

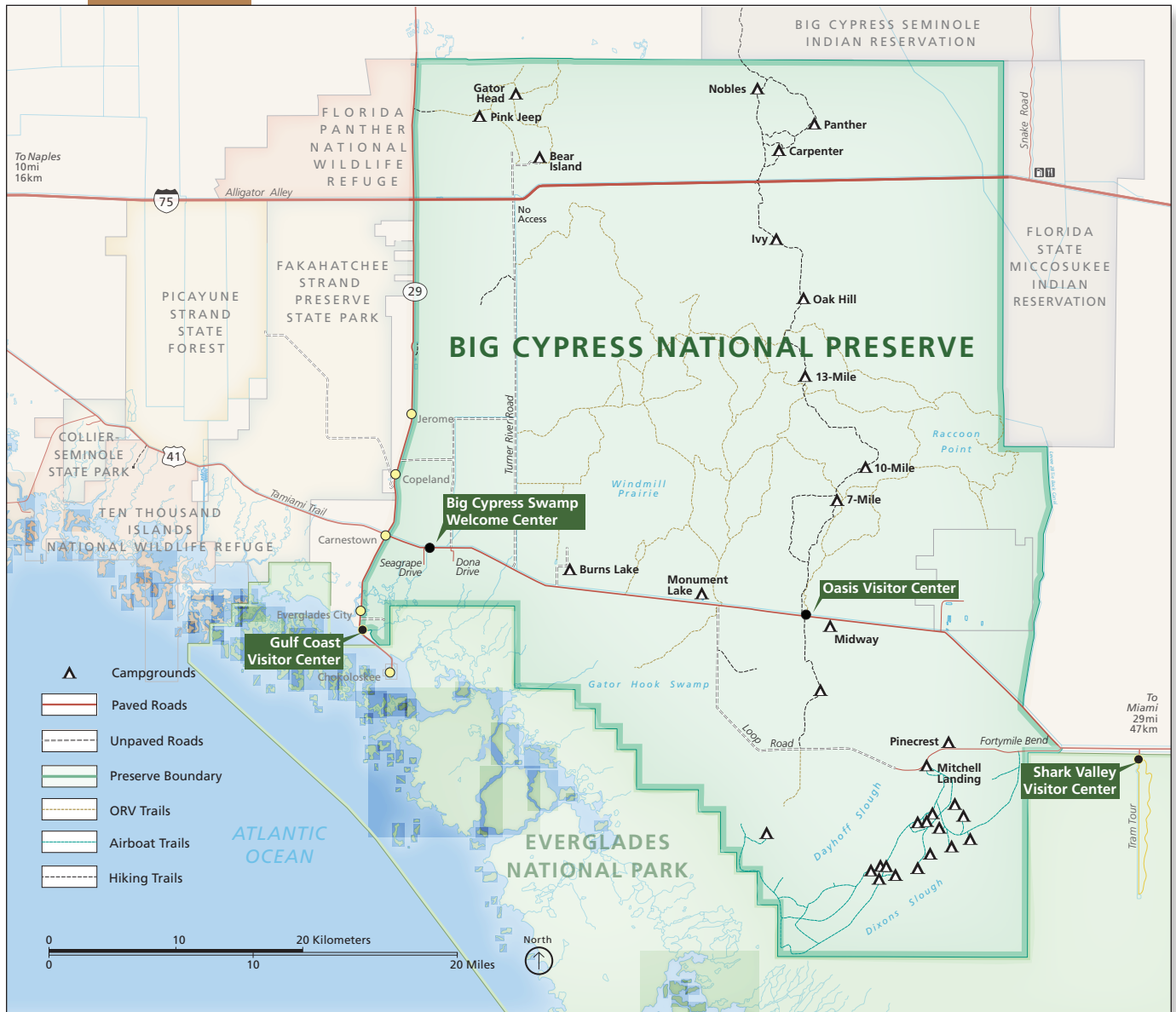


Foundation Document Big Cypress National Preserve

Florida

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Mission of the National Park Service

The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

The NPS core values are a framework in which the National Park Service accomplishes its mission. They express the manner in which, both individually and collectively, the National Park Service pursues its mission. The NPS core values are:

- **Shared stewardship:** We share a commitment to resource stewardship with the global preservation community.
- **Excellence:** We strive continually to learn and improve so that we may achieve the highest ideals of public service.
- **Integrity:** We deal honestly and fairly with the public and one another.
- **Tradition:** We are proud of it; we learn from it; we are not bound by it.
- **Respect:** We embrace each other's differences so that we may enrich the well-being of everyone.

The National Park Service is a bureau within the Department of the Interior. While numerous national park system units were created prior to 1916, it was not until August 25, 1916, that President Woodrow Wilson signed the National Park Service Organic Act formally establishing the National Park Service.

The national park system continues to grow and comprises more than 400 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the U.S. Virgin Islands. These units include, but are not limited to, national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, preserves, and the White House. The variety and diversity of park units throughout the nation require a strong commitment to resource stewardship and management to ensure both the protection and enjoyment of these resources for future generations.



The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archeological values.

Introduction

Every unit of the national park system will have a foundational document to provide basic guidance for planning and management decisions—a foundation for planning and management. The core components of a foundation document include a brief description of the park unit as well as the park unit’s purpose, significance, fundamental resources and values, other important resources and values, and interpretive themes. The foundation document also includes special mandates and administrative commitments, an assessment of planning and data needs that identifies planning issues, planning products to be developed, and the associated studies and data required for park unit planning. Along with the core components, the assessment provides a focus for park unit planning activities and establishes a baseline from which planning documents are developed.

A primary benefit of developing a foundation document is the opportunity to integrate and coordinate all kinds and levels of planning from a single, shared understanding of what is most important about the park unit. The process of developing a foundation document begins with gathering and integrating information about the park unit. Next, this information is refined and focused to determine what the most important attributes of the park unit are. The process of preparing a foundation document aids park unit managers, staff, and the public in identifying and clearly stating in one document the essential information that is necessary for park unit management to consider when determining future planning efforts, outlining key planning issues, and protecting resources and values that are integral to park purpose and identity.

While not included in this document, a park unit atlas is also part of a foundation project. The atlas is a series of maps compiled from available geographic information system (GIS) data on natural and cultural resources, visitor use patterns, facilities, and other topics. It serves as a GIS-based support tool for planning and park unit operations. The atlas is published as a (hard copy) paper product and as geospatial data for use in a web mapping environment. The park unit atlas for Big Cypress National Preserve can be accessed online at: <http://insideparkatlas.nps.gov/>.



Part 1: Core Components

The core components of a foundation document include a brief description of the park unit, park unit purpose, significance statements, fundamental resources and values, other important resources and values, and interpretive themes. These components are core because they typically do not change over time. Core components are expected to be used in future planning and management efforts.

Brief Description of the Preserve

Big Cypress National Preserve (hereafter referred to as the “preserve”) is centrally located between Miami and Naples in southern Florida. It encompasses 729,000 acres of a largely freshwater wetland ecosystem offering refuge to a wide variety of plants and animals. The preserve was established for the preservation, conservation, and protection of the natural, scenic, hydrologic, floral and faunal, and recreational values of the Big Cypress watershed, and to provide for the enhancement of public enjoyment. Established as one of the first national preserves, Big Cypress represents a unique management concept where resource protection, public recreation, and specific uses stipulated within its enabling legislation are managed concurrently.

Water is the unifying force of the preserve, connecting its five habitats: hardwood hammocks, pinelands, prairies, cypress swamps, and estuaries. These diverse ecosystems encompass a dynamic mixture of tropical and temperate plant communities and wildlife. The preserve protects 9 federally listed and 31 state listed threatened and endangered or species of special concern animals and 120 state listed threatened and endangered plant species. Visitors can see nearly 200 bird species throughout the year, and large mammals such as the black bear and bobcat make the preserve their home. Federally listed animals that call the preserve home include the Cape Sable seaside sparrow, wood stork, red-cockaded woodpecker, Everglades snail kite, West Indian manatee, American alligator, American crocodile, eastern indigo snake, and the Florida panther, one of the most endangered mammals in the world. Big Cypress National Preserve protects the flow of freshwater from the Big Cypress Swamp into estuaries of neighboring Everglades National Park and the Ten Thousand Islands National Wildlife Refuge.





In the late 1960s, the area that was to become Big Cypress National Preserve was threatened by multiple forms of development, including a proposal to construct the “jetport,” which would have been the largest airport in the world at that time. Spurred by these impending threats, the concept of a preserve was born through a grassroots exercise in compromise. Alarmed by the potential for environmental harm and the threatened loss of a traditional way of life, a coalition of hunters, conservationists, and citizen activists, including Marjory Stoneman Douglas and the newly formed Friends of the Everglades, pressured the then Dade County Port Authority to find another location for the jetport. Everyone saw the importance of protecting the Big Cypress, but many did not want this region merely added to nearby Everglades National Park. Many felt that traditional forms of access to the Big Cypress would be lost if the area was managed as a national park. The resulting compromise created a new land management concept—a national preserve. Under this concept, the area would be protected but specific activities identified in the preserve’s enabling legislation would be allowed to continue. A wide variety of traditional, consumptive, and recreational activities were carried out in Big Cypress before the inception of the preserve. Today, hunting, fishing, trapping, oil and gas exploration and extraction, operation of off-road vehicles (ORVs), private land ownership, and traditional use by Miccosukee and Seminole people are allowed, consistent with the preserve’s enabling legislation. Cattle grazing leases have expired and no new rights will be extended.

Preserve Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park unit. The purpose statement for Big Cypress National Preserve was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. Big Cypress National Preserve was authorized by Congress on October 11, 1974 (Public Law 93-440), to include not more than 570,000 acres of land and water. That law was amended on April 29, 1988, when Congress passed Public Law 100-301, the Big Cypress National Preserve Addition Act or “Addition Act,” to expand the preserve by 147,000 acres. This expansion area is referred to as the Addition (see appendix A for enabling legislation and subsequent amendments). The preserve now encompasses 729,000 acres. The purpose statement lays the foundation for understanding what is most important about the park unit.

The purpose of BIG CYPRESS NATIONAL PRESERVE is to assure the preservation, conservation, and protection of the natural, scenic, hydrologic, floral and faunal, and recreational values of the Big Cypress watershed in the State of Florida and to provide for the enhancement and public enjoyment thereof.



Preserve Significance

Significance statements express why a park unit’s resources and values are important enough to merit designation as a unit of the national park system. These statements are linked to the purpose of Big Cypress National Preserve, and are supported by data, research, and consensus. Statements of significance describe the distinctive nature of the park unit and why an area is important within a global, national, regional, and systemwide context. They focus on the most important resources and values that will assist in park unit planning and management.

The following significance statements have been identified for Big Cypress National Preserve. (Please note that the sequence of the statements does not reflect the level of significance.)

- The preserve protects the Big Cypress Watershed—an area critical to the survival of the greater Everglades ecosystem.
- The preserve contains the largest dwarf cypress forests in North America and the largest old-growth South Florida slash pine forest.
- The preserve protects vital habitat for state and federal threatened and endangered plant and animal species, including the Florida panther, red-cockaded woodpecker, and ghost orchid.
- The preserve provides opportunities for the public to enjoy outdoor recreation activities in a vast natural area spanning 729,000 acres of South Florida. These opportunities are increasingly rare in a region containing rapidly growing cities with more than 6 million people.
- The preserve contains evidence of approximately 15,000 years of human use and sustains resources that continue to hold importance to traditionally associated cultures including the Miccosukee and Seminole people.



Fundamental Resources and Values

Fundamental resources and values (FRVs) are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to warrant primary consideration during planning and management processes because they are essential to achieving the purpose of the park unit and maintaining its significance. Fundamental resources and values are closely related to a park unit's legislative purpose and are more specific than significance statements.

Fundamental resources and values help focus planning and management efforts on what is truly significant about the park unit. One of the most important responsibilities of NPS managers is to ensure the conservation and public enjoyment of those qualities that are essential (fundamental) to achieving the purpose of the park unit and maintaining its significance. If fundamental resources and values are allowed to deteriorate, the park unit purpose and/or significance could be jeopardized.

The following fundamental resources and values have been identified for Big Cypress National Preserve:

- Water Resources.** Water is the principal natural resource of the South Florida region. The preserve is a subarea of the once-uninterrupted Big Cypress Swamp and Everglades ecosystems, which is now bisected by legacy, and in some cases derelict, levees and canals. These levees and canals, tends to counteract, i.e., diminish, the prevalence, duration, and quality of surface water on the wetland landscape. In all cases, these canals and levees predate establishment of the preserve and were built for either water management or transportation purposes, or a combination of both. The hydrologic regime of the preserve largely determines the patterns in which vegetation communities, wildlife species, and wildfire occur on the landscape. The natural flow of freshwater and its restoration where disturbed are key to the survival of Big Cypress National Preserve and Everglades National Park, as well as the integrity of the entire South Florida ecosystem.
- Ecological Integrity.** Encompassing 729,000 acres of a vast freshwater wetland ecosystem, Big Cypress National Preserve protects a large, intact natural region of South Florida free of agricultural and urban development. The preserve encompasses one of the least developed watersheds in South Florida, permitting natural biological processes to nourish diverse ecological communities distinctive to the region. The ecology of the preserve is finely tuned to the seasonal flow of water, and hydrologic changes such as upstream water management practices and land use changes can alter this sensitive subtropical habitat. The protection and maintenance of naturally evolved biotic communities and landscapes is ensured in the preserve through the ongoing restoration of wetland, hydrologic, and natural fire regimes. The preserve provides opportunities for researching, inventorying, and monitoring the dynamic, biologically diverse environment of Big Cypress.





- **Native Plants and Animals.** Big Cypress National Preserve is characterized by extensive prairies and marshes, forested swamps, pinelands, and shallow sloughs representing a mixture of tropical and temperate plant communities. It is home to a diversity of wildlife, including species of concern such as the Big Cypress fox squirrel, red-cockaded woodpecker, wood stork, Florida panther, and West Indian manatee, as well as prey species such as white-tailed deer and turkey. Most wildlife species native to South Florida occur in the preserve—more than 30 species of orchids and 16 species of bromeliads are known to grow here.
- **Public Enjoyment.** Visitors can travel for miles through an expanse of open prairies dotted with cypress trees, distant pinelands, and tree islands broken at intervals by dark, forested swamps. For generations the preserve has provided exceptional opportunities to experience solitude in a vast, wild setting. Popular recreational activities include wildlife viewing, paddling, hiking, camping, hunting, fishing, off-road vehicle use, and auto touring. The southernmost sections of the Florida National Scenic Trail, which stretches from Big Cypress to the panhandle, traverse the preserve.
- **Traditional Uses.** Based on archeological evidence, Big Cypress was used year-round by early inhabitants in a transitory hunting and gathering pattern. Archeological surveys have documented 485 archeological sites in the preserve, including a variety of historical and archeological resources that demonstrate change of land use spanning 15,000 years of continuous human occupation. Several archeological sites are listed in the National Register of Historic Places. Today, traditional uses such as tribal use and occupancy and hunting and fishing continue in the preserve.

Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park unit—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from, and should reflect, park unit purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park unit staff to develop opportunities for visitors to explore and relate to all park unit significance statements and fundamental and other important resources and values.

Interpretive themes are an organizational tool that reveal and clarify meaning, concepts, contexts, and values represented by park unit resources. Sound themes are accurate and reflect current scholarship and science. They encourage exploration of the context in which events or natural processes occurred and the effects of those events and processes. Interpretive themes go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the park unit and its resources. These themes help explain why a park unit story is relevant to people who may otherwise be unaware of connections they have to an event, time, or place associated with the park unit.

The following interpretive themes have been identified for Big Cypress National Preserve:

- Preservation of the Big Cypress watershed is integral to ecological health and human quality of life in South Florida.
- The preserve provides a refuge for a great diversity of plant and animal species. The health of the species in the preserve is a reflection of the health of the region as a whole.
- The preserve ties our past to the future, reflecting a pattern of changing cultures and use in Big Cypress.
- The preserve provides a variety of outstanding opportunities for visitors to experience adventure, learning, solitude, dark night skies, and relaxation in a vast natural setting.



Part 2: Dynamic Components

The dynamic components of a foundation document include special mandates and administrative commitments and an assessment of planning and data needs. These components are dynamic because they will change over time. New special mandates can be established and new administrative commitments made. As conditions and trends of fundamental and other important resources and values change over time, the analysis of planning and data needs will need to be revisited and revised, along with key issues. Therefore, this part of the foundation document will be updated accordingly.

Special Mandates and Administrative Commitments

Many management decisions for a park unit are directed or influenced by special mandates and administrative commitments with other federal agencies, tribal, state and local governments, utility companies, partnering organizations, and other entities. Special mandates are requirements specific to a park unit that must be fulfilled. Mandates can be expressed in enabling legislation, in separate legislation following the establishment of the park unit, or through a judicial process. They may expand on park purpose or introduce elements unrelated to the purpose of the park unit. Administrative commitments are, in general, agreements that have been reached through formal, documented processes, often through memorandums of agreement. Examples include easements, rights-of-way, arrangements for emergency service responses, etc. Special mandates and administrative commitments can support, in many cases, a network of partnerships that help fulfill the objectives of the park unit and facilitate working relationships with other organizations. They are an essential component of managing and planning for Big Cypress National Preserve.

For more information about the existing special mandates and administrative commitments for Big Cypress National Preserve, please see appendix B.

Assessment of Planning and Data Needs

Once the core components of part 1 of the foundation document have been identified, it is important to gather and evaluate existing information about the park unit's fundamental and other important resources and values, and develop a full assessment of the park unit's planning and data needs. The assessment of planning and data needs section presents planning issues, the planning projects that will address these issues, and the associated information requirements for planning, such as resource inventories and data collection, including GIS data.

There are three sections in the assessment of planning and data needs:

1. analysis of fundamental and other important resources and values
2. identification of key issues and associated planning and data needs
3. identification of planning and data needs (including spatial mapping activities or GIS maps)

The analysis of fundamental and other important resources and values and identification of key issues leads up to and supports the identification of planning and data collection needs.

Analysis of Fundamental Resources and Values

The fundamental resource or value analysis table includes current conditions, potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value.



Fundamental Resource or Value	Water Resources
Related Significance Statements	<ul style="list-style-type: none"> The preserve protects the Big Cypress Watershed—an area critical to the survival of the greater Everglades ecosystem.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> Drainage System – Prior to the preserve’s 1974 establishment, roads, levees, and canals were constructed to dewater surrounding land for eventual development. These intrusions block regional sheet water flow and result in a net loss of fresh water to tide and shortening of water duration in wetlands. Hydrologic Integrity – The Big Cypress Swamp is a significant aquifer recharge area. In a typical year, 90% of the preserve is inundated during the wet season and 10% in the dry season. The Big Cypress basin provides approximately 42% of the water flowing into Everglades National Park and is one of the least altered remaining hydrological networks in South Florida. Land Use and Development – The preserve’s water resources are inextricably linked to those found in Everglades National Park because water flows from the Big Cypress Swamp into Everglades in some areas and from Everglades into Big Cypress in other places. South Florida is dominated by a sheet flow water regime. In this system, the landscape is covered with a shallow and continuous expanse of water during the wet season that flows at a slow velocity toward the coast. In general, construction, agriculture, residential development, canals, levees, and the past operation of pumps and flood gates have altered the timing, distribution, and quality of water in the region. Upstream Water Management – The western and northeast Addition are currently impacted by upstream water management practices and have been for decades. The Big Cypress waters are subject to upstream management practices that the National Park Service does not control. During larger rain events, water is diverted from the Water Conservation Area 3 (WCA-3) and often overflows the preserve’s surface water.

