



BIG CYPRESS NATIONAL PRESERVE — ADDITION

FINAL GENERAL MANAGEMENT PLAN/WILDERNESS STUDY/
OFF-ROAD VEHICLE MANAGEMENT PLAN/ENVIRONMENTAL IMPACT STATEMENT

OCTOBER • 2010



United States Department of the Interior



NATIONAL PARK SERVICE

Big Cypress National Preserve
33100 Tamiami Trail East
Ochopee, Florida 34141-1000

IN REPLY REFER TO:

October 2010

Dear Friends:

I am very pleased to announce the release of the *Final General Management Plan/Wilderness Study/Off-Road Vehicle Management Plan/Environmental Impact Statement* for the Addition. It is the culmination of a great deal of time, effort, energy, and input from members of the public; American Indian tribes; other federal, state, and local agencies; and the National Park Service. Please take some time to look it over.

The 147,000 acres of the Addition were added to the Preserve in 1988 but were not included in the planning process for the 1991 *General Management Plan*, which covered only the original Preserve. The planning effort for the Addition began in 1999, and a *Draft General Management Plan/Wilderness Study/Off-Road Vehicle Management Plan/Environmental Impact Statement* was issued in July 2009.

The *Final General Management Plan* for the Addition includes a preferred alternative that is representative of the extensive civic engagement we all participated in over the past 10 years and follows the intent of the Preserve's enabling legislation. It provides for strong natural and cultural resource protection of this very special resource while at the same time providing for a diversity of recreational opportunities. The National Park Service values the public's interest in continuing to enjoy a meaningful connection with the Preserve, and we look forward to implementing this plan with your support and in the spirit of partnership.

The National Park Service will soon prepare and execute its "Record of Decision" (ROD) for this project, which will be published in the *Federal Register*.

On behalf of the entire National Park Service family, please accept our most sincere gratitude for your commitment and dedication to this process over the past 10 years. It is time now to come together in the work ahead to implement the plan!

Sincerely,

Pedro Ramos
Superintendent



**Final
General Management Plan / Wilderness Study / Off-road Vehicle Management Plan /
Environmental Impact Statement
Big Cypress National Preserve Addition
Collier County, Florida**

Big Cypress National Preserve was authorized by Congress on October 11, 1974 (Public Law 93-440), with 582,000 acres. 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.

The National Park Service (NPS) finalized a *General Management Plan* for the original Preserve in 1991. That plan contained no guidance for the Addition. The National Park Service began administration of the Addition in 1996. No comprehensive planning effort has been conducted for the Addition. A general management plan is needed to clearly define resource conditions and visitor experiences to be achieved in the Addition. The plan will provide a framework for NPS managers to use when making decisions about how to best protect Addition resources, identify appropriate areas for visitor access and facilities, and determine how the National Park Service will manage its operations.

This plan examines four alternatives for managing the Addition for the next 15 to 20 years. It also analyzes the impacts of implementing each of the alternatives. Alternative A (no action) describes the continuation of existing management and trends and serves as the basis for evaluating the other alternatives. The three action alternatives (Alternative B, the NPS Preferred Alternative, and Alternative F) present a spectrum of off-road vehicle opportunities, proposed wilderness, and visitor facilities.

A *Draft General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement* was distributed to other agencies, interested organizations, and individuals for their review and comment. Changes and clarifications were made to the plan in response to comments received. Following distribution of the final plan and a 30-day no-action period, a “Record of Decision” may be signed by the Preserve superintendent and the NPS regional director documenting the NPS selection of an alternative for implementation.

For further information on this plan, contact Big Cypress National Preserve headquarters at 33100 Tamiami Trail East, Ochopee, FL 34141-1000, (239) 695-2000.

SUMMARY

INTRODUCTION

Big Cypress National Preserve was authorized by an act of Congress on October 11, 1974, (Public Law 93-440) with a boundary surrounding 582,000 acres. That act was amended on April 29, 1988, when Congress passed the Big Cypress National Preserve Addition Act (Public Law 100-301), hereafter referred to as the Addition Act, to expand the Preserve boundary by about 147,000 acres. The expansion area is referred to as the Addition.

The National Park Service (NPS) finalized a *General Management Plan* for the Preserve in 1991. That plan addressed only the original Preserve and contained no guidance for the Addition.

The National Park Service began administration of the Addition in 1996. The Addition has been closed to public recreational motorized use and hunting since that time; the only public uses that are currently allowed are hiking, camping, bicycling, fishing, and frogging. No comprehensive planning effort has been conducted for the Addition. A plan is needed to clearly define resource conditions and visitor experiences to be achieved in the Addition. The plan will provide a framework for NPS managers to use when making decisions about how to best protect Addition resources, identify appropriate areas for visitor access and facilities, and determine how the National Park Service will manage its operations in the Addition area.

This *Final General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement* presents four alternatives, including the National Park Service's preferred alternative, for future management of the Addition. The alternatives, which are based on the Preserve's purpose, significance, and special mandates,

present different ways to manage resources and visitor use and improve facilities and infrastructure in the Addition. The four alternatives include the "no-action" alternative (alternative A), which describes the continuation of current management direction, and three "action" alternatives (alternative B, the preferred alternative, and alternative F).

Additional alternatives (alternatives C, D, and E) and actions were considered. However these alternatives and actions were dismissed from further detailed analysis. These dismissed alternatives and actions are presented, along with the rationale for dismissing them, in the "Alternatives, Including the Preferred Alternative" discussion in chapter 2.

ALTERNATIVE A: THE NO-ACTION ALTERNATIVE (CONTINUE CURRENT MANAGEMENT)

The no-action alternative describes a continuation of existing management and trends in the Addition and provides a baseline for comparison in evaluating the changes and impacts of the other alternatives. The National Park Service would continue to manage the Addition as it is currently being managed. The Addition would remain closed to public recreational motorized use and motorized hunting, and only minor new construction (other than the MM51 and MM63 access points) would be authorized to accommodate visitor access, primarily for hiking and biking. Existing operations and visitor facilities would remain in place. Natural ecological processes would be allowed to occur, and restoration programs would be initiated where necessary. No wilderness would be proposed for designation.

The key impacts of continuing existing management conditions and trends would

SUMMARY

include minor to moderate adverse localized impacts on surface water flow; moderate long-term adverse impacts on visitor use and experience; and minor to moderate impacts on NPS operations and management.

ALTERNATIVE B

The concept for management under alternative B would be to enable visitor participation in a wide variety of outdoor recreational experiences. It would nearly maximize motorized access, provide the least amount of proposed wilderness, and develop limited new hiking-only trails. The entire off-road vehicle (ORV) trail system would be implemented without the benefit of phased establishment and the assessment of monitoring results. New visitor and operations facilities along the I-75 corridor would also be provided.

The key impacts of implementing alternative B would include moderate, long-term, adverse, and mostly localized impacts on surface water flow; long-term, moderate, adverse and potentially Addition-wide impacts on exotic/nonnative plants; long-term, moderate, adverse and mostly localized impacts on (likely to adversely affect) the Florida panther; long-term, minor to moderate, adverse and mostly localized impacts on (likely to adversely affect) the red-cockaded woodpecker; long-term, minor to moderate, adverse and mostly localized impacts on major game species; long-term, moderate, beneficial and Addition-wide impacts on wilderness resources and values; long-term, moderate, and beneficial impacts on visitor use and experience; and long-term, moderate and beneficial and adverse impacts on NPS operations and management.

PREFERRED ALTERNATIVE

The preferred alternative would provide diverse frontcountry and backcountry recreational opportunities, enhance day use

and interpretive opportunities along road corridors, and enhance recreational opportunities with new facilities and services. This alternative would provide substantial ORV access, provide a moderate amount of proposed wilderness, provide nonmotorized trail opportunities and new camping opportunities, and develop a partnership approach to visitor orientation.

Implementation of the ORV trail system would be phased to ensure protection of sensitive species and the environment. Areas that were found to be eligible for wilderness designation but were not proposed as wilderness would be protected through management zoning that would maintain and protect natural values. New visitor and operations facilities along the I-75 corridor would also be provided.

The key impacts of implementing the preferred alternative would include moderate, long-term, adverse, and mostly localized impacts on surface water flow; long-term, moderate, adverse and potentially Addition-wide impacts on exotic/nonnative plants; long-term, moderate, adverse and mostly localized impacts on (likely to adversely affect) the Florida panther; long-term, minor to moderate, adverse and mostly localized impacts on (likely to adversely affect) the red-cockaded woodpecker; long-term, minor to moderate, adverse and mostly localized impacts on major game species; long-term, moderate, beneficial and Addition-wide impacts on wilderness resources and values; long-term, moderate, and beneficial effects on visitor use and experience; and long-term, moderate, and beneficial and adverse impacts on NPS operations and management.

ALTERNATIVE F

Alternative F would emphasize resource preservation, restoration, and research while providing recreational opportunities with limited facilities and support. This alternative would provide the maximum amount of

wilderness, no ORV use, and minimal new facilities for visitor contact along I-75.

The key impacts of implementing the alternative F would include minor, beneficial, long-term, and mostly localized impacts on surface water flow; long-term, minor, adverse, and mostly localized impacts on (not likely to adversely affect) the Florida panther; long-term, major, beneficial, and Addition-wide impacts on wilderness resources and values; long-term, minor, beneficial impacts on visitor use and experience; and long-term, moderate and beneficial and adverse impacts on NPS operations and management.

THE NEXT STEPS

This *Final General Management Plan / Wilderness Study / Off-road Vehicle*

Management Plan / Environmental Impact Statement includes comment letters from governmental agencies, any substantive comments on the draft document, and NPS responses to those comments. The final plan also includes changes and clarifications made to the document in response to comments received. Following distribution of the final plan and a 30-day no-action period, a “Record of Decision” may be signed by the Preserve superintendent and the NPS southeast regional director and published in the *Federal Register*. The “Record of Decision” documents the NPS selection of an alternative for implementation. With the signed “Record of Decision,” the plan can then be implemented, depending on funding and staffing. However, a “Record of Decision” does not guarantee funds and staff for implementing the approved plan.

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A GUIDE TO THIS DOCUMENT

This integrated *Final General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement* is organized in accordance with the Council on Environmental Quality's implementing regulations for the National Environmental Policy Act, the National Park Service's *Management Policies 2006*, and Director's Order #12 on "Conservation Planning, Environmental Impact Analysis, and Decision Making".

Chapter 1: Introduction sets the framework for the entire document. It describes why the document is being prepared and what needs it must address. Chapter 1 gives guidance for the alternatives that are being considered, which is based on the Addition's legislation, its purpose, the significance of its resources, special mandates and administrative commitments, guiding principles for management, and other planning efforts in the area. The chapter also details the planning opportunities and issues that were raised during public scoping (see inset box below) meetings and initial planning team efforts; the alternatives in the next chapter address these issues and concerns to varying degrees. This chapter concludes with a statement of the scope of the environmental impact analysis — specifically what impact topics were or were not analyzed in detail.

*The primary goal of **scoping** is to identify issues and determine the range of alternatives to be addressed. During scoping, the NPS staff provides an overview of the proposed project, including purpose and need and alternatives. The public is asked to submit preliminary comments, concerns, and suggestions relating to these goals.*

Chapter 2: Alternatives, Including the Preferred Alternative, begins by describing the management zones that would be used to manage the Addition in the future. Alternative A, the no-action alternative (continuation of current management and trends in the Addi-

tion) is described, followed by alternative B, the preferred alternative, and then alternative F. Information on user capacity, adaptive management, ORV administration and management, and wilderness is then presented, which applies to all of the action alternatives. Mitigative measures proposed to minimize or eliminate the impacts of some proposed actions are described just before the discussion of future studies and/or implementation plans that will be needed. The determination of the environmentally preferred alternative is followed by summary tables of the alternative actions and the environmental consequences (based on information in chapter 4) of implementing those alternative actions. The chapter concludes with a discussion of alternatives or actions that were considered but dismissed from detailed evaluation.

Chapter 3: The Affected Environment describes those areas and resources that would be affected by implementing actions in the various alternatives — cultural resources, natural resources, visitor use and experience, the socioeconomic environment, and NPS operations and facilities.

Chapter 4: Environmental Consequences analyzes the impacts of implementing the alternatives on topics described in chapter 3. Methods that were used for assessing the impacts in terms of the intensity, type, and duration of impacts are outlined at the beginning of the chapter.

Chapter 5: Consultation and Coordination describes the history of public and agency coordination during the planning effort and any future compliance requirements; it also lists agencies and organizations who will be receiving copies of the document.

Appendixes, Selected References, a list of **Preparers and Consultants**, and the **Index** are found at the end of the document.

CHAPTER 1



INTRODUCTION

BACKGROUND AND BRIEF DESCRIPTION OF THE ADDITION

Why We Do General Management Planning

The National Parks and Recreation Act of 1978 requires each unit of the National Park Service (NPS) to have a general management plan (GMP), and NPS *Management Policies 2006* states “[t]he Park Service will maintain a general management plan for each unit of the national park system” (2.3.1 General Management Planning). But what is the value, or usefulness, of general management planning?

The purpose of a general management plan is to ensure that a national park system unit has a clearly defined direction for resource preservation and visitor use to best achieve the National Park Service’s mandate to preserve resources unimpaired for the enjoyment of future generations. In addition, general management planning makes the National Park Service more effective, collaborative, and accountable by

- providing a balance between continuity and adaptability in decision making — Defining the desired conditions to be achieved and maintained in a park unit provides a touchstone that allows NPS managers and staff to constantly adapt their actions to changing situations while staying focused on what is most important about the park unit.
- analyzing the park unit in relation to its surrounding ecosystem, cultural setting, and community — This helps NPS managers and staff understand how the park unit can interrelate with neighbors and others in ways that are ecologically, socially, and economically sustainable. Decisions made within such a larger context are more likely to be successful over time.
- affording everyone who has a stake in decisions affecting a park unit an opportunity to be involved in the planning process and to understand the decisions that are made — National park system units are often the focus of intense public interest. Public involvement throughout the planning process provides focused opportunities for NPS managers and staff to interact with the public and learn about public concerns, expectations, and values. Public involvement also provides opportunities for NPS managers and staff to share information about the park unit’s purpose and significance, as well as opportunities and constraints for the management of park unit lands.

The ultimate outcome of general management planning for national park system units is an agreement among the National Park Service, its partners, and the public on why each area is managed as part of the national park system, what resource conditions and visitor experience should exist there, and how those conditions can best be achieved and maintained over time.

BACKGROUND

This *Final General Management Plan / Environmental Impact Statement* presents and analyzes four alternative future directions for the management and use of the Big Cypress National Preserve Addition —hereafter referred to as the Addition. The potential

environmental impacts of all alternatives are also identified and assessed.

General management plans are intended to be long-term documents that establish and articulate a management philosophy and framework for decision-making and problem solving in the parks. This *General*

Management Plan will provide guidance for the Addition for the next 15 to 20 years.

Actions directed by general management plans or in subsequent implementation plans are accomplished over time. Budget, requirements for additional data or regulatory compliance, and competing national park system priorities could determine the timing of many actions. Major or especially costly actions could be implemented 10 or more years into the future.

BRIEF DESCRIPTION OF THE ADDITION

The Addition, located in Collier County, Florida, was established in 1988 (PL 100-301; see appendix A) as part of Big Cypress National Preserve. The Addition is about 147,000 acres and consists of two separate areas — the Northeast Addition and the Western Addition (see Map 1: Region/Vicinity). Most of the lands, about 128,000 acres in the Northeast Addition, are northeast of the original Preserve boundary. The Western Addition is an approximately 1-mile strip of land (approximately 19,000 acres) between State Road 29 (hereafter referred to as SR 29) and the western boundary of the original Preserve. When unspecified, the “Addition” refers to lands in both areas. The Addition includes private lands (inholdings), some of which are exempt from NPS acquisition.

The Addition is part of the Big Cypress Swamp, which covers more than 2,400 square miles of southern Florida. First-time visitors to the area see a flat, wet, primitive land. The area was named Big Cypress because of its extent, not because of the size of its trees, and 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. Wildlife is abundant; great blue herons, kingfishers, and alligators line the roadside canals and give

visitors an exciting visual focus. On the whole, first impressions are likely to be of an inhospitable land, with no firm ground beyond the highway shoulders.

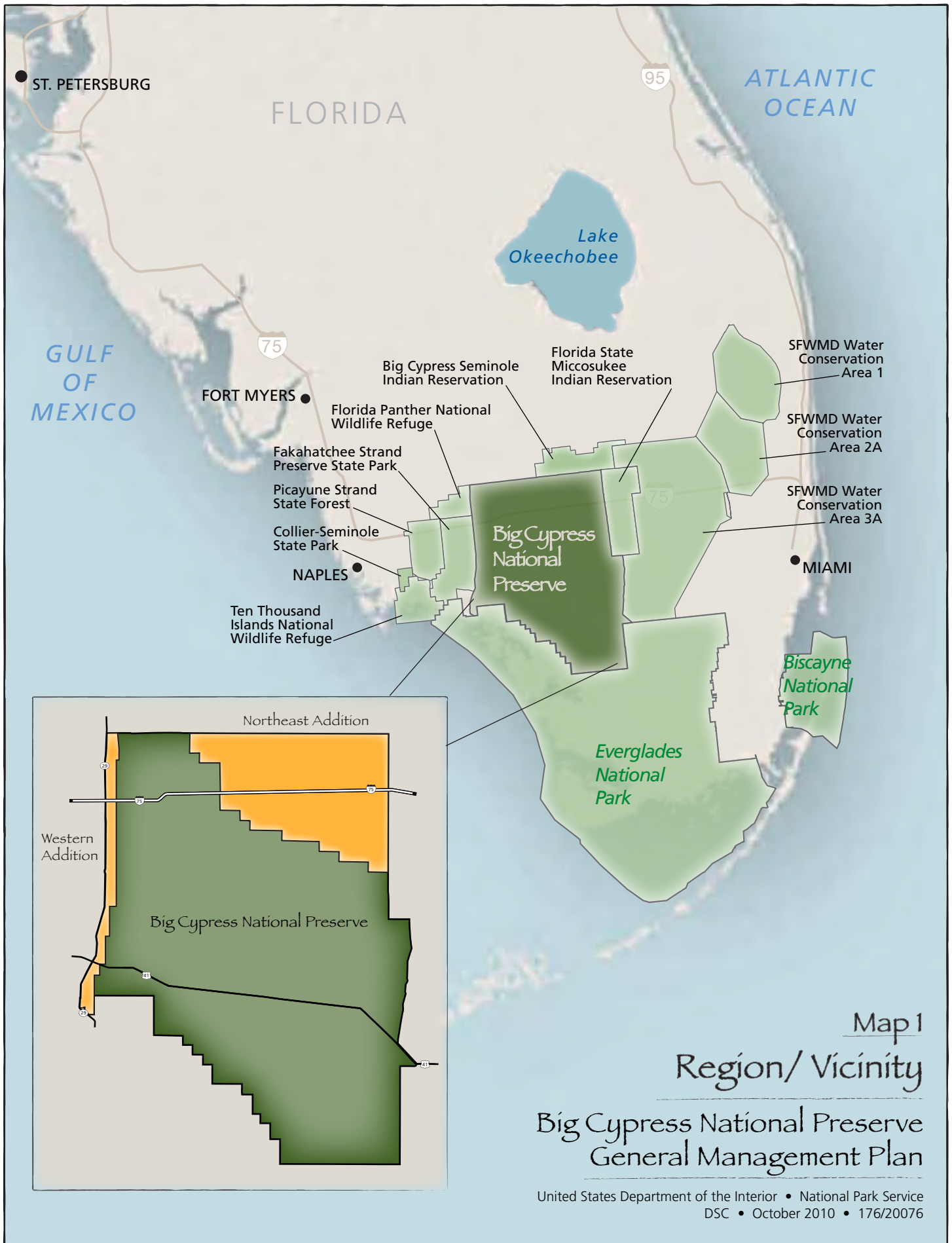
Naturalists study the area's rich natural history and its delicate ecological balances. And some Miccosukee and Seminole Indians who make their homes in the area depend on the Addition's resources for food, shelter, and spiritual needs.

For all of these people and the visitors, however, the Addition must be experienced on its own terms. It never becomes too familiar, and getting lost, stuck, or broken down is part of the challenge of this formidable land.

Natural Resources

Water is a principal natural resource of the entire south Florida region, and most of the Addition is flooded during the wet season. Because of the high annual rainfall (mean annual precipitation is 54 inches, with about 75% falling during the summer) and the flat limestone topography (a seaward slope of about 2 inches per mile), the inundation lasts for several months beyond the actual rainfall period (Duever et al. 1986a). Because the Addition is relatively undeveloped, it serves as a large natural reservoir and nutrient filter, permitting natural biological processes to nourish diverse ecological communities that are distinctive to southern Florida. In the Northeast Addition the water flows in a southeasterly direction towards the water conservation areas throughout the wet season. The ecology of the Addition is finely tuned to the seasonal flow of water, and any hydrologic changes can alter this sensitive subtropical habitat.

Extensive prairies and marshes, forested swamps, pinelands, and shallow sloughs characterize the Addition. The hydroperiod, the amount of time each year that soils are saturated, is the major determinant of



vegetative communities, and a difference of only a few inches in elevation changes the hydroperiod and leads to the establishment of totally different plant communities. At one time Big Cypress contained pristine cypress strands and old-growth pinelands, but by 1950 virtually all the cypress strands of commercial value and much of the pinelands within the Addition had been logged. The young cypress strands, mixed-hardwood swamps, and pinelands in the Addition today are still recovering. Big Cypress is also noted for its widespread cypress prairies — natural grasslands dotted with stunted cypress trees.

Most wildlife species native to south Florida occur within the Big Cypress watershed. A total of 31 animal species in the Addition receive some level of special protection by the federal government or the state of Florida. Most of these species are limited to south Florida, and they are declining as a result of habitat reduction caused by water management projects, urbanization, and agricultural expansion.

Nine of the 31 species mentioned above are listed as either federally endangered or threatened and reside in the Preserve — 8 of those 9 are known to be present in the Addition. The state lists 14 species as species of special concern. One of the United States' most endangered mammals, the Florida panther (*Puma concolor coryi*), is the subject of an intensive recovery effort throughout the region, including the Addition.

Cultural Resources

The Preserve and the Addition are located within the Glades region (an area defined by hardwood and pinewood hammocks, sawgrass, and dwarf cypress interspersed with shallow freshwater marshes and prairies) of south Florida. The limited vegetation of this region is a result of thin soils underlain by limestone bedrock. This region also includes the Everglades, portions of the Atlantic coast,

the Ten Thousand Islands, and the Florida Keys. Human habitation of the Glades region can be traced back to the late Pleistocene or Lithic era.

The prehistoric periods of human culture represented by sites in south Florida include (1) the Paleo-Indian period (10,000–8,000 BC), (2) the Archaic period, (which spanned roughly 8,000 BC to 500 BC), and (3) the Glades Tradition (which extends into the historic period, spanning 500 BC to AD 1760).

The historic periods of human culture begin with the initial Spanish contact in 1513 and continue through the 20th century and the creation of Big Cypress National Preserve.

Evidence of Paleo-Indian human habitation is rare in south Florida, and none has been found within the Addition. In all likelihood, most sites associated with the Paleo-Indians of this era are submerged beneath the state's coastal waters. However, at least one area within the Addition, Deep Lake (a sinkhole), has the potential for association with this prehistoric period.

Fifty-seven archeological sites have been identified in the Addition. These resources are associated with the Archaic and Glades periods in the Addition's cultural chronology. Most of these sites are earth middens, which are refuse piles commonly made up of cultural artifacts and faunal remains.

Based on the archeological evidence, Big Cypress was used year-round by early inhabitants for transitory hunting and gathering. Agriculture was apparently insignificant, perhaps because rich plant, fish, and animal food sources were available. Land animals and seafood were the primary sources of protein. Early cultures in the Big Cypress were not as highly developed as other cultures in the Southeast, possibly because people relied on wild food sources rather than cultivating crops, and the foods, especially shellfish, were not easily preserved and stored for later use.

Consequently, only a few large, relatively permanent settlements have been identified.

Today, Seminole and Miccosukee Indians live in the Preserve, including the Addition, and also use these lands as a source of natural materials for housing, crafts, and other cultural and religious uses.

Development and Use

Currently, the Addition is closed to hunting and public recreational motorized use (with the exception of motorized boating in the Everglades City area) — only hiking, camping, bicycling, fishing, and frogging are permitted. Recreational activities allowed in the original Preserve include hunting and fishing, off-road vehicle (ORV) use, hiking, boating and paddling, bicycling, and camping; these same types of activities could be allowed in the Addition.

The principal hiking trail in the Addition is the Florida National Scenic Trail, which uses a temporary route along Nobles Grade and continues north onto Seminole land. It also extends south from I-75 into the original Preserve.

NPS development in the Addition is limited to the Fire Operations Center off SR 29 at Copeland, a fire cache at Deep Lake, and the facilities at Carnestown, which are leased to the Collier County Sheriff's Office and the Everglades City Chamber of Commerce. No formalized/developed access to the Addition currently exists; temporary access is being provided at Interstate 75 (I-75) mile marker 51, Bear Island Grade, and the Florida Department of Transportation rest area at the I-75 mile marker 63. See Map 2: The National Preserve.

South Florida has been the site of oil exploration since 1930. The first productive well was

drilled in 1943 immediately northwest of the Addition on the Sunniland trend, a productive oil and gas area that crosses the Addition. Subsequent discoveries have followed a northwest-southeast orientation along the northern and eastern boundaries of the Addition, ending at the northern boundary of Everglades National Park. Bear Island and Raccoon Point are the two major producing oil fields in the original Preserve. The relatively recent discoveries of oil and gas both within and adjacent to the Addition have prompted interest in additional testing, including geophysical exploration and exploratory drilling. Most mineral rights and subsurface estates remain with the respective private or state interests.

Landownership

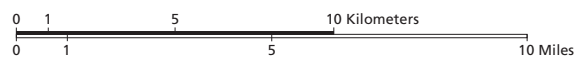
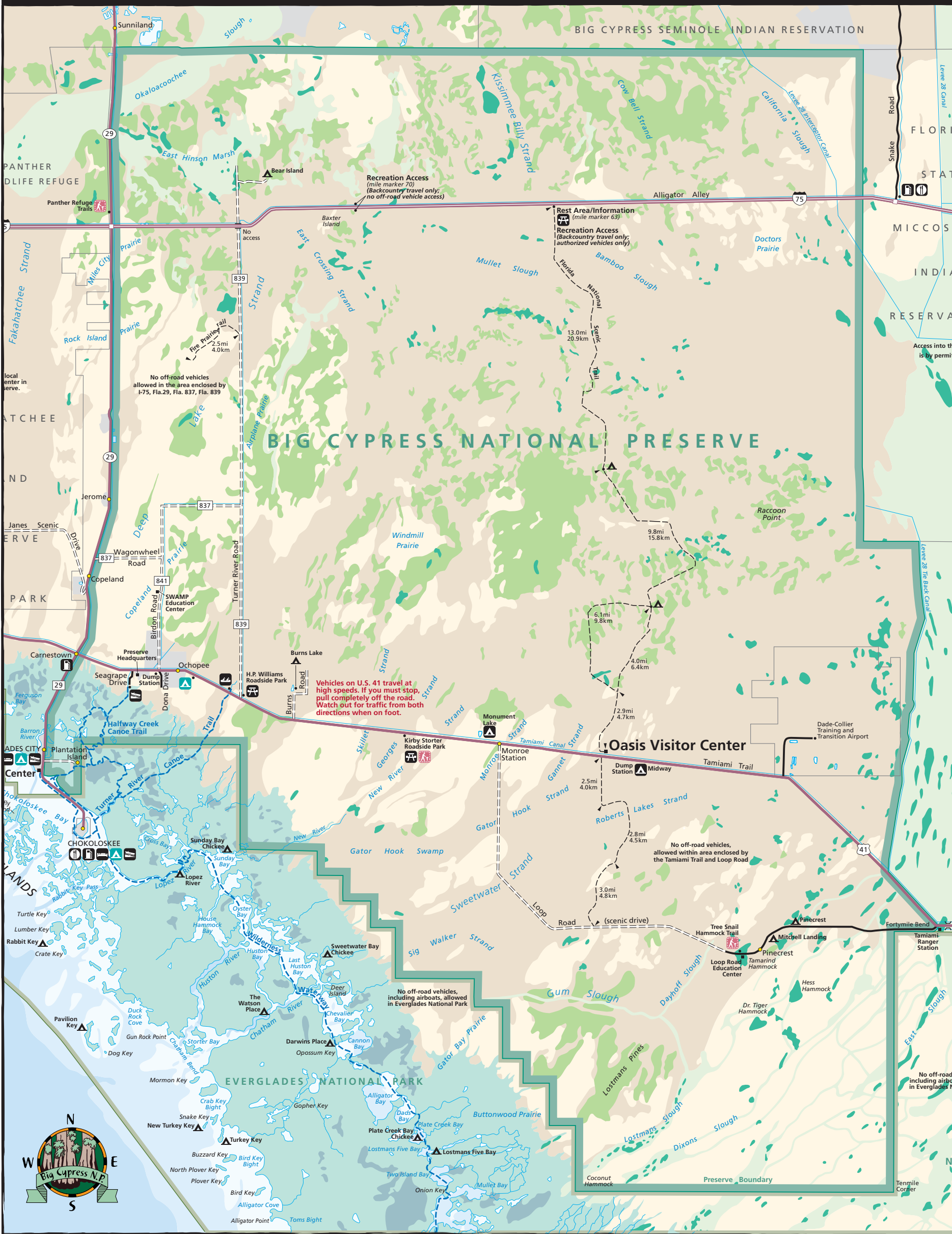
The Addition boundary encompasses about 147,000 acres, and the National Park Service owns about 112,400 acres in the Addition. Nonfederal land in the Addition is owned by the Florida Department of Transportation (about 27,236 acres), the Board of Trustees of the Internal Improvement Trust Fund (3,500 acres), and the Florida State School Board (1,920 acres). There are about 217 privately owned tracts throughout the Addition. Some of these will be classified as improved properties in accordance with the Addition Act, and as such they would be considered acquisition deferred (exempt) unless owners are willing to sell or uses on the land could be detrimental to the purposes of the Addition. About 75 acquisition-deferred, 3-acre parcels are expected to remain.

The state of Florida has agreed to transfer the lands that they own in the Addition to the National Park Service. The land transfer is currently pending and is expected to take place in the future.

Big Cypress National Preserve

Color key to ecosystems

Cypress	Freshwater Marl Prairie	Mangrove
Hardwood Hammock	Freshwater Slough	Marine and Estuarine
Pineland	Coastal Marsh	Developed or disturbed land



- | | | | |
|--|------------------------------|--------------------|--|
| Interpretive trail | Picnic area | Unpaved road | Water depths 0-3 feet (0-1 meter) |
| National Park Service campground | Lodging | Hiking trail | Water depths 3-6 feet (1-2 meters) |
| National Park Service primitive campsite | Food service | Distance indicator | Water depths more than 6 feet (more than 2 meters) |
| State Park campground | Gas station | | |
| Private campground | Boat launch and canoe launch | | |
| | Canoe launch | | |

Map 2 The National Preserve Big Cypress National Preserve General Management Plan

United States Department of the Interior • National Park Service
DSC • October 2010 • 176/2077

PURPOSE AND NEED FOR THE PLAN

PURPOSE OF AND NEED FOR THE GENERAL MANAGEMENT PLAN

As outlined above, the Addition was established in 1988. Under the provisions of the Arizona-Florida Land Exchange, authorized by Public Law 100-696, the United States acquired approximately 108,000 acres of environmentally sensitive land in southwest Florida, and in return the Collier companies received 68 acres of property in downtown Phoenix, Arizona. The Florida lands acquired by the United States in the exchange serve as additions to the Big Cypress National Preserve and the Florida Panther National Wildlife Refuge, and created the Ten Thousand Islands National Wildlife Refuge. As part of the overall public lands effort, the state of Florida was required to contribute 20% of the value of the land to be acquired within the expanded Big Cypress National Preserve.

This general management plan for the Addition is needed because no comprehensive planning effort has ever been conducted for this area of the Preserve. A *General Management Plan* was completed for the Preserve in 1991, but that plan addressed only the original portion of the Preserve and contained no guidance for the Addition because the Addition was in private ownership until it was acquired and transferred to the National Park Service in 1996. The plan is needed to provide direction on how the National Park Service will accommodate and manage visitor access, manage resources, and manage its operations within the Addition. The scope of this general management plan is the Addition only.

A general management plan also is needed to meet the requirements of the National Parks and Recreation Act of 1978 and NPS policy, which mandate development of a general management plan for each unit in the national park system.

When approved, this *General Management Plan* will be the basic document for managing the Addition for the next 15 to 20 years. The purposes of this management plan are as follows:

- Confirm the purpose, significance, and special mandates of the Big Cypress National Preserve Addition.
- Clearly define resource conditions and visitor uses and experiences to be achieved in the Addition.
- Provide a framework for NPS managers to use when making decisions about how to best protect Addition resources, how to provide quality visitor uses and experiences, how to manage visitor use, and what kinds of facilities, if any, to develop in or near the Addition.
- Ensure that this foundation for decision-making has been developed in consultation with interested stakeholders and adopted by the NPS leadership after an adequate analysis of the benefits, impacts, and economic costs of alternative courses of action is completed.

Legislation establishing the National Park Service as an agency and governing its management provides the fundamental direction for the administration of the Addition and other units and programs of the national park system. This *General Management Plan* will build on these laws and the legislation that established the Big Cypress National Preserve Addition to provide a vision for its future. The “Guidance for the Planning Effort” section calls the reader’s attention to topics that are important to understanding the management direction for the Addition. The alternatives in this *General Management Plan* address the desired conditions that are not mandated by law and policy and must be determined through a planning process.

A general management plan does not describe how particular programs or projects should be prioritized or implemented. Those decisions will be addressed in future, more detailed planning efforts. All future plans will tier from the approved general management plan. Unlike typical general management plans, this management plan includes a wilderness study and an ORV management plan.

PURPOSE AND NEED FOR THE WILDERNESS STUDY

A wilderness study of the Addition was required by the enabling legislation for Big Cypress National Preserve (Public Law 93-440), as amended by the Addition Act (Public Law 100-301):

[T]he 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 nonsuitability of any area within the preserve or the area within the Addition (as the case may be) 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.

No wilderness study of the Addition has previously been completed. This wilderness study provides a public forum for evaluating lands within the Addition for possible recommendation to Congress for inclusion in the national wilderness preservation system. Wilderness, which can be designated only by Congress, provides for permanent protection of lands in their natural condition. The wilderness study is included as part of this *General Management Plan* because of public interest and timeliness. A wilderness study may be a separate document accompanied by an environmental impact statement, or it may

be part of a general management plan / environmental impact statement.

Incorporating the wilderness study in this *General Management Plan / Environmental Impact Statement* provides efficiencies of time and money because the two processes have similar legal requirements and public involvement needs.

Public comment has indicated significant interest in the possible designation of wilderness in the Addition. Many believe that in the interest of protecting endangered species such as the Florida panther, the entire Addition should be designated wilderness, thereby excluding the use of motorized vehicles. Others maintain that none of the Addition qualifies as wilderness, and thus motorized use should be allowed. Because of the requirements of law and the implications that a wilderness recommendation would have on public use and management of the Addition, a wilderness study is needed.

The first step of this wilderness study was to conduct a formal evaluation, known as a wilderness eligibility assessment, of lands in the Addition that are eligible for wilderness consideration, i.e., that meet the criteria for wilderness as described in the Wilderness Act. State-owned lands within the Addition were evaluated with permission. To conduct this assessment, interdisciplinary teams of NPS staff reviewed current data, visited key areas of the Addition during 2006, and obtained additional field data. A workshop of NPS staff was conducted in July 2006 to evaluate wilderness characteristics of the Addition. After the approximately 109,000 acres of wilderness-eligible lands were identified, the next step was to determine which of these lands, if any, should be incorporated into each of the action alternatives in this document. The final step was to evaluate the impacts of the various wilderness proposals set forth in the alternatives. This process was completed by an interdisciplinary team of NPS staff from the Preserve, Southeast Regional Office, Denver Service Center, and the Wilderness

Stewardship and Recreation Management Division (Washington, D.C. program office). The results of the eligibility assessment and lands proposed for wilderness in the preliminary alternatives were shared with the public in a newsletter and were included in the *Draft General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement*. Public meetings were also held to provide members of the public opportunities to contribute and comment.

Based on the public comment received on the wilderness study included in the *Draft General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement*, the National Park Service reevaluated the eligibility of the Addition in February 2010. The revised eligibility assessment and final wilderness eligibility determination found that 71,260 acres are eligible for wilderness designation (see appendix B).

Wilderness studies typically result in a recommendation to Congress to designate all, some, or none of the lands possessing wilderness character as part of the national wilderness preservation system. Based on the wilderness study included in this document, the National Park Service will prepare a proposal for such a recommendation to forward to the U.S. Department of the Interior. This proposal will be based on the proposed wilderness incorporated in the selected alternative and documented in the “Record of Decision.”

PURPOSE AND NEED FOR THE ORV MANAGEMENT PLAN

The purpose of the ORV (off-road vehicle) management plan is to provide guidance on how to manage motorized recreational ORV use in the Addition. The plan provides direction on use levels, suitable locations to develop ORV trails, and details on permitting and managing off-road vehicles and permits.

An ORV management plan is needed because the Addition Act calls for some level of public recreational access, and the National Park Service currently does not have a plan in place to meet this mandate. This plan, under alternative B and the preferred alternative, will provide direction that would allow the National Park Service to develop ORV opportunities in the Addition while meeting its responsibilities for resource protection. Through the process of this GMP planning effort, about 135 miles of trails in the Addition were found to be suitable and sustainable for ORV use (see Map 7: Conceptual ORV Trails on page 105)

This plan addresses ORV administration and management in the Addition. Issues related to numbers of permits issued, miles of trail designated, and overall ORV management are evaluated solely with respect to the Addition rather than the original Preserve as a whole. The reason for this approach is that the National Park Service has already evaluated ORV use and associated impacts in the original Preserve. See the *Final Recreational Off-road Vehicle Management Plan / Supplemental Environmental Impact Statement* (2000). To have addressed integrated ORV use over the entire Preserve in the present document would have necessitated expanding the environmental impact statement to cover the entire Preserve. The result would have been significant delays stemming from a greatly expanded planning effort and related environmental analysis. It should be noted, however, that the analysis in this document for the Addition does include an analysis of cumulative impacts associated with ORV use. This analysis includes a consideration of impacts to — and from — lands outside the Addition.

