Proposal: 1997

Title : DEVELOP WETLAND RESTORATION PLAN
Sub-title:

Funding Status: Funded: 0.50 Unfunded: 15.00

Servicewide Issues : N06 (LAND USE PRAC)
N12 (WATER FLOW)

Cultural Resource Type:

N-RMAP Program codes : D00 (Disturbed Area Rehabilitation)

10-238 Package Number :

Problem Statement

The park has been approached on several occasions by agencies and corporations interested in establishing wetland mitigation sites in the Barataria Preserve Unit. The mitigation is required as a condition of permits issued by the Army Corps of Engineers and the Louisiana Department of Natural Resources in compliance with Section 404 of the Clean Water Act (33USC 1344) and the Mitigation Regulations for the Louisiana Coastal Zone (LAC 43:I.Chapter 7), respectively. All permitted wetland impacts are outside of the park and are not associated with park activities. The interest in establishing mitigation sites within the park provides a valuable opportunity to restore park wetlands with non-federal dollars. To efficiently manage wetland restoration activities, the park needs to develop a plan that identifies, prioritizes, and evaluates impacts to potential mitigation sites.

Description of Recommended Project or Activity

The wetland restoration plan should provide a comprehensive strategy to facilitate the establishment of mitigation areas. Specifically, the plan should:

1) identify and prioritize potential mitigation sites

2) outline restoration activities needed at each site and, if possible, identify the mitigation "points" allotted to each activity and/or site by the Army Corps of Engineers and Louisiana Department of Natural Resources

3) detail requirements that outside agencies and corporations must meet in order to establish a mitigatation site in the park (ie. plan of operations, special use permit, etc.)

4) establish monitoring protocols to evaluate success of restoration activities

5) include an environmental assessment in compliance with the National Environmental Policy Act

The plan should be developed with assistance from appropriate NPS subject matter experts as well as staff from Army Corps of Engineers and Louisiana Department of Natural Resources.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1997:	PKBASE-NR	MIT	One-time	0.50	0.10
			Total:	0.50	0.10

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs

Year 1:	MIT	One-time	15.00	0.10
		Total:	15.00	0.10

(Optional) Alternative Actions/Solutions and Impacts

Without a Wetland Mitigation Plan to provide a comprehensive strategy, the park will continue to treat each mitigation request separately as staffing and time allows. This inconsistent approach could result in repeated actions (ie. writing an EA for each site) and missed opportunities.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement JELA-N-004.008

Last Update: 01/08/98 Priority: 22
Initial Proposal: 1997

Title : EVALUATE WETLAND SEEDBANK VIABILITY
Sub-title: WETLANDS;IPM

Funding Status: Funded: 60.00 Unfunded: 50.00

Servicewide Issues : N17 (BIODIVERSITY)
N06 (LAND USE PRAC)

Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number :

Problem Statement

Research is needed to determine the viability of seed and root propagation at depth with changes in water conditions to reconstruct the past vegetative history and to estimate future vegetative potential under different hydrologic regimes.

The 20,000 acre wetland complex at the park's Barataria Preserve Unit located in coastal Louisiana where it is subjected to a vast number of dynamic forces, both natural and anthropogenic. These forces threaten the vegetative cover and integrity of ecological and biological systems, two values identified for protection in the park's enabling legislation. The recent appearance of new stands of Panicum spp. and Phragmites spp. in Sagittaria marshes (possibly as an expression of subsurface stem and root fragments of a historic reed type marsh), as well as the absence of natural tree regeneration throughout most of the cypress swamp, may be indicative of vegetation response to local hydrological changes.

Seedbank viability data and a simulation model for predicting future vegetation succession for the park would significantly contribute to the success of several wetland restoration projects currently being planned throughout the park. This data would also be incorporated into the park's wetland predictive model to assist the park managers

with numerous decisions that could affect the water levels within the marsh communities.

Description of Recommended Project or Activity

Research:
Germination studies of marsh and forest substrate would be conducted to identify viability and vegetative potential under different hydrologic regimes. Sediment core samples would be extracted from representative sites by species type in floating and rooted marsh environments and within the forest/marsh ecotone on ridge slopes. A minimum of paired replicates would be taken at each of at least thirty sample sites across a matrix to include Panicum, Sagittaria, Eleocharis, Spartina, Myrica, and Taxodium species. A complete species set would be extracted from the Lower Kenta area to evaluate the global effect of seed and pollen distribution within a relatively proximal area. Recurrent seasonal sampling from priority sites would be conducted to evaluate timing of annual seed dispersal and to confirm redundancy of results.

Individual core samples would be taken with a Hargis sediment coring device and subdivided by halves and with depth. Cores will be sectioned into 5 cm units from surface to depth (~35 cm). Paired half sections would be divided into separate seed flats submitted to saturated and drained germination treatments under greenhouse conditions. Weekly observations of plant species germination would be recorded to create a probability matrix of species seed viability with depth and treatment. Water level gauges within marsh and forest zones would be maintained and correlated with sampling sites to establish correlation of results with above and below normal or surface hydrology.

Anticipated Products:
1) written report to include correlations between seed viability by species, hydrologic conditions, and elevation
2) digital coverages and metadata for use in the park's GIS for
    a: historic vegetative composition and spatial relationships
    b: present vegetative composition and spatial relationships
    c: projected future vegetative composition and spatial relationships
3) results would be incorporated, as appropriate, into the wetland predictive model for the Preserve

Researchers:
This project would be supervised by Dr. Thomas Doyle of the USGS-BRD National Wetland Research Center. Dr. Doyle has done the vast majority of the vegetation and hydrological characterization work within the park.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1998:	PKBASE-OT	ADM	One-time	2.00	0.10
	PKBASE-NR	RES	Recurring	5.00	0.10
	FED-OTHER	RES	Recurring	21.50	0.10
	PKBASE-OT	RES	Recurring	2.50	0.00
			Subtotal:	31.00	0.30
1999:	PKBASE-NR	RES	Recurring	5.00	0.10
	FED-OTHER	RES	Recurring	21.50	0.10
	PKBASE-OT	RES	Recurring	2.50	0.00
			Subtotal:	29.00	0.20
			Total:	60.00	0.50
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:		RES	Recurring	25.00	1.00
Year 2:		RES	Recurring	25.00	1.00
			Total:	50.00	2.00

(Optional) Alternative Actions/Solutions and Impacts

Without understanding seedbank viability and future vegetation succession of our wetland communities, the success of future wetland restoration efforts could be jeopardized. This information not only helps assure the success of these projects, but could lead to substantial cost savings and the protection of genetic integrity if the research reveals that seedbank viability would support natural seeding and regeneration in the restored wetlands.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-004.009

Last Update: 08/13/98 Priority: 3
Initial Proposal: 1998

Title : BACKFILL DEAD-END CANALS TO RESTORE MARSH
Sub-title: WETLAND RESTORATION

Funding Status: Funded: 0.00 Unfunded: 600.00

Servicewide Issues : N06 (LAND USE PRAC)
N12 (WATER FLOW)

Cultural Resource Type:

N-RMAP Program codes : D00 (Disturbed Area Rehabilitation)

10-238 Package Number :

Problem Statement

The 20,000 acre wetland complex that comprises the Barataria Preserve Unit is riddled with man-made canals. The canals were dredged for many purposes including agricultural drainage, navigation, logging, and oil and gas exploration/development. The dead-end, keyhole canals related to oil and gas exploration and development are recent additions to the landscape and are not considered historic resources. They are the target of this restoration effort.

The presence of these canals exaggerates the effects of many chronic stresses currently having detrimental effects upon coastal Louisiana. Canals and associated spoilbanks alter natural hydrological functions, disrupting sheet flow of fresh water and nutrients, amplifying tidal volumes, and serving as conduits for saltwater intrusion. These effects on freshwater marsh systems result in declining plant viability and potential long-term changes in species composition. Futhermore, wave energy generated by boat traffic through the canals erodes the soft substrate of the banks and threatens the flotant marsh behind the spoil banks. Additionally, the spoilbanks of these canals are dominated by the invasive Chinese tallow tree and the existence of the keyholes facilitates seed distribution into the marsh and associated

scrub/shrub habitats that are colonized by the tallow tree.

To alleviate the impact of the dead-end canals, the park proposes to degrade the spoilbank, backfill the canals, and restore native marsh.

Description of Recommended Project or Activity

Methodology:
Backfilling canals has been explored as a wetland restoration technique and has been used with some success in nearby areas (Turner,et al 1994). Design expertise is available by contract and should be considered in implementing this project. The basic approach would be as follows.

1) Build a retaining weir or similar structure at the intersection of the dead-end with the navigational canal. The structure would serve to contain fill material, while still allowing a reduced amount of water exchange (ie. similar to a natural drainage channel) with the surrounding marshlands.

2) Cut existing woody vegetation (primarily Chinese tallow trees) on the spoil bank and place in the bottom of the channel.

3) Use a barge mounted backhoe or appropriate equipment to push the existing spoil bank into the channel. Level the spoil bank with the surrounding marsh.

4) Secure a source of suitable, nearby fill to completely fill in the canal. If the Army Corps of Engineers is conducting any dredging projects nearby, the dredge spoil could be pumped into the channel. Otherwise, lake bottom sediment from nearby Lake Salvador could be pumped into the channel. The availability of dredge spoil will greatly influence the cost of completing this project.

5) Monitor revegetation success. Past experience with use of lake bottom sediments to build temporary islands along the Lake Salvador shoreline has indicated that the organic sediments contain an abundant and diverse native seed supply that will readily germinate and grow if exposed to air and sunlight. If necessary, marsh plugs could be transplanted from adjacent marsh areas.

Potential sites:
Only dead-end canals where oil and gas wells have been properly plugged and abandoned should be backfilled. Additionally, only dead-end canals that are currently owned in fee by the park should be explored. As of March 1998, the following canals meet this criteria: Deadend Pipeline Canal, North Segnette Cut, South Segnette Cut, Breakthrough Segnette Keyhole, Western Tarpaper Keyhole, Eastern Tarpaper Keyhole, and Parallel Canal.

References

Turner, R.E., J.M. Lee, and C. Neil. June 1994. Backfilling canals as a wetland restoration technique in coastal Louisiana. OCS Study, MMS 94-0026.

Chabreck, R.H. 1990. Creation, restoration, and enhancement of marshes in the northcentral Gulf coast in Wetland Creation and Restoration: The status of the science, eds J.A. Kusler and M.E. Kentula. Island Press; pp 125 - 142.

Cost Estimate
The cost to implement this project is has not well been researched. Turner, et al found backfilling to cost $1200 to $3400 per hectare. The availablity and transportation of suitable fill material and will greatly influence implementation costs. The cost estimate below is very preliminary.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	600.00	0.30
		Total:	600.00	0.30

(Optional) Alternative Actions/Solutions and Impacts

If this project is not undertaken, the existence of keyhole canals will continue to exacerbate basin-wide problems including hydrologic disruption, erosion, saltwater intrusion, and Chinese tallow invasion. Eventually, these problems will severely alter natural marsh processes and the viability of the park's floating marsh communities will be threatened.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement JELA-N-004.010

Last Update: 04/17/98 Priority: 5
Initial Proposal: 1998

Title : ECOLOGICAL SURVEY OF AQUATIC ORGANISMS AT BARATARIA
Sub-title: INVENTORY; NAQWA

Funding Status: Funded: 9.00 Unfunded: 206.00

Servicewide Issues : N20 (BASELINE DATA)
N11 (WATER QUAL-EXT)

Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number :

Problem Statement

The park's Barataria Preserve unit is a 18,500 acre wetland complex located within the Barataria Basin of the Louisiana coastal zone, one of the most threatened environments in the nation. Problems such as industrial and chemical pollution as well as accelerated erosion are likely having an impact on the park's aquatic organisms; however, those organisms and their current health are unknown. Additionally, the park lacks even the most basic fisheries inventory needed to adequately manage commercial and recreational fishing activities as provided for in the park's enabling legislation. Of particular concern is the human consumption of fish harvested from park waters that may be contaminated with trace metals and organo-chlorides.

Due to the preserve's location near the mouth of the Mississippi River, the threats to the park's aquatic resources are abundant and varied. The preserve is part of a very dynamic environment that is being significantly altered by both natural and anthropogenic forces at local and regional scales. Localized influences on the park's aquatic organisms from numerous stormwater discharges from adjacent suburban neighborhoods are unknown, but are likely increasing as the park becomes surrounded by the urban sprawl of New Orleans. On a regional level, severe land loss along Louisiana's coastline is

threatening the continued sustainability of a commercial fin-shellfisheries valued as the second largest in the nation and affecting the ecological health of the most productive estuary in North America. Regional efforts are being made to restore damaged resources through large scale diversion projects. Four miles upstream of the preserve is on such diversion project, known as the the Davis Pond Diversion, that will begin operation in 2001 with a capacity to siphon 10,000 cfs of sediment- and nutrient-laden waters from the Mississippi River.

While generally considered a solution to wetland loss, evidence suggests that freshwater diversions may actually have detrimental effects on wetland resources, particularly the rare flotant marshes that dominate the preserve. In the nearby Penchant Basin, flotant marsh conversion to openwater has been especially severe in an area annually receiving large inputs of freshwater and sediments from the Mississippi River via the Atchafalaya River. The decline of the Penchant Basin loosely corresponds with increasing inputs of freshwater that is laden with pesticides and herbicides from the Midwest via the Mississippi River as well as from agricultural runoff within the basin. The observed landloss in the Penchant Basin is at odds with the prevailing concept that the paucity of freshwater and sediments underlies much of the conversion of land to openwater. The preserve currently appears to be a healthy flotant ecosystem that is very similar to the habitat that once existed in the Penchant Basin. A comparison of water quality, habitat and aquatic biota between the two basins could provide a great deal of insight into the effects of freshwater diversions on flotant marshes.

Description of Recommended Project or Activity

This project is one component of a four component study identified by the USGS-WRD District Office in Baton Rouge. The Penchant-Barataria Coastal Basin Study is proposed as part of the Acadian-Pontchartrain NAQWA Study Unit. Designed to compare and contrast the water-quality, habitat and aquatic biota of the pre-diversion Barataria Basin with the post-"diversion" Penchant Basin. The four components of the Penchant-Barataria Coastal Basin Study are: 1) use NAQWA protocols to conduct an ecological characterization of the aquatic organisms of the preserve located within the Barataria Basin; 2) use NAQWA protocols to conduct an ecological characterization of the Penchant Basin; 3) conduct synoptic studies of nutrient and pesticide levels of both basins, some of which has already been collected within the preserve; 4) collect macroinvertebrate and finfish data using the EPA's rapid bioassessment protocols for comparison with the NAQWA ecological characterization. This project statement and associated funding proposal is specific to the implementation of component #1, but would complement the other components to provide a much more complete analysis of the park's aquatic environment and anticipated changes due to freshwater diversion.

Methodologies:
An ecological characterization of aquatic organisms would include two sampling regimes:
1) Algae, finfish,and benthic macroinvertebrates
The NAQWA protocols would be used for sampling and analysis of algae, finfish, and benthic macroinvertebrates. Four locations within the preserve would be sampled three times a year for two years. Sampling would be accomplished in March, late May-early June, and late September-October. One fish tissue sample from each of the four locations would be analyzed once time for trace metals and organo-chlorides to analyze the suitability of park fish for human consumption.
2) Submerged aquatic vegetation and habitat values
The NAQWA protocols would be used to characterize submerged aquatic vegetation and to conduct a habitat evaluation. Four locations within the preserve would be sampled once a year for two years.

Researchers:
Research would be conducted by the USGS-WRD District Office in Baton Rouge, Louisiana. There is a long standing relationship between the Park and the District. The park's natural resource management

specialist is currently serving on the Acadian-Pontchartrain National Water Quality Assessment Program Study Unit liaison committee. Additionally, several on-going park ecology/hydrology projects are being conducted by researchers at the USGS-BRD National Wetlands Research Center with extensive cooperation from Dr. Chris Swarzenski of the USGS-WRD District Office. This project statement was prepared in cooperation with Dr. Swarzenski and reviewed by the USGS-WRD District Manager.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1999:	PKBASE-NR	RES	One-time	5.00	0.10
	PKBASE-OT	RES	One-time	4.00	0.00
			Subtotal:	9.00	0.10
			Total:	9.00	0.10

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	106.00	0.40
Year 2:	MON	One-time	100.00	0.40
		Total:	206.00	0.80

(Optional) Alternative Actions/Solutions and Impacts

If the park's aquatic organisms are not surveyed, park managers will lack the baseline data by which to compare future changes as a result of large-scale natural and anthropogenic influences. Additionally, we will not gain the scientific knowledge needed to effectively participate in political decisionmaking about basin-wide activities (diversions, urban development, agricultural practices).

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-004.011

Last Update: 04/17/98 Priority: 4
Initial Proposal: 1998

Title : RESURVEY OF SURFACE WATER QUALITY AT BARATARIA
Sub-title: MONITORING; BASELINE

Funding Status: Funded: 5.00 Unfunded: 81.00

Servicewide Issues : N11 (WATER QUAL-EXT)
N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number :

Problem Statement

The Barataria Preserve is subjected to many natural and anthropogenic forces that may be affecting the water quality and related habitat values provided in the 18,500 acre wetland complex. In 1981/82 the USGS surveyed biological, physical and chemical constituents of surface waters and bottom material at six stations within the Barataria Preserve. The survey included general water-quality parameters as well as trace metals, diéverse pestidcides, and polychlorinated biphenyls. To assess changes and possible trends in the levels of the various constituents, the six original sites should be resampled. Additionally, this data will provide a baseline of the current rate of change that will be useful in measuring the effects of a freshwater diversion project currently under construction north of the park.

The initial survey (Garrison 1982) demonstrated different sources of freshwater entereing the Barataria Preserve including suburban stormwater via the Millaudon Canal, freshwater from adjacent Lake Salvador, and occassionally brackish water from the south of the park via the Segnette Waterway and Bayou Villars. In 2001, a new source will be entering the park via the Davis Pond Mississippi River diversion. Sediment-, nutrient-, and pollutant-laden waters will be sipohoned from the Mississippi River through the diversion

with a point of delivery four miles north of the park boundary. The water is designed to enter the basin during high rigver stage from about February to early May. Because of the magnitude of the source (up to 10,000 cfs) and the close proximity to the Barataria Preserve, this source of freshwater will likely dominate the water-quality of the surfacewater in the preserve during much of the year.

Description of Recommended Project or Activity

Methods:
This survey will emphasize the physical properties and select biological characteristics as well pesticides and tracemetals in both surface wters and bottom materials. Major inorganic constituents and nutrients are being sampled at the same stations as part of another USGS-BRD/USGS-WRD study currently underway in the preserve. detailed characterization of the aquatic community is part of another study proposed for funding in FY99.

Sampling frequency and locations will replicate the 1982 study. Surface-watersamples will be collected mnthly for one year at established six sites. Physical properties and bacterial and algal coutns will be analyzed. At three of these sites, pesticides and meals in surface-waters will be analyzed quarterly. Bottom sediments will be analyzed once in early summer at the same three sites. Sampling is summarized below.

analysis	sample type	sites	frequency
chlorophenoxy acid herbicides	water	3	4
	bottom	3	1
organochlorine/PO4 pesticides, PCB	water	3	4
	bottom	3	1
trace metals	water	3	4
	bottom	3	1
biological	water	6	12
physical properties	water	6	12

Researchers:

All actions would be undertaken by the USGS-WRD Louisiana District Office. Dr. Chris Swarzenski of that office assisted in the preparation of this project statement and this project has been reviewed by Distric Chief Edward Martin.

Anticipated Products:
1) report (both digital and hardcopy) to include a discussion of
a. methodologies
b. analysis results
c. comparison with 1982 data
d. trends in water quality and possible causes
2) Arcview GIS layer(s) and metadata to document locations of sample sites

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1999:	PKBASE-NR	MON	One-time	1.00	0.05
	PKBASE-OT	MON	One-time	4.00	0.00
			Subtotal:	5.00	0.05
			Total:	5.00	0.05
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:		MON	One-time	81.00	0.40
			Total:	81.00	0.40

(Optional) Alternative Actions/Solutions and Impacts

If this project is not undertaken, we will not be able to determine trends in water quality. This lack of data will hinder the park's ability to influence policitical decisions that have a direct affect on the park's water resources (urbanization, diversions, etc). Additionally, implementation prior to the operation of the Davis Pond Diversion will allow the park to assess pre-diversion trends for future comparison to post-diversion water quality.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-005.001

Last Update: 04/28/97 Priority: 6
Initial Proposal: 1994

Title : EVALUATE IMPACTS AND CONTROLS OF INVASIVE PLANTS
Sub-title: IPM; EXOTIC VEGETATION

Funding Status: Funded: 193.90 Unfunded: 175.00

Servicewide Issues : N05 (NON-NAT PLANTS)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V04 (Exotic Plant Management)

10-238 Package Number :

Problem Statement

Wetlands in the Barataria Preserve Unit, as well as throughout Louisiana, are being altered by the rapid invasion of several exotic plant species. The aquatic waterfern, Salvinia minima, and water hyacinth, Eichornia crassipes, are prominent non-native species choking open waterways and marsh ponds. Chinese tallow, Sapium sebiferum, has become a dominant tree species on canal spoil banks and forest edges throughout the park. These species offer no known intrinsic value for wildlife or recreation, displace native plant species, and may limit fisheries success due to decreased dissolved oxygen. The impact and fate of these noxious weeds in reducing habitat diversity and water quality has not been assessed. Baseline studies are needed to gauge the rate and extent of habitat decline and conversion by invasive weedy species and the loss of native populations. The effectiveness of the park's on-going mechanical controls should be evaluated along with other control measures that may involve surface water management, chemical treatments, or biological controls.

Description of Recommended Project or Activity

Research:
Resurveys. Permanent vegetation plots within the Barataria marsh interior and along spoil banks of canals would be remeasured for vegetative cover and structure to determine the rate of community change in the last 5-10 years. Data from marsh sites would be collected to determine changes in percent cover of native and exotic plant species, both aquatic and emergent. Permanent transects running north and south along an east-west gradient including 38 sample sites with a subset of four 1 m2 quadrats would be remeasured to document species presence nd displacement over the last 15 years. Additional marsh sites would be added for floating marsh environments that are not well represented in this sampling matrix due to site geomorphology. Spoil bank sites, established in 1991, would be resurveyed for 50 permanent plot locations along selected canals. Size and density of woody stems for each of the .08 ha plots would be gathered and compared with species composition and stand structure changes from initial surveys.

New surveys. Aquatic surveys would be initiated to monitor the congestion and control of floating and submerged plant species in the canals and trenasses that serve as canoe trails for visitor use. Mechanical harvesting measures have been used with limited success to routinely clear congested waterways for canoe access during summer months. Permanent sites would be established at regular intervals within canals to quantify the accumulation of species cover and biomass, live and dead, at the surface and bottom. Sampling at monthly intervals would be conducted to guage the seasonality of species spread, growth, and decline related to water level, temperature, and flow. The fate of dead biomass, either harvested or natural turnover, within the system would be assessed to determine the contribution to sedimentation and infilling of waterways. Examples exist within the park where cutoff canals have undergone filling to the degree that marsh development has occurred. Fixed and floating deposition traps would be constructed to evaluate the rate of decomposition and succession of harvested biomass that could be used to augment the park's planned wetland restoration efforts. Understanding of productivity cycle and fate of detritus would be incorporated in a simulation model of park hydrology for predicting future conditions with and without noxious weed control measures.

Anticipated products:

1) Written report to include
   a. analysis of displacement of native plant species by non-natives and discussion of environmental factors that may influence distributions
   b. evaluation of the potential use of harvested biomass in wetland restoration projects
   c. recommendations for controls of exotic plants, to include type of control (mechanical, biological, etc), timing, and intensity
2) incorporation of results in the park's simulation model of park hydrology for predicting future conditions with and without control of non-native plants
3) digital coverages and metadata for use in the park's GIS for
   a. percent cover and distribution of native and exotic plant species
   b. spoil bank stand structure and species composition changes

Researchers:
The research would be supervised by Dr. Thomas Doyle and Dr. Thomas Michot of the USGS-BRD National Wetlands Research Center.

BUDGET AND FTEs:

	FUNDED				
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1998:	FED-OTHER	RES	Recurring	57.00	0.50
	PKBASE-NR	RES	Recurring	5.00	0.10
	PKBASE-OT	RES	Recurring	3.30	0.00
			Subtotal:	65.30	0.60
1999:	FED-OTHER	RES	Recurring	56.00	0.50
	PKBASE-NR	RES	Recurring	5.00	0.10
	PKBASE-OT	RES	Recurring	3.30	0.00

		Subtotal:	64.30	0.60
2000:	FED-OTHER RES	Recurring	56.00	0.50
	PKBASE-NR RES	Recurring	5.00	0.10
	PKBASE-OT RES	Recurring	3.30	0.00
		Subtotal:	64.30	0.60
		Total:	193.90	1.80

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	Recurring	55.00	2.00
	ADM	One-time	2.00	0.10
		Subtotal:	57.00	2.10
Year 2:	RES	Recurring	58.00	2.00
Year 3:	RES	Recurring	60.00	2.00
		Total:	175.00	6.10

(Optional) Alternative Actions/Solutions and Impacts

Without effective control measures, invasive plant species will continue to displace native species, reduce habitat diversity, and negatively impact the visitor's experience. Current management approaches have thus far proven inadequate and a disappearance of some native plants and animals due to competition or altered ecosystem dynamics is possible.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 E(6)

Project Statement JELA-N-005.003

Last Update: 08/26/96 Priority: 12
Initial Proposal: 1995

Title : DESIGN AN IPM PLAN TO CONTROL CHINESE TALLOW TREES
Sub-title: IPM

Funding Status: Funded: 0.00 Unfunded: 2.10

Servicewide Issues : N05 (NON-NAT PLANTS)

Cultural Resource Type:
N-RMAP Program codes : H00 (Pest and Hazard Management)
H01 (Integrated Pest Management)

10-238 Package Number :

Problem Statement

Chinese Tallow Tree, Sapium sebiferum, is native to China and Japan. It has escaped cultivation in the United States. It aggressively invades disturbed areas and out-competes native vegetation.The park should try to eradicate this tree where ever it occurs in the Barataria Preserve Unit.

Description of Recommended Project or Activity

In the spring and summer of 1995 Tallow control programs focused on identifying mature seed producing trees invading undisturbed forests and CTT trees along trails. To the extent staff was available the trees were cut down and the stump was sprayed with a Rodeo (Monsanto) solution. There is no evidence of regrowth in the monitored areas from last years treatments. The park should use staff, available Youth Conservation Corps, and volunteers to continue removing CTT trees in the Barataria Preserve Unit and to continue to monitor the success of the project.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	One-time	0.10	0.10
	MIT	Recurring	0.50	0.10
		Subtotal:	0.60	0.20
Year 2:	MIT	Recurring	0.50	0.10
Year 3:	MIT	Recurring	0.50	0.10
Year 4:	MIT	Recurring	0.50	0.10
		Total:	2.10	0.50

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 E(6)

Project Statement

JELA-N-005.004
Priority: 0

Last Update: 04/15/98
Initial Proposal: 1997

Title : MONITOR TALLOW INVASION IN FORESTED WETLANDS
Sub-title: IPM; MONITORING

Funding Status: Funded: 79.90 Unfunded: 0.00

Servicewide Issues : N05 (NON-NAT PLANTS)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V04 (Exotic Plant Management)

10-238 Package Number :

Problem Statement

The exotic Chinese tallow tree (Sapium sebiferum) is an opportunistic species that aggressively invades disturbed sites in forested wetlands throughout south Louisiana, including the Barataria Preserve Unit of the park. An escaped ornamental, tallow generally grows in a monotypic stand that displaces the diverse native species and provides little habitat value for native wildlife.

The park is planning several wetland restoration efforts in forested wetland communities in the preserve and would like to discourage or avoid, to the extent possible, establishment of new tallow trees. However, relatively little is known about the hydrological, topographic, and species interactions that are conducive to tallow invasions. Majority of the research on Chinese tallow has focused on control of existing trees as opposed to prevention of tallow invasions. In addition, bottomland hardwoods in southern Louisiana, one of the most threatened forested wetland communities, are a very unique, dynamic community that is historically understudied. Consequently, the park is unable to assess the impact that future wetland restoration efforts may have in relation to Chinese tallow invasion.

Description of Recommended Project or Activity

Dr. Julie Denslow, a forest ecologist at Louisiana State University, would oversee this project and a graduate student would conduct the research for a master's thesis.

Proposed Research:
A 4 ha permanent, marked and mapped tree and sapling plot would be established in the Big Woods area of the preserve. Plot shape and placement would be designed to capture the full range of topographic variation characteristic of the preserve's forested wetland communities including bottomland hardwood, natural levee, palmetto backslope, and cypress-tupelo swamp. The plot would include recently disturbed, historically disturbed, and relatively undisturbed soils. Trees of all species >2cm dbh and tallow trees of all sized would be individually marked and mapped. All tallow trees on the plot would be remeasured the second year to evaluate recruitment of Chinese tallow seedlings and their spatial relationship with other species and abiotic factors. Initial plot establishment would include topography and GPS location for each tree for use in the park's GIS. Groundwater monitoring stations would be installed and maintained and nearby USGS gauged streams would be monitored. Topography and soil structure would also be mapped.