Fundamental Resource or Value	Water Resources
<p>Current Conditions and Trends</p>	<p>Conditions (continued)</p> <ul style="list-style-type: none"> • Water Quality – The preserve has relatively good water quality, with relatively low concentrations of contaminants and toxic organic compounds compared with the rest of Florida and nearby areas closer to agricultural and urban sources. However, the quality of water entering the preserve in northern Big Cypress is a concern due to elevated total phosphorus levels and possibly other contaminants. • Spatial Extent – There are approximately 273.8 miles of perennial waterways comprising 99.4 miles of stream/river and 174.4 miles of canals in or adjacent to the preserve. There are also 556 sinks/ponds and lakes comprising approximately 985 acres, 150.5 acres of sea/ocean, and 467,286.4 acres of swamp/marsh. • State Designations – Waters in Big Cypress National Preserve are currently designated by the state as a Class III Outstanding Florida Water. The Big Cypress area has been recognized by the state as an Area of Critical State Concern. <p>Trends</p> <ul style="list-style-type: none"> • Climate Change – There is evidence of an enhanced hydrological cycle in the Gulf Coast region, including a decreased daily temperature range, more atmospheric water vapor, increased precipitation, more intense precipitation events, and strong extratropical storms. Shallow-water resources are expected to closely track changes in regional air temperatures and will be especially vulnerable to increasing climate change. • Drainage System – The National Park Service continues to work on lessening the effects of the pre-preserve road drainage system through a series of retrofits and restoration projects aimed at improving sheet water flow and water duration. • Water Quality – Upstream land and water management practices (both currently and potentially in the future) will impact the preserve. While the original boundary of the preserve was celebrated as being a predominantly self-contained, rain-driven watershed, and thus shielded from nutrient-enriched surface waters (which have been historically diverted into bypass canals around and downstream of the preserve), the preserve’s expansion to include the Addition Lands and plans for future ecosystem restoration and land development activities north of the preserve may alter the inflow and quality of water into the preserve. • Neighboring Development – The preserve and neighboring lands are experiencing ongoing development, including the construction of roads in and around the preserve and the proposed River of Grass Greenway, a hard-surfaced corridor designed for nonmotorized recreation that would parallel the Tamiami Trail and extend from the eastern edge of Everglades National Park to Naples / Marco Island. Drainage associated with these developments can greatly impact the Big Cypress watershed and surface water sources. • Counties are searching for revenue opportunities that could have potential impacts to the preserve and related water resources. Examples include Miami-Dade County’s attempt a few years ago to develop a portion of the jetport into an all-terrain vehicle park.

Fundamental Resource or Value	Water Resources
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Air Quality – Air pollutants can be deposited into surface water and soil and contribute to harmful effects of nutrient enrichment and acidification of that can lead to the decline of sensitive species and shifts in the makeup for terrestrial plants, aquatic algal, and higher life form communities. • Climate Change – Climate change can result in more intense storms, floods, sea level rise, wildfires, and droughts. Rising sea levels and storm surge may lead to loss of land and critical habitat, rising groundwater tables, saltwater intrusion, and loss of freshwater ecosystems. An imbalance of saltwater and freshwater can contribute to invasive species and damage native ecosystems. The preserve has initiated the Climate Friendly Park certification process. • Mineral Rights – Oil and gas exploration in the preserve has the potential to impact both biotic and abiotic resources, including vegetation, soils, hydrology, wildlife, air quality, water quality, and cultural resources. Current state and federal regulations provide for the orderly development of mineral rights while protecting natural resources, the environment, and public health and safety. • Drainage System – The loss of freshwater through the current road drainage system can result in increased susceptibility to drought, wildfires, saltwater intrusion, and invasive vegetation. • Nonnative Species – Aquatic nonnative vegetation and animals can damage water ecosystems and habitats. • Land Use – The preserve’s expansion to include the Addition Lands and plans for future ecosystem restoration and land development activities north of the preserve may alter the inflow and quality of water into the preserve. • Neighboring Development – Outside development can further disrupt water flow and contribute pollutants to preserve water resources. • Nutrient-Enriched Water Influx – Future restoration plans include diverting a portion of the nutrient-enriched canal waters in the preserve that previously had bypassed it, posing a threat to the water quality in the preserve. • Increased Total Phosphorus - Increased total phosphorus is a threat because the preserve is naturally a nutrient-depressed system, with total phosphorus generally in very low concentrations of rarely more than 0.1 ppm. High total phosphorus concentrations disrupt ecological functions; degrade water quality; cause algal blooms, loss of macroinvertebrate diversity, changes in water flow, and changes in vegetation composition and density; and have negative impacts on wildlife that require specific water quality and flows during different seasons. • Mercury – There is a mercury-related, statewide fish consumption advisory for freshwater, coastal, and other water bodies that includes the preserve. <p>Opportunities</p> <ul style="list-style-type: none"> • Partnerships – Partnerships with local universities and regional environmental research groups could help sponsor restoration projects. The South Florida Water Management District can be a future partner for research, monitoring, and restoration efforts. There is also an opportunity to partner with tribes to address water resource threats. • Regional Coordination – Increase coordination with the Florida/Caribbean Exotic Plant Management Team and the Florida Exotic Pest Plant Council. Get more involved with the local community before projects take place by joining metropolitan planning councils, including the South Florida Regional Planning Council. • Enforcement – Enforcement of federal water quality standards will help improve the preserve’s resources and habitat health. • Education – Expand interpretative and educational tools to communicate the connections between ecosystem health, land use, hydrology, air and water quality, night sky, scenic views, recreation, human health, climate change, facility adaptation and other associated resources. • Work cooperatively with other federal and state air quality agencies and local stakeholders to reduce air quality impacts in the preserve from sources of air pollution. Partnering with nearby developers or planners could similarly help increase awareness about the importance of ecosystem health, hydrology, air and water quality.

Fundamental Resource or Value	Water Resources
<p>Existing Data and Plans Related to the FRV</p>	<ul style="list-style-type: none"> • Current air quality conditions and trends for pollutant deposition from local and regional monitoring sites. • 2013 “Wetlands Delineation Report for Trail Head Improvements Project.” • 2008 “Big Cypress National Preserve Geological Resource Evaluation Report.” • 2004 “Water Quality in Big Cypress National Preserve and Everglades National Park—Trends and Spatial Characteristics of Selected Constituents.” • 1996 “Water Resources Management Plan: Big Cypress National Preserve.” • 1996 “Baseline Water Quality Data Inventory and Analysis: Big Cypress National Preserve.” • 1986 “Hydrological Assessment of the Big Cypress National Preserve: A Water Resources Analysis for the General Management Plan and Minerals Management Plan.”
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Continuous hydrological data for water quality and water level monitoring. • Hydrologic flow model for the preserve. • Inventory and monitor water quality and water level data; hydrologic collection data.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Hydrologic restoration master plan.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Clean Air Act • Clean Water Act • Paleontological Resources Preservation Act • Water rights adjudication and law • Executive Order 11514, “Protection and Enhancement of Environmental Quality” • Executive Order 11988, “Floodplain Management” • Executive Order 11990, “Protection of Wetlands” • Executive Order 12088, “Federal Compliance with Pollution Control Standards” • National Flood Insurance Program (42 USC 50) • Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources” <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (1.6) “Cooperative Conservation Beyond Park Boundaries” • NPS <i>Management Policies 2006</i> (4.6.1) “Protection of Surface Waters and Groundwaters” • NPS <i>Management Policies 2006</i> (4.6.2) “Water Rights” • NPS <i>Management Policies 2006</i> (4.6.4) “Floodplains” • Director’s Order 77-1: <i>Wetland Protection</i> • Director’s Order 77-2: <i>Floodplain Management</i>



Fundamental Resource or Value	Ecological Integrity
<p>Related Significance Statements</p>	<ul style="list-style-type: none"> • The preserve protects the Big Cypress Watershed—an area critical to the survival of the greater Everglades ecosystem. • The preserve contains the largest dwarf cypress forests in North America and the largest old-growth South Florida slash pine forest. • The preserve protects vital habitat for state and federal threatened and endangered plant and animal species, including the Florida panther, red-cockaded woodpecker, and ghost orchid.
<p>Current Conditions and Trends</p>	<p>Conditions</p> <ul style="list-style-type: none"> • Spatial Extent – The preserve sits in the center of a large mosaic of conserved federal and state lands. The total area of the preserve today (729,000 acres) is the largest remaining continuous portion of the Big Cypress Swamp that maintains its natural ecosystems. This is critical for the conservation of wide-ranging species such as the Florida panther. • Ecosystem Health – Habitats at Big Cypress National Preserve were rated as having very high sensitivity to nutrient-enrichment (primarily phosphorus) effects and very low sensitivity to acidification relative to all NPS Inventory and Monitoring parks. The preserve has at least eight ozone-sensitive plant species, including <i>Parthenocissus quinquefolia</i> (Virginia creeper) and <i>Apios americana</i> (American groundnut). A risk assessment that considered ozone exposure, soil moisture, and sensitive plant species found that plants in Big Cypress were at low risk for foliar ozone injury.

Fundamental Resource or Value	Ecological Integrity
<p>Current Conditions and Trends</p>	<p>Conditions (continued)</p> <ul style="list-style-type: none"> • Fire Effects – Fire is an important ecological factor in controlling the distribution and composition of plant communities in the preserve. The preserve’s slash pine forests represent one of the region’s most fire-dependent and imperiled ecosystems, and many species in the preserve show an ability to resist or recover from fires. Most of the maintained preserve habitats are on three- to five-year prescribed fire regimes. Currently, there is a high level of hazardous fuel loads. • Habitat Diversity – The majority of the preserve consists of shallow seasonal wetland habitats including marshes, sloughs, and cypress forests. Upland habitats are primarily pine forest and subtropical hardwood hammock. • Natural Sounds – The preserve’s acoustic environment shows a predominance of natural sounds, which supports ecological processes as well as the remote and backcountry setting, and enhances visitor experience quality. • Night Skies – Although the preserve has such proximity to large population centers, Big Cypress National Preserve’s night skies maintain more natural dark sky than surrounding areas and provide important habitat for nocturnal wildlife and a unique opportunity for the public to enjoy night sky resources. • Nonnative Species – Aggressive nonnatives, including Brazilian pepper, <i>Lygodium</i> spp., and melaleuca, have invaded the preserve and formed monocultures of nonnative stands. • The rate of introduction of new nonnative herpetofauna species is increasing. Burmese pythons are widespread and reproducing in the wild. • Oil and Gas Operations – Exploration and extraction have been ongoing in the preserve for the past 50 years and are provided for under the preserve’s enabling legislation. <p>Trends</p> <ul style="list-style-type: none"> • Air Quality – Air quality in the preserve is relatively good for the air quality indicator ground-level ozone risk to humans and plants. • Spatial Extent and Connectedness – Although the preserve exists in a large mosaic of protected lands, rapid urban and agricultural development along both coasts is encroaching to the boundaries of these lands with loss of habitat and loss of connectedness among remaining habitats occurring. Increases in road density around parks and road speed and usage inside and outside parks are associated with roadkill. A new 170,000-acre town is planned on the north side of the preserve. The affected area is in the Primary Zone for the Florida panther. Primary Zone is defined as “all lands essential for the survival of the Florida panther in the wild” and are of highest conservation value. • Hydrologic Integrity – Water quality continues to be high but is increasingly affected by development and agricultural uses adjacent to the preserve. • Fire Effects – Fire management is a major natural resource management activity, but lack of funding and staff has pushed the preserve’s fire intervals past the suggested three- to five-year return rate, thereby resulting in an increase in hazardous fuel loads. • Climate Change and Habitat Diversity – Average annual temperature has increased at a statistically significant rate since 1950. Sea levels and storm surge height have risen. The preserve has been in or near 19 hurricane-strength storms over the last century. Climate change may significantly affect vegetation phenology, morphology, distribution, growth, and reproduction. • Nonnative Species – Increased restoration activities have been implemented to stop the establishment and spread of nonnative invasive species, but management continues to be critical for the preserve’s ecological health. • Oil and Gas Operations – Currently there is not a significant number of existing wells in the vicinity of the preserve. As of 2016, two operators manage 14 wells within the preserve boundary. Additional oil and gas operations are a reasonably foreseeable expectation in the preserve. Changes in global markets may influence interest in further exploration and production.

Fundamental Resource or Value	Ecological Integrity
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Air Quality – Coal-fired power plants and vehicle exhaust are believed to be major contributors to air quality impacts regionally. Both sources have reduced emissions significantly in the past decade to reduce ozone and fine particulates, and these reductions may improve air quality in the preserve. However, global atmospheric transport patterns favor deposition of pollutants in and around South Florida. At night, air pollution scatters artificial light, increasing the effect of light pollution on the night sky. • Climate Change and Habitat Diversity – Rising sea levels and storm surge may lead to loss of land and critical habitat, rising groundwater tables, saltwater intrusion, and loss of freshwater ecosystems. Climate change increases risk of high intensity storm events; flooding; extreme heat events; erosion/accretion of the coastline; more invasive species; and alteration of the flow regime, water chemistry, and biotic community of ecosystems. • Habitat Fragmentation – Increased density on adjacent lands of roads and traffic use, land conversion to urban areas and fragmentation of remaining conserved areas can disconnect and isolate populations and can lead to increased mortality due to roadkill. • Hydrologic Integrity – Water management in neighboring water conservation areas and Everglades National Park can cause areas of the southern preserve to become either too wet or too dry. Total phosphorus inputs from outside the preserve and adjacent lands can lead to changes in vegetation that are less supportive of wildlife. • Fire Effects – Increased wildfire events during extreme droughts and in areas that are beyond their fire return interval can destroy habitats and lead to the introduction and spread of invasive nonnative species. • Nonnative Species – Invasive, nonnative species directly prey on native species and can alter natural landscapes, reduce habitat for native species, and affect natural ecosystem functions. • Oil and Gas Operations – Oil and gas development can alter overland water flow, contaminate natural resources, emit air pollutants that can increase air quality concerns, affect the acoustic environment through added noise, and impact night skies through added artificial light. • Visitor Use – Overhunting and illegal takes can threaten mammal populations, threatened and endangered species including the Florida panther, and the overall ecological balance of the preserve. Unregulated off-trail, off-road vehicle use can damage ground vegetation and disturb wildlife. <p>Opportunities</p> <ul style="list-style-type: none"> • Partnerships – Partnering with state and other federal agencies allows the preserve to share resources and participate in regional restoration and management efforts. The preserve remains involved with the local community before projects take place by joining metropolitan planning councils, including the South Florida Regional Planning Council. • Restoration – Regional restoration efforts can improve the ecology of the preserve and related South Florida natural resources. Mitigation efforts can continue to focus on restoring the native ecology. • Prescribed Burning – Following the prescribed burning plan will help ensure ecosystem health. Use of appropriate wildland fire strategies will help maintain a healthy and sustainable ecosystem, achieving a range of variation in fire return interval, fire size, fire behavior, effects, and other characteristics of the local fire regime. • Nonnative Species Management – Early detection of invasive species according to the early detection plan and other management documents can limit their spread and prevent their establishment. • Preserve Management – Enacting new regulations such as for ORVs in the Addition Lands and potentially preservewide, as well as continued enforcement of current regulations, would protect preserve resources. • Education – Expand interpretative and educational tools to communicate the connections between ecosystem health, land use, hydrology, air and water quality, night sky, scenic views, recreation, human health, climate change, facility adaptation and other associated resources. • There is the opportunity to reduce noise and artificial light through retrofitting, timing of activities, equipment selection, and partnerships.

Fundamental Resource or Value	Ecological Integrity
Existing Data and Plans Related to the FRV	<ul style="list-style-type: none"> • 2010 “Big Cypress National Preserve Fire Management Plan” (revised 01.31.2013). • 2013 “South Florida/Caribbean Network Early Detection Protocol for Invasive Exotic Plants.” • 2008–2009 Big Cypress National Preserve Baseline Ambient Data from the National Park Service and the Volpe Center Joint Study.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Air quality monitoring of nitrogen and sulfur deposition. • Collect data on distribution of all communicable diseases in the preserve. • Comprehensive analysis of the distribution and effect of all other invasive plant species. • Distribution of all mosquito-borne illnesses. • Distribution and effect of <i>Lygodium microphyllum</i>. • Distribution and effect of all other invasive animals. • Distribution and effect of laurel wilt disease. • Distribution and effect of Mexican bromeliad weevil. • Fuel loading mapping. • Ongoing aerial photography. • Soil resources inventory. • Vegetation classification maps.
Planning Needs	<ul style="list-style-type: none"> • Hydrologic restoration master plan. • Land protection plan update. • ORV monitoring plan. • Planning for adaptation to climate change. • Wilderness stewardship plan. • Wildlife management plan.
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Clean Water Act • Endangered Species Act, as amended • Federal Noxious Weed Act, as amended • Lacey Act, as amended • Migratory Bird Treaty Act • National Environmental Policy Act • National Invasive Species Act • Paleontological Resources Preservation Act • Wilderness Act • Executive Order 11990, “Protection of Wetlands” • Executive Order 13112, “Invasive Species” • Executive Order 13443, “Facilitation of Hunting Heritage and Wildlife Conservation” • Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”

Fundamental Resource or Value	Ecological Integrity
<p>Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance</p>	<p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS <i>Management Policies 2006</i> (4.1) "General Management Concepts" • NPS <i>Management Policies 2006</i> (4.1.4) "Partnerships" • NPS <i>Management Policies 2006</i> (4.4.1) "General Principles for Managing Biological Resources" • NPS <i>Management Policies 2006</i> (4.7) "Air Resource Management" • NPS <i>Management Policies 2006</i> (4.7.2) "Weather and Climate" • NPS <i>Management Policies 2006</i> (4.9) "Soundscape Management" • NPS <i>Management Policies 2006</i> (4.10) "Lightscape Management" • NPS <i>Management Policies 2006</i> (5.3.1.7) "Cultural Soundscape Management" • NPS <i>Management Policies 2006</i> (8.2.2) "Recreational Activities" • NPS <i>Management Policies 2006</i> (8.2.3) "Use of Motorized Equipment" • NPS <i>Management Policies 2006</i> (8.4) "Overflights and Aviation Uses" • NPS <i>Management Policies 2006</i> (8.7) "Mineral Exploration and Development" • Director's Order 18: <i>Wildland Fire Management</i> • NPS <i>Natural Resource Management Reference Manual 77</i> • NPS Reference Manual 18: <i>Wildland Fire Management</i> • Director's Order 47: <i>Soundscape Preservation and Noise Management</i> • Director's Order 77-1: <i>Wetland Protection</i>





Fundamental Resource or Value	Native Plants and Animals
<p>Related Significance Statements</p>	<ul style="list-style-type: none"> • The preserve protects the Big Cypress Watershed—an area critical to the survival of the greater Everglades ecosystem. • The preserve contains the largest dwarf cypress forests in North America and the largest old-growth South Florida slash pine forest. • The preserve protects vital habitat for state and federal threatened and endangered plant and animal species, including the Florida panther, red-cockaded woodpecker, and ghost orchid.
<p>Current Conditions and Trends</p>	<p>Conditions</p> <ul style="list-style-type: none"> • Species Diversity – The preserve has a unique mixture of temperate and subtropical species with many subtle adaptations to this transitional environment. Several species are endemic to the South Florida area. • Fire Effects – Fire is an important ecological factor in controlling the distribution and composition of plant communities in the preserve. The preserve’s slash pine forests represent one of the region’s most fire-dependent and imperiled ecosystems, and many species in the preserve show an ability to resist or recover from fires. Most of the maintained preserve habitats are on six- to ten-year natural fire regimes and contain highly varied fuel conditions ranging from extremely dry to extremely wet, depending on the time of year. The least extreme fire events are experienced in the late summer months when there is hydrologic sheet flow throughout the preserve. • Ecosystem Health – South Florida contains significant support populations of red-cockaded woodpeckers, a federally listed endangered species that also acts as a “keystone” species indicator of ecosystem health. The preserve’s population is in good condition. Although widespread amphibian decline and extinction has been documented around the world, recent inventories and studies have shown no evidence of amphibian decline in the preserve. A 2005 survey documented 18 amphibian species and 34 reptile species, including all of the species historically found in the preserve. • Habitat Diversity – The majority of the preserve consists of shallow seasonal wetland habitats including marshes, sloughs, and cypress forests. Upland habitats are primarily pine forest and subtropical hardwood hammock.

