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Marjory Stoneman Douglas Wilderness Core Elements



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Executive Summary

Marjory Stoneman Douglas Wilderness offers protection to almost 1.3 million acres of the greater Everglades ecosystem in Everglades National Park. The Congressional designation, the highest level of protection allotted to federal lands, encompasses rocky pinelands, coastal prairies, iconic sloughs, mangrove forests, and submerged seagrass beds. The biological diversity in Marjory Stoneman Douglas Wilderness is unmatched among other Wildernesses, sparking similar diversity in Wilderness planning needs.

This document describes current wilderness character and future planning needs in Marjory Stoneman Douglas Wilderness. Legislation, historic planning efforts, visitor surveys, and documented uses have been incorporated in this document, which is aimed at providing managers a comprehensive guide to incorporating wilderness character into future planning efforts. Comments from Everglades National Park staff, other National Park Service staff, and other federal agencies have been incorporated in this guide to creating a wilderness stewardship plan.

First, the fundamental resources throughout Marjory Stoneman Douglas Wilderness are identified in a review of basic Wilderness information. Second, an assessment of past management decisions as they affect wilderness character is provided in the wilderness character narrative. Third, this document provides an outline to conducting a wilderness character baseline assessment. Fourth, existing administrative guidance is described, followed by an account of planning needs to be addressed.

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Basic Wilderness Information

History of Land Status Designation

President Franklin D. Roosevelt signed the Everglades National Park Bill on 30 May 1934. This law ensured that the area would be permanently preserved in its wilderness conditions, specifying that the area “shall be permanently reserved as a wilderness, and no development of the project or plan for the entertainment of visitors shall be undertaken which will interfere with the preservation intact of the unique flora and fauna and the essential primitive natural conditions now prevailing in the area.” Everglades National Park was the first national park created for the specific purpose of protecting its wild conditions.

The enabling legislation prohibited the use of any public funds for the administration, protection, or development of the park for five years after the approval of the Everglades National Park Bill. This provision hampered planning efforts for the new park, as did controversies and questions concerning the park’s boundaries, land ownership, mineral rights, and the discovery of oil within the park’s proposed boundary. During this period the State of Florida continued to purchase land for the new park through the Everglades National Park Commission and the Florida legislature passed a law granting the federal government exclusive jurisdiction of the lands given to the new park.

The controversy over oil continued to plague park planners. The National Park Service refused the title to any land without the accompanying mineral rights. A compromise was reached when state lands were placed under the administration of the U.S. Fish and Wildlife Service as the Everglades Wildlife Refuge in December 1944, until the mineral rights issues could be resolved. Daniel B. Beard was the refuge manager and later became the park’s first superintendent.

In 1947, Florida legislature passed a bill authorizing two million dollars for acquisition of land for the park by the Everglades National Park Commission, accepted by Secretary of the Interior Julius A. Krug. Just as the creation of the park seemed imminent, the Florida attorney general filed lawsuits against the establishment of the park using legal technicalities. These suits were dismissed and ultimately decades of work by the Department of the Interior, the National Park Service, the State of Florida, the National Association of Audubon Societies, the Florida Federation of Women’s Clubs, and the Everglades National Park Association resulted in the establishment of Everglades National Park.

Wilderness comprises a physical majority of current Everglades National Park area (approximately 98%, including potential and proposed Wilderness), designated by the National Parks and Recreation Act of 1978 (Public Law 95-625). This act served as a ubiquitous Wilderness designating act but did not expand upon management requirements outlined in The Wilderness Act. It did, however, divide Marjory Stoneman Douglas Wilderness into Wilderness, potential Wilderness, and submerged marine land Wilderness. Areas designated potential Wilderness contained inholdings that were expected to be developed or recently acquired inholdings that required restoration. Submerged marine land Wilderness, typically referred to as submerged Wilderness, was designated primarily in Florida Bay and

along the Gulf Coast to prevent large developments, including a rumored bridge from Flamingo to the Florida Keys, while permitted motorized recreation in the water column.

The Wilderness Act of 1964 directs administering agencies to foremost preserve the wilderness character of an area (Section 2(a)). Though no wilderness stewardship plan yet exists for Marjory Stoneman Douglas Wilderness, renamed from Everglades Wilderness pursuant to the Marjory Stoneman Douglas Wilderness and Ernest F. Coe Visitor Center Designation Act of 1997 (Public Law 105–82), the 1981 backcountry management plan laid a foundation for current managers to build upon. The 1989 addition of nearly 110,000 acres to the park as per the Everglades National Park Protection and Expansion Act (16 U.S.C. 410r–7) prompted a need for a wilderness study, outlined in the general management plan currently in process. Management of all designations within Everglades National Park, sans non-Wilderness and submerged marine land non-Wilderness, will be expanded upon in a future wilderness stewardship plan.