THE NEXT STEPS

This *Final General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement* includes comment letters from

governmental agencies, any substantive comments on the draft document, and NPS responses to those comments. Following distribution of the final plan and a 30-day no-action period, a “Record of Decision” may be signed by the Preserve superintendent and the NPS regional director and published in the *Federal Register*. The “Record of Decision” documents the NPS selection of an alternative for implementation. With the signed “Record of Decision,” the plan can then be implemented.

IMPLEMENTATION OF THE PLAN

The implementation of the approved plan will depend on future funding. The approval of a

plan does not guarantee that the funding needed to implement the plan will be forthcoming. Full implementation of the approved plan could be many years in the future or may not occur if funding is not obtained.

The implementation of the approved plan also could be affected by other factors. Once the *General Management Plan* has been approved, additional legislation, additional feasibility studies, and more detailed planning and appropriate environmental documentation may be required before any proposed actions can be carried out. These more detailed plans would tier from this plan, describing specific actions managers intend to take to achieve desired conditions and long-term goals.

GUIDANCE FOR THE PLANNING EFFORT

DIRECTION FOR THE PLAN

The direction for the alternatives considered in this draft plan is based on the applicable legislative mandates (see appendix A), NPS policies, and the Preserve's purpose and significance. The purpose statements describe why Big Cypress was established as a national preserve. The significance section describes the unique qualities that make the Preserve a special place. Other legislative mandates help to further define the parameters of how planning should be done and certain elements that the plan must address.

Legislative mandates and special commitments include measures that apply to the entire national park system as well as Preserve-specific requirements. In addition, the National Park Service must comply with all federal statutes, executive orders, and NPS policies. The intent of all the mandates and commitments is to establish sustainable conservation and to preserve these lands. As a result, use can occur only to the extent that it does not result in significant adverse effects on the Preserve's natural and cultural resources.

National Park Service Mandates

The National Park Service and its mandates are authorized under the NPS Organic Act (16 USC 1, 2-4) and the General Authorities Act (16 USC 1a-8). The Organic Act directs the National Park Service to promote and regulate the use of the national park system units

by such means and measures as conform to the fundamental purpose of the said parks, . . . which purpose is to conserve the scenery, and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by

such means as will leave them unimpaired for the enjoyment of future generations.

The Redwood Act, passed in March 1978, amended the NPS Organic Act of 1916. In that act, Congress reaffirmed the mandates of the Organic Act and provided the following additional guidance for managing national park system units:

The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established.

According to Senate Report 95-528, the restatement of these principles of park management in the Redwood Act was intended to serve as the basis for any judicial resolution of competing private and public values and interests in the national park system. If a conflict between visitors' use of a park unit and the protection of resources should occur, this act confirms the intent of Congress to favor resource protection.

The National Park Omnibus Management Act of 1998 (PL 105-391), title II, "National Park System Resource Inventory and Management," supports the integration of scientific study into management practices. This act directs the Secretary of the Interior to take necessary steps to ensure the full and proper use of the results of scientific studies in making management decisions. In conformance with the 1998 act and the National Environmental Policy Act, this plan has attempted to make use of the best available scientific information.

Preserve Vision

The National Park Service envisions Big Cypress National Preserve as a nationally significant ecological resource — a primitive area where ecological processes are restored and maintained and cultural sites are protected from unlawful disturbance. Visitors will benefit from aesthetic gratification and relaxation in a natural setting, the challenge of exploring the landscape, the chance to test traditional backcountry skills, and the opportunity to learn more about the natural environment.

What is a National Preserve, and How Is It Different from a National Park?

The diversity of national park system units is reflected in the variety of titles given to them. These include designations such as national park, national preserve, national monument, national memorial, national historic site, national historical park, national seashore, and national battlefield park. Although some titles are self-explanatory, others have been used in many different ways.

Generally, a **national park** contains a variety of resources and encompasses large land or water areas to help provide adequate protection of the resources. A **national preserve** is established primarily for the protection of certain resources. Activities such as hunting and fishing or the extraction of minerals and fuels may be permitted if they do not jeopardize the natural values. Big Cypress and Big Thicket were authorized as the first national preserves in 1974. As with all units of the national park system, the enabling legislation that accompanies the authorization of a particular park system unit describes its purpose and provides the direction for its establishment and management.

Big Cypress National Preserve was established to protect the watershed values of the Big Cypress Swamp while allowing for the continuation of traditional uses (such as hunting, fishing, ORV use, and mineral extraction) in the area. The national preserve

designation of Big Cypress presents unique opportunities to integrate multiple uses with conservation and preservation — and that is what makes it so different from any other designation within the national park system.

Purpose and Significance Statements

Purpose Statements. Purpose statements are based on the Preserve’s legislation, legislative history, and NPS policies. The statements reaffirm the reasons for which the Preserve was set aside as a unit of the national park system and provide the foundation for Preserve management and use.

The purpose of Big Cypress National Preserve, as stated in the enabling legislation, 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.

Significance Statements. Significance statements capture the essence of the Preserve’s importance to our country’s natural and cultural heritage. Significance statements do not inventory Preserve resources; rather, they describe the Preserve’s distinctiveness and help to place the Preserve within its regional, national, and international contexts. Significance statements answer questions such as why are the Preserve’s resources distinctive? What do they contribute to our natural/cultural heritage? Defining the Preserve’s significance helps managers make decisions that preserve the resources and values necessary to accomplish the purpose of the Preserve.

The significance of Big Cypress National Preserve is as follows.

Big Cypress National Preserve, including the Addition, contains vestiges of primitive southwest Florida. It is significant as a unit of the national park system because it

- is a large wetland mosaic that supports a vast remnant of vegetation types found only in this mix of upland and wetland environments
- contains the largest strands of dwarf cypress in North America
- is habitat for the Florida panther and other animal and plant species that receive special protection or are recognized by the state of Florida, the U.S. government, or the Convention on International Trade in Endangered Species (CITES)
- provides opportunities for the public to pursue recreational activities in a subtropical environment
- is home to the Miccosukee Tribe of Indians of Florida and Seminole Tribe of Florida and sustains resources that are important to their cultures
- is a watershed that is an important component to the survival of the greater Everglades ecosystem

Primary Interpretive Themes

Based on the Preserve's purpose and significance, the following interpretive themes have been developed. Primary interpretive themes are the key stories, concepts, and ideas of a park unit. They are the groundwork that NPS staff will use for educating visitors about the Preserve and for inspiring visitors to care for and about the Preserve's resources. With these themes, visitors can form intellectual and emotional connections with Preserve resources and experiences. Subsequent interpretive planning may elaborate on these primary themes.

Although the following themes were written for the original Preserve, they will apply to the Addition after approval of this management plan.

Water — *Preserving the Big Cypress watershed is key to the survival of the south Florida ecosystem.*

- Fresh water flowing through the Big Cypress Swamp provides a steady supply of life-giving nourishment to the Ten Thousand Islands, a vital estuary system.
- Wetlands are one of the most endangered ecosystems in the world. Development, recreational use, and non-point source pollutants threaten the Big Cypress Swamp from all sides.
- Subtle geologic features influence water flow and vegetation patterns that, in turn, affect wildlife, fire frequency, and soil compaction.

Biological Diversity — *Acting as custodian for ecological and biological processes, Big Cypress National Preserve provides habitat and protection for a great diversity of plant and animal species.*

- The diversity of habitat types found in Big Cypress, from pinelands, mixed hardwood hammocks, wet prairies, dry prairies, and marshes to estuarine mangrove forests, provides for a diversity of plant and animal species.
- Rare subtropical and temperate plants and animals have retreated to this remaining stronghold. Rare orchids, Florida panthers, red-cockaded woodpeckers, and unusual ferns are found here and few other places in the world.
- The vast biological diversity existing in the Big Cypress National Preserve makes it one of the most unusual

natural areas in the world. The Big Cypress is a wetland interspersed with pine islands and hardwood hammocks. One may experience a variety of ecological communities as they are modified and characterized by the presence or absence of water, depending on the hydroperiod.

- Fire and living things have evolved together. Fire is responsible for sculpting the landscape. Prescribed fire returns nutrients to the ecosystem and prevents excessive fuel buildup.
- Exotic species such as melaleuca (*Melaleuca quinquenervia*), Brazilian pepper (*Schinus terebinthifolius*), Old World climbing fern (*Lygodium microphyllum*), water lettuce (*Pistia stratiotes*), hydrilla (*Hydrilla verticillata*), air potato (*Dioscorea bulbifera*), and Australian pine (*Casuarina equisetifolia*) threaten native plant communities. With no natural enemies, exotics multiply rapidly and crowd out native species.

Human/Culture — *Big Cypress National Preserve reveals stories from times long past and into the future, reflecting a pattern of changing culture and human involvement.*

- A rich history of human involvement with the swamp spans time. The Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida; escaped slaves; land speculators; timber harvesters; and hunters, fishermen, guides, cattlemen, and recreationists have all left their trails through the swamp.
- The establishment of Big Cypress National Preserve is a story of cooperation and conflict between various user groups to stop a threat to a treasured place.

Recreation/Multiuse — *Big Cypress National Preserve manages a spectrum of human, recreational, and commercial activities.*

- Big Cypress National Preserve provides an important oasis of wildness for recreation, reflection, and rejuvenation.
- Providing a unique environment with scenic vistas and wild areas, Big Cypress National Preserve hosts opportunities for human activities.
- Water birds, alligators, turkey, deer, raccoons, and many other creatures call the Big Cypress their own. With increasing development in south Florida, opportunities to view such wildlife are becoming rare.
- Allowed multiple uses make the Big Cypress National Preserve different from other national park system units. Integrating multiple uses with conservation and preservation presents unique opportunities for Preserve management.
- Open space, quiet places, and wilderness are endangered in south Florida. Big Cypress National Preserve, along with other natural areas in the region, is vital to the quality of life in the state.
- The Big Cypress is a unique expanse of cypress-dominated scenery. A windshield tour across Alligator Alley or Tamiami Trail provides vast scenic vistas.

Special Mandates and Administrative Commitments

Special mandates and administrative commitments refer to specific legal requirements that apply directly to an individual national park system unit. These formal agreements are most often established concurrently in the unit's enabling legislation. Special

requirements for the Addition (PL 100-301) include the following:

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.

The Addition Act and its legislative history identify the following six categories of use that are allowed within the Addition, subject to reasonable regulation:

- uses associated with "improved properties"
- exercise of rights associated with oil and gas
- hunting
- fishing
- trapping
- certain Indian rights

The Addition Act further directs that rules and regulations necessary and appropriate to limit or control the following uses be developed:

- motorized vehicles
- exploration for and extraction of oil, gas, and other minerals
- grazing
- the draining or constructing of works or structures that alter natural watercourses
- agriculture
- hunting, fishing, and trapping
- new construction
- such other uses as may need to be limited or controlled

The Addition Act gives specific guidelines regarding the development of rules and regulations for hunting, fishing, trapping, and entry.

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.

The Senate and House reports (S. Rept. 93-1128 and H. Rept. 93-502) also give guidance as to how ORVs are to be managed. Although this guidance does not prohibit their use along designated roads and trails, it does say that the use of such vehicles must be carefully regulated to protect the natural, wildlife, and wilderness values of the Preserve (and thus the Addition).

The regulations in 36 CFR (*Code of Federal Regulations*) 7.86 (a)(2)(iii) mandate, among other things, consultation with the state of Florida before making a temporary or permanent closure of an area or route. The point of contact for the state is the executive director of the Florida Fish and Wildlife Conservation Commission.

The Addition Act also permits members of the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida, subject to reasonable regulations, to continue their usual and customary use and occupancy, including hunting, fishing, and trapping on a subsistence basis and traditional tribal ceremonies.

Regarding recreational access, the Addition Act states that

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 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).

One of these access points has been constructed at mile marker 71 and provides walk-in access to the original Preserve both north and south of I-75.

Regarding oil and gas exploration and development, the Addition Act states that

The Secretary shall promulgate . . . rules and regulations governing the exploration for development and production of non-Federal interests in oil and gas located within the boundaries of Big Cypress National Preserve and the Addition . . . 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 Addition were established.

Currently, oil and gas exploration in the Addition is managed in accordance with the “Agreement among the United States of America, Collier Enterprises, Collier Development Corporation, and Barron Collier Company” (Addition Lands Agreement) dated May 1988. A Preserve-wide oil and gas management plan is currently in preparation by the National Park Service. When completed, this plan will provide guidance for oil and gas exploration for the entire Preserve, including the Addition.

Regarding wilderness, the Addition Act says the following:

[T]he 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 nonsuitability of any area within the preserve or the area within the Addition (as the case may be) 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.

GUIDING PRINCIPLES FOR MANAGEMENT

A number of guiding principles and strategies for management are described below. These are based on legal mandates and NPS policies that would continue to shape the way in which the Addition is managed under the alternatives being considered in this plan. All the alternatives support the purposes and significance of Big Cypress National Preserve. Some of these principles and strategies describe approaches that NPS staff is currently taking. Other principles and strategies are not being implemented at present, but they are consistent with NPS policy, they are not controversial, and their implementation may not require additional analysis under the National Environmental Policy Act.

Cultural Resources

The protection of the Addition’s cultural resources is essential for understanding the past, present, and future relationship of people with the area. The strategies mentioned below will enable the National Park Service to protect the Addition’s

cultural resources. At the same time, these strategies will encourage visitors and employees to recognize and understand the value of the Addition's cultural resources and allow their integrity to be preserved unimpaired.

Archeological Resources, Historic Structures, Cultural Landscapes, and Ethnographic Resources. The strategies for managing archeological resources, historic structures, cultural landscapes, and ethnographic resources will be as follows:

- NPS staff will continue to survey and document or inventory cultural resources in accordance with the National Historic Preservation Act and other applicable regulations.
- Field data regarding archeological resources will be gathered to develop a more accurate predictive model of prehistoric site distribution and address related research questions.
- All identified resources will continue to be evaluated in accordance with the eligibility criteria for the National Register of Historic Places.
- Avoidance techniques and other measures will be used to prevent impacts on known significant sites from visitors and project-related disturbances.
- NPS staff will continue to support research and consultation to increase the understanding of all cultural resources.
- As appropriate, federally recognized tribes (the Miccosukee Tribe of Indians of Florida, the Seminole Tribe of Florida, and the Seminole Tribe of Oklahoma), the tribal historic preservation officers, and the state historic preservation officer will continue to be consulted on surveys, studies, excavations, and actions that potentially could affect cultural resources.
- Interpretive- and curricula-based programs and media will continue to educate visitors and the public about

cultural and historic issues relating to the Addition.

Museum Collections. Museum collections (prehistoric and historic objects, artifacts, works of art, archival material, and natural history specimens) would be acquired, accessioned and cataloged, preserved, protected, and made available for access and use according to NPS standards and guidelines.

Relationships with American Indians.

The National Park Service recognizes that the Big Cypress area has long occupied a prominent position for American Indians in southern Florida. NPS staff will work to ensure that traditional American Indian ties to the Big Cypress are recognized and will strive to maintain positive, productive government-to-government relationships with federally recognized tribes that are culturally affiliated with the Addition. The viewpoints and needs of tribes will continue to be respected, and issues that arise will be promptly addressed. American Indian values will be incorporated in the management and operation of the Addition. To enhance its relationship with the tribes, the National Park Service will carry out the following strategies and actions:

- Consult regularly and maintain government-to-government relations with federally recognized tribes that have traditional ties to resources within the Addition (the Miccosukee Tribe of Indians of Florida, the Seminole Tribe of Florida, and the Seminole Tribe of Oklahoma) to ensure productive, collaborative working relationships.
- Continue to identify and deepen the understanding of the significance of the Addition's resources and landscapes to American Indian people through collaborative research and sharing.
- Once they have been identified, protect and preserve the sites, resources, landscapes, and structures of

significance to the federally recognized tribes as required under federal laws and *NPS Management Policies 2006*.

- Encourage the participation of tribes in protecting the Addition's natural and cultural resources of interest and concern to them.
- Involve tribes in the Addition's interpretation program to promote accuracy of information about American Indian cultural values and to enhance public appreciation of those values.
- Support the continuation of traditional activities in the Addition by members of the Miccosukee and Seminole tribes to the extent allowed by applicable laws and regulations.

Natural Resources

The protection, study, and management of the Addition's natural resources and processes are essential for achieving the Addition's purpose and maintaining its significance. The following principles and strategies will help the National Park Service to retain the ecological integrity of the Addition, including its natural resources and processes. These actions will help ensure

- that the Addition's natural features are unimpaired,
- that the Addition continues to be a dynamic, biologically diverse environment, and
- that the Addition is recognized and valued as an outstanding example of resource stewardship, conservation, education, and public use.

Management activities will be evaluated to ensure that the best management practices are used to carry out the proposed action. This evaluation will determine the best method to use to ensure that management actions are completed in a manner that is best for the resource and is conducted in an

efficient manner. NPS administrative ORV use will be limited to what is determined to be necessary to conduct emergency operations and to accomplish essential NPS management activities.

Air Quality. The Addition is designated a class II area under the Clean Air Act. The Addition is currently within a designated attainment area (i.e., concentrations below standards) for criteria pollutants. The following policies and strategies will ensure that the Addition's air quality will be enhanced or maintained with no significant degradation and that scenic views are maintained.

- Emissions associated with administration of the Addition will be reduced.
- Baseline information about air-quality-related values will be expanded through research, inventory, and monitoring programs to identify human stressors and general air quality trends.
- The National Park Service will expand programs for sharing air quality information with surrounding agencies and will develop educational programs to inform visitors and regional residents about the threats of air pollution to preserve resources.
- The National Park Service will continue to participate in regional air quality planning, research, and the implementation of air quality standards.
- Fire management will be conducted in compliance with regional air quality standards, and efforts will be made to minimize the effects of smoke from prescribed fire activity.
- The National Park Service will protect views of the Addition's noteworthy night sky for resource purposes and for visitor enjoyment.

Ecosystem Management. Approaches to ecosystem management are varied and occur at many levels. To achieve the desired

conditions described for Addition resources, a regional perspective must be considered, and it must be recognized that actions taken on lands surrounding the Addition directly and indirectly affect the Addition. Many of the threats to Addition resources, such as water quality degradation and invasive species, come from outside Addition boundaries. An ecosystem approach is required to understand and manage the Addition's natural resources. An understanding of the health and condition of the ecosystem also is imperative.

Cooperation, coordination, and partnerships with agencies, tribal governments, and neighbors are crucial to meeting or maintaining the desired conditions for the Addition. This approach to ecosystem management may involve many parties or cooperative arrangements with federal and state agencies, tribes, or private landowners to obtain a better understanding of transboundary issues.

Big Cypress is managed holistically as part of a greater ecological, social, economic, and cultural system. The following strategies will allow the National Park Service to lead in resource stewardship and in the conservation of ecosystem values within and outside the Addition. These strategies will allow the National Park Service to maintain good relations with owners of adjacent property, surrounding communities, and private and public groups that affect and are affected by the Addition. The strategies also will allow proactive management of the Addition and will be designed to resolve external issues and concerns and to ensure that Addition values are not compromised.

- The National Park Service will continue its involvement in the implementation of the Comprehensive Everglades Restoration Plan.
- The National Park Service will continue to seek agreements with the South Florida Water Management District, the

Miccosukee Tribe of Indians of Florida, the Seminole Tribe of Florida, and other owners of adjacent property to protect the Big Cypress watershed.

- The National Park Service will continue to work cooperatively to manage nonnative species in the region.
- The National Park Service will continue to act as a partner with the research community to further the knowledge of the natural and cultural resources of the Addition.
- The National Park service will work to protect the values of marine and estuarine resources, including preservation of fundamental physical and biological processes.

Fire Management. Prescribed and wildland fire will be used as a tool to meet NPS management objectives. The following strategies will ensure that wildland fire will be used in an effective manner to protect Addition resources.

- The National Park Service will maintain a current fire management plan for the Preserve, including the Addition.
- NPS staff will collaborate with adjacent communities, groups, state and federal agencies, and tribes to manage fire in the Addition and the region.
- NPS staff will continue to support national, regional, and local fire management activities and provide public education on the role of fire management in its historic and ecological context.
- Fire will be used to maintain and restore native plant communities and control nonnative plant species.

Floodplains. Natural floodplain values will be preserved or restored. Long-term and short-term environmental effects associated with the occupancy and modification of floodplains will be avoided.

When it is not practicable to locate or relocate development or inappropriate human activities to a site outside the floodplain or where the floodplain will be affected, the National Park Service will

- prepare and approve a “Statement of Findings” in accordance with Director’s Order 77-2
- use nonstructural measures as much as practicable to reduce hazards to human life and property while minimizing impacts of floodplains on the natural resources
- ensure that structures and facilities are designed to be consistent with the intent of the standards and criteria of the National Flood Insurance Program (44 CFR 60)

Inventory and Monitoring. Knowing the condition of natural resources in a particular park unit is fundamental to the National Park Service’s ability to protect and manage it. The National Park Service is confronted with increasingly complex and challenging issues in the Addition, and NPS staff need scientifically credible data to make good management decisions. Inventories involve compiling existing information as well as collecting new information. Inventories contribute to a statement of the condition of Addition resources in relation to a standard condition, especially the natural or unimpaired state.

A long-term ecosystem monitoring program is necessary to enable managers to make better informed decisions, to provide early warning of changing conditions in time to develop effective mitigating measures, to convince individuals and other agencies to make decisions benefiting the Addition, to satisfy certain legal mandates, and to provide reference data for relatively pristine sites for comparison with areas outside the Addition. Monitoring also enables NPS staff to evaluate the effectiveness of management actions and obtain more accurate assessments of

progress towards management goals. Using monitoring information will increase confidence in managers’ decisions and improve their ability to manage Addition resources.

- Inventories and long-term monitoring programs will continue to be developed to address the status and health of Addition resources. Key indicators of resource or ecosystem conditions will be developed and monitored over the long term to record ecosystem health.
- Inventories will be conducted to identify vertebrate and invertebrate animal species, vascular and nonvascular plant species, and air and water resources in the Addition.
- The Addition will continue to participate in the South Florida/Caribbean Inventory and Monitoring Network. NPS staff will work with its partners, such as the Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service, and collaborators to inventory resources and monitor vital components of the ecosystem including the exchange of relevant natural resource data. This will make it possible to better assess the condition of Addition resources and trends and to develop databases, data analyses, and retrieval tools so that the usefulness of natural resource information can be improved.
- NPS staff will continue to cooperate with the National Park Service’s Fire Management Office in the ongoing fire effects monitoring. The monitoring will be used to determine if resource objectives are being met and if any unwanted effects are occurring.

Natural Sound. Natural sound predominates in the Addition. The acoustic environment is both a natural and cultural resource that is in a healthy and robust condition. Visitors have the opportunity throughout most of the Addition to experience natural sounds. The sounds of

modern society are generally confined to the areas near highways in the Addition.

- The National Park Service will protect the Addition's natural sounds for resource purposes and for visitor enjoyment.

Soil Resources. Soil resources are an essential component of ecosystem function and plant diversity in the Addition. The following policies and strategies will ensure that the Addition's soil resources are not significantly degraded.

- The National Park Service will allow natural geologic processes to proceed unimpeded.
- NPS staff will actively seek to understand and preserve the Addition's soil resources and prevent to the extent possible its physical removal or contamination.
- High-impact visitor use areas will be monitored, and actions will be taken to reduce impacts on soil resources.

Threatened or Endangered Species. The Endangered Species Act mandates that agencies, including the National Park Service, promote the conservation of all federally listed threatened or endangered species and their critical habitats on lands and in waters administered by the agency. Several federally listed and state-listed threatened or endangered species are known to exist in and around the Addition and to use habitats in the area. The following actions will be taken to protect threatened or endangered species.

- NPS staff will continue to work with the U.S. Fish and Wildlife Service, tribal governments, and the Florida Fish and Wildlife Conservation Commission to ensure that NPS actions help special status species (state-listed or federally listed threatened, endangered, rare, declining, sensitive, candidate, or special

concern species) to recover. If any state or federally listed or proposed threatened or endangered species are found in areas that would be affected by construction, visitor use, or restoration activities proposed under any of the alternatives in this plan, NPS staff will consult with the above agencies.

- NPS staff will cooperate with the agencies mentioned above to inventory, monitor, protect, and perpetuate the natural distribution and abundance of all special status species and their essential habitats in the Addition. These species and their habitats will be specifically considered in ongoing planning and management activities.
- The National Park Service will continue to be a partner with the U.S. Fish and Wildlife Service, American Indian tribes, Florida state agencies, and nongovernmental organizations in the recovery of the Florida panther, one of North America's most endangered mammals.
- Interpretive- and curricula-based education programs and media will continue to educate visitors and the public about NPS efforts to maintain native biodiversity.

Vegetation. Whenever possible, natural processes will be relied on to maintain native plants and plant communities. Communities will include the diverse species, genetic variability, plant associations, and successional stages representative of an ecologically functioning system in subtropical south Florida. The following actions will be taken to manage the Addition's vegetation.

- Plant communities will be inventoried to determine the species present and monitored to assess their condition. NPS staff will continue efforts to inventory rare plants.
- The National Park Service will continue efforts to eradicate invasive exotic (nonnative) plants in the Addition. NPS

staff will continue to work with other federal, state, and local agencies and private landowners to prevent the spread of exotic plant species into and out of the Addition.

- NPS staff will continue to use fire as a management tool for restoring and maintaining native plant communities.
- Interpretive and curricula-based programs and media will continue to educate visitors and the public about NPS efforts to restore native wetland vegetation and manage exotic plant species.

Water Resources and Wetlands. Surface water and groundwater will be protected, and water quality will be met or exceed all applicable water quality standards. To achieve these goals, the National Park Service will

- maintain baseline water quality and water stage monitoring programs
- maintain and operate NPS and NPS-permitted programs and facilities to avoid pollution of surface water and groundwater
- preserve and enhance the natural and beneficial values of wetlands
- conform with NPS management policies and Director's Order 77-1 concerning wetland protection
- maintain a "no net loss of wetlands" policy and strive to achieve a longer-term goal of net gain of wetlands across the national park system through the restoration of previously degraded wetlands
- avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative

- compensate for remaining unavoidable adverse impacts on wetlands by restoring wetlands that have been previously degraded

Wilderness. This document includes a wilderness study, and the alternatives included in the plan contain different amounts of land that are proposed for wilderness designation.

All the alternatives in this document have been developed to ensure that lands proposed for wilderness designation are managed in accordance with the mandates of the Wilderness Act, which defines wilderness character based on the following four criteria:

untrammeled — The Wilderness Act states that wilderness is "an area where the earth and its community of life are untrammeled by man," and "generally appears to have been affected primarily by the forces of nature." In short, wilderness is essentially unhindered and free from modern human control or manipulation. This quality is degraded by modern human activities or actions that control or manipulate the components or processes of ecological systems inside the wilderness.

natural — The Wilderness Act states that wilderness is "protected and managed so as to preserve its natural conditions." In short, wilderness ecological systems are substantially free from the effects of modern civilization. This quality is degraded by intended or unintended effects of modern people on the ecological systems inside the wilderness since the area was designated.

undeveloped — The Wilderness Act states that wilderness is "an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation," "where man himself is a visitor who does not remain" and "with

the imprint of man's work substantially unnoticeable." This quality is degraded by the presence of structures, installations, habitations, and by the use of motor vehicles, motorized equipment, or mechanical transport that increases people's ability to occupy or modify the environment.

solitude or a primitive and unconfined type of recreation — The Wilderness Act states that wilderness has "outstanding opportunities for solitude or primitive and unconfined type of recreation." This quality is about the *opportunity* for people to experience wilderness; it is not directly about visitor experiences per se. This quality is degraded by settings that reduce these opportunities, such as visitor encounters, signs of modern civilization, recreation facilities, and management restrictions on visitor behavior.

The National Park Service will adhere to the following strategies in the event that Congress designates wilderness in the Addition.

- Management decisions affecting wilderness will be consistent with the minimum requirement concept in accordance with federal laws and policies.
- A wilderness management plan will be developed that will guide the preservation, management, and use of the wilderness area. The plan would, among other elements, address desired future conditions, user capacity indicators and standards, and establish a monitoring program.
- The wilderness will be monitored to ensure that management actions and visitors do not unacceptably impact wilderness resources, values, and character as specified in an approved wilderness plan.

- Natural processes will be allowed to shape and control the wilderness ecosystems.
- Wilderness educational programs will be expanded to inform visitors about wilderness ethics and how to minimize their impacts on the Addition. "Leave No Trace" and "Tread Lightly" practices will be emphasized.
- Efforts will be expanded to ensure that wilderness features, such as natural soundscapes and views of the night skies, are not degraded.

Until such time as wilderness is designated by Congress, the National Park Service would manage those parts of the Addition eligible for wilderness designation in such a way as to maintain their wilderness character, in accordance with NPS policy.

Wildlife and Fish. The condition of wildlife and fish will be determined through baseline inventories and long-term monitoring programs. The following policies and strategies will ensure that the Addition's wildlife and fish are protected.

- NPS staff will seek to perpetuate the native animal life as part of the natural ecosystem. Minimizing human impacts on native animals will be emphasized, as will minimizing human influence on naturally occurring fluctuations of animal populations. Ecological processes will be relied on to control the populations of native species to the greatest extent practicable.
- The preservation of populations and habitats of migratory species inhabiting the Addition will be ensured. Whenever possible, NPS staff will cooperate with others to ensure the preservation of the populations and habitats of migratory species outside the Addition.
- Educational programs will be developed to inform visitors and the general public about wildlife issues and concerns.

- The management of populations of exotic animal species will be undertaken whenever such species threaten Addition resources or public health and when control is prudent and feasible.
- NPS staff will continue to work to restore extirpated native species where suitable habitat exists and restoration is compatible with social, political, and ecological conditions.
- The National Park Service will manage wildlife and hunting in the Addition in accordance with Executive Order 13433, “Facilitation of Hunting Heritage and Wildlife Conservation.”
- Interpretive- and curricula-based programs and media will continue to educate visitors and the public about wildlife issues and concerns.

NPS Management

Climate Change. Climate change is perhaps the most far-reaching and irreversible threat the national park system has ever faced. Climate change refers to a suite of changes occurring in the earth’s atmospheric, hydrologic, and oceanic systems. These changes, including increased global air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level, provide unequivocal evidence that the climate system is warming (IPCC 2007). Although the warming trend, commonly referred to as global warming, is discernable over the entire past century and a half, recent decades have exhibited an accelerated warming rate, with 11 of the last 12 years ranking among the 12 warmest years on record. Most of the observed temperature increase can be attributed to human activities that contribute heat-trapping gases to the atmosphere (IPCC 2007). These “greenhouse gases,” particularly carbon dioxide from the burning of fossil fuels, cause Earth’s atmosphere to act like a blanket and trap the sun’s heat. Although the insulating effect (or greenhouse effect) of our

atmosphere is important to living systems, the rapid increase in greenhouse gases since the mid 19th century has turned the thermostat up higher than what our systems are adapted to.

Although climate change is a global phenomenon, it manifests itself differently in different places. One of the most dramatic effects of global warming is the impact it has on extreme weather events. A disrupted climate could affect natural and cultural resources, and is likely to interfere with public use and enjoyment of the Addition. Although many places in the world have already observed and recorded changes that can be attributed to climate change, the impacts to the Addition have not been specifically determined, and the actual implications within the lifespan of this general management plan (15-20 years) are unknown.

Climate change is expected to affect human health; damage infrastructure; and alter crop production, animal habitats, and many other features of our natural and managed environments. Rising mean sea levels in combination with increasingly severe storms and high tides are expected to cause more frequent and severe flooding, erosion, and damage to coastal systems and structures. In a place where differences in mean elevation are measured in inches, rising sea levels could have a serious impact on Addition resources, inundating more areas and changing natural communities.

The strategies for responding to the effects of climate change include the following:

- NPS staff will continue to audit their greenhouse gas contributions and make decisions to reduce the Preserve’s carbon footprint.
- NPS staff will engage their partners to assist with appropriate climate change research.

- NPS staff will engage visitors and the public on the topic of climate change through interpretive and educational media.
- NPS staff will use adaptive management to respond to the effects of climate change on Addition resources, including facilities.

Commercial Services. Commercial services could become a part of providing visitor services in the Addition to achieve the goals and objectives for visitor services. By NPS policy, commercial services must be determined to be necessary and appropriate. NPS authorization is necessary for all commercial services in the Addition. Strategies and objectives for managing possible future commercial services are as follows:

- All commercial operations serving Addition visitors are managed through appropriate types of authorizations such as concession contracts and commercial use authorizations.
- All commercial activities in the Addition provide high-quality visitor experiences while protecting important natural, cultural, and scenic resources.
- Levels of commercial use are consistent with resource protection and high-quality visitor experiences.
- Only those necessary and appropriate commercial operations not conveniently located outside the Addition are authorized.
- The commercial services program in the Addition is managed efficiently and effectively consistent with all applicable laws and policies.

A commercial services plan for the original Preserve was completed in September 2009. It describes the actions required to achieve NPS goals for commercial services and related visitor experiences. The commercial services plan will be amended to include the

Addition after this *General Management Plan* is approved.

Orientation, Interpretation, and Education. A variety of methods are used to orient visitors to the Addition, to provide information about the Addition, and to interpret the Addition's resources. NPS staff will continue to pursue strategies to ensure that information is available so that visitors can plan a rewarding visit. Increasing outreach and educational programs will help connect diverse audiences to the Addition's resources, build a local and national constituency, and gain public support for protecting the Addition's resources. Continuing to provide interpretation will build emotional, intellectual, and recreational ties with the Addition and its cultural and natural heritage.

The strategies for managing orientation, interpretation, and education will be as follows:

- Emphasis will continue to be placed on providing information, orientation, and interpretive services in the most effective manner possible. Appropriate techniques and technologies will be used to increase the visibility of the national park system and its programs and to make people aware of issues facing the Addition.
- Interpretive- and curricula-based education programs and media will continue to be grounded in key resource issues, management priorities, and public safety while providing opportunities for visitors to connect Addition resources with national and global issues.
- Cooperative efforts and partnerships with local communities, public and private agencies, tribes, organizations, stakeholders, and land managers in the region will be enhanced so that visitors can be better informed about the abundance, variety, and availability of

the region's recreational and interpretive opportunities. This information will orient visitors about what to do (and what not to do), attractions to see, and how to enjoy the Addition in a safe, low-impact manner.

- When feasible, the National Park Service will seek partnerships with other public agencies and with the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida to share orientation, contact stations, and administrative facilities.
- NPS staff will strengthen partnerships with local and state agencies and other national parks, educational institutions, and other organizations to enrich interpretive and educational opportunities regionally and nationally.

Public Health and Safety. While recognizing that there are limitations on its capability and constraints imposed by the Organic Act to not impair resources, the National Park Service and its cooperators will seek to provide a safe and healthful environment for visitors and employees. The following strategies will be pursued:

- NPS staff will strive to identify recognizable threats to safety and health and protect property by applying nationally accepted standards.
- Consistent with mandates and non-impairment, NPS staff will reduce or remove known hazards and/or apply appropriate mitigation measures, such as closures, guarding, gating, education, and other actions.

User Capacity. The strategy of addressing user capacity for the Addition is a tiered approach that will examine broad trends while focusing more specific monitoring and management on areas where action is most likely needed to achieve desired conditions.

- Sixteen indicators were developed for the Addition, along with standards that

could serve as management thresholds for the quality of resources and visitor experiences in the Addition.

- The National Park Service will use a variety of visitor management tools to help minimize impacts and maintain desired conditions, including education, ORV management through permitting and administration, site and trail management, and regulating access.
- The National Park Service will continue to develop and refine the user capacity indicators and standards to ensure resource protection and facilitate effective management of the Addition and its uses.

Relations with Private and Public Organizations, Owners of Adjacent Land, and Government Agencies. The National Park Service must consider that the Addition — socially, politically, ecologically, and historically — is part of a greater area and that actions in the Addition affect the surrounding environment and society. For instance, the management of the Addition influences local economies through tourism expenditures and the goods and services the Park Service purchases to support Addition operations. To ensure that the National Park Service continues to have good relations with landowners and communities surrounding the Addition and to ensure that the Addition is managed proactively to resolve external issues and concerns, the following strategies will be implemented:

- NPS staff will continue to establish partnerships with public and private organizations to achieve the purposes and mission of the Addition. Partnerships will be sought for the purposes of resource protection, research, education, visitor enjoyment, visitor access, and management.
- To foster a spirit of cooperation and encourage compatible uses of adjacent lands, NPS staff will keep landowners, land managers, tribes, local

governments, and the public informed about NPS management activities. NPS staff will consult periodically with land-owners and communities that are affected by or potentially affected by Addition visitors and management actions.

- The National Park Service will work closely with local, state, and federal agencies and tribal governments whose programs affect or are affected by activities in the Addition. In particular, to meet mutual management needs, NPS managers will maintain a close working relationship with the U.S. Fish and Wildlife Service, Everglades National Park, the Miccosukee Tribe of Indians of Florida, the Seminole Tribe of Florida, the Florida Division of Forestry, the Florida Fish and Wildlife Conservation Commission, the South Florida Water Management District, and the owners of adjacent private land.

Sustainable Design/Development. NPS staff will strive to develop facilities that are harmonious with Addition resources, compatible with natural processes, aesthetically pleasing, functional, as accessible as possible to all segments of the population, energy-efficient, and cost-effective. To meet these goals, the National Park Service will employ the following strategies:

- NPS staff will ensure that all decisions regarding NPS operations, facilities management, and development in the Addition — from the initial concept through design and construction — reflect principles of resource conservation. Thus, all developments and NPS operations will be sustainable to the maximum degree possible and practical. New developments and existing facilities will be located, built, and modified according to the NPS 1993 “Guiding Principles of Sustainable

Design” or other similar guidelines. Through sustainable design and development, the National Park Service will strive to minimize the Addition’s carbon footprint.

Transportation to and within the Addition. Visitors will have reasonable access to the Addition.

- Transportation facilities in the Addition will provide access for the protection, use, and enjoyment of Addition resources. They will preserve the integrity of the surroundings, respect ecological processes, protect resources, and provide the highest visual quality and a rewarding visitor experience.
- The National Park Service will participate in all transportation planning forums that may result in links to the Addition or impact Addition resources. Working with federal, tribal, state, and local agencies on transportation issues, the National Park Service will seek reasonable access to the Addition and connections to external transportation systems.