Fundamental Resource or Value	Native Plants and Animals
<p>Current Conditions and Trends</p>	<p>Conditions (continued)</p> <ul style="list-style-type: none"> Threatened and Endangered Species – Big Cypress is home to 33 threatened and endangered animal species, including the Cape Sable seaside sparrow, wood stork, red-cockaded woodpecker, Everglades snail kite, West Indian manatee, Florida black bear, and Florida panther. There are 123 threatened and endangered plant species represented in the preserve, including land and water plants and numerous orchid species. One of the world’s most endangered mammals, the Florida panther (<i>Puma concolor coryi</i>), is the subject of an intensive recovery effort throughout the region. Since 1981, the preserve has participated in a panther monitoring program to track species demographic, biomedical, and genetic information, as well as the success of management and protection activities. Nonnative Animals – Feral hogs have been suppressed from previous high levels. Hogs have the potential to displace native species and destroy native plants and archeological sites. At earlier population levels they were an important food source for panthers, especially when the white-tailed deer population was low. The rate of introduction of new nonnative herpetofauna species is increasing. Burmese pythons are widespread and reproducing in the wild. Recent evidence suggests that small mammals are seriously threatened by invasive pythons and perhaps other reptiles. Nonnative Plants – The 2013 invasives survey found 65 nonnative plant species infesting about 1% (6.3 acres) of the 654 acres surveyed along the preserve’s trails, campgrounds, and boat ramps. The nonnative species with the most number of infestations were Brazilian pepper (<i>Schinus terebinthifolius</i>), Java plum (<i>Syzygium cumini</i>), and melaleuca (<i>Melaleuca quinquenervia</i>). Seven new species were documented, including crested floating heart (<i>Nymphoides cristata</i>), grass-leaved Eulophia (<i>Eulophia graminea</i>), bamboo (<i>Bambusa vulgaris</i>), aloe (<i>Aloe vera</i>), sago palm (<i>Cycas revoluta</i>), Sprenger’s asparagus fern (<i>Aparagus aethiopijs</i>), and Senegal date palm (<i>Phoenix reclinata</i>). Nonnative Species Management – Early detection protocol has been developed in an attempt to control the spread of invasive plant species along preserve corridors, including roads, trails, and canals. The preserve has been taking active control of managing aggressive invasive species, including Brazilian pepper and melaleuca. <p>Trends</p> <ul style="list-style-type: none"> Ecosystem Health – The deer population in >85% of the preserve has been stable over time. Fluctuations in population numbers and hunting activity levels have been observed among the management units, and the deer herd in the southeastern portion of the preserve is compromised due to management of water levels. Researchers and birders are reporting an increase in clusters of red-cockaded woodpeckers throughout the preserve, which reflects general good health of the preserve’s slash pine ecosystem. Threatened and Endangered Species – Adult survival rate for the West Indian manatee is high in years with no or low-intensity storms but decreases in years of intense storm activity. The Florida panther population appears to be increasing in the preserve and the rest of South Florida. There have been more reported vehicle collisions with panthers outside the preserve. Nonnative Species – New nonnative species have been seen in the preserve due to climate change, inadvertent introduction, and habitat pressures from nearby development. Birds – Bird counts have detected a northward shift in the winter ranges of bird species in the region due to climate change. Fire management – For the past 20 years natural fire has been suppressed in the preserve and not enough acreage has been burned by prescribed fire. This, coupled with hydrologic changes, have resulted in a decline in the acreage of prairies and hardwood hammocks and an increase in acreage of cabbage palms. The effect has been a volatile fuel load that has resulted in devastating fires. This is affecting the deer herd with potential impacts on the panther population.

Fundamental Resource or Value	Native Plants and Animals
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Fire Effects – Increased fire return intervals can lead to larger wildfire events and more damage to natural habitats. • Ecosystem Health – Hurricanes can affect breeding activity of nesting wading birds through destruction of habitat, intrusion of saltwater into freshwater wetlands, and reduced resource availability. Diseases can affect individual species and lead to shifts in ecosystems and the opportunity for additional invasive species to thrive. • Nonnative Species – Nearby plant nurseries could introduce additional nonnative plant species to the area. Climate change can affect native species habitats and push nonnative species into the preserve. Vegetation modeling suggests hydrological changes under climate change could affect distribution of tall sawgrass and pine savanna vegetation. The region may be more favorable to the growth of the invasive plant cogongrass (<i>Imperata cylindrical</i>). Nonnative species can compete with and displace native plant and animal species and disrupt natural ecosystem processes. • Land Use – Many of the species that can be found in the preserve are limited to South Florida, and they are declining as a result of habitat reduction caused by water management projects, urbanization, and agricultural expansion. Reduction of habitat outside the preserve can lead to species competition over limited resources and other negative impacts. • Visitor Use – Overhunting of white-tailed deer could affect the panther’s food sources. Human activities, both within the preserve and in bordering areas, can introduce new nonnative species and damage native species and habitat. <p>Opportunities</p> <ul style="list-style-type: none"> • Alternative Funding – The preserve can pursue grants and other outside funding for nonnative control research and management activities. • Interpretation – Information about flora and fauna trends can be included in preserve’s interpretive materials. • Partnerships – The preserve can partner with the South Florida Cooperative Ecosystem Studies Network for additional management and research assistance. • Restoration – Restoration efforts can help limit invasive species and keep native species populations at desirable levels. • Fire - Use of appropriate wildland fire strategies will help maintain a healthy and sustainable ecosystem, achieving a range of variation in fire return interval, fire size, fire behavior, effects, and other characteristics of the local fire regime. • Education – Expand interpretative and educational tools to communicate the connections between ecosystem health, land use, hydrology, air and water quality, night sky, scenic views, recreation, human health, climate change, facility adaptation and other associated resources. • Work cooperatively with other federal and state air quality agencies in the western Everglades and local stakeholders to reduce air quality impacts in the preserve from sources of air pollution. Partnering with nearby developers or planners could similarly increase awareness about the importance of ecosystem health, hydrology, air and water quality.
<p>Existing Data and Plans Related to the FRV</p>	<ul style="list-style-type: none"> • 2015 “Big Cypress National Preserve Species List.” • 2013 “South Florida / Caribbean Network Early Detection Protocol for Invasive Exotic Plants.” • 2008 “South Florida / Caribbean Network Vital Signs Monitoring Plan.” • 2005 “Herpetofaunal Inventories of the National Parks of South Florida and the Caribbean: Volume III. Big Cypress National Preserve.” • 1997 “Brazilian Pepper Management Plan for Florida.” • Natural resources condition assessment.

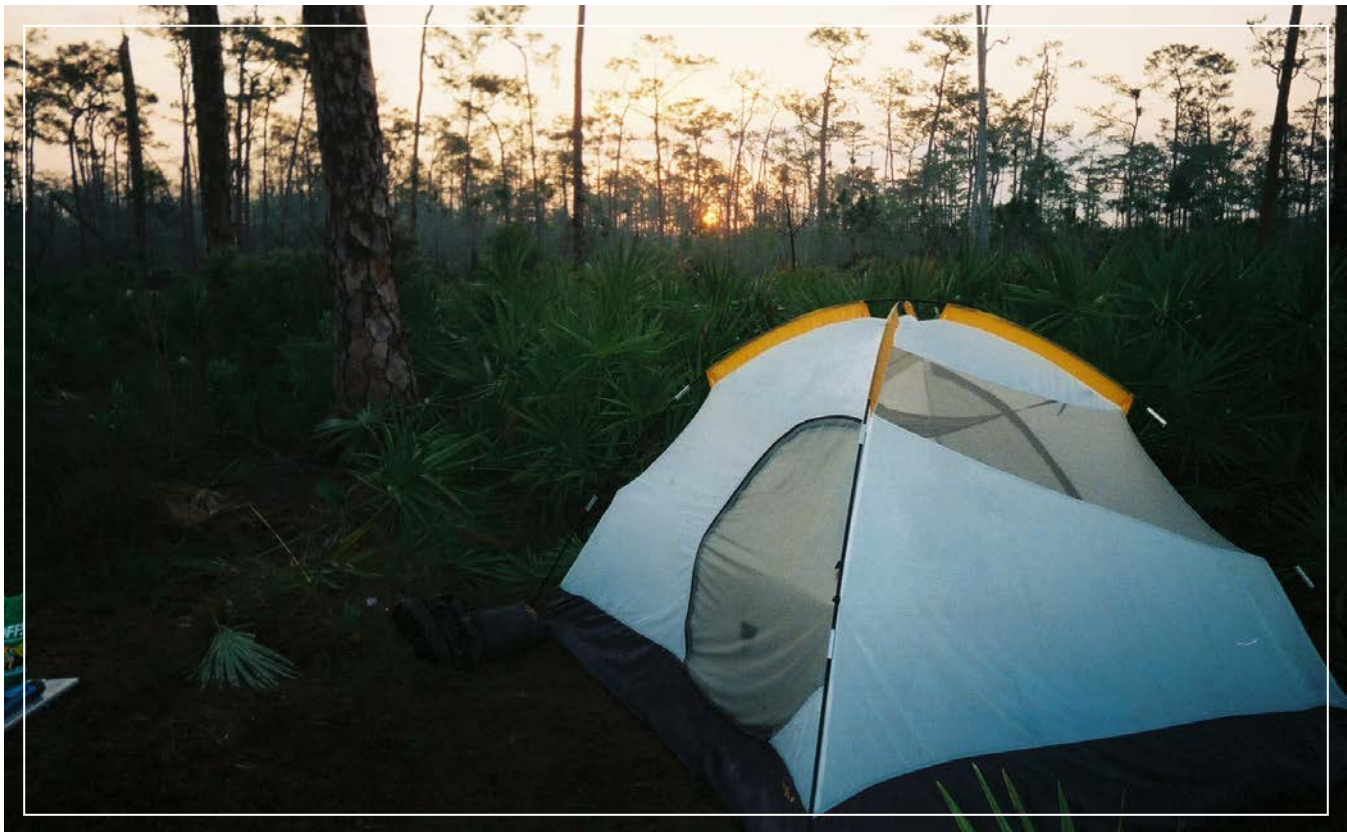
Fundamental Resource or Value	Native Plants and Animals
Data and/or GIS Needs	<ul style="list-style-type: none"> • Air quality monitoring of nitrogen and sulfur deposition. • Big Cypress fox squirrel monitoring. • Collect data on distribution of all communicable diseases in the preserve. • Comprehensive analysis of the distribution and effect of all other invasive plant species. • Deer surveys. • Distribution of all mosquito-borne illnesses. • Distribution and effect of <i>Lygodium microphyllum</i>. • Distribution and effect of all other invasive animals. • Distribution and effect of laurel wilt disease. • Distribution and effect of Mexican bromeliad weevil. • Inventory and monitoring of bonneted bats. • Inventory and monitoring of eastern indigo snake. • Inventory of the preserve's flora and fauna. • Long-term monitoring of all trail conditions. • Monitoring restoration and mitigation sites and stabilized trails as required by permit. • Panther monitoring. • Red-cockaded woodpecker monitoring. • Systematic reconnaissance flights for vegetation. • Vegetation classification maps.
Planning Needs	<ul style="list-style-type: none"> • Planning for adaptation to climate change. • Resource stewardship strategy and any necessary prerequisites. • Wildlife management plan.
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Clean Air Act • Endangered Species Act, as amended • Federal Noxious Weed Act, as amended • Migratory Bird Treaty Act • National Environmental Policy Act • National Invasive Species Act • Lacey Act, as amended • Executive Order 13112, "Invasive Species" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS <i>Management Policies 2006</i> (4.1) "General Management Concepts" • NPS <i>Management Policies 2006</i> (4.4.1) "General Principles for Managing Biological Resources" • NPS <i>Management Policies 2006</i> (4.7.2) "Weather and Climate" • NPS <i>Natural Resource Management Reference Manual 77</i> • Director's Order 18: <i>Wildland Fire Management</i> • Reference Manual 18: <i>Wildland Fire</i>



Fundamental Resource or Value	Public Enjoyment
<p>Related Significance Statements</p>	<ul style="list-style-type: none"> • The preserve provides opportunities for the public to enjoy outdoor recreation activities in a vast natural area spanning 729,000 acres of South Florida. These opportunities are increasingly rare in a region containing rapidly growing cities with more than 6 million people. • The preserve contains evidence of approximately 15,000 years of human use and sustains resources that continue to hold importance to traditionally associated cultures including the Miccosukee and Seminole people.
<p>Current Conditions and Trends</p>	<p>Conditions</p> <ul style="list-style-type: none"> • Recreational Activities – Big Cypress National Preserve’s enabling legislation provides a variety of managed recreational activities including hunting, ORV use, fishing, camping, and hiking. Primary public uses of the preserve are recreational hunting (mostly white-tailed deer and turkey) and the associated ORV use. • Off-Road Vehicle Use – Beginning in 2000, the preserve has been designating a system of ORV trails to allow limited recreational use of the preserve by off-road vehicles and limit natural habitat alteration. There are also current limits on ORV permits made available to the public. Hunters are the primary users of off-road vehicles in the forms of air boats, swamp buggies, and all-terrain vehicles. • Camping – Camping is allowed throughout the preserve and is used mainly by hunters and winter visitors. • Hiking – The Florida National Scenic Trail, an approximately 1,300-mile-long trail that runs from Gulf Islands National Seashore in Florida’s western panhandle to the preserve, is the principal hiking trail through the preserve. The southernmost 37 miles of the trail lie within the preserve and end at the Oasis Visitor Center. • Night Skies – The preserve offers unique opportunities for the public to enjoy natural night sky conditions in a region otherwise dominated by artificial light. <p>Trends</p> <ul style="list-style-type: none"> • Recreational Activities – The preserve was originally intended as federally owned and managed land dedicated to preserving the Big Cypress watershed for public use and from insensitive development. However, the preserve is evolving into a visitor destination, with more visitors interested in enjoying the preserve’s natural resources through recreational activities including scenic drives, hiking, wildlife viewing, and camping. • Visitor Use – Judicial interpretations of the preserve’s purpose and mission could limit the types of recreation or level of activity allowed in the preserve. • Visitation – In recent years, the preserve has seen increases in visitation and commercial services offered. Recent changes in user demographics show more national visitors interested in traditional NPS recreational activities. Sightseeing and auto touring are increasing in popularity. • Resource Closures – In recent years, the preserve has closed management units during part or all of the archery, muzzle loading, and general gun seasons due to unseasonably high water conditions. Formal criteria for ORV and hunting access in response to surface water levels were published in 2006.

Fundamental Resource or Value	Public Enjoyment
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Visitation – Resource impacts due to more visitors leading to more crowding. Increased traffic can lead to visitor safety issues and more vehicle-wildlife collisions. Soundscape and viewsheds can be negatively affected by the noise and dust generated from increased visitation. • Visitor Use – Conflicting recreation activities can lead to misunderstandings and visitor safety concerns. • Funding – Lack of staff and funding can affect the ability to maintain recreational facilities including trails, access points, and trailheads in the preserve. • Visibility and Night Skies – Artificial lights and nearby development could threaten the preserve’s night skies. • Mercury – There is a mercury-related, statewide fish consumption advisory for freshwater, coastal, and other water bodies that includes the preserve. <p>Opportunities</p> <ul style="list-style-type: none"> • Education – Commercial services provider training would help providers and their employees understand the preserve’s purpose, resources, changing visitor demographics, and resulting service needs. There are also opportunities to expand interpretative and educational tools to communicate the connections between ecosystem health, land use, hydrology, air and water quality, night sky, scenic views, recreation, human health, climate change, facility adaptation and other associated resources. • Public Communication – Provide fish consumption advisory information to anglers in the preserve. • Partnerships – Partnerships with Florida Fish and Wildlife Conservation Commission and the Florida Trail Association could increase visitation and outreach possibilities. • Preserve Management – Managing the level of recreational activities, such as canoeing and hiking, could lead to less crowding and a better visitor experience. Developing a backcountry access plan would allow the preserve more control over backcountry activities and would protect resources. • Visitor Services – Air tours and commercial guides offer another way for visitors to experience the preserve.
<p>Existing Data and Plans Related to the FRV</p>	<ul style="list-style-type: none"> • Current air quality conditions and trends for pollutant deposition, ground-level ozone, and visibility from local and regional monitoring sites. • 2014 “Big Cypress National Preserve Hunting Management Plan.” • 2009 “Big Cypress National Preserve Commercial Services Plan and Environmental Assessment.” • 2003 “Big Cypress National Preserve Designated Off-road Vehicle Trails Mitigation Plan.” • 1991 “Big Cypress National Preserve Land Protection Plan.”
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Analysis of dispersed recreation along U.S. Highway 41 and Florida State Road 29 (all roads). • Collect data on distribution of all communicable diseases in the preserve. • Distribution of all mosquito-borne illnesses. • Long-term monitoring of all trail conditions. • Monitoring restoration and mitigation sites and stabilized trails as required by permit. • Systematic reconnaissance flights for vegetation. • Visitor carrying capacity study. • Visitor use data specific to backcountry use and patterns.