Current Land Status, Map, and Boundary Descriptions

Marjory Stoneman Douglas Wilderness is the largest designated Wilderness east of the Rocky Mountains. At nearly 1.3 million acres, designated Wilderness accounts for approximately 86 percent of Everglades National Park. The Wilderness boundary extends from Everglades City southeast around Big Cypress National Preserve. A 500 foot non-Wilderness buffer extends from the park border along Tamiami Trail, whereas a 300ft non-Wilderness buffer surrounds Shark Valley Loop Road within park boundaries. Continuing east, the Wilderness boundary abuts the EEEA, which remains under review for potential designation. All in-park roads, buildings, or other developments have a 300ft buffer with the exceptions of Long Pine Key Road and the Pa-Hay-Okee trail and overlook (150ft). This includes Miccosukee Indian lands and Camp Everglades of the Boy Scouts of America. The Wilderness boundary continues along the existing park boundary, extending as far east as U.S. Route 1 on Cross Key. Throughout the Wilderness boundary, some atypical designations occur, though all keys are designated Wilderness or Potential Wilderness.

Park Purpose, Significance, and Fundamental Resources and Values

Everglades National Park is a public park for the benefit and enjoyment of the people. It is set apart as a permanent wilderness preserving essential primitive conditions, including the natural abundance, diversity, behavior, and ecological integrity of the unique flora and fauna.

Everglades National Park is nationally and internationally significant because it:

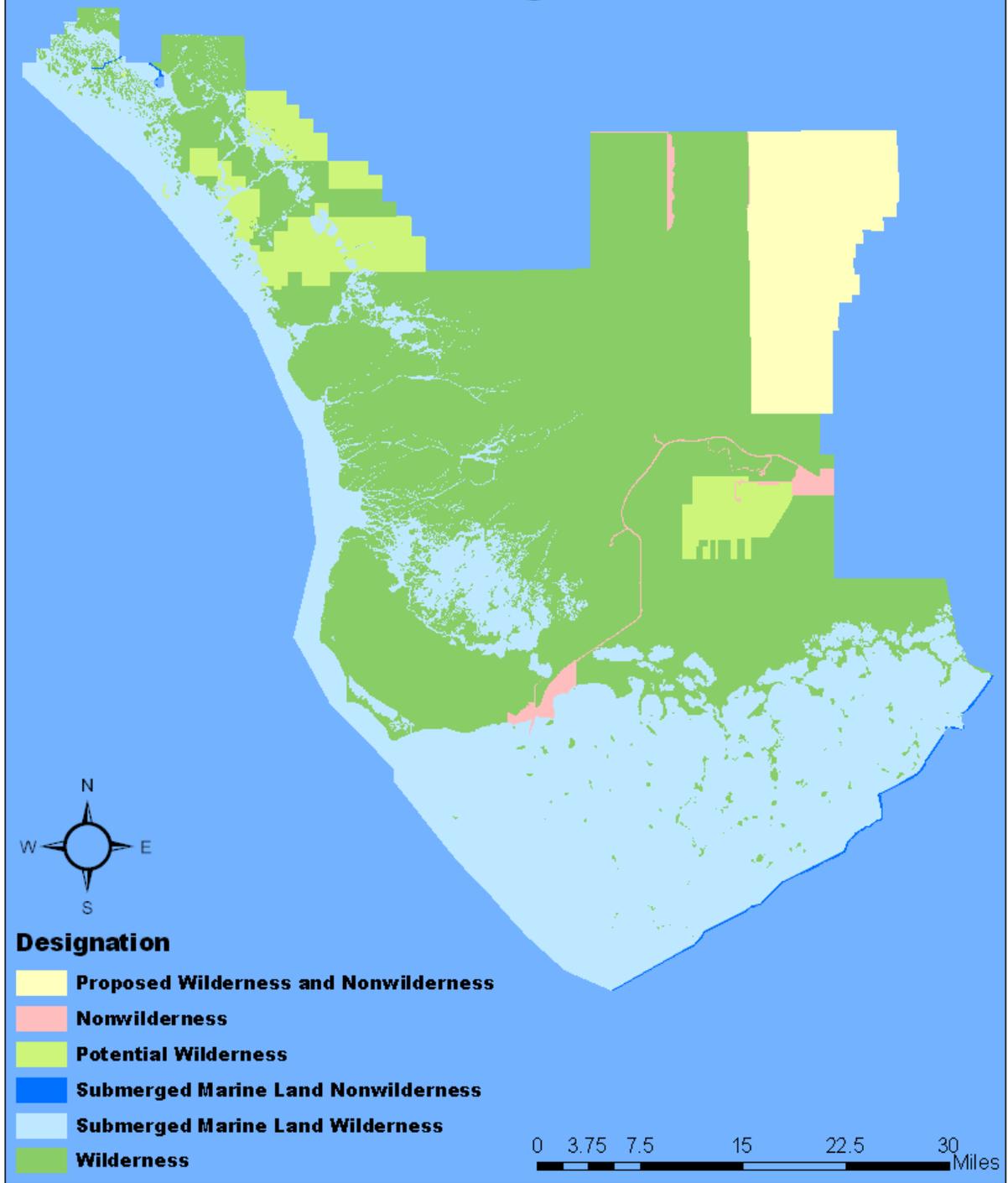
- is a unique subtropical wetland that is the hydrological connection between central Florida’s freshwater ecosystem and the marine systems of Florida Bay and the Gulf of Mexico. It is the only place in the United States jointly designated an International Biosphere Reserve, a World Heritage Site, and a Wetland of International Importance,
- comprises the largest subtropical Wilderness reserve in North America. The park contains vast ecosystems, including freshwater marshes, tropical hardwood, pine rockland, extensive