Utilities and Communication Facilities. Addition resources or public enjoyment of the Addition will not be denigrated by nonconforming uses. Telecommunication structures will only be permitted in the Addition to the extent that they do not jeopardize the Addition’s mission and resources. No new nonconforming use or rights-of-way will be permitted through the Addition without specific statutory authority and approval by the director of the National Park Service or his representative, and will be permitted only if there is no practicable alternative to such use of NPS lands.

RELATIONSHIP OF OTHER PLANNING EFFORTS TO THIS GENERAL MANAGEMENT PLAN

The Addition is located in Collier County, Florida. A variety of public lands surround the Addition. Everglades National Park is located to the south; to the east is the Miccosukee Indian Reservation and South Florida Water Management District Conservation Area 3A; to the north is the Big Cypress Seminole Indian Reservation and private lands; and to the west is Fakahatchee Strand Preserve State Park and the Florida Panther National Wildlife Refuge (see Map 1: Region/Vicinity). Private lands are scattered in the area, including within the Addition, but are relatively small in size.

Several plans have influenced or would be influenced by the approved *General Management Plan* for the Addition. These plans have been prepared (or are being prepared) by the National Park Service, the U.S. Fish and Wildlife Service, the state of Florida, and several local agencies and organizations. Some of these plans are described briefly here, along with their relationship to this general management plan.

NATIONAL PARK SERVICE PLANS

Big Cypress National Preserve

Commercial Services Plan

The *Commercial Services Plan* is intended to address the existing conditions and law in a manner that will be compliant with the 1998 National Park Service Concessions Management Improvement Act (PL 105-391) and regulations. As an implementation plan, this *Commercial Services Plan* must also be consistent with the established planning direction in the 1991 *General Management Plan* for the Preserve and achieve the desired future conditions or goals for the Preserve. This plan covers the original Preserve only; the Addition will be

addressed in an addendum to this plan after the completion of the *General Management Plan* for the Addition.

The preferred alternative for the original Preserve's *Commercial Services Plan* proposes to develop the Preserve's visitor services to the level and quality described in the 1991 *General Management Plan*. The concept of this alternative is to enhance the Preserve's visitor services by developing one facility at Monroe Station to provide the visitor services deemed necessary and appropriate, with the opportunity to provide a second, smaller facility at Seagrape Drive as funding permits. Other services may begin and end outside the Preserve. Some services expected to be provided include the following: hunting and fishing guides; buggy tours; hiking tours (both day use and multiday); boat and kayak rentals, livery, and guided tours; firewood sales for campgrounds; bicycle rentals; general van tours, birding and wildlife viewing, and photography — by van, foot, or buggy, and offered through a cooperative association (The Everglades Association). The plan also proposes the development of a back-country camping complex in the northern portion of the Turner River Management Unit. Some management changes could be made to improve effectiveness and efficiency, and some minor changes to the level of services could be made for resource protection and visitor experience enhancement to be consistent with the management zone prescriptions established in the 1991 *General Management Plan*.

The *Commercial Services Plan* was reviewed during the development of this *General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement*.

Draft South Florida and Caribbean Parks Exotic Plant Management Plan and Environmental Impact Statement (2006c)

The plan outlines the management of exotic plants in nine south Florida and Caribbean parks, including Big Cypress National Preserve and the Addition. The plan promotes restoration of native plant communities and habitat conditions in ecosystems that have been invaded by exotic plants and protects resources, values, visitors, staff, and area residents from adverse effects resulting from exotic plant presence and control activities. The plan takes a collaborative approach to managing exotic plants across the nine parks, improving effectiveness and efficiency and providing a consistent management framework for responding to this threat. The plan also seeks to establish plant and treatment location priorities, reduce new exotic plant introductions, and reduce the number of individually targeted plants to protect natural resources. The range of actions includes a no-action alternative, increased planning, monitoring and mitigation, and active restoration. The *South Florida and Caribbean Parks Exotic Plant Management Plan* includes the Addition and provides specific management direction for exotic plant management in the Addition.

Fire Management Plan / Environmental Assessment (2005)

NPS Director's Order #18, "Wildland Fire Management" (NPS 2008), states "Every park area with burnable vegetation must have a fire management plan approved by the superintendent." Fire is recognized as an ecological process necessary for the maintenance and health of the ecosystem. Fire must be managed to ensure the health and safety of visitors; protect property; ensure firefighter safety; minimize resource damage and costs; protect natural and cultural resources; and perpetuate, restore, replace, or replicate natural processes. This plan seeks to implement an integrated program of wildland fire suppression,

prescribed fire, and wildland fire for resource benefits. The Preserve has the largest fire load of any unit in the national park system, and many plant communities in the original Preserve and the Addition depend on burning for their survival. Wildfire suppression and prescribed fire are covered in the 1991 *General Management Plan*; however, this 2005 *Fire Management Plan* provides detailed guidance regarding fire management for the original Preserve and the Addition.

General Management Plan / Environmental Impact Statement (1991)

The general management plan is mandated by the National Parks and Recreation Act of 1978. This plan for the original Preserve was completed in 1991, and it guides visitor use, natural and cultural resource management, and general development for the next 10 to 15 years. It provides a clearly defined direction for resource management and preservation as well as appropriate visitor use and interpretation of the resources of the original Preserve. The *General Management Plan* for the original Preserve contains descriptions of resources that were used in preparation of this *General Management Plan* for the Addition; it also contains guidance for Preserve management that is complimentary and relevant to the Addition.

I-75 Recreational Access Plan / Environmental Assessment (1991)

The Addition Act directed the National Park Service to cooperate with the state to develop three recreation access points along I-75 within the Preserve, including the Addition. Many of the requirements and recommendations included in this access plan are incorporated in the 1991 *General Management Plan*. The *I-75 Recreational Access Plan* was used in the development of this management plan for the Addition. The development of recreational access points along I-75 is included as a component of all alternatives (including the no-action alternative)

included in this general management plan because they are legally required in the Addition Act.

Land Protection Plan (1988)

This plan was written in response to the May 1982 policy statement in the *Federal Register* regarding use of the federal portion of the Land and Water Conservation Fund. The monies were to be used to identify land and/or interests in land to be in federal ownership to achieve management purposes that include resource protection and public access in a cooperative, cost-effective manner. The plan identifies methods for protecting the Preserve's resources while taking into consideration public access and visitor experiences. Such resources include natural, historic, scenic, cultural, and recreational resources among others. Due to severance of subsurface oil and gas rights from the surface estate, oil and gas activities are not identified within the plan. The plan delineates the Preserve into zones and subzones for management purposes, and outlines the acceptable activities on "improved property". The *Land Protection Plan* was reviewed during the development of this management plan for the Addition.

Long-Range Interpretive Plan (2002)

This plan provides the vision for visitor experiences in the Preserve based on the purpose, significance, and mission put forth in the "Preserve's Strategic Plan." The *Interpretive Plan* proposes both development and management activities to satisfy current visitor demands, and identifies a media and activity action plan to meet future visitor needs. The interpretive plan was meant to guide the Preserve's interpretation direction for 10 years. The significance statements and primary interpretive themes included in the *Long-Range Interpretive Plan* are applied to the Addition in this management plan.

Minerals Management Plan (1991)

The 1991 *General Management Plan* included a "Minerals Management" section for the original Preserve that focused on specific surface protection stipulations and actions needed to protect important resource values within those areas of the original Preserve that are open to oil and gas activity. This section will be superseded by a Preserve-wide oil and gas management plan that is currently in preparation. The new plan will provide guidance for oil and gas exploration for the entire Preserve, including the Addition.

Recreational Off-road Vehicle Management Plan / Environmental Impact Statement (2000)

This plan is called for and directed by the 1991 *General Management Plan*. It was also prepared to comply with the 1995 settlement agreement negotiated between the Florida Biodiversity Project and several agencies and bureaus. ORV use is allowed in the original Preserve by the enabling legislation in a manner that is compatible with resource preservation. The ORV plan outlines the management of recreational ORV use in the original 582,000 acres of the Preserve. It specifies that ORV travel is facilitated by a system of designated access points and trails; that sensitive areas be closed; that temporal and seasonal closures be instituted; and that permits and education be required to operate off-road vehicles in the original Preserve. Many of the elements included in the *Recreational Off-road Vehicle Management Plan* are included in the ORV plan for the Addition.

Resource Management Plan (n. d.)

The original Preserve was established "to assure the preservation, conservation and protection of the natural, scenic, hydrologic, floral and faunal, and recreational values of the Big Cypress Watershed." The boundary of the Preserve was expanded in 1988 to include about 147,000 acres of adjacent tracts. This plan includes initial planning and resource inventorying for the Addition. Resource conditions in the

Preserve vary from nearly pristine to areas where natural function no longer exists. The historical timber harvest, as well as past agriculture activities in the area and those currently occurring outside the Preserve, threaten natural systems. Urban expansion as well as large-scale expansion of oil and gas extraction is also of concern. The plan outlines issues within the Preserve, including natural resources, cultural resources, exotic plants and wildlife, and the hydrologic environment. The plan emphasizes that conservation, restoration, and preservation must take place on an ecosystem scale. The *Resource Management Plan* was reviewed during the development of this management plan for the Addition.

Water Resources Management Plan (1996)

The plan complements and is consistent with the 1991 *General Management Plan* and *Minerals Management Plan* for the Preserve and addresses the water resources component of the *Resources Management Plan* in more detail. The plan reviews existing information, analyzes water resource issues, and presents a coordinated action plan to address such issues. This plan reconfirms the premise of the Preserve's original enabling legislation — that water is a controlling force on the ecosystems of the Preserve and provides direction and guidance to staff in managing water problems in the Preserve. The Preserve faces many hydrologic threats to its environmental integrity and thus this plan has been developed. The plan outlines natural resource management and permitting activities in the Preserve and contributes to south Florida water resource management more broadly. The *Water Resources Management Plan* was reviewed during the development of this general management plan.

Everglades National Park

General Management Plan (in progress)

Everglades National Park is currently developing a general management plan to replace its 1979 *Master Plan*. The new plan will provide a broad conceptual framework to guide decisions for long-term NPS management and resource protection during the next 20 years. The *Everglades General Management Plan* was reviewed during the development of this management plan for the Addition.

OTHER FEDERAL AGENCY PLANS

Army Corps of Engineers

Comprehensive Everglades Restoration Plan (CERP) (2000)

The comprehensive plan is a framework and guide to restore, protect, and preserve the water resources of central and southern Florida, including the Preserve. The plan was approved in the Water Resources Development Act of 2000, and it is a component of the world's largest ecosystem restoration effort, encompassing 16 counties and an 18,000-square-mile area. The comprehensive plan includes more than 60 elements designed to capture, store, and redistribute fresh water. Implementation of the comprehensive plan will take more than 30 years to complete and will improve the quality, quantity, timing, and distribution of water flows through the Preserve. The *Comprehensive Everglades Restoration Plan* was reviewed during the development of this management plan for the Addition.

U.S. Fish and Wildlife Service

Florida Panther National Wildlife Refuge Comprehensive Conservation Plan (1998)

The National Wildlife Refuge System Improvement Act of 1997 requires the U.S.

Fish and Wildlife Service to develop comprehensive conservation plans for all lands and waters of the National Wildlife Refuge System. The *Florida Panther National Wildlife Refuge Comprehensive Conservation Plan* meets the requirements of the act. The refuge was established to conserve fish, wildlife, and plants listed as endangered and/or threatened species under the Endangered Species Act of 1973, specifically the Florida panther. The Refuge abuts the northwest boundary of the Preserve and functions as a vital habitat linkage for panthers. The *Florida Panther National Wildlife Refuge Comprehensive Conservation Plan* was reviewed during the development of this management plan for the Addition.

Interagency Florida Panther Response Plan
(2008)

The U.S. Fish and Wildlife Service, in partnership with the National Park Service and the Florida Fish and Wildlife Conservation Commission, prepared a final response plan in October 2008 that includes guidelines for the agencies responding to human-panther interactions and depredations. The plan also provides guidelines for developing an outreach and education program to help people understand panther behavior and actions humans should take when living or recreating in panther habitat.

Related to the response plan is the *Florida Panther Recovery Plan*, updated and released in 2006. This is the third update of the Service's panther recovery plan since 1981 when the first plan was crafted. The revised plan will be substituted for the panther chapter in the Service's *Multi-Species Recovery Plan* as well as its range-wide species recovery plan for the panther.

These plans were reviewed during the development of this management plan for the Addition.

Manatee Management Plan

In 2001 the U.S. Fish and Wildlife Service's Southeast Region published a third revision to the *Florida Manatee Recovery Plan*, which identified information on the manatee's endangered status, as well as recovery goals, criteria to ensure a healthy population, and ultimate removal from the endangered list. Future management and information exchange with researchers throughout the world is also outlined. The plan is part of the *Comprehensive Everglades Restoration Plan* and is part of ongoing research from scientists in the Florida Integrated Science Center, Florida Marine Research Institute, Ten Thousand Islands National Wildlife Refuge, Big Cypress National Preserve, and Everglades National Park (USGS 2005). Manatees are found in the Preserve, and this plan will contribute to their protection. The *Manatee Management Plan* was reviewed during the development of this management plan for the Addition.

South Florida Multi-Species Recovery Plan
(1999)

This plan was written to recover multiple species by restoring ecological communities throughout the south Florida ecosystem (26,002 square miles). There are more than 600 species considered either rare or imperiled in south Florida, 68 of which are federally listed as threatened or endangered. A number of limiting factors for habitat-limited species are outlined, including habitat loss, fragmentation, and degradation as a result of urbanization, agriculture or other land-use conversions, wetland drainage and alteration of hydrological patterns, invasion of exotic species, fire suppression, soil subsidence, degradation of water quality, and increased levels of contaminants. Recovery objectives are identified at the species level, while recovery criteria are identified at the species and community level. Recovery actions have been developed to provide consistency between each of the 68 species, and habitat level recovery actions have

been developed to facilitate the integration of individual species needs at the community level. The plan does not replace existing approved species recovery plans, but rather outlines south Florida's contribution to rangewide recovery. A number of threatened and endangered species reside within the Preserve, and the Preserve is a critical habitat link in the ecosystem. The *South Florida Multi-Species Recovery Plan* was consulted during the development of this management plan for the Addition.

TRIBAL PLANS

Seminole Tribe of Florida

Seminole Big Cypress Water Conservation Plan (1997)

The plan was completed in 1997 and addresses a number of issues, including water transfer and conveyance, storage, water quality, and historic flows. This water project began as a *Comprehensive Everglades Restoration Plan* pilot program under the 1996 Water Resource Development Act, is considered a "Critical Restoration Project," and is currently being implemented. The plan seeks to mitigate man-made impacts on the natural system and contributes to overall ecosystem restoration. The plan ensures that the reservation's federal water right is met. Further, the plan provides for additional water retention and storage to alleviate flooding and increase residential development potential. Water quality is addressed, and water resource areas will be used to reduce phosphorus loads. These areas, in conjunction with bypass structures under the west feeder canal, will ensure full sheet flow contact across the entire wetland system, rehydrating wetlands and mimicking flows prior to the Central and Southern Florida projects. Big Cypress National Preserve is directly linked to the Seminole Reservation by the flows from the reservation into the Preserve. The

Seminole Big Cypress Water Conservation Plan was reviewed during the development of this management plan for the Addition.

STATE AGENCY PLANS

Florida Department of Agriculture and Consumer Services, Division of Forestry

Picayune Strand State Forest Management Plan (2008)

The 10-year plan was approved in August 2008. The plan establishes goals for critical elements of the forest, including restoration, recreation, reforestation, horticulture, exotic plant management, threatened and endangered species, and prescribed fire. It is the first detailed, long-range plan for the forest, and it will guide the management of the forest from 2008 through 2018. The forest is adjacent to Fakahatchee Strand Preserve State Park, which abuts Big Cypress National Preserve to the west. The *Picayune Strand State Forest Management Plan* was reviewed during the development of this management plan for the Addition.

Florida Fish and Wildlife Conservation Commission

A Conceptual Management Plan for the Everglades Complex of Wildlife Management Areas (ECWMA) (2002)

The Everglades Complex is part of the Kissimmee-Okeechobee-Everglades basin and lies within three counties — southwestern Palm Beach, western Broward, and northwestern Miami-Dade. It includes three management areas — Holey Land, Rotenberger, and Everglades-Francis S. Taylor. Through a cooperative management agreement with the South Florida Water Management District, the Florida Fish and Wildlife Conservation Commission has management authority over ECWMA lands (mainly lands in Water Conservation Areas 2 and 3) for game and fresh water fish preservation, protection,

propagation, and recreational use. The plan lists 28 state and federally listed and endangered or threatened species and their habitat. The majority of the complex is east and northeast of the Preserve; however, the southwest corner of Everglades-Francis S. Taylor Wildlife Management Area abuts the eastern boundary of the Preserve from the Tamiami Ranger Station north to the Broward County line. The ECWMA plan was reviewed during the development of this management plan for the Addition.

Florida Department of Environmental Protection, Division of Recreation and Parks

Coastal Zone Management Program

The Florida Coastal Zone Management Program was developed with the passage of the Coastal Zone Management Act of 1966 and approved by the National Oceanic and Atmospheric Administration in 1981. The program gives the state oversight responsibilities in controlling dredge and fill operations, pollution abatement, and other environmental concerns. The National Park Service has reviewed the state coastal zone management plan and has determined that this *General Management Plan* for the Addition is consistent with the Coastal Zone Management Act.

Fakahatchee Strand Preserve State Park Management Plan (2000)

The plan is intended to meet the requirements in Sections 253.034 and 259.032, Florida Statute and Chapter 18-2, *Florida Administrative Code*. The primary purpose of the state park is outdoor recreation and conservation, with preservation and enhancement of natural conditions taking precedent over user considerations. Park goals outlined in the plan include restoring park hydrology, assisting in the recovery of the Florida panther, appropriately managing cultural resources, and eliminating exotic plant species.

Development is restricted to the minimum necessary for ensuring the state park's protection and maintenance, limited access, user safety and convenience, and appropriate interpretation. In relation to the Preserve, the park serves as a critical link in the water resources of the region. Surface water from the Preserve and the Florida Panther National Wildlife Refuge enters the park from the north on its way to Everglades National Park to the south. The *Fakahatchee Strand Preserve State Park Management Plan* was reviewed during the development of this management plan for the Addition.

State Comprehensive Outdoor Recreation Plan — Outdoor Recreation in Florida (2000)

This plan assesses recreational supply, demand, and needs for 11 regions in the state. Region 9 (Southwest Florida) includes the Preserve and the surrounding area. The plan identifies goals for recreational opportunities and facilities, including hiking, bicycling, horseback riding, camping, fishing, and ORV use. The actions contained in this general management plan will help meet the state's goals for outdoor recreation.

LOCAL PLANS

Collier County

Collier County Manatee Protection Plan (1995)

The U.S. Fish and Wildlife Service of the Department of the Interior protects manatees under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. In addition, the Florida Manatee Sanctuary Act, Chapter 16N-22, *Florida Administrative Code*, provides manatee protection by declaring the state of Florida a "refuge and sanctuary for the manatee, the 'Florida State Marine Mammal.'" The Addition is in Collier County, one of 13 key manatee counties in Florida. This plan seeks to reduce the number of boat-related

manatee mortalities, achieve an optimal sustainable manatee population, protect manatee habitat, promote boating safety, and increase public awareness of the need to protect manatees and their environment. This general management plan is consistent with the *Collier County Manatee Protection Plan*.

Collier County 2030 Long-range Transportation Plan (2007)

The *2030 Long-range Transportation Plan's* purpose is to ensure an organized scope of needs and goals regarding transportation within Collier County and outlying areas through 2030. This plan is updated as necessary and was last done in July 2007.

The *2030 Long-range Transportation Plan* demonstrates the need for both regional and alternative transportation strategies and defines the opportunity to incorporate those components into an overall transportation program. The plan provides for the enhanced funding to expand the operations and services of transit, improve connectivity through the use of pedestrian and bicycle facilities and local road interconnection, congestion management system and intelligent transportation system (CMS and ITS) programs and improvements. The plan has also included the Metropolitan Planning Organization's regional partners in the development and integration of

multimodal regional components. This plan also addresses things such as wildlife crossings along SR 29. This general management plan is consistent with the *Long-range Transportation Plan*.

Growth Management Plan

The plan is required under the 1985 Florida Growth Management Act and is to be consistent with state and regional plans. It is composed of many elements, namely the Future Land Use Element, the *Golden Gate Area Master Plan*, the *Immokalee Area Master Plan*, the Capital Improvement Element, Intergovernmental Coordination Element, Housing Element, Recreation and Open Space Element, Conservation and Coastal Management Element, the Economic Element, and Public Utilities Element. When combined, these elements provide the framework to effectively guide future development, while providing for the protection of open space; natural resources; and public health, safety, and welfare. Development in Collier County directly impacts natural resources in the Preserve and Addition. Therefore, managed growth policies outlined in this plan are necessary to reduce negative impacts of development and ensure that the entire Preserve is protected for future generations.

PLANNING ISSUES AND CONCERNS

INTRODUCTION

The general public; NPS staff; representatives from other county, state, and federal agencies; and representatives from various organizations identified various issues and concerns during scoping (early information gathering) for this *General Management Plan*. An issue is defined as an opportunity, conflict, or problem regarding the use or management of public lands. Comments were solicited at public meetings, through planning newsletters, and on the NPS web site (see the “Consultation and Coordination” chapter).

Comments received during scoping demonstrated that there is much that the public likes about the original Preserve and the Addition. The issues and concerns for the Addition generally involve determining the appropriate types and levels of visitor use and facility development in the Addition while remaining compatible with desired resource conditions. The alternatives in this general management plan provide strategies for addressing the issues within the context of the Addition’s purpose, significance, and special mandates.

ISSUES

The following issues were identified for the Addition.

Management Direction

Although acquisition of the Addition was authorized in the 1988 legislation, these lands were in private ownership until 1996 when most of the lands were acquired through the Arizona–Florida Land Exchange and transferred to the National Park Service. No comprehensive planning has been conducted for the Addition since that time. A general management plan is needed to provide

direction for managing the Addition consistently with the original Preserve and determining what kind of resource conditions and visitor experiences the National Park Service, in consultation with the public, American Indians, and landowners, will seek to achieve.

Visitor Access and Use Levels

Many people were concerned about the type of access provided to visitors as well as the use levels that would occur in the Addition. Some expressed concern that not enough motorized access would be allowed for traditional uses; others were concerned that too much motorized use would be allowed, with adverse impacts on resources. People’s opinions about ORV permitting, hunting, and commercial services were highly polarized. The location, number, and types of recreational access points were major points of interest. More than 6 million vehicles per year travel the I-75 corridor. Many of the people in those vehicles use the Addition, further underscoring the importance of addressing access and use concerns.

Resource Impacts from Visitor Use and Facility Development

Many people were concerned about the effects ORV use would have on cultural resources, sensitive wildlife, including the Florida panther, and native plant communities. The level of facility development and the impact it would have on natural hydrologic processes and wildlife habitat was also an issue.

Resource Preservation and Restoration

The National Park Service’s ability to preserve and restore natural resources in the Addition

is highly dependent on the range of uses and the levels of motorized access and facility development that are approved. Many people were concerned about the National Park Service's ability to protect resources while meeting the allowed multiple uses in the Addition, including management of hunting, oil and gas operations, motorized use, and access for owners of private property.

Wilderness

Evaluating the Addition for wilderness eligibility has been a long-standing controversial issue. The National Park Service is required to study the Addition for wilderness suitability based on the requirements of the Addition's enabling legislation passed by Congress. Public opinion about wilderness designation in the Addition is centered on protecting resources through wilderness designation while at the same time providing for a diversity of ORV riding opportunities. Furthermore, public opinion differs regarding whether these lands possess wilderness character.

Addition Operations and Management

With the exception of two fire management facilities in the Western Addition, the National Park Service currently has no operations facilities in the Addition. The Northeast Addition has no NPS presence, and staff have to drive up to an hour (60 miles) from the Preserve headquarters in Ochopee to get there. To effectively and efficiently manage resources and visitor use in the Addition, suitable locations for operations facilities that will provide for adequate patrol and enforcement, emergency response, resource management, visitor orientation and education, fire management, and maintenance must be determined. No NPS facility exists along the I-75 corridor where the NPS staff can engage and educate the many visitors who travel the interstate annually.

ISSUES AND CONCERNS NOT ADDRESSED IN THIS GENERAL MANAGEMENT PLAN

Not all of the issues or concerns raised by the public are included in this management plan because they

- are already prescribed by law, regulation, or policy (see the "Guidance for the Planning Effort" section)
- would be in violation of laws, regulations, or policies
- were at a level that was too detailed for a general management plan and would be more appropriately addressed in subsequent planning documents

This section briefly describes each of these issues, and the basis for excluding them from this management plan.

Usual and Customary Use and Occupancy by American Indians

The Addition's enabling legislation states that the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida have the right to continue their usual and customary use and occupancy of the Addition subject to reasonable regulations.

The National Park Service will work cooperatively with the tribes to develop regulations to accommodate their use and occupancy rights accordingly.

Hunting, Fishing, and Trapping Management

The Addition Act states that

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.

No matter which alternative is implemented, the National Park Service will work with the Florida Fish and Wildlife Conservation Commission to define hunting seasons and develop hunting regulations consistent with both agencies' policies and goals for the Addition. (Hunting access is addressed in this plan and is provided for in all alternatives.)

Oil and Gas Management

Oil and gas exploration in the Addition is currently managed in accordance with the "Agreement among the United States of America, Collier Enterprises, Collier Development Corporation, and Barron Collier Company" (Addition Lands Agreement) dated May 1988. Nothing in this general management plan would affect the existing legal rights of mineral owners or change the approved exploration plans and practices of operators. A Preserve-wide oil and gas management plan is currently being

prepared by the National Park Service. When completed, this plan will provide guidance for oil and gas exploration for the entire Preserve, including the Addition.

Acquisition Deferred (Exempt) Properties

There are more than 200 privately owned tracts in the Addition. Some of these tracts will be classified as improved properties in accordance with the Addition Act, and as such they would be considered acquisition deferred (exempt) unless owners are willing to sell or uses on the land could be detrimental to the purposes of the Addition. This general management plan does not provide guidance nor make any decisions about the treatment of these privately owned parcels. Land acquisition and disposition issues are handled according to the terms outlined in the Addition Act and are conducted by NPS real estate specialists and attorneys.

ORV Management in the Original Preserve

ORV management in the original Preserve was addressed in the *Recreational Off-road Vehicle Management Plan / Environmental Impact Statement* (2000). Therefore, any concerns or updates needed to the 2000 ORV plan are outside the scope of this general management plan for the Addition.

IMPACT TOPICS — RESOURCES AND VALUES AT STAKE IN THE PLANNING PROCESS

IDENTIFICATION OF IMPACT TOPICS

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

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

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

IMPACT TOPICS RETAINED AND DISMISSED

To focus the analysis on the key or important impacts, some topics have been dismissed from detailed analysis. Impact topics were dismissed if they were considered during the planning process but determined not to be relevant to the development of this management plan because either: (a) implementing the alternatives would have no effect, negligible effect, or minor effect on the resource, or (b) the resource does not occur in the Addition.

Table 1 identifies all of the impact topics considered for this *General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement* and states whether they were retained or dismissed. The table is organized by theme (e.g., natural resources, wilderness, cultural resources, visitor use and experience, socioeconomic environment, and NPS operations) and includes a rationale as to why the impact topic was retained or dismissed.

TABLE 1: IMPACT TOPICS RETAINED AND DISMISSED FOR BIG CYPRESS NATIONAL PRESERVE ADDITION

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Natural Resource Impact Topics			
Surface Water Flow	Retained	Water was named as a prime resource in the Addition's enabling legislation. The hydrologic cycle is the primary determinant of the distribution, composition, and structure of the Addition's ecological communities. Development can alter, and has altered in the past, natural surface flows, with subsequent effects on the natural environment. Many actions proposed in the plan, including recreational facility development and ORV use, may displace soils in such a way that they change water flow patterns and directions. Therefore, surface water flow was retained as an impact topic.	<i>NPS Management Policies 2006; Director's Order 77-2</i>
Water Quality	Retained	Surface and subsurface water quality directly affect the health and condition of natural communities, as well as the human environment. Proposed actions outlined in the alternatives, such as continued oil and gas operations, the provision of visitor use facilities, ORV use, and the application of herbicides for exotic plant control, involve potential contaminants. Therefore, water quality was retained as an impact topic.	Clean Water Act; Executive Order 12088; <i>NPS Management Policies 2006</i>
Wetlands	Retained	Most of the Addition is classified as wetlands, with the exceptions being scattered hardwood hammocks, some pinelands, and artificially filled areas. During the wet season (May through October), as much as 90% of the Addition can be inundated with water. Due to the likelihood that one or more actions proposed in the plan could have an impact on wetlands, it was retained as an impact topic.	Executive Order 11990; Clean Water Act; NPS Director's Order 77-1; <i>NPS Management Policies 2006</i>
Soils	Retained	Soils are key to maintaining the ecological integrity of the Addition. Actions included in the alternatives, including recreational facility development, ORV use, and restoration, could cause soil loss or reduced productivity. Any impacts that would adversely affect soil resources would be of concern to NPS managers and the public. Therefore, soils were retained as an impact topic.	<i>NPS Management Policies 2006</i>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Floodplains	Retained	Portions of the Addition, primarily in the south-west, are classified as being within the 100-year floodplain. Retention of existing facilities and the development of new facilities could adversely affect the protection, management, and use of these floodplains, or substantially change the character and natural processes of the floodplains. Therefore, floodplains were retained as an impact topic.	Executive Order 11988; Director's Order 77-2; <i>NPS Management Policies 2006</i>
Vegetation: Cypress Strands and Domes, Mixed-Hardwood Swamps, and Sloughs	Retained	The vegetation communities that exist in the Big Cypress region are considered an important resource. The Addition contains a diversity of native plant species. The vegetation types included in this document are identical to those identified in the 2000 <i>Recreational ORV Management Plan</i> , which contains the most comprehensive and current listing of plant communities. Actions in the alternatives of this document, including recreational facility development, ORV use, and prescribed fire use, could result in changes in plant composition or the loss of vegetation. Proposed actions could beneficially or adversely affect these resources, which would be of concern to many people as well as NPS managers. Therefore, this vegetative community was retained as an impact topic.	NPS Organic Act and <i>NPS Management Policies 2006</i>
Vegetation: Prairies and Marshes	Retained	The vegetation communities that exist in the Big Cypress region are considered an important resource. The Addition contains a diversity of native plant species. The vegetation types included in this document were modeled on those identified in the 2000 <i>Recreational ORV Management Plan</i> , which contains the most comprehensive and current listing of plant communities. Actions in the alternatives of this document, including recreational facility development, ORV use, and prescribed fire use, could result in changes in plant composition or the loss of vegetation. Proposed actions could beneficially or adversely affect these resources, which would be of concern to many people as well as NPS managers. Therefore, this vegetative community was retained as an impact topic.	NPS Organic Act and <i>NPS Management Policies 2006</i>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Vegetation: Mangrove Forests	Retained	The vegetation communities that exist in the Big Cypress region are considered an important resource. The Addition contains a diversity of native plant species. The vegetation types included in this document were modeled on those identified in the 2000 <i>Recreational ORV Management Plan</i> , which contains the most comprehensive and current listing of plant communities. Actions in the alternatives of this document, including recreational facility development, ORV use, and prescribed fire use, could result in changes in plant composition or the loss of vegetation. Proposed actions could beneficially or adversely affect these resources, which would be of concern to many people as well as NPS managers. Therefore, this vegetative community was retained as an impact topic.	NPS Organic Act and <i>NPS Management Policies 2006</i>
Vegetation: Pinelands	Retained	The vegetation communities that exist in the Big Cypress region are considered an important resource. The Addition contains a diversity of native plant species. The vegetation types included in this document were modeled on those identified in the 2000 <i>Recreational ORV Management Plan</i> , which contains the most comprehensive and current listing of plant communities. Actions in the alternatives of this document, including recreational facility development, ORV use, and prescribed fire use, could result in changes in plant composition or the loss of vegetation. Proposed actions could beneficially or adversely affect these resources, which would be of concern to many people as well as NPS managers. Therefore, this vegetative community was retained as an impact topic.	NPS Organic Act and <i>NPS Management Policies 2006</i>
Vegetation: Hardwood Hammocks	Retained	The vegetation communities that exist in the Big Cypress region are considered an important resource. The Addition contains a diversity of native plant species. The vegetation types included in this document were modeled on those identified in the 2000 <i>Recreational ORV Management Plan</i> , which contains the most comprehensive and current listing of plant communities. Actions in the alternatives of this document, including recreational facility development, ORV use, and prescribed fire use, could result in changes in plant composition or the loss of vegetation. Proposed actions could beneficially or adversely affect these resources, which would be of concern to many people as well as NPS managers. Therefore, this vegetative community was retained as an impact topic.	NPS Organic Act and <i>NPS Management Policies 2006</i>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Vegetation: Exotic/ Nonnative Species	Retained	The native plant communities that exist in the Big Cypress region are considered an important resource. The Addition contains a diversity of native plant species. Exotic, or nonnative, plant species impact native species by outcompeting them — they aggressively take over disturbed habitats, expand their distribution and displace natives at alarming rates, use more water, and impact wildlife that depend on native plant communities and functional ecosystems. Exotic plants are easily distributed by recreational use and other activities in the Addition and require steadfast management. Another consideration is the effect that wilderness designation and management would have on exotic plant control activities and restoration techniques. The implications of the “minimum tool requirement” could be substantial. Actions in the alternatives could beneficially or adversely affect these resources, which would be of concern to many people as well as NPS managers. Because of the seriousness of these issues, exotic species were specifically included as an impact topic.	NPS Organic Act and NPS <i>Management Policies 2006</i>
Federal Threatened and Endangered Species: Florida Panther	Retained	Panthers have been observed in the Addition. They are subject to the effects of management, visitor use, and development. Proposed actions, including ORV use, hunting, and other activities, could impact the quality of habitat preferred by this species, as well as its behavior and foraging opportunities. Therefore, Florida panthers were retained as an impact topic.	Endangered Species Act; NPS <i>Management Policies 2006</i>
Federal Threatened and Endangered Species: West Indian Manatee	Retained	Manatees use marine resources and waterways within the Addition. Manatees are highly sensitive to the effects that management, visitor use, or development has on marine habitats. Proposed actions, such as motorboat use and other visitor use, could reduce the quality of habitat preferred by these species, directly disturb individual animals, or reduce foraging opportunities. Therefore, the West Indian manatee was retained as an impact topic.	Endangered Species Act; Marine Mammal Protection Act; NPS <i>Management Policies 2006</i>
Federal Threatened and Endangered Species: Red-Cockaded Woodpecker	Retained	At least one red-cockaded woodpecker colony lives in the Addition. Proposed actions, such as ORV use and other visitor use, could reduce the quality of habitat preferred by these species, directly disturb individual animals, or reduce foraging opportunities. Therefore, red-cockaded woodpeckers were retained as an impact topic.	Endangered Species Act; Migratory Bird Treaty Act; NPS <i>Management Policies 2006</i>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Federal Threatened and Endangered Species: Wood Stork	Retained	Wood stork rookeries can be found within the Addition. The wood stork is sensitive to human interference and would likely be subject to the effects of NPS management, visitor use, or development. Proposed actions, such as ORV use and other visitor use, could impact nest sites, reduce the quality of habitat preferred by these species, directly disturb individual animals, or reduce foraging opportunities. Therefore, the wood stork was retained as an impact topic.	Endangered Species Act; Migratory Bird Treaty Act; <i>NPS Management Policies 2006</i>
Federal Threatened and Endangered Species: Cape Sable Seaside Sparrow	Dismissed	No suitable habitat for Cape Sable seaside sparrows exists in the Addition. None of the proposed actions in the alternatives would affect sparrow habitat. Therefore, this sparrow was dismissed from further consideration.	Endangered Species Act; Migratory Bird Treaty Act; <i>NPS Management Policies 2006</i>
Federal Threatened and Endangered Species: Everglade Snail Kite	Retained	No Everglade snail kite nests exist within the Addition. Their primary habitat and nest sites are found in adjacent conservation area lands owned by the South Florida Water Management District. The kite currently only uses the Addition for foraging purposes. The actions proposed in this plan could reduce the quality of kite habitat, disturb individuals, displace foraging opportunities, or limit potential range expansion into the Preserve. Therefore, the Everglade snail kite was retained as an impact topic.	Endangered Species Act; Migratory Bird Treaty Act; <i>NPS Management Policies 2006</i>
Federal Threatened and Endangered Species: American Crocodile	Retained	Although the American crocodile has been recently observed in the Addition, they are not typically found in the immediate area. The crocodile's range seems to be expanding, which provides further evidence that crocodile populations are stable or growing. Some of the actions being proposed in the alternatives could adversely affect crocodiles that use the Addition or their habitat; however, the level of development included in the plan is generally minimal and not located in crocodile use areas. Recreational use could also affect water quality in the mangrove estuaries in the Western Addition, which could affect crocodiles or their prey. Therefore, the American crocodile was retained as an impact topic.	Endangered Species Act and <i>NPS Management Policies 2006</i>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Federal Threatened and Endangered Species: American Alligator	Dismissed	The American alligator is listed because of the similarity of its appearance to the endangered American crocodile. Alligators in the Addition are numerous. The actions proposed in the alternatives would have only negligible to minor effects on alligators, including localized impacts on water quality and habitat values associated with recreational use and limited development. Overall, the integrity of alligator habitat would be maintained. Therefore, the American alligator was dismissed from further consideration.	Endangered Species Act and NPS <i>Management Policies 2006</i>
Federal Threatened and Endangered Species: Eastern Indigo Snake	Retained	The eastern indigo snake has been observed only sporadically in the Addition. No real data on its use of the Addition exists. The greatest threat to these snakes is habitat loss. Most of the ORV use associated with the action alternatives will be on designated ORV trails and avoid snake burrows and use areas. However, this recreational use may flush snakes (or their prey), which may disrupt the snake's foraging, breeding, and dispersing behaviors. The ORV access may also lead to spur trails that have direct effects on snake burrowing and foraging areas. Limiting the number of ORV permits under the two alternatives that include ORV use would help minimize habitat disturbance. Given these effects, the eastern indigo snake was retained as an impact topic.	Endangered Species Act and NPS <i>Management Policies 2006</i>
Other Federal and State Listed Species	Dismissed	<p>Other federally protected species known to occur in Collier County, such as the piping plover, crested caracara, roseate tern, Florida scrub-jay, Kemp's ridley, hawksbill, leatherback, green turtle, and loggerhead were dismissed because these species are not found in the Addition.</p> <p>Bald eagles do not nest in the Addition, but they do roost and forage in the area. The bald eagle was recently removed from the federal Threatened and Endangered Species List and is no longer subject to the Endangered Species Act. However, the species is still protected by other federal and state laws. Visitor use in the Addition could cause short-term adverse impacts on bald eagles, such as flushing and displacement; however, the effect would be negligible to minor. The integrity of bald eagle habitat would be maintained under all alternatives. Therefore, this topic was dismissed from further consideration.</p>	<p>Endangered Species Act; Migratory Bird Treaty Act; National Environmental Policy Act; NPS <i>Management Policies 2006</i></p> <p>Bald and Golden Eagle Protection Act; Migratory Bird Treaty Act; NPS <i>Management Policies 2006</i></p>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Other Federal and State Listed Species (cont.)	Dismissed	Other state protected species known to occur in Collier County, such as the Big Cypress fox squirrel, Miami blue butterfly, southeastern American kestrel, snowy plover, least tern, Florida sandhill crane, Florida black bear, peregrine falcon, and white-crowned pigeon were dismissed because these species typically are not found in the Addition and/or their preferred habitat would not be physically disturbed by any of the actions proposed in the alternatives. Therefore, specific measures to protect these species are not needed, other than the general protection afforded by the Addition.	Florida Fish and Wildlife Conservation Commission's List of Endangered, Threatened, or Species of Special Concern
		The <i>Liguus</i> tree snail is listed as a state species of special concern. Impacts from actions proposed in the alternatives would have only a minor effect on the species due to ongoing threats from illegal collection. The National Park Service currently has a permit process in place to allow for special collection of this species, which should serve to minimize adverse impacts from collection.	Florida Fish and Wildlife Conservation Commission's List of Endangered, Threatened, or Species of Special Concern
		More than 100 state-protected plant species occur in the Addition, three of which are candidates for federal listing. The actions proposed in this plan would have no effect on the relative abundance of these species and would not jeopardize their long-term survival and success. Any facility development would be sited to avoid the preferred habitat of these species.	Rule Chapter 5B-40 of the Florida Administrative Code (Regulated Plant Index)
Major Game Species: White-tailed Deer, Feral Hogs, and Wild Turkey	Retained	White-tailed deer, feral hogs, and wild turkey are common in the region. They are included as an impact topic because of their importance as prey for the endangered Florida panther and as the principal game animals for potential hunting in the Addition. Hunting activities in the Addition could reduce local populations, thus potentially affecting the panther's foraging opportunities. Actions in the alternatives could beneficially or adversely affect these species, which would be of concern to many people as well as NPS managers.	NPS <i>Management Policies 2006</i> and Executive Order 13443, "Facilitation of Hunting Heritage and Wildlife Conservation"