Research products would include:
1) estimates of shortterm dynamics of native species and Chinese tallow (deaths and recruitment)
2) description of structure, composition, and spatial heterogeneity of stands
3) estimate of spatial heterogeneity in composition and turnover as a function of position along a topographic gradient
4) understanding of relationship between tallow invasion and hydrology and soil structure (seasonal and event driven fluctuations of the water table and standing water)
5) herbarium collections of park species to be kept on permanent loan at the LSU herbarium

This plot would potentially be included as part of a larger study on bottomland hardwood forest dynamics in Louisiana. Dr. Denslow is pursuing matching funds from The Nature Conservancy's Ecosystem Research Program to establish several long-term monitoring sites throughout Louisiana, including the Atchafalaya and Pearl River

basins, to look at forest dynamics as a result of hydrological and anthropomorphic changes.

Interpretive component:
An interpretive component of this project would also be submitted for matching Water Resources Division and Parks as Classroom funding, as outlined in the FY98 Unified Call.

The interpretive component of this project would fund the production of two items: 1) the writing and production of a "Natural History Series" bulletin on Chinese tallow and 2) the writing and production of a new activity to incorporate the tallow research into "Vanishing Wetlands," a park curruculum-based education program for 6th-8th grades. Both items would incorporate the forest ecology research results to educate the public about the impacts of Chinese tallow, what the park is doing to control invasions, and what they can do to help.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			FUNDED		
1998:	WATER-RES	RES	One-time	39.50	0.60
	UNIV-COLL	RES	One-time	9.30	0.05
	PKBASE-NR	RES	One-time	5.00	0.10
	PKBASE-OT	ADM	One-time	2.00	0.10
			Subtotal:	55.80	0.85
1999:	UNIV-COLL	RES	One-time	9.30	0.05
	PKBASE-NR	RES	One-time	5.00	0.10
	WATER-RES	RES	One-time	9.80	0.20
			Subtotal:	24.10	0.35
			Total:	79.90	1.20

----------UNFUNDED----------

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

If the park does not identify the environmental factors that influence Chinese tallow invasion, we will be unable to discourage new invasions and be forced to rely on labor-intensive chemical and mechanical methods to treat stands after establishment. In addition, we will also risk promoting tallow invasion through our wetland restoration efforts, thus jeopardizing the success of those projects.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-005.007

Last Update: 08/17/98 Priority: 0
Initial Proposal: 1994

Title : ASSESS NUTRIA HERBIVORY IMPACTS
Sub-title: IPM; MONITOR DAMAGE

Funding Status: Funded: 287.00 Unfunded: 0.00

Servicewide Issues : N04 (NON-NAT ANIMAL)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W05 (Exotic Animal Management)

10-238 Package Number :

Problem Statement

The nutria (Myocastor coypus), an introduced furbearing rodent, is firmly established throughout coastal Louisiana, including the Barataria Preserve unit of the park. Nutria herbivory depletes vegetative cover and contributes to the displacement of native furbearers and the break-up of substrates resulting in subsequent conversion of marsh to open water, known as "eat-outs."

The 1990 Trapping Management Plan outlines three control options: trapping by permittees, trapping with economic incentives by permittees, and direct reduction via shooting by trained park staff. Two information gaps make current implementation of the trapping management plan somewhat arbitrary. One, we do not currently have an efficient assessment technique to determine the level of nutria damage. Two, population and/or damage thresholds to implement control options have not been clearly defined. A review of the scientific literature and consultation with other land managers has determined that these information gaps are not unique to the park, and may indeed represent unknowns in nutria herbivory in general.

Dr. Jacoby Carter, and other researchers at the USGS-BRD National Wetland Research Center, have already created a model of nutria impacts on marsh loss. Sensitivity analysis of the model suggests

that two crucial pieces of information are needed for the model to work: per capita effects of nutria on marsh biomass and at what marsh biomass break up begins.

Description of Recommended Project or Activity

The project would address both park needs as well as the related research needs of the USGS-BRD. Research would be conducted by Dr. Jacoby Carter and Dr. Clint Jeske, both of the National Wetlands Research Center.

There are five goals for this project:
1) Quantify the per capita impact of nutria on Sagittaria marsh, the most common and resilient marsh community in the park, at various nutria densities.
2) Determine the nutria density at which marsh breakup begins.
3) Create a tool that can be used by park personnel to visually assess nutria densities and impacts to facilitate implementation of the Trapping Management Plan.
4) Provide the park with a model of nutria population dynamics and effects of marsh breakup. A submodel will be used to integrate a nutria control program to evaluate the effectiveness of various control efforts.
5) After the study is complete, provide the park with marsh recovery monitoring protocols to allow park staff to evaluate changes in the marsh as a result of the induced eat-outs.

Study methods would involve penning single male nutria of a pre-determined weight class in enclosures of different sizes to simulate various nutria densities as reported in the literature. Single males would be used to avoid the potential for births or breeding within the study population. Densities would vary from 0 to 21 nutria per hectare. Impacts would be monitored over a two to four week period each season using photographs, vegetative cover estimates, and biomass estimates. The study would be conducted four times in one year with three replicates each season to assure statistical validity. The enclosures would be removed at the end of the project; however, marsh areas that are subjected to "eat-out" conditions would be marked in the field and their future recovery monitored by park staff.

The total life of the project would be three years: year one to

field test the enclosures; year two to actually conduct the experiment; and, year three to analyze the data, build the model, and develop the assessment tool and monitoring protocols.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1998:	FED-OTHER	RES	One-time	35.00	0.60
	PKBASE-NR	ADM	One-time	5.00	0.10
	PKBASE-OT	ADM	One-time	2.00	0.00
			Subtotal:	42.00	0.70
1999:	FED-OTHER	RES	One-time	35.00	0.60
	PKBASE-NR	ADM	One-time	5.00	0.10
	PKBASE-OT	ADM	One-time	2.00	0.00
			Subtotal:	42.00	0.70
2000:	FED-OTHER	RES	One-time	35.00	0.60
	PKBASE-NR	ADM	One-time	5.00	0.10
	PKBASE-OT	ADM	One-time	2.00	0.00
	NRPP	RES	One-time	61.00	1.60
			Subtotal:	103.00	2.30
2001:	NRPP	RES	One-time	68.00	2.00
2002:	NRPP	RES	One-time	32.00	1.50
			Total:	287.00	7.20

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

If the park cannot effectively evaluate marsh conditions and determine the most effective nutria reduction efforts, the park can expect continued and accelerated displacement of native species, damage to sensitive marsh areas leading to erosion, and other problems caused by uncontrolled population expansion of this exotic species.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation: 516 DM6 APP. 7.4 E(6)

Project Statement

JELA-N-005.008
Priority: 41

Last Update: 03/21/96
Initial Proposal: 1994

Title : DESIGN IPM PLAN FOR COURT YARD WALL 419 DECATUR
Sub-title: IPM; CONTROL VEGETATION

Funding Status: Funded: 0.00 Unfunded: 2.00

Servicewide Issues : C17 (VEG MGT PLN)

Cultural Resource Type:
N-RMAP Program codes : H00 (Pest and Hazard Management)
H01 (Integrated Pest Management)

10-238 Package Number :

Problem Statement

Vegetative growth on the courtyard wall of 419 Decatur Street is undesireable because of deterioration of the mortar and underlying brick structure caused by rootlet penetration and moisture retention.

Description of Recommended Project or Activity

The edge of the wall should be kept weeded, or at least twice a year the vegetation should be physically removed from the wall in the courtyard of 419 Decatur Street.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	Cyclic	0.50	0.10
Year 2:	PRO	Cyclic	0.50	0.10
Year 3:	PRO	Cyclic	0.50	0.10
Year 4:	PRO	Cyclic	0.50	0.10
		Total:	2.00	0.40

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 7.4 C(4)

Project Statement

JELA-N-005.010
Priority: 10

Last Update: 07/17/97
Initial Proposal: 1994

Title : PREPARE INTEGRATED PEST MGMT PLAN
Sub-title: IPM; PLANNING

Funding Status: Funded: 0.00 Unfunded: 7.00

Servicewide Issues : N24 (OTHER (NATURAL))

Cultural Resource Type:
N-RMAP Program codes : H00 (Pest and Hazard Management)
H01 (Integrated Pest Management)

10-238 Package Number :

Problem Statement

Park resources, both natural and cultural, are threatened by various plant and animal species. Examples includes carpenter ants, termites, nutria, Chinese tallow, water hyacinth, and salvinia.

The need exists to develop a comprehensive plan that would identify pests, establish priorities for treatment, establish action threshold, identify best treatment options, and establish pest monitoring procedures.

Description of Recommended Project or Activity

The draft version of an integrated pest management plan should be revised and finalized. Efforts should be made to secure funding to implement the plan. IPM information and procedures need to be communicated to all park personnel.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	One-time	7.00	0.20
		Total:	7.00	0.20

(Optional) Alternative Actions/Solutions and Impacts

Without plan actions will continue in an unorganized and untrackable fashion. The potential for error in management of pests is great.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516DM6 App. 7.4 B(9)

Project Statement JELA-N-005.011

Last Update: 08/17/98 Priority: 0
Initial Proposal: 1998

Title : MODELLING RISK OF CHINESE TALLOW INVASION
Sub-title: IPM

Funding Status: Funded: 200.00 Unfunded: 0.00

Servicewide Issues : N05 (NON-NAT PLANTS)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : H00 (Pest and Hazard Management)
H01 (Integrated Pest Management)

10-238 Package Number :

Problem Statement

At the 18,500 acre Barataria Preserve, Chinese tallow tree (Sapium sebiferum) is an agressive invader in wetland forests and freshwater marshes. Its rapid establishment and displacement of native vegetation in disturbed areas threaten diversity and productivity of these systems, and the expense of removal make preventive management the preferred defense. Linking natural and anthropogenic aspects o fthe landscape with the invasion process is a necessary step to understanding and preventing the spread of exotic species. A project is needed to: 1. assess the distribution of tallow within the park; 2. develop a model to predict risk of invasion as a function of community characteristics and landscape heterogeneity; 3. determine the consequences of tallow invasion to communities at risk; and 4. develop a set of recommendations for management of tallow in the park.

Landscapes that experience frequent natural disturbances and have a history of anthropogenic activity are particularly vulnerable to exotic species invasions, and reliable prediction of spatial spread is critical for developing effective controls. In heterogeneous systems, identification of factors that facilitate and inhibit establishment of invasive species is needed to construct predictive models and gain insight into landscape invasibility. In southern

Louisiana, Chinese tallow tree (Sapium sebiferum) is an aggressive invader in wetland forest and freshwater marshes. Its rapid establishment and displacement of native vegetation, particularly in disturbed areas, threaten diversity and productivity of these systems, and the expense of removal make preventive management that preferred defense. In the Barataria Preserve Unit of the park, swales (natural) and levees (artificial) function as invasion routes that provide tallow seed sources deep within large expanses of bottomland hardwood an freshwater marsh communities.

The pattern of invasion in bottomland hardwood forests likely reflect hydrologic and natural disturbance features such as canopy gaps, and the linear trend of ridge and swale geomorphology may facilitate exotic invasions because of high edge/interior ratios. Ridge and swale topography is common in these systems where the stream channel has moved across the floodplain over time. Swales represent the abandoned stream channels and are frequently inundated. Tallow is a flood-tolerant species that readily invades the linear swales which provide an avenue into the bottomland hardwood community occupying the ridges. As canopy gaps occur on the ridges, tallow invades and perhaps hampers bottomland hardwood regeneration. Its spread in the bottomland hardwood forests as well as the emergent and flotant freshwater marshes in the Preserve may also be facilitated by the extensive levee and spoilbanks along keyhole canals systems that penetrate these communities and often support monospecific stands of tallow. Age of these features however, may provide some insight into invasibility because older levees with intact vegetation prior to the introduction of tallow do not support this species. recent levee systems may promote invasion and thus require more intensive pest management. In addition, extensive tallow invasion surrounding the construction site of the park's Education Center indicates an urgent need for park planning and management prior to any future construction, mitigation, or restoration projects within the Preserve. A model that predicts invasion risk based on environmental characteristics and proximity to invasion foci would be a useful tool for developing control strategies and targeting areas at risk.

Description of Recommended Project or Activity

Objectives
1. Describe the spatial distribution of tallow as a function of landscape heterogeneity
2. Develop a model that predicts risk of invasion for currently uninvaded areas
3. link landscape pattern with processes of invasion examined at a local scale
4. determine effects of tallow on diversity and ecosystem processes in communities at risk
5. develop a list of management recommendations to prevent tallow invasion

Researchers
Dr. Denslow, a noted forest ecologist at Louisiana State University, would be the principal investigator on this project. Loretta Battaglia, a post-doctoral advisee, would develop and oversee this project under the direction of Dr. Denslow. This project statement was developed with the researchers.

Research
Task 1: Assess distribution of tallow within the Barataria Preserve.

LSU will contract with Lockheed-Stennis for multispectral digital and photographic images of the preserve to be taken in an overflight times to coincide with leaf-out of Sapium in early March. Like many exotics, Sapium leafs earlier in the spring than native deciduous species. Previous unsuccessful attempts to identify tallow from aerial or satellite images have relied on existing images taken during the growing season when tallow is not easily distinguished from Salix (P. Hanley, pers. comm.). We will use data from known monodominant stands of tallow to determine its reflectance signature and to test this profile against known (test) stands of tallow in the bottomland hardwood and cypress-tupelo communities as well as freshwater marsh. Digital multispectral data will be obtained at a resolution of 2-2.5 m (1:8000) and photographs at < 1 m resolution, allowing for both detailed photo-interpretation and use of ArcView GIS for analysis. This technique will be used to describe the distribution of tallow where it is invading intact bottomland hardwood and cypress-tupelo forests and freshwater marsh communities as well as in human-disturbed sites throughout the park.

Based on the tallow signature, each 2.5 m^2 polygon will be assigned

a "1" or "0" corresponding to the presence or absence of adult trees. For each polygon containing tallow, a distance to nearest occupied polygon will be calculated. In the forest areas, all canopy gaps on the aerial images will be identified, and topographic maps of the study sites will be used to identify ridges and swales in the study areas. Vegetation structure taken from aerial photos will also be sued to discern ridge and swale patterns and for the incorporation of topographic position into the model. In freshwater marshes, we will measure water depth, salinity and vegetation cover in areas where tallow is occuring as well as at random locations within the community matrix. We will use these data to model the risk of invasion in both community types.

Task 2: Develop a model to predict risk of invasion as a function of community characteristics and landscape heterogeneity.

Logistic regression will be used to investigate the relationship between the response probability, ie. presence of tallow, and the explanatory variables. Maximum likelihood will be used to estimate logistic regression parameters. The first step will be to test whether the difference in deviance between the null model of slope=0 is significantly different from the model including all covariates. If there is an overall significant difference, this suggests that incorporating at least one of the covariates improves predictive capacity of the model. If that occurs, we will initiate the iterative process of finding the most parsimonious subset of explanatory variable that provide a food fit. Inclusion of explanatory variable in the final model will be based upon results from likelihood ratio tests comparing a series of competing alternative nested models. Difference in deviance will be calculated for each pair of models evaluated and used to statistically compare fit of models. If there are no significant differences between the models, the choice should be the simpler one.

Because tallow migration cannot be reliably detected over time from past photographs, we will employ dendrochronological techniques to age individuals and to infer temporal invasion patterns. Ten hectares of plots will be established in the bottomland hardwood area which encompasses the range of heterogeneity encountered during the first phase of the study. These plots will be independent of the areas used to construct the initial model. Canopy, topographic, and distance to nearest neighbor data will be acquired for these plots as described above. Because previous canopy disturbances may have affected current tallow patterns but may no longer be detectable, we will supplement the current canopy data with that from previous

aerial photographs. Light availability will be quantified in a subset of gaps and non-gaps using hemispherical photographs. All tallow stems will be cut, and cross-sectional disks will be taken back to the lab for dendrochronological assessment. All individuals will be aged and mapped; age and spatial information will be used to reconstruct the movement of tallow over time.

Task 3: Determine the consequences of tallow invasion to communities at risk.

Seeds of Chinese tallow will be planted at a variety of microsites in both forests and marsh communities to assess regeneration response under different environmental conditions. Germination, survivorship, and growth will be monitored weekly through two growing seasons. ALL individuals will be excavated at the conclusion of the experiment and before they become reproductive and used to examine biomass allocation patterns. All plots will be marked and plotted using GPS to assure relocation and total removal of all planted individuals.

Two removal experiments will be conducted to evaluate the effects of tallow on native vegetation. In plots established in the marsh communities, we will compare community composition in control plots to those in which tallow has been removed. This experiment is designed to assess impact of tallow on the species composition and ecosystem processes and determine whether tallow removal is a viable management strategy in this endangered community. In the second experiment, we will assess density effects of tallow on a native species, Salix nigra. Long one of the levees dominated by tallow, we will plant will seedlings in plots along an experimental allow density gradient. This experiment is designed to measure the effects of tallow density on hardwood regeneration.

Task 4: Develop a set of recommendations for management of tallow.

Invasion of tallow poses a threat not only to communities in Jean Lafitte National Historical Park and Preserve, but also other parks throughout the southeast. We will conduct interviews with park and refuge managers throughout the region and incorporate this information with results from our predictive model, experiments, and a thorough literature review to develop a set of recommendations for park management of tallow.

Anticipated Products
1. written report in digital and hardcopy formats to include

a. discussion of study methodologies
b. assessment of current spatial distribution of tallow
c. recommendations for management of tallow to be incorporated into the park's Integrated Pest Management Plan
2. Herbarium collections of park species to be kept on permanent loan at the LSU Herbarium
3. Hardcopy and digital data of the Barataria Preserve depicting areas at high risk for invasion which can be used to develop treatment priorities

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1999:	PKBASE-NR	ADM	One-time	4.00	0.10
2000:	NRPP	RES	One-time	82.00	1.20
2001:	NRPP	RES	One-time	57.00	1.10
2002:	NRPP	RES	One-time	57.00	1.10
			Total:	200.00	3.50

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

If the park does not identify the environmental factors that influence Chinese tallow invasion and attempt to prevent new invasions, park managers will continue to rely on labor intensive chemical and mechanical methods to treat stands after establishement.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-N-007.001
Priority: 24

Last Update: 07/17/97
Initial Proposal: 1994

Title : REMOVE HAZARDOUS OIL WELL HEADS IN BARATARIA
Sub-title: OIL & GAS OPERATIONS MAN

Funding Status: Funded: 120.00 Unfunded: 0.00

Servicewide Issues : N10 (MINRL/GEOTHERM)

Cultural Resource Type:

N-RMAP Program codes : D00 (Disturbed Area Rehabilitation)

10-238 Package Number :

Problem Statement

Eleven abandoned, sealed well heads protruding above water level in the Barataria Preserve were targeted for replugging by the NPS. These protuberances distract from the scenic value of the surrounding areas, pose a hazard to navigation and have the potential to contaminate waterways and fisheries. The well heads should be cut off and resealed subterraneously to preclude these hazards.

As of May 1997, ten wells have been replugged in the Preserve at no expense to the park. Eight wells were plugged by the responsible entity and two were plugged by the State of Louisiana as orphaned wells. One well remains to be plugged and all efforts should be made to work with the resonsible party.

The park is in the process of acquiring lands that were not part of the original survey for exposed well heads. As the park acquires new property, it also acquires more well sites in need of treatment. Any wells in need of replugging should be identified and the park should attempt to find the responsible parties.

Description of Recommended Project or Activity

The park should continue working with the Estate of William G. Helis to revise their plan of operations to NPS standards. All replugging operations will be subject to NPS approval of the Plan. The park will work with the State of Louisiana to replug the two orphaned wells. If the State money is not available, the park will be responsible for replugging operations. Park and MMB staff should survey all remaining well heads and identify candidates for replugging. The park will work to locate the responsible entities for these wells and have them replugged in compliance with all laws at no expense to the park.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1994:	NON-NPS-O	MIT	One-time	80.00	0.00
1995:	NON-NPS-O	MIT	One-time	10.00	0.00
1996:	NON-NPS-O	MIT	One-time	30.00	0.00
			Total:	120.00	0.00

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No action wuld leave the well heads protruding above the water level in the park's natural areas. This will continue to detract from the scenic value, cause a navagational hazard, and potentially cause a release of a hazardous substance in the park.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement JELA-N-007.003

Last Update: 03/21/96 Priority: 36
Initial Proposal: 1994

Title : DEVELOP OIL SPILL/HAZMAT CONTINGENCY PLAN FOR JELA
Sub-title: OIL & GAS OPERATIONS MAN

Funding Status: Funded: 0.00 Unfunded: 22.00

Servicewide Issues : N10 (MINRL/GEOTHERM)

Cultural Resource Type:
N-RMAP Program codes : H00 (Pest and Hazard Management)
H02 (Hazardous Waste Management)

10-238 Package Number :

Problem Statement

Pipelines, active and abandoned wells, and bordering oil production and hazardous materials transport activities all pose potential for release in the park. (The Barataria Preserve's southern boundary is the Gulf Intracoastal Waterway and the Chalmette Battlefield Unit is situated on the Mississippi River among refineries and docking facilities.) The park's oil spill/hazmat contingency plan is not current, and would not adequatly direct park activities in the event of a spill. Changes in Federal small spill regulations have not been considered in the plan. In addition to the out-of-date plan, the park does not have personnel trained in emergency oil spill operations. These deficiencies must be addressed, so in the case of an accential release the park will have resources available to minimize environmental impacts and protect park resources.

Description of Recommended Project or Activity

The park should train resource personnel in oil spill and hazardous materials response operations. NPS offers training in this area and other Federal and private organization also offer relevent courses. Once personnel are knowledgable about spill operations a new contigency plan will be developed. Resource staff will keep the plan current as regulations and technologies evolve.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	One-time	20.00	0.30
Year 4:	PRO	One-time	2.00	0.30
		Total:	22.00	0.60

(Optional) Alternative Actions/Solutions and Impacts

No action would not allow the park to adequatly respond to an oil spill or hazardous materials emergency. Response and containment operations would have to be turned over to an outside entity to provide protection to park resources. This could result in emergency operations in the park being in violation of Park Service policy and contrary to the mission of the park.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement

JELA-N-007.004
Priority: 13

Last Update: 01/21/98
Initial Proposal: 1995

Title : RESTORE ABANDONED OILFIELD AT WOOD DUCK TRAIL
Sub-title: OIL & GAS OPERATIONS MAN

Funding Status: Funded: 0.00 Unfunded: 188.00

Servicewide Issues : N06 (LAND USE PRAC)
N10 (MINRL/GEOTHERM)

Cultural Resource Type:

N-RMAP Program codes : D00 (Disturbed Area Rehabilitation)

10-238 Package Number :

Problem Statement

Prior to park acquisition in 1978, a natural gas well operated at what is now the terminus of Wood Duck hiking trail. The oilfield infrastructure (shell and concrete pad, access road, and containment levee) remains at the drilling site surrounded by about 25 acres of dead swamp as the result of a brine spill during oilfield operations in the 1970's. The oilfield debris poses a threat to visitor safety and reduces the scenic values of the swamp. The containment levee interferes with the natural surface flow regime of the swamp. The native successional species in the brine killed area are being replaced by the noxious Chinese tallow tree, an aggressive non-native that readily takes over disturbed lands. Bottomland hardwood forest communities in the Barataria Preserve are among the southern most such forests in Louisiana. The Chinese tallows at the Wood Duck site have displaced the bottomland hardwood forest that thousands of neo-tropical migrant birds utilize in the Barataria Preserve every year for both feeding before their long flight across the Gulf of Mexico, and as a resting habitat on the return flight north. Without control, Chinese tallow tree invasions threaten the diversity of the bottomland hardwood community and the quality of habitat it provides.

The Wood Duck site affords an unused opportunity to interpret oil

and gas exploration,production, and restoration at a site typical of south Louisiana. A portion of the existing roadbed is already utilized as the Wood Duck Trail, providing visitor access to the site. The existing oilfield infrastructure/debris present many unanswered questions for the visitor about oil and gas exploration and production at the site. The restoration of the site will provide an opportunity to interpret the end result of a complete cycle of oil and gas exploration, production, and restoration. The evident impacts such as the capped wellhead and the mitigated impacts such as planting of the brine killed area both provide needed educational opportunities for visitors to learn about the effects of one of the biggest industries in Louisiana and throughout the Gulf South.

Description of Recommended Project or Activity

To restore the natural conditions at the Wood Duck trail terminus by removal of oilfield debris and non-native plants and planting of native species., and to provide interpretive opportunities for park visitors. Restoration will have four components:

1. In the 0.5 acre wellhead site: Remove the shell pad, concrete, and other debris and replant with native bottomland hardwood trees such as Nutall oak and water oak.

2.In the 1.1 acre site within the levee: Gap the containment levee and oilfield road to restore the natural hydrology and replant with native bottomland hardwood trees such as Nutall oak and water oak.

3.In the 23 acre brine impacted site: Remove Chinese tallow trees and replant with native cypress-tupelo swamp species.

4. Construct a 250 foot boardwalk extension of the Wood Duck hiking trail through the mitigation area. Provide interpretive waysides about oil and gas exploration, production, and drill site restoration.

Methodology - All activities will be carried out under the supervision and direction of the Chief of Resource Management of Jean Lafitte National Historical Park and Preserve. Dates are goals for completion or implementation of various activities related to this project.

1.April 1, 1997: Develop interagency agreements with West Jefferson Levee Board, and Jefferson Parish. NPS begin 60 day public review of an Environmental Assessment.

2.April 1 - October 1, 1997: Recruit and schedule scout and other youth groups to assist in Chinese tallow removal throughout project site. Several groups are already part of the park's Volunteer-In-Parks program. Carry out work throughout the project as volunteers are available.

3. June 1, 1997: In cooperation with Coastal Environmental Engineering Consultants (contracted jointly by West Jefferson Levee Board and Jefferson Parish), finalize drawings and plan of operation for oilfield debris removal and levee gaping. End 60 day public review of the Environmental Assessment.

4. June 15, 1997: NPS develop scope of work and begin contracting process for development of interpretive waysides and trail construction.

5.July 1, 1997: NPS will issue a Finding of No Significant Impact and a Wetlands Statement of Findings to complete the Environmental Assessment process.

6.August 1, 1997: Place order to Louisiana Department of Forestry for bare-root seedlings and develop planting guidelines to maximize survival rate of native transplants.

7. August 15, 1997: Award contracts for interpretive waysides and trail construction.

8. October 1 - 30, 1997: Contractor for West Jefferson Levee Board and Jefferson Parish remove oilfield debris, gap levee, and stabilize the site for planting native transplants.

9. November 1 - 30, 1997: Construct boardwalk trail and install interpretive waysides.

10. December 1 - 15, 1997: West Jefferson Levee Board and Jefferson Parish (or their contractor) plant native transplants according to the planting plan.

This project is consistent with the park's General Management Plan. The project facilitates new partnerships with the West Jefferson

Levee Board and Jefferson Parish to mitigate wetland loses elsewhere in the Parish while restoring a wetland area in the Preserve, and develops a working relationship with the Louisiana Department of Forestry.

The project site will be monitored for survival rates of transplants by species twice a year for two years after completion of the project. It will be necessary to continue removal of Chinese Tallow trees while the native trees are becoming established.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	125.00	0.70
Year 2:	MIT	One-time	62.00	0.30
Year 4:	MON	One-time	1.00	0.10
		Total:	188.00	1.10

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement

JELA-N-007.005
Priority: 0

Last Update: 07/17/97
Initial Proposal: 1997

Title : MANAGE GEOPHYSICAL EXPLORATION OPERATIONS
Sub-title: OIL AND GAS

Funding Status: Funded: 0.00 Unfunded: 0.00

Servicewide Issues : N06 (LAND USE PRAC)
N10 (MINRL/GEOTHERM)

Cultural Resource Type:
N-RMAP Program codes : G00 (Geologic Resources Management)
G02 (Mining and Minerals Management)

10-238 Package Number :

Problem Statement

Jean Lafitte National Historical Park and Preserve was established in 1978 under legislation that specifically allowed for non-federal oil and gas activity. The park manages such activities under the direction of 36 CFR 9B.

Recent technological improvements in geophysical exploration techniques has prompted a new interest in exploring the mineral resources beneath the park's Barataria Preserve Unit. The park has been approached by several operators in the last two years regarding 3-D seismic exploration.

It is imperitive that such operations be managed in accordance with 36 CFR 9B regulations as well as other appropriate laws, such as National Environmental Policy Act, Clean Water Act, and the Endangered Species Act. It is also important for resource management staff to be aware of technological advances in the geophysical field, practices to minimize disturbance to operations and resources, and potential long-term impacts to plant and animal communities.

Description of Recommended Project or Activity

The park should maintain close communications with the NPS Geologic Resources Division, other oil and gas parks, as well as the regulatory and scientific communities.