Fundamental Resource or Value	Public Enjoyment
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Backcountry access plan amendment. • Equestrian management plan. • Wilderness stewardship plan. • Wildlife management plan.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Americans with Disabilities Act • Architectural Barriers Act • Architectural Barriers Act Accessibility Standard • Clean Air Act • Rehabilitation Act • NPS Concessions Management Improvement Act <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (1.6) “Cooperative Conservation Beyond Park Boundaries” • NPS <i>Management Policies 2006</i> (chapter 6) “Wilderness Preservation and Management” • NPS <i>Management Policies 2006</i> (chapter 7) “Interpretation and Education” • NPS <i>Management Policies 2006</i> (chapter 8) “Use of the Parks” • NPS <i>Management Policies 2006</i> (chapter 9) “Park Facilities” • NPS <i>Management Policies 2006</i> (chapter 10) “Commercial Visitor Services” • Director’s Order 6: <i>Interpretation and Education</i> • Director’s Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i> • NPS <i>Transportation Planning Guidebook</i>



Fundamental Resource or Value	Traditional Uses
Related Significance Statements	<ul style="list-style-type: none"> The preserve contains evidence of approximately 15,000 years of human use and sustains resources that continue to hold importance to traditionally associated cultures including the Miccosukee and Seminole people.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> Spatial Extent – Documented cultural resources are generally found in the preserve’s upland and hardwood hammock habitats. Historic Sites – Historic sites in the preserve include early American pioneer settlements and communities; later agricultural, sawmill, and logging communities; recreational resources; and transportation corridors. The H. P. Williams Park marker, a 2 foot by 3 foot plaque in H. P. Williams Roadside Park, was placed in 1965 by the Florida Legislature to honor an engineer who worked on the Tamiami Trail in the 1920s. The marker is included in the preserve’s List of Classified Structures database. A 2003 report documents the African American contribution to the Big Cypress saw mills. Individual historic sites or resources associated with this population have yet to be documented. Monroe Station, a historic Tamiami Trail outpost that was listed in the National Register of Historic Places, was destroyed in a fire on April 2016. Archeological Sites – Between 1977 and 1983 five archeological expeditions took place in the preserve to fulfill the federally mandated inventory of federal properties. As a result of the surveys, 395 archeological sites were recorded and more than 1.1 million artifacts were collected. These sites and artifacts are related to Seminole land use, white settlement, and the logging industry. In 2000 and 2002, two archeological expeditions in the Addition documented 71 sites of archeological importance. An archeological survey of primary ORV trails was completed a few years ago. While many archeological sites and artifacts were identified during the 1960s–1970s expeditions, most of the sites have not been visited since their initial documentation. Usual and Customary Use – When the preserve was established, members of the Seminole Tribe of Florida and Miccosukee Tribe of Indians of Florida retained their usual and customary rights to use and occupy the land, which included the right to hunt, fish, and trap on a subsistence basis. The tribes also maintain the right to conduct traditional ceremonies and other activities associated with daily family life, including the construction and use of palm-thatched-roofed chickees for cooking, holding religious ceremonies, and other cultural activities. The Green Corn Dance, the primary integrating ceremony of the Big Cypress people (traditional Seminole and Miccosukee members), is held periodically in the preserve at sacred ceremonial sites. Cultural Landscape – No cultural landscapes have been identified or documented in the preserve. Visitor Use – Secondary ORV trails were closed in 2014. Some people appreciate the closures, which cut down on visitor use conflicts and preserve natural habitats. Other users and interest groups do not agree with the limitations because they make accessing hunting areas and traditional cultural sites more difficult. <p>Trends</p> <ul style="list-style-type: none"> Archeological Collection – More than half of the objects recovered during the 1977–1983 expeditions have yet to be catalogued. Usual and Customary Use – Cultural experiences have been expanding and have garnered increased interest from tribal members and other groups and individuals culturally associated with Big Cypress. The footprint of tribal sites has also been increasing as tribal members choose to improve their homesites with additional chickees. Inholdings – Many private landowners within the preserve are opting to continue fee simple ownership and are not interested in selling their property to the National Park Service. The National Park Service has less money available for purchasing private property within the preserve. Visitor Use – Increased visitation and use of the preserve is beginning to conflict with cultural sites. Rates of ORV use and other long-established cultural activities are decreasing due to recently imposed limiting regulations.

Fundamental Resource or Value	Traditional Uses
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Cultural Resource Assessments – Sporadic assessments can lead to poor management and an incomplete understanding of the preserve’s cultural resources. • Illegal Activities – Looting and vandalism can destroy cultural sites and structures. Tire dumping can lead to management issues and natural resource degradation. Desecration or destruction of cultural sites can directly affect sacred ceremonies and necessitate moving to new sites. • Invasive Species – Rooting caused by feral hogs has the potential to destroy archeological sites and historic landscape features. Feral hog populations are currently suppressed. • Natural Threats – Fire can destroy historic structures and, by removing vegetation, leave archeological sites exposed. Erosion can unearth in situ archeological resources. Falling trees can damage historic structures and disturb in situ artifacts. • Climate Change – Flooding, erosion, saltwater intrusion, and other anticipated effects of climate change threaten the integrity of archeological sites. • Neighboring Development – Adjacent development could affect traditional uses through pollution, increased preserve visitation, and changes to the natural soundscape. Miami-Dade County’s desire to find new revenue sources could lead to incompatible development or a renewed interest in the training airport inholding. • Usual and Customary Use – Expansion of activities could lead to management and resource protection issues. The secretive nature of some cultural use makes it difficult for the preserve to manage activities and know their impact on nearby resources. • Visitor Use – Wastewater from remote camps and homesites can pollute water resources and affect nearby natural resources. Inadvertent disturbance and accidental archeological finds can disrupt cultural sites and damage artifacts. • Inheld Camps – The legal and illegal expansion of these camps can further degrade natural and archeological resources. <p>Opportunities</p> <ul style="list-style-type: none"> • Community Communication – Landowners’ meetings can keep owners informed of preserve developments, management activities, and allow open dialogue between private owners and preserve management. Tribal briefing and outreach dialogue will help preserve staff better understand and manage the tribal cultural activities occurring on-site and foster a closer relationship between the National Park Service and the involved tribes. • Education and Interpretation – Expanding visitor education and interpretation related to the preserve’s cultural resources would help visitors understand the human history of Big Cypress swamp and the breadth of resources protected in the preserve. General increase in public outreach and education would bring attention to the importance of traditional cultural activities and the preserve’s connection to these activities. • Inholdings – Continue to pursue opportunities to acquire tracts from willing sellers within the preserve’s boundaries as outlined in the 1991 Big Cypress National Preserve Land Protection Plan. Land protection priorities generally follow the priorities outlined in the Resource Management Plan; i.e., properties where the priorities for resource management are most needed or that have the greatest potential for enhancement of these resources, have the highest priority for protection. • Partnerships – Partnerships with the NPS Cooperative Ecosystem Studies Units and educational outlets can assist the NPS Southeast Archeological Center with assessments.
<p>Existing Data and Plans Related to the FRV</p>	<ul style="list-style-type: none"> • 1991 “Big Cypress National Preserve Land Protection Plan.”

Fundamental Resource or Value	Traditional Uses
Data and/or GIS Needs	<ul style="list-style-type: none"> • Baseline data on tribal ceremonial sites. • Documentation/monitoring of land use changes. • Update landowner database. • Update the Archeological Sites Management Information System (ASMIS) database. • Update tract files.
Planning Needs	<ul style="list-style-type: none"> • Communications strategy for tribal-related communication. • Land protection plan update. • Periodic assessment plan of archeological resources. • Planning for adaptation to climate change.
Laws, Executive Orders, and Regulations That Apply to the OIRV and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the OIRV</p> <ul style="list-style-type: none"> • American Indian Religious Freedom Act • Archeological and Historic Preservation Act • Archaeological Resources Protection Act • Museum Properties Management Act, as amended • Native American Graves Protection and Repatriation Act • National Historic Preservation Act, as amended • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • Executive Order 13007, "Indian Sacred Sites" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • "Protection of Historic Properties" (36 CFR 800) <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" • Director's Order 24: <i>NPS Museum Collections Management</i> • Director's Order 28: <i>Cultural Resource Management (1998)</i> • Director's Order 28A: <i>Archeology (2004)</i> • NPS Museum Handbook, parts I, II, and III • <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i>



Identification of Key Issues and Associated Planning and Data Needs

This section considers key issues to be addressed in planning and management and therefore takes a broader view over the primary focus of part 1 (core components of the foundation document). A key issue focuses on a question that is important for a park unit. Key issues often raise questions regarding park unit purpose and significance and fundamental and other important resources and values. For example, a key issue may pertain to the potential for a fundamental or other important resource or value in a park unit to be detrimentally affected by discretionary management decisions. A key issue may also address crucial questions that are not directly related to purpose and significance, but that still affect them indirectly. Usually, a key issue is one that a future planning effort or data collection needs to address and requires a decision by NPS managers.

The following are key issues for Big Cypress National Preserve and the associated planning and data needs to address them:

- **Air and Water Quality.** Big Cypress National Preserve protects a vast freshwater swamp ecosystem that supports marine estuaries along Florida's southwest coast, making water quality and quantity important issues. Hydrological disturbances are affecting preserve resources. Agricultural fields on and near the northern boundary of the preserve leach phosphorus (a common component of fertilizer), manure, and organic waste, into the watershed. Human activity and developmental encroachment contribute to pollution, wet mercury deposition, and elevated total phosphorus levels, endangering the watershed's plant and invertebrates. The preserve has partnered with the South Florida Water Management District to track water levels and quality through monitoring stations and collecting samples. However, research and monitoring is difficult using currently available resources and additional hydrological data are needed to better understand source points for pollutants and water quality trends. Water quality and water level data, as well as hydrologic collection data, were identified as essential information that would address this key parkwide issue.
- **Climate Change.** Under all greenhouse gas emission scenarios, climate change is likely to raise sea levels along the Florida coast. Rising sea levels, coupled with other effects of climate change, are likely to substantially alter the ecosystem within Big Cypress National Preserve. The preserve will incorporate climate change considerations and adaptation planning into all levels of planning in order to prepare and respond to climate change.
- **Fire Return Intervals.** Fire ecology is an important component of the five habitats and vegetation types found in Big Cypress National Preserve. Historically, wildfires clear overgrown vegetation and provide conditions for plant regeneration that contribute to overall floral and faunal species health. The preserve has a fire management plan (2013) that provides "go-no go" conditions for the prescribed fire program including a variety of management strategies ranging from monitoring to management-ignited and natural fires within the preserve. However, in recent years the preserve's ability to conduct prescribed burns has been more limited pushing controlled burns from the recommended 3–5 years to longer periods of time. This shift has the potential to create high hazard fuel levels, an increase in invasive plant species, and potential for larger wildfires. Fire ecology data were identified as important information that would address this key parkwide issue.

- **Nonnative Species.** Much of the preserve's land was previously settled and farmed, leaving it susceptible to invasive plants, insects, and other invertebrates. The loss of surrounding native habitat to development has also pushed new species into the preserve. These nonnative species have the potential to damage the preserve's ecosystems and replace native flora and fauna. While the preserve has an exotic plant management plan, there is no comprehensive management strategy that addresses the growing concern over insects and animals. The preserve has limited ability to properly monitor and manage the spread of nonnatives according to the current management plan and to engage in regional scientific research and removal efforts. Vegetation classification maps and an exotic species management plan were identified as important tools that would help address this key parkwide issue.
- **Managing Multiple Uses in the Preserve.** Big Cypress National Preserve was created as one of the first national preserves, a status that allows the unit to continue to manage traditional and recreational uses normally not allowed on NPS lands, including hunting, oil and gas extraction, and ORV use. Balancing this complicated mix of uses takes up much of the preserve staff's time and can lead to confusion and anger among visitors and stakeholders who are not used to seeing such activities on land managed by the National Park Service. Potential for future oil and gas exploration and illegal activities such as poaching, arson, and ORV use outside of designated areas, also contribute to management complexity in the preserve. Backcountry use data was identified as an important tool that would address this key parkwide issue. Additionally, an oil and gas management plan, a backcountry access plan amendment, a commercial services management plan addendum for the Addition, and a comprehensive plan that combines the management guidance from planning documents for the original preserve and the Addition into a single comprehensive plan were identified as important planning tools that would aid in managing the multiple uses in the preserve.
- **Public Awareness.** Big Cypress National Preserve is not as well-known to many regional and national audiences as is Everglades National Park and other high-profile parks in the southeastern United States. Many preserve visitors pass through its borders along Tamiami Trail (U.S. 41) or Alligator Alley (I-75) without realizing the land is an NPS park unit. Although the preserve encompasses 729,000 acres, there are only two visitor centers and limited roadside observation areas. Much of the preserve is difficult to explore without advanced outdoor skills or a specialized vehicle such as a swamp buggy. These factors translate into limited visitor contact with preserve staff and limited opportunities to educate the visiting public about the preserve, its resources, and the recreation opportunities it affords.

Planning and Data Needs

To maintain connection to the core elements of the foundation and the importance of these core foundation elements, the planning and data needs listed here are directly related to protecting fundamental resources and values, park unit significance, and park unit purpose, as well as addressing key issues. To successfully undertake a planning effort, information from sources such as inventories, studies, research activities, and analyses may be required to provide adequate knowledge of park unit resources and visitor information. Such information sources have been identified as data needs. Geospatial mapping tasks and products are included in data needs.

Items considered of the utmost importance were identified as high priority, and other items identified, but not rising to the level of high priority, were listed as either medium- or low-priority needs. These priorities inform park unit management efforts to secure funding and support for planning projects.

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
Water Resources and Ecological Integrity	Hydrologic restoration master plan	H	The preserve contains a network of legacy and now-aging drainage infrastructure that has caused widespread disruption of the swamp’s characteristic sheet flow regime. Major impacts include severed inflows, interrupted overland flows, shallower surface water depths, seasonally shortened hydroperiods, degradation of wetland habitat, increased exposure to nonnative biota, decreased freshwater contributions to estuaries in downstream Everglades National Park and Ten Thousand Islands National Wildlife Refuge, increased vulnerability to saltwater intrusion, and rising frequency and intensity of ecosystem-damaging and financially costly wildfires. An overarching master plan is needed to bring the area’s legacy drainage infrastructure up to date with modern engineering and water conservation principles, to revitalize a hydrologic regime that achieves and sustains the swamp’s ecological health, to unite resident watershed stewards under a common restoration umbrella, and to assimilate this renewed vision into Greater Everglades Restoration planning circles. Furthermore this plan will help inform the planning efforts for the Western Everglades Restoration Project.
Key Issue	Exotic species management plan	H	The preserve has an exotic plant management plan and may need an exotic animals management plan, as there are some nonnative wildlife such as the Burmese python, redbay ambrosia beetle, and the Mexican bromeliad weevil that are of concern. The Florida International University Southeast Environmental Research Center (SERC) is currently conducting research on the topic. This plan may need to be developed after that research is complete in order to provide implementation-level guidance.
Key Issue	Oil and gas management plan	H	An oil and gas management plan is necessary to update the current guidance provided by the 1992 Minerals Management Plan. The exercise of rights associated with oil and gas are allowed in the preserve per the enabling legislation. The potential for oil and gas reserves, both within and adjacent to the Addition, have prompted interest in additional testing, including geophysical exploration. Most mineral rights and subsurface estates remain with the respective private or state interests. This plan would contemplate the advances in oil and gas industry technology that have arisen in the past 24 years and provide guidance for oil and gas exploration for the entire preserve.
Native Plants and Animals	Resource stewardship strategy and any necessary prerequisites	H	A resource stewardship strategy would provide comprehensive, long-range direction for natural and cultural resource management. The strategy would help bridge the qualitative statements of desired conditions established in previous park resource management plans with measurable goals and would outline comprehensive strategies to achieve and maintain desired conditions over time.
Ecological Integrity and Public Enjoyment	Wilderness stewardship plan	H	This plan would be needed should wilderness be designated in the preserve.
Ecological Integrity and Native Plants and Animals	Wildlife Management Plan	H	The Wildlife Management Plan will help identify the species that need to be managed, and how best to manage those species. This plan is a high priority need because of the increasing pressure to maintain habitat despite negative outside influences for a number of wildlife species, including threatened and endangered species, as well as to minimize and prevent wildlife-human interactions, which often times results in loss of life for the wildlife.