mangrove estuaries, and seagrasses, which support a diverse mix of tropical and temperate plants and animals,

- serves as a sanctuary for the protection of more than 20 federally listed and 70 state listed threatened and endangered species, as well as numerous species of special concern. Many of these species face tremendous pressure from natural forces and human influences in the South Florida Ecosystem,
- provides important foraging and breeding habitat for more than 400 species of birds, houses world-renowned wading bird populations, and functions as a primary corridor and refuge for migratory and wintering bird populations,
- includes archeological and historical resources spanning approximately 5,600 years of human history, revealing adaptation to and exploitation of its unique environment,
- preserves natural and cultural resources associated with the residence of Native Americans of Florida (including the Miccosukee Tribe of Indians of Florida, the Independent Traditional Seminole Nation of Florida, the Seminole Tribe of Florida, and the Seminole Nation of Oklahoma),
- preserves the remnants of a nationally significant hydrologic resource that sustains South Florida's human population and serves as a global experiment in restoration, and
- provides the public with the opportunity to experience Everglades' wilderness for recreation, reflection, and solitude in proximity to a major metropolitan area.

Everglades National Park is a source of clean drinking water, a natural hatchery and rearing grounds for commercially important fish species, and a rookery for innumerable wading bird populations, among other distinctions. To best preserve wilderness character of this matchless ecosystem, value must be put on managing Everglades as a whole, curtailing unnecessary impacts, and protecting the benefits gained from the relatively wild landscape.

Marjory Stoneman Douglas Wilderness in Everglades National Park



All marine waters within the Wilderness boundary are considered submerged Wilderness. This designation denotes that the sea floor is under traditional Wilderness protection, but the water column is non-Wilderness. All areas underwater during high tide in Florida Bay and Ten Thousand Islands are submerged Wilderness, as are the following inland waterbodies:

Coot Bay, Davis Creek, East Cape Canal between Lake Ingraham and Florida Bay, East Creek, House Ditch downstream of its plug, Joe Bay, Lake Ingraham, Little Sable Creek, McCormick Creek, Middle Cape Canal, Mud Creek, Slagle Ditch downstream of its plug, Taylor Creek, Taylor River, Trout Creek, and West Lake.

Additionally, some isolated areas within the Wilderness boundaries lands are designated non-Wilderness. These are typically areas of persistent, non-conforming uses such as levees and radio repeater antennae sites. Non-Wilderness within the outermost boundaries of Marjory Stoneman Douglas Wilderness include a one acre circular parcel surrounding the site of the old Lostmans River Ranger Station, a one-acre semi-circular parcel at the Levee 31W canal pumping station, the Buttonwood Canal, and the Levee 67 extension canal. There were a number of inholdings that were designated potential Wilderness as well.

The Everglades National Park Protection and Expansion Act of 1989 (16 USC 410r-5) added 109,506 acres of land in the Northeast Shark River Slough to Everglades National Park. Named the East Everglades Expansion Area, much of this land is recommended to be designated potential Wilderness. It would comprise the northeastern edge of Marjory Stoneman Douglas Wilderness, bordered on the north by the Tamiami Trail (State Highway 41) and on the east by residential, commercial, and agricultural lands of Miami-Dade County. The boundaries and the former state recreation area of Chekika would be buffered by 500- and 300-foot non-Wilderness respectively.