When a exploration proposal is submitted to the park, every effort should be made to fairly apply applicable regulations to protect park resources.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

(No information provided)

Compliance codes : EA (ENV. ASSESSMENT)
NHPA ((106) NAT. HIST. PRES.)

Explanation:

Project Statement

JELA-N-008.001
Priority: 28

Last Update: 09/09/98
Initial Proposal: 1995

Title : CREATE A FISHERIES MANAGEMENT PLAN FOR BARATARIA
Sub-title: FISHERIES RESOURCES

Funding Status: Funded: 0.00 Unfunded: 20.00

Servicewide Issues : N00 (FISHERIES)
N19 (CONSUMPT USE)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W08 (Fisheries Management)

10-238 Package Number :

Problem Statement

The enabling legislation that established Jean Lafitte NHP&Pr. specifically allowed for recreational and commercial fishing in the Barataria Preserve Unit. The park does not actively manage the fisheries program and current efforts focus on enforcement of State regulations.

Developing a Fisheries Management Plan would allow the park to codify management priorities, outline specific actions, assess research needs, and identify strategies for dealing with fisheries management issues.

Description of Recommended Project or Activity

Park staff should undertake to write a Fisheries Management Plan for the Barataria Unit. Other federal, state, and university authorities will be contacted for necessary fisheries expertise.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	One-time	20.00	0.30
		Total:	20.00	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 B(4)

Project Statement JELA-N-008.002

Last Update: 08/18/98 Priority: 1
Initial Proposal: 1994

Title : EVALUATE AND MANAGE EFFECTS OF DEER OVERBROWSING
Sub-title: WILDLIFE RESOURCES

Funding Status: Funded: 26.00 Unfunded: 115.00

Servicewide Issues : N19 (CONSUMPT USE)
N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W09 (Hunted and Trapped Species Management)

10-238 Package Number :

Problem Statement

Introduction

The white-tailed (Odocoileus virginianus) deer population appears to be increasing at the Barataria Preserve Unit of Jean Lafitte National Historical Park and Preserve. Some habitats are showing signs of overbrowsing, particularly in high visitor use areas that are closed to hunting. The park has an active deer hunting program as provided for in the park's enabling legislation, thus providing managers a valuable wildlife management tool to ensure the long-term sustainability of the park habitats as well as the deer population as an ecosystem component and game species.

Deer Habitat

One of six park sites, the Barataria Preserve is a 20,000 acre wetland complex composed of about 60% freshwater and intermediate marshes, 20% cypress swamps, and 20% bottomland hardwoods. The legislation establishing the park enumerates certain values to be protected in the Barataria Preserve Unit, including vegetative cover and integrity of ecological and biological systems. Both of these values may be threatened by habitat degradation caused by deer overbrowsing. Observation by forest ecologists (Denslow, 1998) working in the bottomland hardwoods of the Barataria Preserve have

noted poor seedling recruitment of favored browse species possibly related to excessive herbivory. It was also noted that many seedlings and saplings show mortality or reduced viability in response to herbivory. Park staff and cooperators have noted a large increase in recent years in deer sign throughout the preserve, including tracks, rubs, and scat. Due to lack of funds and staff, there have been no efforts to evaluate impacts of deer browse or determine carrying capacity of the park habitats.

Deer Management

The park's enabling legislation specifically provides for hunting in the Barataria Preserve Unit and authorizes the Park to establish seasons and restrictions. Currently, park hunting zones, dates, and other regulations are loosely based on state regulations, not on valid scientific data. Each year as many as 45 deer are legally removed from the Preserve. Weight, age, sex, and kill location data are currently collected on bagged deer, but are statistically inconclusive to describe the status and trend of the population. Due to lack of funds and staff, there have been no efforts to determine animal movements and the existing levels of immigration and emigration within the habitats of the preserve or beyond the preserve boundaries.

Urbanization

The preserve is located on the urban fringe of New Orleans. In recent years, the lands adjacent to the preserve have been converted from woodlands to suburban neighborhoods, thus reducing suitable deer habitat and likely concentrating animals in the preserve. The areas to the north and east of the Preserve are suburban, with new neighborhoods built or planned up to the park's boundary. To the west of the Preserve is a large lake surrounded by marsh, a crossing that would be nearly impossible for deer. To the south of the Preserve is the Gulf Intercoastal Waterway, a wide canal with heavy boat traffic that would present a hazardous crossing for deer. And south of the Intercoastal are linear human settlements and brackish water marshes that provide only marginal deer habitat. The net effect of these limitations to immigration and emigration is an amplification of effects of poor deer management. If deer are overharvested or the population crashes due to overbrowsing, there would be limited opportunity for recruitment of new individuals to the park's population. If the deer population is allowed to exceed the carrying capacity of the park's habitats, the population will likely crash thus eliminating or drastically reducing an important ecosystem component and making it difficult for the park to sustain its mandated hunting program. In the meantime, as the deer

population increases due to natural growth or the concentration of deer from recently urbanized lands, the park's habitats and the myriad of species that depend on them are potentially threatened by overbrowsing.

Solution
The hunting program represents a valuable opportunity to protect park habitats from the impacts of deer overbrowsing. However, before this tool can be effectively used, the park must conduct a study to:
a) assess carrying capacity of the park habitats and current levels of deer browse
b) determine the current deer population and trend, including distribution, size, and viability

This information will then be used as the basis for a deer management plan that will establish target harvest levels to avoid overbrowsing of park habitats and appropriate hunting regulations to meet the park's deer management goal.

Description of Recommended Project or Activity

Deer Management Goal:
To ensure the long-term sustainability of the deer population as an ecosystem component and game species without degradation of the park's habitats.

Project Objectives:

1. Conduct a study to:
a. Assess carrying capacity of the park habitats and current levels of deer browse
b. Determine the current deer population and trend including distribution, size, and viability

2. Based on the above study, develop a deer management plan to:
a. Establish target harvest levels to avoid overbrowsing of park habitats
b. Revise existing hunting regulations such as hunting zones, dates, doe programs, and take-limits consistent with the established target harvest levels
c. Develop protocols for annual deer and habitat surveys to evaluate the effectiveness of the hunting regulations in meeting the

management goal

3. Educate park visitors, particularly hunters, of the park's deer management goal, study objectives, and methodologies.

Methodologies:

1) Deer distribution will be assessed using harvest location records, forward looking infrared radar (FLIR), and remote cameras to confirm the FLIR data. Pre- and post-season FLIR analysis and comparison of data between hunted and non-hunted areas within the park will be used to determine the effects of hunting on deer distribution.

2) Deer health will be assessed using existing harvest data, dating to 1983, and a rigorous check station for one season during the study. The main check station located at the preserve maintenance yard will be staffed daily by the researcher and/or student assistants, and an additional check station on the north end of the park may be established during busy days. Data to be collected at the check station will include standard data (zone, habitat, time, sex, antler tynes/nubs, and weight) as well as additional measurements as determined. Data will be compared to other deer populations in the state based on the Doe Tag Program data.

3) Population size and age structure will be determined using FLIR, remote cameras, spotlight census in transects across habitat types, and age structure reconstruction using the existing harvest data. Illegal harvest will be estimated based on comparisons of expected and actual population growth between the two years.

4) Habitat use will be assessed using annual browse surveys conducted on transects with end plots located in all of the park's major terrestrial habitats. Fecal pellet analysis from harvested deer and in the field, if water conditions allow, will be used to determine food habits. Project JELA-005.007 (Assess nutria herbivory impacts) is scheduled for implementation in FY2000 and may provide an opportunity to use exclosure data to determine the effects of deer herbivory on plant species composition in the marsh environment.

Anticipated products:
1) Scientific report on the deer carrying capacity of the park's habitats including browse utilization, species selection, and an assessment tool that could be used by the park to conduct periodic

browse surveys.
2) Scientific report on the deer population demographics and projected trends and standard protocols for routine check stand data collection.
3) Deer management plan that establishes target harvest levels, appropriate hunting regulations to meet the park's deer management goal.
4) Spatial data for the park's ArcView 3.0 GIS.
    a. FLIR data
    b. browse transects
    c. spotlight census transects
5) Poster presentation appropriate for display in the preserve's Visitor Center and professional meetings.

Information transfer:
Study reports and the management plan will be made available to interested parties. Study methodologies, particularly to measure population distribution and size, may be of interest to many eastern NPS units who manage white-tail deer as a nuisance species. Specific avenues for information transfer may include an article for Park Science or a poster presentation at a George Wright Society conference.

Researchers:
The park will hire a GS-486-07/09/11 Term Wildlife Biologist (NTE 2 years) to undertake this project. The park has identified funding of $26,000 to initiate the position and cover salary and benefits for 6-9 months, depending on the starting grade and step. The draft Resources Careers Wildlife Biologist position description will be used to recruit and fill the position in fall of 1998. Recruitment plans currently focus on advertising at historically black colleges and universities with wildlife biology/management programs as well as traditional channels.

Dr. Mark Johnson of Louisiana State University will provide technical assistance in developing the study plan and analyzing the collected data. Dr. Johnson has extensive experience with white-tailed deer management in Louisiana and the use of FLIR and trigger cameras. Additionally, Dr. Johnson has provided technical assistance to the preserve on numerous occasions and is familiar with the park habitats and management concerns. A private company called Airscan will be contracted to provide the FLIR data. They have worked in other areas near the park and are familiar with both the technology and the environmental constraints of our habitats.

Contracting with an academic institution, obtaining the necessary expertise on park staff, or a combination of the two (as proposed) is the most feasible method to address this critical park issue. Past consultations with the Louisiana Department of Wildlife and Fisheries have demonstrated divergent management philosophies as the park is interested in managing deer as an ecosystem component and the Deptartment is interested in maximizing deer production as a game species. Several attempts have been made to gain technical assistance from the regional and national offices of the National Park Service to address this issue, but there has been minimal response. The park's current natural resource management staff consists of one GS-401-09 FTE for a natural resource management specialist, 1/3 of a GS-401-12 FTE Chief of Resource Management, and 1/4 on a GS-303-03 FTE for an Office Automation Clerk (data management). This limited staff lacks the time or expertise to effectively undertake this project.

Budget

Funding is needed to cover the term Wildlife Biologist position for the remainder of FY99 as well as FY00. Preliminary cost estimates including benefits have been developed with the park's persnnel specialist and budget analyst: GS07/01 is $32,234 per year, GS09/01 is $39435 per year, and GS11/01 is $47,719 per year. As exact costs will depend upon the starting grade of the incumbent, the maximum amount needed (two years at GS-11 pay) is used as the basis for the personnel portion of this funding request.

	Personnel	LSU Tech Asst	FLIR	Total
Year 1:	$22,000	$10,000	$10,000	$42,000
Year 2:	$49,000	$10,000	$10,000	$69,000
Total:	$71,000	$20,000	$20,000	$111,000

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			FUNDED		
1999:	PKBASE-NR	RES	One-time	26.00	0.60
			Total:	26.00	0.60

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	46.00	0.40
Year 2:	RES	One-time	69.00	1.00
		Total:	115.00	1.40

(Optional) Alternative Actions/Solutions and Impacts

Without a comprehensive analysis of our deer population and habitats to determine carrying capacity, the hunting program will continue to be based on inadequate information with real potential for overpopulation, unsustainable harvests, or even legal action against the park for arbitrary management decisions.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-N-009.001
Priority: 48

Last Update: 03/21/96
Initial Proposal: 1995

Title : MONITOR AIR QUALITY AT THE CHALMETTE UNIT
Sub-title: MONITORING

Funding Status: Funded: 0.00 Unfunded: 30.00

Servicewide Issues : N14 (AIR POLLUTION)

Cultural Resource Type:
N-RMAP Program codes : A00 (Air Resources Management)
A02 (Air Quality Monitoring)

10-238 Package Number :

Problem Statement

The Chalmette Unit is the site of the January 8, 1815 Battle of New Orleans. The 241 acre Unit contains a National Cemetary, the historic Beauregard House and other historic constructions. It is located approximately 6 miles east of downtown New Orleans at the levee of the Mississippi River. In addition to expected urban air quality concerns, the Unit is completely surrounded by development and industry. Adjacent to the park, down river, is a aluminum plant. This facility is not currently operational. Adjacent to this plant is an operating Mobil Oil refinery. The St. Bernard Parish Port Authority shares a property line with the park on the up river side.The Unit does not have an any air quality monitoring. The park is unable to establish existing concentrations, assess trends, judge compliance with air quality regulations, correlate air pollutants with effects to resources, provide meaningful input on proposed new sources of air pollution, or meet any other objectives of NPS air quality monitoring guidelines. Considering the potential for air pollutants at the Unit, air quality monitoring should be implemented as soon as possible.

Description of Recommended Project or Activity

Park staff should work with NPS air resources staff to develop an air quality monitoring protocol for the Chalmette Unit. The park should purchase all monitoring equipment necessary, obtain a contract for filter analysis, and train park staff in monitoring techniques.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	15.00	0.30
Year 2:	MON	Cyclic	5.00	0.10
Year 3:	MON	Cyclic	5.00	0.10
Year 4:	MON	Cyclic	5.00	0.10
		Total:	30.00	0.60

(Optional) Alternative Actions/Solutions and Impacts

If the park does not implement air quality monitoring at the Chalmette Unit, the pollutants will continue to be unknown. Park staff will not be able to determine what effects, if any the nearby oil refinery is having on historic constructions, the head stones of the National Cemetary, or human health.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-N-009.002
Priority: 47

Last Update: 03/02/95
Initial Proposal: 1995

Title : MONITOR AIR QUALITY AT THE BARATARIA UNIT
Sub-title: MONITORING

Funding Status: Funded: 0.00 Unfunded: 41.00

Servicewide Issues : N14 (AIR POLLUTION)

Cultural Resource Type:
N-RMAP Program codes : A00 (Air Resources Management)
A02 (Air Quality Monitoring)

10-238 Package Number :

Problem Statement

The Barataria Preserve Unit is located approximately 15 miles south of downtown New Orleans. The approximately 20,000 acre Preserve is managed as a natural area and contains numerous archeological sites.There are many producing oil fields and operating oil refineries on the west bank of the Mississippi River in close proximity of the Preserve.The Preserve does not have any air quality monitoring. The park is unable to establish existing concentrations, assess trends, correlate air pollutants with effects to resources, provide meaningful input on proposed new sources of air pollution, or meet any other NPS air quality monitoring guidelines. Considering the potential for air pollution so close to a large city and from nearby oil and gas operations, the Preserve should implement air quality monitoring as soon as possible.

Description of Recommended Project or Activity

Park staff should work with NPS air resources staff to develop an air quality monitoring protocol for the Barataria Unit. The park should purchase all monitoring equipment necessary, obtain a contract for filter analysis, and train park staff in monitoring techniques.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	20.00	0.30
Year 2:	MON	Cyclic	7.00	0.20
Year 3:	MON	Cyclic	7.00	0.20
Year 4:	MON	Cyclic	7.00	0.20
		Total:	41.00	0.90

(Optional) Alternative Actions/Solutions and Impacts

If the park does not implement air quality monitoring at the Barataria Preserve Unit, any pollutants will remain unknown. Park staff will not be able to determine what effects, if any nearby oil and gas operations are have on vegetation, wildlife, cultural resources, or human health.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-N-011.001
Priority: 37

Last Update: 08/21/98
Initial Proposal: 1994

Title : MONITOR LARGE MAMMAL POPULATIONS
Sub-title: MONITORING

Funding Status: Funded: 0.00 Unfunded: 30.00

Servicewide Issues : N20 (BASELINE DATA)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W06 (Native Animal Species Population Management)

10-238 Package Number :

Problem Statement

The park has developed a preliminary checklist of mammals in the Barataria reserve Unit. The inventory of large mammal species is essentially complete. However, no studies of population trends, seasonal dynamics, behavioral changes due to human impacts, or any other complex environmental interaction has ever been conducted. Large mammals are of particular interest to many park visitors and should be carefully managed to ensure their continued success. The park is only an island of preserved habitat within a growing urban/suburban area and larger mammals will be further isolated and subject to increased stress and competition as development along the boundary continues. The park should begin management to preserve the park's mammal diversity. Without lucid information to delineate appropriate management actions the park may not be assured of healthy large mammal populations in the future.

Description of Recommended Project or Activity

Individuals with expertise in managing local mammal species will be utilized to design and implement the studies of environmental interactions within the park. Park staff will be involved with all stages of planning and in the data collection and analysis. Research should be designed to allow long term management actions to ensure continued success of native mammal species and controls of exotics.

BUDGET AND FTEs:

FUNDED				
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			Total:	0.00	0.00

UNFUNDED				
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:		MON	One-time	10.00	0.20
Year 2:		MON	One-time	10.00	0.20
Year 3:		MON	One-time	10.00	0.20
			Total:	30.00	0.60

(Optional) Alternative Actions/Solutions and Impacts

If no studies of large mammals are undertaken it will be difficult for the park to meet the ever increasing challenge of perserving native mammal populations in an environment subject yto nearby development pressures. This could lead to extirpation of natvie species and unchecked expansion of exotics in the park.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation: EA

Project Statement

JELA-N-011.003
Priority: 27

Last Update: 08/21/98
Initial Proposal: 1994

Title : INVENTORY FISHERIES
Sub-title: INVENTORY

Funding Status: Funded: 0.00 Unfunded: 50.00

Servicewide Issues : N20 (BASELINE DATA)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W08 (Fisheries Management)

10-238 Package Number :

Problem Statement

The Barataria Preserve Unit consists of approximately 20,000 acres of land in the lower Mississippi delta, situated at the head of the Barataria estuary. It is characterized by bottomland hardwoods, cypress swamp, and freshwater, flotant marsh. In each of these major communities there is ample fish habitat-- puddles, bayous, canals, seasonal standing water, lakes and other water bodies characteristic of a wetland environment. A working list of fish species collected in the park has been developed. However, for the most part this data was gathered incidentally during other research initivies. Consistant with NPS efforts to establish programs and information needs for biological diversity in parks, a formal, repeatable study should be conducted to inventoriy and monitor the park's fish resources. This need becomes magnified as fishing is specificall identified in the park's enabling legislation as a cultural use that should be preserved and interpreted. The legislation specifically allows commercial fishing, an activity that cannot be properly monitored without baseline data.

Description of Recommended Project or Activity

Staff and outside expertise should be utilized to design and implement a long-term fish resource inventory. Data collection sites should be established thoughout the entire park, in as many different specific habitat types as possible. Detailed procedural records will be kept to allow accurate future replication. Collected data will be compared with historical accounts and fish populations in physically similar natural areas to establish population trends and specific management needs. Any protected fish species found will be managed in accordance with relevant Federal or State regulations.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1995:	PKBASE-OT	RES	One-time	0.00	0.10
			Total:	0.00	0.10

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	20.00	0.60
Year 2:	MON	One-time	10.00	0.30
Year 3:	MON	One-time	10.00	0.30
Year 4:	MON	One-time	10.00	0.60
		Total:	50.00	1.80

(Optional) Alternative Actions/Solutions and Impacts

If no survey of fish taxa is implemented it will be difficult for the park to assess the effects of harvest on the fish resources in its charge. The park will not be able to offer neccessary protetion to any rare species discovered and will not have enough informaiton to design other water resource management initiatives to most effectively maintain species diversity in its waters.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-N-011.005
Priority: 32

Last Update: 08/21/98
Initial Proposal: 1994

Title : INVENTORY TERRESTRIAL INVERTEBRATES
Sub-title: INVENTORY

Funding Status: Funded: 0.00 Unfunded: 75.00

Servicewide Issues : N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W01 (Native Terrestrial Animal Management & Monitoring)

10-238 Package Number :

Problem Statement

No comprehensive inventory of terrestrial invertebrates has ever been undertaken in the park. Basic inventories are required by NPS policy. The diverse habitats and niches within the Barataria Preserve Unit provide ideal conditions for many species. As there is not even a sampling of the kinds and concentrations of invertebrates, the park cannot give any consideration to these taxa in management initiatives. RMAP and other attempts to assess the scope of the park's natural resources will not have the baseline information available to consider these species until an invertebrate survey is undertaken.

This effort will be supplemented by on-going inventory and monitoring efforts specific to certain taxa:

Preliminary spider inventory efforts by VIP Margaret Seale
Annual North American Butterfly Count
Annual Gypsy Moth monitoring effort

Description of Recommended Project or Activity

The park will contact experts in local invertebrate taxonomy to design and implement this study. Sampling sites will be choosen in as many diverse habitats as possible. All procedures will be carefully recorded to allow for repeatablity. Park staff will assist in data collection, site monitoring and identification. A report including a checklist of species and recomendations for managment actions will be produced for reference by the park.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	25.00	0.30
Year 2:	MON	One-time	25.00	0.30
Year 3:	MON	One-time	25.00	0.30
		Total:	75.00	0.90

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-011.006

Last Update: 08/21/98 Priority: 26
Initial Proposal: 1994

Title : INVENTORY AQUATIC INVERTEBRATES
Sub-title: INVENTORY

Funding Status: Funded: 0.00 Unfunded: 75.00

Servicewide Issues : N20 (BASELINE DATA)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W02 (Native Aquatic Animal Management & Monitoring)

10-238 Package Number :

Problem Statement

The exotic zebra mussel (Dreissena polymorpha) was introduced introduced in Lake St. Clair in 1986. It has spread rapidly into interior rivers since then and is now in the lower Mississippi River. It was thought that water tempeture and current speed would keep zebra mussel from establishing in the Mississippi Deltaic Plain, but recent evidence indicates the mussel is much more tolerant than expected. Zebra mussels have decimated native mussel populations and caused widespread extirpations where they are established.

The Barataria Preserve Unit contains miles of natural waterways, old logging, navigational, and oil exploration canals. It is bordered by lakes and bayous. Most waterbottoms are unconsolidated sediments and therefore not prime habitat for zebra mussel, however suitable substrate does exist. A U.S. Army Corps of Engineers project to divert Mississippi River water through wetlands, including the Preserve, will undoubtedly introduce zebra mussel anywhere there is suitable habitat. The diversion has the potential to effect benthic organisms in other ways by changing water temperature, pollutant loads, turbidity etc.

No inventory of benthic organisms has ever been done. Conducting an inventory fulfills NPS policy mandates and will provide baseline information to assess effects of the diversion on the benthos. The park could also use this information to identify indicator organisms for characterizations of overall water quality.

Additionally, shellfish and other aquatic invertebrates have not been inventoried. The park's enabling legislation includes provisions for commercial fishing that may include shellfish. The lack of baseline information regarding this community hampers the park's ability to develop a fisheries management plan.

Description of Recommended Project or Activity

A survey of the benthic resources in the park will be undertaken before the Mississippi River diversion. The park will contract researchers from universities and/or other government agencies to conduct the inventory. Objectives of the inventory include:

Inventory of all benthic organisms encountered

Identify species of special concern (T&E, Louisiana State list, introduced species, etc.)

Train park staff in benthic organisms identification

Establish study areas to compare pre and post-diversion benthos.

Additionally, shellfish populations will be inventoried over all four seasons to determine species present, seasonal abundance, and distribution.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	25.00	0.10
Year 2:	MON	One-time	25.00	0.10
Year 3:	MON	One-time	25.00	0.10
		Total:	75.00	0.30

(Optional) Alternative Actions/Solutions and Impacts

If no survey is done it will be difficult to assess impacts from the river diversion project. The park will not have accurate information for resource management objectives such as R-MAP and will therefore continue to underestimate its natural resource management needs.

Additionally, shellfish will not be addressed in fisheries management programs including commercial fishing.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-011.008

Last Update: 12/09/97 Priority: 34
Initial Proposal: 1994

Title : MONITOR NEO-TROPICAL MIGRANT HABITAT UTILIZATION
Sub-title: MONITORING; BASELINE STUD

Funding Status: Funded: 6.50 Unfunded: 25.00

Servicewide Issues : N20 (BASELINE DATA)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W01 (Native Terrestrial Animal Management & Monitoring)

10-238 Package Number :

Problem Statement

The Barataria Preserve Unithas recorded 113 species of neo-tropical migrant bird species. Of these, 28 species have bred. The Preserve contains one of the southernmost major forest stands on the central Gulf Coast, serving as critical habitat for both southbound fall migrants staging for the trans-gulf flight, and for northbound spring migrants to rest and re-fuel before continuing. Little is known about foraging strategies, vegetative substrate utilization, effects of fragmentation, predation, prey selection, flocking, interaction with resident species, territoriality, and temporal requirements of neo-tropical migrants in the critical periods immediately before and after the supreme challenge of trans-gulf flight. The Preserve would provide a unique and stable area to conduct repeatable studies addressing these questions.

Description of Recommended Project or Activity

Avian migration through the Preserve will be monitored during spring and fall. A banding station, mist-netting operation, and point-count censusing network will be established. Data will be collected on age ratios, weight, weight gain of re-captures, duration of stay, foraging substrates, prey selection, flock composition, territoriality, interactions with congeners, other migrants, and resident species. Some captures will be held and tested for flight direction proclivities. Data willl be analysed and compared with similar data from migration study sites at Gulf Islands National Seashore, Holleyman Sanctuary, and other northern gulf coast sites.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1994:	RG-NS-RES	RES	One-time	1.50	0.05
1997:	PKBASE-NR	RES	One-time	5.00	0.05
			Total:	6.50	0.10
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:		MON	One-time	10.00	0.10
Year 2:		MON	One-time	10.00	0.10
Year 3:		MON	One-time	5.00	0.10
			Total:	25.00	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-011.009

Last Update: 08/21/98 Priority: 38
Initial Proposal: 1994

Title : CONDUCT ALLIGATOR SURVEY (FOUR TIMES/YR)
Sub-title: MONITORING

Funding Status: Funded: 0.00 Unfunded: 8.00

Servicewide Issues : N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W01 (Native Terrestrial Animal Management & Monitoring)

10-238 Package Number :

Problem Statement

One of the park's most important species is the American alligator. The species acts as a top of the food chain predator, is highly visible and evokes strong emotional resonances for visitors to wetlands, and serves as an important indicator of ecosystem viability. Population trends, health, and concentrations have never been measured in any meaningful way. The park should attempt to document approximatations of these characteristics over time. This will allow managers to acquire baseline data and design initiatives for the continued health of this unique resource.

Description of Recommended Project or Activity

Park staff will design and implement an alligator survey. Routes will be established and at least for times during the year all alligators present on the routes will be counted and observed. Observations will be made at night and during the early spring, late spring, summer and fall. Areas of apparent suitable alligator habitat but low alligator concentration will be investigated.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	Recurring	5.00	0.15
Year 2:	MON	Recurring	1.00	0.10
Year 3:	MON	Recurring	1.00	0.10
Year 4:	MON	Recurring	1.00	0.10
		Total:	8.00	0.45

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-011.010

Last Update: 08/21/98 Priority: 0
Initial Proposal: 1995

Title : ESTABLISH NEO-TROPICAL MIGRANT MONITORING
Sub-title: MONITORING

Funding Status: Funded: 9.00 Unfunded: 0.00

Servicewide Issues : N20 (BASELINE DATA)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W01 (Native Terrestrial Animal Management & Monitoring)

10-238 Package Number :

Problem Statement

Approximately seventy species of neotropcial migrants utilize the Barataria Preserve's forests during migration. Very little research and monitoring has been done on migrant utilization of near coast forest like that in the Preserve.The park contracted to determine an efficient protocol for point counts within the Preserve during the 1994 fall migration. The final report was submitted in late 1994. The park has developed permanent monitoring points in the Preserve based on that research. Using the same points consistently will allow reliable analysis of trends; comparisons between the Preserve's forest and other near coastal forests, and interior forests; and comparisons between spring and fall rate of utilization. The park advertised the need for bird counters in the American Birdings Association's Volunteer Opportunities for Birders. If any volunteer's avail themselves, the park may need to provide them supplies and support. If no volunteer's come forward the park should contract ornithology students or other reliable birders to monitor migration in the park.

Description of Recommended Project or Activity

The park should develop data sheets, maps, and a data base for compiling all observations collected during migration. The park should have extra binoculars available for volunteers.

The park should continue to publicize the need for volunteers during migration. If none are available, birders should be contracted to conduct the monitoring.

Once the monitoring effort is established data collection could be refined to monitor more subtle uses, such as habitat preference and substrate utilization.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1995:	PKBASE-NR	MON	One-time	5.00	0.10
	PKBASE-NR	MON	Recurring	2.00	0.05
			Subtotal:	7.00	0.15
1996:	PKBASE-NR	MON	Recurring	2.00	0.05
			Total:	9.00	0.20

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-011.011

Last Update: 03/21/96 Priority: 14
Initial Proposal: 1994

Title : MONITOR NEOTROPICAL MIGRANT BREEDING POPULATION
Sub-title: MONITORING; TRENDS, HABIT

Funding Status: Funded: 0.00 Unfunded: 30.00

Servicewide Issues : N17 (BIODIVERSITY)
N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W06 (Native Animal Species Population Management)

10-238 Package Number :

Problem Statement

Several species of neotropical migrant birds are declining according to recently published analyses of Breeding Bird Survey data. On the breeding grounds, causes such as habitat fragmentation, cowbird parasitism, and nest predation have been identified. The Barataria Preserve is an island of habitat that is isolated from similar habitat elsewhere in the region by geographic circumstance and by urbanization. It thus provides a unique laboratory, not only for studying trends in a stable community, but also for comparing those trends with nearby fragmented habitats. Furthermore, the "island effect can be analysed by comparing species composition and trends to larger tracts of similar un-isolated habitat.