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Other Wildlife Species	Dismissed	<p>Potential impacts to other wildlife species, such as other birds, reptiles, amphibians, invertebrates, and mammals, resulting from recreational facility development and ORV use would likely include flushing and displacement of individual species, but overall habitat integrity in the Addition would be maintained. The species that are sensitive to habitat loss and the effects of increases in human activity and disturbance have been retained for detailed analysis; those species in the category of “other wildlife” are considered to be generalists and thus more resilient to change and minor impacts. The adverse impact on other wildlife species from the actions included in the alternatives would be negligible to minor. Therefore, effects to other wildlife species were dismissed from further consideration.</p>	NPS Organic Act and <i>NPS Management Policies 2006</i>
Fisheries/ Aquatic Life	Dismissed	<p>The Addition contains a variety of native and nonnative fishes. Recreational fishing in the Addition is regulated by the Florida Fish and Wildlife Conservation Commission. None of the alternatives would change the management of fishing or result in changes that would affect the fish populations in the Addition. Recreational fishermen would continue to be able to harvest fish in the Addition under all of the alternatives, subject to the regulations of the Florida Fish and Wildlife Conservation Commission. The National Park Service would continue to work with the state to ensure that healthy fish populations are maintained. No commercial fishing is allowed or would be allowed in the Addition under any of the alternatives.</p> <p>Herbicides are used for exotic plant control in the Addition, but NPS staff follows all Environmental Protection Agency, Florida Department of Agriculture, and manufacturer requirements. Therefore, impacts on water quality and any biotic components that fisheries and aquatic life rely on should be negligible or minor.</p> <p>Because of the reasons stated above, any adverse effects on fisheries/aquatic life from the activities proposed in the alternatives would be negligible to minor. Therefore, this topic has been dismissed from further analysis.</p>	<i>NPS Management Policies 2006</i>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Air Quality	Dismissed	The Addition has been designated a Class II area under the Clean Air Act. The Addition is currently within a designated attainment area (i.e., concentrations are below standards) for criteria pollutants. The contribution of pollutants resulting from implementing any of the alternatives would be negligible compared to current levels. Fugitive dust and exhaust emissions would be produced by recreational development activities, ORV use, and increased vehicular traffic to the Addition; however, these activities would not be expected to cause national ambient air quality standards to be exceeded because visitation increases would be relatively small and the level of new development proposed is minimal. Air quality impacts from the use of prescribed fire were analyzed in the Preserve's <i>Fire Management Plan/ Environmental Assessment</i> , which also addresses the Addition. Any amount of pollutants added because of the actions proposed in the alternatives would be negligible compared to existing levels. Therefore, air quality was dismissed from further consideration.	Clean Air Act and NPS <i>Management Policies 2006</i>
Lightscape Management (Dark Night Sky Preservation)	Dismissed	Light pollution is present in some areas of the Addition, although many areas retain a high degree of natural darkness. The National Park Service strives to minimize the intrusion of artificial light into the night scene by limiting the use of artificial outdoor lighting to basic safety requirements, shielding the lights when possible, and using minimal impact lighting techniques. Any new facilities proposed in the alternatives that would necessitate new night-time lighting would be constructed with down lighting that would minimize light pollution. Furthermore, the level and type of new development and lighting proposed in the plan is minimal and dispersed. The effects of actions contained in this plan on natural lightscapes would be minor. Therefore, lightscape was dismissed from further analysis.	NPS Organic Act; enabling legislation; NPS <i>Management Policies 2006</i>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Prime and Unique Farmlands	Dismissed	Prime farmland is soil that produces general crops such as common foods, forage, fiber, and oil seed; unique farmland produces specialty crops such as fruits, vegetables, and nuts. The Farmland Protection Policy Act (7 USC 4201 <i>et seq.</i>) and the U.S. Department of the Interior (Environmental Statement Memorandum No. ESM94-7 – Prime and Unique Agricultural Lands) require an evaluation of impacts on prime or unique agricultural lands. No prime or unique agricultural lands exist in the Addition according to the Natural Resources Conservation Service (NRCS). Therefore, this topic was dismissed from further consideration.	Council on Environmental Quality 1980 memorandum
Natural or Depletable Resource Requirements and Conservation Potential	Dismissed	The Addition's enabling legislation permits oil and gas exploration and development by mineral owners. Consequently, oil and gas operations in the Addition are allowed under all Addition management scenarios. None of the actions included in the <i>General Management Plan</i> would result in changes to oil and gas exploration or the extraction of new resources from the Addition. The use and consumption of fuel and other nonrenewable resources for NPS operations, activities, and development associated with the alternatives is small in comparison to that of the region. The National Park Service strives to use sustainable practices and technology and reduce its impact on natural or depletable resources. Under all of the alternatives, ecological principles would be applied to ensure that the Addition's natural resources were maintained and conserved. Therefore, this topic was dismissed from further consideration.	NPS <i>Management Policies 2006</i>
Wilderness Impact Topics			
Wilderness Resources and Values	Retained	Lands within the Addition have been found to possess wilderness characteristics and values. Proposed actions, including visitor use and NPS management activities, could have an impact on wilderness qualities. Actions in the alternatives could beneficially or adversely affect these resources, which would be of concern to many people as well as NPS managers. Therefore, wilderness resources and values were retained as an impact topic.	Wilderness Act and NPS <i>Management Policies 2006</i>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Cultural Resource Impact Topics			
Archeological Resources	Retained	Actions under the alternatives that allow increased access to the Addition, including backcountry camping, hiking, hunting, and ORV use, could result in impacts to archeological resources. Therefore, this topic has been retained for further analysis.	Secretarial Order 13007; National Environmental Policy Act; Director's Order 28; NPS <i>Management Policies 2006</i> ; NPS-28A, "Archeological Resources Management"
American Indian Ethnographic Resources	Retained	Actions under the alternatives that allow increased access to the Addition, including backcountry camping, hiking, hunting, and ORV use, could result in impacts on American Indian ethnographic resources, including sacred sites. Therefore, this topic has been retained for further analysis.	Executive Order 13007; National Environmental Policy Act; Director's Order 28; NPS <i>Management Policies 2006</i> ; NPS-28, "Cultural Resources Management"
Other Ethnographic Resources	Dismissed	<p>Recent investigations have documented the historic connections between the "Gladesmen" and the natural environment of south Florida, including Big Cypress National Preserve. The term "Gladesmen" refers to a predominantly Anglo-American group of settlers who have occupied areas in south Florida since the end of the Civil War. Here they developed a subsistence economy heavily dependent on hunting and fishing. The Gladesmen became renowned over several generations for their knowledge of the Big Cypress and their ability to navigate the area's labyrinth of waterways in light skiffs. Gladesmen became highly valued as guides for explorers, hunters, fishermen, and researchers. The Gladesmen traditions gradually evolved in the 20th century as airboats and all-terrain vehicles replaced skiffs as the preferred modes of transportation in the Big Cypress.</p> <p>None of the sites or structures associated with the Gladesmen have been identified as ethnographic resources or traditional cultural properties. There are no impacts anticipated to cultural resources associated with the Gladesmen. Therefore, this topic has been dismissed from further analysis.</p>	National Environmental Policy Act; Director's Order 28; NPS <i>Management Policies 2006</i> ; NPS-28, "Cultural Resources Management"; and National Register Bulletin — "Guidelines for Evaluating and Documenting Traditional Cultural Properties."
Cultural Landscapes	Dismissed	No cultural landscapes have been identified in the Addition. Some village sites and historic homesteads may be evaluated in the future as potential cultural landscapes. However, none of the actions under the alternatives pose impacts on features that would contribute to the integrity of potentially important cultural landscapes. Therefore, this topic was dismissed from further consideration.	NPS-28, "Cultural Resources Management", NPS <i>Management Policies 2006</i>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Historic Structures	Dismissed	None of the structures in the Addition are listed or have been determined eligible for listing in the National Register of Historic Places. Some structures associated with village sites and historic homesteads may be evaluated in the future for listing on the National Register. However, none of the actions under the alternatives pose impacts to these sites. Therefore, this topic was dismissed from further consideration.	NPS-28, "Cultural Resources Management" and NPS <i>Management Policies 2006</i>
Museum Collections	Dismissed	None of the actions under the alternatives pose direct impacts on NPS museum collections. No museum collections are stored in the Addition. All Preserve museum collections are stored in facilities at Everglades National Park. Any museum collections that are generated as a result of implementing the alternatives would be properly catalogued, curated, and managed as part of the Preserve's museum collections program. The Preserve has a current "Collections Management Plan" that was completed in conjunction with all other south Florida national park system units. Therefore, this topic was dismissed from further consideration.	DO-24, Museum Collections Management" and NPS <i>Management Policies 2006</i>
Indian Trust Resources	Dismissed	<p>Secretarial Order 3175 requires that any anticipated impacts on Indian trust resources from a proposed project or action by Department of the Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes.</p> <p>None of the actions that might be implemented as a result of the plan alternatives would change any existing conditions or practices concerning American Indian treaty or statutory rights or cultural interests that the tribes traditionally associated with the Addition maintain in relation to the Addition. However, such recognition does not translate into the creation of a trust resource because these actions take place in the context of preserving and managing the resources for the benefit of all Americans as required by the Organic Act and subsequent legislation. There are no Indian trust resources as defined in the order in the Addition. Therefore, this topic was dismissed from further consideration.</p>	Secretarial Order 3175

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Visitor Use And Experience Impact Topics			
Recreational Opportunities Motorized Use (ORV Riding) Nonmotorized Use (hiking, horseback riding, and bicycling) Hunting (including fishing and frogging)	Retained	<p>Opportunities for recreational public motorized use (ORV use), nonmotorized use, and hunting vary among the alternatives. The types and levels of access are important components of visitor use and experience in the Addition and are of concern to many people as well as NPS managers. Therefore, the impact topic of recreational opportunities was retained.</p>	Enabling legislation; NPS <i>Management Policies 2006</i>
Soundscape (Natural Sound Preservation)	Retained	<p>An important part of the NPS mission is the preservation of natural soundscapes associated with national park system units. Natural soundscapes exist in the absence of human-caused sound. The natural ambient soundscape is the aggregate of all the natural sounds that occur in a park unit, together with the physical capacity for transmitting natural sounds. Natural sounds occur within and beyond the range of sounds that humans can perceive and can be transmitted through air, water, or solid materials. The frequencies, magnitudes, and durations of human-caused sound considered acceptable varies among national park system units, as well as potentially throughout each park unit; generally acceptable levels are greater in developed areas and less in undeveloped areas.</p> <p>Unnatural sounds, often a byproduct of recreational activities, can be intrusive and can impact natural soundscape conditions that affect visitor experience and use and wildlife. Uses involving motorized activities under one or more of the alternatives could create conditions that would be of concern to NSP managers and the public. Section 8.2 of NPS <i>Management Policies 2006</i> requires that visitor uses within park units do not “impede the attainment of a park’s desired condition for natural and cultural resources as identified through the park’s planning process, or . . . unreasonably interfere with the atmosphere of peace and tranquility or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park.” Therefore, soundscape was retained as an impact topic, but is discussed under visitor use and experience, relevant wild-life topics, and wilderness resources and values.</p>	NPS Organic Act; NPS <i>Management Policies 2006</i> ; Director’s Order 47

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Public Health and Safety	Dismissed	The proposed developments and actions in the alternatives would not result in any identifiable adverse impacts on human health or safety. Therefore this topic was dismissed from further analysis.	CEQ regulations; <i>DO-12 Handbook</i>
Socioeconomic Environment Impact Topics			
Local Economy	Retained	Recreation-related tourism plays an important role in the local and regional economy. The alternatives included in this plan propose varying levels of recreational access and opportunities that would affect visitation levels and possibly spending in the local area. Furthermore, the facility development actions and NPS staffing components of the alternatives could affect the local economy. Therefore, local economy was retained as an impact topic.	National Environmental Policy Act
Transportation	Dismissed	The plan alternatives would have only minor impacts on transportation in or through the Addition. All federal and state highways (including I-75, U.S. 41, and SR 29) would continue to function as they do today. Temporary impacts on traffic flow on I-75 could be experienced as a result of access improvements at mile markers 51 and 63; however, the adverse impacts would only be experienced on a short-term basis during construction and were accounted for under the <i>I-75 Recreational Access Plan/EA</i> . Furthermore, visitor access to the Addition is addressed as part of visitor use and experience, which was retained as an impact topic. Therefore, transportation was dismissed from further analysis.	National Environmental Policy Act
Conformity with Local Land Use Plans	Dismissed	The basic land use of the Addition as a public recreation and resource management area is in conformance with local land use plans. The creation of additional recreation and visitor service opportunities in the Addition as proposed in the alternatives would be consistent with existing Addition land uses or local (non-NPS) or tribal land use plans, policies, or controls for the area. Therefore, this topic was dismissed from further consideration.	CEQ regulations; <i>DO-12 Handbook</i>

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Urban Quality and Design of the Built Environment	Dismissed	The quality of urban areas is not a concern in this planning project except possibly in the Carnestown area. Throughout the Addition, vernacular architecture and Addition - compatible design would be considered for new structures built under all of the alternatives. Emphasis would be placed on designs and materials and colors that blend in and do not detract from the natural and built environment. Therefore, adverse impacts are anticipated to be negligible. No further consideration of this topic is necessary.	40 <i>Code of Federal Regulations</i> (CFR)1502.16

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Environmental Justice	Dismissed	<p>Executive Order 12898 requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. According to the Environmental Protection Agency, environmental justice is the</p> <p><i>fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.</i></p> <p>Collier County contains both minority and low-income populations; however, environmental justice is dismissed as an impact topic for the following reasons:</p> <ul style="list-style-type: none"> • NPS staff and planning team actively solicited public participation as part of the planning process and gave equal consideration to input from all persons regardless of age, race, income status, or other socioeconomic or demographic factors. • Implementation of any of the alternatives would not result in any disproportionate human health or environmental effects on minorities or low-income populations and communities. • The impacts associated with implementation of the alternatives would not result in any effects that would be specific to any minority or low-income community. Any anticipated impacts, such as traffic, would not disproportionately affect minority or low-income populations. • Impacts would not occur all at one time but would be spread over a number of years. • The impacts to the socioeconomic environment resulting from implementation of any of the alternatives would be negligible. 	Executive Order 12898, "General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,"

Impact Topic	Retained or Dismissed	Rationale	Relevant Law, Regulation, or Policy
Addition Operations Impact Topics			
NPS Operations and Facilities	Retained	Actions proposed in the alternatives could impact staffing, facility management, resource management, and other management and operations. Support facilities necessary to house, transport, inform, and serve visitors and staff require proper planning, design, programming, construction, operation and maintenance. Facilities should be cost-effective, integrate sustainable design, and consider impacts on the landscape, environs, and resources of the Addition. Actions proposed in the alternatives could impact NPS operations and facilities. Therefore this was retained as an impact topic.	NPS Organic Act; DOI Departmental Manual; NPS <i>Management Policies 2006</i> ; enabling legislation; Director's Order 80

CHAPTER 2



ALTERNATIVES, INCLUDING THE PREFERRED ALTERNATIVE

INTRODUCTION

This chapter is organized into several sections:

- The “**Introduction**” explains how the alternatives, including the preferred alternative, were developed; explains possible boundary adjustments; and describes the management zones.
- Then, **alternatives** (A, B, preferred, and F) are described, both with text and maps, and a summary of the possible costs for each alternative are explained.
- The next large section, “**The Alternatives and User Capacity, Adaptive Management, ORV Administration and Management, and Wilderness,**” describes how the user capacity framework will assist the National Park Service in managing visitor use impacts, how managers will use adaptive management to ensure resource protection; how ORV use will be managed, including permits and numbers of permits, types of vehicles, potential closures, education about ORV use, and a schedule for implementing the ORV program and trail system; and a discussion of wilderness that includes a definition, permitted uses in wilderness, the wilderness eligibility assessment process, and a summary of findings.
- This is followed by sections on
 - **mitigative measures** that will be followed under all the action alternatives,
 - a section that describes **future studies and implementation plans** that will be needed,
 - a discussion about the **environmentally preferred alternative**,
 - a discussion of the **alternatives/actions that were considered but dismissed**,
 - **tables that summarize the alternatives and the impacts of implementing the alternatives** (the analysis for this table is in chapter 4).

Many aspects of the desired conditions of the Big Cypress National Preserve Addition are defined in the Addition’s establishing legislation, its purpose and significance statements, and the guiding principles for management that were described in chapter 1. Within these parameters, the National Park Service solicited input from the public, NPS staff, government agencies, tribal officials, and other organizations regarding issues and desired conditions for the Addition. Planning team members gathered information about expected visitation and the condition of the Addition’s facilities and resources. Then a set of four management zones and four management alternatives were developed to reflect the range of ideas proposed by NPS staff and the public.

This chapter describes the management zones and the alternatives for managing the Addition for the next 15 to 20 years. It includes tables that summarize the key differences among the alternatives (see table 10) and the differences in key impacts (see table 11) that would be expected from implementing each alternative. Table 11 is based on the analysis in “Chapter 4, Environmental Consequences.” Chapter 2 also describes mitigative measures that would be used to lessen or avoid impacts, and the environmentally preferred alternative. Also discussed are the future studies that would be needed, as well as several actions and alternatives that the planning team considered but dismissed.

This Final General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement presents four alternatives, including the National Park Service’s preferred alternative, for future management of the Big Cypress National Preserve Addition. Alternative A, the “no-action” alternative, which is required by law, presents a continuation of existing management direction and is included as a

baseline for comparing the consequences of implementing each alternative. The other three “action” alternatives are alternative B, the preferred alternative, and alternative F. These action alternatives present different ways to manage resources and visitor use and improve facilities and infrastructure in the Addition. These four alternatives embody the range of what the public and the National Park Service want to see accomplished with regard to natural resource conditions, cultural resource conditions, visitor use and experience conditions, and management in the Addition.

As noted in the previous “Guidance for Planning” section in chapter 1, the National Park Service would continue to follow existing agreements and servicewide mandates, laws, and policies regardless of the alternatives considered in this plan. These mandates and policies are not repeated in this chapter.

HOW THE ALTERNATIVES WERE DEVELOPED

A set of six preliminary alternatives (alternatives A, B, C, D, E, and F) were developed and presented to the public in October 2005. The alternatives were developed by the National Park Service based on public input and Addition management considerations to explore different ways to manage resources, visitor use, and improve facilities and infrastructure in the Addition.

In April 2007 the preliminary alternatives were revised to include conceptual ORV trails and areas of proposed wilderness; these revisions were presented to the public. Together the alternatives represent a reasonable range of wilderness and ORV opportunities.

Since April 2007, the planning team dismissed preliminary alternatives C, D, and E from further consideration because they included goals and actions for environmental protection, visitor use, and ORV opportunities that

were the same as those in alternative B, the preferred alternative, and alternative F (see the “Alternatives and Management Actions Considered but Dismissed” section later in this chapter for more details). The naming structure of the current set of alternatives is intended to track the original set of preliminary alternatives and minimize confusion.

The alternatives included in this plan present a continuum of resource preservation and recreation opportunities as prescribed in the Addition’s enabling legislation. The no-action alternative (alternative A) is required by law and serves as a baseline for analyzing the action alternatives. Alternative B includes the highest level of motorized access and trail designation and the lowest level of proposed wilderness. Alternative F contains the lowest level of motorized access and trail designation and the highest level of proposed wilderness. The preferred alternative contains the agency’s selected combination of ORV opportunities and resource preservation and proposed wilderness. In developing this range of alternatives, the National Park Service adhered to the requirements of the National Environmental Policy Act and the Wilderness Act, while giving careful consideration to the national preserve designation that Congress assigned to the Addition.

The alternatives focus on *what* resource conditions and visitor uses/experiences should be at the Addition rather than on details of *how* these conditions and uses/experiences should be achieved. Thus, the alternatives do not include many details on resource or visitor use management.

More detailed plans or studies will be required before most conditions proposed in the alternatives are achieved. The implementation of any alternative also depends on future funding and completion of appropriate environmental compliance. Approval of this plan does not guarantee that funding will be forthcoming. The plan establishes a vision of the future that will guide day-to-day and year-

to-year management of the Addition, but full implementation could take many years.

IDENTIFICATION OF THE PREFERRED ALTERNATIVE

The development of a preferred alternative involved evaluating the alternatives through the use of an objective analysis process called “choosing by advantages” or CBA. Through this process, the planning team identified and compared the relative advantages of each alternative according to a set of factors. The benefits or advantages of each alternative were compared for each of the following CBA factors:

1. provide for a range of appropriate visitor opportunities and access
2. protect cultural and natural resources and restore natural processes
3. preserve or enhance wilderness values
4. provide for effective/efficient NPS operations and public safety

The relationships between the advantages and costs of each alternative were established. This information was used to combine the best attributes of the preliminary alternatives into the preferred alternative. This alternative gives the National Park Service (and the public) the greatest overall benefits for each point listed above for the most reasonable cost.

This process indicated that alternative D provided the greatest advantages. The differences between alternatives B and C and between E and F were relatively slight. Factor 2 was identified as having the paramount advantage and the scoring for this factor varied widely among the alternatives.

As part of the CBA process, the highest ranking advantages of the alternatives were analyzed and considered for inclusion in the development of the preferred alternative. Important elements of preliminary alternatives C, D, and E were used to develop the

preferred alternative, providing the highest number of advantages to the National Park Service. The preferred alternative provides the best combination of motorized access, back-country recreational opportunities, proposed wilderness, new visitor facilities, and facilities needed for Addition operations and management.

CHANGES TO THE PREFERRED ALTERNATIVE RESULTING FROM PUBLIC COMMENT ON THE DRAFT GENERAL MANAGEMENT PLAN

The preferred alternative included in this final plan was developed based on public comments received on the *Draft General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement*. Changes to the wilderness eligibility assessment (see appendix B), proposed wilderness, ORV trail routes and mileage, and ORV administration and management were made as a result of the input received from agencies, American Indian tribes, and the public. The sections that follow, including the description of the preferred alternative, include these changes.

POTENTIAL FOR BOUNDARY ADJUSTMENTS

The National Park and Recreation Act of 1978 requires general management plans to address whether boundary modifications should be made to park units. The planning team reviewed the Addition boundary and determined that no boundary adjustments are warranted. The alternatives do not contain any proposals for boundary adjustments.

MANAGEMENT ZONES

The management zones were developed as part of this planning effort and were presented to the public in newsletters and

public meetings; then they were modified in response to public comments. A management zone defines specific resource conditions and visitor experiences to be achieved and maintained in each specific area of the Addition under each action alternative. (Because management zones are not part of the Addition's current management tools, management zones are not included in the no-action alternative.) The four management zones for the Addition are presented in table 2. In the table, resource conditions, visitor experience, and appropriate activities and facilities are described for each zone. Although the zones describe the type of development that is allowed, they do not dictate the developments that will occur.

In formulating the alternatives, the management zones were placed in different locations or configurations on the maps according to the overall concept of each alternative. That is, each management alternative represents a different way to apply the four management

zones to the Addition. For example, alternative B, whose overall concept emphasizes motorized recreation, has more of the backcountry recreation zone than alternative F, whose overall concept is to maximize wilderness in the Addition.

The primitive backcountry management zone is compatible with the legal requirements associated with wilderness. Should wilderness be designated in the Addition, the management emphasis and actions of this zone would preserve wilderness resources and values. Furthermore, as discussed in the "Guiding Principles for Management" section of this document, management decisions for designated wilderness areas would be made in accordance with the minimum requirement concept outlined in the Wilderness Act and NPS policies. Permitted and prohibited uses in designated wilderness are addressed on page 116.

TABLE 2: MANAGEMENT ZONES

Management Zone	Resource Conditions	Visitor Experience	Appropriate Facilities / Activities
DEVELOPED Visitor orientation/education would be the dominant goals for this zone. NPS administrative facilities would also be included in this zone.	<ul style="list-style-type: none"> Natural environment could be modified for essential visitor and NPS operational needs. Known cultural resources would be avoided to extent possible or impacts would be mitigated appropriately. Facilities would be designed and managed to ensure resource protection and public safety. Human-related noise would predominate. Natural sounds may be audible during low visitor use periods. 	<ul style="list-style-type: none"> Visitor attractions would be convenient and easily accessible. NPS or self-guided opportunities would be available. Moderate to high levels of encounters with other visitors and NPS staff would be expected, including relatively high levels of human-related noise. 	<ul style="list-style-type: none"> I-75 access points orientation and interpretation facilities, such as visitor centers comfort stations boardwalks and trails to access adjacent natural/cultural features NPS administrative/staff facilities — offices, housing, support facilities for NPS management (shops, storage areas, fire cache, etc.) commercial facilities to support appropriate visitor activities closed to hunting
FRONTCOUNTRY Visitor orientation and access would be the dominant goals for this zone.	<ul style="list-style-type: none"> Natural environment could be modified for essential visitor needs. Known cultural resources would be avoided to extent possible or impacts would be mitigated appropriately. Facilities would be designed and managed to ensure resource protection and public safety. Natural sounds may exist, but they would be frequently interrupted by human activity. 	<ul style="list-style-type: none"> Visitor attractions would be convenient and easily accessible. Self-guided opportunities would be available. Low to moderate levels of encounters with other visitors and NPS staff would be expected, including relatively moderate levels of human-related noise. 	<ul style="list-style-type: none"> recreational access or trailhead parking picnic areas orientation facilities and signs campgrounds comfort stations boardwalks and trails to access adjacent natural/cultural features commercial activities that are consistent with the visitor opportunities and activities closed to hunting

Management Zone	Resource Conditions	Visitor Experience	Appropriate Facilities / Activities
BACKCOUNTRY RECREATION Preservation of natural and cultural resources, restoration of degraded resources, and continuation of natural processes would be the dominant goals in this zone. Visitors would experience a natural landscape through a variety of recreational opportunities supported by a network of designated trails.	<ul style="list-style-type: none"> Native species and natural processes would predominate. Cultural resources would exhibit a high degree of integrity. Evidence of human impact would be apparent along trail corridors and designated campsites, but would be infrequent and limited in extent elsewhere in this zone. Natural sounds would be audible in this zone, but they would be interrupted by noises from motors and other human activity. 	<ul style="list-style-type: none"> Some opportunities for solitude, challenge, adventure, and self-reliance would be provided. Variety of visitor experiences would be available — from NPS-led to self-discovery. Encounters with NPS staff and other visitors could be frequent — should expect to experience human-related noise. 	<ul style="list-style-type: none"> activities could include hiking, backpacking, hunting, fishing, horseback riding, camping, boating, bicycling, ORV use trails and routes may be designated for hiking, bicycling, and boating. navigational markers may be provided information/interpretation kiosks and signs backcountry support facilities such as ranger stations and fire cache resource protection and monitoring equipment vehicle and stock use allowed only on designated roads and trails hunting allowed in designated areas and seasons as determined by the National Park Service in consultation with the Florida Fish and Wildlife Conservation Commission dispersed camping, and where necessary for resource protection, designated campsites outfitter/guide activities would be consistent with visitor opportunities and activities

Management Zone	Resource Conditions	Visitor Experience	Appropriate Facilities / Activities
PRIMITIVE BACKCOUNTRY Preservation of natural and cultural resources, restoration of degraded resources, and continuation of natural processes would be the dominant goals in this zone. Visitors would experience a natural landscape with opportunities for primitive and unconfined recreation directly dependent on ability, knowledge, and self-reliance.	<ul style="list-style-type: none"> Native species and natural processes would predominate. Cultural resources would exhibit a high degree of integrity. Evidence of human impact would be infrequent and limited in extent. Natural sounds would dominate in this zone; however, human-related noise would likely be more audible near other zones and primary visitor use areas. 	<ul style="list-style-type: none"> Numerous opportunities would be available for challenge, adventure, solitude, and self-reliance. Visitors might find discovery areas with no on-site interpretation and very limited facilities. Encounters with NPS staff and other visitors would be infrequent — should expect to experience natural sounds. 	<ul style="list-style-type: none"> visitor facilities — limited to designated trails, marked routes, and designated campsites dispersed camping, and where necessary for resource protection, designated campsites resource protection and monitoring equipment activities could include hiking, backpacking, hunting, fishing, horseback riding, camping, nonmotorized boating, bicycling no motorized use allowed mechanized use would be limited to bicycling on designated roads and trails only (outside eligible wilderness) hunting allowed in designated areas and seasons as determined by the National Park Service in consultation with the Florida Fish and Wildlife Conservation Commission outfitter/guide activities would be consistent with visitor opportunities

ALTERNATIVE A (NO ACTION: CONTINUATION OF CURRENT MANAGEMENT)

CONCEPT AND GENERAL MANAGEMENT STRATEGIES

The Addition would be managed the way it is being managed now. No management zones would be used to guide planning and decision-making — current management trends and strategies would continue.

MOTORIZED RECREATIONAL OPPORTUNITIES — TRAILS AND PERMITS

The Addition would continue to be closed to public recreational ORV use. Motorized boating would continue to be permitted in the canals and waterways adjacent to SR 29.

No ORV permits would be granted, and no trails would be designated because public recreational ORV use would not be allowed. ORV access to private property by inholders would continue to be allowed by special use permit.

NONMOTORIZED RECREATIONAL OPPORTUNITIES

Limited opportunities for hiking, paddling, horseback riding, and bicycling would continue to be available. New opportunities for walk-in hunting would be provided.

Access points would be developed at mile markers 51 and 63 under the *I-75 Recreational Access Plan*; however, access would be walk-in only.

Access to the Florida National Scenic Trail would remain at I-75 mile marker 63, and the northern route would remain temporary and undesignated.

The National Park Service would work with the Florida Fish and Wildlife Conservation Commission to provide hunting access, define hunting seasons, and develop hunting regulations consistent with both agencies' policies and goals for the Addition.

VISITOR ORIENTATION AND EDUCATION

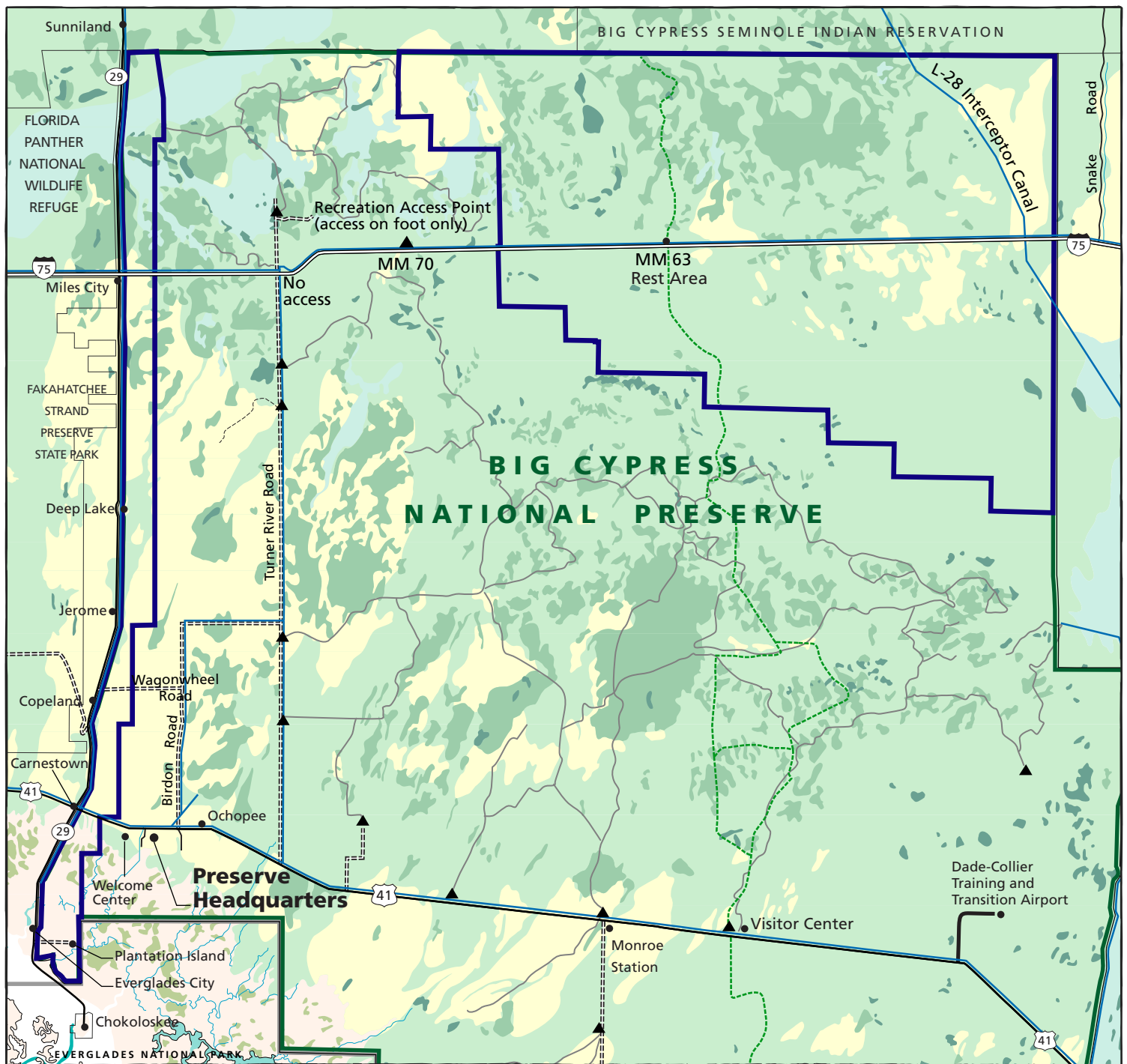
No new facilities would be developed under this alternative, which means that no visitor contact facilities would be present in the Addition. Visitor orientation to the Addition would continue to occur at the NPS facilities on U.S. Highway 41 (hereafter referred to as U.S. 41). Environmental education would continue to be conducted at the Birdon Road facility, with no presence in or connection to the Addition.

WILDERNESS

No land would be proposed for wilderness designation under this alternative; however, those lands in the Addition eligible for wilderness designation would continue to be managed to preserve their wilderness characteristics and values (see map 8).

PARTNERSHIPS, PROGRAMS, AND ACTIVITIES

No new partnerships, programs, or activities would be initiated for the Addition. Existing partnerships, programs, and activities would continue.



Legend

- Preserve Boundary
- Addition Boundary
- Canal
- ▲ Existing Access Point
- - - Florida National Scenic Trail
- ~ Designated Primary ORV Trail
- - - Unpaved Road
- - - Existing Hiking Trail

0 5 10
Miles



Map 3 • Alternative A • No-Action Alternative Big Cypress National Preserve-Addition General Management Plan

United States Department of the Interior • National Park Service • DSC • October 2010 • 176 / 20074

FACILITIES

No new facilities would be developed under this alternative. Existing facilities would continue to be maintained as at present.

I-75 Mile Marker 51

An access point would be developed at mile marker 51 under the *I-75 Recreational Access Plan*; however access would be only from nonmotorized use.

I-75 Mile Marker 63

Informal walk-in access would continue to be available via the rest area. An access point would be developed at mile marker 63 under the *I-75 Recreational Access Plan*; however access would be only from nonmotorized use.

Bear Island Grade at SR 29

This location would remain undeveloped and informal, nonmotorized access would continue.

Nobles and Jones Grades

No new facilities would be developed. Only nonmotorized access would remain along the road grades.

Miles City (I-75 at SR 29)

This intersection would remain undeveloped.

Deep Lake (SR 29)

No facility improvements would be made at this location. Parking would remain on the shoulder of SR 29, and access to the site would continue to be informal.

Copeland (SR 29)

The NPS Fire Operations Center would continue to be used by fire management staff and would remain at this location.

Carnestown (U.S. 41 at SR 29)

The facilities would continue to be leased to other government agencies and organizations.