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
Public Enjoyment and Key Issue	Backcountry access plan amendment	M	This National Environmental Policy Act compliance process would be required to site secondary trails in the Addition. This plan could be developed as an amendment to the backcountry access plan or the general management plan for the Addition.
Key Issue	Commercial services management plan addendum	M	This plan would provide guidance for new commercial services in the Addition because the current plan only includes the original preserve.
Cultural Resources	Communication strategy for tribal-related communication	M	A communication strategy would provide a road map to facilitate consistent information exchange with associated tribes. It would help enhance current and ongoing communication efforts. The strategy would also explore new opportunities and avenues for communicating with associated tribes.
Key Issue	Comprehensive plan	M	Following the development of the backcountry access plan, there is the possible need to combine the management guidance from planning documents for the original preserve and the Addition into a single comprehensive plan.
Ecological Integrity and Cultural Resources	Land protection plan update	M	The current land protection plan is from 1991 and is therefore outdated. It is still used to deal with traditional problems in backcountry and frontcountry camps. The updated plan would incorporate current issues and terminology.
Ecological Integrity	Off-road vehicles monitoring plan	M	This plan would detail specific operational requirements to monitor ORV use per the indicators, thresholds, and adaptive strategies outlined in the Backcountry Access Plan / Wilderness Study / environmental impact statement.
Ecological Integrity, Native Plants and Animals, Cultural Resources	Planning for adaptation to climate change	M	This plan, either as a stand-alone effort and/or as an element integrated into other planning at the preserve, would outline the NPS response to climate change and its effects on preserve resources.
Ecological Integrity and Public Enjoyment	Wildlife management plan	M	This long-range strategy would describe the comprehensive program of activities needed to achieve the desired future conditions for the preserve's wildlife resources. The plan would define strategies to maintain habitat for game and nongame species; manage for habitat diversity; restore, maintain, or improve habitats for rare native species; protect sensitive habitats; improve the status of protected species; and manage human-wildlife interactions.
Public Enjoyment	Equestrian management plan	L	Horseback riding (equestrian use) in the Addition is currently allowed per the 2010 Addition general management plan; however, this activity is rare due to the fact that the substrate and hydrology of the area tend to self-limit participation by equestrians. Horseback riding is also allowed as a dispersed activity in the backcountry of the original preserve; however, use is infrequent. If interest/occurrence of this activity were to increase, a management plan would be needed to guide activity.
Cultural Resources	Periodic assessment plan of archeological resources	L	Archeological sites require periodic assessment and currently there is no plan to guide this need, which is related to establishing a baseline to assist in monitoring and prosecution for looting.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
Ecological Integrity and Native Plants and Animals	Distribution and effect of Lygodium microphyllum	H	There are ongoing restoration efforts; however, there are no data to measure their effectiveness.
Ecological Integrity and Native Plants and Animals	Comprehensive analysis of the distribution and effect of all other invasive plant species	H	A comprehensive analysis of the distribution and effect of invasive plant species is needed to better understand the interrelatedness of these species and their combined impact on native ecosystems.
Water Resources	Continuous hydrological data for water quality and water level monitoring	H	The preserve partners with the South Florida Water Management District to maintain a network of 20 hydrologic and water quality monitoring stations, which in turn provide the preserve and the Everglades scientific community with vital baseline and real-time data for the Big Cypress Swamp. Future partner funding can be uncertain and opportunities to overcome potential funding short-falls would need to be identified. This would also include funds for implementation of post-treatment measurements to demonstrate performance and fulfillment of section 404 monitoring requirements.
Key Issue	Fire ecology data	H	The preserve has a need for data on ecological processes and consequences of fire intervals. There is also a need to have the currently available data analyzed.
Ecological Integrity	Fuel loading mapping	H	Updated mapping and analysis of fuel loads are needed to assist in wildfire mitigation.
Water Resources	Hydrologic flow model for the preserve	H	Big Cypress National Preserve lacks a comprehensive numerical model for quantifying and analyzing its hydrologic flow regime. As a result, the mechanisms and interconnections that control the fate and delivery of water across the swamp landscape are understood at a rudimentary level, with large uncertainties prevailing, including where and to what degree alterations to water management infrastructure and operational rules are required. While the absence of a comprehensive numeric model does not preclude hydrologic restoration actions, it represents a missing ingredient that would significantly help champion the hydrologic restoration cause.
Water Resources and Key Issue	Inventory and monitor water quality and water level data; hydrologic collection data	H	This effort would capture data on nutrient loading and source points for pollutants that are entering the northwest portion of preserve.
Native Plants and Animals and Public Enjoyment	Long-term monitoring of all trail conditions	H	Long-term monitoring of trail conditions will assist with implementing resource closures and establishing use limits to protect resources.
Native Plants and Animals and Public Enjoyment	Monitoring restoration and mitigation sites and stabilized trails as required by permit	H	These data are needed to remain in compliance with state and federal fill permits within the preserve.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
Native Plants and Animals and Public Enjoyment	Vegetation data collection	H	Nonnative vegetation data collection is ongoing but it relies on project based funding. Updated vegetation maps are a need as the current maps are from 1999.
Cultural Resources	Update tract files	H	Ongoing updates to the land ownership GIS layers are required.
Ecological Integrity, Native Plants and Animals, and Key Issue	Vegetation classification maps	H	These maps would be produced using the information from the systematic reconnaissance flights. Current vegetation maps date from 1999. Data and maps would inform exotic species management plan.
Native Plants and Animals	Big Cypress fox squirrel monitoring	M	Demographics data are entirely lacking. There is a real need for management and there is no funding or direct support to do this now. Big Cypress watershed is the only place in the world where these squirrels exist.
Native Plants and Animals	Deer surveys	M	There is a continued need to conduct deer surveys and more data is needed to better understand and inform the management of the deer population within the preserve.
Ecological Integrity and Native Plants and Animals	Distribution and effect of all other invasive animals	M	A comprehensive analysis of the distribution and effect of invasive animal species is needed to understand the interrelatedness of these species and their combined impact to native ecosystems.
Ecological Integrity and Native Plants and Animals	Distribution and effect of laurel wilt disease	M	These data would help understanding of the amount of canopy that is being lost due to laurel wilt disease.
Ecological Integrity and Native Plants and Animals	Distribution and effect of Mexican bromeliad weevil	M	A baseline understanding of the effect this species is having on native ecosystems is needed to inform management decisions.
Cultural Resources	Documentation/ monitoring of land use changes	M	There are landscape-scale land use changes related to oil and gas exploration, the jetport, and inheld private, noncommercial properties. Documentation would monitor encroachment and illegal land uses.
Native Plants and Animals	Inventory and monitoring of Florida bonneted bats	M	The bonneted bat was recently listed and there has been no formal research and monitoring. Inventorying and monitoring will determine presence, absence, abundance, and distribution of the species.
Native Plants and Animals	Inventory of the preserve's flora and fauna	M	The results of this inventory would be used to establish a baseline to determine future trends in resource condition, identify ecosystem stressors and associated environmental indicators, and determine if sensitive resources were or had the potential to be adversely affected by management actions.
Cultural Resources	Update landowner database	M	This effort is related to and dependent on the tract file updates. Keeping this database current is critical for ongoing management and operational decisions.
Native Plants and Animals	Panther monitoring	M	Current monitoring efforts collect limited information. Additional data on panther population and distribution could aid in management efforts.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
Ecological Integrity	Soil resources inventory	M	The preserve is currently using information from an inventory conducted in the 1940s. The results would be used to establish a baseline to determine future trends in resource condition, identify ecosystem stresses and associated environmental indicators, and determine if sensitive resources were or had the potential to be adversely affected by management actions.
Public Enjoyment	Visitor carrying capacity study	M	This study would include visitor capacity, both in the frontcountry and backcountry. The study would examine recreational interactions to ensure that all visitors to the preserve have an enjoyable and educational experience and commercial services are adequate.
Public Enjoyment	Visitor use data specific to backcountry use and patterns	M	This data collection effort would include monitoring visitor impacts, the number of campers, where visitors are going, activities they are engaging in during their visit, and information on backcountry users.
Ecological Integrity, Native Plants and Animals, Water Resources	Air quality monitoring of nitrogen and sulfur deposition	L	Study would assess on-site nitrogen and sulfur deposition to better understand ecosystem threats from atmospheric deposition.
Public Enjoyment	Analysis of dispersed recreation along U.S. Highway 41 and Florida State Road 29 (all roads)	L	Numerous efforts are taking place at the county level, but understanding numbers of users and user patterns in the frontcountry is difficult as there are many access points, including bridges that facilitate access.
Cultural Resources	Update the ASMIS database	L	The ASMIS database requires continual updating. A reliable funding source for these updates is needed.
Cultural Resources	Baseline data on tribal ceremonial sites	L	These data would capture the current footprint of the ceremonial sites and other sites used by associated tribes.
Ecological Integrity, Native Plants and Animals, and Public Enjoyment	Collect data on distribution of all communicable diseases in the preserve	L	These data are needed to inform management options to mitigate transmission of communicable diseases in the preserve public areas subject to crowding such as boardwalks, visitor centers, etc.
Native Plants and Animals	Inventory and monitoring of eastern indigo snake	L	Inventory and monitoring data are currently lacking on this threatened species.
Native Plants and Animals	Red-cockaded woodpecker monitoring	L	The habitat is vulnerable to wildfires, lack of an adequate fire management program, and loss of trees from hurricanes. Monitoring is currently being accomplished by the Florida Fish and Wildlife Conservation Commission.
Ecological Integrity	Ongoing aerial photography	L	Although the counties currently provide these data every couple of years, there is no reliable funding stream for collection or to process the data into useful information.

Part 3: Contributors

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Appendixes

Appendix A: Enabling Legislation and Legislative Acts for Big Cypress National Preserve

1258 PUBLIC LAW 93-440—OCT. 11, 1974 [88 STAT.

Public Law 93-440

October 11, 1974
[H. R. 10088]

AN ACT

To establish the Big Cypress National Preserve in the State of Florida, and for other purposes.

Big Cypress
National Pre-
serve, Fla.
Establishment.
16 USC 698f.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) in order to assure the preservation, conservation, and protection of the natural, scenic, hydrologic, floral and faunal, and recreational values of the Big Cypress Watershed in the State of Florida and to provide for the enhancement and public enjoyment thereof, the Big Cypress National Preserve is hereby established.

Map and de-
scription, filing.

(b) The Big Cypress National Preserve (hereafter referred to as the "preserve") shall comprise the area generally depicted on the map entitled "Big Cypress National Preserve", dated November 1971 and numbered BC-91,001, which shall be on file and available for public inspection in the Offices of the National Park Service, Department of the Interior, Washington, District of Columbia, and shall be filed with appropriate offices of Collier, Monroe, and Dade Counties in the State of Florida. The Secretary of the Interior (hereafter referred to as the "Secretary") shall, as soon as practicable, publish a detailed description of the boundaries of the preserve in the Federal Register which shall include not more than five hundred and seventy thousand acres of land and water.

Publication in
Federal Register.

Lands, waters,
acquisition.

(c) The Secretary is authorized to acquire by donation, purchase with donated or appropriated funds, transfer from any other Federal agency, or exchange, any lands, waters, or interests therein which are located within the boundaries of the preserve: *Provided*, That any lands owned or acquired by the State of Florida, or any of its subdivisions, may be acquired by donation only: *Provided further*, That no Federal funds shall be appropriated until the Governor of Florida executes an agreement on behalf of the State which (i) provides for the transfer to the United States of all lands within the preserve previously owned or acquired by the State and (ii) provides for the donation to the United States of all lands acquired by the State within the preserve pursuant to the provision of "the Big Cypress Conservation Act of 1973" (Chapter 73-131 of the Florida Statutes) or provides for the donation to the United States of any remaining moneys appropriated pursuant to such Act for the purchase of lands within the preserve. No improved property, as defined by this Act, nor oil and gas rights, shall be acquired without the consent of the owner unless the Secretary, in his judgment, determines that such property is subject to, or threatened with, uses which are, or would be, detrimental to the purposes of the preserve. The Secretary may, if he determines that the acquisition of any other subsurface estate is not needed for the purposes of the preserve, exclude such interest in acquiring any lands within the preserve. Notwithstanding the provisions of section 301 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (84 Stat. 1894, 1904) the Secretary (i) may evaluate any offer to sell land within the preserve by any landowner and may, in his discretion, accept any offer not in excess of \$10,000 without an appraisal and (ii) may direct an appraisal to be made of any unimproved property within the preserve without notice to the owner or owners thereof. Notwithstanding any other provision of law, any federally owned lands within the preserve shall, with the concurrence of the head of the administering agency, be transferred to the administrative jurisdiction of the Secretary for the purposes of this Act, without transfer of funds.

42 USC 4651.

SEC. 2. (a) In recognition of the efforts of the State of Florida in the preservation of the area, through the enactment of chapter 73-131 of the Florida statutes. "The Big Cypress Conservation Act of 1973", the Secretary is directed to proceed as expeditiously as possible to acquire the lands and interests in lands necessary to achieve the purposes of this Act. 16 USC 698g.

(b) Within one year after the date of the enactment of this Act, the Secretary shall submit, in writing, to the Committee on Interior and Insular Affairs and to the Committees on Appropriations of the United States Congress a detailed plan which shall indicate: Land acquisition plan, submitted to congressional committees.

(i) the lands and areas which he deems essential to the protection and public enjoyment of this preserve,

(ii) the lands which he has previously acquired by purchase, donation, exchange or transfer for administration for the purpose of this preserve, and

(iii) the annual acquisition program (including the level of funding) which he recommends for the ensuing five fiscal years.

(c) It is the express intent of the Congress that the Secretary should substantially complete the land acquisition program contemplated by this Act within six years after the date of its enactment. Completion date.

SEC. 3. (a) The owner of an improved property on the date of its acquisition by the Secretary may, as a condition of such acquisition, retain for himself and his heirs and assigns a right of use and occupancy of the improved property for a definite term of not more than twenty-five years or, in lieu thereof, for a term ending at the death of the owner or the death of his spouse, whichever is later. The owner shall elect the term to be reserved. Unless this property is wholly or partially donated to the United States, the Secretary shall pay the owner the fair market value of the property on the date of acquisition less the fair market value, on that date, of the right retained by the owner. A right retained pursuant to this section shall be subject to termination by the Secretary upon his determination that it is being exercised in a manner inconsistent with the purposes of this Act, which shall include the exercise of such right in violation of any applicable State or local laws and ordinances, and it shall terminate by operation of law upon the Secretary's notifying the holder of the right of such determination and tendering to him an amount equal to the fair market value of that portion of the right which remains unexpired. Property owners, retention rights. 16 USC 698h.

(b) As used in this Act, the term "improved property" means: "Improved property."

(i) a detached, one family dwelling, construction of which was begun before November 23, 1971, which is used for noncommercial residential purposes, together with not to exceed three acres of land on which the dwelling is situated and such additional lands as the Secretary deems reasonably necessary for access thereto, such land being in the same ownership as the dwelling, and together with any structures accessory to the dwelling which are situated on such lands and

(ii) any other building, construction of which was begun before November 23, 1971, which was constructed and is used in accordance with all applicable State and local laws and ordinances, together with as much of the land on which the building is situated, such land being in the same ownership as the building, as the Secretary shall designate to be reasonably necessary for the continued enjoyment and use of the building in the same manner and to the same extent as existed in November 23, 1971, together with any structures accessory to the building which are situated on the lands so designated. In making such designation

the Secretary shall take into account the manner of use in which the building, accessory structures, and lands were customarily enjoyed prior to November 23, 1971.

Waiver.

(c) Whenever an owner of property elects to retain a right of use and occupancy as provided in this section, such owner shall be deemed to have waived any benefits or rights accruing under sections 203, 204, 205, and 206 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (84 Stat. 1894), and for the purposes of such sections such owner shall not be considered a displaced person as defined in section 101(6) of such Act.

42 USC 4623-4626.

42 USC 4601. Administration. 16 USC 698i.

SEC. 4. (a) The area within the boundaries depicted on the map referred to in section 1 shall be known as the Big Cypress National Preserve. Such lands shall be administered by the Secretary as a unit of the National Park System in a manner which will assure their natural and ecological integrity in perpetuity in accordance with the provisions of this Act and with the provisions of the Act of August 25, 1916 (39 Stat. 535; 16 U.S.C. 1-4), as amended and supplemented.

Rules and regulations; publication in Federal Register.

(b) In administering the preserve, the Secretary shall develop and publish in the Federal Register such rules and regulations as he deems necessary and appropriate to limit or control the use of Federal lands and waters with respect to:

- (1) motorized vehicles,
- (2) exploration for and extraction of oil, gas, and other minerals,
- (3) grazing,
- (4) draining or constructing of works or structures which alter the natural water courses,
- (5) agriculture,
- (6) hunting, fishing, and trapping,
- (7) new construction of any kind, and
- (8) such other uses as the Secretary determines must be limited or controlled in order to carry out the purposes of this Act:

Transportation facilities.

Provided, That the Secretary shall consult and cooperate with the Secretary of Transportation to assure that necessary transportation facilities shall be located within existing or reasonably expanded rights-of-way and constructed within the reserve in a manner consistent with the purposes of this Act.

Hunting and fishing. 16 USC 698j.

SEC. 5. The Secretary shall permit hunting, fishing, and trapping on lands and waters under his jurisdiction within the preserve in accordance with the applicable laws of the United States and the State of Florida, except that he may designate zones where and periods when no hunting, fishing, trapping, or entry may be permitted for reasons of public safety, administration, floral and faunal protection and management, or public use and enjoyment. Except in emergencies, any regulations prescribing such restrictions relating to hunting, fishing, or trapping shall be put into effect only after consultation with the appropriate State agency having jurisdiction over hunting, fishing, and trapping activities. Notwithstanding this section or any other provision of this Act, members of the Miccosukee Tribe of Indians of Florida and members of the Seminole Tribe of Florida shall be permitted, subject to reasonable regulations established by the Secretary, to continue their usual and customary use and occupancy of Federal or federally acquired lands and waters within the preserve, including hunting, fishing, and trapping on a subsistence basis and traditional tribal ceremonials.

Miccosukee and Seminole Indian Tribes, land use, retention rights.

Visitor services, contracts. 16 USC 698k.

SEC. 6. Notwithstanding any other provision of law, before entering into any contract for the provision of revenue producing visitor services,

(i) the Secretary shall offer those members of the Miccosukee and Seminole Indian Tribes who, on January 1, 1972, were engaged in the provision of similar services, a right of first refusal to continue providing such services within the preserve subject to such terms and conditions as he may deem appropriate, and

(ii) before entering into any contract or agreement to provide new revenue-producing visitor services within the preserve, the Secretary shall offer to the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida the right of first refusal to provide such services, the right to be open for a period of ninety days. Should both Tribes respond with proposals that satisfy the terms and conditions established by the Secretary, the Secretary may allow the Tribes an additional period of ninety days in which to enter into an inter-Tribal cooperative agreement to provide such visitor services, but if neither tribe responds with proposals that satisfy the terms and conditions established by the Secretary, then the Secretary shall provide such visitor services in accordance with the Act of October 9, 1965 (79 Stat. 969, 16 U.S.C. 20). No such agreement may be assigned or otherwise transferred without the consent of the Secretary.

SEC. 7. Within five years from the date of the enactment of this Act, the Secretary shall review the area within the preserve and shall report to the President, in accordance with section 3 (c) and (d) of the Wilderness Act (78 Stat. 891; 16 U.S.C. 1132 (c) and (d)), his recommendations as to the suitability or unsuitability of any area within the preserve for preservation as wilderness, and any designation of any such areas as a wilderness shall be accomplished in accordance with said subsections of the Wilderness Act.

SEC. 8. There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act, but not to exceed \$116,000,000 for the acquisition of lands and interests in lands and not to exceed \$900,000 for development. Any funds donated to the United States by the State of Florida pursuant to chapter 73-131 of the Florida statutes shall be used solely for the acquisition of lands and interests in land within the preserve.

Approved October 11, 1974.

Preserve re-
view, report to
President.
16 USC 698l.

16 USC 1131
note.
Appropriation.
16 USC 698m.

Funds donated
to U.S. by State
of Florida, use.

Public Law 100-301
100th Congress

An Act

To establish the Big Cypress National Preserve Addition in the State of Florida, and for other purposes.

Apr. 29, 1988
[S. 90]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

(a) SHORT TITLE.—This Act may be cited as the “Big Cypress National Preserve Addition Act”.

(b) AMENDMENT OF BIG CYPRESS NATIONAL PRESERVE ACT.—Whenever in this Act an amendment is expressed in terms of an amendment to the Act of October 11, 1974, such amendment shall be considered to be made to the Act entitled “An Act to establish the Big Cypress National Preserve in the State of Florida, and for other purposes”, approved October 11, 1974 (Public Law 93-440; 88 Stat. 1257).

Big Cypress National Preserve Addition Act. National Wilderness Preservation System. Conservation. Public lands. 16 USC 698f note.

SEC. 2. FINDINGS AND PURPOSE.

16 USC 698f note.

(a) FINDINGS.—The Congress finds that—

(1) the planned construction of Interstate 75 is presently being designed in such a way as to improve the natural water flow to the Everglades National Park, which has been disrupted by State Road 84 (commonly known as “Alligator Alley”);

(2) the planned construction of Interstate 75 provides an opportunity to enhance protection of the Everglades National Park, to promote protection of the endangered Florida panther, and to provide for public recreational use and enjoyment of public lands by expanding the Big Cypress National Preserve to include those lands adjacent to Interstate 75 in Collier County north and east of the Big Cypress National Preserve, west of the Broward County line, and south of the Hendry County line;

(3) the Federal acquisition of lands bordering the Big Cypress National Preserve in conjunction with the construction of Interstate 75 would provide significant public benefits by limiting development pressure on lands which are important both in terms of fish and wildlife habitat supporting endangered species and of wetlands which are the headwaters of the Big Cypress National Preserve; and

(4) public ownership of lands adjacent to the Big Cypress National Preserve would enhance the protection of the Everglades National Park while providing recreational opportunities and other public uses currently offered by the Big Cypress National Preserve.

(b) PURPOSE.—It is the purpose of this Act to establish the Big Cypress National Preserve Addition.

SEC. 3. ESTABLISHMENT OF ADDITION.

(a) **BIG CYPRESS NATIONAL PRESERVE ADDITION.**—The Act of October 11, 1974, is amended by adding at the end thereof the following new section:

16 USC 698m-1.

“Sec. 9. (a) In order to—

“(1) achieve the purposes of the first section of this Act;

“(2) complete the preserve in conjunction with the planned construction of Interstate Highway 75; and

“(3) insure appropriately managed use and access to the Big Cypress Watershed in the State of Florida,

the Big Cypress National Preserve Addition is established.

Public information.

“(b) The Big Cypress National Preserve Addition (referred to in this Act as the ‘Addition’) shall comprise approximately 146,000 acres as generally depicted on the map entitled Big Cypress National Preserve Addition, dated April, 1987, and numbered 176-91000C, which shall be on file and available for public inspection in the Office of the National Park Service, Department of the Interior, Washington, D.C., and shall be filed with appropriate offices of Collier County in the State of Florida. The Secretary shall, as soon as practicable, publish a detailed description of the boundaries of the Addition in the Federal Register.

Federal Register, publication.

“(c) The area within the boundaries depicted on the map referred to in subsection (b) shall be known as the ‘Big Cypress National Preserve Addition’ and shall be managed in accordance with section 4.

“(d) For purposes of administering the Addition and notwithstanding section 2(c), it is the express intent of the Congress that the Secretary should substantially complete the land acquisition program contemplated with respect to the Addition in not more than five years after the date of the enactment of this paragraph.”.

16 USC 698j.

(b) **HUNTING, FISHING, AND TRAPPING.**—Section 5 of the Act of October 11, 1974, is amended by inserting “and the Addition” after “preserve” each place it appears.