Description of Recommended Project or Activity

During the nesting season, neotropical migrant species will be studied in fragmented and un-fragmented habitat, looking to identify factors which effect nesting success. Rates of fledging, nest parasitism, and predation will be compared. Territorial boundaries will be delineated and teritorial characteristics, effect of openings, and vegetative substrates will be analysed. Netting will be conducted and individuals marked with leg bands so they can be followed. An effort will be made to determine whether some individuals of short-distance neotropical migrants, e.g. White-eyed Vireo and Blue-gray Gnatcatcher, remain resident or leave and are replaced in winter with other individuals.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	10.00	0.10
Year 2:	MON	One-time	10.00	0.10
Year 3:	MON	One-time	10.00	0.10
		Total:	30.00	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2,1.6

Project Statement JELA-N-011.012

Last Update: 08/21/98 Priority: 31
Initial Proposal: 1994

Title : INVENTORY SMALL MAMMALS
Sub-title: INVENTORY & MONITORING

Funding Status: Funded: 0.00 Unfunded: 20.00

Servicewide Issues : N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W01 (Native Terrestrial Animal Management & Monitoring)

10-238 Package Number :

Problem Statement

The park has developed a preliminary check-list of mammals in the Barataria Preserve Unit. However, the survey of small, more evasive mammals is incomplete. The park is within the known range of many rodent and bat species that have never been confirmed as resident. Without baseline information as to the variety of small mammals present, the park cannot consider these species when making management decisions, and will not be in compliance with NPS policy. Knowledge as to presence or absence of these species could provide habitat quality information, identify any Federal or State protected species, and assist in defining the scope of the natural resources within park boundaries.

Description of Recommended Project or Activity

Park staff, in conjuction with other governmental organizations and interested NGOs, should develop a research plan to identify all small mammals in the park with an emphasis on Chiroptera and small Rodentia species. Night surveys, mist netting, baited traps, and other accepted techniques will be employeed by qualified individuals. A final report will be compiled detailing collection methods and sites surveyed so the project could be replicated at a later date to determine trends and/or gather additional information on target species.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	10.00	0.20
Year 2:	MON	One-time	10.00	0.20
		Total:	20.00	0.40

(Optional) Alternative Actions/Solutions and Impacts

If the park does not survey its small mammals it will miss an opportunity to expand knowledge of its resources. The park will not be able to indentify and manage protected species as mandated by law, or have the neccessary baseline data to assess its natural resource needs.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-N-011.013
Priority: 42

Last Update: 03/21/96
Initial Proposal: 1995

Title : DEVELOP DATABASE FOR WILDLIFE OBSERVATIONS
Sub-title: WILDLIFE RESOURCES

Funding Status: Funded: 0.00 Unfunded: 5.00

Servicewide Issues : N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W01 (Native Terrestrial Animal Management & Monitoring)

10-238 Package Number :

Problem Statement

The Barataria Preserve receives 800,000+ visitors a year. The park has developed a wildlife observation form so visitors and researchers can record unusual wildlife observations. Species lists have been developed so observers can be aware if their observation is uncommon.However, the park does not make good use of these forms. There is no database of wildlife observations. If unusual observations are reported the reports often fall through the cracks.The Chief of Resource Management is an expert birder. He has collected ten years of observations. Currently they are kept in hardcopy at the headquarters office. Entering this data into a simple database would allow access for filter reports, and provide a historical bird data base for the park.

Description of Recommended Project or Activity

Databases for species observations in the park should be set up. When NPS adopts a standard database system the park should purchase that software. Databases should be separated on broad levels, such as by class, so input screens can reflect specific information.The historical bird data should be entered into one large database. The bird database used by the U.S. Fish and Wildlife Service is probably the most useful at this time.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	One-time	5.00	0.10
		Total:	5.00	0.10

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-N-011.014
Priority: 33

Last Update: 08/21/98
Initial Proposal: 1996

Title : MONITOR REPTILE AND AMPHIBIAN POPULATIONS
Sub-title: MONITORING

Funding Status: Funded: 0.00 Unfunded: 32.00

Servicewide Issues : N20 (BASELINE DATA)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W01 (Native Terrestrial Animal Management & Monitoring)

10-238 Package Number :

Problem Statement

Declines in reptile and amphibian populations are being reported worldwide. The possible causes include habitat loss, rising ultraviolet radiation, exposure to endocrine interfering compounds, acidification, pollution and a host of others.

The park has a complete inventory of reptile and amphibian species, but we have not done any population studies. Such studies are necessary to determine population trends, and to assess threats to reptiles and amphibians in the park.

Description of Recommended Project or Activity

The park should contract researchers from local universities to study population trends of reptiles and amphibians in the Barataria Preserve.

The study should include a monitoring schedule to continue monitoring reptiles and amphibians when the study is complete. Park

staff and volunteers will assist researchers and help monitor populations.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	15.00	0.10
Year 2:	MON	One-time	15.00	0.10
Year 3:	MON	One-time	1.00	0.05
Year 4:	MON	One-time	1.00	0.05
		Total:	32.00	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-N-013.001
Priority: 50

Last Update: 08/21/98
Initial Proposal: 1994

Title : REINTRODUCE EASTERN WILD TURKEY
Sub-title: WILDLIFE RESOURCES

Funding Status: Funded: 0.00 Unfunded: 60.00

Servicewide Issues : N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W04 (Reintroduction of Extirpated Animals)

10-238 Package Number :

Problem Statement

The eastern wild turkey (Meleagris gallopavo silvestris) is indigenous to the lower Mississippi delta, including the Barataria Preserve Unit. Unregulated hunting and habitat destruction decimated turkey populations in south east Louisiana in the late 1800s and early 1900s. Turkeys were extripated from the park and surrounding areas during this time.

The Barataria Preserve provides protected habitat for reestablishment of turkey populations. There are no natural corridors for turkeys to return to the park.

Eastern wild turkey reintroduction is consistent with the natural resource management goals in the park's General Management Plan and NPS Management Policies that pertain to native animal management.

The Louisiana Department of Wildlife and Fisheries is implementing a turkey reintroduction program throughout Louisiana. The park could obtain turkeys and additional turkey expertise from LA Wildlife and Fisheries or from a federal agency that has an established turkey population.

Description of Recommended Project or Activity

Resource management personnel will contact the LA Wildlife and Fisheries and/or a federal agency with an established turkey population. Turkey donors will visit the Barataria Preserve to determine its turkey carrying capacity. Turkeys captured from wild populations will be released in the Barataria Preserve in late winter or early spring.

Turkey populations will be monitored at regular intervals and the reestablishment success will be documented.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	20.00	0.20
Year 2:	MIT	One-time	20.00	0.20
Year 3:	MIT	One-time	20.00	0.20
		Total:	60.00	0.60

(Optional) Alternative Actions/Solutions and Impacts

If no action is taken, turkeys will not be reintroduced in the Barataria Preserve Unit. It is extremely unlikely that turkeys will ever naturally reestablish in the Preserve because of the geographic obstacles that currently exist.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 E(6)

Project Statement JELA-N-013.002

Last Update: 08/21/98 Priority: 51
Initial Proposal: 1995

Title : REINTRODUCE BOBCATS IN THE BARATARIA PRESERVE
Sub-title: WILDLIFE RESOURCES

Funding Status: Funded: 0.00 Unfunded: 50.00

Servicewide Issues : N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W04 (Reintroduction of Extirpated Animals)

10-238 Package Number :

Problem Statement

The bobcat's (Lynx rufus) historic range includes almost all of the United States and the eastern Louisiana subspecies, Lynx r. floridanus, is indigenous to the lower Mississippi delta, including the Barataria Preserve Unit. Habitat destruction and fragmentation, and direct removal by humans have extirpated the bobcat from the Preserve. The Preserve provides protected habitat for re-establishment of bobcats. A few unconfirmed sightings may indicate bobcats are re-colonizing the Preserve but because of surrounding development it is unlikely a population will establish unassisted.Re-establishment of bobcats is consistent with the natural resource management goals in the park's General Management Plan and NPS Management Policies that pertain to native animal management.

Description of Recommended Project or Activity

Resource management personnel will contact the LA Wildlife and Fisheries, the U.S. Fish and Wildlife Service, and other potential sources of Lynx rufus floridanus. An effort will be made to find animals as similar as possible to those historically in the Preserve area.Bobcats can be established at anytime of the year. Mid spring would be the ideal time so the animals would be well established by the winter mating season.Bobcat populations will be monitored at regular intervals and the reestablishment success will be documented.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	20.00	0.20
Year 2:	MON	One-time	20.00	0.20
Year 3:	MON	One-time	5.00	0.10
Year 4:	MON	Recurring	5.00	0.10
		Total:	50.00	0.60

(Optional) Alternative Actions/Solutions and Impacts

If no action is taken, bobcats will not be reintroduced in the Barataria Preserve Unit. It is unlikely that bobcats will re-colonize naturally because of the lack of corridors surrounding the Preserve.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 E(6)

Project Statement JELA-N-013.003

Last Update: 08/21/98 Priority: 52
Initial Proposal: 1995

Title : REINTRODUCE FOX SQUIRREL IN THE BARATARIA PRESERVE
Sub-title: WILDLIFE RESOURCES

Funding Status: Funded: 0.00 Unfunded: 50.00

Servicewide Issues : N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W04 (Reintroduction of Extirpated Animals)

10-238 Package Number :

Problem Statement

kThe Fox Squirrel's (Sciurus niger) historic range includes almost all of the e. United States and the Louisiana subspecies which occupies the Mississippi River bottoms, S. n. subauratus, is indigenous to the lower Mississippi delta, including the Barataria Preserve Unit. Habitat destruction and fragmentation, and direct removal by humans have extirpated the fox squirrel from the Preserve.

The Preserve provides protected habitat for re-establishment of fox squirrel. Re-establishment of fox squirrel is consistent with the natural resource management goals in the park's General Management Plan and NPS Management Policies that pertain to native animal management.

Description of Recommended Project or Activity

Resource management personnel will contact the LA Wildlife and Fisheries, the U.S. Fish and Wildlife Service, and other potential sources of delta fox squirrels. An effort will be made to find animals as similar as possible to those historically in the Preserve area.Squirrel populations will be monitored at regular intervals and the reestablishment success will be documented.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	20.00	0.20
Year 2:	MON	One-time	20.00	0.20
Year 3:	MON	One-time	5.00	0.10
Year 4:	MON	Recurring	5.00	0.10
		Total:	50.00	0.60

(Optional) Alternative Actions/Solutions and Impacts

If no action is taken, fox squirrels will not be reintroduced in the Barataria Preserve Unit. It is unlikely that fox squirrels will re-colonize naturally because of the lack of corridors surrounding the Preserve.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 E(6)

Project Statement

JELA-N-014.001
Priority: 30

Last Update: 08/21/98
Initial Proposal: 1994

Title : CONDUCT A BOTANICAL SURVEY OF THE BARATARIA PRES.
Sub-title: INVENTORY & MONITORING

Funding Status: Funded: 0.00 Unfunded: 104.00

Servicewide Issues : N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V01 (Native Terrestrial Plant Management and Monitoring)

10-238 Package Number :

Problem Statement

Although there have been site specific vegetation studies and a preliminary check-list of vascular plants, a complete botanical survey of the Barataria Preserve Unit is needed for non-vascular plants and for newly acquired property. New plant specimens are needed to document additions to the original inventory. Baseline data and vegetational zone maps are needed to comply with NPS policy requirements and in order to effectively monitor vegetation status. This is particularly important because of threats from invasive exotic plants, high levels of exotic herbivory, and estuarine-wide changes in hydrology and salinity.

Description of Recommended Project or Activity

Survey would be carried out through a contract aggreement. This project is intended to be an intensive field study of vegetation, sampling, voucher specimen collection and curation, and base mapping. The proposed study should address the following topics:
Plant taxonomy

Soil types as related to plant types
Distribution of listed species
Distribution of nominated species
Plant associations
Mapping and documentation acquisition
Conversion of mapping and documentation into GIS format

Package will be delivered by principle investigator in the form of :
written study
1. Copy of final report in Word Perfect format via disk
2. Copy of 35mm slides
3. Annotated bibliography source material
4. Maps with significant reference points suitable for GIS entry

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	50.00	0.50
Year 2:	MON	One-time	50.00	0.10
	ADM	One-time	4.00	0.20
		Subtotal:	54.00	0.30
		Total:	104.00	0.80

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-014.002

Last Update: 08/21/98 Priority: 25
Initial Proposal: 1995

Title : INVENTORY AND MAP SUBMERGED AQUATIC VEGETATION
Sub-title: INVENTORY & BASE LINE DAT

Funding Status: Funded: 0.00 Unfunded: 34.00

Servicewide Issues : N20 (BASELINE DATA)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V02 (Native Aquatic Plant Management and Monitoring)

10-238 Package Number :

Problem Statement

Submerged aquatic vegetation health and distribution is a useful water quality indicator. SAV presence/absence is primarily controlled by water clarity. Other factors like salinity, substrate composition, wave energy, and water cover species affect SAV presence/absence and population size. Water clarity is affected by total suspended solids, chlorophyll-a, and dissolved organic material.

No survey of SAV has ever been done in the park. Common species, such as Cobomba spp., Ceratophyllum spp., and elodea, have been identified, but many species probably present have not been confirmed. No SAV population health or distribution study has been done.

The U.S. Army Corps of Engineers is attempting to restore historical salinities in the Barataria Basin by diverting Mississippi River water into nearby wetlands. The diverted water will bring much needed freshwater to the upper Barataria Basin. It will also bring in nutrients, which have been estimated as being up to an order of magnitude higher than ambient conditions, as well as an unknown amount of mineral matter. Increased nutrients will encourage

phytoplankton growth, and when the water is warm and stagnant, could cause algae blooms. Benthic algae and epiphytes also respond to increased nutrient loading. SAV beds will be affected by decreases in water clarity.

This diversion will effect SAV by changing water temperatures, pollutant loads, turbidity, etc. By surveying and mapping existing SAV species and location and depth of beds before the project we can estimate how SAV communities are responding to diverted water.

Description of Recommended Project or Activity

The water characteristics that effect SAV will be sampled at fixed points in waterways and in ponds in the marsh. Temperature, salinity, total suspended solids, chlorophyll-a, nutrients, and Secchi depth will be measured to characterize the existing condition.

We will select study sites to map species percent composition and bed profiles.

The inventory will be done throughout two years to develop a temporal (seasonal, annual) and spatial picture of these parameters to provide a pre and post diversion comparison.

Protocols will developed for monitoring of SAV populations after the initial inventory is completed.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs

Year 1:	RES	One-time	18.00	0.50
Year 2:	MON	Recurring	16.00	0.40
		Total:	34.00	0.90

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-014.003

Last Update: 04/02/97 Priority: 29
Initial Proposal: 1995

Title : CONDUCT BOTANICAL SURVEY OF CHALMETTE, ACADIAN UNIT
Sub-title: INVENTORY & MONITORING

Funding Status: Funded: 0.00 Unfunded: 69.00

Servicewide Issues : N20 (BASELINE DATA)

Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V01 (Native Terrestrial Plant Management and Monitoring)

10-238 Package Number :

Problem Statement

Acomplete botanical survey of the Chalmette and Acadian Units is needed for an inventory of plants. Baseline data and vegetational zone maps are neede to comply with NPS policy requirements and in order to effectively monitor vegetation status. This is needed in order to improve and reduce the costs of landscaping, manage the historic scene, and develop an effective IPM program. In addition, portions of both units which are maintained as historic landscapes, also provide habitat for wildlife.

Description of Recommended Project or Activity

Survey would be carried out through a contract aggreement. This project is intended to be an intensive field study of vegetation, sampling, voucher specimen collection and curation, and base mapping. The proposed study should address the following topics:
Plant taxonomy
Soil types as related to plant types
Distribution of listed species

Distribution of nominated species
Plant associations
Mapping and documentation acquisition
Conversion of mapping and documentation into GIS format

Package will be delivered by principle investigator in the form of
:
written study
1. Copy of final report in Word Perfect format via disk
2. Copy of 35mm slides
3. Annotated bibliography source material
4. Maps with significant reference points suitable for GIS entry

BUDGET AND FTEs:

FUNDED				
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			Total:	0.00	0.00

UNFUNDED				
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:		MON	One-time	35.00	0.50
Year 2:		MON	One-time	30.00	0.10
		ADM	One-time	4.00	0.20
			Subtotal:	34.00	0.30
			Total:	69.00	0.80

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-N-014.004

Last Update: 03/07/97 Priority: 23
Initial Proposal: 1997

Title : ESTABLISH NATIVE PLANT PROPAGATION PROGRAM
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 60.00

Servicewide Issues : N17 (BIODIVERSITY)
N08 (CULT LANDSCAPE)

Cultural Resource Type:

N-RMAP Program codes : V00 (Vegetation Management)

10-238 Package Number :

Problem Statement

Many disturbed sites at the Barataria Preserve Unit have been identified for restoration. Examples of disturbed lands include abandoned oil and gas production sites, an old shipyard, old water diversion structures, and social trails related to visitor activities. Much of the restoration work is being undertaken by non-federal entities as part of their wetland mitigation requirements for compliance with state and federal law. As restoration work progresses, the non-native debris and vegetation is removed and the land should be replanted with appropriate native species. Currently, native plant materials of known local genotype are not commercially available.

Description of Recommended Project or Activity

The park needs to establish a source of native plant materials to use in disturbed land restoration efforts. Ideally, plant materials should be from local genotypes within the park to maintain genetic integrity. The USDA Natural Resource Conservation Service has the expertise and resources to collect plant material from the park and propagate seedlings for transplant into the park as needed. In 1991, the park and the Natural Resource Conservation Service (then known as the Soil Conservation Service) successfully completed a similar project that resulted in the planting of approximately 2000 native seedlings in park infrastructure construction areas.

A new interagency agreement will be used to define the project phases, financial agreement, and final deliverables. The Natural Resource Conservation Service has the personnel and is equipped to propagate and clean quantities of seed sufficient to meet park needs within required time frames, as well as evaluate each plant species to determine adaptation and cultural requirements for establishment. Propagation will most likely take place at the Natural Resource Conservation Service's Plant Material Center in Galliano, Louisiana. Staff at the center has expressed an interest in establishing this interagency agreement and currently has space available for the project.

The plant materials will be used in the restoration efforts described in several existing RMP project statements as well as routine landscape maintenance work. A new interagency agreement is the most feasible and cost efficient way to maintain the genetic integrity of the park through the use of local genotypes.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs

Year 1:	MIT	Recurring	30.00	0.20
Year 2:	MIT	Recurring	30.00	0.20
		Total:	60.00	0.40

(Optional) Alternative Actions/Solutions and Impacts

As restoration efforts proceed without the availability of local genotypes, the park will have to either use commercially available native plants of unknown genotype or leave the soil exposed for natural seeding. Leaving exposed soils is particularly undesirable because of the likelihood of invasion by one of the many exotic species in the area.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 C(19)

Project Statement JELA-N-014.005

Last Update: 08/21/98 Priority: 7
Initial Proposal: 1998

Title : ASSESS EFFECTS OF SEA LEVEL RISE ON FOREST COMPOSIT
Sub-title: BIODIVERSITY; WETLANDS

Funding Status: Funded: 0.00 Unfunded: 113.00

Servicewide Issues : N09 (COASTAL DYNAM)
N17 (BIODIVERSITY)

Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V01 (Native Terrestrial Plant Management and Monitoring)

10-238 Package Number :

Problem Statement

Long term management of bottomland hardwoods at the park's Barataria Preserve Unit is challenged both by the invasion of Chinese tallow (Sapium sebiferum), an exotic flood- and shade-tolerant tree, and by reproductive failure of its signature live oaks (Quercus virginiana). Tallow represents a significant threat to wetland communities of the upper Gulf Coastal Plain. If aggressively invades disturbed sites and wet prairies thoughout south Louisiana adn increasingly theratns the integrity of cypress-tupelo forests as well as bottomland hardwoods. Bottomland hardwoods are famous for the giant live oaks which characterize the ridges of natural levees. At the Barataria Preserve regeneration of at least two canopy oaks, live oak and nuttall oak (Q. nutallii) is poor. The combination of tallow invasion and loss of two oak dominants will affect the structure and ecological processes in one of the most important forested wetland communities on the lower Mississippi flood plain.

The populations of both the natie oaks nd the invsive tallow likely have been affected by rising water levels due to natural coastal subsidence and by competition from an abundant understory palm, dwarf palmetto (Sabal minor), whose dense shade may suppress seedling establishment. The rate of relative sea level rise (ca. 1.2

cm/year) in the Barataria basin is one of the highest on the Gulf Coastal Plain. Data from a newly established mapped tree plot at the Barataria Preserve suggest that rising water levels increase mortality among palmettos in low areas, opening these stands to invasion of the flood-tolerant tallow. At the same time, palmetto populations appear to be shifting up slope, creating dense stands under live oaks likely with negative effects on oak regeneration.

The appropriate management responses to these major changes in several important populations should be based on a solid understanding of the situation. The scenario presented above is speculative and should be confirmed through experiment and observation. The effects of coastal subsidence on natural communities throughout the Gulf Coast will be an increasingly important management consideration. At the Barataria Preserve and elsewhere consequences of management responses, e.g. localized thinning of the palmettos to permit natural regeneration of oaks, should be assessed for their impacts on simultaneous invasion of exotic species. Bottomland hardwood communities are a unique, dynamic community that is historically understudied. Consequently, the park is unable to assess the impact of future wetland restoration or management efforts on tallow invasion or the natural regeneration of native trees.

Description of Recommended Project or Activity

Researchers:
Dr. Julie Denslow, a forest ecologist at Louisiana State University, would oversee this project. Dr. Loretta Battaglia, a postdoctoral associate, would conduct the research.

Proposed Research:
Three coordinated approaches would be used:

(1) Natural establishment, growth, and mortality of oak and tallow seedlings would be monitored monthly for two years in marked quadrats located on an established 5-ha mapped plot which spans and elevation and flood gradient from ridge top to lower back slope. Ifnormation on location of seed tres, elevation, flood frequency, and palmetto coverage would permit identification of factors contricbuting to the success or failure of natural regeneration. Monthly evaluation will permit better assessment of the sources of seedling mortality, which may include flooding, dessication,

competition, and deer browse.

(2) Experimetnal manipulation of palmetto coverage by trimming leaves and/or roots will permit controlled assessment of the impact of palmettos on planted seedlings of oaks and tallows. this experiment would use inplantings of seedlings in a 3-way factorial design (gaap and non-gap sites to assess the importance on canopy opening; trimmed and untrimmed leaves to assess the importance of shade cast by the palmettos; trenched and untrenched soil sites to assess the possibility of below-ground competition). Five replicates of each treatment would be established on the ops of natural ridges as well as on the more moist backslopes. Growth and survival of the seedlings would be followed for at least one year. This experiemnt would also allow us to assess the impact of palmetto thinning as a managmeent tool. Tall planted seedlings would be removed at teh end of the experiment.

(3) Population status of the palmetto at 3 topographic positions (tops of natural levees, levee backslopes, adn levee toe slopes where the water table reaches the surface) will be compared by developing demographic models of the subpopulations. These models have been widely used in plant ecology. They use data from a population classified into discrete stages (size classes) and incorporate fecundity and annual rates of survivial and growth to estimate instantaneous population growth (Caswell 1989). From 300-500 individuals at all size stages will be measured and marked in each subpopulation and remeasured the second year. Stage designations will be based on a combination of trunk diameter, trunk height, leaf morphology, leaf size, and leaf number. We will e able to the projectson sof these models to estimate relative rates of population growth or decline along the topographic gradient.

We will also establish 2 sets of 3 subsidence elevation tables (SET's) at the top and the bottom of the gradient in collaboration with Dr. D. Cahoun of the USGS-BRD National Wetlands Research Center. This insturment measures shallow subsidence (<20 m depth) due to sediment consolidation and oxidation of organic matter. The majority of subsidence along the Louisiana coast is the result of this process. SET's are widely used in conjunction with measurements of sedimentation and erosion to estimate net elevational changes in coastal wetlands.

This study will be enhanced by data from a 5-ha mapped plot being established in 1998 (JELA-N-005.004 Monitor tallow invasion in forested wetlnds funded by NPS-WRD). The mapped plot will provide detailed information on the elevational gradient, flood frequency and duration, and the distribution and growth of trees >2.5 cm dbh

and provides an excellent framework within which to examine factors affecting seedling recruitment. Although annual censuses of seedling quadrats on the mapped plot will provide data on teh distribution and abundance of seedlings, they are too infrequent for assessment of sources of mortality.

Anticipated Products:

1) Written report to include

(a) description of patterns of establishment and sources of mortality in tallow and oak species in realtion to palm coverage, seed trees, hydrology, and light quantity along the topographic gradient

(b) analysis of the effects of palm coverage on tallow invasion and canopy tree regeneration

(c) estimates of population growth of palmetto across the topographic gradient

(d) evaluation of palm thinning as a tool for improving regeneration among oaks

(e) estimates of subsidence rates in the wooded area of the park

2) Spatial data used in the research in ArcView format with approptriate metadata

3) All field notes, photographs, etc for inclusion in the park archives

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	59.00	0.10
Year 2:	RES	One-time	54.00	0.10
		Total:	113.00	0.20

(Optional) Alternative Actions/Solutions and Impacts

Natural communities, including bottomland hardwood forest, in southern Louisiana occur in a highly dynamic environment, which presents a significant challenge for management. In the absence of a better understanding of the processes, restoration adn management activities risk exacerbating problems with invasive species and suffering continued decline of an important overstory species.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement JELA-N-015.000

Last Update: 08/21/98 Priority: 46
Initial Proposal: 1995

Title : DEVELOP A FIRE MANAGEMENT PLAN

Funding Status: Funded: 0.00 Unfunded: 30.00

Servicewide Issues : N07 (NAT FIRE REGM)

Cultural Resource Type:
N-RMAP Program codes : F00 (Prescribed Fire Management)
F01 (Prescribed Burn Operations)

10-238 Package Number :

Problem Statement

The marshes of the Barataria Preserve were burned by hunters, trappers, and other residents for years. The have been no natural fires in the Preserve since its it became part of the NPS system. A study of the natural fire patterns in the Preserve should be done. If fire is determined to be an important ecological factor in the Preserve, the park should determine how best to replicate natural fire regimes. If necessary a Fire Management Plan should be developed and implemented.

Description of Recommended Project or Activity

A committee of resource staff, the Barataria Unit manager, and non-NPS expects should review the role of fire in the Preserve. A plan should be written explaining how the Preserve plans to replicate natural fire.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	30.00	0.30
		Total:	30.00	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

V. CULTURAL RESOURCES MANAGEMENT PROGRAM

The Cultural Resource Management Plan for Jean Lafitte National Historical Park and Preserve will meet the following objectives:

1. Document the park resources and resource management mandates of the park.

2. Identify and rank resource management issues and develop strategies for addressing them.

3. Identify funding and staffing needs to carry out recommended resource management, monitoring and research actions.

4. Address compliance requirements for recommended actions.

A. Overview of Current Program and Needs

In FY'97, the cultural resource management program has 2.5 permanent FTEs (Chief of Resource Management, cultural anthropologist and curator). The Resource Management Division is understaffed. The following positions would help the division in carrying out its duties and enable the staff to go into the field more often and work with the individual sites:

Branch Chief, Cultural Resources
Cultural Compliance Specialist
Historian
Archeologist
Conservator or Museum Technician

The management of archeological resources in the park is crucial to understanding and interpreting the prehistory and history of the Louisiana Delta. Although a great deal of research has been conducted at the Barataria and Chalmette sites the information has not been entered into the Archeological Sites Management Information System (ASMIS). Nor as the NPS's Systemwide Archeological Inventory Program been set up for the park. The archeological overview and assessment also needs to be updated. A park base map showing all areas within the park that have been surveyed archeologically, the levels of survey employed, and the locations of all archeological resources is also needed. It would also be beneficial to the park to have the archeological sites entered into the GIS system.

In Barataria the archeological sites at Chenier Grand Coquille and Jones Island are being threatened by erosion. A plan for the management of the site is needed which would outline the protection of this significant archeological resource from further disturbance. There is also some vandalism at Grand Coquille, e.g. camp owners from the Wisner Tract go this area and get shell from the midden site.

1. Archeological Sites

Barataria Preserve

The known archeological sites will be protected from vandalism and development impacts. Whenever needed, emergency excavations to save critical archeological data will occur.

Chalmette Battlefield

The exact location and documentation of the fortifications (the ramparts and the batteries) on both the American and British sides need to be delineated. In addition, it is important to know the location of the American and British burial sites (e.g. the supposed mass grave of British soldiers). There have been no burials discovered at this point. The Birkedal report begun in 1983 was never completed. A summary report should be written and the field notes returned to the park.