Relationship to Other Plans

A wilderness stewardship plan will complement existing plans, providing a necessary shift in views from more traditional management plans. The general management plan, currently in internal review with an anticipated release date of XX/XX/XXXX, circumvents many non-recreational management issues to be covered in a wilderness stewardship plan. Together, the general management plan and a wilderness stewardship plan will provide guidance to managers on all practical issues throughout the park. A wilderness stewardship plan will reinstate the values of the outdated backcountry management plan and provide other planning efforts, such as the climate action plan and fire management plan, with guidance to the ethical and legal administration of Wilderness.

The Comprehensive Everglades Restoration Plan (CERP) addresses the greater Everglades ecosystem including Everglades National Park and the historic drainage area north towards Lake Okeechobee. This plan aims at restoring, protecting, and preserving the water resources of central and southern Florida through redirecting freshwater flows to benefit both people and the environment. This creates a significant amount of trammeling in Marjory Stoneman Douglas Wilderness, although it is intended to mimic natural conditions. Determining the success of this plan requires constant monitoring. The

wilderness stewardship plan will not interfere with necessary scientific activity. The wilderness stewardship plan will work with CERP to minimize extraneous impacts to wilderness character while allowing for an assessment of CERP's success.

Narrative Description of the Four Wilderness Qualities

Pursuant to the National Parks and Recreation Act of 1978, 86 percent of Everglades National Park was declared the Marjory Stoneman Douglas Wilderness Area. The "Wilderness" designation is the highest level of protection afforded to federal lands, which testifies to the vitally unique ecological and cultural significance of this landscape. Called the "River of Grass" by Ms. Stoneman Douglas, the Wilderness Area is a vast series of water-intensive ecosystems that one may explore with few signs of modern human presence. It is a unique, subtropical wetland that connects central Florida's freshwater ecosystem and the marine systems of Florida Bay and the Gulf of Mexico. The Everglades is an outstanding and subtle landscape, one that seems both bountiful in resources and spectacular in its never-ending waterways, abundant wildlife, and sprawling scenic views. Visitors to the Wilderness Area have the opportunity to enjoy a relatively undeveloped and wild landscape, where they can view over 20 federal- and 70 state-listed threatened and endangered species, slog through backcountry sloughs, and sleep under starlit skies, all within a stone's throw of a major metropolitan area. Recreational benefits aside, the Marjory Stoneman Douglas Wilderness serves as an essential recharge for South Florida's water supply, a natural line of defense against the impacts of tropical storms, and a vital nursing ground for numerous aquatic and avian species. The importance of preserving the Marjory Stoneman Douglas Wilderness Area is further reflected in its designations as an International Biosphere Reserve, a World Heritage Site, and a Ramsar Wetland of International Importance, a combination of distinctions unmatched anywhere else in the United States. The reliance of South Florida's population on the hydrologic resource has prompted massive wetland mitigation efforts, bestowing status as a global experiment in restoration upon the area as well.

An interagency-developed national framework, *Keeping It Wild*, provides four primary qualities of Wilderness that may be used to monitor wilderness character: untrammeled, natural, undeveloped, and opportunities for solitude or primitive and unconfined recreation. One additional quality, cultural, also contributes greatly to the Wilderness experience within the Marjory Stoneman Douglas Wilderness Area.

Untrammeled

As any venture into the heart of the Wilderness can attest, the landscape "appears to have been affected primarily by the forces of nature" and to the average visitor seems to be an area where the "earth and its community of life are untrammeled by man." The quality "untrammeled" refers to Wilderness in an unhindered and uncontrolled state – in its "wild" state. Any and all intentional manipulations of the Wilderness resource subsequent to the time of designation, whether authorized or unauthorized by the National Park Service, degrade this character.

The untrammled quality is compromised even where a managerial manipulation sustains or improves another Wilderness quality, such as the benefits to naturalness achieved through ecological restoration projects. Actions intended to correct for past misuse or mismanagement trammel Wilderness but are often rationalized by the benefits to other qualities. Perpetuating the untrammled quality requires managers to restrain themselves rather than restraining the Wilderness.

Major thrusts of trammeling the Marjory Stoneman Douglas Wilderness Area include fire management, non-native and invasive species treatments, and wetland restoration. For example, even though naturally-ignited fires generally burn unimpeded within Wilderness, the application of any prescribed fire to the landscape qualifies as trammeling. Invasive species removal may be physical or chemical, but it trammels the ecosystem even if conducted using primitive methods. Lastly, National Park Service management of the already inhibited flow of water, heavily trammled outside Wilderness boundaries, demonstrates apex trammeling, despite being an unavoidable need for ecosystem function.