16 USC 698l.

(c) **SUITABILITY AS WILDERNESS.**—Section 7 of the Act of October 11, 1974, is amended—

(1) by inserting “with respect to the preserve and five years from the date of the enactment of the Big Cypress National Preserve Addition Act with respect to the Addition” after “date of the enactment of this Act” in the first sentence; and

(2) by inserting “or the area within the Addition (as the case may be)” after “preserve” each place it appears.

16 USC 698k.

(d) **INDIAN RIGHTS.**—Section 6 of the Act of October 11, 1974, is amended as follows:

(1) In clause (i) insert “and the Addition” after “preserve” and insert “(January 1, 1985, in the case of the Addition)” after “1972”.

(2) In clause (ii) insert “or within the Addition” after “preserve”.

SEC. 4. ACQUISITION OF LAND WITHIN ADDITION.

16 USC 698f.

(a) **UNITED STATES SHARE OF ACQUISITION COSTS.**—The first section of the Act of October 11, 1974, is amended by adding at the end thereof the following new subsection:

“(d)(1) The aggregate cost to the United States of acquiring lands within the Addition may not exceed 80 percent of the total cost of such lands.

“(2) Except as provided in paragraph (3), if the State of Florida transfers to the Secretary lands within the Addition, the Secretary shall pay to or reimburse the State of Florida (out of funds appropriated for such purpose) an amount equal to 80 percent of the total costs to the State of Florida of acquiring such lands.

“(3) The amount described in paragraph (1) shall be reduced by an amount equal to 20 percent of the amount of the total cost incurred by the Secretary in acquiring lands in the Addition other than from the State of Florida.

“(4) For purposes of this subsection, the term ‘total cost’ means that amount of the total acquisition costs (including the value of exchanged or donated lands) less the amount of the costs incurred by the Federal Highway Administration and the Florida Department of Transportation, including severance damages paid to private property owners as a result of the construction of Interstate 75.”.

(b) **METHODS OF LAND ACQUISITION IN THE ADDITION.**—The first sentence of subsection (c) of the first section of the Act of October 11, 1974, is amended—

16 USC 698f.

(1) by inserting “or the Addition” after “preserve” the first place it appears; and

(2) in the first proviso—

(A) by inserting “in the preserve” after “subdivisions,”; and

(B) by striking out the colon and inserting in lieu thereof “and, any land acquired by the State of Florida, or any of its subdivisions, in the Addition shall be acquired in accordance with subsection (d):”.

(c) **VALUATION AND APPRAISAL.**—The fourth sentence of subsection (c) of such section is amended by inserting “or the Addition” after “preserve” each place it appears.

(d) **ACQUISITION OF PROPERTY RIGHTS BY THE STATE OF FLORIDA.**—Subsection (c) of such section is amended by adding at the end thereof the following: “Nothing in this Act shall be construed to interfere with the right of the State of Florida to acquire such property rights as may be necessary for Interstate 75.”.

(e) **EXCLUSION OF SUBSURFACE ESTATE.**—The third sentence of subsection (c) of such section is amended by inserting “and the Addition” after “preserve” each place it appears.

(f) **IMPROVED PROPERTY IN ADDITION.**—Section 3(b) of the Act of October 11, 1974, is amended—

16 USC 698h.

(1) in clause (i) by inserting “with respect to the preserve and January 1, 1986, with respect to the Addition” after “November 23, 1971,”; and

(2) in clause (ii)—

(A) by inserting “with respect to the preserve and January 1, 1986, with respect to the Addition” after “November 23, 1971,” the first place it appears; and

(B) by inserting “or January 1, 1986, as the case may be,” after “November 23, 1971,” the second and third places it appears.

SEC. 5. COOPERATION AMONG AGENCIES.

The Act of October 11, 1974, is further amended by adding at the end thereof the following new section:

“SEC. 10. The Secretary and other involved Federal agencies shall cooperate with the State of Florida to establish recreational access

Recreation.
16 USC 698m-2.

points and roads, rest and recreation areas, wildlife protection, hunting, fishing, frogging, and other traditional recreational opportunities in conjunction with the creation of the Addition and in the construction of Interstate Highway 75. Three of such access points shall be located within the preserve (including the Addition).”.

SEC. 6. REPORT TO CONGRESS.

The Act of October 11, 1974, is further amended by adding at the end thereof the following new section:

16 USC 698m-3.

“SEC. 11. Not later than two years after the date of the enactment of this section, the Secretary shall submit to the Congress a detailed report on, and further plan for, the preserve and Addition including—

“(1) the status of the existing preserve, the effectiveness of past regulation and management of the preserve, and recommendations for future management of the preserve and the Addition;

“(2) a summary of the public’s use of the preserve and the status of the access points developed pursuant to section 10;

“(3) the need for involvement of other State and Federal agencies in the management and expansion of the preserve and Addition;

“(4) the status of land acquisition; and

“(5) a determination, made in conjunction with the State of Florida, of the adequacy of the number, location, and design of the recreational access points on I-75/Alligator Alley for access to the Big Cypress National Preserve, including the Addition. The determination required by paragraph (5) shall incorporate the results of any related studies of the State of Florida Department of Transportation and other Florida State agencies. Any recommendation for significant changes in the approved recreational access points, including any proposed additions, shall be accompanied by an assessment of the environmental impact of such changes.”.

SEC. 7. AUTHORIZATION OF APPROPRIATIONS.

16 USC 698m.

Section 8 of the Act of October 11, 1974, is amended—

(1) by striking out “There” in the first sentence and inserting in lieu thereof “(a) Except as provided in subsection (b), there”; and

(2) by adding at the end thereof the following new subsection:

“(b) There is hereby authorized to be appropriated from the Land and Water Conservation Fund not to exceed \$49,500,000 for the acquisition of lands within the Addition. There is hereby authorized to be appropriated such sums as may be necessary for development in the Addition.

SEC. 8. OIL AND GAS EXPLORATION, DEVELOPMENT AND PRODUCTION.

The Act of October 11, 1974, is further amended by adding at the end thereof the following new section:

Regulations.

16 USC 698m-4.

“SEC. 12. (a) Within nine months from the date of the enactment of the Big Cypress National Preserve Addition Act, the Secretary shall promulgate, subject to the requirements of subsections (b)-(e) of this section, such rules and regulations governing the exploration for and development and production of non-Federal interests in oil and gas located within the boundaries of the Big Cypress National Preserve and the Addition, including but not limited to access on,

across, or through all lands within the boundaries of the Big Cypress National Preserve and the Addition for the purpose of conducting such exploration or development and production, as are necessary and appropriate to provide reasonable use and enjoyment of privately owned oil and gas interests, and consistent with the purposes for which the Big Cypress National Preserve and the Addition were established. Rules and regulations promulgated pursuant to the authority of this section may be made by appropriate amendment to or in substitution of the rules and regulations respecting non-Federal oil and gas rights (currently codified at 36 CFR 9.30, et seq. (1986)).

“(b) Any rule or regulation promulgated by the Secretary under subsection (a) of this section shall provide that—

“(1) exploration or development and production activities may not be undertaken, except pursuant to a permit issued by the National Park Service authorizing such activities or access; and

“(2) final action by the National Park Service with respect to any application for a permit authorizing such activities shall occur within 90 days from the date such an application is submitted unless—

“(A) the National Park Service and the applicant agree that such final action shall occur within a shorter or longer period of time; or

“(B) the National Park Service determines that an additional period of time is required to ensure that the National Park Service has, in reviewing the application, complied with other applicable law, Executive orders and regulations; or

“(C) the National Park Service, within 30 days from the date of submission of such application, notifies the applicant that such application does not contain all information reasonably necessary to allow the National Park Service to consider such application and requests that such additional information be provided. After receipt of such notification to the applicant, the applicant shall supply any reasonably necessary additional information and shall advise the National Park Service that the applicant believes that the application contains all reasonably necessary information and is therefore complete, whereupon the National Park Service may—

“(i) within 30 days of receipt of such notice from the applicant to the National Park Service determine that the application does not contain all reasonably necessary additional information and, on that basis, deny the application; or

“(ii) review the application and take final action within 60 days from the date that the applicant provides notification to the National Park Service that its application is complete.

“(c) Such activities shall be permitted to occur if such activities conform to requirements established by the National Park Service under authority of law.

“(d) In establishing standards governing the conduct of exploration or development and production activities within the boundaries of the Big Cypress National Preserve or the Addition, the Secretary shall take into consideration oil and gas exploration and development and production practices used in similar habitats or

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ecosystems within the Big Cypress National Preserve or the Addition at the time of promulgation of the rules and regulations under subsection (a) or at the time of the submission of the application seeking authorization for such activities, as appropriate.

Contracts.

“(e) Prior to the promulgation of rules or regulations under this section, the Secretary is authorized, consistent with the purposes of which the Big Cypress National Preserve Addition was established, to enter into interim agreements with owners of non-Federal oil and gas interests governing the conduct of oil and gas exploration, development or production activities within the boundaries of the Addition, which agreements shall be superseded by the rules and regulations promulgated by the Secretary when applicable: *Provided*, That such agreement shall be consistent with the requirements of subsections (b)-(d) of this section and may be altered by the terms of rules and regulations subsequently promulgated by the Secretary: *Provided further*, That this provision shall not be construed to enlarge or diminish the authority of the Secretary to establish rules and regulations applicable to the conduct of exploration or development and production activities within the Big Cypress National Preserve or the Addition.

“(f) There is hereby authorized to be established a Minerals Management Office within the Office of the Superintendent of the Big Cypress National Preserve, for the purpose of ensuring, consistent with the purposes for which the Big Cypress National Preserve was established, timely consideration of and final action on applications for the exploration or development and production of non-Federal oil and gas rights located beneath the surface of lands within the boundaries of the Big Cypress National Preserve and the Addition.

Appropriation authorization.

“(g) There are hereby authorized to be appropriated such sums as may be necessary to carry out the activities set forth in this section.”

Approved April 29, 1988.

LEGISLATIVE HISTORY—S. 90 (H.R. 184):

HOUSE REPORTS: No. 100-30 accompanying H.R. 184 (Comm. on Interior and Insular Affairs).

SENATE REPORTS: No. 100-45 (Comm. on Energy and Natural Resources).

CONGRESSIONAL RECORD:

Vol. 133 (1987): Mar. 31, H.R. 184 considered and passed House.

Dec. 11, S. 90 considered and passed Senate.

Vol. 134 (1988): Mar. 1, considered and passed House, amended.

Mar. 31, Senate concurred in House amendments with amendments.

Apr. 12, House concurred in Senate amendments.

WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 24 (1988):

Apr. 29, Presidential statement.

Appendix B: Inventory of Special Mandates and Administrative Commitments

Special Mandates

Special Mandates for Big Cypress National Preserve include the following:

From Public Law 93–440, Oct. 11, 1974 (Establishment Act) and Public Law 100–301, Apr. 29, 1988 (Establishment Act for the Addition)

16 U.S.C. 698 (f)(c) Lands, Waters, Acquisition – Authorizes the Secretary to acquire lands, waters, or interests located within the boundaries of the preserve or the Addition by donation, purchase with donated or appropriated funds, transfer, or exchange. Lands owned by the State of Florida or its political subdivisions may be acquired only by donation. No improved property (detached, single-family dwelling constructed before November 23, 1971) nor oil and gas rights may be acquired without the consent of the owner unless the Secretary determines that such property is subject to or threatened with uses detrimental to the purposes of the preserve. Offers to sell for \$10,000 or less may be accepted without an appraisal. Appraisals of unimproved properties may be made without prior notice to the owners.

16 U.S.C. 698 (h)(a) Property Owners, Retention Rights – The owner of an improved property on the date of its acquisition by the Secretary may, as a condition of such acquisition, retain for himself and his heirs and assigns a right of use of and occupancy of the improved property for a definite term of not more than twenty-five years or, in lieu thereof, for a term ending at the death of the owner or the death of his spouse, whichever is later. The owner shall elect the term to be reserved. Unless this property is wholly or partially donated to the United States, the Secretary shall pay the owner the fair market value of the property on the date of acquisition less the fair market value, on that date, of the right retained by the owner. A right retained pursuant to this section shall be subject to termination by the Secretary upon his determination that it is being exercised in a manner inconsistent with the purposes of sections 698f to 698m–4 of this title, which shall include the exercise of such right in violation of any applicable State or local laws and ordinances, and it shall terminate by operation of law upon the Secretary’s notifying the holder of the right of such determination and tendering to him an amount equal to the fair market value of that portion of the right which remains unexpired.

16 U.S.C. 698 (i)(a) Administration – The Secretary shall administer the lands as a unit of the national park system in a manner that will assure their natural and ecological integrity in perpetuity and in accordance with the NPS Organic Act.

16 U.S.C. 698 (i)(b) Rules and Regulations – In administering the preserve, the Secretary shall develop and publish in the Federal Register such rules and regulations as he deems necessary and appropriate to limit or control the use of Federal lands and waters with respect to:

- (1) motorized vehicles,
- (2) exploration for and extraction of oil, gas, and other minerals,
- (3) grazing,
- (4) draining or constructing of works or structures which alter the natural water courses,
- (5) agriculture,
- (6) hunting, fishing, and trapping,
- (7) new construction of any kind, and
- (8) such other uses as the Secretary determines must be limited or controlled in order to carry out the purposes of this Act.

16 U.S.C. 698 (i)(b) Transportation Facilities – The Secretary shall consult and cooperate with the Secretary of Transportation to assure that necessary transportation facilities shall be located within existing or reasonably expanded rights-of-way and constructed within the reserve in a manner consistent with the purposes of this Act.

16 U.S.C. 698 (j) Hunting, Fishing, and Trapping – The Secretary shall permit hunting, fishing, and trapping on lands and waters under his jurisdiction within the preserve and the Addition in accordance with the applicable laws of the United States and the State of Florida, except that he may designate zones where and periods when no hunting, fishing, trapping, or entry may be permitted for reasons of public safety, administration, floral and faunal protection and management, or public use and enjoyment. Except in emergencies, any regulations prescribing such restrictions relating to hunting, fishing, or trapping shall be put into effect only after consultation with the appropriate State agency having jurisdiction over hunting, fishing, and trapping activities.

16 U.S.C. 698 (j) Miccosukee and Seminole Indian Tribes, Land Use, Retention Rights – Members of the Miccosukee Tribe of Indians of Florida and members of the Seminole Tribe of Florida shall be permitted, subject to reasonable regulations established by the Secretary, to continue their usual and customary use and occupancy of Federal or federally acquired lands and waters within the preserve and the Addition, including hunting, fishing, and trapping on a subsistence basis and traditional tribal ceremonials.

16 U.S.C. 698 (k) Visitor Services, Contracts – The Secretary shall offer those members of the Miccosukee and Seminole Indian Tribes who, on January 1, 1972 (January 1, 1985, in the case of the Addition), were engaged in the provision of similar services, a right of first refusal to continue providing such services within the preserve and the Addition subject to such terms and conditions as he may deem appropriate, and before entering into any contract or agreement to provide new revenue-producing visitor services within the preserve or within the Addition, the Secretary shall offer to the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida the right of first refusal to provide such services, the right to be open for a period of ninety days. Should both Tribes respond with proposals that satisfy the terms and conditions established by the Secretary, the Secretary may allow the Tribes an additional period of ninety days in which to enter into an inter-Tribal cooperative agreement to provide such visitor services, but if neither tribe responds with proposals that satisfy the terms and conditions established by the Secretary, then the Secretary shall provide such visitor services in accordance with subchapter IV of chapter 1 of this title. No such agreement may be assigned or otherwise transferred without the consent of the Secretary.

16 U.S.C. 698 (l) Wilderness – Within five years from October 11, 1974, with respect to the preserve and five years from April 29, 1988, with respect to the Addition, the Secretary shall review the area within the preserve or the area within the Addition (as the case may be) and shall report to the President, in accordance with section 3 (c) and (d) of the Wilderness Act (78 Stat. 891; 16 U.S.C. 1132 (c) and (d)), his recommendations as to the suitability or unsuitability of any area within the preserve for preservation or the area within the Addition (as the case may be) as wilderness, and any designation of any such areas as a wilderness shall be accomplished in accordance with said subsections of the Wilderness Act.

16 U.S.C. 698m-2 Recreation – The Secretary and other involved Federal agencies shall cooperate with the State of Florida to establish recreational access points and roads, rest and recreation areas, wildlife protection, hunting, fishing, frogging, and other traditional recreational opportunities in conjunction with the creation of the Addition and in the construction of Interstate Highway 75. Three of such access points shall be located within the preserve (including the Addition).

16 U.S.C. 698m-4(a) Oil and Gas Exploration, Development, and Production Regulations – Within nine months from April 29, 1988, the Secretary shall promulgate, subject to the requirements of subsections (b)–(e) of this section, such rules and regulations governing the exploration for and development and production of non-Federal interests in oil and gas located within the boundaries of the Big Cypress National Preserve and the Addition, including but not limited to access on, across, or through all lands within the boundaries of the Big Cypress National Preserve and the Addition for the purpose of conducting such exploration or development and production, as are necessary and appropriate to provide reasonable use and enjoyment of privately owned oil and gas interests, and consistent with the purposes for which the Big Cypress National Preserve and the Addition were established. Rules and regulations promulgated pursuant to the authority of this section may be made by appropriate amendment to or in substitution of the rules and regulations respecting non-Federal oil and gas rights (currently codified at 36 CFR 9.30, et seq. (1986)).

16 U.S.C. 698m-4(b) Oil and Gas Exploration, Development, and Production Contents of Rule and Regulation – Any rule or regulation promulgated by the Secretary under subsection (a) of this section shall provide that-

- (1) exploration or development and production activities may not be undertaken, except pursuant to a permit issued by the National Park Service authorizing such activities or access; and
- (2) final action by the National Park Service with respect to any application for a permit authorizing such activities shall occur within 90 days from the date such an application is submitted unless-
 - (A) the National Park Service and the applicant agree that such final action shall occur within a shorter or longer period of time; or
 - (B) the National Park Service determines that an additional period of time is required to ensure that the National Park Service has, in reviewing the application, complied with other applicable law, Executive orders and regulations; or
 - (C) the National Park Service, within 30 days from the date of submission of such application, notifies the applicant that such application does not contain all information reasonably necessary to allow the National Park Service to consider such application and requests that such additional information be provided. After receipt of such notification to the applicant, the applicant shall supply any reasonably necessary additional information and shall advise the National Park Service that the applicant believes that the application contains all reasonably necessary information and is therefore complete, whereupon the National Park Service may-
 - (i) within 30 days of receipt of such notice from the applicant to the National Park Service determine that the application does not contain all reasonably necessary additional information and, on that basis, deny the application; or
 - (ii) review the application and take final action within 60 days from the date that the applicant provides notification to the National Park Service that its application is complete.

16 U.S.C. 698m-4(c) Oil and Gas Exploration, Development, and Production Activities to Conform to Requirements of National Park Service – Such activities shall be permitted to occur if such activities conform to requirements established by the National Park Service under authority of law.

16 U.S.C. 698m-4(d) Oil and Gas Exploration, Development, and Production Consideration of Practices Used in Similar Habitats or Ecosystems – In establishing standards governing the conduct of exploration or development and production activities within the boundaries of the Big Cypress National Preserve or the Addition, the Secretary shall take into consideration oil and gas exploration and development and production practices used in similar habitats or ecosystems within the Big Cypress National Preserve or the Addition at the time of promulgation of the rules and regulations under subsection (a) or at the time of the submission of the application seeking authorization for such activities, as appropriate.