Historical research such as a literature search and remote sensing to locate the American schooner *Caroline* (sunk by the British during the battle) is needed.

Acadian Sites

The only archeological investigation anticipated relates to the railroad station, and its associated features, in Thibodaux which dates to the post-Civil War period.

2. Structures

Chalmette Battlefield

The historical and architectural importance of the Malus-Beauregard House constructed in 1833, seventeen years after the Battle of New Orleans, has not been highlighted in park planning and programming. Further research and investigation is needed to help develop a plan for its interpretation as a cultural resource.

The Chalmette Battlefield Monument completed between 1855 and 1908 is part of the commemorative setting. The two-story brick overseer's house in the national cemetery area has been modified for administrative office space. These structures are on the National Register of Historic Places.

Acadian Sites

The Wetlands Acadian Cultural Center (formerly known as the Percy-Lobdell Building) is on the national register of Historic places. The Prairie Acadian Cultural Center (formerly known as the Seale Building) in Eunice, Louisiana may be eligible for the National Register. If it is eligible then the proper documentation needs to be completed and forwarded to the SHPO.

419 Rue Decatur

The proposed Headquarters and Laura C. Hudson Visitor Center is already a contributing element of the National Historic Landmark District, and therefore is on the National Register.
The building complex consists of a series of historic buildings, courtyard and carriage way.

3. Museum Collections

The curatorial program is parkwide and covers a wide range of activities: collection and records management (ANCS), maintenance and conservation of the park's museum collection and parkwide curatorial awareness/education programming. The one full-time Curator is responsible for all curatorial activities parkwide which includes the six separate sites and cooperative agreement sites located over located over a broad area of southern Louisiana. Funding and space limitations have adversely affected the park's collections. Several years ago a Conservation Assessment was completed for the park. This is an invaluable document to help formulate the basis of long range curatorial planning. The conservation needs outlined in this document have been met in only a small part.

In the Archives Assessment document recommendations were made to establish a comprehensive park archives. At the present the park is working on these recommendations. The archives are stored at the University of New Orleans through a Memorandum of Agreement.

Security, environmental control, pest infestations and space limitations are all problems that threaten the collections. Each problem is being worked on as funds become available. There are ongoing requirements for pest problem throughout the park, but especially at the Barataria Preserve Visitor Center. Pest infestation can be expected to remain a serious treat to collection objects. Collection accountability requires collection access and key control. A secure, environmentally controlled storage area is needed until renovation of 419 Rue Decatur is completed; the current temporary locations are substandard. The proposed curatorial space in 419 Rue Decaturneeds expansion.

The curatorial staff should be increased for the park to accomplish its museum collection preservation goals. In addition to a conservator, a museum technician would be instrumental in helping to do the curatorial tasks needed at all the sites.

Recently, a temporary Museum Technician appointment worked on cataloging the backlog of archival items, history and natural history specimens. At the end of the project the entire documentation process of locating, accessioning, and cataloging objects, as well as entering the catalog data in the ANCS will be completed for the park..

4. Cultural Landscapes

Relatively little information is available about cultural landscapes in the park. The lack of data and documentation can adversely affect preservation or management of the resource. For example, the park has limited knowledge about the acquisition of the Fazendeville properties, the structures (e.g. Battleground Baptist Church, general stores, shotgun style homes) and their demolition. Nor does the park have any knowledge about the Freedman cemetery (over 7,000 graves) which is located between the present day national cemetery and battlefield area. A Cultural Landscape Inventory

(CLI) study is currently underway at Chalmette, but a CLI is also needed at Barataria. Once the studies are completed the information can be entered into the Cultural Landscape Automated Inventory System (CLAIMS). At the present time the park is not included in the system.

Barataria Preserve

A pecan orchard, historic earthen roads, levees, field ditches, and pronounced ground features (earthen embankments or ramps) are among the numerous features that overlay the natural levee landscape, now largely reforested. Other landscape features include logging canals and linear traces of logging operations from the late 19th to the early 20th cenutury, and oil and gas exploration roadbeds in the swamps. Canals and roads cross the marsh, along with trenasses, ditchess opened up by trappers. Although some of these features are being kept extant for interpretive purposes, most of them will revert back to a more natural state. In many cases, the present cultural landscape cannot be preserved. Consequently, all of these cultural landscape features need to be documented.

Chalmette Battlelfield

The primary cultural landscape features include the battlefield proper, the Rodriguez canal, the reconstructed rampart, and the vegetative screens. Other landscape features include the Malus-Beauregard house, the Fazendville road and other post-battle field roads, and the field ditch system. The Chalmette National Cemetery and the Chalmette Battlefield Monument areas are part of a commemorative setting. A Cultural Landscape Inventory is currently being conducted.

Acadian Sites

Rehabilitation of the 300 yards on Bayou Lafourche between the Wetlands Acadian Cultural Center and the Jackson Street Bridge is needed in order to eliminate visitor use hazards, and to re-open the along the historic bayou. At Lafayette, a plan to manage and restore the health of the trees is needed.

B. List of Cultural Resource and Integrated Program Statements
Compiled from the RMP Database Program

Priority, Project Number, Project Title

38 JELA-C-001.001 Revise And Implement Drainage Plan For Chalmette
37 JELA-C-002.001 Stabilization Of Headstones Chalmette Nat. Cemetary
20 JELA-C-003.001 Produce Preservation Guide - 419 Decatur
7 JELA-C-004.001 Prepare Administrative History
0 JELA-C-005.001 Conduct Ethnographic Research
0 JELA-C-005.002 Conduct A Traditional Use Study
14 JELA-C-005.003 Conduct Ethnographic Overview And Assessment: African-America
46 JELA-C-005.004 Conduct Ethnographic Overview And Assessment: Carnival Traditions
17 JELA-C-005.005 Conduct A Cultural Affiliation Study: American Indian
13 JELA-C-005.006 Conduct Ethnographic Overview And Assessment: Chitimacha Indian
40 JELA-C-005.007 Research And Document The Chitimacha Language
39 JELA-C-005.008 Development Of Cultural Resource Bibliographic Database
0 JELA-C-005.009 Symposium On Impact Of Slavery In Today's Society
19 JELA-C-005.010 Translate And Transcribe Isleno Ethnographic
4 JELA-C-006.001 Complete Archaelogical Survey - Barataria Preserve
0 JELA-C-006.002 Produce Analysis Of Artifacts:Chalmette
5 JELA-C-006.003 Complete GPS Fieldwork For Update Of National .Register
6 JELA-C-006.004 Archeological Survey And Testing at Chalmette Battlefield
9 JELA-C-006.005 Remote Sensing And Archeological Survey And Tes Historic Community
35 JELA-C-007.001 Cyclic Maintenance On 419 Decatur Structure
0 JELA-C-008.002 Refurbish Isleno Meseum Exhibitry
2 JELA-C-008.003 Acquire Interim Museum Storage Facility
15 JELA-C-008.004 Upgrade Museum Storage
3 JELA-C-008.005 Upgrade Exhibits Barataria And Chalmette
8 JELA-C-008.007 Survey For Museum Collections
22 JELA-C-008.008 Upgrade Museum Property Accountability
23 JELA-C-008.009 Manage/Upgrade ANCS Museum Database
24 JELA-C-008.011 Implement Integrated Pest Management Program
25 JELA-C-008.012 Control Museum Environment
26 JELA-C-008.013 Conduct/Implement Museum Security Survey
27 JELA-C-008.014 Conduct/Implement Museum Fire Protection Survey
28 JELA-C-008.015 Prepare/Implement Preventive Conservation Guide
29 JELA-C-008.016 Conservation Treatment Of Artifacts And Specimen
30 JELA-C-008.018 Catalog Backlog Natural History Specimens
31 JELA-C-008.019 Complete Visual Record Of Museum Property
32 JELA-C-008.020 Acquire New Museum Collections
12 JELA-C-011.001 Prepare Cultural Landscape Report
16 JELA-C-011.002 Initiate Recommendations Of CLR For Chalmette

18 JELA-C-015.001 Establish An Oral History Research Collection
21 JELA-C-016.001 Hire Cultural Resource Management Specialist
42 JELA-C-016.002 Hire Cultural Compliance Specialist
43 JELA-C-016.003 Hire Historian
44 JELA-C-016.004 Hire Archeologist
45 JELA-C-016.005 Hire Conservator
41 JELA-C-017.001 Conduct A Vistor Use Survey
10 JELA-C-018.001 Conduct Historic Resources Study West Of Hwy. 45
11 JELA-C-019.001 Update National Historic Register Nominations
1 JELA-C-020.001 Protect Archeological Sites On Lake Salvador
1 JELA-I-001.001 Restore Landscape On Bayou Lafourche
2 JELA-I-002.001 Maintain Oak Grove At The Acadian Cultural Cent Cultural Landscape
3 JELA-I-003.001 Conduct And Maintain Large Tree Inventory
4 JELA-I-016.002 Hire Administrative Technician
5 JELA-I-016.003 Hire Clerk
Total: 62 Projects

C. Project Statements
Taken directly from the RMP Database Program

Project Statement JELA-C-001.001

Last Update: / / Priority: 38
Initial Proposal: 1994

Title : REVISE AND IMPLEMENT DRAINAGE PLAN FOR CHALMETTE
Sub-title: PLANNING; MAINTENANCE

Funding Status: Funded: 0.00 Unfunded: 80.00

Servicewide Issues : C11 (REPORT)
C17 (VEG MGT PLN)

Cultural Resource Type:

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

Historically, the natural levee along the Mississippi river was the highest land in the area. The natural levee is the south border of the Chalmette Battlefield and Cemetery. Therefore, water would naturally drain out of the park to the north. Due to continuous build up of surrounding ground level and blockage of natural drainage routes the present drainage system does not allow for adequate water removal. Adjacent land owners are engaged in a build up of their ground level to a point higher than NPS property. This is causing runnoff from adjacent land to converge on NPS property. Runoff from industrial complex east of Chalmette cemetery is a hazardous waste dump and former holding pond for aluminum processing plant. Increased runoff from this property has overwhelmed the existing drainage system causing NPS property to be completely submerged for long periods of time.

Description of Recommended Project or Activity

Revise present drainage plan to accomodate increased amount of runoff. Install system to analyse drainage water entering NPS property from adjacent industrial complex. Design and construct a series of containment ponds, possibly utilizing the historic Rodriguez Canal, to impound water during periods of heavy rain. Other findings from drainage monitoring will be considered and implemented where appropriate.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	80.00	0.20
		Total:	80.00	0.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : NHPA ((106) NAT. HIST. PRES.)
ARPA (ARCH. RES. PROT. ACT.)

Explanation:

Project Statement JELA-C-002.001

Last Update: / / Priority: 37
Initial Proposal: 1994

Title : STABILIZATION OF HEADSTONES CHALMETTE NAT. CEMETARY
Sub-title: REHABILITATION

Funding Status: Funded: 0.00 Unfunded: 60.00

Servicewide Issues : C13 (EMERG STABL)
C12 (ICAP)

Cultural Resource Type:

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

Due to soft ground conditions the 15,000+ headstones in Chalmette National Cemetery are exposed to erosive processes that cause constant sinkage and deterioration. This condition results in the visitors viewing of the cemetery as in need of upkeep. This is not in keeping with NPS standard for National Cemetary practices.

Description of Recommended Project or Activity

During the summer of 1989 a Youth Conservation Corps project cleaned and straightened the headstones. Soil conditions and the high water table at the Cemetery cause continual movement of the stones. The stones should be cleaned with deionized water and soft bristle brushes and straightened again.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	Recurring	30.00	1.00
Year 2:	MIT	Recurring	30.00	1.00
		Total:	60.00	2.00

(Optional) Alternative Actions/Solutions and Impacts

Maintaining present maintenance practices with present funding would eventually lead to the loss of headstones below ground level.

Compliance codes : NHPA ((106) NAT. HIST. PRES.)
ARPA (ARCH. RES. PROT. ACT.)

Explanation:

Project Statement JELA-C-003.001

Last Update: / / Priority: 20
Initial Proposal: 1994

Title : PRODUCE PRESERVATION GUIDE - 419 DECATUR
Sub-title: HISTORIC STRUCTURE

Funding Status: Funded: 0.00 Unfunded: 12.50

Servicewide Issues : C06 (SITE MONIT)

Cultural Resource Type: STRC (Structure)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

This old structure in the historic Vieux Carre District of New Orleans is a new structure added to the property listing of the National Park Service. It is presently undergoing extensive renovation, restoration, and rehabilitation to become the park's folklife center/visitor center and administrative offices. Presently there are no guidelines established for maintaining this historic structure.

Description of Recommended Project or Activity

Prepare appropriate guidelines for the proper maintenance of this structure.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	One-time	12.50	0.00
		Total:	12.50	0.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 App.7.4 B(2)

Project Statement JELA-C-004.001

Last Update: 12/09/97 Priority: 7
Initial Proposal: 1994

Title : PREPARE ADMINISTRATIVE HISTORY - JEAN LAFITTE/CHALM
Sub-title: RESEARCH

Funding Status: Funded: 0.00 Unfunded: 55.00

Servicewide Issues : C37 (ADMIN HIS)

Cultural Resource Type:

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The Chalmette Battlefield was a independent park from the 1930's through the late 1960's. No administrative history exists for this park unit. The official correspondence and monthly reports are on file, but to date no work has been undertaken on this project. In 1978, Chalmette became a part of Jean Lafitte National Historical Park and Preserve, which is also in need of an administrative history.

Description of Recommended Project or Activity

Contract the project of preparing an administrative history for this park.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 3:	ADM	One-time	55.00	0.00
		Total:	55.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

With funding have park service personnel do an administrative history.
If not started soon, much information will be lost or unattainable.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.7

Project Statement JELA-C-005.001

Last Update: 08/27/98 Priority: 0
Initial Proposal: 1994

Title : CONDUCT ETHNOGRAPHIC RESEARCH
Sub-title: BASIC RESEARCH

Funding Status: Funded: 25.00 Unfunded: 0.00

Servicewide Issues : C21 (OVERVIEW)

Cultural Resource Type: ETHN (Ethnographic Resources)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The park's congressional mandate is to "interpret the cultural diversity" of the Mississippi Delta region. An ethnographic overview was completed in 1978. The study needs to be updated and revised. Data gaps for various groups necessitates a complete revision of the original study to make it current and meaningful to Park staff and researchers. Target groups include: Hispanic, Jewish, Hungarian, Syrian/Lebanese, Italian, American Indian, African-American, Vietnamese, and Laotian communities.

Description of Recommended Project or Activity

Contract with applied anthropologist to revise and update 1978 Mississippi Delta Ethnographic Overview. This comprehensive background study will review existing information/data available and identify new data needs.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1994:	CRPP	RES	One-time	25.00	0.00
			Total:	25.00	0.00
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
			Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

The 1978 study is outdated and needs to be revised for park/community research. Incomplete data and lack thereof creates an information vaccuum. Cultural resource managers and interpreters need this information ot develop programs and "to facilitate collaborative relationships between the Service and the diverse peoples" of the Mississippi Delta region.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.11

Project Statement JELA-C-005.002

Last Update: 12/09/97 Priority: 0
Initial Proposal: 1994

Title : CONDUCT A TRADITIONAL USE STUDY
Sub-title: RESEARCH; ORAL HISTORY

Funding Status: Funded: 45.00 Unfunded: 0.00

Servicewide Issues : C22 (USE STUDY)

Cultural Resource Type: ETHN (Ethnographic Resources)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

No traditional use study for the Barataria Preserve Unit has been conducted. Such a study would describe and analyse uses and resource management regimes of customary resource user groups traditionally and historically associated with the upper Barataria estuary. Resource user occupations have included logging; farming; market, sport, and subsistence hunting; market trapping; commercial, sport, and subsistence fishing, crabbing, softshell crabbing, shrimping, crawfishing, and oystering; guiding; gathering and collecting wild foods and products; and mining occupations associated with clamshell dredging and petroleum exploration and extraction. The study needs to describe these occupations which have directly involved consumptive uses of the natural environment and the cultural context of these activities.

Description of Recommended Project or Activity

Contract for developing and implementing a consultation plan for gaining the effective involvement of past associated groups in studies and compliance activities. Identify research collections and repositories which will provide historical reference and background for the project. (Year 1).

Contract for field and research studies of present and past resource users, including oral histories obtained from contemporary communities associated with the park. Researcher should monitor resource activities in a year-long field study and provide baseline data for future reference and research. (Year 2).

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1997:	SVC-OTHER RES		One-time	45.00	0.10
			Total:	45.00	0.10

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-C-005.003
Priority: 14

Last Update: 08/21/98
Initial Proposal: 1995

Title : CONDUCT ETHNOGRAPHIC OVERVIEW AND ASSESSMENT
Sub-title: RESEARCH:AFRICAN-AMERICAN

Funding Status: Funded: 0.00 Unfunded: 90.00

Servicewide Issues : C21 (OVERVIEW)

Cultural Resource Type: ETHN (Ethnographic Resources)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The historic African American community of Fazendeville which was located between what is now the Chalmette National Cemetery (established in 1864) and the Chalmette Monument is no longer in existence. This residential community was started during the Reconstruction Period by a free man of color. The small subdivision originally included residences, but later general stores, a one-room school house, and the Battle Ground Baptist Church were part of the cultural landscape which survived well into the twentieth century. When Chalmette National Historical Park ws established in 1939, Fazendeville remained in the midst of the preserved battlefield acerage. In 1964, the National Park Service acquired additional acerage for the park, including the Fazendeville residential area. Consequently, evidence of this historic comunity was erased.

Chalmette National Historical Park was redesignated and made part of the Jeanlafitte National Historical Park and Preserve under Public law 95-625 in 1978. The park needs this initial comprehensive background study to thoroughly document the ethnographic data on the Fazendeville community which was traditionally associated with the park. The study will be used in interpreting the cultural diversity of the Mississippi Delta region as mandated by the park's legislation. It will also be a contribution to the African American

community's understanding of its heritage and culture.

Description of Recommended Project or Activity

The project will consist of the following components: 1) Contract for an ethnographic overview and assessment project. This will include review and summarization of existing ethnographic data on the Fazendeville community; the assessment will evaluate the data and identify data gaps. Information will be obtained from archival and published materials supplemented with ethnographic interviewing of knowledgeable community consultants as well as former Fazendeville residents. Oral life histories will also be incorporated into the project.

The ethnographic overview and assessment will be combined with an ethnohistorical methodology. Consideration of people's lifeways through time so that change in land use patterns, family organizations, and other features will be addressed.

This ethnographic overview and assessment will contribute to our understanding of the former Fazendeville community and will provide data for the ethnographic resource inventory and also for interpretive programs.

2) Taped recorded oral history interviews and complete transcriptions with former Fazendeville community residents, using other ethnographic methods (e.g. participant observation, cognitive maps, site visits with interviewees) as they are related to the project.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	90.00	0.20
		Total:	90.00	0.20

(Optional) Alternative Actions/Solutions and Impacts

There has been virtually no research done on this historic community although there have been repeated requests by members of the African American community. Most of the elders of this community need to be interviewed now. Soon their knowledge will be lost if no oral life histories are completed.
Management Policy (5:12) states that the NPS should conduct appropriate cultural anthropological research in cooperation with park-associated groups. This research meets this need.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-005.004

Last Update: 03/06/95 Priority: 46
Initial Proposal: 1995

Title : CONDUCT ETHNOGRAPHIC OVERVIEW AND ASSESSMENT
Sub-title: RESEARCH:CARNIVAL TRADITI

Funding Status: Funded: 0.00 Unfunded: 120.00

Servicewide Issues : C21 (OVERVIEW)

Cultural Resource Type: ETHN (Ethnographic Resources)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

A social and cultural history of the Carnival Tradition in the New Orleans and surrounding metropolitan area is needed. Although much has been written about Carnival there is relatively little that identifies the social, cultural, economic and political roles of the numerous organizations that comprise Carnival that began in the mid 1800s. A multi-phase study will identify and contextualize these groups within the larger picture of Louisiana history and also provide an integrated view of this major festival in terms of ethnicity.

Description of Recommended Project or Activity

Contract this multi-phase project over a four year period. Phase I will investigate the African-American contributions in terms of the Flambeaux carriers, Mardi Gras Indians, and the Zulu Social Aid and Pleasure Club sponsored parade tradition. Phase II will investigate the social and economic history in detail of the Carnival tradition. Phase III will focus on the political history of Carnival. Phase IV will integrate and synthesize the data and provide a comprehensive document on Carnival. The project will also include oral histories with various members of selected groups or organizations.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	Recurring	30.00	0.20
Year 2:	RES	Recurring	30.00	0.20
Year 3:	RES	Recurring	30.00	0.20
Year 4:	RES	Recurring	30.00	0.20
		Total:	120.00	0.80

(Optional) Alternative Actions/Solutions and Impacts

A comprehensive study is needed now. There is a real possibility that the gaming industry will drastically impact the traditional Carnival as is presently known.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-C-005.005
Priority: 17

Last Update: 03/06/95
Initial Proposal: 1995

Title : CONDUCT A CULTURAL AFFILIATION STUDY
Sub-title: RESEARCH:AMERICAN INDIANS

Funding Status: Funded: 0.00 Unfunded: 15.00

Servicewide Issues : C25 (CULT. AFFIL)

Cultural Resource Type: ETHN (Ethnographic Resources)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

In order to comply with the Native American Graves Protection and Repatriation Act (NAGPRA) and other legislation, policy, regulations, and guidelines a cultural affiliation study is needed for the park. This will establish relationships between park resources and associated past and present peoples, in particular the American Indian tribes in Louisiana, the Chitimacha, Tunica-Biloxi, Coushatta, Houma and the Choctaw. At the present there is no consulting plan with recommended techniques for effective involvement of park-associated groups in planning, operations, studies and NAGPRA compliance. The Cultural Affiliation study would provide this information on consultation.

Description of Recommended Project or Activity

Contract for a cultural anthropologist who will research and document the relationships between park resources and associated past and present peoples; and, provide a consulting plan for the park. Research will involve consultation with NPS archaeologists, curators, and other professionals concerned with repatriation, as well as with community members. A fully documented report will be required to substantiate the findings.

BUDGET AND FTEs:

FUNDED				
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			Total:	0.00	0.00

UNFUNDED				
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:		RES	One-time	15.00	0.20
			Total:	15.00	0.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-C-005.006
Priority: 13

Last Update: 03/07/95
Initial Proposal: 1995

Title : CONDUCT ETHNOGRAPHIC OVERVIEW AND ASSESSMENT
Sub-title: RESEARCH:CHITIMACHA INDIA

Funding Status: Funded: 0.00 Unfunded: 40.00

Servicewide Issues : C21 (OVERVIEW)

Cultural Resource Type: ETHN (Ethnographic Resources)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

This ethnographic overview and assessment would contribute to the ongoing efforts of the park's cooperative agreement with the Chitimacha Indian Tribe of Louisiana and establish a data base for the tribe. This study will provide the tribe with a comprehensive background of ethnographic resources and data and also identify new data needs. Existing archival and published materials will be examined and integrated in the study. An ethnographic study is essential to planning and developing the museum exhibits at the tribal cultural center which is scheduled for fiscal year 1996.

Description of Recommended Project or Activity

Contract for an ethnographic overview and assessment of the Chitimacha Tribe of Louisiana. The study will review and summarize existing ethnographic data for the tribe and associated resources; the assessment will evaluate them and identify data gaps. The study will be supplemented with ethnographic interviewing of knowledgeable community consultants.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	40.00	0.20
		Total:	40.00	0.20

(Optional) Alternative Actions/Solutions and Impacts

No such comprehensive study has been done on the Chitimacha. It is necessary to pull together the available data and evaluate it. The cultural liaison for the Chitimacha has stated the importance of such a study.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-C-005.007
Priority: 40

Last Update: 03/06/95
Initial Proposal: 1995

Title : RESEARCH AND DOCUMENT THE CHITIMACHA LANGUAGE
Sub-title: RESEARCH:LINGUISTICS

Funding Status: Funded: 0.00 Unfunded: 50.00

Servicewide Issues : C31 (SPEC STUDY)

Cultural Resource Type: ETHN (Ethnographic Resources)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The Chitimacha language was originally one of the six major language families in the area during the 1700s. Today the Chitimacha language no longer exists in spoken or written form. A collaborative project involving linguistics and cultural anthropology would explore the links between language and other aspects of the Chitimacha culture. Within the Chitimacha tribe the is a movement to revive their language. The park has a cooperative agreement with the Chitimacha Tribe of Louisiana and it would be appropriate to do this project in partnership. Research needs to be conducted to supplement the limited knowledge of the Chitimacha language. A comprehensive study including historical linguistics, sociolinguistics, and descriptive linguistics needs to be conducted. There are several recordings which are valuable ethnographic and linguistic resources. In particular, one recorded tape with the last Chitimacha Chief is of very poor audio quality and needs to be digitized for better audio quality. The known resources need to be transferred and transcribed into a more accessible resource.

Description of Recommended Project or Activity

Contract for a linguist knowledgeable in linguistic anthropology to locate additional Chitimacha language resources and conduct a collaborative project involving linguistics and cultural anthropology. In addition, transfer and transcribe the available recordings not only for documentation but also as an educational resource for tribal members. The documents and tapes will also be used in the education program at the Chitimacha Elementary School located on the reservation.

BUDGET AND FTEs:

FUNDED				
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			Total:	0.00	0.00

UNFUNDED				
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:		RES	One-time	50.00	0.20
			Total:	50.00	0.20

(Optional) Alternative Actions/Solutions and Impacts

The Chitimacha are anxious to revive their language. Such interest and concern should be addressed.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-C-005.008
Priority: 39

Last Update: 03/06/95
Initial Proposal: 1995

Title : DEVELOPMENT OF CULT.RES. BIBLIOGRAPHIC DATABASE
Sub-title: RESEARCH

Funding Status: Funded: 0.00 Unfunded: 10.00

Servicewide Issues : C60 (CRBIB)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The amount of research and monitoring data that has been collected over the years for JELA is extensive. It is difficult to know what data are available to address a specific issue. The park lacks the personnel needed to organize these data in terms of proper techniques of organization, codes, and management of bibliographic data. A comprehensive cultural resource bibliographic database (which includes an ethnographic database) is needed for the park and will be a valuable resource to park personnel and community researchers.

Description of Recommended Project or Activity

Develop a comprehensive and inclusive cultural resource bibliographic database for the park. The bibliographies will include all studies, surveys, and inventories that can be located and which concern the park or its immediate environment. All entries will be annotated and keyworded. After the database is completed it will be installed on the park's computer system. A tutorial will be provided on the use of the software and the database to all interested park personnel.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	10.00	0.20
		Total:	10.00	0.20

(Optional) Alternative Actions/Solutions and Impacts

A bibliographic database is needed for the proper management of the park which must have access to appropriate types of information. This needed has been recognized by the NPS in its servicewide "Inventory and Monitoring Program" (NPS-75).

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-005.009

Last Update: 02/21/97 Priority: 0
Initial Proposal: 1997

Title : SYMPOSIUM ON IMPACT OF SLAVERY IN TODAY'S SOCIETY
Sub-title: PAINFUL PAST

Funding Status: Funded: 0.00 Unfunded: 100.00

Servicewide Issues : C39 (HERTAGE ED)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

This symposium will explore the shameful institution of American slavery. Participant's awareness will be heightened and the education opportunities offerred will increase professional approaches and sensitivity in the interpretation of slavery and its aftermath.

Description of Recommended Project or Activity

Research, plan and coordinate all aspects of this 3 day symposium.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		FUNDED		
		Total:	0.00	0.00

UNFUNDED			
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	100.00	1.00
		Total:	100.00	1.00

(Optional) Alternative Actions/Solutions and Impacts

Decrease awareness and sensitivity to the emotional and pyschological damage caused by the historical past and its aftermath in what has been an Eurocentric based society.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.11

Project Statement

JELA-C-005.010
Priority: 19

Last Update: 08/21/98
Initial Proposal: 1998

Title : TRANSLATE AND TRANSCRIBE ISLENO ETHNOGRAPHIC TAPES
Sub-title: COMPLETE PROJECT

Funding Status: Funded: 0.00 Unfunded: 6.00

Servicewide Issues : C27 (ORAL HIST)

Cultural Resource Type: ETHN (Ethnographic Resources)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

To complete the 1993 project for the transcription and translation of Isleno ethnographic documentation, including oral histories, on video cassettes belonging to Los Islenos Cultural and Heritage Society of St. Bernard, Louisiana. Of the 97 video-taped interviews only 48 tapes were transcribed and translated. The remaining video tapes need to be transcribed and translated because many people do not speak/read Spanish, particulary the Isleno Spanish. Thus, the lifeways, cultural practices and other interpretive information on these video tapes are not available to those non-Spanish speaking/reading peoples. This project will also be another important step indocumenting and preserving the language of the Isleno people.