Water is the blood of the Everglades and subsequently of the Marjory Stoneman Douglas Wilderness Area. It submerges over half of the area permanently and as much as 90 percent during the summer wet season. The incomparable diversity of Everglades ecosystems are highly dependent on seasonal fluctuations, strained by conflicting water demands. Historically, there was little success, from a land developer's vantage point, draining and exploiting water resources within modern Wilderness boundaries, but inflow patterns from the upper watershed and flow within the Wilderness were altered dramatically and now require manipulation to mimic natural conditions. This source of trammeling does not fall within the National Park Service's jurisdiction though it has significant weight in managerial practices. Rather, water pulses are largely regulated through the Comprehensive Everglades Restoration Plan, essentially putting the Wilderness Area on chronic life support. This significant source of trammeling is disheartening but should not discourage managing this Wilderness to preserve all other aspects of Wilderness character to the highest degree possible.

Unauthorized trammeling is another major concern and may indirectly result from motor- or air-boat trespassing, wildlife harassment or removal, non-native species introductions, or unpermitted access, camping, or fire-building. Regardless of what type of wilderness user (recreation, research, etc) commits it, this category of trammeling inflicts undesirable manipulations that can cause serious if not permanent damage to resources that would likely necessitate responsive managerial trammeling.

Natural

Natural quality includes the intentional and unintentional effects from actions taken inside Wilderness as well as from external forces on these systems. Natural ecosystems are ideally without anthropogenic influence, though air, water, and climate effects are often felt from beyond Wilderness perimeters. Regardless, managers should strive for as natural of a system as is practicable.

Naturalness is obviously a desired condition. Altered species compositions, perpetually altered water or fire regimes, and lost habitat connectivity are just a few threats to the natural quality. As many of these

threats originate and persist from outside Wilderness boundaries, maintaining naturalness sometimes necessitates regrettable levels of trammeling.

The community of life within the Marjory Stoneman Douglas Wilderness Area is a vast and complex system of wetlands and pinelands. The interdependent mosaic of habitats supports an incomparable level of richness ranging from microscopic organisms to matchless megafauna. The natural quality, however, has been degraded by forces internal and external to the Wilderness Area. They threaten the biota, hydrologic regimes, and nutrient cycling of the Everglades. Cumulatively, such influences compromise the integrity of the Wilderness as a whole.

Surrounding demands for agricultural and human consumption have succeeded in altering the flow of water through the system, which severely impacts vegetation and wildlife. In addition to siphoning water, the surrounding metropolis and agricultural areas have pumped in chemical pollutants that have resulted in an array of issues ranging from ecologically deadly algal blooms to an abnormal transition to naturally sparse grass species. Other pollutants include light and noise, like from surrounding communities and commercial air traffic. The suppression of fire has degraded this quality in the past, but managers now allow natural fires to burn and prescribe ignitions to areas outside of their natural fire regime. Numerous invasive species, like the Burmese python and melaleuca, have severely altered ecosystem structure and function. In addition to the introduction of non-native species threatening naturalness, the Everglades is at risk of losing some valuable species, such as the Cape Sable seaside sparrow and Florida panther.

Although the physical environment and the overall integrity of the Wilderness Area are exposed to numerous unnatural sources of ecological corruption, the system as a whole remains a rare, wet haven of diversity and complexity, the largest subtropical wilderness reserve in North America. Extensive restoration projects are aimed at reinstating natural species composition and hydrologic regimes while ongoing research is increasing the understanding of overall ecological conditions. The flat, unpretentious landscape elicits the ecological subtleties that give the Marjory Stoneman Douglas Wilderness its unique natural character.

Undeveloped

As the largest Wilderness Area east of the Rocky Mountains, the Marjory Stoneman Douglas Wilderness Area should be an exceptional example of an undeveloped wilderness landscape, a place “where man himself is a visitor who does not remain.” Sweeping views across the Everglades are largely unobstructed by human developments, allowing spectacular sights of the region’s unique flora and fauna. The southern portion of the park is dotted with remote keys, of which few have experienced improvements by modern park staff or visitors. Most of the park may appear as a maze of unexplored waters, though careful observation reveals much physical development.

Minor development of a Wilderness is hardly rare, as it may facilitate the management of other qualities. Undeveloped implies that modern people have made no attempts to improve the land – that there are no noticeable installations or signs of modern culture. As with other qualities, managers often

justify some compromises to improve the overall Wilderness experience. Whether in the form of research stations that will ultimately improve managing the natural quality or in the form of backcountry search and rescue bases meant to salvage the experience for visitors who find too much solitude, developments should be kept to a minimum and removed as soon as possible following their use.

A 40 mile paved road, intended for general park access, juts into the Wilderness, buffered by 100 ft on either side. Established airboat trails, canals, fire breaks, and other long-term installations within designated wilderness detract from the area's undeveloped quality. But broadly, development in the Marjory Stoneman Douglas Wilderness Area may be categorized into four groups.