Administrative Commitments

Title / Agency / Organization	Purpose / Description	Start Date	Expiration Date	Responsible Party
U.S. Fish and Wildlife Service (USFWS)	Sharing resources for prescribed burns.	2016	Annually	Fire Management Officer
U.S. Fish and Wildlife Service	USFWS will provide fire fighters to assist Big Cypress National Preserve.	2016	Annually	Fire Management Officer
Florida Fish and Wildlife Conservation Commission	Wild turkey grant for helicopter use.	2016	2016	Fire Management Officer
Florida Fish and Wildlife Conservation Commission	Wild turkey grant allowing Big Cypress National Preserve to burn 15,000 acres.	2016	2016	Fire Management Officer
U.S. Fish and Wildlife Service	Sharing assistant fire management officer.	2015	Indefinite	Fire Management Officer
Air tour agreements	Would be executed with the NPS, the Federal Aviation Administration, and regional air tour operators to manage air tours over the preserve.	2015	Indefinite	Resource Protection Specialist and Management Assistant
NPS South Florida / Caribbean Network	Conducting inventories of species in preserve; helping create vegetation map of preserve; completing other preserve inventories; monitoring periphyton and aquatic invertebrates in northwestern preserve; monitoring invasive/exotic plants along corridors of introduction; forest vegetation monitoring; mangrove to marsh ecotone monitoring; amphibian monitoring (if time permits).	2008	Ongoing	Chief of Resource Management
Commercial use authorizations	The preserve has 18 commercial use authorizations which are captured in the commercial services plan.	2009	Ongoing	Management Assistant
Comprehensive Everglades restoration plan		1996	Ongoing	Chief of Resource Management
Florida Department of Juvenile Justice	Detention center in the preserve.	1996	Expired agreement; possible that it will be removed in 2017	Chief of Maintenance and Chief Ranger
Cooperative Ecosystem Studies Units agreements	Various.	Indefinite	Indefinite	Chief of Resource Management
Everglades National Park	Trail Bend and Educational Center down on loop road. Everglades Education Center is within preserve boundaries.	Unknown	Ongoing	Chief of Interpretation and Chief of Maintenance

Title / Agency / Organization	Purpose / Description	Start Date	Expiration Date	Responsible Party
Miccosukee and Seminole Tribes	Informal agreements for consultation.	NA	Ongoing	Chief of Resource Management
Major rights-of-way	Pertains to fiber optic cable, powerlines, and access.	Unknown	Indefinite	Management Assistant and Naples Lands Office
Powerline	Managed by right-of-way when inside the preserve, within Florida Department of Transportation right-of-way – no agreements present.	Unknown	Various	Chief of Maintenance and Management Assistant
NPS Southeast Archeological Center (SEAC)	SEAC manages the preserve's archeological collection.	Unknown	Ongoing	Chief of Resource Management
NPS South Florida Collections Management Center (SFCMC)	SFCMC manages the museum collections and is the central museum service provider for the five South Florida national park units.	Unknown	Ongoing	Chief of Resource Management
Florida Department of Transportation	For the mile marker 63 rest area on I-75.	Unknown	Unknown	Chief of Maintenance
Florida land exchange agreement	Unknown.	Unknown	Unknown	Management Assistant and Naples Lands Office
Lee County Electric Cooperative	Electric cooperative.	Unknown	Unknown	Chief of Maintenance and Management Assistant
Miami-Dade County	Culverts agreements.	Unknown	Unknown	Resource Protection Specialist and Chief of Resource Management
Ochopee Fire Control District	Unknown.	Unknown	Unknown	Chief Ranger and Fire Management Officer
Sister park(s)	Laguna Del Tigre National Park in Guatemala and Tanjung Putting National Park in Indonesia.	Unknown	Unknown	Superintendent's Office and Chief of Interpretation
South Florida National Parks Trust	Unknown.	Unknown	Unknown	Chief of Interpretation
NPS South Florida Natural Resources Center – Everglades National Park	Unknown.	Unknown	Unknown	Chief of Resource Management
South Florida Water Management District	Long-term water monitoring in L-28. Also includes a right-of-way at MM 51.	Unknown	Unknown	Chief of Resource Management and Hydrologist
Florida State Police	Unknown.	Unknown	Unknown	Chief Ranger
U.S. Fish and Wildlife Service	Hunting issues.	Unknown	Unknown	Chief of Resource Management and Chief Ranger
Jetport	24,500 acres of land owned by Miami Dade County, FL.	Unknown	Expired	Management Assistant, Naples Lands Office, Fire Management Officer, and Chief Ranger

Appendix C: Basics for Wilderness Stewardship

Wilderness Background Information

Although no congressionally designated wilderness presently exists at Big Cypress National Preserve, the National Park Service (NPS) has proposed that Congress designate approximately 47,067 acres in the Big Cypress Addition as wilderness. In addition, the National Park Service has identified substantial areas in the original part of the preserve that are eligible for wilderness designation but require further study before a supplemental wilderness proposal can be put forward. At the present time (2016), the National Park Service is conducting a wilderness study focused primarily on the eligible lands in the original part of the preserve. The purpose of the study is to develop a supplemental wilderness proposal covering the original preserve and certain adjacent lands in the western Addition along Highway 29.

Wilderness Legislation And Legislative History

The Wilderness Act, signed into law in 1964, created the National Wilderness Preservation System to ensure an enduring resource of wilderness for future generations. The act provides that wilderness areas are to possess the following characteristics:

- The Earth and its community of life are untrammelled by humans, where humans are visitors and do not remain.
- The area is undeveloped and retains its primeval character and influence without permanent improvements or human habitation.
- The area generally appears to have been affected primarily by the forces of nature, with the imprint of humans' work substantially unnoticeable.
- The area is protected and managed to preserve its natural conditions.
- The area offers outstanding opportunities for solitude or a primitive and unconfined type of recreation.

In 1974 and again in 1988, Congress directed the National Park Service to review specified lands within Big Cypress National Preserve and make recommendations as to the suitability or unsuitability of these lands for preservation as wilderness. See section 7 of Public Law 93-440 (1974), as amended by Public Law 100-301 (1988). In response to these legislative mandates, the National Park Service completed a wilderness study of the original preserve in 1980 (now outdated) and a subsequent study of the Addition in 2011.

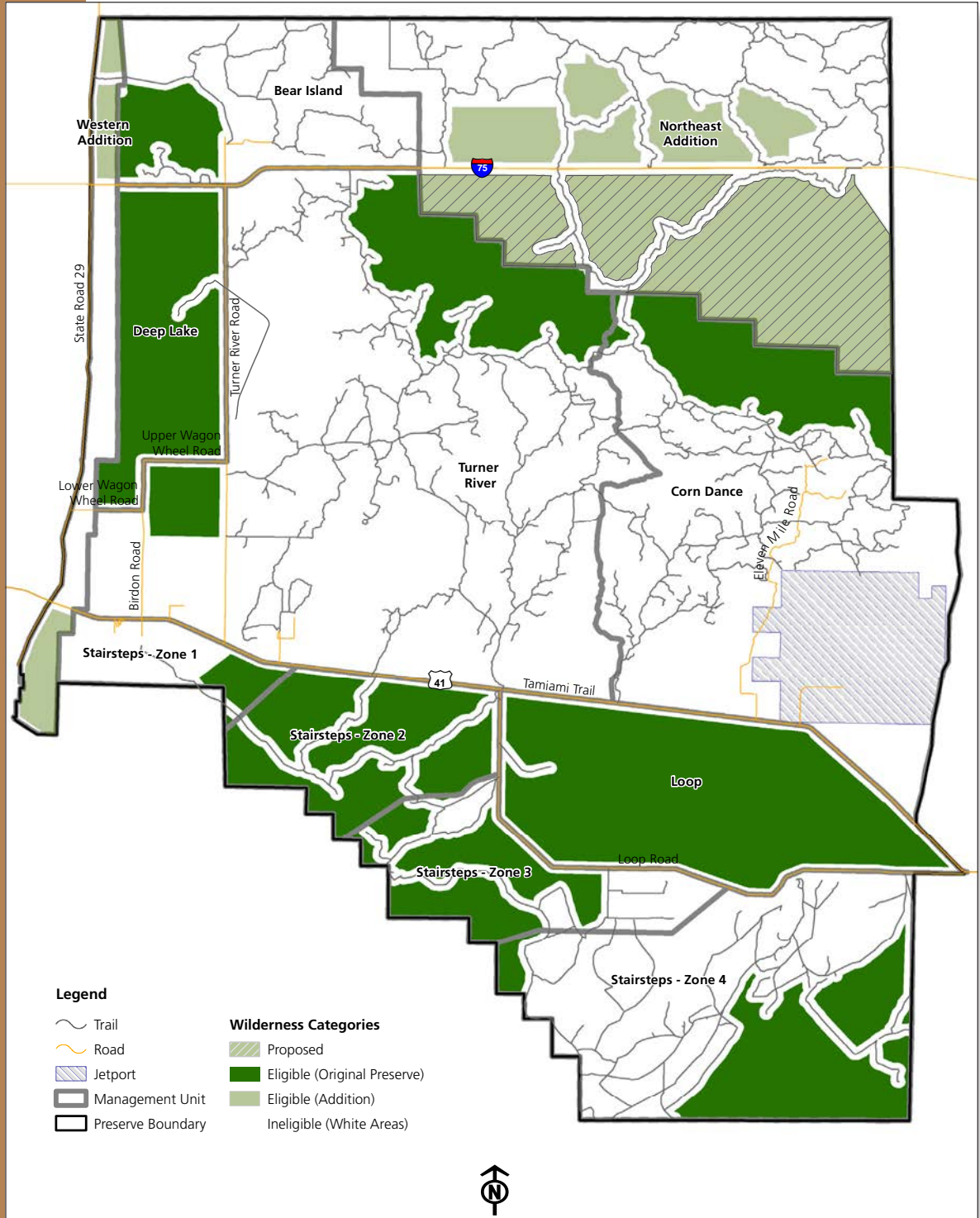
The 1980 study determined that all federally owned land in the original preserve was subject to uses that rendered it unsuitable for wilderness designation. However, since that time numerous private inholdings have been acquired, dispersed use of ORVs has been discontinued, and other nonconforming uses have been eliminated or dramatically scaled back. By policy, the National Park Service must re-evaluate lands previously found ineligible because of nonconforming or incompatible uses if the nonconforming uses have been terminated or removed. Accordingly, a wilderness eligibility assessment of the original preserve was initiated in 2014 as part of the planning effort for the preserve's Backcountry Access Plan. This assessment, approved June 18, 2015, found that 188,323 acres of the 557,065 acres reviewed met the eligibility criteria in the Wilderness Act. Upon completion of the 2014 assessment, the National Park Service initiated a new wilderness study of the original preserve to decide which of these lands, if any, should be included in a formal wilderness proposal.

The 2011 study of the Big Cypress Addition found that 71,263 acres in the northern and western parts of the Addition were eligible for wilderness designation. Of that total, the National Park Service formally proposed that 47,067 acres in the northern Addition be designated as wilderness. The proposed wilderness consists of lands in the Mullet Slough area south of Interstate 75. The remaining 24,196 acres of eligible land, although not included in the National Park Service proposal can still be designated as wilderness should Congress choose to do so.

Current Land Status, Boundary Descriptions, And Map

Taken together, the “proposed” wilderness in the Addition (47,067 acres) and the “eligible” wilderness throughout the preserve (212,519 acres) total 259,586 acres. The 2016 wilderness study may cause these figures to change.

NPS policy provides that proposed and eligible wilderness areas are to be managed in a way that preserves wilderness character until Congress decides whether or not to designate them as wilderness. See *NPS Management Policies 2006*, section 6.3.1. A map of the proposed and eligible wilderness at Big Cypress is provided below.



Appendix D: Past and Ongoing Park Planning and Data Collection Efforts

Date	Document	Reference/Citation	Source
8/1/1979	Wilderness study	Wilderness Study: Big Cypress National Preserve, Florida. Ochopee, FL. Restricted Access	ETIC Restricted Access BICY_176_D1476
12/21/1979	Boundary publication	Content downloaded from heinonline (http://heinonline.org) Tue Feb 17 18:17:24 2015. Citation: 45 Fed. Reg. 3391 1980.	Heinonline
1/1/1980	Cultural resources remote sensing	Lyons, T. R., and F. J. Mathien, Eds. (1980). <i>Cultural Resources Remote Sensing</i> . Washington, D.C.	ETIC Public Access BICY_176_D122
2/15/1980	Boundary publication	Content downloaded from heinonline (http://heinonline.org) Tue Feb 17 18:19:34 2015. Citation: 45 Fed. Reg. 13205 1980.	Heinonline
5/1/1980	Wilderness recommendation	Wilderness Recommendation: Big Cypress National Reserve, Florida. Ochopee, FL. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_D1562
8/1/1982	Ethnohistory	Paige, J. C., and L. F. Van Horn (1982). <i>An Ethnohistory of Big Cypress National Preserve, Florida</i> . Denver, CO.	ETIC Public Access BICY_176_D1947
10/1/1982	General development plan	General Development Plan: Big Cypress National Preserve, Florida. Ochopee, FL. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_D1974
1/1/1983	Exxon Company, USA proposed development of oil and gas resources – Raccoon Point	Finding of No Significant Impact: Exxon Company, USA Proposed Development of Oil and Gas Resources Raccoon Point.	ETIC Public Access BICY_176_D26
4/1/1983	Proposed sensitive resource areas	Proposed Sensitive Resource Areas – Big Cypress National Preserve, Florida. Prepared in Reference to Mineral Development. Ochopee, FL.	IRMA Reference Code: 99236
1/1/1985	Fakahatchee Strand – Florida Panther Habitat Preservation Proposal	Fakahatchee Strand: A Florida Panther Habitat Preservation Proposal. Final Environmental Assessment. Atlanta, GA.	ETIC Public Access BICY_176_105247
1/1/1986	The Big Cypress National Preserve. research report No. 8,	Deuver, M. J., Carlson, J. E. Darlson, J. F. Meeder, L. C. Duever, L. H. Gunderson, L. A. Riopelle, T. R. Alexander, R. L. Myers, and D. P. Spangler. 1986. The Big Cypress National Preserve. Research Report No. 8, the National Audubon Society, New York, New York.	Unknown
6/1/1986	Hydrologic assessment	Schneider, W. J., and M. D. Flora. Hydrologic Assessment of the Big Cypress National Preserve: A Water Resources Analysis for the General Management Plan and Minerals Management Plan. Mclean, VA and Fort Collins, CO. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_116845
7/25/1986	Reclamation of areas of oil and gas activity	Reclamation of Areas of Oil and Gas Activity in the Big Cypress National Preserve. Research Triangle Park, NC.	IRMA Reference Code: 101586
9/1/1986	Probable extent – oil and gas development	Gregory, G. S. Probable Extent of Oil and Gas Development in the Big Cypress National Preserve. Ochopee, FL.	ETIC Public Access BICY_176_D66

Date	Document	Reference/Citation	Source
10/20/1986	Land protection plan	Big Cypress National Preserve: Land Protection Plan Update. Ochopee, FL.	ETIC Public Access BICY_176_D52
4/1/1989	Water quality report	Weeks, D. P. Big Cypress National Preserve Water Quality Report. Denver, CO.	ETIC Public Access BICY_176_D108
5/1/1990	Hydrologic assessment	Schneider, W. J. Hydrologic Assessment of the Big Cypress National Preserve A Water Resource Analysis for the Addition. Mclean, VA.	ETIC Public Access BICY_176_D56
6/26/1990	Statement for management	Statement for Management, Basic Operations Statement: Big Cypress National Preserve, Florida. Ochopee, FL. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_D1
1/1/1991	Land protection plan	Big Cypress National Preserve - Land Protection Plan. Ochopee, FL.	ETIC Public Access BICY_176_D52A
1/1/1991	Mercury contamination in Florida panthers	Roelke, M. E., Schultz, D. P., Facemire, C. F., Sundlof, S. F., Royals, H. E. 1991. Mercury Contamination in Florida Panthers. Report of the Florida Panther Technical Subcommittee to the Florida Panther Interagency Committee.	
2/1/1991	I-75 recreational access plan EA w/FONSI	I-75 Recreational Access Plan Environmental Assessment w/FONSI and Statement of Findings. Atlanta, GA.	ETIC Public Access BICY_176_D55A
10/1/1991	Summary of GMP and EIS	Summary of the General Management Plan and Final Environmental Impact Statement - Big Cypress National Preserve. Ochopee, FL.	ETIC Public Access BICY_176_D103
11/1/1991	Proposal to establish captive breeding population of Florida panthers EA	Jordan, D. B. Final Supplemental Environmental Assessment: A Proposal to Establish a Captive Breeding Population of Florida Panthers. Gainesville, FL.	IRMA Reference Code: 2203556
1/1/1992	Final GMP EIS	General Management Plan, Final Environmental Impact Statement Volume 1, w/Record of Decision and Statement of Findings. Ochopee, FL.	ETIC Public Access BICY_176_91026
1/13/1993	Statement for management	Statement for Management, Basic Operations Statement: Big Cypress National Preserve. Ochopee, FL. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_D112
1/1/1994	Mercury in livers of wading birds in southern Florida	Sundlof, S. F., Spalding, M. G., Wentworth, J. D., Steible, C. K. 1994. Mercury in Livers of Wading Birds (<i>Ciconiiformes</i>) in Southern Florida. Archives of Environmental Contamination and Toxicology 27 (3): 299–305.	
1/1/1995	Use and occupancy by the Miccosukee and Seminole	Gross, J. A., PhD. Usual and Customary Use and Occupancy by the Miccosukee and Seminole Indians in Big Cypress National Preserve, Florida. Lubbock, TX.	ETIC Public Access BICY_176_D121
12/1/1995	Economic impact study – federal interest lands in South Florida	Correia, M. E. Economic Impact Study of Federal Interest Lands in South Florida. Fort Lauderdale, FL.	ETIC Public Access BICY_176_D264
4/4/1996	Everglades ecosystem restoration	Content downloaded from heinonline (http://heinonline.org) Tue Feb 10 14:18:49 2015. Citation: 110 Stat. 1022 1996.	Heinonline