Description of Recommended Project or Activity

The park will contract with a fluent, professional linguist who has knowledge of Isleno Spanish, through the Southeastern Louisiana University, Center for Regional Studies. The linguist will provide a printed Spanish transcription andEnglish translation of the Isleno video tapes. A biography of the participants on the tapes will also be provided which will increase knowledge about Isleno community elders and residents. The transcriptions and translations will be made available to the Isleno community and to the park on diskettes and hard copies.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	6.00	0.04
		Total:	6.00	0.04

(Optional) Alternative Actions/Solutions and Impacts

If the transcriptions/translations are not completed then the documentation on the video tapes will not be available to the Isleno community which has been traditionally associated with the park. This project will provide valuable information to both the academic and lay community, and will encourage a partnerhsip with the Center for Regional Studies.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement

JELA-C-006.001
Priority: 4

Last Update: 03/01/95
Initial Proposal: 1994

Title : COMPLETE ARCHELOGICAL SURVEY - BARATARIA PRESERVE
Sub-title: INVENTORY

Funding Status: Funded: 0.00 Unfunded: 200.00

Servicewide Issues : C02 (ID & EVAL)
C19 (SPEC STUDY)

Cultural Resource Type: SITE (Archeological Site)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

Numerous archeological sites within the Barataria Preserve have been identified but never excavated or otherwise investigated. Some of these sites, especially the Cheniere Grandes Coquilles Site on Lake Salvador is rapidly eroding and valuable artifacts and data are being lost.

Description of Recommended Project or Activity

Contract for archeological surveying, mapping, and, where appropriate, excavation of identified sites. Set up a system of prioritizing need based upon significance, degree of imminent threat, and gaps in knowledge.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	Recurring	40.00	0.20
	ADM	Recurring	10.00	0.10
		Subtotal:	50.00	0.30
Year 2:	RES	Recurring	40.00	0.20
	ADM	Recurring	10.00	0.10
		Subtotal:	50.00	0.30
Year 3:	RES	Recurring	40.00	0.20
	ADM	Recurring	10.00	0.10
		Subtotal:	50.00	0.30
Year 4:	RES	Recurring	40.00	0.20
	ADM	Recurring	10.00	0.10
		Subtotal:	50.00	0.30
		Total:	200.00	1.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : ARPA (ARCH. RES. PROT. ACT.)

Explanation:

Project Statement JELA-C-006.002

Last Update: 12/09/97 Priority: 0
Initial Proposal: 1995

Title : PRODUCE ANALYSIS OF ARTIFACTS:CHALMETTE
Sub-title: ARCHAEOLOGICAL DOCUMENTA.

Funding Status: Funded: 0.00 Unfunded: 6.00

Servicewide Issues : C01 (OVERVIEW)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

Artifacts collected during monitoring of waterline trench excavations at the Chalmette Unit in the autumn of 1993 need to be classified and analyzed. The artifacts show a temporal span of several centuries. This project will contribute toward an understanding of the cultural history of the area.

Description of Recommended Project or Activity

Contract for artifact analyses using accepted archaeological classifications. Ceramics, glass and all other artifacts will be described as fully as possible in terms of function and morphology. Report will include tables enumerating artifacts recovered by specific provenance. Narrative summary will discuss the results of the analysis.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	6.00	0.20
		Total:	6.00	0.20

(Optional) Alternative Actions/Solutions and Impacts

If analyses of artifacts is not done data will not be available for research; in addition the items will not be catalogued and accessed; also there will be an increase of backlog items.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-006.003

Last Update: 02/19/98 Priority: 5
Initial Proposal: 1998

Title : COMPLETE GPS FIELDWORK FOR UPDATE OF NAT.REGISTER
Sub-title: BARATARIA PRESERVE DIST.

Funding Status: Funded: 0.00 Unfunded: 4.50

Servicewide Issues : C02 (ID & EVAL)

Cultural Resource Type: SITE (Archeological Site)

N-RMAP Program codes : R00 (Social Science Research)

10-238 Package Number :

Problem Statement

In the process of completing the National Register Nomination update for the Barataria Preserve unit of Jean Lafitte National Historical Park and Preserve it was determined that the UTM coordinates for the original sites were improperly calculated. It is necessay to revisit the original sites and give them accurate UTMs.

Description of Recommended Project or Activity

At the request of the Louisiana State Historic Preservation Officer (SHPO) the National Register Nominations were updated. During this update prehistoric and historic archeological sites discovered since the original nomination forms were completed in 1984 were added. It was also determined during this update that the UTM coordinates for the original sites were improperly calculated

In order to rectify this situation the original sites must be revisited and mapped using GPS. Because spring leafout renders GPS systems unusable in the Barataria Preserve, it is necessary to complete the work before the end of April.

The park's principal researcher is available to do the field work, locate the 50+ sites, determine the coordinates using GPS, plot the sites on USGS topographic maps, add the sites to the cultural overlay map being prepared for the National Register update, photograph the sites, and reconcile the site forms with the new UTMs. It is estimated that the researcher and at least one assistant will require four to six weeks in the field, and two weeks of office time to complete this project.

Once completed, the study will accurately document one of the richest National Register archeological districts in the Delta Region, with very high concentrations of prehistoric American Indian sites, and the densest concentration known of late eighteenth century rural sites in Louisiana, including one of the first Canary Islander village sites.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	4.50	0.10
		Total:	4.50	0.10

(Optional) Alternative Actions/Solutions and Impacts

If this project is not completed then the site designations will continue to be inaccurate. The data will not be meaningful for archeological research.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-006.004

Last Update: 08/17/98 Priority: 6
Initial Proposal: 1998

Title : ARCHEOLOGICAL SURVEY AND TESTING
Sub-title: CHALMETTE BATTLEFIELD

Funding Status: Funded: 0.00 Unfunded: 33.00

Servicewide Issues : C03 (SITE DOC)

Cultural Resource Type: SITE (Archeological Site)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

Remote sensing and archeological survey and testing of recommendations for the Chalmette Battlefield area as suggested in the project description.

Description of Recommended Project or Activity

The Chalmette Battlefield commemorates the vistory of the American forces over the British in 1815, in the culminating battle of the War of 1812. Archeological excavations have been conducted at the site and recommendations made for additional archeological testing at Chalmette Battlefield have been suggested. However, there has been no follow-up since the 1991 excavations. (See Final Report: Battery No. 3 and Parapet Excavations by R. Christopher Goodwin and Associates.) This proposed archeological project which entails remote sensing and testing would adhere to these recommendations. For example:

1) Pursue investigations of the defensive line located towards the north end of the defensive line where there is less post-battle

disburbance.
2) Pursue testing to determin the existence of a millpond reportedly associated with the Rodriguez Canal and mill.
3) Pursue testing to document the two battle period structures, the Rodriguez house and the secondary residence.
4) Pursue the "low, linear mounded rise observed within the Chalmette National Cemetery in the 1984 field investigations," to determine if this is the remains of the British Advanced Batteruy.
5) Pursue testing of two post-battle resources: the Malus-Beauregard House and the evidence of the existence of a carriage house and servant quarters.
6) Locate the mass burial site wherein in 1868, "nearly 7000 Negroes were exhumed, and reinterred in a plot established by the Freedmen's Bureau located immediately west of the National Cemetery."
7) Survey the swamp area located northeast of the site of the artillery batteries 7 & 8 which has never been investigated.
8) Survey the area of the late 19th c./20th c. Fazendeville residential community, a black community begun during the Reconstruction Period by a free man of color, located between the Chalmette Monument and the National Cemetery.

Through remote sensing, survey and archeological testing additional information could be gained which would provide in-depth material for interpretation and documentation of this historic site.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	33.00	0.10
		Total:	33.00	0.10

(Optional) Alternative Actions/Solutions and Impacts

It is important that documentation and a survey together with remote sensing techniques be conducted at this site to augment research already available and improved hisorical accuracy in interpretive programs and research projects.

Compliance codes : ARPA (ARCH. RES. PROT. ACT.)

Explanation:

Project Statement JELA-C-006.005

Priority: 9

Last Update: 08/21/98
Initial Proposal: 1998

Title : REMOTE SENSING AND ARCHEOLOGICAL SURVEY AND TESTING
Sub-title: HISTORIC COMMUNITY

Funding Status: Funded: 0.00 Unfunded: 33.00

Servicewide Issues : C02 (ID & EVAL)

Cultural Resource Type: SITE (Archeological Site)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The historic African American community of Fazendeville is no longer in existence. Archeological survey and testing of the area (located between what is now the Chalmette National Cemetery and the Chalmette Monument) is needed to assist the park in identifying and interpreting this resource which is part of site's complex historical development.

Description of Recommended Project or Activity

Remote sensing and systematic testing will be conducted to identify and evaluate subsurface historic features. Artifacts, sites, features, and buildings located will be mapped using Global Positioning Systems (GPS) and a laser transit. Data will be integrated into a Geographical Information System (GIS), a report prepared and artifacts and supporting documentation will be curated.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	33.00	0.04
		Total:	33.00	0.04

(Optional) Alternative Actions/Solutions and Impacts

If funding is not received then no archeological research on this historic African American community will be conducted. In the past research has concentrated on the primary interpretive theme of the park, the Battle of New Orleans. It is time to explore the second themes in this multi-layered historical site.

Compliance codes : ARPA (ARCH. RES. PROT. ACT.)

Explanation:

Project Statement

JELA-C-007.001
Priority: 35

Last Update: 03/01/95
Initial Proposal: 1994

Title : CYCLIC MAINTENANCE ON 419 DECATUR STRUCTURE
Sub-title: HISTORIC STRUCTURE

Funding Status: Funded: 0.00 Unfunded: 70.00

Servicewide Issues : C55 (MAINTENANCE)
C56 (REHAB, ETC.)

Cultural Resource Type: STRC (Structure)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The Folklife center/ Visitor center at 419 Decatur is a historic structure. This center will undergo the usual wear and tear of a structure in the hot and humid climate of southern Louisiana. Maintenance of doors, window sills, walkways, etc., etc., will need attending.

Description of Recommended Project or Activity

Contract to provide cyclic maintenance for 419 Decatur Street.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		FUNDED		
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	Cyclic	15.00	0.10
Year 2:	PRO	Cyclic	15.00	0.10
Year 3:	PRO	Cyclic	25.00	0.10
Year 4:	PRO	Cyclic	15.00	0.10
		Total:	70.00	0.40

(Optional) Alternative Actions/Solutions and Impacts

Small jobs will be taken care of 'in house.' This could cause later expenses to be greater and there could be a loss of historic fabric.

Compliance codes : NHPA ((106) NAT. HIST. PRES.)

Explanation:

Project Statement

JELA-C-008.002
Priority: 0

Last Update: 03/06/95
Initial Proposal: 1994

Title : REFURBISH ISLENO MESEUM EXHIBITRY
Sub-title: CURATORIAL

Funding Status: Funded: 48.00 Unfunded: 0.00

Servicewide Issues : C49 (ENVIRONMNT)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The park needs to upgrade the interpretive display at established Isleno Heritage Museum. The Museum presently operates with ineffective and non-professional exhibitry. Specific design plan, layout, and exhibitry needs to be created and installed in the appropriated area, approximately 600 square feet.

Description of Recommended Project or Activity

Contract design, fabrication and installation of exhibitry. Park resource staff will work with contracts in all phases of the refurbishing.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1995:	LUMP$-CON	MIT	One-time	48.00	0.00
			Total:	48.00	0.00
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
			Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

Less than adequate displays for visitors, which are not up to NPS standards for exhibition. Lack of project funding would result in significant loss of the cultural history for the Isleno community and decay in the established partnership between the Isleno community and the park.

Compliance codes : NHPA ((106) NAT. HIST. PRES.)

Explanation:

Project Statement JELA-C-008.003

Last Update: 03/01/95 Priority: 2
Initial Proposal: 1994

Title : ACQUIRE INTERIM MUSEUM STORAGE FACILITY
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 30.00

Servicewide Issues : C47 (STORAGE)

Cultural Resource Type: STRC (Structure)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

JELA has approximately 118,000 museum objects in storage. These objects represent the cultural and natural objects and specimens that document and preserve the park's resources. The current storage spaces and their environment, security, and fire detection/suppression are inadequate for meeting NPS museum storage standards. Deficiencies include lack of space, no environment control, and poor security. A facility which meets NPS standards for museum storage space will assure the museum collections of long-term survival and integrity. The need for programming for a long term temporary storage space and subsequent construction and operation of the new storage space at 419 Decatur Street is a high priority. The existing equipment and supplies will need to be augmented or updated with additional equipment and supplies.

Description of Recommended Project or Activity

Locate a new storage facility and consolidate all stored museum objects in this one facility. Program funding and priorities to request a new facility/storage space be built/located and collections relocated. Include a request for environmental control, security system, fire detection/suppression, storage equipment and supplies, and adequate staff to properly store the collection. Follow the standards contained in Special Directive 80-1. Consult with region for design and completion of project, and follow through by planning for new storage equipment or plans as necessary.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	One-time	20.00	0.20
Year 2:	PRO	One-time	10.00	0.10
		Total:	30.00	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.004

Last Update: 03/01/95 Priority: 15
Initial Proposal: 1994

Title : UPGRADE MUSEUM STORAGE
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 10.00

Servicewide Issues : C47 (STORAGE)
C50 (SECTY&FIRE)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The current security hardware and systems, fire detection/suppression, and environmental controls in the museum storage spaces are inadequate for meeting NPS museum storage standards. Deficiencies are noted in the DOI Checklist for Preservation, Protection, and Documentation of museum property. The proper storage of these NPS museum collections will assure their long-term survival and integrity, and is required by NPS standards and policies. The replacement and purchase of new supplies and equipment will help alleviate these deficiencies.

Description of Recommended Project or Activity

Program funding and priorities to request new equipment, supplies, and systems be purchased and installed. Purchase and install upgrades, consulting with museum specialists on appropriate makes and models available. Follow recommendations made in the Collection Storage Plan, Collection Management Plan, a Security Survey, a Fire Protection Survey, etc.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	One-time	10.00	0.10
		Total:	10.00	0.10

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 B

Project Statement JELA-C-008.005

Last Update: 12/09/97 Priority: 3
Initial Proposal: 1994

Title : UPGRADE EXHIBITS BARATARIA AND CHALMETTE
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 65.00

Servicewide Issues : C49 (ENVIRONMNT)
C48 (TREATMENT)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The park has 2100 objects on exhibit, as documented in the current CMR. The park's museum exhibit areas are inadequate to house museum objects and do not meet the standards in Special Directive 80-1. The deficiencies include lack of security, poor environmental conditions, and lack of proper maintenance. The diorama in the Barataria unit has been ravaged by insects and the educational and interpretive function of the exhibit has been lost. The current exhibit cannot be salvaged. A new exhibit must be planned for this space based on the standards contained in SD 80-1, the park's Statement for Interpretation, and an exhibit plan.

Description of Recommended Project or Activity

Renovate museum exhibits. Program funding and priorities to request a new diorama be designed, built, and installed. Assist with design and completion of project and follow through by completing the exhibit plan. Include a professional conservator in the planning and design phases. Use only those objects which will not be adversely affected by the exhibit.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	MIT	One-time	25.00	0.00
Year 3:	INT	Cyclic	20.00	0.00
Year 4:	INT	Cyclic	20.00	0.00
		Total:	65.00	0.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.007

Last Update: 03/01/95 Priority: 8
Initial Proposal: 1994

Title : SURVEY FOR MUSEUM COLLECTIONS
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 2.00

Servicewide Issues : C46 (ACCOUNTBLY)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The park has not been adequately surveyed for the existence, identification, location, and condition of photographs, archives, or materials and objects that may represent historical, natural history, archeological, or ethnographic museum objects. These materials may be found in NPS offices, buildings, historic structures, and field locations. The potential for their loss or damage is high, especially for archival material and objects made of fragile materials. Both the Scope of Collection Statement and research on the potential collections themselves are needed to evaluate this material for inclusion into the park's museum collection in order to avoid accessioning inappropriate materials into the collection. Cross-referencing existing records and contacts with subject matter experts requires significant time and effort.

Description of Recommended Project or Activity

Conduct survey for museum collections. Program funding and priorities to request this survey. Specify the number and type of subject matter experts, the need for additional staff, and list the sites, buildings, files, and areas to review. Develop survey in relation to park's Scope of Collection Statement, revising SOCS if necessary. Complete survey and document results. Accession appropriate materials into museum collection and arrange for their cataloging and disposition.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	PRO	One-time	2.00	0.10
		Total:	2.00	0.10

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.008

Last Update: 03/01/95 Priority: 22
Initial Proposal: 1994

Title : UPGRADE MUSEUM PROPERTY ACCOUNTABILITY
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 2.00

Servicewide Issues : C46 (ACCOUNTBLY)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

Currently objects/specimens do not have clearly established NPS ownership, not all objects are cataloged, inventories are not complete, and not all information is included in the ANCS database. This project is necessary to bring museum property accountability and documentation to standards as per NPS-28, the Museum Handbook, Part II, and NPS, Manual for Museums. The problems to be solved have been documented as deficiencies in the park's completed DOI Checklist for Preservation, Protection, and Documentation of Museum Property. Lack of accountability results in management needs not being met. Failure to comply with existing property management regulations may result in problems with the GAO, the IG, and with donors.

Description of Recommended Project or Activity

Determine workload. Program adequate staff to accession and catalog the entire museum collection to standards. Complete accession book and accession folder entries and complete catalog records through catalog data. Complete backlog cataloging projects, both in-park and at other facilities. Maintain entries in ANCS for the accession, cultural records, and natural history records. Use the records to complete required annual inventories, Collection Management Reports, and submissions to the National Catalog. Use the data in the computer program to create additional inventories and reports.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	2.00	0.50
		Total:	2.00	0.50

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP 2, 1.6

Project Statement

JELA-C-008.009
Priority: 23

Last Update: 03/01/95
Initial Proposal: 1994

Title : MANAGE/UPGRADE ANCS MUSEUM DATABASE
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 6.00

Servicewide Issues : C46 (ACCOUNTBLY)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

JELA has approximately 120,000 museum objects in its collection. Approximately 23% of these objects are cataloged and entered in the NPS Automated National Catalog System (ANCS) database. Approximately 2,000 catalog records (completed prior to the ANCS program) need to be entered into ANCS. Present staff are unable to eliminate this backlog and maintain the ANCS database without additional staff or contractual assistance. Incomplete data in ANCS affects the efficiency of the program and misrepresents the collection information used by the park and sent to the Regional Office and to the Washington Office. This should be corrected to meet standards in NPS-44, NPS-28, and the Museum Handbook, Part II. In addition, the computer system used to maintain the database is insufficient and a new upgraded computer system is needed. A goal is to publish a complete catalog of museum holdings.

Description of Recommended Project or Activity

Complete and upgrade ANCS database. Program adequate staff and computer system to accession and catalog complete museum collection to standards. Back-up databases on archival tape. Print out catalog cards and distribute according to the Museum Handbook, Part II. Publish catalog of collections and distribute to libraries, universities, and groups with research and exhibit interest in these types of materials.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	One-time	4.00	0.10
Year 2:	PRO	One-time	1.00	0.10
Year 3:	PRO	One-time	1.00	0.10
		Total:	6.00	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.011

Last Update: 03/01/95 Priority: 24
Initial Proposal: 1994

Title : IMPLEMENT INTEGRATED PEST MANAGEMENT PROGRAM
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 0.50

Servicewide Issues : C49 (ENVIRONMNT)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The museum storage, work, and exhibit areas do not have the appropriate monitoring and control of pests. There is no IPM program specifically for the museum collection. These deficiencies are noted in the park's completed DOI Checklist for Preservation, Protection, and Documentation of Museum Property. Without the appropriate monitoring and control procedures the park cannot meet the NPS standards for proper storage or exhibit of museum objects.

Description of Recommended Project or Activity

Monitor and control pests with the implementation of a museum IPM program. Program funding and priorities to request the appropriate documentation of a plan. Assist with the design and completion of project. Monitor pests in museum areas with sticky traps document and analyze the resulting data. Use the results of the analysis of the pest monitoring to choose the appropriate methods to control pest infestation. Control pests by sealing entryways, practicing good housekeeping, and using approved chemical treatments. Continue to monitor for pests to detect infestations prior to damage to objects. Design an area for holding objects prior to incorporation into the museum collection in order to isolate potential pest problems. Maintain a preventive program of good housekeeping and good storage techniques to protect susceptible materials.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	One-time	0.50	0.10
		Total:	0.50	0.10

(Optional) Alternative Actions/Solutions and Impacts

(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.012

Last Update: 03/01/95 Priority: 25
Initial Proposal: 1994

Title : CONTROL MUSEUM ENVIRONMENT
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 4.00

Servicewide Issues : C49 (ENVIRONMNT)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The museum storage, work, and exhibit areas do not have the appropriate environmental control, passive or active, to help preserve the museum colleciton. These deficiencies are noted in the park's complete DOI Checklist for Preservation, Protection, and Documentation of Museum Property and include lack of light and dust filters. Without the appropriate equipment and procedures the park cannot meet the NPS standards for proper storage or exhibit of the museum collection.

Description of Recommended Project or Activity

Control the museum environment through passive and active systems. Program funding and priorities to request the appropriate type and number of dehumidifiers, humidifiers, silical gel, UV filter film and sleeves, dust covers, and door and window seals. The exhibit cases in Eunice, Thibodaux, and Barataria require additional seals to keep out dust and other particles. Assist with the design and completion of project. Use the results from the environmental monitoring to choose the appropriate methods of environmental control in each of the curatorial areas. Continue to monitor the environment in each curatorial area to determine the efficiency of environmental control.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	PRO	One-time	4.00	0.10
		Total:	4.00	0.10

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)
NHPA ((106) NAT. HIST. PRES.)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.013

Last Update: 03/01/95 Priority: 26
Initial Proposal: 1994

Title : CONDUCT/IMPLEMENT MUSEUM SECURITY SURVEY
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 30.00

Servicewide Issues : C50 (SECTY&FIRE)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The museum storage, work, and exhibit areas are not appropriately secured against threats to the collection. These deficiencies are noted in the park's completed DOI Checklist for Preservation, Protection and Documentation of Museum Property and include inadequate intrusion alarm systems, lack of an Emergency Operation Plan, lack of appropriate barriers in exhibits, and lack of a security survey. A security survey will define the nature of security concerns for the museum collection and will make recommendations to correct the identified deficiencies.

Description of Recommended Project or Activity

Conduct and implement a museum security survey. Program funding and priorities to request this survey be conducted and implemented. Assist with design and completion of project and follow through by purchasing and installing items recommended by the survey. Implement no-cost procedural and within-park tasks immediately.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	PRO	One-time	10.00	0.10
Year 3:	PRO	One-time	20.00	0.10
		Total:	30.00	0.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.014

Last Update: 03/01/95 Priority: 27
Initial Proposal: 1994

Title : CONDUCT/IMPLEMENT MUSEUM FIRE PROTECTION SURVEY
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 30.00

Servicewide Issues : C50 (SECTY&FIRE)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The museum storage, work, and exhibit areas are not adequately protected against threats to the collection by fire. A deficiency noted in the park's completed DOI Checklist for Preservation, Protection and Documentation of Museum Property is the lack of a fire protection survey of the park. A fire protection survey will define the nature of fire concerns for the museum collection and will make recommendatins for fire detection/suppression that is appropriate to the museum collection.

Description of Recommended Project or Activity

Conduct and implement a fire protection survey. Program funding and priorities to request this survey be conducted and implemented. Assist with design and completion of project and follow through by purchasing and installing items recommended by the survey. Address fire prevention, detection, and suppression in the park's response to the survey. Implement no-cost procedural and within-park tasks immediately.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	PRO	One-time	10.00	0.10
Year 3:	PRO	One-time	20.00	0.10
		Total:	30.00	0.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.015

Last Update: 03/01/95 Priority: 28
Initial Proposal: 1994

Title : PREPARE/IMPLEMENT PREVENTIVE CONSERVATION GUIDE
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 5.00

Servicewide Issues : C45 (HOUSKP PLN)
C49 (ENVIRONMNT)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The museum collections are stored and exhibited in a number of facilities and in a variety of conditions. The care of the collections is not achieved in a timely or orderly process and standards are not met. Various tasks are not completed through oversight or through non-communication with other divisions. A Preventive Conservation Guide (PCG) will provide information needed to ensure that curatorial responsibilities are completed on a rprovides more than a housekeeping plan and addresses such issues as: maintenance of security systems, conservation, and environmental monitoring.

Description of Recommended Project or Activity

Prepare/implement a preventive conservation guide. Program the funding and priorities to contract for a curator to assess the collection and its care, document current status, recommend appropriate actions, and outline proper procedures. Implement the guide.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 3:	PRO	One-time	5.00	0.10
		Total:	5.00	0.10

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 B(2)

Project Statement JELA-C-008.016

Last Update: 03/01/95 Priority: 29
Initial Proposal: 1994

Title : CONSERVATION TREATMENT OF ARTIFACTS AND SPECIMENS
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 6.00

Servicewide Issues : C48 (TREATMENT)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The museum collection at JELA, cultural and natural, needs conservation treatment based upon recommendations by a Collection Condition Survey. Without adequate treatment these park resources will continue to deteriorate at increasing rates. Treatment will remove harmful substances, stabilize loose fragments, and will address other impacts that currently affect an object.

Description of Recommended Project or Activity

Treat museum objects. Program funding and priorities to request treatment be initiated at Regional Office or Washington Office level, or by the park. Obtain approval of Object Treatment Requests from Regional Curator. Obtain needed treatments by professional conservators. Correct storage conditions as per information obtained from a conservator. Follow recommendations made in the Collection Condition Survey. Include park collections housed in non-NPS repositories in the survey and in the conservation treatment process. The repository must meet NPS standards prior to the return of treated objects. If the repository does not meet standards the loan transaction should be terminated and the objects returned to the park.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	PRO	Cyclic	2.00	0.10
Year 3:	PRO	Cyclic	2.00	0.10
Year 4:	PRO	Cyclic	2.00	0.10
		Total:	6.00	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.018

Last Update: 03/01/95 Priority: 30
Initial Proposal: 1994

Title : CATALOG BACKLOG NATURAL HISTORY SPECIMENS REPOSITOR
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 1.50

Servicewide Issues : C46 (ACCOUNTBLY)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The park's backlog of natural history specimens consists of items collected under collection permits and stored in outside repositories. These items have not been accessioned or cataloged into the museum collection. An investigation of collection permits approved in the park is needed to ascertain the extent of these items. The cataloging of this backlog is necessary to bring park specific resources to standards as per NPS-28, the Museum Handbook, Part II, and NPS, Manual for Museums. The problems to be solved have been documented as deficiencies in the park's completed DOI Checklist for Preservation, Protection and Documentation of Museum Property. Lack of accountability results in management needs not being met. Failure to comply may also precipitate problems with the GAO and the IG.

Description of Recommended Project or Activity

Determine workload. Program adequate funding for NPS staff or museum professions to fully catalog (according to standards) the complete natural history collection stored at the various repositories. Maintain entries in ANCS for these natural history records and require backup copies of the database to append into the park's ANCS database. Use the records to complete required annual inventories, Collection Management Reports, and submissions to the National Catalog. Use the data in ANCS to create additional inventories and reports.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	PRO	One-time	1.00	0.20
Year 3:	PRO	One-time	0.50	0.10
		Total:	1.50	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.019

Last Update: 03/01/95 Priority: 31
Initial Proposal: 1994

Title : COMPLETE VISUAL RECORD OF MUSEUM PROPERTY
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 2.00

Servicewide Issues : C46 (ACCOUNTBLY)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

This project will establish proper museum recordkeeping and accountability for the park specific collection estimated at 120,000 objects. Currently only 5% of these objects have been photographed and the prints and negatives filed appropriately. The photographic record documents object condition, augments description on Museum Catalog Record, and acts as security documentation for objects on exhibit and in storage. The Museum Handbook, Part II, recommends maintaining a visual record of all museum objects. Limited staffing and funding has hindered the completion of photographing or videotaping the objects in the park's museum collection.

Description of Recommended Project or Activity

Complete the visual record of museum property. Program for the equipment, supplies, processing, and storing of the visual media chosen by the park to document the museum colleciton. Implement a visual recording process through a contract, and establish visual recording as part of the cataloging process. Acquire training for use of equipment and processing. File the products in a usable and efficient manner. Update museum catalog records with photograph numbers.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 4:	PRO	One-time	2.00	0.10
		Total:	2.00	0.10

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.020

Last Update: 03/01/95 Priority: 32
Initial Proposal: 1994

Title : ACQUIRE NEW MUSEUM COLLECTIONS
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 1.50

Servicewide Issues : C46 (ACCOUNTBLY)
C44 (HIS FURN)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

Proposed exhibit designs and plans require that objects be acquired for exhibit. Gaps exist in the collection that have been identified in the SOCS and through an exhibit plan. The park cannot properly/fully present its interpretive themes or its mission without these objects.