ESTIMATED COSTS

The NPS staffing level under the no-action alternative would continue to be the equivalent of 77 full-time staff members. This includes 6 employees in the superintendent's office, 10 in administration, 20 in maintenance, 12 in interpretation, 14 in resource management, and 15 in visitor and resource protection. An additional 21 employees work for the Preserve's fire program, but these full-time-equivalent employees are not accounted for in the staffing numbers because they would remain the same across all alternatives. Volunteers and partnerships would continue to be key contributors to NPS operations.

The total cost of this alternative (annual operating costs) would be \$6.5 million.

The cost estimates provided here are given for comparison to other alternatives only; they are not to be used for budgeting purposes. Although the numbers appear to be absolutes, they represent a midpoint in a possible range of costs.

Presentation of these costs in this plan does not guarantee future NPS funding. Project funding would not come all at once; it would likely take many years to secure and may be provided by partners, donations or other nonfederal sources. Although the National Park Service hopes to secure this funding and would prepare itself accordingly, the Preserve may not receive enough funding to achieve all

desired conditions within the timeframe of the *General Management Plan* (the next 20 or more years). More information on costs is

provided in the “Development of Cost Estimates” section and table 6.

ALTERNATIVE B

CONCEPT AND GENERAL MANAGEMENT STRATEGIES

Alternative B would enable participation in a wide variety of outdoor recreational experiences. It would nearly maximize motorized access, provide the least amount of proposed wilderness, and develop limited new hiking-only trails. New visitor and operations facilities along the I-75 corridor would also be provided.

The approximate acreages and percentages of the Addition that would be in each of the management zones under alternative B are shown in table 3.

TABLE 3: MANAGEMENT ZONES IN ALTERNATIVE B

Zone	Acreage	% of Addition
Developed	18	< 1
Frontcountry	6	< 1
Backcountry Recreation	94, 529	65
Primitive Backcountry	51, 294	35

The National Park Service would work with the Florida Fish and Wildlife Conservation Commission to provide hunting access, define hunting seasons, and develop hunting regulations that are consistent with both agencies' policies and goals for the Addition.

Management of the Addition and the actions that would be taken by the National Park Service in the next 20 years under alternative B are described in the following sections.

MOTORIZED RECREATIONAL OPPORTUNITIES — TRAILS AND PERMITS

Motorized recreational opportunities, including ORV use, motorized boating, and

hunting, would be nearly maximized under this alternative. Up to 132 miles would be included as part of the conceptual primary (see glossary) ORV trail network. Secondary trails would be allowed within the backcountry recreation management zone. Specific access points and facilities to support motorized use are described in the "Facilities" section, including a potential connection from SR 29 to existing trails in the Bear Island area. Future connections to existing ORV trails south of the Northeast Addition would require additional National Environmental Policy Act compliance.

A maximum of 660 ORV permits would be issued annually for the Addition, and up to 132 miles of primary ORV trails would be designated. This maximum number of ORV permits is based on the ratio of ORV trail mileage to issued permits in the original Preserve (as detailed later in this chapter in the section titled "The Alternatives and User Capacity, Adaptive Management, ORV Administration and Management, and Wilderness"). Under alternative B, the entire ORV trail system would be implemented without phased establishment and the assessment of monitoring results as described under the preferred alternative.

NONMOTORIZED RECREATIONAL OPPORTUNITIES

New access points would be established for hiking, bicycling, horseback riding, and hunting. Some new hiking trails would be developed at frontcountry locations. Access points would be developed at mile markers 51 and 63 under the *I-75 Recreational Access Plan*. These access points would provide access for both motorized and nonmotorized uses. Hiking, bicycling, and horseback riding would also be allowed on the approximately 132 miles of primary ORV trails in the Addition.

New paddling trails would be developed in the tidal areas south of U.S. 41 in the Western Addition. Specific access points and facilities to support nonmotorized uses are described in the “Facilities” section.

Conceptual hiking trails would be included as part of this alternative — one completing a north-south connection and one completing an east-west connection through the Addition.

The National Park Service would work cooperatively with the Florida Trail Association and the U.S. Forest Service to determine the appropriate access points and routing of the Florida National Scenic Trail to minimize conflicts between motorized and nonmotorized users. The trail would be formally designated.

VISITOR ORIENTATION AND EDUCATION

A visitor contact station and outdoor orientation and interpretive panels would be developed along I-75 under this alternative as described in the “Facilities” section.

WILDERNESS

About 37,567 acres of land would be proposed for wilderness designation under this alternative (see following map).

NPS staff would work cooperatively with the state of Florida and the U.S. Fish and Wildlife Service (and other appropriate federal, state, and local agencies) to ensure that the legislative act that formally designates wilderness in the Addition contains language that allows for effective management of exotic species, wildland and prescribed fire, and law enforcement activities.

PARTNERSHIPS, PROGRAMS, AND ACTIVITIES

The National Park Service would explore new partnerships to provide visitor services at Carnestown.

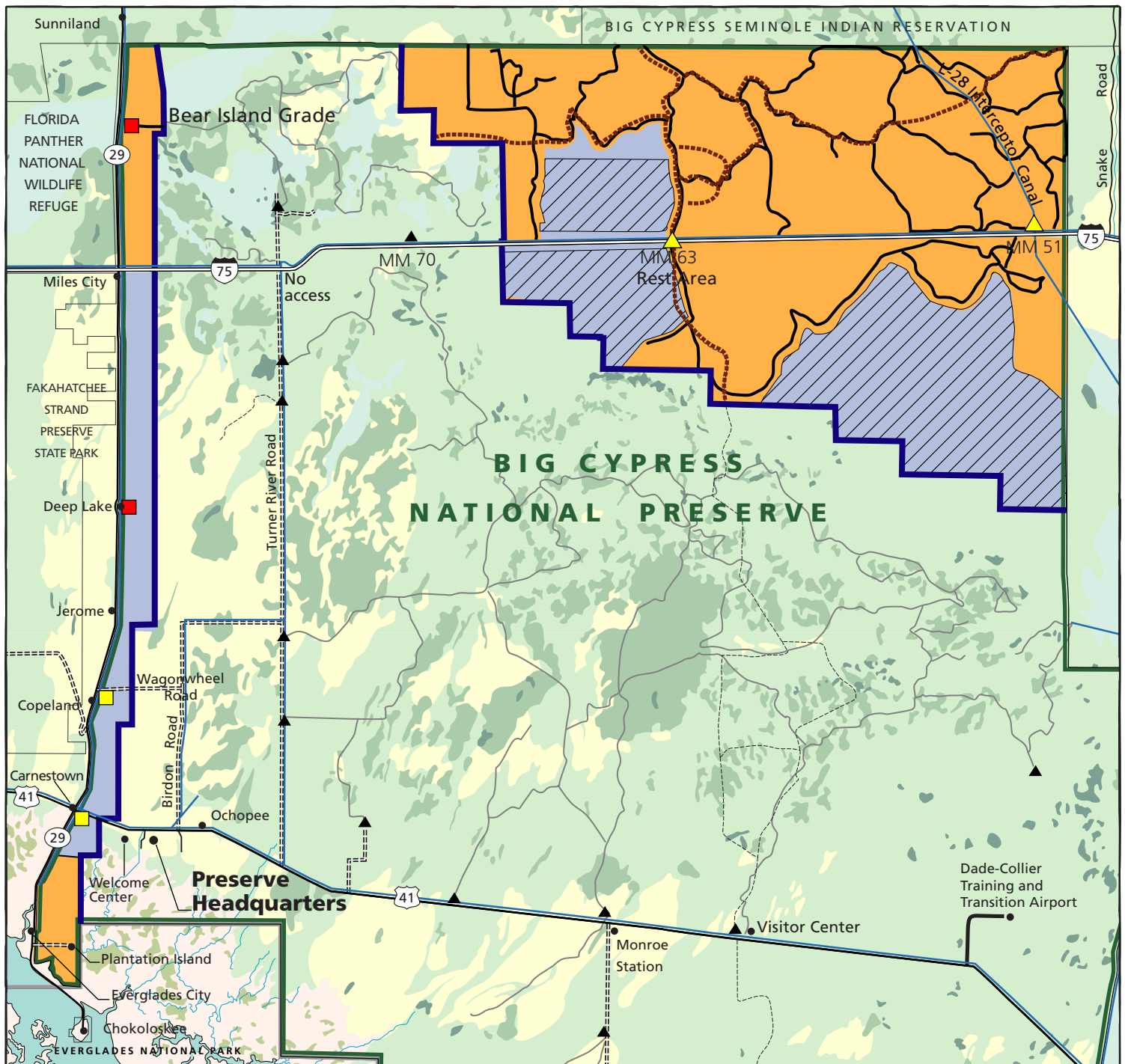
FACILITIES

I-75 Mile Marker 51

A new access point would be developed at this location that includes parking and restrooms. The site would provide access for motorized and nonmotorized activities. Visitor orientation and interpretation panels would also be installed. The National Park Service would establish a partnership with the Florida Department of Transportation and the Florida Fish and Wildlife Conservation Commission to establish other facilities as appropriate, such as a wildlife check station and boat ramp to access the South Florida Water Management District canal.

I-75 Mile Marker 63

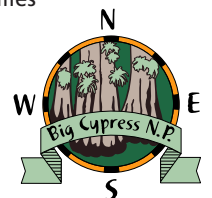
Using the Florida Department of Transportation rest area at this location, a new access point would be developed that would include parking and trailhead. The site would provide access for motorized and nonmotorized activities. A new visitor contact station and NPS operations facility would also be developed at this location. The National Park Service would establish a partnership with the Florida Department of Transportation and the Florida Fish and Wildlife Conservation Commission to establish other facilities as appropriate, such as a wildlife check station.



Legend

- | | | |
|-----------------------|------------------------------|------------------------|
| Preserve Boundary | Conceptual Hiking Trail | Frontcountry |
| Addition Boundary | Designated Primary ORV Trail | Primitive Backcountry |
| Canal | Conceptual Primary ORV Trail | Backcountry Recreation |
| Existing Access Point | Unpaved Road | Developed |
| Proposed Access Point | Existing Hiking Trail | Proposed Wilderness |

0 5 10
Miles



Map 4 • Alternative B • Big Cypress National Preserve—Addition General Management Plan

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Bear Island Grade at SR 29

A new trailhead and parking area would be developed at this location, providing motorized and nonmotorized access to the Bear Island Grade. This new access point would provide a connection to ORV trails in the original Preserve. Visitor orientation and interpretation panels would also be installed.

Nobles and Jones Grades

No new facilities would be developed. The road grades would only be used for access.

Miles City (I-75 at SR 29)

This intersection would remain undeveloped.

Deep Lake (SR 29)

The site would be developed into a day use area with parking, restrooms, and a hiking trail/boardwalk to Deep Lake.

Copeland (SR 29)

The NPS Fire Operations Center would remain at this location.

Carnestown (U.S. 41 at SR 29)

Facilities at the site would be used to support visitor service partnership needs.

ESTIMATED COSTS

The NPS staffing level needed to implement alternative B would be the equivalent of 93

full-time staff members (16 additional full-time-equivalent employees or 17 positions) — 15 permanent full-time employees and 2 half-time temporary/seasonal employees). These 16 additional employees include 2 permanent interpreters, 2 seasonal interpreters, 4 maintenance workers, 5 law enforcement rangers, 2 visitor use assistants, 1 ORV program manager, and 1 biological science technician. Volunteers and partnerships would continue to be key contributors to NPS operations.

One-time capital costs of alternative B, including projects that are planned for the near future or are underway, new construction, and nonfacility costs such as major resource plans and projects, are estimated at \$6.7 million. Annual operating costs under this alternative would be \$7.9 million.

The cost estimates provided here are given for comparison to other alternatives only; they are not to be used for budgeting purposes. Although the numbers appear to be absolutes, they represent a midpoint in a possible range of costs.

Presentation of these costs in this plan does not guarantee future NPS funding. Project funding would not come all at once; it would likely take many years to secure and may be provided by partners, donations or other nonfederal sources. Although the National Park Service hopes to secure this funding and would prepare itself accordingly, the Preserve may not receive enough funding to achieve all desired conditions within the timeframe of the *General Management Plan* (the next 20 or more years). More information on costs is provided in the “Development of Cost Estimates” section and table 6.

PREFERRED ALTERNATIVE

CONCEPT AND GENERAL MANAGEMENT STRATEGIES

The preferred alternative would provide diverse frontcountry and backcountry recreational opportunities, enhance day use and interpretive opportunities along road corridors, and enhance recreational opportunities with new facilities and services. This alternative would provide a substantial amount of ORV access and riding opportunities, provide a moderate amount of wilderness, provide nonmotorized trail opportunities and new camping opportunities, and develop a partnership approach to visitor orientation. New visitor and operations facilities along the I-75 corridor would also be provided.

The approximate acreages and percentages of the Addition that would be in each of the management zones under the preferred alternative are shown in table 4.

TABLE 4: MANAGEMENT ZONES IN THE PREFERRED ALTERNATIVE

Zone	Acreage	% of Addition
Developed	18	< 1
Frontcountry	11	< 1
Backcountry Recreation	49,449	33
Primitive Backcountry	96,413	65

Areas that were found to be eligible for wilderness designation, but were not included as proposed wilderness in the preferred alternative, would be zoned primitive backcountry. No public motorized use would be allowed in these areas, and they would be managed to protect their natural values.

NPS staff would work with the Florida Fish and Wildlife Conservation Commission to

provide hunting access, define hunting seasons, and develop hunting regulations that are consistent with both agencies' policies and goals for the Addition.

Management of the Addition and the actions that would be taken by the National Park Service in the next 20 years under the preferred alternative are described in the following paragraphs.

MOTORIZED RECREATIONAL OPPORTUNITIES — TRAILS AND PERMITS

Motorized recreational opportunities, including ORV use, motorized boating, and hunting would be phased in over time. Approximately 130 miles of trails would be included as part of the conceptual primary (see glossary) ORV trail network. Secondary trails would be allowed only within the backcountry recreation management zone. Access points and facilities to support motorized use are described in the "Facilities" section, including a potential connection to existing trails in the Bear Island area. Future connections to existing ORV trails in the original Preserve may require additional environmental compliance.

A maximum of 650 ORV permits would be issued annually for the Addition, and up to 130 miles of primary ORV trails would be designated. This number of ORV permits is based on the ratio of ORV trail mileage to issued permits in the original Preserve (as detailed later in this chapter in the section titled "The Alternatives and User Capacity, Adaptive Management, ORV Administration and Management, and Wilderness").

However, under the preferred alternative, the extent of trails and the number of

permits available to the public would be accomplished in phases. For example, a certain amount of trails would be designated and a certain number of permits would be allowed. The number of initial permits available would be proportionate to the initial extent of the trail system. For example, using a factor of five permits per mile of trail, if 20 miles of trail were opened, then 100 permits would be issued. The National Park Service would determine the initial extent of the trail system based on field conditions, proximity to access points, and levels of trail stabilization needed. Monitoring of the impacts would take place, and if impacts were at or below acceptable limits, more trails would be designated and more permits would be allowed.

NONMOTORIZED RECREATIONAL OPPORTUNITIES

New access points would be established for hiking, bicycling, horseback riding, and hunting. Access points would be developed at mile markers 51 and 63 under the *I-75 Recreational Access Plan*. These access points would provide access for both motorized and nonmotorized uses. Hiking, bicycling, and horseback riding would also be allowed on the up to 130 miles of ORV trails in the Addition. Some new hiking trails would be developed at frontcountry locations. New paddling trails would be developed in the tidal areas south of U.S. 41 in the Western Addition. Specific access points and facilities to support nonmotorized uses are described in the “Facilities” section.

Conceptual hiking trails would be included as part of this alternative — one completing a north-south connection and one completing an east-west connection through the Addition.

The National Park Service would work cooperatively with the Florida Trail Association and the U.S. Forest Service to determine the appropriate access points and

routing of the Florida National Scenic Trail to minimize conflicts between motorized and nonmotorized users. The trail would be formally designated.

VISITOR ORIENTATION AND EDUCATION

A new visitor contact station and some outdoor orientation and interpretive panels would be developed along I-75 under this alternative as described in the “Facilities” section.

WILDERNESS

About 47,067 acres of land would be proposed for wilderness designation under this alternative (see following map).

NPS staff would work cooperatively with the state of Florida and the U.S. Fish and Wildlife Service (and other appropriate federal, state, and local agencies) to ensure that the legislative act that formally designates wilderness in the Addition contains language that allows for effective management of exotic species, wildland and prescribed fire, scientific research and monitoring, and law enforcement activities.

PARTNERSHIPS, PROGRAMS, AND ACTIVITIES

The National Park Service would pursue partnerships to achieve management objectives and consider partnerships that provide a range of commercial services, including boat tours south of U.S. 41. The original Preserve’s *Commercial Services Plan* would be amended to include the Addition.

FACILITIES

I-75 Mile Marker 51

A new access point would be developed at this location that includes parking. The site would provide access for motorized and nonmotorized activities. Visitor orientation and interpretation panels would also be installed. The National Park Service would establish a partnership with the Florida Department of Transportation and the Florida Fish and Wildlife Conservation Commission to establish other facilities as appropriate, such as a wildlife check station and boat ramp to access the South Florida Water Management District canal.

I-75 Mile Marker 63

Using the Florida Department of Transportation rest area at this location, a new access point would be developed that includes parking and trailhead. The site would provide access for motorized and nonmotorized activities. A new visitor center and NPS operations facility would also be developed at this location. The National Park Service would establish a partnership with the Florida Department of Transportation and the Florida Fish and Wildlife Conservation Commission to establish other facilities as appropriate, such as a wildlife check station.

Bear Island Grade at SR 29

A new trailhead and parking area would be developed at this location, providing motorized and nonmotorized access to the site and to Bear Island Grade. This new access point

would provide a connection to ORV trails in the original Preserve. Visitor orientation and interpretation panels would also be installed.

Nobles and Jones Grades

Primitive backcountry group camping areas would be provided at the terminus of these grades.

Miles City (I-75 at SR 29)

A new hiking trailhead, information kiosk, and small parking area would be developed outside the interchange area, which is closed to development.

Deep Lake (SR 29)

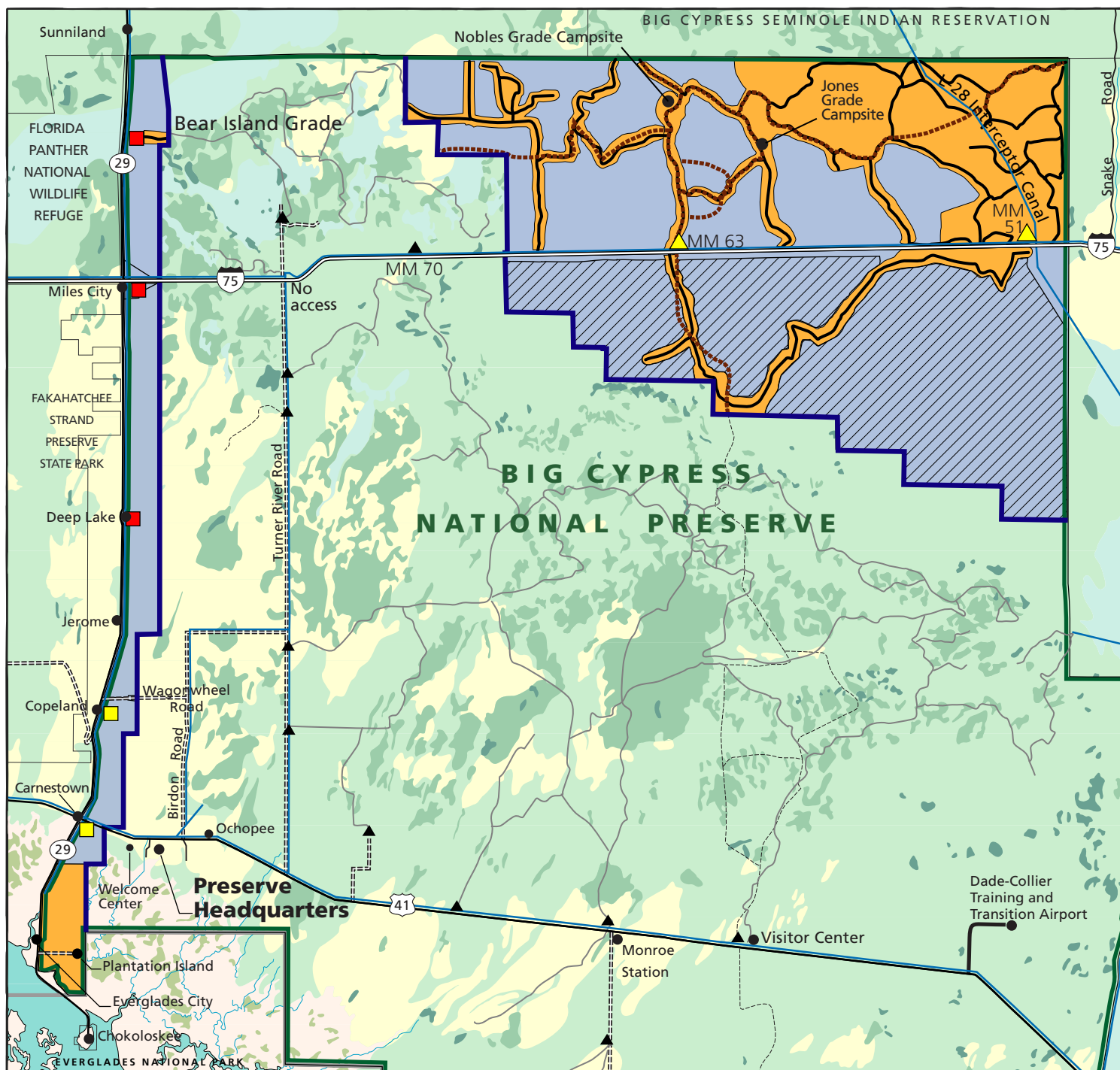
The site would be developed into a day use area with parking, restrooms, picnic shelters, and a hiking trail/boardwalk to Deep Lake.

Copeland (SR 29)

The NPS Fire Operations Center would be maintained at this location and expanded as necessary for other NPS operational needs.

Carnestown (U.S. 41 at SR 29)

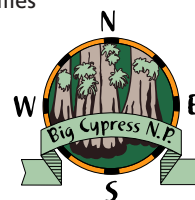
The facilities would be used to support commercial services and/or partner organizations (such as the Sheriff's Office) that would operate at this location, including enhancements that would support visitor service needs.



Legend

- | | | |
|-----------------------|------------------------------|------------------------|
| Preserve Boundary | Conceptual Hiking Trail | Frontcountry |
| Addition Boundary | Designated Primary ORV Trail | Primitive Backcountry |
| Canal | Conceptual Primary ORV Trail | Backcountry Recreation |
| Existing Access Point | Unpaved Road | Developed |
| Proposed Access Point | Existing Hiking Trail | Proposed Wilderness |

0 5 10
Miles



Map 5 • Preferred Alternative • Big Cypress National Preserve–Addition General Management Plan

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ESTIMATED COSTS

The NPS staffing level needed to implement the preferred alternative would be the equivalent of 93 full-time staff members (16 additional full-time-equivalent employees or 17 positions) — 15 permanent full-time-employees and 2 half-time temporary/seasonal employees). These 16 additional employees include 2 permanent interpreters, 2 seasonal interpreters, 4 maintenance workers, 5 law enforcement rangers, 2 visitor use assistants, 1 ORV program manager, and 1 biological science technician. Volunteers and partnerships would continue to be key contributors to NPS operations.

One-time capital costs of the preferred alternative, including projects that are planned for the near future or are underway, new construction, and nonfacility costs such as major resource plans and projects, are esti-

mated at \$6.7 million. Annual operating costs under this alternative would be \$7.9 million.

The cost estimates provided here are given for comparison to other alternatives only; they are not to be used for budgeting purposes. Although the numbers appear to be absolutes, they represent a midpoint in a possible range of costs.

Presentation of these costs in this plan does not guarantee future NPS funding. Project funding would not come all at once; it would likely take many years to secure and may be provided by partners, donations or other nonfederal sources. Although the National Park Service hopes to secure this funding and would prepare itself accordingly, the Preserve may not receive enough funding to achieve all desired conditions within the time frame of the *General Management Plan* (the next 20 or more years). More information on costs is provided in the “Development of Cost Estimates” section and table 6.

ALTERNATIVE F

CONCEPT AND GENERAL MANAGEMENT STRATEGIES

Alternative F would emphasize resource preservation, restoration, and research while providing recreational opportunities with limited facilities and support. This alternative would provide the maximum amount of wilderness, no ORV use, and minimal new facilities for visitor contact along I-75.

The approximate acreages and percentages of the Addition that would be in each of the management zones under alternative F are shown in table 5.

TABLE 5: MANAGEMENT ZONES IN ALTERNATIVE F

Zone	Acreage	% of Addition
Developed	15	< 1
Frontcountry	6	< 1
Backcountry Recreation	3,422	2
Primitive Backcountry	142,442	98

The management of the Addition and the actions that would be taken by the National Park Service in the next 20 years under alternative F are described in the following paragraphs.

MOTORIZED RECREATIONAL OPPORTUNITIES — TRAILS AND PERMITS

No ORV use would be available under this alternative. Motorized boating would continue to be permitted in certain areas of the canals and waterways adjacent to SR 29.

No ORV permits would be granted and no trails would be designated because public recreational ORV use would not be allowed. ORV access to private property by inholders

would continue to be allowed by special use permit.

NONMOTORIZED RECREATIONAL OPPORTUNITIES

New access points would be established, and trails would be developed for hiking, camping, bicycling, horseback riding, and walk-in hunting. Access points would be developed at mile markers 51 and 63 under the *I-75 Recreational Access Plan*; however, access would be walk-in only. Some new hiking trails would be developed at frontcountry locations. New paddling trails would be developed in the tidal areas south of U.S. 41 in the Western Addition. Specific access points and facilities to support nonmotorized uses are described in the “Facilities” section.

Conceptual hiking trails would be included as part of this alternative — one completing a north-south connection and one completing an east-west connection through the Addition.

The National Park Service would work cooperatively with the Florida Trail Association to determine the appropriate access points and routing of the Florida National Scenic Trail to minimize conflicts between motorized and nonmotorized users. The trail would be formally designated.

The National Park Service would work with the Florida Fish and Wildlife Conservation Commission and the U.S. Forest Service to provide hunting access, define hunting seasons, and develop hunting regulations that are consistent with both agencies’ policies and goals for the Addition.

VISITOR ORIENTATION AND EDUCATION

Visitor information/orientation panels would be developed along I-75 under this alternative, as described in the “Facilities” section.

WILDERNESS

About 71,260 acres of land would be proposed for wilderness designation under this alternative, including the Everglades City area which would allow historic motorboating to continue within designated wilderness (see following map).

NPS staff would work cooperatively with the state of Florida and the U.S. Fish and Wildlife Service (and other appropriate federal, state, and local agencies) to ensure that the legislative act that formally designates wilderness in the Addition contains language that allows for effective management of exotic species, wildland and prescribed fire, and law enforcement activities.

PARTNERSHIPS, PROGRAMS, AND ACTIVITIES

No new partnerships, programs, or activities would be initiated for the Addition.

FACILITIES

I-75 Mile Marker 51

A new access point (nonmotorized only) would be developed at this location that includes parking and visitor information. Visitor orientation and interpretation panels would also be installed. The National Park Service would establish a partnership with the Florida Department of Transportation and the Florida Fish and Wildlife Conservation Commission to establish other facilities as appropriate, such as a wildlife check station

and boat ramp to access the South Florida Water Management District canal.

I-75 Mile Marker 63

Using the Florida Department of Transportation rest area at this location, a new access point (nonmotorized only) would be developed that includes parking, a trailhead, and visitor information. Visitor orientation and interpretation panels would be installed. A new NPS operations facility would also be developed at this location. The National Park Service would establish a partnership with the Florida Department of Transportation and the Florida Fish and Wildlife Conservation Commission to establish other facilities as appropriate, such as a wildlife check station.

Bear Island Grade at SR 29

A new trailhead and parking area would be developed at this location, providing non-motorized access to the Bear Island Grade. Only hiking, bicycling, and horseback riding would be allowed on the trail within the Western Addition. Outside the Western Addition (in the original Preserve), ORV use would continue on the designated ORV trails in the Bear Island area. Visitor orientation and interpretation panels would also be installed at the trailhead.

Nobles and Jones Grades

These sites would remain undeveloped, and Nobles Grade would be removed and restored. Nonmotorized public access would remain on Jones Grade.

Miles City (I-75 at SR 29)

This intersection would remain undeveloped.

Deep Lake (SR 29)

A new trailhead would be developed at this location, including a hiking trail/boardwalk to Deep Lake.

Copeland (SR 29)

The NPS Fire Operations Center would be maintained at this location and expanded as necessary for other NPS operational needs.

Carnestown (U.S. 41 at SR 29)

Facilities would be removed, and the site would be restored to natural conditions.

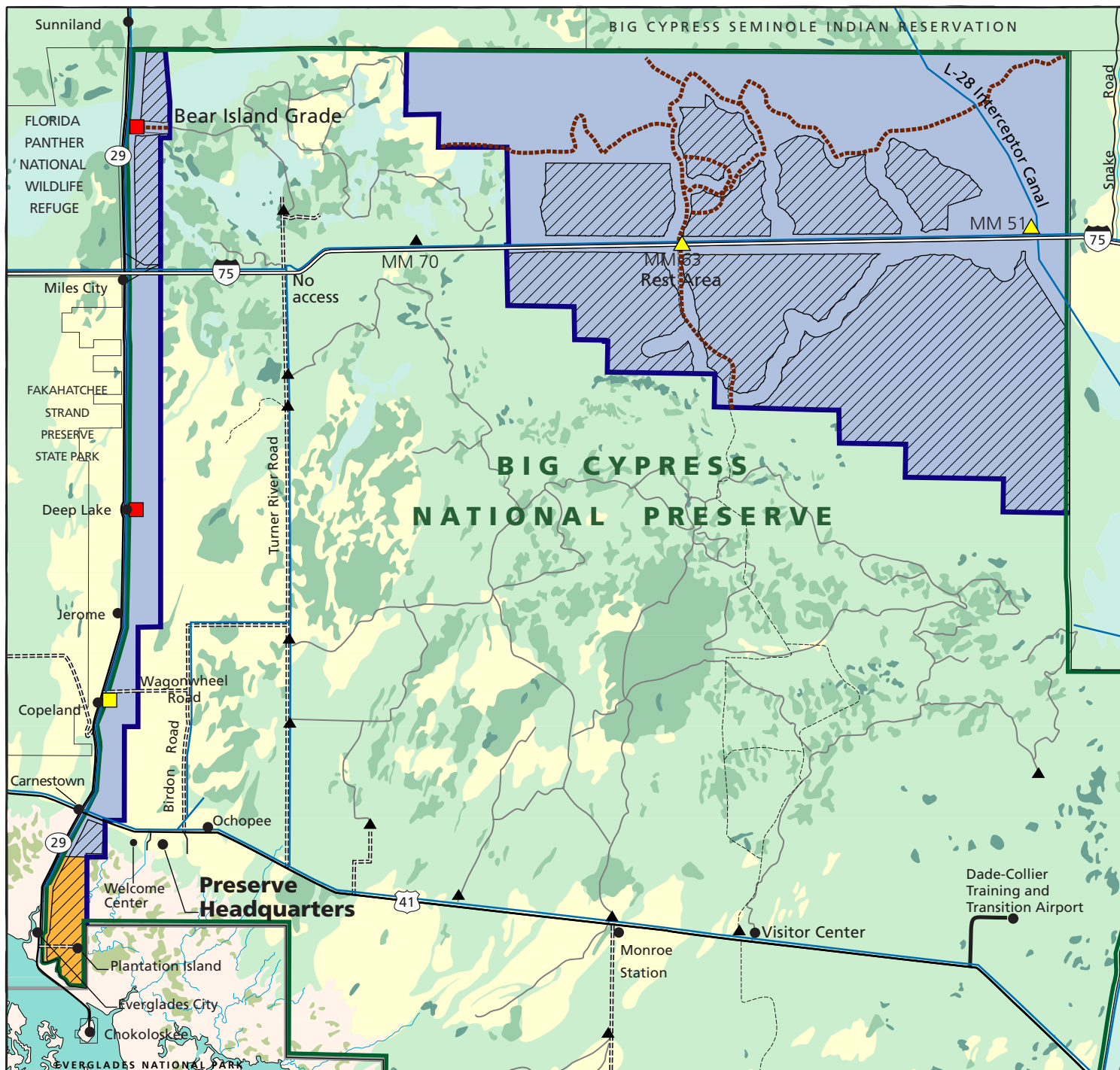
ESTIMATED COSTS

The NPS staffing level needed to implement alternative F would be the equivalent of 87 full-time staff members (10 additional positions). These 10 additional positions (10 full-time employees) would include 2 permanent interpreters, 2 maintenance workers, 5 law enforcement rangers, and 1 visitor use assistant. Volunteers and partnerships would continue to be key contributors to NPS operations.

One-time capital costs of alternative F, including projects that are planned for the near future or are underway, new construction, and nonfacility costs such as major resource plans and projects, are estimated at \$4.9 million. Annual operating costs under this alternative would be \$7.5 million.

The cost estimates provided here are given for comparison to other alternatives only; they are not to be used for budgeting purposes. Although the numbers appear to be absolutes, they represent a midpoint in a possible range of costs.

Presentation of these costs in this plan does not guarantee future NPS funding. Project funding would not come all at once; it would likely take many years to secure and may be provided by partners, donations or other nonfederal sources. Although the National Park Service hopes to secure this funding and would prepare itself accordingly, the Preserve may not receive enough funding to achieve all desired conditions within the timeframe of the *General Management Plan* (the next 20 or more years). More information on costs is provided in the “Development of Cost Estimates” section and table 6.



Legend

- | | | |
|-----------------------|------------------------------|------------------------|
| Preserve Boundary | Conceptual Hiking Trail | Frontcountry |
| Addition Boundary | Designated Primary ORV Trail | Primitive Backcountry |
| Canal | Unpaved Road | Backcountry Recreation |
| Existing Access Point | Existing Hiking Trail | Developed |
| Proposed Access Point | | Proposed Wilderness |

0 5 10
Miles



Map 6 • Alternative F • Big Cypress National Preserve–Addition General Management Plan

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DEVELOPMENT OF COST ESTIMATES

NPS decision-makers and the public must consider an overall picture of the complete costs and advantages of various alternatives, including the no-action alternative, to make wise planning and management decisions for the Big Cypress National Preserve Addition.

In estimating costs of the alternatives, different types of costs need to be taken into account, including one-time and annual operating costs.

One-time costs include initial construction for new facility development (including NPS infrastructure costs) or for nonfacility costs related to natural and cultural resources management and visitor use projects.

Annual operating costs are the total annual costs for maintenance and operations associated with each alternative, including maintenance, utilities, supplies, staff salaries and benefits, leasing, and other materials.

The presentation of costs within a general management plan is applied to the types and general intensities of development in a comparative format. The following applies to costs presented within this general management plan:

- The costs are presented as estimates and are not appropriate for budgeting purposes.
- The cost estimates were developed in 2008; they are very general and intended for alternative comparison purposes only.
- The costs presented have been developed using industry standards to the extent available.
- Actual costs will be determined at a later date and will take into consideration the design of facilities, identification of detailed resource protection needs, and changing visitor expectations.
- Approval of the general management plan does not guarantee funding or staffing for proposed actions.
- Project funding will not come all at once; it will likely take many years to secure and may be provided by partners, donations, or other nonfederal sources.
- Some proposals may not be funded within the life of this *General Management Plan* and full implementation may occur many years into the future.

The implementation of the approved plan will depend on future funding. The approval of a plan does not guarantee that the funding needed to implement the plan will be forthcoming. Full implementation of the approved plan could be many years in the future or may not occur if funding is not obtained.

TABLE 6: COST COMPARISON OF THE ALTERNATIVES

	Alternative A	Alternative B	Preferred Alternative	Alternative F
Annual Operating Costs (ONPS)^{1,6}	\$6,500,000	\$7,900,000	\$7,900,000	\$7,500,000
Staffing (FTE)²	77 for the Preserve No additional staff for the Addition	93 for the Preserve 16 of those FTEs (or 17 positions) are for the Addition	93 for the Preserve 16 of those FTEs (or 17 positions) are for the Addition	87 for the Preserve 10 of those FTEs/positions are for the Addition
One-Time Costs				
Visitor Contact Station	0	\$1,200,000	\$1,200,000	0
Operations Center	0	\$4,000,000	\$4,000,000	\$3,400,000
Other Facility Costs ⁴	0	\$1,500,000	\$1,500,000	\$900,000
Nonfacility Costs ⁵	0	0	0	\$600,000
Total One-Time Costs³		\$6,700,000	\$6,700,000	\$4,900,000

Note: All cost estimates are in 2008 dollars. The total construction cost for the two I-75 recreational access points is estimated at \$13.9 million. The state has \$7.2 million approved for construction of the MM51 access point in 2011-2012 and has funds programmed for construction of the MM63 access point in 2017-2018. The access points are required by the Addition Act.

1. Annual operating costs (ONPS) for the entire Preserve are the total costs per year for maintenance and operations associated with each alternative, including utilities, facility and trail maintenance, staff salaries, and benefits. Cost and staffing estimates assume that the alternative is fully implemented as described in the narrative.
2. The total number of FTEs (full-time equivalent employees) is the number of person-years of staff required to maintain the assets of the Preserve and Addition at a good level, provide acceptable visitor services, protect resources, and generally support NPS operations. The FTE number indicates ONPS-funded NPS staff only, not volunteer positions or positions funded by partners. FTE salaries and benefits are included in the annual operating costs.
3. The total one-time costs are the sum of all elements listed in the rows that precede the total.
4. One-time facility costs include those for the design, construction, or rehabilitation of housing, ORV trails, campgrounds, trailheads, and day use areas.
5. One-time nonfacility costs include removal of the Carnestown facilities and associated revegetation.
6. These costs do not include research and monitoring efforts as identified later in table 8.

THE ALTERNATIVES AND USER CAPACITY, ADAPTIVE MANAGEMENT, ORV ADMINISTRATION AND MANAGEMENT, AND WILDERNESS

User capacity, adaptive management, ORV administration and management, and wilderness topics discussed in this section are very much part of the action alternatives (B, preferred, and F) just described, and thus this management plan. They are presented separately because they apply to all action alternatives, although some applications vary by alternative — for example, the numbers of ORV trails and permits vary depending on the alternative.