First, portions of the Everglades were developed prior to wilderness designation, and some traces remain. Most notably, canals constructed in the early twentieth century persist, growing wider due to bank erosion, and degrading the undeveloped quality. Failed dams of mud or steel exacerbate the issue. Pre-designation developments also include recreational installations incompatible with current park regulations. Hunting camps and an inholding in the East Everglades Addition corrupt wilderness quality.

Second, park managers have authorized some research scientists to install permanent monitoring stations throughout the Wilderness Area. They consist of steel platforms, water gages, and satellite antennae. While provisions are made to reduce the impact on the undeveloped quality of the Wilderness, the Minimum Requirements Decision Guide should be considered to minimize impacts.

Third, administrative actions have led to increased infrastructure in the Wilderness. Many installations use artificial materials and remain indefinitely. Fire breaks are accompanied by signs and gates. Desire to increase recreation and accessibility prompted construction of chickee campsites, channel markers, and portable bathroom facilities and brought about permission of motorized transport within the water column above much of Florida Bay's submerged Wilderness. Designation of the sea floor as wilderness protects against most developments and increases the severity of response to boat groundings and propeller scarring, but these accidents still occur frequently. Further motorized access is granted via excessive airboat and helicopter use. The desire to experience the entire Wilderness is understandable, but current trends to enable access threaten its undeveloped quality.

Last, unintentional development is apparent within the Marjory Stoneman Douglas Wilderness via adverse impacts of primitive use and unauthorized use. Frequent backcountry use of canoes, kayaks, or Everglades skiffs may inadvertently establish trails or require obvious trail markers along permitted trails. Persons illegally operating motorized transportation within the Wilderness or leaving airboat trails and creating their own also diminish the undeveloped quality. Trash left from Wilderness users further degrade the undeveloped quality.

Cultural resources are distinct and welcome forms of development. Cultural resources within this Wilderness encompass archaeological and sacred sites, the current connection between indigenous tribes and natural resources of the region, and influences by the iconic Gladesman lifestyle. Tribes include the Miccosukee Tribe of Florida, Seminole Tribe of Florida, and Independent Traditional Seminole Nation of Oklahoma. Managers recognize the importance of maintaining a strong working

relationship with the tribes and support the important connection the tribes have to the wilderness and its resources.

Opportunities for Solitude or Primitive and Unconfined Recreation

Two primary appeals of wilderness are the opportunities to find solitude and to practice unconfined and primitive recreation. The enchanting open vistas of the Marjory Stoneman Douglas Wilderness Area and relatively low visitor use, as proportionately compared to other eastern Wilderness Areas, culminate in truly outstanding opportunities for solitude in particular portions of the Wilderness. Primitive recreation is largely unrestricted, but modern recreation and inaccessibility inhibit both qualities.

The dual quality of opportunities for solitude or primitive and unconfined recreation is a conundrum. Managing for solitude requires nothing more than allowing access. A truly independent experience, free from developments like trail markers and outhouses, ordinarily imparts the greatest solitude. Managing for minimal recreation impacts, however, often requires easing access routes and providing some form of guidance or regulations at least. As if trying to separate two muddled jigsaw puzzles, each managerial action can only fit into one strategy – encouraging independence or smoothing access. Rather than trying to fit all the pieces into one puzzle, managers must strike a balance, distributing all pieces equally, between catering only to bushwhackers and creating a theme park.

The varying accessibility levels of the Everglades landscape pose a vital consideration for Wilderness users. Solitude ranges from outstanding quality in secluded areas that are more difficult to access, to lower quality in high traffic, highly accessible areas. Sight and sound of additional components, including aircrafts, motor boats, and research station structures, decrease the feeling of solitude, even in the most remote areas. Wilderness users are generally free to explore the Wilderness using primitive means (canoes, kayaks, etc). Restrictions are imposed on overnight use of campsites to ensure adequate space, but visitors are free to slumber elsewhere, such as in their watercrafts, assuming they do so responsibly and minimize any environmental impacts. Chickee campsites adorned with modern toilets as well as other trails or amenities reduce self-reliant recreation though they improve the ability to recreate in otherwise uninhabitable areas. Moreover, frequent navigational signs limit the opportunity to practice independent course-plotting.

The submerged Wilderness of Florida Bay generates distinct managerial issues. Motorized access to the water column allows for easier access to boaters, recreational sport fishermen, and other non-primitive recreation; however, the proximity to the Wilderness inhibits opportunities for solitude. Authorized or unauthorized access to other regions via motorized transport, including airboats and helicopters, also interferes with opportunities for solitude or primitive or unconfined recreation.