Date	Document	Reference/Citation	Source
5/1/1996	Water resources management plan	Schneider, W. J., D. P. Weeks, and D. L. Sharrow. <i>Water Resources Management Plan: Big Cypress National Preserve</i> . Mclean, VA, Ochopee, FL, Fort Collins, CO. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_D114
6/1/1996	Baseline water quality data	Baseline Water Quality Data Inventory and Analysis Big Cypress National Preserve. Fort Collins, CO. RESTRICTED ACCESS	IRMA Reference Code: 13682 Restricted Access
7/1/1997	Brazilian pepper management plan for Florida	Ferriter, A., ed. Brazilian Pepper Management Plan for Florida: Recommendations from the Brazilian Task Force Florida Exotic Pest Plan Council. Sanibel, FL. RESTRICTED ACCESS	IRMA Reference Code: 18831 Restricted Access
10/1/1997	Strategic plan 1997–2002	Strategic Plan 1997–2002, Annual Performance Plan Fiscal 1998: Big Cypress National Preserve. Ochopee, FL. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_D119
1/17/1999	Effects of public use on Florida panthers	Janis, M. W., and J. D. Clark. The Effects of Public Use on the Behavior of Florida Panthers at Big Cypress National Preserve. Knoxville, TN.	IRMA Reference Code: 2202856
3/1/1999	National register – Monroe Station	National Register of Historic Places Registration Form: Monroe Station. Washington, D.C.	National Register Number: 00000427
5/1/1999	Melaleuca management plan	Laroche, F. B., ed. Melaleuca Management Plan: Ten Years of Successful Melaleuca Management in Florida 1988–1998. Third Edition. Florida Exotic Pest Plant Council. Sanford, FL.	http://www.fleppc.org/manage_plans/mplan.pdf
12/1/1999	Visitor services project	Meehan, M. Big Cypress National Preserve Visitor Study Winter 1999. Moscow, ID.	University of Idaho, Park Studies Unit
6/1/2000	Long-term study – fire season in pine forest	Snyder, J. R., and H. A. Belles. Long-term Study of Fire Season and Frequency in Pine Forest and Associated Cypress Wetlands, Big Cypress National Preserve: Project Description and Preliminary Data. Ochopee, FL.	IRMA Reference Code: 2203551
7/1/2000	Final ORV management plan	Final Off-Road Vehicle Management Plan: Supplemental Environmental Impact Statement. Ochopee, FL.	www.nps.gov/bicy/
7/31/2000	Coordinating Success	Coordinating Success: Strategy for Restoration of the South Florida Ecosystem. Miami, FL.	ETIC Public Access BICY_176_116846
12/1/2000	Recreational off-road vehicle summary	Recreational Off-Road Vehicle Management Plan: A Summary. Big Cypress National Preserve. Ochopee, FL.	ETIC Public Access BICY_176_D166A
12/1/2000	Wading birds distribution and abundance	Distribution and Abundance of Wading Birds in the Big Cypress National Preserve, 2000. Vicksburg, MS.	IRMA Reference Code: 2202924
2/1/2001	Scenic corridor visitor safety highway improvements EA	Scenic Corridor Visitor Safety Highway Improvements Environmental Assessment. Ochopee, FL.	ETIC Public Access BICY_176_D131
4/1/2001	Water management report	Scenic Corridor Visitor Safety Highway Improvements Project: Big Cypress National Preserve, BICY 001 – Water Management Report. Ochopee, FL.	ETIC Public Access BICY_176_D158

Date	Document	Reference/Citation	Source
1/1/2002	Levels of mercury in alligators	Rumbold, D. G., Fink, L. E., Laine, K. A., Niemczyk, S. L., Chandrasekhar, T., Wankel, S. D., Kendall, C. 2002. Levels of mercury in alligators (<i>Alligator mississippiensis</i>) collected along a transect through the Florida Everglades. <i>Science of the Total Environment</i> 297 (1–3): 239–252.	Unknown
1/1/2002	Archeological survey	Schwadron, M. Archeological Survey of the New Addition Lands, Big Cypress National Preserve, Florida: Field Season 1-2000. Tallahassee, FL. ARCHEOLOGY ACCESS	ETIC Archeology Access BICY_176_103471
1/1/2002	Water management report	Scenic Corridor Visitor Safety Highway Improvements Project: Big Cypress National Preserve, BICY 001 – Water Management Report. Ochopee, FL.	ETIC Public Access BICY_176_D158A
7/1/2002	Long-range interpretive plan	Long-Range Interpretive Plan Big Cypress National Preserve. Harpers Ferry, WV.	www.nps.gov/bicy/
12/1/2002	Landscape conservation strategy for Florida panther	Landscape Conservation Strategy for the Florida Panther in South Florida. Tallahassee, FL.	IRMA Reference Code: 2203720
12/1/2002	Wading birds distribution and abundance	Nelson, D. A., and R. K. Metzger. Distribution and Abundance of Wading Birds in the Big Cypress National Preserve, 2002. Vicksburg, MS.	IRMA Reference Code: 2202927
1/1/2003	African Americans and the sawmills	Peterman, F., and A. Peterman. African Americans and the Sawmills of Big Cypress – A Brief History. Ochopee, FL.	www.nps.gov/bicy/
6/1/2003	Tamiami Trail welcome center EA	Environmental Assessment: Tamiami Trail Welcome Center. Ochopee, FL.	ETIC Public Access BICY_176_D138
9/15/2003	Summary of panther capture season	Jansen, D., et al. A Review of the Status of Florida Panthers (<i>Puma concolor coryi</i>) in Big Cypress National Preserve 1981–2003 and a Summary of the 2003 Panther Capture Season. Ochopee, FL.	IRMA Reference Code: 2197438
11/1/2003	Designated ORV trails mitigation plan	Big Cypress National Preserve: Designated Off-road Vehicle Trails Mitigation Plan. Ochopee, FL.	IRMA Reference Code: 2203050
1/1/2004	Ozone risk assessment for South Florida/ Caribbean Network	Kohut R. J. 2004. Ozone risk assessment for South Florida / Caribbean Network. National Park Service. Fort Collins, CO.	https://irma.nps.gov/App/Reference/DownloadDigitalFile?code=442232&file=sfcnO3RiskOct04.pdf .
1/1/2004	Water quality report	Miller, R. L., et al. Water Quality in Big Cypress National Preserve and Everglades National Park – Trends and Spatial Characteristics of Selected Constituents. Tallahassee, FL.	IRMA Reference Code: 2176918
3/12/2004	Revised water management report	Revised Water Management Report for SFWMD Permit No. 11-02076-P. Scenic Corridor Visitor Safety Highway Improvements Project, Big Cypress National Preserve, National Park Service, BICY-001. Dulles, VA.	ETIC Public Access BICY_176_D158B

Date	Document	Reference/Citation	Source
8/1/2004	Environmental monitoring, aquatic ecological risk assessment	Environmental Monitoring and Aquatic Ecological Risk Assessment of Common Contaminants for Everglades National Park, Biscayne National Park, and Big Cypress National Preserve: Critical Information Need for the Comprehensive Everglades Restoration Plan. Homestead, FL.	IRMA Reference Code: 2198513
9/6/2004	Florida panther – research and monitoring	Jansen, D., and R. McBride (2004). Big Cypress National Preserve 2004 Florida Panther Capture Season Report. Ochopee, FL.	IRMA Reference Code: 2197645
10/1/2004	Cold war in South Florida	Hach, S. Cold War in South Florida: Historic Resource Study. Atlanta, GA.	IRMA Reference Code: 2186883
10/27/2004	Florida panther – research and monitoring	Jansen, D., et al. Florida Panther (<i>Puma concolor coryi</i>) Research and Monitoring in Big Cypress National Preserve 2003–2004 Annual Report. Ochopee, FL.	IRMA Reference Code: 2202857
1/1/2005	Herpetofaunal inventory	Rice, K. G., et al. Herpetofaunal Inventories of the National Parks of South Florida and the Caribbean: Volume III. Big Cypress National Preserve. Reston, VA.	IRMA Reference Code: 2175593
1/1/2005	A probabilistic risk assessment of the effects of methylmercury on great egrets and bald eagles foraging at a constructed wetland in South Florida relative to the Everglades	Rumbold, D. G. 2005. A probabilistic risk assessment of the effects of methylmercury on great egrets and bald eagles foraging at a constructed wetland in South Florida relative to the Everglades. Human and Ecological Risk Assessment 11 (2): 365–388.	Unknown
1/1/2005	Variation of total mercury concentrations in pig frogs (<i>Rana grylio</i>) across the Florida Everglades	Ugarte, C. A., Rice, K. G., Donnelly, M. A. 2005. Variation of total mercury concentrations in pig frogs (<i>Rana grylio</i>) across the Florida Everglades, USA. Science of the Total Environment 345 (1–3): 51–59.	Unknown
2/1/2005	Seminole housing on Tamiami Trail EA	Environmental Assessment: Seminole Housing on Tamiami Trail. Ochopee, FL.	ETIC Public Access BICY_176_118320
3/21/2006	Cycle 3 road inventory	The Road Inventory of Big Cypress National Preserve BICY – 5120. Washington, D.C. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_D169
8/1/2006	Criteria for ORV and hunting access	Criteria for Off-Road Vehicle Hunting Access Within Big Cypress National Preserve In Response to Surface Water Levels. Ochopee, FL.	www.nps.gov/bicy/
9/1/2006	South Florida and Caribbean parks exotic plant management plan – draft	South Florida and Caribbean Parks Exotic Plant Management Plan and Environmental Impact Statement – Draft. Denver, CO.	PEPC
2007	Digital geologic map of Big Cypress National Preserve and vicinity	O’Meara, S. 2007. Digital Geologic Map of Big Cypress National Preserve and Vicinity, Florida (NPS, GRD, GRE, BICY). NPS Geologic Resources Inventory Program. Lakewood, CO.	IRMA Reference Code: 1045458
5/1/2007	Weather and climate inventory	Davey, C. A., K. T. Redmond, and D. B. Simeral. Weather and Climate Inventory National Park Service – South Florida / Caribbean Network. Reno, NV.	IRMA Reference Code: 649240

Date	Document	Reference/Citation	Source
8/1/2007	Rehab historic structure – Monroe Station	Rehabilitate the Historic Structure at Monroe Station: Big Cypress National Preserve, East Ochopee, Florida. Phase I – Final Report with Supporting Documentation. Frederick, MD. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_117984
12/1/2007	Visitor services project	Papadogiannaki, E., Y. Le., and S. J. Hollenhorst. <i>Big Cypress National Preserve Visitor Study Spring 2007</i> . Moscow, ID.	University of Idaho, Park Studies Unit
2/1/2008	Geologic resource evaluation report	Thornberry-Ehrlich, T. 2008. Big Cypress National Preserve Geologic Resource Evaluation Report. Natural Resource Report NPS/NRPC/GRD/NRR—2008/021. National Park Service, Denver, CO.	ETIC Public Access BICY_176_D176
4/1/2008	Visitor services project: ORV permit holder / camp owner	Papadogiannaki, E., Y. Le., and S. J. Hollenhorst. <i>Big Cypress National Preserve ORV Permit Holder/ Camp Owner</i> . Moscow, ID.	University of Idaho, Park Studies Unit
5/1/2008	Hydraulic evaluation and recommendation report	HDR Engineering, Inc. Hydraulic Evaluation and Recommendation Report: Big Cypress National Preserve Rehabilitate Loop Road	ETIC Public Access BICY_176_111349
9/1/2008	Vital signs monitoring plan	Patterson, M. E., et al. <i>South Florida / Caribbean Network Vital Signs Monitoring Plan</i> . Village of Palmetto Bay, FL and St. John, VI.	IRMA Reference Code: 660634
3/5/2009	Legislative summary	Content downloaded from Landsnet. (http://landsnet.nps.gov/tractsnet/documents/BICY/Legislation/bicy_summary.pdf).	Landsnet
6/1/2009	Commercial services plan	Big Cypress National Preserve Commercial Services Plan and Environmental Assessment.	ETIC Public Access BICY_176_118189A
11/22/2009	Report on past historic uses of traditional cultural properties, sites, locations, transportation routes	Hammond, J. A Report on the Past Historic Uses of Traditional Cultural Properties, Sites, Locations and Transportation Routes in the Big Cypress Area. Naples, FL. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_116849
12/1/2009	Fire management plan	U.S. Fish and Wildlife Service: Florida Panther National Wildlife Refuge Complex – Fire Management Plan. Naples, FL.	PEPC
1/1/2010	Mercury bioaccumulation in Everglades pythons	Krabbenhoft, D. P. 2010. Mercury Bioaccumulation in Everglades Pythons. Poster, Greater Everglades Ecosystem Restoration Conference: July 12–16, 2010. Naples, FL	Unknown
6/1/2010	Understanding the science of climate change	Loehman, R., and G. Anderson. Understanding the Science of Climate Change: Talking Points – Impacts to the Gulf Coast. Missoula, MT and Yreka, CA.	IRMA Reference Code: 2124871
8/1/2010	South Florida and Caribbean parks exotic plant management plan – abbreviated final	South Florida and Caribbean Parks Exotic Plant Management Plan and Environmental Impact Statement: Abbreviated Final. Denver, CO.	PEPC
9/1/2010	EA – Loop Road improvements	Environmental Assessment: Loop Road Improvements, Big Cypress National Preserve, Florida. Ochopee, FL.	ETIC Public Access BICY_176_102618

Date	Document	Reference/Citation	Source
10/1/2010	Final GMP / wilderness study / ORV plan / EIS, Addition	Big Cypress National Preserve – Addition: Final General Management Plan/ Wilderness Study/ Off-Road Vehicle Management Plan/ Environmental Impact Statement.	ETIC Public Access BICY_176_119014
12/1/2010	Cooperative partnership agreement	Cooperative Partnership Agreement Between The National Park Service and The Florida Fish and Wildlife Conservation Commission.	www.nps.gov/bicy/
1/1/2011	Shoreline length and water area	Curdts, T. Shoreline Length and Water Area in the Ocean, Coastal and Great Lakes Parks: Updated Statistics for Shoreline Miles and Water Acres (rev1b). Fort Collins, CO.	IRMA Reference Code: 2180595
1/1/2011	Small and medium-sized mammal inventory	Pifer, E. K., et al. Final Report: Small and Medium-Sized Mammal Inventory for Everglades National Park and Big Cypress National Preserve. Davie, FL.	IRMA Reference Code: 2193147
2/1/2011	Inventory and monitoring	Sullivan, T. J., et al. Evaluation of the Sensitivity of Inventory and Monitoring National Parks to Nutrient Enrichment Effects from Atmospheric Nitrogen Deposition: South Florida/Caribbean Network (SFCN). Corvallis, OR.	IRMA Reference Code: 2168780
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4/1/2011	Business plan	Big Cypress National Preserve 2010 Business Plan. Ochopee, FL.	www.nps.gov/bicy/
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4/1/2011	Inventory and monitoring	Sullivan, T. J., et al. Evaluation of the Sensitivity of Inventory and Monitoring National Parks to Acidification Effects from Atmospheric Sulfur and Nitrogen Deposition: Main Report. Corvallis, OR.	IRMA Reference Code: 2170555
1/1/2013	State of conservation	State of Conservation: Report to the World Heritage Committee of the IUCN in response to 36COM7a.14. Tallahassee, FL.	www.nps.gov/bicy/
1/1/2013	Wetland delineation report	Wetland Delineation Report for the Trail Head Improvements Project: Big Cypress National Preserve, Florida. Ochopee, FL. RESTRICTED ACCESS	ETIC Restricted Access BICY_176_D176

Date	Document	Reference/Citation	Source
1/31/2013	Fire management plan	Big Cypress National Preserve Fire Management Plan 2010 Revised 1.31.2013. Ochopee, FL.	www.nps.gov/bicy/
6/1/2013	Early detection protocol for invasive exotic plants – corridors of invasiveness	Shamblin, R. B., K. R. T. Whelan, and R. M. Vargas. South Florida / Caribbean Network Early Detection Protocol for Invasive Exotic Plants: Corridors of Invasiveness. Palmetto Bay, FL.	IRMA Reference Code: 2195971
8/1/2013	Vital signs monitoring report	Annual Administrative Report (FY 2012) and Work Plan (FY 2013) for Inventories and Vital Signs Monitoring: South Florida / Caribbean Network. Palmetto Bay, FL.	www.nature.nps.gov
11/1/2013	Corridors of invasiveness	SFCN Corridors of Invasiveness Data Summary Report: Big Cypress National Preserve - South Region, 2013. Palmetto Bay, FL.	IRMA Reference Code: 2204417
11/1/2013	Early detection of new invasive exotic plants	South Florida / Caribbean Network Inventory and Monitoring. Corridors of Invasiveness: Early Detection of New Invasive Exotic Plants in Big Cypress National Preserve. Palmetto Bay, FL.	IRMA Reference Code: 2204494
1/1/2014	The Dragonfly Mercury Project: 2013 Results	Nelson, S. J. and Flanagan Pritz, C. M. 2014. The Dragonfly Mercury Project: 2013 Results.	https://irma.nps.gov/App/Reference/DownloadDigitalFile?code=510865&file=DragonflyMercury_2013-DataSummary.pdf.
3/1/2014	Copeland Prairie mitigation plan EA	Environmental Assessment: Copeland Prairie Mitigation Plan, Big Cypress National Preserve. DRAFT. Ochopee, FL.	PEPC
3/16/2014	Commercial air tour voluntary agreement – draft	Commercial Air Tour Voluntary Agreement for Big Cypress National Preserve. DRAFT.	PEPC
5/1/2014	Final hunting management plan/EA	Final Hunting Management Plan / Environmental Assessment w/FONSI. Ochopee, FL.	PEPC
7/30/2014	Climate change resource brief	Climate Change Resource Brief: Recent Climate Change Exposure of Big Cypress National Preserve. Fort Collins, CO.	IRMA Reference Code: 2213592
8/1/2014	Superintendent's Compendium	Big Cypress: Superintendent's Compendium. Ochopee, FL.	www.nps.gov/bicy/
1/1/2015	Natural Resource Condition Assessment of Big Cypress National Preserve	Redwine, J. R., J. Kellam, A. Atkinson, and M. Patterson. 2015. Natural Resource Condition Assessment of Big Cypress National Preserve. Natural Resource Report NPS/BICY/NRR—2015/XXX. National Park Service, Fort Collins, CO.	Unknown
2/5/2015	List of Classified Structures	List of Classified Structures: Big Cypress National Preserve. Content downloaded from InsideNPS	http://www.hscl.cr.nps.gov/insidenps/summary.asp
2/5/2015	Right of first refusal	<i>Right of First Refusal</i> . Content downloaded from park web page.	www.nps.gov/bicy/
2/5/2015	Species full list with details	Big Cypress National Preserve Species Full List with Details. Content downloaded from IRMA.	https://irma.nps.gov/npspecies/suggest/

Date	Document	Reference/Citation	Source
2/20/2015	Predicted surface water methylmercury concentrations in National Park Service Inventory and Monitoring Program Parks	U.S. Geological Survey. Last modified February 20, 2015. "Predicted surface water methylmercury concentrations in National Park Service Inventory and Monitoring Program Parks." U.S. Geological Survey. Wisconsin Water Science Center, Middleton, WI. Accessed March 26, 2015.	http://wi.water.usgs.gov/mercury/NPSHgMap.html .
Updated regularly	Air Quality Conditions and Trends by NPS Units: For Big Cypress N PRES	National Park Service, Air Resources Division. "Air Quality Conditions & Trends by NPS Units: For Big Cypress N PRES." National Park Service. Denver, CO.	http://www.nature.nps.gov/air/data/products/parks/index.cfm .
Updated regularly	Ozone Sensitive Species in Big Cypress National Preserve	NPSpecies, "Ozone Sensitive Species in Big Cypress National Preserve." IRMA Portal version. National Park Service.	https://irma.nps.gov/NPSpecies/Reports/Systemwide/Ozone-Sensitive%20Species%20in%20a%20Park
Updated daily	Deeds for Big Cypress National Preserve	http://landsnet.nps.gov/tractsnet/documents/BICY/Deeds/ .	Landsnet.nps.gov





Southeast Region Foundation Document Recommendation Big Cypress National Preserve

December 2016

This Foundation Document has been prepared as a collaborative effort between park and regional staff and is recommended for approval by the Southeast Regional Director.

Tammy Whittington

December 8, 2016

RECOMMENDED

Tammy Whittington, Superintendent, Big Cypress National Preserve

Date

Stan Austin

12/12/16

APPROVED

Stan Austin, Regional Director, Southeast Region

Date



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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