USER CAPACITY

The National Park Service defines user capacity as the types and extent of visitor use that can be accommodated while sustaining the quality of resources and visitor opportunities consistent with the purposes of the park unit. It is a process involving planning, monitoring, and management actions to ensure that a park unit's values are protected.

Managing user capacity in national park units is inherently complex and depends not only on the number of visitors, but also on where they go, what they do, and the “footprints” they leave behind. In managing for user capacity, NPS staff rely on various management tools and strategies, rather than solely on regulating the number of people in a park unit or simply establishing limits on visitor use. In addition, the ever-changing nature of visitor use in park units requires a deliberate and adaptive approach to user capacity management.

The foundations for making user capacity decisions in this plan are the Addition's purpose, significance, special mandates, and management zones. These define why the Addition was established and identify the most important resources and values,

including visitor experience opportunities, that will be protected or provided. The management zones qualitatively describe the desired resource conditions and visitor experiences, including appropriate recreation activities, for different locations throughout the Addition. These elements direct the National Park Service how to protect resources while offering a diversity of visitor opportunities.

Based on the desired conditions described in the management zones, indicators and standards are identified in this plan. An indicator is a measurable variable that can be used to track changes in resource and social conditions related to human activity, so that existing conditions can be compared to desired conditions. A standard is the minimum acceptable condition for an indicator. The indicators and standards help translate the broader qualitative descriptions of desired conditions in the management zones into measurable conditions. As a result, NPS managers can track changes in resource conditions and visitor experiences, and provide a basis for the NPS staff to determine whether desired conditions are being met. The monitoring component of this process also helps test the effectiveness of management actions and provides a basis for informed adaptive management of visitor use.

This plan also includes a range of actions that would be taken to maintain or restore desired conditions. For example, management actions may include providing information about low impact recreational use and the principles of “Leave No Trace” and “Tread Lightly”; directing visitors to designated facilities or areas; adding or altering facilities (e.g., trails, campsites) for containment of use to designated areas; directing visitors to lesser-used areas or off-peak times; restricting the types of recreation activities permitted; and/or

reducing the amount of visitor use in certain areas.

With limited staffs and budgets, NPS managers will focus more frequently on areas where there are likely visitor use changes, and/or clear evidence of problems, or where problems can reasonably be anticipated during the life of this plan. This means monitoring will more frequently take place where conditions are approaching or violate standards, conditions are changing rapidly, specific and important values are threatened by visitation, and/or the effects of management actions taken to address impacts are uncertain.

User capacity decision-making is a continuous process; decisions are adjusted based on monitoring the indicators and standards. Management actions are taken to minimize impacts when needed. As monitoring of the Addition's conditions continues, managers might decide to modify, add, or eliminate indicators if better ways are found to measure important changes in resource and social conditions. Also, if new use-related resource or visitor experience concerns arise in the future, additional indicators and standards will be identified as needed to address these concerns.

User capacity management for general visitor and ORV use in the Addition is addressed in different ways. Capacity management for general visitor use is grounded in the desired conditions for the management zones. NPS staff would monitor use levels and patterns and would conduct periodic visitor surveys of visitor characteristics, expectations, evaluations, and preferences — as they do in the original Preserve. Certain indicators (see table 7) would be used to monitor visitor use and experience as identified later in this chapter. The effectiveness of management actions would be tested against meeting the desired conditions.

User capacity management for ORV use in the Addition would be guided by the elements and criteria included in the later “ORV Administration and Management” section of this chapter. This section includes indicators, standards, and management strategies that are designed to protect resources and enhance visitor experiences, including strategies to minimize and manage adverse impacts from motorized use — such as vehicle regulations, user permit allocations, a monitoring program, and potential management actions that would be used to correct issues and minimize impacts on resources. The overall approach to user capacity for ORV use also includes adaptive management, which allows managers to base decisions on monitoring results. In addition, the committee charter for the original Preserve's ORV Advisory Committee would be amended to include the Addition. This would enable the committee to work with the National Park Service on adopting and refining the indicators and standards over time.

In summary, this *General Management Plan / Wilderness Study / Off-road Vehicle Management Plan* addresses user capacity in the following ways:

- The plan outlines the Addition's purpose, significance, and management zones, which provide the foundation for user capacity management.
- The plan describes the Addition's most pressing use-related resource and visitor experience concerns. This helps NPS managers focus limited resources on specific issues that may need management attention now or into the future. It also helps determine the most important potential indicators and standards to consider.

TABLE 7: USER CAPACITY INDICATORS AND STANDARDS

Indicator Topic	Indicator Measure	What Does It Indicate?	Standard
Change in population of prey species as a result of visitor use	abundance and distribution; demographics	change in population trend	populations of prey species are maintained to satisfy sustainable predator needs* *Continued census of predator and prey species will be necessary to determine # of prey available/# of predators that will be seeking the prey.
Change in population of game species as a result of visitor use	abundance and distribution; demographics	change in population trend	populations of game species are maintained to satisfy sustainable harvest* * Continued census of game species and hunter success will be necessary to determine # of game species available for harvest as game and for predators.
Change in population of T&E species/ species of management concern as a result of visitor use	abundance and distribution; demographics	change in population trend	no adverse affects* *Further specificity on standards for population changes will be provided in the future hunting management plan. Monitoring of T&E populations will be conducted to determine if species' status is stable, improving, or in decline.
Surface Water Flow	feet of elevation expressed in .00 of a foot mean sea level	whether land use affecting natural surface water flow requires mitigation	surface water flow is maintained* *The specific effects of visitor use will be determined as part of a problem analysis prior to taking corrective management action.
Water Quality	turbidity, total phosphorus, total nitrogen	water quality change	persistence of parameters greater than background relative to the Outstanding Florida Waters designation* * The specific effects of visitor use will be determined as part of a problem analysis prior to taking corrective management action.
Change or measured difference from ambient soil conditions	nitrogen, sodium, ammonium, pH, carbon, ion absorption, inorganic/organic soil composition	change in soil chemistry or structure that affects its ability to maintain plant growth	thresholds and parameters could vary, depending on the setting. Goal is to maintain background soil chemistry and structure* *The specific effects of visitor use will be determined as part of a problem analysis prior to taking corrective management action.
Invasive plants, changes in plant communities	% of plant densities, presence of individual nonnative or invasive plants	potential distribution of nonnative or invasive plants by disturbance (ORVs, land development, backcountry use)	Maintenance of native plant communities and eradication of invasive or nonnative plants resulting from land use.
Incidences of disturbance to cultural resources	number of incidences of disturbance to cultural resources per year	trends in visitor behavior and compliance with Preserve rules/ regulations	no (0) incidences of disturbance to cultural resources

Indicator Topic	Indicator Measure	What Does It Indicate?	Standard
Off-trail travel by motorized and non-motorized users	number of incidences* per winter/spring (i.e., high use) season of off-trail travel *Incidences = observed real-time occurrence of off-trail activity, as well as physical impact resulting from off-trail activity.	vegetation loss, spread of invasive species, disruption to surface water flow, contact with sensitive resources, habitat fragmentation, noncompliance with Preserve rules/regulations	no more than 6 incidences per winter/spring season of off-trail travel for either motorized or nonmotorized use
Trail widening as a result of motorized and nonmotorized use	number of occurrences per winter/spring (i.e., high use) season of motorized and nonmotorized trails exceeding a length of widening beyond the standard	vegetation loss, spread of invasive species, disruption to surface water flow, contact with sensitive resources, habitat fragmentation, noncompliance with Preserve rules/regulations	no more than 6 occurrences per winter/spring season of motorized trails exceeding 36 feet wide for at least 50 linear feet no more than 6 occurrences per winter/spring season of nonmotorized trails exceeding 18 feet wide for at least 25 linear feet
Documented visitor use related complaints or conflicts per area	documented visitor use related complaints or conflicts between users per month for each management unit,* trail system, or visitor facility * N of I-75, S of I-75, and Western Addition	potential user conflicts on trails or in specific areas	5 per month per management unit, trail system, or visitor facility
Documented visitor use-related complaints or conflicts for the Addition	documented visitor use-related complaints or conflicts between users per year for the entire Addition	potential user conflicts on trails or in specific areas	25 per year for the Addition
Documented violations	number of documented violations (includes warnings, citations, or arrests) for noncompliance per month for each management unit, trail system, or access point	compliance with designated trail policy and identification of specific areas of concern	30 per month per management unit, trail system, or access point
Number of groups encountered	number of groups (hunting and non-hunting) encountered per hour in the Frontcountry zone	crowding and use conflicts	20 groups encountered per hour
Number of groups encountered	number of groups (hunting and non-hunting) encountered per day more than 1 mile from access points in Backcountry Recreation zone	crowding and use conflicts	10 groups encountered per day more than 1 mile from access points

Indicator Topic	Indicator Measure	What Does It Indicate?	Standard
Number of groups encountered	number of groups (hunting and non-hunting) encountered per day on trails in the Primitive Backcountry zone	crowding and use conflicts	6 groups encountered per day

- The plan identifies the most important indicators that will be monitored and sets standards to determine if desired conditions are not being met due to impacts from visitor use.
- The plan outlines management actions that might be used to avoid or minimize impacts from visitor use, especially ORV use.

Resource Indicators and Standards

The priority *resource* indicators for the Addition are associated with the following issues:

- disturbance of wildlife
- impacts on surface water flow and water quality
- changes to ambient soil conditions and vegetation patterns
- disturbances to cultural resources

The condition of these resources is already being monitored and managed in various ways, but the indicators described below would help the NPS staff track specific influences to these resources as a result of visitor use.

The following information describes the nature of potential impacts to the resource topics mentioned above and discusses some of the management strategies that would be used to reduce or mitigate these impacts. Additional specific management strategies are described in the “ORV Administration and Management” section.

The Addition is home to a number of important prey and game species, as well as threatened and endangered species and species of management concern. These various wildlife species can be sensitive to activities associated with visitor use, particularly ORV use and hunting. Visitor use of the Addition could affect the quality of habitat preferred by these species, directly disturb individual animals, change behavior, and reduce foraging opportunities. These impacts could lead to changes in population trends such as the abundance, distribution, and demographics of individual species. Minimizing the extent and severity of impact on wildlife has been the focus of ongoing management strategies, including educating visitors on low-impact recreation practices and regulating the amount of use permitted. The indicators and standards included in table 7 would encourage the use of adaptive management to help reduce influences from visitor use on wildlife. The goal of these efforts would be to maintain prey species to satisfy sustainable predator needs and maintain game species to support sustainable harvest. In addition, management activities would be focused on ensuring no adverse effects on threatened and endangered species and species of management concern.

Water was named as a prime resource in the Addition’s enabling legislation. Visitor use can affect surface water flow, particularly through the displacement of soils that may change water flow patterns and directions. Also, visitor use, such as ORV use, hiking, biking, horseback riding, and camping, can cause soil erosion and generate contaminants that would affect turbidity and surface water quality. The indicators and standards for surface water flow and water quality would be used to

ensure that management efforts are effectively maintaining natural surface water flow patterns and that changes to water quality stay within the parameters required by the Outstanding Florida Waters designation.

Protecting soils and vegetation is key to maintaining the ecological integrity of the Addition. Several indicators related to potential influences of visitor use on soils and vegetation are included in table 7. Visitor use activities such as hiking, biking, and horseback riding, and particularly ORV use, may lead to some rutting and displacement of soils, as well as soil compaction and erosion. These types of impacts can lead to soil loss and reduced productivity of soils. In addition, visitor use can influence vegetation by changing vegetation composition or causing the loss of vegetation. Indicators and standards related to impacts on soils and vegetation from visitor use include a change in ambient soil conditions, incidences of off-trail travel, trail widening, and the presence and distribution of nonnative or invasive plants. Management efforts would be focused on minimizing both the extent and severity of impacts on soils and vegetation from visitor use. The standard for trail widening varies by type of trail given the desire to maintain nonmotorized trails to a smaller design standard than motorized trails.

Visitor use impacts on cultural resources include unintentional disturbances and vandalism to archeological resources and ethnographic resources. Many cultural resources are nonrenewable, so impacts (especially those resulting from disrespectful behavior) must be minimized to the extent possible. The indicator and standard for disturbance to cultural resources would be used to ensure that cultural resources in the Addition would not be affected by visitor use activities. Management strategies would include visitor education and enforcement of regulations, and closure of particularly vulnerable areas would be considered, if needed.

Visitor Experience Indicators and Standards

The priority *visitor experience* indicators for the Addition are associated with the following issues:

- crowding, measured by encounter rates between visitor groups
- compliance with regulations
- visitor complaints

Similar to the resource indicators, visitors' opportunities and related experiences in the Preserve are already being monitored and managed in various ways, but the indicators described below would help NPS staff track these specific issues more systematically to ensure that desired conditions are being achieved.

Visitors to the Addition would be seeking opportunities for solitude, contemplation of nature, and enjoyment of their chosen recreation activity in a relatively independent manner. Crowding and conflicts can be of particular concern for such visitors. An indicator of the number of other visitor groups encountered was identified as an important measure of crowding. Because visitors expect to see fewer people in a backcountry setting versus the frontcountry, the standard for this indicator was set at a lower level in the primitive backcountry and backcountry recreation zones, with no more than 6 or 10 groups encountered per day, respectively. The frontcountry zone standard would be higher, at 20 groups encountered per hour, because most visitors would expect to see a higher volume of people in these areas and the congregation of people around access points is unavoidable.

Failure to adhere to regulations for trail policies and permit conditions can also lead to crowding or conflict between users. NPS staff would monitor an indicator related to permit compliance. The standard would ensure that most visitors comply with trail policy and

permit conditions to minimize conflicts with other visitors. NPS staff would use management strategies such as education on regulations, encouraging use at less busy times, and regular enforcement to maintain high levels of permit compliance.

NPS staff would also continue to track and evaluate visitor comments that may indicate problems associated with crowding, use conflicts, or violations of regulations. These problems may affect visitors' ability to experience high quality recreation opportunities and could, on occasion, affect visitor health and safety. If complaints exceed the established standard, or trends indicate a problem area, appropriate management actions would be taken to mitigate the problem.

ADAPTIVE MANAGEMENT

Within the context of ORV management at the Addition, the adaptive management framework was first described in the 2000 *Recreational ORV Management Plan*. That plan described a decision-making framework that was based on evaluating impacts, increasing the understanding of resource dynamics, and adjusting management actions to meet objectives. Since that time, the U.S. Department of the Interior (DOI) has developed guidance on adaptive management and how to apply it to federal land management decisions. The *Adaptive Management Technical Guide* (Williams et al. 2007) uses the National Research Council's definition of adaptive management:

[A] decision process that promotes flexible decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps adjust policies or operations as part of an iterative learning process. Adaptive management

also recognizes the importance of natural variability in contributing to ecological resilience and productivity. It is not a "trial and error" process, but rather emphasizes learning while doing. Adaptive management does not represent an end in itself, but rather a means to more effective decisions and enhanced benefits. Its true measure is in how well it helps meet environmental, social, and economic goals, increases scientific knowledge, and reduces tensions among stakeholders.

The *Technical Guide* describes adaptive management as a systematic approach for improving resource management by learning from management outcomes. Figure 1 below illustrates the adaptive management process.

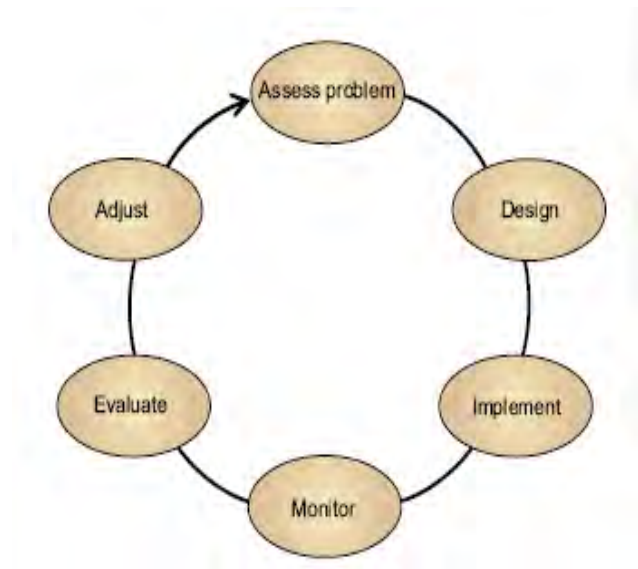


FIGURE 1: DIAGRAM OF THE ADAPTIVE MANAGEMENT PROCESS

The adaptive management framework included in the 2000 *Recreational ORV Management Plan* is compatible with current DOI guidance.

ORV ADMINISTRATION AND MANAGEMENT

ORV Administration

Administration and management of ORV use (the ORV program) for the Addition would be the same as it is in the original Preserve, with a few exceptions.

- Only wheeled mechanized use would be allowed on designated trails in the Addition.
- No public recreational airboat use would be allowed in the Addition because no public access can be provided to areas that would be appropriate for airboat use. Furthermore, this is consistent with other closures in the original Preserve and adjacent Everglades National Park.
- The motorized boating that occurred historically would be allowed to continue in the Everglades City area.

Other exceptions are discussed below, where necessary, and include topics such as the number of vehicle permits.

Vehicle Types and Specifications. It is the intent of the National Park Service to establish vehicle specifications that protect the Addition's resources while providing for reasonable recreational access. Vehicle specifications for the Addition would be the same as what is currently in place for the original Preserve.

The following vehicle types are authorized for use in the Addition: swamp buggies, all-terrain cycles, and street-legal 4x4s. Vehicles are currently required to meet the following specifications.

- Vehicle width and length:
 - Wheeled vehicles could not exceed 8.0 feet in total width, including tires.

- Noise control:
 - All wheeled vehicles would be required to have a muffler in good working condition and in constant operation.
- Other ORV equipment:
 - All ORV mechanical systems important for safe operation must be in good operating condition.
 - Tires on all buggies and street-legal vehicles must have a minimum of 9 inches of tread face.
 - On all-terrain cycles, the minimum tire tread face requirement would be 7 inches in the front and 9 inches in the rear.
 - Any device used to push aside, shear off, or otherwise damage vegetation would be prohibited.
 - Any tire chain, bar grip, or other device affixed to a tire in any way would be prohibited.
 - All tracked vehicles would continue to be prohibited.

These vehicle specifications were established in the *Final Recreational Off-road Vehicle Management Plan / Supplemental Environmental Impact Statement* (NPS 2000). The criteria used to develop these specifications were based on the best available information and the *Code of Federal Regulations* (CFR). Vehicle types are defined in 36 CFR 7. The vehicle specifications contained in the 2000 plan as shown above would be adopted by this *General Management Plan* and would be common to all alternatives except alternatives A and F where ORV use for the general public would not be allowed.

NPS staff would continuously evaluate ORV equipment and its effects on resources and the visitor experience. If it was determined that certain ORV equipment was causing unacceptable impacts, ORV equipment specifications would be modified and the NPS would promulgate regulations accordingly.

NPS staff would continue to research vehicle specifications to refine them to mitigate resource damage. Based on research results, limits could be established in the future for a number of vehicle characteristics, such as overall weight, tire size, tire type, noise, and ground-bearing pressure (measured in weight per unit area, such as pounds per square inch).

Vehicle Inspection Program. The vehicle inspection program for the Addition would be operated the same as it is in the original Preserve. Vehicles would be required to meet specifications for that particular type of vehicle (all-terrain cycle, swamp buggy, or street-legal four-wheel-drive vehicle) before being eligible for a permit. Each vehicle would have to pass an inspection conducted by the National Park Service.

Vehicle inspections would result in a sticker that designated the vehicle as having met vehicle specification and safety requirements. This sticker would identify the vehicle over time. The inspection number would be included in a computer database and would stay with the vehicle for the entire time it was under the same ownership. Possession of an inspection sticker would mean only that the vehicle was eligible for the vehicle permit drawing and would not, by itself, allow for use of the vehicle in the Addition.

ORV owners would be encouraged to have their vehicles inspected between October 1 and November 30, before the drawing. This would allow the ORV owner to be ready to participate in the drawing.

NPS staff would affix inspection stickers as follows:

- swamp buggy — steering column
- street legal — inside the driver's door
- all-terrain cycle — center of steering mechanism

The free inspection sticker would be valid for a three-year period, and then the vehicle

would need to be reinspected and a revalidated sticker would be obtained.

Number of Vehicle Permits. The ORV program for the Addition would be managed much the same as it is in the original Preserve. However, a total of three permits would be required: an ORV permit (specific to the Addition), an ORV operator's permit, and a backcountry use permit. Users who already have a permit for the original Preserve wishing to access the Addition would also be required to have a separate permit for the Addition.

The number of vehicle permits issued for the Addition would depend on the alternative selected. A maximum number of permits has been established for each alternative. The maximum number of permits established under alternative B (660) and the preferred alternative (650) is based on the ratio of vehicle permits to trail miles in the original Preserve (2,000 permits:400 miles or 5:1), where the ORV management program has been successful based on management experience and associated monitoring. Under the preferred alternative, the number of initial permits issued would be based on the initial extent of primary ORV trails included times five. For example, if 20 miles of sustainable trail were designated as part of the initial trail network, then 100 permits (20 miles x 5 permits/mile = 100 permits) would be released. Additional permits would be phased in as monitoring results indicate that resource conditions are acceptable and additional trails are designated.

Allocation of Vehicle Permits. The allocation of vehicle permits would be as it is for the original Preserve. A random drawing would be held each December for the opportunity to obtain a permit. Permits would be valid from January 1 of each year through January 31 of the following year. This 13-month permit would allow for a month grace period to obtain a new permit, should the owner be successful in the drawing the previous year.

Announcement of the drawing would be sent out each October by letter to all permit holders and by press release. For the first year of Addition permits, all holders of permits for the original Preserve would be notified about the drawing. In subsequent years, only holders of permits for the Addition would continue to be notified. Cards for the drawing would be sent with announcement letters and would also be available at the Addition. Cards would also be given to those who had their vehicles inspected during the 13 months from October 1 to November 30. During the first year of implementation, drawing cards would be filled out at the time of inspection. Drawing cards would be due into the permit station or postmarked by November 30.

The system would be designed to provide an opportunity for each vehicle owner, regardless of how many vehicles they may own, to receive at least one ORV permit unless the total number of individual owners exceeded the maximum number of permits available. More than one permit per person would be available if the initial drawing resulted in fewer permit requests than was available. A maximum of five permits would be allowed per individual. A waiting list would be developed to reassign permits not claimed by January 31.

Successful drawing participants would be notified immediately after the drawing and would be required to purchase their permit by mail or in person before January 31. If the individual failed to purchase the permit by that date, the permit would go to the next person on the waiting list.

The owner would have the option of placing the purchased permit on any of the vehicles that were entered in the drawing. However, because the vehicle inspection number would be on the permit, the owner would have to specify the vehicle at the time of permit purchase. Permits would be permanently fixed to the vehicle and would be nontransferable. In each subsequent year, the vehicle owner

would be required to reapply for the drawing, but could do so by mail unless an inspection was due.

Fees. The recreational ORV special use permit for the Addition would initially cost \$50.00 per year — a separate fee from that for the original Preserve. ORV inspections, ORV operator's permits, and backcountry use permits would continue to be free. Funds generated from the vehicle permits would be applied toward such costs as permit printing, administration of the drawing, education program materials, and operating the ORV permit system. Although the cost of the permit is supposed to offset the cost of administering the ORV program, the fee would actually pay only a small portion of the program costs. The fee could be changed.

Special Use Permit for Private Property Owners. Access for owners of private property within the Addition would be permitted, the same as it is in the original Preserve. Legislation, laws, and regulations do not provide right of access via off-road vehicles unless an exempt property owner has legal right-of-way or preexisting access rights.

Owners of improved private property within the Addition would be issued a free special use permit that would allow them reasonable access to and from their private property. The special use permit would authorize them to cross federal lands to access their property via a reasonably direct route. In most cases, the property access trail would be limited to use by the landowner. The property access route would be

- resource-protection based
- described in detail on the permit
- determined by the National Park Service in consultation with the landowner

The special use permit would not be included in the number of recreational ORV permits allocated annually. However, it also would not

allow for recreational ORV use in the Addition. If landowners wanted to recreate with an off-road vehicle within the Addition, they would have to participate in the annual drawing for vehicle permits. If they did not draw vehicle permits, landowners would be restricted to using their off-road vehicles on their private property and on the access route specified on their special use permit.

Owners of private properties would not be allowed to enter the Addition on off-road vehicles from any point along their property boundary. They would have to use a designated access point.

Special use permit holders would have to meet all of the other requirements for ORV use in the Addition. This would include, but not be limited to, holding a valid ORV operator permit for the Addition, meeting all vehicle specifications, completing the education course, and complying with all rules and regulations relating to recreational ORV use in the Addition.

Administrative ORV Use. Administrative ORV use by NPS staff, its agency partners, and cooperators would be the same as it is in the original Preserve except that ORV access into proposed or designated wilderness would be subject to the minimum requirements process. ORV access and use by researchers would be addressed through issuance of a research permit. ORV access and use by oil and gas operators or other contractors would be addressed through an approved operations plan.

ORV Management

Methods for Determining Sustainable Trails. To develop a conceptual ORV trail system for the Addition, NPS staff first mapped the locations of existing roads, trails, and other disturbed areas in the Addition. Staff used available maps, aerial photographs, and global positioning system equipment to

locate roads and trails in the field and produce a map of potentially sustainable ORV trails (see Map 7: Conceptual ORV Trails map).

A sustainable trail is defined as a travel surface that can support currently planned and future uses with minimal impact to the natural systems of the area. Sustainable trails have negligible soil loss or movement and allow naturally occurring plant communities to inhabit the area; however, pruning, removal of certain plants, and stabilization over time may be required to accommodate recreational use. Sustainable trails should not adversely affect the naturally occurring hydrology, flora, and fauna. Sustainable trail design accommodates existing and future uses while only allowing appropriate uses.

The GMP planning team conducted field investigations (see Map 7: Conceptual ORV Trails) to determine which roads and trails could sustain ORV use. The following information was collected to help determine trail sustainability:

- vegetation and soil type
- trail width
- level of use
- the presence of ruts, water, exotic plants, trail improvements, and rare or protected species

The data were then consolidated to produce a map of sustainable trails that served as the basis for the conceptual trail systems that are included in the alternatives.

Of the 244 miles of trail assessed in the Addition, approximately 135 miles of primary ORV trails were considered sustainable and potentially usable as part of a conceptual ORV trail system (see Map 7: Conceptual ORV Trails).

ORV Access Points and Trails.

Access Points — As described earlier in the description of the alternatives, the number and type of designated ORV access points in the Addition varies by alternative. Each alternative includes a description of the locations, parking, types of vehicles allowed, and facilities that would be available at each access point.

ORV Trails — ORV trails would be designated within the Addition, and the location and number of miles of trails would also vary by alternative. Each alternative includes a map that identifies the conceptual location of the primary ORV trails within the Addition as well as the total miles of designated primary trails available. The trail mileage is based on the conceptual alignments of the sustainable trails previously identified. Trails would be designated for specific vehicle types.

Primary trails would be those trails emanating from the designated access points and providing recreational access within the Addition. Primary trails would be maintained at an appropriate width and at grade so that they would not inhibit surface water flow. Trails that require stabilization are typically designed and maintained to be approximately 12 feet wide.

Secondary trails would be identified to provide access to private property or specific destinations such as campsites or other recreational opportunities. Like the primary network, secondary trail alignments would be based on field surveys and GIS analyses. Secondary trails would branch off the primary trails and would receive less use. Secondary trails for accessing features such as designated campsites, hunting areas, or other recreational use areas would extend for a short distance from the primary trail. Trails accessing a private property would be limited to use by

that landowner if no other destination existed along that route.

The ORV trail system would be sited within an approximate 0.5-mile wide corridor (approximately 0.25 mile on either side of the primary trail) that would contain primary trails as well as secondary trails. This corridor would provide enough flexibility for siting the primary and secondary trails, as well as provide for future trail relocation, if necessary.

Closure of Areas. Recreational ORV use would be permitted only on designated trails within the Addition. All other areas of the Addition would be closed to ORV use under the authority of 36 CFR.

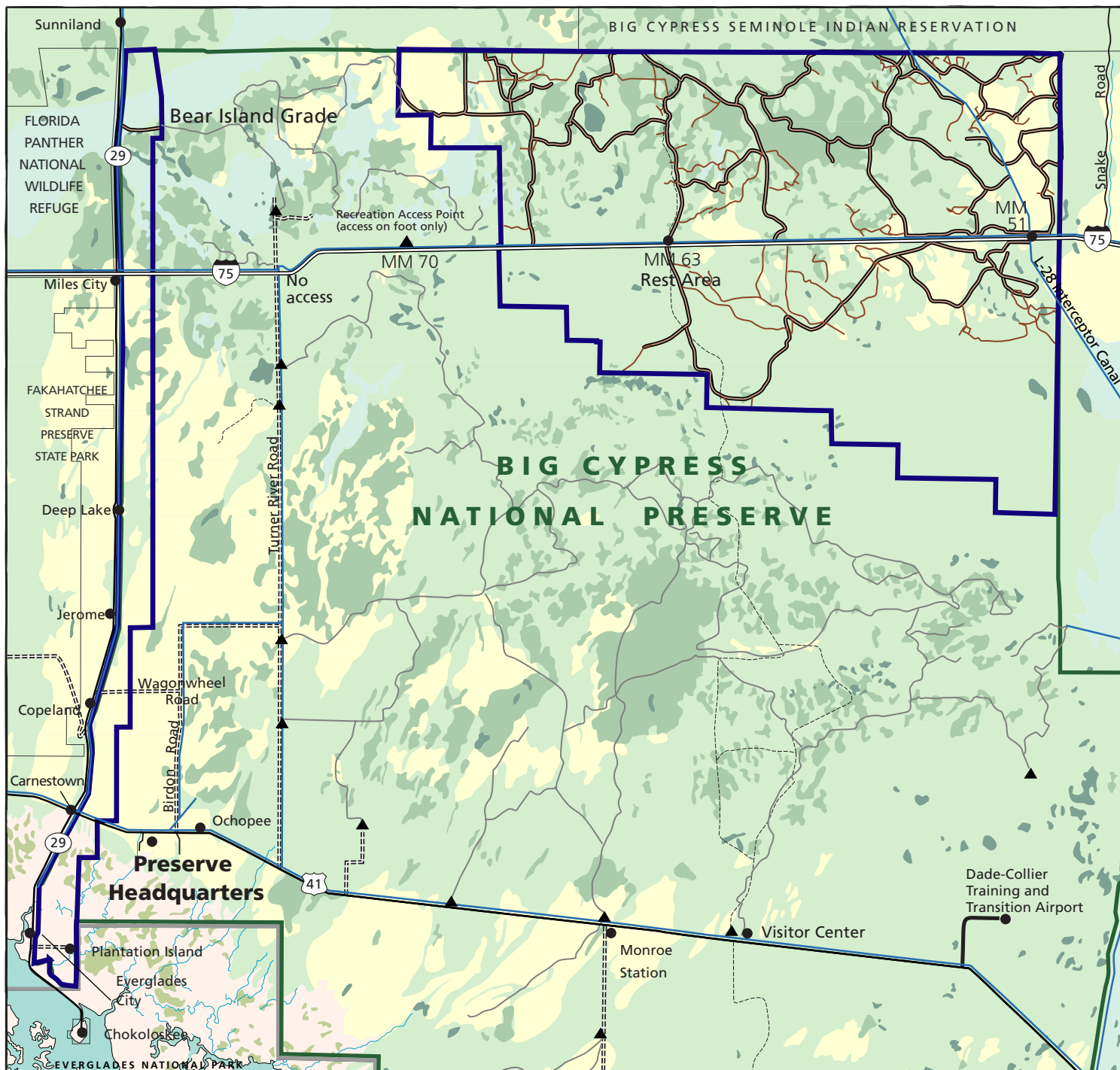
To protect resources and to ensure visitor safety a series of regular closures would be implemented for the Addition. These closures are similar to the actions that have been implemented in the original Preserve and include the following:

Nightly Closures — Recreational ORV use would be prohibited throughout the Addition between 10:00 p.m. and 5:00 a.m.

Seasonal Closures — A seasonal 60-day period would be established to allow resources a time free from any pressures related to ORV use. This moratorium on ORV use would not apply to landowners who hold special use permits to access their private properties via a designated route through the Addition. The optimal time for the seasonal rest period would be determined by research.

In addition to these regular closures, the National Park Service may need to institute occasional closures of the designated trail system to ORV travel. These would include, but not be limited to, the following:

Safety Closures — Safety closures would be implemented in all or portions of the



Legend

- Preserve Boundary
- Addition Boundary
- Canal
- ▲ Existing Access Point

- ~ Designated Primary ORV Trail
- ~ Sustainable Primary ORV Trail
- Assessed Trail
- Unpaved Road
- ... Existing Hiking Trail



Map 7 • Conceptual ORV Trails Big Cypress National Preserve—Addition General Management Plan

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Addition to ensure the protection of visitors. Safety closures primarily would be related to environmental conditions such as high fire danger or threats from hurricanes.

Resource Protection Closures — All or portions of the designated trail system could be closed to ensure protection of Preserve resources. These would include, but not be limited to, the following:

High and Low Water Events.

Closures could be implemented for extreme high- or low-water events. High-water conditions place demands on the Preserve's terrestrial wildlife (Jansen 1996). Low water can also represent high fire danger. Therefore, the National Park Service would use the closure criteria and methodology developed in 2006 ("Criteria for Off-Road Vehicle and Hunting Access within Big Cypress National Preserve in Response to Surface Water Levels") for resource protection in the Addition and would temporarily close areas when those criteria were met. The 2006 document states

High water closures would be implemented within a management unit when a two-week average of daily water levels observed within that unit reaches or exceeds the xeric water level threshold listed in table 1 of that document. Access to the closed management unit would be reopened when a two-week average of daily water levels was less than or equal to the mesic water level threshold for that management unit.

Preservation of Threatened and Endangered Species. Under the Endangered Species Act, the National Park Service has an obligation to

protect federally listed threatened and endangered species. If the National Park Service, in consultation with the U.S. Fish and Wildlife Service, determines that ORV use might result in adverse effects on listed species, area closures might be implemented. Such closures could be seasonal or permanent, depending on the nature of the adverse effects. Under the adaptive management framework, additional closures might be implemented where monitoring shows adverse environmental impacts.

Criteria for closing areas to protect threatened and endangered wildlife would include, but may not be limited to, the following:

- Wood stork — determination that a designated trail was within the distances stated for different habitat types and sites described in the "Habitat Management Guidelines for the Wood Stork in the Southeast Region" (USFWS 1990). The National Park Service will use the most current version of this guideline.
- Red-cockaded woodpecker — determination that a designated trail was within 200 feet of an active cavity tree (Hendry 1989).
- Florida panther — determination that a designated trail was within 0.5 mile of a den. The National Park Service established this buffer distance based on the data and information included in the Janis and Clark (1999) study.

Education and Communication. Education and communication about the ORV management program for the Addition would be the same as it is for the original Preserve. To protect resources and provide a safe operating environment, the following types of information would be given to ORV users:

- an orientation to the Addition, the mission of the National Park Service, and the geography of the area
- a review of the rules and regulations governing ORV use in the Addition
- safety procedures for operating an off-road vehicle in the Addition
- introduction to the designated access points and trails
- resource sensitivity, including staying on designated trails, low-impact camping techniques, and wildlife awareness
- details of the permit process, including how to apply and the privileges and responsibilities of the permit holder
- awareness of previous adverse effects, how they occurred, ways the new ORV management system mitigates past effects, and what is being done to restore areas

This information would be provided through any or all of the following:

- an ORV user's guide, with map
- an operator's orientation that would be required as a prerequisite to obtaining an ORV operator's permit
- an Internet page specifically for ORV users
- posting on the bulletin boards at each access point

All materials would be designed to be easily understood. They would be easily adapted to changing management strategies and flexible enough to incorporate new materials as research revealed additional information on operating techniques. NPS staff, subject-matter experts, and local recreational ORV users would be sources of information for the materials.

Rules and Enforcement. The Secretary of the Interior is authorized to designate, pursu-

ant to standards prescribed in regulations by the secretary,

certain officers or employees of the Department of the Interior whom shall maintain law and order and protect persons and property within areas of the national park system. The Secretary of the Interior shall make and publish such rules and regulations, as he may deem necessary or proper for the use and management of the parks, monuments, and reservations under the jurisdiction of the national park system (16 USC).

ORV rules for the Addition would be the same as those for the original Preserve, which are published in *Code of Federal Regulations* (36 CFR 7.86). In general, these include

- using only designated access points and trails
- staying out of closed areas
- having all required licenses and permits
- meeting all applicable vehicle specifications and training requirements

To facilitate compliance with regulations, the National Park Service would publish and distribute an ORV user's handbook, which would be updated as needed.

Enforcement of ORV rules for the Addition would be the same as in the original Preserve. NPS rangers would regularly conduct ground and aerial patrols of the Addition, visiting the access points, and traveling the designated trails to determine compliance.

As provided by law, a person convicted of violating a provision of the regulations within the Addition could be punished by a fine, by imprisonment, or both, and could be adjudged to pay all costs of the proceedings (36 CFR 1.3). ORV operators who did not comply with Addition rules or permit

requirements could also have their permits suspended or revoked, could be required to pay restitution for damages caused to the resources, could be subject to seizure of their vehicle and other property used during the offense, and could be banned from applying for an ORV permit for a specified period. It would continue to be the responsibility of the user to know and follow all rules and regulations that apply to the Addition.

Monitoring. Monitoring of potential impacts from ORV use in the Addition would be conducted using the indicators and standards included previously in table 7 (page 95). These indicator topics were selected based on their ease of measuring important changes to resource conditions and visitor experiences. Additions and improvements to these indicators would be made based on experience gained in implementing this plan, including revisions to the unit of measurement used for each indicator topic.

Standards would be identified for each of the indicators to define minimum acceptable conditions and establish a trigger mechanism for management action. The standards included in table 7 are a starting point and would be further developed and refined with the assistance of interested federal agencies and the Preserve's ORV Advisory Committee. The scope of the ORV Advisory Committee would be expanded to include the Addition. Once adopted, the indicators and standards would be periodically reevaluated as the National Park Service collects additional data.

The National Park Service would continue to consult with the U.S. Fish and Wildlife Service regarding potential impacts to federally listed species and the Florida Department of Environmental Protection regarding research on water quality impacts from off-road vehicles.