Description of Recommended Project or Activity

Acquire objects for the museum collection. The objects must fit the SOCS and the park must be able to preserve and protect the objects it acquires. Plan and program for an appropriate study or report. Priotize needs and plan and program for acquiring those needs. Follow a Historic Furnishings Report, Exhibit Plan, or other approved plan to acquire only those objects needed. Acquire objects through transfer, loan, exchange, gift, or purchase.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 4:	INT	One-time	1.50	0.20
		Total:	1.50	0.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 B(3)

Project Statement JELA-C-008.021

Last Update: 03/02/95 Priority: 33
Initial Proposal: 1994

Title : MUSEUM OBJECT/SPECIMEN RESEARCH
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 1.00

Servicewide Issues : C46 (ACCOUNTBLY)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The lack of specialized, and sometimes general knowledge concerning the history, use, variations, and values (both monetary and cultural) of the park's museum objects leads to difficulty in planning exhibits, acquiring objects, cataloging objects, requesting conservatin treatments, implementing the SOCS, and assessing the significance of collections. Research requires knowledge of the objects that are being reviewed, and the cultural affinities of objects can be very important for their proper management. The specific issues and needs at JELA include site specific objects in the Chalmette unit and various objects in the Acadian unit exhibits.

Description of Recommended Project or Activity

Conduct object/specimen research. Program funding and priorities to request the research. Specify needs for appraisals, subject matter experts, and management issues. Identify potentially affected public and begin consultation process. Complete overview and distribute final report to appropriate libraries, universities, and agencies.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 3:	RES	One-time	0.50	0.10
Year 4:	RES	One-time	0.50	0.10
		Total:	1.00	0.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.022

Last Update: 03/01/95 Priority: 34
Initial Proposal: 1994

Title : CURATORIAL TRAINING
Sub-title: CURATORIAL

Funding Status: Funded: 0.00 Unfunded: 2.00

Servicewide Issues : C97 (MUSEUM MGMT)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The staff responsible for the documentation, protection, and preservation of the museum collection need the knowledge and skill necessary to maintain the collection according to NPS standards for museum collection management as stated in SD 80-1, the Museum Handbook, NPS-28, and the NPS Museum Manual. Without this training the curatorial staff cannot fulfill their responsibilities to maintain minimum NPS standards.

Description of Recommended Project or Activity

Plan and program for museum training from the NPS or other professional sources. Apply for training courses through the regional training office. Upon completion of training, implement acquired skill and knowledge to upgrade collection management in the park.

BUDGET AND FTEs:

FUNDED				
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	RES	One-time	1.00	0.10
Year 4:	RES	One-time	1.00	0.10
		Total:	2.00	0.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-008.023

Last Update: 02/28/96 Priority: 0
Initial Proposal: 1996

Title : REHAB EXHIBITS ACADIAN CULTURAL CENTER
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 24.00

Servicewide Issues : C47 (STORAGE)
C48 (TREATMENT)

Cultural Resource Type: OBJC (Object)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The park had over 200 museum objects on exhibit in Exhibit 4 in the Acadian Cultural Center in Lafayette. In August 1995 these objects had to be removed to a curatorial storage space because the humidity within the case exceeded 70% relative humidity and mold had begun to grow on several objects. The humidity has also caused the floor of the case to buckle up. The current exhibit can be salvaged, but artifacts cannot be returned to the exhibit space until the humidity problem is addressed and corrected, and the objects with mold growth have been treated.

In September a truck crashed into a wall of the Acadian Cultural Center. It pierced a hole in the wall, left a crack from floor to ceiling, knocked three graphics off the wall, and misaligned the infrastructure below the ceiling. Objects from Exhibit 16B, including hanging objects, were removed to curatorial storage because of its proximity to the impact point. The exhibit can be salvaged, but artifacts will have to be rehung and new mounts may be needed.

Description of Recommended Project or Activity

Program funding and priorities to request conservation treatment for the museum objects with mold growth. Have new mounts made as needed. Engage a conservator/professional to reinstall the exhibits in Exhibit 4 and Exhibit 16B after the exhibit cases are repaired and the environment is monitored for appropriate levels of temperature and relative humidity. Include a professional conservator in the planning and installation phases of this project. Monitor temperature and relative humidity in the exhibit cases for at least a year after reinstallation.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	24.00	0.00
		Total:	24.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action. Objects removed from exhibits 4 and 16B will continue to be stored in boxes in an already overcrowded curatorial storage space. Without treatment the mold on the artifacts from Exhibit 4 may spread to other objects. The two exhibit cases will remain empty, which will be quite noticeable especially since Exhibit 4 takes up the majority of one wall. The environ

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 B(9)

Project Statement JELA-C-008.024

Last Update: 02/21/97 Priority: 36
Initial Proposal: 1997

Title : CATOLOG PARK UNIT LIBRARIES
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 15.00

Servicewide Issues : C60 (CRBIB)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The six park sites, in addition to headquarters, have small in-house libraries which provide a valuable resource to the park staff. These libraries are also available for use by the general public on appointment. At the present time the libraries are in desperate need of inventory, cataloguing and cross reference guides. The libraries include primary and secondary sources, vertical files, and audio-visual materials (slides, photographs, and video tapes). There is no one on the staff who has the expertise to professionally catalogue these collections. In order to facilitate their use and make the libraries readily accessible to staff and researchers funding is needed.

Description of Recommended Project or Activity

The park needs to hire a temporary librarian to catlogue and inventory the six site libraries and the headquarters library. The employee will need to go to all six sites and spend a minimum of 2 weeks at each site. This position will entail temporary duty at three park sites (radius varying from 1 1/2 hrs. to 3 hrs. driving distance from metropolitan New Orleans). It is important to cross reference all materials so that the library resources can be accessible to the park staff and the public. This funding will also include cost for library materials, such as catalogue cards and disks.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	15.00	0.50
		Total:	15.00	0.50

(Optional) Alternative Actions/Solutions and Impacts

If this project is not funded the invaluable materials at these libraries is not readily accessible. Park staff time is wasted and efficiency is lost.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.11

Project Statement JELA-C-009.001

Last Update: 03/06/95 Priority: 0
Initial Proposal: 1994

Title : REHAB ISLENOS CENTER (STRUCTURE)
Sub-title: MUSEUM REHABILITATION

Funding Status: Funded: 11.00 Unfunded: 10.00

Servicewide Issues : C15 (REHAB ETC.)

Cultural Resource Type: STRC (Structure)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The Islenos Center is in need of major rehabilitative work. Some minor repairs such as new floor tile and sheet rock repair in specific areas has been carried out, but structural renovation needs to be undertaken to restore the building. The Center is experiencing differential settlement, and the floor in one public space is bowing. Once the structural problems are corrected, the building needs to be completely re-roofed.

Description of Recommended Project or Activity

Use contractors and park personel to rehabilitate the Islenos Center. All structural problems will be addressed and the building will be re-roofed.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1994:	FEE-REV	MIT	One-time	11.00	0.00
			Total:	11.00	0.00
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:		PRO	Cyclic	5.00	0.10
Year 3:		PRO	Cyclic	5.00	0.10
			Total:	10.00	0.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : NHPA ((106) NAT. HIST. PRES.)

Explanation:

Project Statement JELA-C-010.001

Last Update: 03/06/95 Priority: 47
Initial Proposal: 1994

Title : REHAB BEAUREGARD HOUSE
Sub-title: HISTORIC STRUCTURE

Funding Status: Funded: 105.00 Unfunded: 10.00

Servicewide Issues : C13 (EMERG STABL)
C15 (REHAB ETC.)

Cultural Resource Type: STRC (Structure)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The 1956-57 remodeling of the first floor of the Beauregard House was removed in 1993 and returned to its 1850's configuration. The slate roof was repaired and the entire building rewired. Both fire and intrusion alarm systems were installed. Funding limitations confined the restoration to the three rooms of the first floor. The interior staircase, the second floor gallery decks on the north and south elevations, and the walls and millwork in the three rooms on the second floor should be renovated and returned to their 1850's condition.

Description of Recommended Project or Activity

Park personel and contractors will restore the staircase, gallery decks, and walls in the second floor of the Beauregard House. Historical descriptions, such as Historic Americal Buildings Survey documentation, will be used to accuratly restore the building to its 1850's condition.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1994:	LUMP$-CON	MIT	One-time	80.00	0.00
1995:	LUMP$-CON	MIT	One-time	25.00	0.00
			Total:	105.00	0.00
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 3:		MIT	Cyclic	5.00	0.10
Year 4:		MIT	Cyclic	5.00	0.10
			Total:	10.00	0.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : NHPA ((106) NAT. HIST. PRES.)

Explanation:

Project Statement JELA-C-011.001

Last Update: 08/27/98 Priority: 12
Initial Proposal: 1998

Title : PREPARE CULTURAL LANDSCAPE REPORT
Sub-title: BARATARIA PRESERVE

Funding Status: Funded: 0.00 Unfunded: 70.00

Servicewide Issues : C11 (REPORT)

Cultural Resource Type: CULL (Cultural Landscape)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

There has been no Cultural Landscape Report (CLR) done for the Barataria Preserve. The Barataria Preserve consists of approximately 20,000 acres with specialized ecoystems which have beenutilized by human communities over several thousand years. A CLR is the primary guide to treatment and use of a cultural landscape (see NPS 28, Chapter 7). scuh a study would be an excellent resource for the interpretation of the interrelationship between the environment and culture.

Description of Recommended Project or Activity

Jean Lafitte National Historical Park and Preserve proposes to accomplish a Cultural Landscape Report (CLR) for the Barataria Preserve. Part 1 - Site History, Existing Conditions, and Analysis and Evaluation will be done during the first year (Phase I) of the project. The environmental history and analysis will require an interdisciplinary approach involving a natural resource consultant, an historical ecologist, as well an historic landscape architect, and cultural anthropologist. Part 2 - Treatment Recommendations for the Barataria Preserve will be done during the second year (Phase II) of the project.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	40.00	0.04
Year 2:	RES	One-time	30.00	0.04
		Total:	70.00	0.08

(Optional) Alternative Actions/Solutions and Impacts

Parks are required by Section 110 of the National Historic Preservation Act and National Park Service policies to inventory and evaluate all cultural resources within the park boundaries. The CLI/CLAIMS will serve as the national evaluated inventory of all cultural landscapes and will become the analytical tool for assessing significance, impacts, condition, treat and legal responsibilities.

Compliance codes : NHPA ((106) NAT. HIST. PRES.)
EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-011.002

Last Update: 08/21/98 Priority: 16
Initial Proposal: 1998

Title : INITIATE RECOMMENDATIONS OF CLR FOR CHALMETTE
Sub-title: CULTURAL LANDSCAPE REPORT

Funding Status: Funded: 0.00 Unfunded: 100.00

Servicewide Issues : C11 (REPORT)

Cultural Resource Type: CULL (Cultural Landscape)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The Cultural Landscape Report (CLR) for Chalmette was completed in 1998 by the Cultural Landscape program team, SERO. Numerous treatment recommendations were outlined in the CLR which would "address the park's multiple interpretive aims," as well as "the contemporary problems of inadequate boundary buffering and the presence of non-contributing features on the battlefield."

JELA hopes to initiate such treatment recommendations so that "the park can preserve the significant historic resources and interpret these resources in a manner that conveys a sense of the site's complex historical development."

Description of Recommended Project or Activity

The park will work with the Cultural Landscape Program team, SERO, SEAC and Harpers Ferry Center to:
1) Marak and interpret the architectural footprint of the Rodriguez archeological site.
2) Create interpretive wayside just inside the park entrance to

introduce the battlefield and to set primary interpretive theme of the Battle of New Orleans.
3) Install new park signs, both a highway entrance and at park gates
4) Create path through the woodland swamp zone to approrixmate location where General Packenham fell.
5) Begin appropriately scaled landscape setting for Malus-Beauregard House in order to set it apart as a secondary interpretive/visitor orientation site.
6) Begin to rehabilitate the Chalmette National Cemetery as outlined in the CLR.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	100.00	0.08
		Total:	100.00	0.08

(Optional) Alternative Actions/Solutions and Impacts

If these treatment recommendations are not begun then the significance, impacts, condition, treatment and legal responsibilities as outlined in the CLR will not be met.

Compliance codes : NHPA ((106) NAT. HIST. PRES.)

Explanation:

Project Statement JELA-C-013.001

Last Update: 03/06/95 Priority: 0
Initial Proposal: 1994

Title : REHABILITATION OF THE CHITIMACHA VISITORS CENTER
Sub-title: MUSEUM REHABILITATION

Funding Status: Funded: 224.00 Unfunded: 0.00

Servicewide Issues : C56 (REHAB, ETC.)

Cultural Resource Type: STRC (Structure)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The exhibits at the Chitimacha Unit Visitor Center have not undergone any NPS upgrading since the cooperative agreement was established in 1985. The exhibits are outdated, poorly designed and not in keeping with NPS standards for interpretation and artifact preservation. There is no central theme relative to cultural history of the Chitimacha Tribe. In addition to upgrading the exhibits, the interior configuaration should be modified to include an audio-visual presentation area, staff office space, and an expanded exhibit area in the maximum available area of 1600 square feet.

Description of Recommended Project or Activity

Park personel and contractors will reconfigure the building's interior to include a expanded exhibit space, an audio-visual presentation area and staff office space. Park staff will upgrade the presentation of all exhibits and artifacts.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1995:	LUMP$-CON	MIT	One-time	224.00	0.20
			Total:	224.00	0.20
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
			Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No action will result in less than adequate displays for American Indian community and visitors, which is not up to NPS standards for exhibition. Lack of project funding would result in significant loss of the cultural history for the visitor and American Indian community. Established partnership through cooperative agreement would be adversely effected.

Compliance codes : NHPA ((106) NAT. HIST. PRES.)

Explanation:

Project Statement JELA-C-014.000

Last Update: 11/14/95 Priority: 48
Initial Proposal: 1995

Title : TRADITIONAL USE STUDY:BARATARIA PRESERVE, PHASE II

Funding Status: Funded: 0.00 Unfunded: 40.00

Servicewide Issues : C22 (USE STUDY)

Cultural Resource Type: ETHN (Ethnographic Resources)

N-RMAP Program codes : R00 (Social Science Research)

10-238 Package Number :

Problem Statement

Phase II will focus primarily on traditional users distinct from recreational visitors or commercial users; in particular, customary resource user groups which have directly involved consumptive uses of the natural environment (e.g. logging, hunting, fishing, mining occupations associated with petroleum exploration/production) and the cultural context of these activities will be targeted.

Description of Recommended Project or Activity

Will entail a consultation plan for gaining effective involvement of past associated groups in the Barataria area; will include field and research studies of present and past resource users, including ethnographic oral and life histories obtained from contemporary community members associated with the park and surrounding area; will trace changes in traditional use patterns that have occurred within the community. Rapid Assessment methologies (REAP) will be used in addition to ethnographic interviewing and participant observation.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	30.00	0.40
Year 2:	RES	One-time	10.00	0.20
		Total:	40.00	0.60

(Optional) Alternative Actions/Solutions and Impacts

If this study is not done than important ethnographic data will be lost which is crucial in the planning and management of the Barataria Preserve area.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-015.001

Last Update: 03/01/95 Priority: 18
Initial Proposal: 1994

Title : ESTABLISH AN ORAL HISTORY RESEARCH COLLECTION
Sub-title: RESEARCH

Funding Status: Funded: 0.00 Unfunded: 20.00

Servicewide Issues : C27 (ORAL HIST)
C28 (ERI)

Cultural Resource Type: ETHN (Ethnographic Resources)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The park needs to establish an oral history research collection (archival) which will benefit both the parkand the community. To initiate this project approximately 20 oral history interviews will be conducted per year from targeted groups in the Mississippi Delta region to reflect the cultural diversity of this area. These oral histories will be used in interpreting the cultural diversity of the MDR as mandated by the park's legislation.

Description of Recommended Project or Activity

Contract for a small scale oral history project on a yearly basis which includes complete transcription of interviews. The oral histories will be use by park staff, researchers, and community as a cultural, ethnographic resource.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	Recurring	5.00	0.20
Year 2:	RES	Recurring	5.00	0.20
Year 3:	RES	Recurring	5.00	0.20
Year 4:	RES	Recurring	5.00	0.20
		Total:	20.00	0.80

(Optional) Alternative Actions/Solutions and Impacts

Community members, especially the elderly,. have crucial information about their community and lifeways. It is important to record this information and address people's own history before it is lost because of social and cultural change or death.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation:

Project Statement JELA-C-016.001

Last Update: 03/01/95 Priority: 21
Initial Proposal: 1994

Title : HIRE CULTURAL RESOURCE MANAGEMENT SPECIALIST
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 155.00

Servicewide Issues : C83 (GEN CR MNGT)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The position would serve as the Branch Chief for Cultural Resource Management within the division of Resource Management.

Description of Recommended Project or Activity

Create a position description, acquire FTE authorization, advertize and fill the position.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	ADM	Recurring	25.00	0.50
	RES	Recurring	25.00	0.50
		Subtotal:	50.00	1.00
Year 3:	RES	Recurring	25.00	0.50
	ADM	Recurring	25.00	0.50
		Subtotal:	50.00	1.00
Year 4:	RES	Recurring	27.50	0.50
	ADM	Recurring	27.50	0.50
		Subtotal:	55.00	1.00
		Total:	155.00	3.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.1

Project Statement JELA-C-016.002

Last Update: 03/07/95 Priority: 42
Initial Proposal: 1995

Title : HIRE CULTURAL COMPLIANCE SPECIALIST
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 107.50

Servicewide Issues : C83 (GEN CR MNGT)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The position would serve as compliance specialist for cultural matters in the park.

Description of Recommended Project or Activity

Create a position description, acquire FTE authorization, advertize and fill the position.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	RES	Recurring	35.00	1.00
Year 3:	RES	Recurring	35.00	1.00
Year 4:	RES	Recurring	37.50	1.00
		Total:	107.50	3.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.1

Project Statement JELA-C-016.003

Last Update: 03/07/95 Priority: 43
Initial Proposal: 1995

Title : HIRE HISTORIAN
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 155.00

Servicewide Issues : C83 (GEN CR MNGT)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The position would serve as the park-wide historian within the division of Resource Management.

Description of Recommended Project or Activity

Create a position description, acquire FTE authorization, advertize and fill the position.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	ADM	Recurring	25.00	0.50
	RES	Recurring	25.00	0.50
		Subtotal:	50.00	1.00
Year 3:	RES	Recurring	25.00	0.50
	ADM	Recurring	25.00	0.50
		Subtotal:	50.00	1.00
Year 4:	RES	Recurring	27.50	0.50
	ADM	Recurring	27.50	0.50
		Subtotal:	55.00	1.00
		Total:	155.00	3.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.1

Project Statement JELA-C-016.004

Last Update: 03/07/95 Priority: 44
Initial Proposal: 1995

Title : HIRE ARCHEOLOGIST
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 155.00

Servicewide Issues : C83 (GEN CR MNGT)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The position would serve as the park-wide archeologist within the division of Resource Management.

Description of Recommended Project or Activity

Create a position description, acquire FTE authorization, advertize and fill the position.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	ADM	Recurring	25.00	0.50
	RES	Recurring	25.00	0.50
		Subtotal:	50.00	1.00
Year 3:	RES	Recurring	25.00	0.50
	ADM	Recurring	25.00	0.50
		Subtotal:	50.00	1.00
Year 4:	RES	Recurring	27.50	0.50
	ADM	Recurring	27.50	0.50
		Subtotal:	55.00	1.00
		Total:	155.00	3.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.1

Project Statement JELA-C-016.005

Last Update: 03/07/95 Priority: 45
Initial Proposal: 1995

Title : HIRE CONSERVATOR
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 155.00

Servicewide Issues : C83 (GEN CR MNGT)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The position would serve as the park-wide conservator within the division of Resource Management.

Description of Recommended Project or Activity

Create a position description, acquire FTE authorization, advertize and fill the position.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	ADM	Recurring	25.00	0.50
	RES	Recurring	25.00	0.50
		Subtotal:	50.00	1.00
Year 3:	RES	Recurring	25.00	0.50
	ADM	Recurring	25.00	0.50
		Subtotal:	50.00	1.00
Year 4:	RES	Recurring	27.50	0.50
	ADM	Recurring	27.50	0.50
		Subtotal:	55.00	1.00
		Total:	155.00	3.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.1

Project Statement JELA-C-017.001

Last Update: 03/01/95 Priority: 41
Initial Proposal: 1994

Title : CONDUCT A VISTOR USE SURVEY
Sub-title: MANAGEMENT INFORMATION

Funding Status: Funded: 0.00 Unfunded: 10.00

Servicewide Issues : C71 (VISIT IMPCT)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

Visitor use patterns are undocumented for the various units and sites of Jean Lafitte NHP&P. All aspects of visitor use should be surveyed to determine future iniatives. Data is needed to respond to numerous visitor services related questions, and to inform planning decisions and resource allocation.

Description of Recommended Project or Activity

Conduct a visitor use survey in accordance with NPS procedures.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	10.00	0.00
		Total:	10.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

Park will continue presenting 'gut' feeling visitor use statistics and not 'hard facts'.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 App. 7.4 D(1)

Project Statement JELA-C-018.001

Last Update: 03/01/95 Priority: 10
Initial Proposal: 1994

Title : CONDUCT HISTORIC RESOURCES STUDY WEST OF HWY. 45
Sub-title: BARATARIA PRESERVE

Funding Status: Funded: 0.00 Unfunded: 15.00

Servicewide Issues : C35 (HRS)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

An in depth historical survey of the Barataria Preserve east of Hwy. 45 has been completed. This survey has proven an invaluable tool in locating potential archeological sites, planning, and interpretation. Such a survey is sorely needed for the remaining areas of the Preserve.

Description of Recommended Project or Activity

Contract for an historic resources study, including an historical base map and inventory, of all eligible National Register of Historic Places sites. A thorough review of archival materials, including surveyor's maps and notes found in the National Archives, library holdings, private collections, government records, and other documents should be included as the basis for further investigation. Oral histories, remote sensing, photographic analysis, and field surveys should be employed.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	5.00	0.10
Year 2:	RES	One-time	5.00	0.10
Year 3:	RES	One-time	5.00	0.10
		Total:	15.00	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-019.001

Last Update: 11/14/95 Priority: 11
Initial Proposal: 1995

Title : UPDATE NATIONAL HISTORIC REGISTER NOMINATIONS
Sub-title: BARATARIA PRESERVE UNIT

Funding Status: Funded: 0.00 Unfunded: 15.00

Servicewide Issues : C36 (NR DOCMNT)
C36 (NR DOCMNT)

Cultural Resource Type: COMB (Combination)

N-RMAP Program codes : R00 (Social Science Research)

10-238 Package Number :

Problem Statement

There are over 100 sites in the Barataria Preserve Unit that are eligible for inclusion on the National Register of Historic Places. These archaeological sites and cultural features have been uncovered during surveys for both the historic land use study and recent archaeological excavations conducted in Barataria. Both research and documentation for the nominations have been initiated by consulting historians and archaeologists. Many of these sites provide a unique opportunity to investigate life in the early Spanish Colonial Period settlements and also the later plantation society of the 19th century. These sites need to be thoroughly documented and reviewed for nominations on the National Register of Historic Places. In addition, the nominations need to be updated and coordinated with the State Historic Preservation Office in Baton Rouge.

Description of Recommended Project or Activity

The nomination forms for the National Historic District in the Barataria Preserve area will be reviewed, documented, and if necessary, amended. The project investigator will coordinate with National Park Service staff at Jean Lafitte and historians and archaeologists who have completed projects in the Barataria Preserve area, as well as with the SHPO in Baton Rouge.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	15.00	0.30
		Total:	15.00	0.30

(Optional) Alternative Actions/Solutions and Impacts

The significance of these sites for the Barataria area cannot be overemphasized. The need to incorporate the data and update the National Historic District in Barataria is crucial to the understanding of the cultural history of the area and will help to protect our historic and archaeologicl resources. This project will identify preservation needs and help in planning cultural resource protection strategies in the Barataria Preserve area, as well as to educate the general public concerning the preservation and importance of these sites.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-C-020.001

Last Update: 03/01/95 Priority: 1
Initial Proposal: 1994

Title : PROTECT ARCHEOLOGICAL SITES ON LAKE SALVADOR
Sub-title: EROSION CONTROL

Funding Status: Funded: 0.00 Unfunded: 1000.00

Servicewide Issues : C05 (TREATMENTS)
N24 (OTHER (NATURAL))

Cultural Resource Type: SITE (Archeological Site)

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

Two major archeological sites, clam shell middens, are experiencing heavy erosion from wave action in Lake Salvador. Without protection, these resources will be washed away. Present loss rates approach one to two feet per year. The properties have only recently come into NPS ownership, and no adequate archeological investigations have been conducted. However, analysis of artifacts found along the eroding beach line indicate habitation dating back at least 1000 b.p. Irreplacable data is being lost each day that protection is not in place.

Description of Recommended Project or Activity

Contract for design and construction of erosion control structures to protect the two sites.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	One-time	1000.00	0.20
		Total:	1000.00	0.20

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : ARPA (ARCH. RES. PROT. ACT.)
EA (ENV. ASSESSMENT)

Explanation:

Project Statement JELA-I-001.001

Last Update: 04/02/97 Priority: 1
Initial Proposal: 1994

Title : RESTORE LANDSCAPE ON BAYOU LAFOURCHE
Sub-title: THIBODAUX, ACADIAN UNIT

Funding Status: Funded: 0.00 Unfunded: 25.00

Servicewide Issues : N08 (CULT LANDSCAPE)
C15 (REHAB ETC.)

Cultural Resource Type: CULL (Cultural Landscape)

N-RMAP Program codes : D00 (Disturbed Area Rehabilitation)

10-238 Package Number :

Problem Statement

During the winter of 1993-94 the park acquired a parcel of land adjacent to the Wetlands Acadian Cultural Center. Over the years this land has been used as a dumping ground for trash and construction materials. The site presents both a visual and a safety problem for the park. The bayou bank must be cleaned, stabilized, and returned to its historic appearance.

Description of Recommended Project or Activity

Park personel and contractors, if necessary, will rehabilitate Bayou Lafourche. All rubish will be removed, the bank will be stabilized and returned to its historic appearance. The park's civil engineer, resource staff and maintance staff will work together in all phases of the restoration. The restoration will further include both wayside exhibits and the construction of a walkway from the Jackson Street Brdige to the Center.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	25.00	0.30
		Total:	25.00	0.30

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 C(18)

Project Statement JELA-I-002.001

Last Update: 02/07/95 Priority: 2
Initial Proposal: 1994

Title : MAINTAIN OAK GROVE AT THE ACADIAN CULTURAL CENTER
Sub-title: CULTURAL LANDSCAPE

Funding Status: Funded: 0.00 Unfunded: 55.00

Servicewide Issues : N08 (CULT LANDSCAPE)

Cultural Resource Type: CULL (Cultural Landscape)
N-RMAP Program codes : V00 (Vegetation Management)
V01 (Native Terrestrial Plant Management and Monitoring)

10-238 Package Number :

Problem Statement

The oak grove at the Acadian Cultural Center consists of approximatly 50 oak and pecan trees. The grove is located on a two acre plot due east of the Cultural Center. At the present time only the ground beneath the trees is being maintained. The grove is in need of pruning, possible thinning, and development as a day use area.

Description of Recommended Project or Activity

The park will undertake routine pruning and thinning of the oak and pecan trees. The grove will be developed to include a picnic area and a walking path along Petite Bayou.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	Recurring	10.00	0.20
	INT	Recurring	30.00	0.50
		Subtotal:	40.00	0.70
Year 2:	PRO	Recurring	5.00	0.10
Year 3:	PRO	Recurring	5.00	0.10
Year 4:	PRO	Recurring	5.00	0.10
		Total:	55.00	1.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 C(4)

Project Statement JELA-I-003.001

Last Update: 04/02/97 Priority: 3
Initial Proposal: 1994

Title : CONDUCT AND MAINTAIN LARGE TREE INVENTORY
Sub-title: CULTURAL LANDSCAPE

Funding Status: Funded: 0.00 Unfunded: 2.00

Servicewide Issues : N20 (BASELINE DATA)

Cultural Resource Type: CULL (Cultural Landscape)
N-RMAP Program codes : V00 (Vegetation Management)
V01 (Native Terrestrial Plant Management and Monitoring)

10-238 Package Number :

Problem Statement

The hardwood forests and cypress swamps of the Barataria Preserve Unit have been logged and incrementally cleared for agriculture during the past 27500 years. The resulting forest is secondary and tertiary growth. However, a few old growth trees remain. Some of these trees mark previous cultural landscapes. These trees receive considerable public interest and in a few instances, the local media has highlighted specific trees. This interest increases local support for the park and serves to educate visitors about the park's natural history. No survey of location and age for old growth trees has been conducted. The park should locate and document as many of these trees as possible and implement any necessary managment actions to ensure their protection.

Description of Recommended Project or Activity

The park will compile a record of old growth trees. The survey will record species, location, diameter, approximate height and age, and other general information. Existing records will be augmented with information from rangers, local residents, and ground surveys. Investigators will produce a map interpreting old trees for the public. Action will be taken to protect old growth trees.