Sparsely available park-specific wilderness resources, language barriers to available information, and a widespread desire to access the backcountry foster the potential for inadvertent visitor manipulation of wilderness resources in pursuit of a wilderness experience. This combines with the authorization of motorized vehicles and the damage they may unintentionally cause, reducing opportunities for solitude or primitive and unconfined recreation. Conversely, managers must be careful not to prioritize this

quality over the others. Recreation may seem the most tangible to actively manage, but Wilderness should be managed for the sake of Wilderness first and recreational use second.

Wilderness Character Baseline Conditions Assessment

The Wilderness Act (Pub. L. 88-577) requires the Secretaries of Agriculture and Interior to jointly submit an annual report to Congress describing areas within the National Wilderness Preservation System, current regulations and recommendations. An accurate compilation of these data requires individual Wildernesses to regularly assess wilderness character and report it on a national level. Assessing the current condition of the land, as with any proper assessment, requires a baseline for comparison. Ideally, all baseline data would have been collected at the time of designation. This is not always feasible, so data from the initial condition assessment may be substituted.

Assessing trends in individual measures and indicators is essential for local managers, but it is just as critical to understand and report on the big picture – how wilderness character is changing over time across the national Wilderness Preservation System. This big picture is a powerful and effective tool for communicating about Wilderness within the agency and with external audiences, but it necessitates a scientifically sound monitoring program.

Indicators, Measures, and Data Sources

An interagency Wilderness Character Monitoring Team representing the National Park Service, U.S. Forest Service, U.S. Fish & Wildlife Service, and the Bureau of Land Management developed a national strategy for wilderness character monitoring: *Keeping It Wild: An Interagency Strategy to Monitor Trends in Wilderness Character Across the National Wilderness Preservation System* (Landres et al.). Pulling from the language of The Wilderness Act, this team developed 13 indicators necessary to sufficiently account for changes in wilderness character. Each indicator is supplemented by no less than one measure, taken from vital data already being collected throughout Marjory Stoneman Douglas Wilderness:

UNTRAMMELED QUALITY

Wilderness is essentially unhindered and free from the actions of modern human control or manipulation

Monitoring Question	Indicator	Measure	Data Sources
What are the trends in actions that control or manipulate the "earth and its community of life" inside wilderness?	Actions authorized by the Federal land manager that manipulate the biophysical environment	<ol style="list-style-type: none"> 1. Acres of exotic vegetation treated 2. Number of Native Fish Harvested 3. Number of python eradications 4. Number of prescribed burns 5. Percent of natural fire starts that received a suppression response 6. Number of animals tagged or banded 	<ol style="list-style-type: none"> 1. Botanist 2. Creel Count 3. Bi-Weekly Report, Wildlife Biologist 4. Fire Management Officer 5. Fire Management Officer 6. Research Permit Database
	Actions not authorized by the Federal land manager that manipulate the biophysical environment	<ol style="list-style-type: none"> 1. Number of visitor-ignited fires 2. Total deviance from average Shark River Slough Stage 3. Total deviance from average Taylor Slough Stage 	<ol style="list-style-type: none"> 1. Fire Management Officer 2. Bi-Weekly Report, Hydrological Technician 3. Bi-Weekly Report, Hydrological Technician

NATURAL QUALITY

Wilderness ecological systems are substantially free from the effects of modern civilization

Monitoring Question	Indicator	Measure	Data Sources
What are the trends in terrestrial, aquatic, and atmospheric natural resources inside wilderness?	Plant and animal species and communities	<ol style="list-style-type: none"> 1. Number of threatened or endangered species 2. Alligator nesting % success rate 3. Cape Sable Seaside Sparrow population 	<ol style="list-style-type: none"> 1. Wildlife Biologist, Botanist 2. Wildlife Biologist 3. Wildlife Biologist
What are the trends in terrestrial, aquatic, and atmospheric natural resources inside wilderness?	Physical resources	<ol style="list-style-type: none"> 1. Standard visual range of the lowest 20% of days 2. Standard visual range of the highest 20% of days 3. Total annual wet nitrogen deposition 4. Total annual wet sulfur deposition 5. Water quality 	<ol style="list-style-type: none"> 1. National IMPROVE data 2. National IMPROVE data 3. National NADP/NTN data 4. National NADP/NTN data 5. GPRA Goals
What are the trends in terrestrial, aquatic, and atmospheric natural processes inside wilderness?	Biophysical processes	<ol style="list-style-type: none"> 1. Persistence of mercury through species interactions 2. Rate of sea level change 	<ol style="list-style-type: none"> 1. Bi-weekly report, Fisheries Biologist 2. NOAA Tides & Currents

UNDEVELOPED QUALITY

Wilderness retains its primeval character and influence, and is essentially without permanent improvement or modern human occupation