Methods of Monitoring. Monitoring for most of the indicators (including water resources, soils and vegetation, compliance, and cultural resources) would be performed

along or near the trails and access points designated for use by off-road vehicles and would be designed to determine whether management actions were needed. Monitoring for wildlife would cover a larger area and would be part of the Preserve's and Addition's larger wildlife research and monitoring program. The optimal frequency of monitoring would be determined as part of the adaptive management approach. The monitoring results would be used to help NPS managers identify important trends and, along with professional judgment, select appropriate management actions.

Monitoring protocols and techniques would be developed following the approval of this plan. Monitoring would be conducted during routine field activities by NPS staff specifically assigned to carry out the duties and responsibilities of the user capacity monitoring program.

Management Actions

To protect Addition resources, if monitoring indicated that standards had been exceeded based on the indicators and standards described in table 7, the National Park Service would implement management actions. The management actions could include, but would not be limited to, trail closures, trail relocation, trail maintenance, and alteration of the level or type of use on the trail. A description of these management actions is presented below. The course of action would be based on problem analysis, including such factors as the degree of the problem, the location of the trail, experience at other similar sites, consultation with experts, and the professional judgment of NPS staff.

- **trail/area closures** — Closures could be implemented immediately if a trail exceeded the standards for any of the trail-related indicators in table 7. The National Park Service would use problem analysis to evaluate the situation

and to determine if problems could be corrected to allow recreational use to continue. If the trail problem could not be corrected, the closure would be made permanent, and the trail/area would be restored.

- **trail relocation** — This option would be used when trail degradation was occurring and more suitable routes were available that would resolve unsuitable conditions. When trails were relocated, the original trail would be restored. The new trail locations would be based on the geographic information system suitability model and professional judgment of NPS staff.
- **trail maintenance** — Maintenance would be used to stabilize or improve trails that were degrading. Maintenance would be conducted so that any improvements did not cause further adverse impacts on resources (for example, impede sheet flow). Maintenance activities would use methods and materials that were compatible with the surroundings.
- **alter levels or types of trail use** — This option would be used if the National Park Service determined that trail degradation was being caused by a particular type of ORV or by excessive use. As part of this action, the National Park Service may implement a program to further regulate use at access points for resource protection and/or visitor safety.
- **education** — Educate the public on the impacts and effects of their actions and encourage them to alter their behavior. This technique would be used in advance, or in combination with, the other management actions.

It would not be necessary or desirable to bring rough routes up to a filled-roadway standard. Stabilization and improvement methods would be chosen based on their ability to

reverse existing impacts and prevent additional deterioration. For example,

- Existing filled roads or trams (an elevated causeway or travel corridor) would be maintained as roads, where appropriate. Where existing filled trams or roads were used for designated trails, water conveyance structures would be maintained to allow water flow.
- Trails would be improved at the natural grade so that water flow was not compromised. Trails would not be improved to such a standard as to make a trail easy or to encourage a higher level of ORV use than would occur in the absence of such improvements.

Standard trail stabilization would typically include the use of lime rock fill supplemented by geotextile and geowebbing. The goal would be to determine the most appropriate methods of stabilization at each type of site based on site characteristics. Consistent with the adaptive management framework, recommendations for management actions would be continually updated as better information became available.

Whenever management actions involved dredging or filling of wetlands, the National Park Service would consult with the agencies involved in regulating activities in wetlands. Appropriate permits, such as Section 404 permits under the Clean Water Act, would be obtained as necessary.

Restoration. The National Park Service would restore areas that had been impacted by off-road vehicles in the Addition using the same approach and techniques that were developed for the original Preserve in the 2000 *Recreational ORV Management Plan*. NPS staff would seek to return areas impacted by ORV traffic to their desired condition and monitor the success of those recovery activities. This section briefly describes the approach that was included in the 2000 plan.

Restoration is defined as the “return of an ecosystem to a close approximation of its condition prior to disturbance” (National Research Council 1992). The NPS staff would seek to

- remove the scars caused by vehicles and recover a sustainable, self-regulating, self-organizing ecosystem, by restoring the biological, physical, and chemical characteristic of the system to the extent possible
- meet biological, physical, and chemical targets defined by performance measures

Restoration plans would be developed for identified areas and would provide specific guidance for earthwork, revegetation, invasive plant control, and recovery monitoring at each site. Factors that would be considered when selecting the most feasible restoration techniques for a given area include the spatial scale, cost, and environmental impacts or risk associated with the technique. The adaptive management framework would be implemented to meet restoration goals.

Research. The need for research related to ORV impacts would be the same as it is in the original Preserve; therefore, the research framework, goals, and actions included in the 2000 *Recreational ORV Management Plan* would be implemented in the Addition. The following six research goals were included in the 2000 plan:

1. Support the siting, construction, maintenance, and monitoring of the designated trail system.
2. Determine existing levels of recreational use and the types of vehicles best suited for use in the Big Cypress environment.
3. Initially conduct or update inventories of the Addition’s flora, fauna, and soils. 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 the designated trail system.

4. Determine the effects of ORV use on the Addition’s flora, fauna, and soils.
5. Examine recreational interactions to ensure that all visitors to the Addition have an enjoyable and educational experience.
6. Determine the most efficient and effective means of mitigating effects caused by ORVs and establish best management practices for use in the Addition.

The results from this research would be used to make continuous improvements to the ORV management program.

The 2000 *Recreational ORV Management Plan* recommended studies for each of the research goals and the priorities of each. However, as many as 25 of the studies may not have the relevance that they had in 2000. For example, the ground-truthing of University of Georgia mapping data was assigned a high priority in 2000. Those data were based on 1994 and 1995 aerial photography, which has little relevance now that implementation of the original Preserve’s trail system is well underway. Also, evaluation of trail stabilization techniques, given a high priority in 2000, is no longer needed, since the National Park Service has, through experimentation and at least eight years of trail stabilization experience, determined the best and most cost-efficient methods.

Several studies recommended in the 2000 *Recreational ORV Management Plan* and the corresponding U.S. Fish and Wildlife Service’s “Biological Opinion” have been completed or are in progress. Florida-panther-related research includes an ongoing study of levels of ORV use and panther response in Bear Island. This study is first analyzing historical data concerning 25 years of hunting, ORV use, panther telemetry, and backcountry use to

provide baseline information for a more comprehensive examination of ORV use and its impacts on panthers and other natural resources. Completion of this study will determine whether further research is needed to determine carrying capacity, or if that determination can be made immediately. Baseline inventories of reptiles, amphibians, fishes, and vascular plants have been completed, and a small mammal inventory is in progress. Although a research project regarding surface water flow, water quality impacts, or wildlife effects has not been conducted, the Preserve has established 20 permanent water quality and water stage monitoring stations that could alert Preserve staff to changing conditions resulting from not only ORV use but other land uses as well, and monitoring of endangered/threatened species has been constant since before the ORV planning process began.

Implementation Strategy and Schedule

Development of the designated access points and trail system that would provide riding opportunities for the public may take up to five years. Initially, recreational ORV use

would be restricted to those trails requiring little or no treatment and for which access points would already be in place. More trails would be added to the system as the necessary treatment is completed and access points are constructed. It is important for the designated access points and trail system to be in place before opening the area for ORV use so that NPS staff can design and provide quality visitor experiences and minimize resource impacts. NPS staff would strive to provide ORV opportunities to the public as quickly as possible. Table 8 includes the major action items required to provide ORV access, implement the ORV trail network, and develop necessary programs for research, ORV management, and resource management in the Addition.

The implementation of the approved general management plan will depend on future funding. The approval of a plan does not guarantee that the funding needed to implement the plan will be forthcoming. Full implementation of the approved plan could be many years in the future or may not occur if funding is not obtained.

TABLE 8: IMPLEMENTATION SCHEDULE FOR THE ORV PROGRAM

Activity	Phase I	Phase II	Phase III
Trail system			
Design plan for trail designation and construction	X		
Ground-truth and mark trails	X	X	
Establish temporary trails around designated sensitive areas	X		
Stabilize existing trails selected for designation	X	X	X
Maintain trail system	X	X	X
Access points			
Designate	X		
Develop	X	X	
Maintain	X	X	X
Implement spatial closures. Refine the boundaries of sensitive areas and endangered species nesting areas closed under the authority of 36 CFR.	X	X	X

Activity	Phase I	Phase II	Phase III
Implement temporal closures	X	X	X
Hydrologic triggers for resource protection			
Seasonal closure to provide rest period for resources (optimal season to be determined as part of the program's adaptive management)			
Prohibit recreational ORV operation between 10:00 p.m. and 5:00 a.m.			
ORV user map			
Develop	X		
Revise as needed		X	X
Permit program			
Define vehicle specifications	X	X	X
Initiate vehicle inspection program	X		
Issue annual recreational ORV permits	X		
Initiate ORV operator permit program and education requirement	X		
Initiate permit system for all backcountry use	X		
On-going implementation		X	X
Research			
Initiate highest priority research projects	X		
On-going		X	X
Initiate environmental permitting, compliance, and mitigation required for various ORV program components	X		
Expand scope of advisory committee	X		
Restoration			
Establish interdisciplinary team	X		
Initiate implementation	X		
Continue implementation		X	X
Education program			
Initiate ORV operators course	X		
Refine course and other materials		X	X
Trail condition monitoring			
Develop trail standards	X		
Establish techniques for determining baseline conditions	X		
Monitor trail conditions		X	X
Resource recovery monitoring			
Establish and refine monitoring techniques	X	X	
On-going monitoring		X	X
Enforce all NPS legal mandates related to ORV program management	X	X	X
Apply adaptive management to ORV program based on research and feedback from implementation	X	X	X

Activity	Phase I	Phase II	Phase III
<p>Phase I would start in the first year of implementation. It would include actions that could be completed or initiated immediately, or would be necessary for completion of subsequent actions.</p>			
<p>Phase II generally would be started in years 2 through 3 of the program. It would include a continuation of some of the actions started in phase I and the initiation of actions dependent on phase I completion.</p>			
<p>Phase III would include long-term and on-going efforts, including monitoring, research, restoration, maintenance, and enforcement. All of these activities would be started before the end of year five.</p>			

WILDERNESS

The United States Congress established the national wilderness preservation system to ensure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States. Wilderness designation is intended to preserve and protect certain lands in their natural state and provide for compatible recreational opportunities, education, and scientific study. Wilderness areas are intended to contrast with lands where human activities dominate the landscape. Only Congress may designate areas as wilderness.

The enabling legislation for Big Cypress National Preserve (Public Law 93-440), as amended by the Addition Act (Public Law 100-301), requires that the National Park Service conduct a wilderness study of all lands in the Addition that it finds to be eligible for wilderness designation. The wilderness study must consider a range of alternatives for wilderness designation, including a “no wilderness” alternative. The purpose of the wilderness study is to develop a formal proposal for designating wilderness in the Addition, which will serve as the basis for any wilderness recommendation that the president may submit to Congress, should he choose to do so. The wilderness study is guided by the Wilderness Act of 1964, where wilderness is defined and its values are articulated.

Definition of Wilderness

The Wilderness Act (16 USC 1132) defines wilderness in the following manner:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean . . . an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Uses and Management in Wilderness

NPS Wilderness Policy. *NPS Management Policies 2006* contains the following provisions related to wilderness planning and management:

- All NPS lands will be evaluated for their eligibility for inclusion within the national wilderness preservation system. (6.2.1)
- Lands will be evaluated according to the provisions outlined in the Wilderness Act of 1964. (6.2.1.1)

USES AND MANAGEMENT IN WILDERNESS

Although this study is not examining use or management of wilderness, the Wilderness Act and NPS policies permit and prohibit various uses, developments, and actions. These directions need to be considered in evaluating the impacts of the wilderness proposals.

Various recreational uses, management actions, and facilities are permitted in wilderness areas under the Wilderness Act and NPS policies. Among the uses, management actions, and facilities **permitted** in wilderness are:

- nonmotorized recreational uses (e.g., hiking, backpacking, picnicking, camping)
- hunting, trapping, and fishing
- Native American religious activities and other actions recognized under treaty-reserved rights
- guided interpretive walks and onsite talks and presentation
- use of wheelchairs, service animals, and reasonable accommodations for the disabled that are not in conflict with the Wilderness Act (e.g., barrier-free trails, accessible campsites)
- scientific activities/research
- monitoring programs
- management actions taken to correct past mistakes or impacts of human use, including restoration of extirpated species, controlling invasive alien species, endangered species management, and protection of air and water quality
- fire management activities (including fire suppression)
- protection and maintenance of historic properties eligible for the National Register of Historic Places
- trails
- campsites
- certain administrative facilities if necessary to carry out wilderness management objectives (e.g., storage or support structures, ranger station)
- signs necessary for visitor safety or to protect wilderness resources
- uses and facilities permitted for landowners with valid property rights in a wilderness area

The Wilderness Act also specifically **prohibits** certain uses and developments. Under sections 2(c) and 4(c) of the act, the following uses are not permitted in a wilderness:

- permanent improvements or human habitation
- structures or installations
- permanent roads
- temporary roads
- use of motor vehicles
- use of motorized equipment
- landing of aircraft (except for emergency purposes)
- other forms of mechanical transport (e.g., bicycles)
- commercial enterprises (except for commercial services that are necessary for realizing the recreational or other wilderness purposes of the area, such as guiding and outfitting)

With the exception of permanent roads, the act does recognize that the above uses **may be permitted** if necessary to meet the minimum requirements for the administration of the area as wilderness or for emergency purposes.

In addition to the above prohibitions, NPS policies **also prohibit** some developments:

- new utility lines
- permanent equipment caches
- site markings or improvements for nonemergency use
- borrow pits (except for small quantity use of borrow material for trails)
- new shelters for public use
- picnic tables
- interpretive signs and trails and waysides (unless necessary for visitor safety or to protect wilderness resources)

- Lands that have previously been used for extractive purposes may be found eligible for wilderness designation so long as their wilderness character could be restored through appropriate management action. Furthermore, lands subject to existing rights (e.g., mineral exploration and development) may be considered for designation as wilderness or potential wilderness so long as they have been found to contain wilderness character. Lands containing aboveground or buried utility lines normally will not be considered eligible for wilderness designation, but they can be considered as eligible for “potential” wilderness if there is a long-term intent to remove the lines. The established use of motorboats does not make an area ineligible for wilderness. (6.2.1.2)
- For lands found to possess wilderness characteristics, no action that would diminish their wilderness eligibility will be taken until the legislative process of wilderness designation has been completed. (6.3.1)
- All decisions concerning management activities in proposed or designated wilderness will be based on the minimum requirements concept. This concept is a process that determines (1) if the proposed action is necessary for administration of the area as wilderness, and (2) if so, the techniques and equipment needed to ensure that impacts on wilderness resources and character are minimized. (6.3.5)
- Wilderness considerations will be integrated into all planning documents to guide the preservation, management, and use of a park’s wilderness area and ensure that wilderness is unimpaired for future use and enjoyment as wilderness. (chapter 6, title page)
- The superintendent of each park containing wilderness resources will develop and maintain a wilderness management plan or equivalent planning document. (6.3.4.2)

Wilderness Eligibility Assessment

In 2006 an interdisciplinary NPS team comprised of Preserve, Denver Service Center, Southeast Regional Office, and Washington Office staff conducted an evaluation of the Addition to determine those areas meeting the criteria for wilderness described in the Wilderness Act. Per NPS *Management Policies 2006*, to be eligible for wilderness designation, an area of federal land in the Addition had to have the following characteristics:

1. Generally appear to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable,
2. Be undeveloped and retain its primeval character and influence, without permanent improvements or human habitation,
3. Be untrammeled by man, where man himself is a visitor who does not remain,
4. Offer outstanding opportunities for solitude or a primitive and unconfined type of recreation, and
5. Be protected and managed so as to preserve its natural conditions.

The team first examined data to exclude from wilderness consideration lands clearly not meeting one or more of the above criteria, such as private lands and lands containing permanent improvements, e.g., buildings, roads, and canals. The remaining lands were evaluated against the criteria and visited as necessary. All lands meeting the criteria and at least 5,000 acres or of such size that they could be managed as wilderness were determined to be eligible; all other lands were excluded from further wilderness consideration.

Based on the public comments received on the wilderness study included in the *Draft General Management Plan / Wilderness Study / Off-road Vehicle Management Plan / Environmental Impact Statement*, the National Park Service reevaluated the eligibility of the Addition and completed a final wilderness eligibility determination that has been approved by the NPS director (see appendix B).

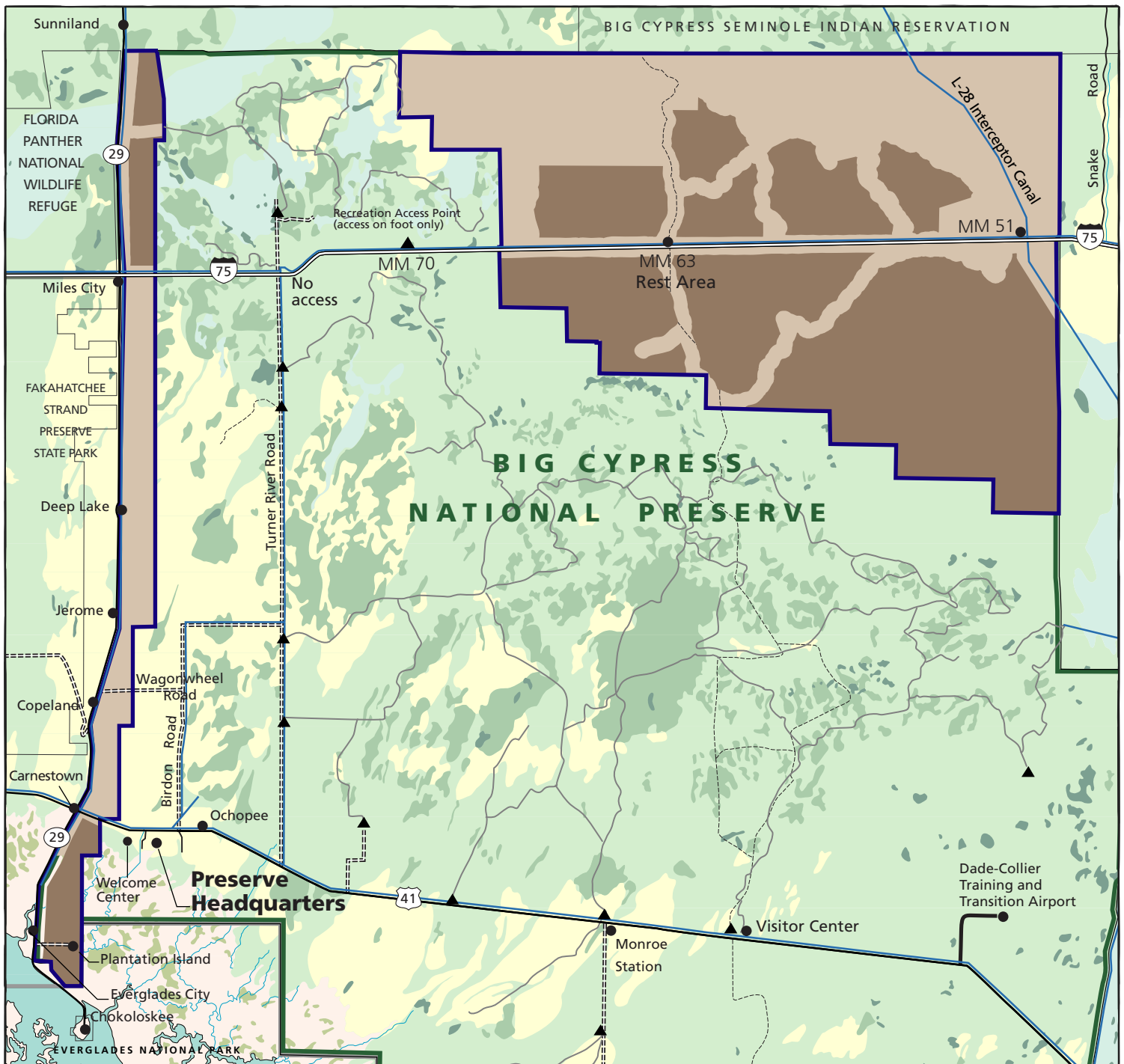
Summary of Findings

The study area contains lands and waters owned by federal and state governments, as well as private owners; however, only federal and state lands (with state permission) were evaluated for wilderness eligibility.

A field evaluation was conducted by NPS staff to determine the suitability of the Addition for

wilderness character. The wilderness study identified about 71,260 acres (approximately 48% of the Addition's total acreage) as meeting the wilderness criteria outlined above and being eligible for wilderness designation (see Map 8: Eligible Wilderness). This land consists of 65,042 acres in the Northeast Addition and 6,218 acres in the Western Addition east of SR 29. Eligible acreage includes federal lands owned by the National Park Service and state lands owned by the Florida Department of Transportation and Florida State Lands.

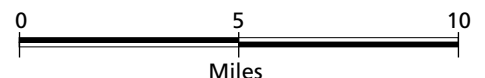
Areas that were determined not to be eligible (approximately 76,413 acres) did not meet wilderness criteria. For a more detailed description of this analysis and the wilderness eligibility findings, see appendix B.



Legend

- Preserve Boundary
- Addition Boundary
- Canal
- ▲ Existing Access Point

- Wilderness Eligible Land
- Wilderness Ineligible Land
- Designated ORV Primary Trail
- Unpaved Road
- Existing Hiking Trail



Map 8 • Eligible Wilderness

Big Cypress National Preserve—Addition

General Management Plan

United States Department of the Interior • National Park Service • DSC • October 2010 • 176 / 20080



MITIGATIVE MEASURES COMMON TO ALL ACTION ALTERNATIVES

Congress charged the National Park Service with managing the lands under its stewardship “in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (NPS Organic Act, 16 USC 1). As a result, NPS staff routinely evaluate and implement mitigation measures whenever conditions occur that could adversely affect the sustainability of national park system resources.

To ensure that implementation of the action alternatives protects natural and cultural resources that are unimpaired and the quality of the visitor experience, a consistent set of mitigation measures would be applied to actions proposed in this plan. The National Park Service would prepare appropriate environmental compliance (i.e., those required by the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), and other relevant legislation) for these future actions. As part of the environmental compliance, the National Park Service would avoid, minimize, and mitigate adverse impacts when practicable. The implementation of a compliance-monitoring program would be within the parameters of NEPA and NHPA compliance documents, U.S. Army Corps of Engineers Section 404 permits, etc. The compliance-monitoring program would oversee these mitigation measures and would include reporting protocols.

The following mitigation measures and best management practices would be applied to avoid or minimize potential impacts from implementation of the action alternatives.

NATURAL RESOURCES

General

The Addition’s resources, including air, water, soils, vegetation, and wildlife, would be

periodically inventoried and monitored to provide information needed to avoid or minimize impacts of future development. Any museum collections related to natural resources generated by such activities would be managed according to NPS policies.

Whenever possible, new facilities would be built in previously disturbed areas or in carefully selected sites with as small a construction footprint as possible and with sustainable design. During design and construction periods, NPS natural and cultural resource staff would identify areas to be avoided and monitor activities.

Fencing or other means would be used to protect sensitive resources adjacent to construction areas.

Construction materials would be kept in work areas, especially if the construction takes place near streams, springs, natural drainages, or other water bodies.

Visitors would be informed of the importance of protecting the Addition’s natural resources and leaving these undisturbed for the enjoyment of future generations.

Air Quality

A dust abatement program would be implemented. Standard dust abatement measures could include watering or otherwise stabilizing soils, covering haul trucks, employing speed limits on unpaved roads, minimizing vegetation clearing, and revegetating after construction.

Soils

New facilities would be built on soils suitable for development. Soil erosion would be

minimized by limiting the time soil is left exposed and by applying other erosion control measures such as erosion matting, silt fencing, and sedimentation basins in construction areas to reduce erosion, surface scouring, and discharge to water bodies. Once work was completed, construction areas would be revegetated with native plants in a timely period.

To minimize soil erosion on new trails, best management practices for trail construction would be used. Examples of best management practices could include installing water bars, check dams and retaining walls; contouring to avoid erosion; and minimizing soil disturbance.

Water Resources

To prevent disruption of natural surface water flows, all trails that would receive ORV, hiking, biking, or horseback riding use (for NPS operations or public use) would be designed, built, and/or maintained so the trail surface is kept at the natural grade of the surrounding landscape. Techniques that would help mitigate trail rutting that could otherwise occur in wet areas of the Addition include “at-grade” maintenance, trail stabilization with aggregate material, the use of culverts, and low-water crossings. This mitigation would help preserve the natural sheet flow through the Addition at a local and regional level. In addition, if trail conditions eventually become degraded in areas and surface flow becomes altered, the indicator and standards monitoring program would be applied to remedy the situation and restore surface water flows (as described in the previous User Capacity section). The use of culverts, low-water crossings, and at-grade trail construction and maintenance are examples of such techniques.

To prevent water pollution during construction, erosion control measures would be used, discharges to water bodies would be minimized, and construction equipment would be

regularly inspected for leaks of petroleum and other chemicals.

Best management practices for water quality protection, such as the use of silt fences, would be followed to ensure that construction-related effects were minimal and to prevent long-term impacts on water quality, wetlands, and aquatic species.

Caution would be exercised to protect water resources from activities with the potential to damage water resources, including damage caused by construction equipment, erosion, and siltation. Measures would be taken to keep fill material from escaping work areas, especially near streams, springs, natural drainages, and wetlands.

For new facilities, and to the extent practicable for existing facilities, stormwater management measures would be implemented to reduce nonpoint source pollution discharge from parking lots and other impervious surfaces. Such actions could include use of oil/sediment separators, street sweeping, infiltration beds, permeable surfaces, and vegetated or natural filters to trap or filter stormwater runoff.

The NPS spill prevention and pollution control program for hazardous materials would be followed and updated on a regular basis. Standard measures could include (1) procedures for hazardous materials storage and handling, spill containment, cleanup, and reporting, and (2) limitation of refueling and other hazardous activities to upland/nonsensitive sites.

Wetlands

Wetlands would be avoided if possible, and protection measures would be applied during construction. Wetlands would be delineated by qualified NPS staff or certified wetland specialists and clearly marked before construction work. Construction activities would

be performed in a cautious manner to prevent damage caused by equipment, erosion, siltation, etc.

In addition to the above wetland mitigation measures, NPS staff would conduct additional future wetland impact and mitigation analysis, as per NPS policy and Section 404 of the Clean Water Act (as administered by the Army Corps of Engineers). NPS policy requires the development of a “Wetlands Statement of Findings,” which identifies and analyzes all wetland functions and values affected by NPS actions in a park unit. The “Wetlands Statement of Findings” for this management plan would quantify all wetland impacts from management actions specified in the plan. Although Section 404 of the Clean Water Act pertains only to wetland filling and dredging, the NPS statement of findings policy addresses the impacts on several other wetland values, such as wildlife habitat, soils, vegetation communities, surface hydrology, aesthetics, and cultural values. The detailed functional analysis of wetland impacts and the development of wetland avoidance and mitigative measures would be completed as part of the “Wetlands Statement of Findings.” The effects of ORV use associated with this management plan would likely be the primary focus of the “Wetlands Statement of Findings” for the Addition. No ORV use, ORV trail development, or other actions with wetland impacts would be implemented or allowed until the appropriate wetland policy requirements are met. Also refer to table 29 in chapter 5 entitled, “Future Compliance Required for Implementation of Specific Actions under the Preferred Alternative.”

Vegetation

Areas used by visitors (e.g., trails, developed areas, and designated campsites) would be monitored for signs of native vegetation disturbance. Public education, revegetation of disturbed areas with native plants, erosion control measures, and barriers would be used

to control potential impacts on plants from trail erosion or social trailing.

Proposed sites for new trails and other facilities would be surveyed for sensitive species before construction. If sensitive species were present, new developments would be relocated to avoid impacts.

Revegetation plans would be developed for disturbed areas. Revegetation plans should specify such features as seed/plant source, seed/plant mixes, soil preparation, fertilizers, and mulching. Salvage vegetation, rather than new planting or seeding, would be used to the greatest extent possible. To maintain genetic integrity, native plants that grow in the project area or the region would be used in restoration efforts, whenever possible. Use of non-native species or genetic materials would be considered only where deemed necessary to maintain a cultural landscape or to prevent severe resource damage, and would be approved by the NPS resource management staff. Restoration activities would be instituted immediately after construction was completed. Monitoring would occur to ensure that revegetation was successful, plantings were maintained, and unsuccessful plant materials were replaced.

Nonnative Species

Special attention would be devoted to preventing the spread of exotic and invasive plant and animal species. For exotic invasive plants, standard measures could include the following elements: ensure that construction-related equipment arrives on-site free of mud or seed-bearing material, certify all seeds and straw material as weed-free, identify areas of nonnative plants before construction, treat exotic plants or exotic infested topsoil before construction (e.g., topsoil segregation, storage, herbicide treatment), and revegetate with appropriate native species.

Nonnative animals would be addressed with more direct, species-specific control methods. In many cases, NPS control methods would be in cooperation with other agencies, such as the Florida Fish and Wildlife Conservation Commission. Some examples of exotic animal control efforts include the trapping and removal of the walking catfish (*Clarias batrachus*), the authorized agent python capture program, or the "Partner with Hunters" pilot program that permits game hunters to kill exotic pythons in the Preserve.

Wildlife

To the extent possible, new or rehabilitated facilities would be sited to avoid sensitive wildlife habitats, including feeding and resting areas, major travel corridors, nesting areas, and other sensitive habitats.

Construction activities would be timed to avoid sensitive periods, such as nesting or breeding seasons. Ongoing visitor use and NPS operational activities could be restricted if their potential level of damage or disturbance warranted doing so.

Measures would be taken to reduce the potential for wildlife to get food from humans. Wildlife-proof garbage containers would be required in developed areas (including visitor centers, picnic areas, trails, and interpretive waysides). Signs would continue to educate visitors about the need to refrain from feeding wildlife.

Other visitor impacts on wildlife would be addressed through such techniques as visitor education programs, restrictions on visitor activities, and ranger patrols.

Also, the National Park Service, in partnership with the Florida Fish and Wildlife Conservation Commission, will establish white-tailed deer harvest limits in the Addition via deer population monitoring. The National Park Service would develop a

hunting management plan for the Addition, which would require NEPA compliance. Both the Preserve's hunting management plan and the white-tailed deer harvest limits set by the commission, in partnership with the National Park Service, would be developed in consideration of one another, because other public uses allowed under this general management plan may also affect white-tailed deer behavior and population.

Also, because the endangered Florida panther is dependent on white-tailed deer, both the NPS hunting management plan and the commission's limits would consider the effect of game management and hunting on the panther. The development of the hunting management plan through the required NEPA process would incorporate any new data that identifies correlations between hunting, white-tailed deer populations, and the Florida panther. To ensure informed decision making regarding deer and endangered species protection, the U.S. Fish and Wildlife Service and the commission would work cooperatively with the National Park Service on hunting management issues in the Addition, both through the NEPA compliance process as well as via interim coordination. Also refer to table 29 in chapter 5 entitled, "Future Compliance Required for Implementation of Specific Actions under the Preferred Alternative."

Threatened and Endangered Species and Species of Concern

Conservation measures would occur during normal operations as well as before, during, and after construction to minimize long-term, immediate impacts on rare species and threatened and endangered species where they are identified in the Addition. These mitigation measures would be incorporated, as necessary, into each specific action of this plan as the plan is implemented. These measures may vary slightly for each specific project and for each affected area of the

Addition. Many of the measures listed above for vegetation and wildlife would also benefit rare, threatened, and endangered species by helping to preserve habitat. Conservation measures specific to rare, threatened, and endangered species would include the following actions:

- Surveys would be conducted for special status species, including rare, threatened, and endangered species, before deciding to take any action that might cause harm or disturb habitat value. To provide baseline data, the surveys would be conducted before any introduced action or disturbance, including recreational facilities and uses. In consultation with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Florida Fish and Wildlife Conservation Commission, appropriate measures would be taken to protect any sensitive species whether identified through surveys or presumed to occur.
- If breeding or nesting areas for threatened and endangered species were observed in the Addition, these areas would be protected from human disturbance to the greatest extent possible, as per the guidelines and recommendations of the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Florida Fish and Wildlife Conservation Commission.
- New facilities and management actions would be located and designed to avoid adverse effects on habitat for rare, threatened, and endangered species. If avoidance of adverse effects on rare, threatened, and endangered species is not possible, appropriate conservation measures would be taken in consultation with the appropriate resource agencies.
- A special status species education plan that targets all human occupants of the Preserve (including NPS staff, contractors, and the public) would be developed and implemented. The plan would aim at providing important information about the various species in an attempt to

minimize or eliminate avoidable habitat disturbances from human activity.

- Restoration or monitoring plans would be developed and implemented per the recommendation and standards of the appropriate resource agencies. Plans should include methods for implementation, performance standards, monitoring criteria, and adaptive management techniques. The plans would include scheduling future surveys of special status species, which would be used to assess the impact of management actions and public uses on the various species.
- Measures would be taken to reduce adverse effects of nonnative plants and wildlife on habitat for rare, threatened, and endangered species.

In addition to the above mitigation measures, protection of special status species will be maintained through future compliance with Section 7 of the Endangered Species Act for the development of the Addition's recreation access points along Interstate 75. This Section 7 compliance would correlate to the NEPA compliance that was completed in 1991 through the *I-75 Recreational Access Plan Environmental Assessment*. Although, consideration would be given to all special status species during these future actions, particular attention would be given to the endangered Florida panther. Additional research is being conducted that analyzes possible correlations between ORV use, hunting, and panther populations and distribution. The National Park Service would incorporate any new data about recreation impacts on the panther into the future Section 7 compliance for recreation access points. This future compliance would involve the assessment of appropriate ORV levels of use by area (i.e., permit numbers and opened trail locations and mileages) and the effects of these management actions on the Florida panther and its habitat.

To ensure informed decision-making regarding ORV use and endangered species

protection, the U.S. Fish and Wildlife Service and the commission would be consulted through the Endangered Species Act Section 7 compliance processes as well as via interim informal coordination with NPS staff. Also refer to table 29 in chapter 5 entitled “Future Compliance Required for Implementation of Specific Actions under the Preferred Alternative”.

Soundscape

Standard noise abatement measures would be followed during construction. Standard noise abatement measures could include the following elements: a schedule that minimizes impacts on adjacent noise-sensitive resources, the use of the best available noise control techniques wherever feasible, the use of hydraulically or electrically powered tools when feasible, and the location of stationary noise sources as far from sensitive resources as possible. Facilities would be located and designed to minimize objectionable noise.

Scenic Resources

Mitigation measures are designed to minimize visual intrusions. These measures could include the following:

- Where appropriate, facilities such as boardwalks and fences would be used to route people away from sensitive natural and cultural resources while still permitting access to important viewpoints.
- Facilities would be designed, sited, and constructed to avoid or minimize visual intrusion into the natural environment or landscape.
- Vegetative screening would be provided, where appropriate.

CULTURAL RESOURCES

All projects with the potential to affect historic properties and cultural landscapes would be carried out in compliance with Section 106 of the National Historic Preservation Act to ensure that the effects are adequately addressed. All reasonable measures would be taken to avoid, minimize, or mitigate adverse effects in consultation with the Florida State Historic Preservation Officer and, as necessary, the Advisory Council on Historic Preservation and other concerned parties, including American Indian tribes. In addition to adhering to the legal and policy requirements for cultural resources protection and preservation, the National Park Service would also undertake the measures listed below to further protect the Addition’s resources.

All areas selected for construction (including any trail improvements) would be surveyed to ensure that cultural resources (i.e., archaeological, historic, ethnographic, and cultural landscape resources) in the area of potential effects are adequately identified and protected by avoidance or, if necessary, mitigation.

Compliance with the Native American Graves Protection and Repatriation Act of 1990 would apply in the unlikely event that human remains believed to be Native American were discovered inadvertently during construction. Prompt notification and consultation with the tribes traditionally associated with Big Cypress National Preserve would occur in accordance with the act. If such human remains were believed to be non-Indian, standard reporting procedures to the proper authorities would be followed, as would all applicable federal, state, and local laws.

Archeological documentation would be done in accordance with the *Secretary of the Interior’s Standards for Archeology and Historic Preservation* (1983, as amended and annotated).

If during construction previously unknown archeological resources were discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and, if the resources cannot be preserved *in situ*, an appropriate mitigation strategy would be developed in consultation with the state historic preservation officer and, if necessary, associated Indian tribes.

Ethnographic resources would be protected and mitigated by such means as identifying and maintaining access for recognized and affiliated groups to traditional, spiritual/ceremonial, resource gathering, and other activity areas. As practical, new developments would be screened from these areas, and conflicting uses would be relocated or timed to minimize disruptions.

Further background research, resource inventories, and National Register of Historic Places evaluation of historic properties would be carried out where management information is lacking. The surveys and research necessary to determine the eligibility of a structure, district, or landscape for listing in the national register are a prerequisite for understanding the resource's significance, as well as the basis of informed decision-making in the future regarding how the resource should be managed. The results of these efforts would be incorporated into site-specific planning and compliance documents.

No National Register of Historic Places listed or eligible property would be removed or allowed to decay naturally ("molder") without prior review by NPS cultural resource specialists and consultation with the Florida state historic preservation office. Before a national register

listed or eligible property is removed or allowed to molder, appropriate documentation recording the property would be prepared in accordance with Section 110 (b) of the National Historic Preservation Act and the documentation submitted, as appropriate, to the Historic American Buildings Survey/Historic American Engineering Record/ Historic American Landscapes Survey program.

Visitors would be educated on the importance of protecting the Addition's historic properties and leaving these undisturbed for the enjoyment of future visitors.

VISITOR SAFETY AND EXPERIENCES

Measures to reduce adverse effects of construction on visitor safety and experience would be implemented, including project scheduling and best management practices.

Visitor safety concerns would be integrated into Preserve educational programs. Directional signs would continue to orient visitors, and education programs would continue to promote understanding among visitors.

SOCIOECONOMIC ENVIRONMENT

During the future planning and implementation of the approved management plan for the Addition, NPS staff would work with local communities and county governments to further identify potential impacts and mitigation measures that would best serve the interests and concerns of both the National Park Service and the local communities. Partnerships would be pursued to improve the quality and diversity of community amenities and services.

FUTURE STUDIES AND IMPLEMENTATION PLANS NEEDED

After the completion and approval of this *General Management Plan* for the Addition, other more detailed studies and plans will be needed before specific actions can be implemented.