BUDGET AND FTEs:

FUNDED				
Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	2.00	0.10
		Total:	2.00	0.10

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.6

Project Statement JELA-I-016.002

Last Update: 03/07/95 Priority: 4
Initial Proposal: 1995

Title : HIRE ADMINISTRATIVE TECHNICIAN
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 97.50

Servicewide Issues : N24 (OTHER (NATURAL))

Cultural Resource Type:

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The position would serve as the administrative work leader within the division of Resource Management.

Description of Recommended Project or Activity

Create a position description, acquire FTE authorization, advertize and fill the position.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		FUNDED		
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	ADM	Recurring	30.00	1.00
Year 3:	ADM	Recurring	32.50	1.00
Year 4:	ADM	Recurring	35.00	1.00
		Total:	97.50	3.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.1

Project Statement JELA-I-016.003

Last Update: 03/07/95 Priority: 5
Initial Proposal: 1995

Title : HIRE CLERK-TYPIST
Sub-title: STAFFING

Funding Status: Funded: 0.00 Unfunded: 97.50

Servicewide Issues : N24 (OTHER (NATURAL))

Cultural Resource Type:

N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The position would serve as the administrative clerk-typist within the division of Resource Management.

Description of Recommended Project or Activity

Create a position description, acquire FTE authorization, advertize and fill the position.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 2:	ADM	Recurring	30.00	1.00
Year 3:	ADM	Recurring	32.50	1.00
Year 4:	ADM	Recurring	35.00	1.00
		Total:	97.50	3.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM2 APP. 2, 1.1

APPENDIX A
THE PARK IN CONTEXT

1. Overview of Regional Conditions

Geology and Hydrology

The Preserve occupies only a very small area in Louisiana's Mississippi Delta Region, an area that has had its natural ecological and hydrological balance severely disrupted. At the end of last Ice Age, roughly 10,000 years ago, the entire delta region was covered by gulf waters which had inundated the continental shelf and the lower Mississippi alluvial valley as the ice sheets melted and sea level rose. There followed a long period of rapid land building as the Mississippi deposited sediments first in the valley and, during the last 7,000 years, into shallow embayment. The embayment was filled by seven different deltas, built by the river as it first extended the length of its channel through newly created land, then periodically switched course, following a shorter route to the gulf.

Deltas such as the Mississippi's grow in two ways. First, land is created at the mouth of the river as it waters reach sea level, the currents slow and the sediment it carries is dropped into shallow water. The new land consists of low-lying mud-flats that are flooded daily by high tides. As this new land is created, the river advances seaward, through constantly bifurcating channels. A second land building process occurs because the river floods every spring as rains blanket the continent's interior and the winter's snows melt. The flood waters overflow the river's banks and spread outward from the main channel. These flood waters carry even greater loads of sediments, and the coarsest, heaviest sediments get deposited along the river's banks, building them upward, above the surrounding flats to form natural levees. The remaining sediments are carried laterally from the channel, dropping out along a descending slope of increasingly finer soils, from coarse sands to fine clays. Often, floodwaters erode a new channel through the natural levee, building sub-deltas in open areas away from the main channel's mouth. On rare occasions, the new side channel provides a steeper gradient to the sea, and captures the river's main flow, leading to the creation of a new delta and the abandonment of the old.

Once a delta has been abandoned, it begins a process of decay, driven by subsidence and erosion. The delta region is an area of very rapid subsidence (2-4 feet per century at present). This is occurring because the recent delta's sediments are consolidating through compaction, oxidation of organic material, and extraction of sub-surface fluids and gases. Subsidence also occurs because the recent delta sits atop countless former deltas laid down in past epochs, which continue to compress as weight is added. Finally, the wedge of alluvial sediments is so thick (up to 30,000 feet) that its weight is down-warping the underlying bedrock, causing numerous down shifting stress fractures. Add to these forces the recent rise in sea level (approximately one foot per century), and the net change is an effective sea level rise of plus 3-5 feet per century, resulting in extensive submergence, increasing erosion, and rapid land-loss.
Abandoned deltas experience a predictable process of transformation from a riverine system to an

estuarine system. The seaward edge erodes, and the finer sediments are suspended and transported elsewhere, leaving only the coarse sands which aggregate to form sandy headlands. Behind the headlands shallow bays open and the headlands become barrier islands. In the marshes surrounding the new tidal bays, formerly freshwater plants are replaced with more salt tolerant vegetation. Tidal forces constantly suspend eroded sediments which accrete in the marshes, offsetting subsidence.

In more inland areas subsidence becomes a dominant force: natural levees sink, ridge-crest forests are replaced by more water tolerant bottomland forests, which are in turn replaced by swamp forests. As the land sinks to the point that trees can no longer be supported, freshwater marshes replace the forest. Eventually, the substrate sinks below a level that can support the marsh, ponds form, then grow and link together as lakes. Under some circumstances, the marshes deposit organic detritus at a rate sufficient to offset subsidence, forming peat, which can eventually completely break away from the mineral soil substrate and float, forming trembling or floating marshes. Throughout the abandoned delta, a networks of natural drainages form, which link and grow, eventually opening even the inland-most freshwater ponds to the influences of the distant gulf tide.

The rate of these processes is controlled largely by the proximity of the abandoned deltaic area to the new channel and the availability of fresh water and sediment to offset the twin forces of subsidence and marine driven erosion. A change in the river's course during the decline of a deltaic lobe can result either in the acceleration of the decline or, if the course change introduces new water and sediment, the decline can be halted or reversed.

Historic Conditions. At the time of initial European settlement (ca. 1700), the delta region was still growing in areal extent. Though abandoned deltas slowly disappeared, new deltas and sub-deltas were being deposited at a pace slightly greater than that needed to replace the abandoned deltas. However, from the very beginning of European settlement, the delta's natural processes were gradually but steadily modified. The first plantation owners along the river and the major distributary bayous built levees to protect themselves from spring floods, and built canals to speed runoff from the natural levees to the backswamps. As settlement spread along the river and bayous, the network of levees was linked continuously, severely restricting the spring flood. Drainage canals were widened, deepened, and lengthened to accomodate logging and navigation.

One by one the river's distributaries were cut off from the river. The mouth of the river was confined by jetties and channeled into ever deeper offshore waters. Yearly overbank flooding was replaced by intermittent, catastrophic, and localized flooding through temporary breaks in the levee, called *crevasses*. This situation prevailed until the great flood of 1927, which inundated 23,000 square miles as water spread outward from a series of *crevasses*. This catastrophe prompted Congress to federalize Mississippi River flood protection. Since 1927, no floodwaters have reached the upper Barataria estuary where the Preserve is located.

After the discovery in the 1930s that vast quantities of petroleum and natural gas were present beneath the delta, hydrological disruption reached a new level, as a vast network of roads, canals dredged for navigation and exploration, and pipeline canals criss-crossed the landscape. A burgeoning population in turn required a new network of backlevees and canals to facilitate development and hurricane protection for expanding urban areas.

At the present time, the Mississippi River is building new delta in only two areas, at the present mouth, the "Birdfoot" delta, and at the mouth of its only active distributary, the Atchafalaya River. Land accretion at the birdfoot is minimal, because jetties and channel training projects to facilitate deepwater navigation have built the mouth of the river so far out into the gulf that most of the sediment load is carried over the edge of the continental shelf into very deep water. Delta is building rapidly in Atchafalaya Bay at the mouth of the Atchafalaya River, but because the Atchafalaya carries only thirty percent of the flow in the system, nearly seventy percenty of the river's land building potential is lost. Thus their is no longer any equilibrium between land building and land loss in the delta region.

The massive development that has occurred since World War II has greatly exacerbated this dis-equilibrium by completely disrupting hydrological processes: channelizing upland (including urban, industrial, and agricultural) run-off; separating upland areas from lower areas with levees; draining low-lying areas for development; straightening, widening and deepening natural water courses; disrupting surface water flow with levees, canals, and canal spoil banks; and dredging deep water channels linking the gulf to inland areas.

Hydrological balance has been lost. Freshwater from upland, developed areas is laced with polutants and moves past fringing wetlands in deep channels rather than as surface sheet flow. Wetlands are deprived of freshwater and nutrients, not only from the river, but from upland runoff of rainwater as well. Impoundments are created, both intentionally and unintentionally, raising or lowering water levels unnaturally. The network of straight channels speeds freshwater to the gulf, and allows saltwater and amplified tidal forces access to the interior, causing increased erosion and habitat degradation. The net result is a greatly accelerated rate of deltaic deterioration. Since the turn of the century, the delta region has lost over one million acres, 80% of the nation's wetland loss. The rate of loss peaked at 40 square miles per year in the 1970's; it has slowed slightly, but the losses remain staggering.

Ecology

At the time of initial European colonization (c. 1700), the delta region was a vast network of interlaced waterways, flanked by highly productive wetland ecosystems. The Mississippi River occupied the present course, but it also discharged through numerous distributary channels, including the Atchafalaya River, Bayou Manchac, Bayou Lafourche, Bayou La Loutre, and Bayou Grand Cheniere. In high flood years, the river often re-occupied former distributary channels, including Bayou des Familles, which is within the Barataria Preserve.

In such an environment, vegetation grows in response to the underlying soil conditions, to elevation, and to salinity. On natural levee soils fringing the active channels of the river (and subject to annual deposition of new sediment) grows a pioneer forest of willows, cottonwoods, and other early successional plants. On the natural levee soils flanking older channels, this willow forest succeeds to a hardwood forest of oaks, elms, ashes and hickories, characterized by the presence of live oak on the highest ridges, often with thick canebrakes or brambles in the understory and in treefall gaps. On the lower flanks of the natural levees grows a bottomland hardwood forest, characterized by

swamp red maple and more water tolerant counterparts to the trees growing on the levee crest ridge; beneath the canopy the understory is dominated by palmettos. On the lowest, most frequently inundated alluvial soils grows swamp forest, characterized by baldcypress and water tupelo, and a floating herbaceous, rather than a shrubby, understory.

Marshes grow where the soils cannot support trees, either because they lack sufficient stability, are too low, or because salinities are too high. Marshes range from fresh to saline. Highly diverse assemblages of grasses, sedges, rushes and forbs grow in freshwater areas, either on the newly accreting mineral soils at the mouth of the river's distributaries, or upon the organic soils which accumulate in the interior of the estuaries, kept fresh by rainfall and the annual spring flood. In more seaward areas grow brackish marshes with vegetation dependent upon the mix of mineral and organic soils, and upon salinities. Plant diversity decreases as salinities increases. In the most saline marshes, those subject to daily inundation by gulf waters, only a few species grow upon generally firm soils. These saline marshes are often characterized by large stands of a single species of plant.

Other geological landforms support unique plant assemblages. Barrier islands, barrier headlands, and *cheniers*--barrier ridges stranded in the marsh by accreting sediments--have their own vegetative communities: from drought tolerant species on the beach fore-dunes, through the maritime (*cheniere*) oak forest on the highest, protected ridges, to the black mangroves on the bayside of the islands and headlands. Submerged aquatic vegetatative communities also depend upon salinity and turbidity gradients, but every shallow water area has its component of plants from turtle grass beds in the most saline bays to the highly diverse plant asemblages in inland freshwater ponds.

The geological dynamism of the deltaic process is the mechanism chiefly responsible for the extraordinarily high biological productivity of Louisiana's Mississipi River Delta Region. But numerous factors combine to boost the productivity of the delta's vegetative communities: a warm and humid climate; a growing season of at least 180 days per year; and abundant rainfall, about 60 inches falling fairly evenly throughout the year.

Adjacent Areas

The coastal area to the west of the recent delta is the *Chenier Plain*. Ecologically, it shares most of the delta's characteristics, but its geologic history is separate. In part, the origins of the sediments which built the chenier plain are the smaller rivers which drain the land west of Mississippi drainage: the Vermillion, Mermentau, Calcasieu, and Sabine. However, the dominant force in shaping the region remains the Mississippi, not by direct deposition of sediments, but by indirect deposition of sediments carried in coastal currents.

To the north of the chenier plain, in the heart of Acadiana, is the *Prairie Terrace*. The terrace formed from sediments deposited during the last inter-glacial period of the Pleistocene by precursors of the Mississippi, Red, and smaller rivers. The weight of the recent delta has tilted it upward, and the soils have weathered and oxidized. The formation of the clay pan a few feet below the surface trapped water above it during wet periods, and cut-off the water table below it during drought, creating an environment inhospitable to trees. A unique tall-grass prairie was created, the southeasternmost extension of this ecosysytem, maintained by flood and fire, and dissected by

streams lined with gallery forest. Today, the prairie has been converted to rice fields, and there are only remnants of the original ecosystem.

To the northeast of the delta region, in the Florida Parishes, is a Pleistocene terrace of similar age to the prairie terrace, but characterized by different soils. The native vegetation of this area was pine forest, with deciduous trees in the valleys. Flanking the Mississippi River to the east, above Baton Rouge, is a line of bluffs, formed by wind-blown Pleistocene soils, known as *loess*, which supports an upland hardwood forest, with some Appalachian affinities.

Land Uses and Trends

The Mississippi Delta Region is that area of Recent (post- Pleistocene) alluvial land deposited by the Mississippi River into the Mississippi Embayment. For the purposes of the park mission, it is herein delineated as being bordered by the Gulf of Mexico, the Pearl River delta, the Pleistocene Terraces of the Florida parishes, Old River, the Red River alluvial valley, the prairie segment of the Pleistocene Terraces, and the chenier plain. This includes all of Plaquemines, St. Bernard, Orleans, Jefferson, Lafourche, Terrebonne, St. Charles, St. John, St. James, Assumption, Iberville, West Baton Rouge, Pointe Coupee, and St. Martin, most of Ascension, St. Mary, Avoyelles, and St. Landry, with portions of Lafayette, Iberia, St. Tammany, Tangipahoa, Livingston, East Baton Rouge, West Feliciana, and a very small area of East Feliciana. The Acadian areas added in 1988 include much of the prairie segment of the Pleistocene Terrace and a portion of the coastal Chenier Plain. The remainder of Avoyelles, St. Landry, Lafayette, St. Mary, Iberia, plus Acadia, Evangeline, Vermillion, and portions of Cameron, Jeff Davis, Calcasieu, and Allen cover this area. Altogether, the Delta Region includes approximately 20,000 square miles within 33 parishes in south Louisiana. (see map #).

Land use in the Delta Region includes large to small urban and suburban areas, agriculture (rice, sugar cane, and vegetables), commercial timber, light and heavy industry, shipping, and land maintained in a natural state for harvest of living resources. Current occupational uses include farming, logging, port activities, petrochemical refining, tourism, oil and gas production, ship building, commercial fishing (for oysters, shrimp, crabs, crawfish, and a variety of fish), and commercial residential development. Fur-trapping, sport fishing, public and leased recreational hunting are conducted on a seasonal basis in much of the same area. It is important to note that significant portions of the region consist of wetlands--swamps and marshes interlaced with bays, lakes, rivers, bayous and canals. Average elevations in the coastal region are near sea level, with the highest ground on the natural levees only about 15 feet above mean sea level. In the upper parts of the alluvial plain, elevations reach about 30 feet above mean sea level, and rise to over fifty feet on the prairie terrace.

The economic dependence upon and constant interface between man's activity and water significantly affect land-use patterns in the delta region. This factor limited intense development to natural levees along the Mississippi and its former distributaries. Water dependent occupations, however, dominate: shipping and fishing are obvious examples, but even heavy industries such as refining and agricultural practices like rice farming are heavily dependent upon large quantities of reliable, inexpensive water. This has also meant that these developments are vulnerable to flooding,

and that therefore a vast and expensive infrastructure has been developed to control flooding and yet keep a network of waterways navigable and accessible.

2. Overview of Conditions within the Preserve

The Bayou des Familles channel of the Mississippi River deposited the natural levees that make up the heart of the Preserve beginning about 2,500 years ago. It was one of six main channels which built the St. Bernard Delta. (There are substantial near surface remnants of five deltaic cycles in the generally accepted post Pleistocene sequence: Maringouin 7,200-6,000 years B.P., Teche 6,000-3,000 yrs. B.P., St. Bernard 4,500-1,000 yrs. B.P., Lafourche 3,500-300 yrs. B.P., Plaquemine {also *Balize, Birdfoot, or Modern*} <1,000 yrs. B.P.). Most of the land within the preserve was built by this channel in the period 3,400-2,000 yrs. B.P.

Thereafter, the Mississippi largely abandoned the Bayou des Familles channel in favor of the Bayou Lafourche channel. However, at no time during the most recent 2,000 years was the Mississippi channel from Donaldsonville to New Orleans completely abandoned, though it flowed generally north of the preserve through the Bayou Metairie-Bayou sauvage distributary. Freshwater continued to reach the area of the preserve, and perhaps even the Bayou des Familles channel, during floods. Eventually, between 1,000 and 600 years B.P., the river largely abandoned the Bayou Lafourche channel, re-occupied the present course north and east of the preserve and built the modern Birdfoot delta.

During the time that the river occupied the des Familles course, spring floods built up the natural levees that now form the two highest parallel ridges in the preserve. The western ridge is generally near the west bank of the relict Bayou des Familles from the Vee-levee to Hwy 3134; Hwy. 45 is built upon it. It also parallels the north bank of Bayou Barataria from Hwy. 3134 to Bayou Villars. The east natural levee runs about one half mile east of the bayou, also from the Vee-levee to Hwy 3134.

APPENDIX B
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APPENDIX C
LIST OF RELATED ACTION PLANS AND DOCUMENTS

Document	Approval Date/Status
General Management Plan	July 1982
Amendment to the General Management Plan	April 1995
Statement for Management	August 1994
Natural Resources Management Plan	Draft 1995
Barataria Trail Plan	Draft 1990
Boat Operation Plan	1990
Fire Management Plan	Needed
Hunting Mangement Plan	Needed
Integrated Pest Management Plan	Under Development
Wetland Restoration Plan	Under Development
Land Protection Plan	Draft 1983
Minerals Managment Plan	Needed
Soils Investigation - DSC	1983
Surface Water Management Plan	1990
Trapping Management Plan	October 1990
Water Quality Management Plan	Needed
Vegetaton Management Plan	Needed

APPENDIX D
LEGISLATION

JEAN LAFITTE NATIONAL HISTORICAL PARK Public Law 95-625, as amended

Establishment.
16 USC 230.

Sec. 901. In order to preserve for the education, inspiration, and benefit of present and future generation significant examples of natural and historical resources of the Mississippi Delta region and to provide for their interpretation in such manner as to portray the development of cultural diversity in the region, there is authorized to be established in the State of Louisiana the Jean Lafitte National Historical Park and Preserve (hereinafter referred to as the "park").

Description.

The park shall consist of (1) the area of approximately twenty thousand acres generally depicted on the map entitled "Barataria Marsh Unit-Jean Lafitte National Historical Park and Preserve" numbered 90,000B and dated April 1978, which shall be on file and available for public inspection in the office of the National Park Service, Department of the Interior; (2) the area known as Big Oak Island; (3) an area or areas within the French Quarter section of the city of New Orleans as may be designated by the Secretary of the Interior for an interpretive and administrative facility; (4) folk life centers to be established in the Acadian region; (5) the Chalmette National Historical Park; and (6) such additional natural, cultural, and historical resources in the French Quarter and Garden District of New Orleans, forts in the delta region, plantations, and Acadian towns and villages in the Saint Martinville area and such other areas and sites as are subject to cooperative agreements in accordance with the provisions of this title.

Lands, waters and interests, acquisition.
16 USC 230a.

Sec. 902. (a) Within the Barataria Marsh Unit the Secretary is authorized to acquire not to exceed eight thousand six hundred acres of lands, waters, and interests therein (hereinafter referred to as the "core area"), as depicted on the map referred to in the first section of this title, by donation, purchase with donated or appropriated funds, or exchange. The Secretary may also acquire by any of the foregoing methods such lands and interests therein, including leasehold interests, as he may designate in the French Quarter of New Orleans for development and operation as an interpretive and administrative facility. Lands, waters, and interests therein owned by the State of Louisiana or any political subdivision thereof may be acquired only by donation. In acquiring property pursuant to this title, the Secretary may not acquire right, to oil and gas without the consent of the owner, but the exercise of such rights shall be subject to such regulations as the Secretary may promulgate in furtherance of the purposes of this title.

Guidelines or criteria, consultation.

(b) With respect to the lands, waters, and interests therein generally depicted as the "park protection zone" on the map referred to in the first section of this title, the Secretary shall, no later than six months from the date of enactment of this Act, in consultation with the affected State and local units of government, develop a set of guidelines or criteria applicable to the use and development of properties within the park protection zone to be enacted and enforced by the State or local units of government.

Values, preservation and protection.

(c) The purpose of any guideline developed pursuant to subsection (b) of this section shall be to preserve and protect the following values within the core area:

(1) fresh water drainage patterns from the park protection zone into the core area;
(2) vegetative cover;
(3) integrity of ecological and biological systems; and
(4) water and air quality.

Authority, ceding.

(d) Where the State or local units of government deem it appropriate, they may cede to the Secretary, and the Secretary is authorized to accept, the power and

authority to confect and enforce a program or set of rules pursuant to the guidelines established under subsection (b) of this section for the purpose of protecting the values described in subsection (c) of this section.

Acquisitions.

(e) The Secretary, upon the failure of the State or local units of government to enact rules pursuant to subsection (b) of this section or enforce such rules so as to protect the values enumerated in subsection (c) of this section, may acquire such lands, servitudes, or interests in lands within the park protection zone as he deems necessary to protect the values enumerated in subsection (c) of this section.

Boundaries, revision.

(f) The Secretary may revise the boundaries of the park protection zone, notwithstanding any other provision of law, to include or exclude properties, but only with the consent of Jefferson Parish.

(g) The Secretary is authorized to acquire lands or interests in lands by donation, purchase with donated or appropriated funds or exchange, not to exceed approximately 20 acres, in Acadian villages and towns. Any lands so acquired shall be developed, maintained and operated as part of the Jean Lafitte National Historical Park.

Use and occupancy right, retention.
16 USC 230b.

Sec. 903. Within the Barataria Marsh Unit, the owner or owners of improved property used for noncommercial residential purposes on a year-round basis may, as a condition of the acquisition of such property by the Secretary, elect to retain a right of use and occupancy of such property for noncommercial residential purposes if, in the judgment of the Secretary, the continued use of such property for a limited period would not unduly interfere with the development or management of the park. Such right of use and occupancy may be either a period ending on the death of the owner or his spouse, whichever occurs last, or a term of not more than twenty-five years, at the election of the owner. Unless the property is donated, the Secretary shall pay to the owner the fair market value of the property less the fair market value of the right retained by the owner. Such right may be transferred or assigned and may be terminated by the Secretary, if he finds that the property is not used for noncommercial residential purposes, upon tender to the holder of the right an amount equal to the fair market value of the unexpired term. As used in this section, the term "improved property" means a single-family, year-round dwelling, the construction of which was begun before January 1, 1977, which serves as the owner's permanent place of abode at the time of its acquisition by the United States, together with not more than three acres of land on which the dwelling and appurtenant buildings are located which the Secretary finds is reasonably necessary for the owner's continued use and occupancy of the dwelling.

"Improved property."

Cooperative agreements.
16 USC 230c.

Sec. 904. In furtherance of the purposes of this title, and after consultation with the Commission created by section 907 of this title, the Secretary is authorized to enter into cooperative agreements with the owners of properties of natural, historical, or cultural significance, including but not limited to the resources described in paragraphs (1) through (5) of the first section of this title, pursuant to which the Secretary may mark, interpret, restore and/or provide technical assistance for the preservation and interpretation of such properties, and pursuant to which the Secretary may provide assistance including management services, program implementation, and incremental financial assistance in furtherance of the standards for administration of the park pursuant to section 906 of this title. Such agreements shall contain, but need not be limited to, provisions that the Secretary, through the National Park Service, shall have the right of access at all reasonable times to all public portions of the property covered by such agreement for the purpose of conducting visitors

through such properties and interpreting them to the public, and that no changes or alterations shall be made in such properties except by mutual agreement between the Secretary and the other parties to such agreements. The agreements may contain specific provisions which outline in detail the extent of the participation by the Secretary in the restoration, preservation, interpretation, and maintenance of such properties.

Sec. 905. Within the Barataria Marsh Unit, the Secretary shall permit hunting, fishing (including commercial fishing), and trapping in accordance with applicable Federal and State laws, except that within the core area and on those lands acquired by the Secretary pursuant to section 902(c) of this title, he may designate zones where and establish periods when no hunting, fishing, or trapping shall be permitted for reasons of public safety. Except in emergencies, any regulations of the Secretary promulgated under this section shall be put into effect only after consultation with the appropriate fish and game agency of Louisiana.

Hunting, fishing, and trapping.
16 USC 230d.

Consultation.

Sec. 906. The Secretary shall establish the park by publication of a notice to that effect in the Federal Register at such time as he finds that, consistent with the general management plan referred to in section 908, sufficient lands and interests therein (i) have been acquired for interpretive and administrative facilities, (ii) are being protected in the core area, and (iii) have been made the subject of cooperative agreements pursuant to section 904. Pending such establishment and thereafter the Secretary shall administer the park in accordance with the provisions of this title, the Act of August 25, 1916 (39 Stat. 535), the Act of August 21, 1935 (49 Stat. 666), and any other statutory authorities available to him for the conservation and management of natural, historical, and cultural resources.

Notice, publication in Federal Register.
16 USC 230e.

Administration.

16 USC 1 *et seq.*
16 USC 461 note.

Sec. 907. (a) There is established the Delta Region Preservation Commission (hereinafter referred to as the "Commission"), which shall consist of the following:

(1) two members appointed by the Governor of the State of Louisiana;
(2) two members appointed by the Secretary from recommendations submitted by the President of Jefferson Parish;
(3) two members appointed by the Secretary from recommendations submitted by the Jefferson Parish Council;
(4) two members appointed by the Secretary from recommendations submitted by the mayor of the city of New Orleans;
(5) one member appointed by the Secretary from recommendations submitted by the commercial fishing industry;
(6) three members appointed by the Secretary from recommendations submitted by local citizen conservation organizations in the delta region;
(7) one member appointed by the Chairman of the National Endowment for the Arts;
(8) two members appointed by the Secretary from recommendations submitted by the Police Jury of Saint Bernard Parish; and
(9) one member who shall have experience as a folklorist and who is familiar with the cultures of the Mississippi Delta Region appointed by the Secretary of the Smithsonian Institution.

Delta Region Preservation Commission, establishment and membership.
16 USC 230f.

(b) Members of the Commission shall serve without compensation as such. The Secretary is authorized to pay the expenses reasonably incurred by the non-Federal members of the Commission in carrying out their duties.

Compensation and expenses.

(c) The function of the Commission shall be to advise the Secretary in the selection of sites for inclusion in the park, in the development and implementation of a general management plan, and in the development and implementation of a comprehensive interpretive program of the natural, historic, and cultural resources of the region. The Commission shall inform interested members of the public, the State of Louisiana and its political subdivisions, and interested Federal agencies with respect to existing and proposed actions and programs having a material effect on the perpetuation of a high-quality natural and cultural environment in the delta region.

Functions.

(d) The Commission shall act and advise by affirmative vote of a majority of its members: *Provided*, That any recommendation of the Commission that affects the use or development, or lack thereof, of property located solely within a single parish or municipality shall have the concurrence of a majority of the members appointed from recommendations submitted by such parish or municipality.

(e) The Directors of the Heritage Conservation and Recreation Service and the National Park Service shall serve as ex officio members of the Commission and provide such staff support and technical services as may be necessary to carry out the functions of the Commission. The Commission shall terminate twenty years from the date of approval of this Act.

Sec. 908. (a) There is authorized to be appropriated, to carry out the provisions of this title, not to exceed $50,000,000 from the Land and Water Conservation Fund for acquisition of lands, waters, and interests therein and such sums as necessary for the development of essential facilities.

Appropriation authorization.
16 USC 230g.

(b) Within three years from the date of enactment of this title, the Secretary, after consultation with the Commission, shall submit to the Committee on Interior and Insular Affairs of the House of Representatives, and the Committee on Energy and Natural Resources of the Senate a general management plan for the park indicating--

General management plan, submittal to congressional committees.

(1) transportation alternatives for public access to the park;

(2) the number of visitors and types of public use within the park which can be accommodated in accordance with the protection of its resources;

(3) the location and estimated cost of facilities deemed necessary to accommodate such visitors and uses; and

(4) a statement setting forth the actions which have been and should be taken to assure appropriate protection, interpretation, and management of the areas known as Big Oak Island and Couba Island.

Sec. 909. The area described in the Act of October 9, 1962 (76 Stat. 755), as the "Chalmette National Historical Park" is hereby redesignated as the Chalmette Unit of the Jean Lafitte National Historical Park. Any references to the Chalmette National Historical Park shall be deemed to be references to said Chalmette Unit.

Chalmette Unit, redesignation.
16 USC 230h.

Sec. 910. By no later than the end of the first full fiscal year following the date of enactment of this section, the Secretary shall submit to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate, a comprehensive report with recommendations as to sites within the Mississippi River Delta Region which constitute nationally significant examples of natural resources within that region.

Report to congressional committees.
16 USC 230i.