As required, additional environmental compliance (National Environmental Policy Act, National Historic Preservation Act, and other relevant laws and policies) and public involvement would be conducted. These additional studies include the following:

- a restoration plan that provides guidance and implementation details for restoring unsustainable trails and old camps in the Addition
- a resource stewardship strategy that provides comprehensive, long-range direction for natural and cultural resource management (NPS policy now requires that a resource stewardship strategy be completed to replace the resource management plan.)
- a climate change action plan or other implementation plan that outlines the NPS response to global warming and the effects of climate change on Addition resources
- a wilderness management plan (should wilderness be designated in the Addition)
- a hunting management plan for the Addition
- a backcountry management plan (which addresses camping and other recreation)
- an equestrian management plan
- a commercial services plan for the Addition (through an update to the *Commercial Services Plan* for the original Preserve) to guide private businesses (such as tour boat operations and concessioners) as necessary for visitor services
- an air tour management plan as required by the National Parks Air Tour Management Act of 2000
- evaluate the feasibility and cost-effectiveness of creating a combined general management plan, wilderness management plan, and off-road vehicle management plan for the entire Preserve (including the Addition) so that all pertinent information would be in one document

Implementation of these recommended studies/plans will depend on future funding. The approval of this management plan does not guarantee that the funding needed for implementation will be forthcoming. Full implementation could be many years in the future or may not occur if funding is not obtained.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The environmentally preferable alternative is defined as “the alternative that will promote national environmental policy as expressed in Section 101 of the National Environmental Policy Act.” Section 101 states that it is the continuing responsibility of the federal government to

1. fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
4. preserve important historic, cultural, and natural aspects of our national heritage; and maintain, wherever possible, an environment which supports diversity, and a variety of individual choices;
5. achieve a balance between population and resource use which would permit high standards of living and a wide sharing of life's amenities; and
6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

A description of how each alternative would or would not achieve the requirements of sections 101 and 102(1) of the National Environmental Policy Act criteria is provided below and illustrated through a rating system in table 9.

Criteria 1 — The Big Cypress National Preserve Addition is a unit of the national park system, and as the trustee of this area the National Park Service would continue to fulfill its obligation to protect this area for future

generations. The no-action alternative would provide less direction on important issues needed to successfully manage the Addition; consequently it was ranked lower than the action alternatives. Alternative F would provide the greatest level of protection for Preserve resources over time.

Criteria 2 — All the alternatives would ensure safe, healthful, productive, and culturally pleasing surroundings for all Americans.

Criteria 3 — Alternative F includes more emphasis on resource preservation and enhancement; however, it limits the beneficial uses that could be derived from human recreation and learning. Therefore, alternative B and the preferred alternative received equally high ratings. The no-action alternative provides less beneficial uses due to the fact that it would remain closed to public recreational off-road vehicle use.

Criteria 4 — Alternatives A and F do not include the same level of diversity of recreational opportunities and individual choices that are included in the preferred alternative and alternative B. The preferred alternative includes the same level of recreational opportunities as in alternative B. However, the phased implementation of ORV permits and trails under the preferred alternative best protects the natural resources and values of the Addition.

Criteria 5 — All of the alternatives offer environmental protection benefits to society. However, alternative B and the preferred alternative both offer opportunities for resource use and enjoyment that are not available in alternatives A and F.

Criteria 6 — All of the alternatives would result in enhancing the quality of the renewable resources through NPS management.

The environmentally preferable alternative for the Addition's *General Management Plan* is the preferred alternative. According to the ratings included in table 9, this alternative would surpass the other alternatives in realizing the full range of national environmental policy goals in Section 101. In

particular, the preferred alternative best responds to criteria 4 by providing maximum opportunities for diverse types of recreation while ensuring that resources are not degraded and are protected through sound management.

TABLE 9: ENVIRONMENTALLY PREFERABLE ALTERNATIVE ANALYSIS

CRITERIA	ALTERNATIVES			
	A	B	Preferred	F
1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.	3	4	4	5
2. Ensure safe, healthful, productive, and aesthetically and culturally pleasing surroundings for all Americans.	5	5	5	5
3. Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.	2	4	5	3
4. Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and a variety of individual choices.	2	4	5	3
5. Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.	2	5	5	3
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.	5	5	5	5
Total Points*	19	27	29	24

* Five points were given to the alternative if it fully meets the criteria; four points if it meets nearly all of the elements of the criteria; three points if it meets more than one element of the criteria; two points if it meets only one element of the criteria; and one point if the alternative does not meet the criteria.

ALTERNATIVES AND MANAGEMENT ACTIONS CONSIDERED BUT DISMISSED

During the planning process for the Addition, six preliminary alternatives (alternatives A, B, C, D, E, and F) were developed. These six alternatives represented a range of management options that focused on different amounts of ORV trails, visitor use opportunities, facility development, and proposed wilderness.

Upon further analysis, the planning team decided that preliminary alternatives C, D, and E should be eliminated from further consideration because they included goals and actions for environmental protection, visitor use, and ORV opportunities that were the same as those in alternative B, the preferred

alternative, and alternative F. The differences between those alternatives dismissed from consideration were minor and contained only slight iterations along the continuum of motorized recreation and proposed wilderness. Furthermore, public comment and support for alternatives C, D, and E were relatively low.

With the development of the preferred alternative, which includes many of the important elements contained in those preliminary alternatives, a range of reasonable management alternatives is adequately reflected through the four alternatives included in this plan.

TABLE 10: SUMMARY COMPARISON OF THE ALTERNATIVES

	Alternative A (No Action)	Alternative B	Preferred Alternative	Alternative F
Concept and General Management Strategies	This alternative would continue current management.	Alternative B would enable participation in a wide variety of outdoor recreational experiences. It would nearly maximize amount of motorized access, the least amount of proposed wilderness, and limited new hiking-only trails. New visitor and operations facilities would be provided along the I-75 corridor.	The preferred alternative would provide diverse frontcountry and backcountry recreational opportunities, enhance day use and interpretive opportunities along road corridors, and enhance recreational opportunities with new facilities and services. This alternative would provide substantial ORV access and riding opportunities and include a moderate amount of wilderness, nonmotorized trail opportunities, new camping opportunities, and a partnership approach to visitor orientation. New visitor and operations facilities would be provided along the I-75 corridor.	Alternative F would emphasize resource preservation, restoration, and research while providing recreational opportunities with limited facilities and support. This alternative would provide the maximum amount of wilderness, no ORV use, and minimal new facilities for visitor contact along I-75.
Approximate Acreages and Percentages for Addition Management Zones	No management zones are currently in use for guidance.	Developed <1% of Addition Frontcountry <1% of Addition Backcountry Recreation 94,529 acres (65 % of Addition) Primitive Backcountry 51,294 acres (35% of Addition)	Developed <1% of Addition Frontcountry <1% of Addition Backcountry Recreation 49,449 acres (33 % of Addition) Primitive Backcountry 96,413 acres (65% of Addition)	Developed <1% of Addition Frontcountry <1% of Addition Backcountry Recreation 3,422 acres (2% of Addition) Primitive Backcountry 142,442 acres (98% of Addition)
Motorized Recreational Opportunities	The Addition would continue to be closed to public recreational ORV use. Motorized boating would continue to be permitted in certain areas in canals and waterways adjacent to SR 29.	Motorized recreational opportunities, including ORV use, motorized boating, and hunting, would be nearly maximized. Up to 132 miles would be included as part of the conceptual primary ORV trail network.	Up to 130 miles of motorized trails would be available as part of the conceptual primary ORV trail system. Trails would be phased in over time. This alternative includes a potential connection to existing trails in the Bear Island area.	No ORV use would be available under this alternative. Motorized boating would continue to be permitted in certain areas in the canals and waterways adjacent to SR 29.

Table 10: Summary Comparison of the Alternatives

	Alternative A (No Action)	Alternative B	Preferred Alternative	Alternative F
<i>ORV Permits and Trail Mileage</i>	No ORV permits would be granted and no trails would be designated because public recreational ORV use would not be allowed. ORV access to private property by inholders would continue to be allowed by special use permit.	A maximum of 660 ORV permits for the Addition would be issued annually for the Addition, and up to 132 miles of primary ORV trails would be designated.	A maximum of 650 ORV permits for the Addition would be issued annually, and up to 130 miles of primary ORV trails would be designated; number of trail miles completed and number of permits would be accomplished in phases.	Same as alternative A.
Nonmotorized Recreational Opportunities <i>Activities/ Access</i>	New walk-in access points would be developed as a result of the <i>I-75 Recreational Access Plan</i> . Limited opportunities for hiking, paddling, horseback riding, and bicycling would continue to be available. New opportunities for walk-in hunting would be provided.	New access points would be established for hiking, bicycling, horseback riding, and hunting.	Same as alternative B.	New access points would be established, and trails would be developed for hiking, camping, bicycling, horseback riding, and walk-in hunting.

	Alternative A (No Action)	Alternative B	Preferred Alternative	Alternative F
<i>Trails</i>	No new trails would be developed.	Some new hiking trails would be developed at frontcountry locations. Hiking, bicycling, and horseback riding would be allowed on the up to 132 miles of primary ORV trails in the Addition. New paddling trails would be developed in the tidal areas south of U.S. 41 in the Western Addition (see “Facilities” below). Conceptual hiking trails would be included — one completing a north-south connection and one completing an east-west connection through the Addition.	Essentially the same as alternative B except that nonmotorized recreation would be available on up to 130 miles of primary ORV trails.	Some new hiking trails would be developed at frontcountry locations. New paddling trails would be developed in the tidal areas south of U.S. 41 in the Western Addition. Conceptual hiking trails would be included — one completing a north-south connection and one completing an east-west connection through the Addition.
<i>Florida National Scenic Trail</i>	Access to the Florida National Scenic Trail would remain at I-75 mile marker 63, and the route would remain temporary and undesignated.	Appropriate access points and routing of the Florida National Scenic Trail would be determined, and the trail would be formally designated.	Same as alternative B.	Same as alternative B.
Visitor Orientation and Education	No new facilities would be developed under this alternative, which means that no visitor contact facilities would exist in the Addition. Visitor orientation to the Addition would continue to occur at the NPS facilities on U.S. 41.	A visitor contact station and outdoor orientation and interpretive panels would be developed along I-75 (see “Facilities” below).	A new visitor contact station and visitor center and some outdoor orientation and interpretive panels would be developed along I-75 (see “Facilities” below).	Visitor information/orientation panels would be developed along I-75 (see “Facilities” below).

Table 10: Summary Comparison of the Alternatives

	Alternative A (No Action)	Alternative B	Preferred Alternative	Alternative F
Wilderness	No land would be proposed for wilderness designation; however, those lands in the Addition eligible for wilderness designation would continue to be managed to preserve their wilderness characteristics and values.	About 37,567 acres of land would be proposed for wilderness designation.	About 47,067 acres of land would be proposed for wilderness designation.	About 71,260 acres of land would be proposed for wilderness designation, including the Everglades City area.
Partnerships, Programs, and Activities	No new partnerships, programs, or activities would be initiated for the Addition.	New partnerships to provide visitor services at Carnestown would be explored.	The National Park Service would pursue partnerships to achieve management objectives and consider partnerships that provide a range of commercial services, including boat tours south of U.S. 41. The original Preserve's <i>Commercial Services Plan</i> would be amended to include the Addition.	Same as alternative A.
Facilities				
<i>I-75 Mile Marker 51</i>	No new NPS access would be developed at this location. Access would be provided under the I-75 <i>Recreational Access Plan</i> ; however, access would be for nonmotorized uses only.	A new access point would be developed that includes parking and restrooms. The site would provide access for motorized and nonmotorized activities. Visitor orientation and interpretation panels would also be installed. Also, the National Park Service would establish a partnership to establish other facilities as appropriate, such as a wildlife check station and boat ramp access to the water district canal.	Same as alternative B except no restrooms would be developed.	A new access point (nonmotorized only) would be developed that includes parking and visitor information. Visitor orientation and interpretation panels would also be installed. Also, the National Park Service would establish a partnership to establish other facilities as appropriate, such as a wildlife check station and boat ramp access to the water district canal.

	Alternative A (No Action)	Alternative B	Preferred Alternative	Alternative F
<i>I-75 Mile Marker 63</i>	Informal walk-in access would continue to be available via the rest area. Access would be provided under the <i>I-75 Recreational Access Plan</i> ; however, access would be for nonmotorized uses only.	A new access point would be developed that includes parking and trailhead. The site would provide access for motorized and nonmotorized activities. A new visitor contact station and NPS operations facility would also be developed at this location. The National Park Service would establish a partnership with the Florida Department of Transportation and the Florida Fish and Wildlife Conservation Commission to establish other facilities as appropriate, such as a wildlife check station.	Same as alternative B except a new visitor center and NPS operations facility would be developed here. The National Park Service would establish a partnership with the Florida Department of Transportation and the Florida Fish and Wildlife Conservation Commission to establish other facilities as appropriate, such as a wildlife check station.	A new access point (nonmotorized only) would be developed that includes parking, a trailhead, and visitor information. Visitor orientation and interpretation panels would be installed. A new NPS operations facility would also be developed at this location. The National Park Service would establish a partnership with the Florida Department of Transportation and the Florida Fish and Wildlife Conservation Commission to establish other facilities as appropriate, such as a wildlife check station.
<i>Bear Island Grade at SR 29</i>	This location would remain undeveloped, and informal nonmotorized access would continue.	A new trailhead and parking area would be developed at this location, providing motorized and nonmotorized access to the Bear Island Grade. This new access point would provide a connection to ORV trails in the original Preserve. Visitor orientation and interpretation panels would also be installed.	Same as alternative B.	A new trailhead and parking area would be developed at this location, providing nonmotorized access to the Bear Island Grade. Only hiking, bicycling, and horseback riding would be allowed on the trail in the Western Addition. Visitor orientation and interpretation panels would also be installed at the trailhead.
<i>Nobles and Jones Grades</i>	No new facilities would be developed. Only nonmotorized access would remain along the road grades.	No new facilities would be developed. The road grades would only be used for access.	Primitive backcountry group camping areas would be provided at the terminus of these grades.	These sites would remain undeveloped, and Nobles Grade would be removed and restored. Nonmotorized public access would remain on Jones Grade.

Table 10: Summary Comparison of the Alternatives

	Alternative A (No Action)	Alternative B	Preferred Alternative	Alternative F
<i>Miles City (I-75 at SR 29)</i>	This intersection would remain undeveloped.	Same as alternative A.	A new hiking trailhead, information kiosk, and small parking area would be developed outside the interchange area that is closed to development.	Same as alternative A.
<i>Deep Lake (SR 29)</i>	No facility improvements would be made at this location. Parking would remain on the shoulder of SR 29, and site access would remain informal.	The site would be developed into a day use area with parking, restrooms, and a hiking trail/boardwalk to Deep Lake.	Same as alternative B plus picnic shelters.	A new trailhead would be developed, including a hiking trail/boardwalk to Deep Lake.
<i>Copeland (SR 29)</i>	The NPS Fire Operations Center would remain at this location.	Same as alternative A.	The NPS Fire Operations Center would be maintained at this location and expanded as necessary for other NPS operational needs.	Same as preferred alternative.
<i>Carnestown</i>	Facilities at the site would continue to be leased to other government agencies and organizations.	Facilities at the site would be used to support visitor service partnership needs.	Facilities would be used to support commercial services and/or partner organizations that would operate here, including enhancements that would support visitor service needs.	Facilities would be removed and the site would be restored to natural conditions.
STAFFING	No additional staff for the Addition Total staff of 77 full-time-equivalent employees for the Preserve	16 additional full-time-equivalent employees (or 17 positions) for the Addition Total staff of 93 full-time-equivalent employees for the Preserve	16 additional full-time-equivalent employees (or 17 positions) for the Addition Total staff of 93 full-time-equivalent employees for the Preserve	10 additional full-time-equivalent employees/positions for the Addition Total staff of 87 full-time-equivalent employees for the Preserve
Estimated One-Time Construction Costs	N/A	\$6.7 million	\$6.7 million	\$4.9 million

	Alternative A (No Action)	Alternative B	Preferred Alternative	Alternative F
Annual Operating Costs (for the entire Preserve)	\$6. 5 million	\$7.9 million	\$7.9 million	\$7.5 million

TABLE 11: SUMMARY OF KEY IMPACTS OF IMPLEMENTING THE ALTERNATIVES

Alternative A – No Action		Alternative B	Preferred Alternative	Alternative F
Impacts on Natural Resources				
Surface Water Flow	<p>Under alternative A, impacts on surface water flow would be long term, adverse, minor to moderate, and localized.</p> <p>There could be a long-term, minor, adverse cumulative impact on surface water flow. The actions contained in alternative A would contribute a small increment to this cumulative impact.</p>	<p>Under alternative B, impacts on surface water flow would be long term, moderate, adverse, and mostly localized.</p> <p>There could be a long-term, minor, adverse cumulative impact on surface water flow. The actions contained in alternative B would contribute a small increment to this cumulative impact.</p>	Same as alternative B.	<p>Under alternative F, impacts on surface water flow would be long term, minor, beneficial, and mostly localized.</p> <p>There could be a long-term, moderate, beneficial cumulative impact on surface water flow. The actions contained in alternative F would contribute a small increment to this cumulative impact.</p>
Water Quality	<p>Under alternative A, impacts on water quality would be long term, minor, adverse, and localized.</p> <p>There would be a long-term, adverse cumulative impact on water quality in the watershed. The intensity of the impact is unknown. The actions contained in alternative A would contribute a very small adverse increment to this cumulative impact.</p>	<p>Under alternative B, impacts on water quality would be long term, moderate, adverse, and localized.</p> <p>There would be a long-term, adverse cumulative impact on water quality in the watershed. The intensity of the impact is unknown. The actions contained in alternative B would contribute a very small increment to this cumulative impact.</p>	Same as alternative B.	Same as alternative A.
Wetlands	<p>Under alternative A, impacts on wetlands would be long term, minor, adverse, and localized.</p> <p>There would be a long-term, minor, adverse cumulative impact on wetlands. The actions contained in alternative A would contribute a small increment to this cumulative impact.</p>	<p>Under alternative B, impacts on wetlands would be long term, moderate, adverse, and localized.</p> <p>There would be a long-term, moderate, adverse cumulative impact on wetlands. The actions contained in alternative B would contribute a small increment to this cumulative impact.</p>	<p>Under alternative B, impacts on wetlands would be long term, minor to moderate, adverse, and localized.</p> <p>There would be a long-term, moderate, adverse cumulative impact on wetlands. The actions contained in the preferred alternative would contribute a small increment to this cumulative impact.</p>	<p>Under alternative F, impacts on wetlands would be long term, minor to moderate, beneficial and localized.</p> <p>There would be a long-term, minor, adverse cumulative impact on wetlands. The actions contained in alternative F would contribute a small increment to this cumulative impact.</p>
Soils	<p>Under alternative A, impacts on soils would be long term, minor, adverse, and localized.</p> <p>There would be a long-term, moderate, adverse cumulative impact on soils. The actions contained in alternative A would contribute a very small increment to this cumulative impact.</p>	<p>Under alternative B, impacts on soils would be long term, moderate, adverse, and localized.</p> <p>There would be a long-term, moderate, adverse cumulative impact on soils. The actions contained in alternative B would contribute a small increment to this cumulative impact.</p>	Same as alternative B.	Same as alternative A.
Floodplains	<p>Under alternative A, impacts on floodplains would continue to be long term, minor, adverse, and localized.</p> <p>There would be a long-term, minor to major, adverse cumulative impact on floodplains. The actions contained in alternative A would contribute a very small increment to this cumulative impact.</p>	<p>Alternative B would have no impact on floodplains. Two facilities located in the 100-year floodplain would be retained, but would cause no additional impacts on floodplains beyond what is accounted for under the no-action alternative.</p> <p>No cumulative impacts on floodplains would occur under alternative B because there would be no impacts on floodplains resulting from actions proposed in alternative B.</p>	Same as alternative B.	<p>Under alternative F, impacts on floodplains would be long term, minor to moderate, beneficial, and localized.</p> <p>There would be a long-term, minor to major, adverse cumulative impact on floodplains. The actions contained in alternative F would contribute a very small increment to this cumulative impact.</p>

	Alternative A – No Action	Alternative B	Preferred Alternative	Alternative F
Vegetation —Cypress Strands and Domes, Mixed Hardwood Swamps, and Sloughs	<p>Under alternative A, impacts on cypress strands and domes, mixed hardwood swamps, and sloughs would be long term, adverse, minor, and localized.</p> <p>There could be a long-term, minor, beneficial cumulative impact on cypress strands and domes, mixed hardwood swamps, and sloughs. The actions contained in alternative A would contribute a small increment to this cumulative impact.</p>	<p>Under alternative B, impacts on cypress strands and domes, mixed hardwood swamps, and sloughs would be long term, moderate, adverse, and localized.</p> <p>There could be a long-term, minor, beneficial cumulative impact on cypress strands and domes, mixed hardwood swamps, and sloughs. The actions contained in alternative B would contribute a small increment to this cumulative impact.</p>	Same as alternative B.	<p>Under alternative F, impacts on cypress strands and domes, mixed hardwood swamps, and sloughs would be long term, minor, adverse, and localized.</p> <p>There could be a long-term, minor, beneficial cumulative impact on cypress strands and domes, mixed hardwood swamps, and sloughs. The actions contained in alternative F would contribute a small increment to this cumulative impact.</p>
Vegetation — Prairies and Marshes	<p>Under alternative A, impacts on prairies and marshes would be long term, adverse, minor, and localized.</p> <p>There could be a long-term, minor, adverse cumulative impact on prairies and marshes. The actions contained in alternative A would contribute a very small increment to this cumulative impact.</p>	<p>Under alternative B, impacts on prairies and marshes would be long term, minor, adverse, and localized.</p> <p>There would be a long-term, minor, adverse cumulative impact on prairies and marshes. The actions contained in alternative B would contribute a small increment to this cumulative impact.</p>	Same as alternative B.	<p>Under alternative F, impacts on prairies and marshes would be long term, minor, adverse, and localized.</p> <p>There would be a long-term, minor, adverse cumulative impact on prairies and marshes. The actions contained in alternative B would contribute a very small increment to this cumulative impact.</p>
Vegetation — Mangrove Forests	<p>Under alternative A, impacts on mangrove forests would continue to be long term, minor, adverse, and localized.</p> <p>Cumulative impacts on mangrove forests would be negligible. The actions contained in alternative A would contribute a very small increment to this cumulative impact.</p>	<p>Alternative B would have no impact on mangrove forests. Impacts on mangroves would be the same as what was accounted for under the no-action alternative.</p> <p>There would be no cumulative impacts on mangrove forests under alternative B.</p>	Same as alternative B.	Same as alternative B.
Vegetation — Pinelands	<p>Under alternative A, impacts on pinelands would be long term, adverse, minor, and localized.</p> <p>There could be a long-term, moderate to major, adverse cumulative impact on pinelands. The actions in alternative A would contribute a small increment to this cumulative impact.</p>	Same as alternative A.	Same as alternative A.	Same as alternative A.
Vegetation — Hardwood Hammocks	<p>Under alternative A, impacts on hardwood hammocks would be long term, adverse, minor, and localized.</p> <p>There could be a long-term, minor, beneficial cumulative impact on hardwood hammocks. The actions contained in alternative A would contribute a small increment to this cumulative impact.</p>	<p>Under alternative B, impacts on hardwood hammocks would be long term, minor, adverse, and localized.</p> <p>There could be a long-term, minor, adverse cumulative impact on hardwood hammocks. The actions contained in alternative B would contribute a small increment to this cumulative impact.</p>	Same as alternative B.	Same as alternative A.

Table 11: Summary of Key Impacts of Implementing the Alternatives

Alternative A – No Action		Alternative B	Preferred Alternative	Alternative F
Exotic/Nonnative Plants	<p>Under alternative A, impacts on native vegetation because of the potential for the spread of exotive and nonnative plants would be long term, minor, beneficial, and potentially Addition-wide.</p> <p>There could be a long-term, minor, adverse cumulative impact on exotic plants and nonnative vegetation. The actions contained in alternative A would contribute a very small increment to this cumulative impact.</p>	<p>Under alternative B, impacts on native vegetation because of the potential for the spread of exotive and nonnative plants would be long term, moderate, adverse, and potentially Addition-wide.</p> <p>There could be a long-term, minor, adverse cumulative impact on exotic plants and nonnative vegetation. The actions contained in alternative B would contribute a small increment to this cumulative impact.</p>	Same as alternative B.	<p>Under alternative F, impacts on native vegetation because of the potential for the spread of exotive and nonnative plants would be long term, minor, adverse, and potentially Addition-wide.</p> <p>There could be a long-term, minor, adverse cumulative impact on exotic plants and nonnative vegetation. The actions contained in alternative F would contribute a small increment to this cumulative impact.</p>
Impacts on Federal Threatened and Endangered Species				
Florida Panther	<p>Continuation of current management under alternative A would result in long-term, minor adverse, mostly localized impacts on the Florida panther across the Addition. The determination of effect under Section 7 of the Endangered Species Act would be <i>not likely to adversely affect</i>.</p> <p>There would be a long-term, minor to moderate, adverse cumulative impact on the Florida panther. The actions contained in alternative A would contribute a small increment to this cumulative impact.</p>	<p>Impacts on the Florida panther under alternative B would be long term, moderate, adverse, and mostly localized. The determination of effect under Section 7 of the Endangered Species Act would be <i>likely to adversely affect</i>.</p> <p>There would be a long-term, moderate, adverse cumulative impact on the Florida panther. The actions contained in alternative B would contribute a modest increment to this cumulative impact.</p>	Same as alternative B.	Same as alternative A.
West Indian Manatee	<p>Implementation of alternative A would result in localized, long-term, minor adverse impacts on the West Indian manatee. The determination of effect under Section 7 of the Endangered Species Act would be <i>not likely to adversely affect</i>.</p> <p>There would be a long-term, moderate, adverse cumulative impact on the West Indian manatee. The actions contained in alternative A would contribute a very small increment to this cumulative impact.</p>	<p>Impacts on the West Indian manatee under alternative B would be long term, minor, adverse, and localized. The determination of effect under Section 7 of the Endangered Species Act would be <i>not likely to adversely affect</i>.</p> <p>There would be a long-term, moderate, adverse cumulative impact on the West Indian manatee. The actions contained in alternative B would contribute a very small increment to this cumulative impact.</p>	Same as alternative B.	Same as alternative B.
Red-Cockaded Woodpecker	<p>The continuation of current management (alternative A) would result in long-term, minor to moderate, beneficial impacts across the Addition. The determination of effect under Section 7 of the Endangered Species Act would be <i>not likely to adversely affect</i>.</p> <p>There would be a long-term, minor to moderate, adverse cumulative impact on the red-cockaded woodpecker. The actions contained in alternative A would contribute a small beneficial increment to this cumulative impact.</p>	<p>Impacts on the potential habitat for and thus the red-cockaded woodpecker under alternative B would be long term, minor to moderate, adverse, and mostly localized. The determination of effect under Section 7 of the Endangered Species Act would be <i>likely to adversely affect</i>.</p> <p>There would be a long-term, moderate, adverse cumulative impact on the potential habitat for and thus the red-cockaded woodpecker. The actions contained in alternative B would contribute a small increment to this cumulative impact.</p>	Same as alternative B.	<p>Impacts on the potential habitat for and thus the red-cockaded woodpecker under alternative F would be long term, minor, adverse, and mostly localized. The determination of effect under Section 7 of the Endangered Species Act would be <i>not likely to adversely affect</i>.</p> <p>There would be a long-term, minor to moderate, adverse cumulative impact on the potential habitat for and thus the red-cockaded woodpecker. The actions contained in alternative F would contribute a small increment to this cumulative impact.</p>

	Alternative A – No Action	Alternative B	Preferred Alternative	Alternative F
Everglade Snail Kite	<p>Under alternative A, impacts on the Everglade snail kite would be long term, minor to moderate, and beneficial. The determination of effect under Section 7 of the Endangered Species Act would be <i>not likely to adversely affect</i>.</p> <p>There would be a long-term, minor, adverse cumulative impact on the snail kite. The actions contained in alternative A would add a small increment to this cumulative impact.</p>	<p>Impacts on the Everglade snail kite under alternative B would be long term, minor to moderate, adverse, and mostly localized. The determination of effect under Section 7 of the Endangered Species Act would be <i>likely to adversely affect</i>.</p> <p>There would be a long-term, minor to moderate, adverse cumulative impact on the snail kite. The actions contained in alternative B would add a small increment to this cumulative impact.</p>	Same as alternative B.	<p>Impacts on the snail kite under alternative F would be long term, negligible to minor, adverse, and mostly localized. The determination of effect under Section 7 of the Endangered Species Act would be <i>not likely to adversely affect</i>.</p> <p>There would be a long-term, minor, adverse cumulative impact on the Everglade snail kite. The actions contained in alternative F would add a small increment to this cumulative impact.</p>
American Crocodile	<p>Implementation of alternative A would result in localized, long-term, minor, adverse impacts on the American crocodile. The determination of effect under Section 7 of the Endangered Species Act would be <i>not likely to adversely affect</i>.</p> <p>There would be a long-term, minor to moderate, adverse cumulative impact on the American crocodile. The actions contained in alternative A would contribute a very small increment to this cumulative impact.</p>	Same as alternative A.	Same as alternative A.	Same as alternative A.
Eastern Indigo Snake	<p>Under alternative A, impacts on the eastern indigo snake would be long term, minor to moderate, and beneficial. The determination of effect under Section 7 of the Endangered Species Act would be <i>not likely to adversely affect</i>.</p> <p>However, there would be a long-term, minor to moderate, adverse cumulative impact on the eastern indigo. The actions contained in alternative A would add a small beneficial increment to this cumulative impact.</p>	<p>Impacts on the potential habitat for and thus the eastern indigo snake under alternative B would be short term and long term, minor to moderate, adverse, and localized to Addition-wide. The determination of effect under Section 7 of the Endangered Species Act would be <i>likely to adversely affect</i>.</p> <p>There would be a short-term and long-term, moderate, adverse cumulative impact on the potential habitat for the eastern indigo snake. The actions contained in alternative B would contribute a small increment to this cumulative impact.</p>	Same as alternative B.	<p>Under alternative F, impacts on the eastern indigo snake would be long term, minor to moderate, and beneficial. The determination of effect under Section 7 of the Endangered Species Act would be <i>not likely to adversely affect</i>.</p> <p>However, there would be a long-term, minor to moderate, adverse cumulative impact on the eastern indigo. The actions contained in alternative F would add a small beneficial increment to this cumulative impact.</p>
Major Game Species	<p>Under alternative A, impacts on major game species from the continuation of current management would be long term, beneficial, minor, and Addition-wide.</p> <p>There would be a long-term, minor, adverse cumulative impact on the major game species. The actions contained in alternative A would contribute an appreciable beneficial increment to this cumulative impact.</p>	<p>Impacts on major game species under alternative B would be long term, minor to moderate, adverse, and mostly localized.</p> <p>There would be a long-term, minor to moderate, adverse cumulative impact on the major game species. The actions contained in alternative B would contribute a small increment to this cumulative impact.</p>	Same as alternative B.	<p>Impacts on major game species under alternative F would be long term, minor, adverse, and mostly localized.</p> <p>There would be a long-term, minor, adverse cumulative impact on the major game species. The actions contained in alternative F would contribute an appreciable beneficial increment to this cumulative impact.</p>

Table 11: Summary of Key Impacts of Implementing the Alternatives

	Alternative A – No Action	Alternative B	Preferred Alternative	Alternative F
Wilderness Resources and Values	<p>Under alternative A, impacts on wilderness resources and values from the continuation of current management would be long term, minor, beneficial, and localized.</p> <p>There would be a long-term, minor, adverse cumulative impact on wilderness resources and values in the region. The actions contained in alternative A would contribute a very small increment to this cumulative impact.</p>	<p>Impacts on wilderness resources and values under alternative B would be long term, moderate, beneficial, and Addition-wide.</p> <p>There would be a long-term, moderate, adverse cumulative impact on wilderness resources and values in the region. The actions contained in alternative B would contribute a modest beneficial increment to this cumulative impact.</p>	<p>Impacts on wilderness resources and values under the preferred alternative would be long term, moderate, beneficial, and Addition-wide.</p> <p>There would be a long-term, moderate, adverse cumulative impact on wilderness resources and values in the region. The actions contained in the preferred alternative would contribute a modest beneficial increment to this cumulative impact.</p>	<p>Impacts on wilderness resources and values under alternative F would be long term, major, beneficial, and Addition-wide.</p> <p>There would be a long-term, minor, adverse cumulative impact on wilderness resources and values in the region. The actions contained in alternative F would contribute a modest beneficial increment to this cumulative impact.</p>
Impacts on Cultural Resources				
Archeological Resources	<p>Under alternative A, impacts on archeological resources would be permanent, minor, and adverse.</p> <p>There would be a permanent, moderate, adverse cumulative impact on archeological resources. The actions contained in alternative A would contribute a small increment to this cumulative impact.</p> <p>Section 106 Summary. Implementation of alternative A would generally result in a no adverse effect on archeological resources.</p>	<p>Under alternative B, impacts on archeological resources would be permanent, minor to moderate, and adverse.</p> <p>There would be a permanent, moderate, adverse cumulative impact on archeological resources. The actions contained in alternative B would contribute a smaller increment to this cumulative impact than would the actions of other past, present, and reasonably foreseeable actions.</p> <p>Section 106 Summary. Implementation of alternative B would result in a potential adverse effect on archeological resources.</p>	<p>Under the preferred alternative, impacts on archeological resources would be permanent, adverse, and minor to moderate.</p> <p>There would be a permanent, moderate, adverse cumulative impact on archeological resources. The actions contained in the preferred alternative would contribute a smaller increment to this cumulative impact than would the actions of other past, present, and reasonably foreseeable actions.</p> <p>Section 106 Summary. Implementation of the preferred alternative would generally result in a potential adverse effect on archeological resources.</p>	<p>Under alternative F, impacts on archeological resources would be permanent, adverse, and minor.</p> <p>There would be a permanent, negligible, adverse cumulative impact on archeological resources. The actions contained in alternative F would contribute a slightly larger increment to this cumulative impact than would the actions of other past, present, and reasonably foreseeable actions.</p> <p>Section 106 Summary. Implementation of alternative F would generally result in a no adverse effect on archeological resources.</p>
Ethnographic Resources	<p>Under alternative A there would be no impacts on ethnographic resources. Therefore there would be no cumulative impacts. This would not result in impairment of ethnographic resources in the Addition.</p> <p>Section 106 Summary. Implementation of alternative A would generally result in a no adverse effect on ethnographic resources.</p>	<p>Under alternative B, there would be negligible, long-term, impacts on ethnographic resources.</p> <p>Combined with the impacts of past actions, including road construction and agricultural development, there would be a long-term, negligible to minor, adverse cumulative impact. The actions proposed in this alternative would contribute a very small increment to any cumulative impacts.</p> <p>Section 106 Summary. Implementation of alternative B would generally result in a no adverse effect on ethnographic resources.</p>	<p>Same as alternative B.</p>	<p>Under alternative F, there would be no impacts on ethnographic resources. Therefore there would be no cumulative impacts.</p> <p>Section 106 Summary. Implementation of alternative F would generally result in a no adverse effect on ethnographic resources.</p>

Alternative A – No Action		Alternative B	Preferred Alternative	Alternative F
Impacts on Visitor Use and Experience				
Recreational Opportunities	Under the no-action alternative, recreational ORV use would be nonexistent, whereas informal nonmotorized opportunities would continue and walk-in hunting would be allowed. Collectively, the resulting impacts on visitor use and experience would be long term, moderate, and adverse.	Under alternative B, designated access points and abundant trail opportunities would be provided for ORV use, hunting, and nonmotorized uses. Collectively, the resulting impacts on visitor use and experience would be long term, moderate, and beneficial.	Same as alternative B.	Under alternative F recreational ORV riding and ORV hunting opportunities would be unavailable, whereas designated, nonmotorized, access and opportunities would increase. Collectively, the resulting impacts on visitor use and experience would be long term, minor, and beneficial.
Motorized Use (ORVs)				
Nonmotorized Use (including hiking, horseback riding, and bicycling)	The cumulative impact on visitor use and experience in the Addition would be long term, moderate, and adverse. The actions contained in the no-action alternative would contribute an appreciable increment to this cumulative impact.	The cumulative impact on visitor use and experience in the Addition would be long term, moderate, and beneficial. The actions contained in the alternative B would contribute an appreciable increment to this cumulative impact.		The cumulative impact on visitor use and experience in the Addition would be long term, minor, and beneficial. The actions contained in alternative F would contribute an appreciable increment to this cumulative impact.
Hunting (including fishing and frogging)				
Impacts on the Socioeconomic Environment				
Local Economy	Because there would be no changes to visitor spending or construction activity within Collier County under alternative A, long-term and short-term impacts on the socioeconomic environment would be localized, negligible, and neutral. As a result, county employment, housing, and sales, as well as economic activity for the Miccosukee and Seminole tribes, would remain constant. In terms of cumulative impacts, long-term and short-term impacts would be localized, moderate, and beneficial. Alternative A would contribute a very small increment to this total cumulative effect.	Because of increased visitor spending under alternative B, long-term and short-term impacts on the socioeconomic environment would be localized, negligible and beneficial. As a result, county employment, housing, and sales, as well as economic activity associated with the Miccosukee and Seminole tribes would realize positive gains, although such increases would be minimal when compared to the county as a whole. In terms of total cumulative effects, long-term and short-term impacts would be localized, moderate, and beneficial. Alternative B would contribute a very small increment to the total cumulative impact.	Because of changes in visitor spending under the preferred alternative, long-term and short-term impacts on the socioeconomic environment would be localized, negligible, and beneficial. As a result, county employment, housing, and sales, as well as economic activity associated with the Miccosukee and Seminole tribes, would realize some positive gains, although such increases would be minimal when compared to the county as a whole. Long-term and short-term cumulative impacts would be localized, moderate to major, and beneficial. The preferred alternative would contribute a very small increment to this total cumulative impact.	Same as preferred alternative.
Impacts on NPS Operations and Management				
	Operational and visitor facilities located in the original Preserve would result in continuing minor to moderate, long-term, adverse impacts on NPS operations. The cumulative impacts of the no-action alternative and other actions would be minor to moderate, long term, and adverse. The actions proposed for implementation in alternative A would contribute a modest increment to these cumulative effects.	Operational efficiencies achieved through development of new facilities in the Addition, along with the increased staffing burdens associated with managing those lands and constructing and maintaining new facilities, would have overall moderate, long-term, adverse and beneficial impacts on NPS operations. The cumulative impacts of alternative B and other actions would be moderate, long term, and beneficial. Alternative B's proposed actions would contribute a modest increment to these cumulative impacts.	Same as alternative B.	Same as alternative B.