Monitoring Question	Indicator	Measure	Data Sources
What are the trends in non-recreational development inside wilderness?	Non-recreational structures, installations, and developments	<ol style="list-style-type: none"> 1. Number new monitoring or research structures 	<ol style="list-style-type: none"> 1. Permit database
	Inholdings	<ol style="list-style-type: none"> 1. Number of properties 2. Area of Properties 3. Area of unaquired mineral rights 	<ol style="list-style-type: none"> 1. GIS data – P: drive 2. GIS data – P: drive 3. GIS data – P: drive
What are the trends in mechanization inside wilderness?	Use of motor vehicles, motorized equipment, or mechanical transport	<ol style="list-style-type: none"> 1. Hours of helicopter use 2. Hours of motorboat and airboat use 3. Number of boat groundings 	<ol style="list-style-type: none"> 1. Fire logistics 2. Dispatch 3. Dispatch
What are the trends in cultural resources inside wilderness?	Loss of statutorily protected cultural resources	<ol style="list-style-type: none"> 1. Number of disturbed cultural resource sites 	<ol style="list-style-type: none"> 1. Archeological Site Management Information System

SOLITUDE OR PRIMITIVE AND UNCONFINED RECREATION QUALITY

Wilderness provides outstanding opportunities for solitude or primitive and unconfined recreation

Monitoring Question	Indicator	Measure	Data Sources
What are the trends in outstanding opportunities for solitude inside wilderness?	Remoteness from sights and sounds of people inside the wilderness	<ol style="list-style-type: none"> 1. Number of visitors 2. Number of backcountry camping nights per year 	<ol style="list-style-type: none"> 1. NPS reports 2. Overnight permits
	Remoteness from occupied and modified areas outside the wilderness	<ol style="list-style-type: none"> 1. Night sky visibility averaged over the wilderness 2. Area from which outside development is visible 	<ol style="list-style-type: none"> 1. Request National Night Sky Data 2. GIS data – viewshed analysis
	Facilities that decrease self-reliant recreation	<ol style="list-style-type: none"> 1. Number of backcountry campsites 	<ol style="list-style-type: none"> 1. GIS data – P: drive
	Management restrictions on visitor behavior	<ol style="list-style-type: none"> 1. Amount of park closed to recreation 	<ol style="list-style-type: none"> 1. FWS plans, GIS data – P: drive

Baseline Assessment

Updates are currently being made to how Everglades National Park records a number of the suggested measures. A baseline assessment will be conducted following these adjustments, ideally before 2012 using 2009 as the baseline year.

Administrative Guidance

Minimum Requirements Analysis

All proposed projects in Marjory Stoneman Douglas Wilderness that seek permission of uses prohibited under Section 4(c) of The Wilderness Act will require approval by an interdisciplinary Wilderness Committee. An employee can request a review of their projects through the Wilderness Committee Chair, Research Permit Examiner, or Environmental Protection Specialist.

Prior to presenting a project to the Wilderness Committee, the project supervisor must complete two free, online training courses created by the Arthur Carhart National Wilderness Training Center: *The Wilderness Act of 1964* and *Minimum Requirements Analysis*. All persons expected to work on the proposed project must and be listed on the permit application and complete *The Wilderness Act of 1964*

prior to submission. These courses, available from Wilderness.net, are meant to increase awareness of the requirements of working in Wilderness and expedite the review process. This is a one-time requirement, and individuals do not need to take either course multiple times.

The minimum requirements analysis worksheets, adapted from those endorsed by the Arthur Carhart National Wilderness Training Center, provide an outline for a proper minimum requirement analysis. Though Everglades National Park requires project supervisors to complete the worksheets, the Wilderness Committee assesses the proposals for accuracy and candor. The Wilderness Committee decides whether or not the proposed project is necessary for administration of the Wilderness and, if it is, how to best minimize impacts to the untrammeled, natural, undeveloped, and opportunities for solitude or primitive and unconfined recreation qualities. The Wilderness Committee informs the supervisor of their decision within a week of review.

The reviews of each project's worksheets are done in confidentiality to allow for open discussion. The worksheets, with committee member comments and justifications, are kept on file by the Environmental Compliance Officer in the accepted format (Appendix A).

Framework for Evaluating Scientific Activities

The park's research permit examiner is responsible for reviewing all research permit applications to determine if they will take place in Wilderness. The park provides detailed instructions and requirements, along with an online permit application at <http://science.nature.nps.gov/research/> (Appendix B). If the proposed project is in Wilderness, the project proponent will be sent Everglades National Park's minimum requirements analysis worksheets for completion. In order for the form to be reviewed by the committee, it must contain three alternatives for carrying out the project in addition to the preferred alternative. The completed form must be received at least one week before a scheduled Wilderness Committee meeting to be considered for review at that month's Wilderness Committee meeting. The project proponent must appear before the committee to present his or her project, alternatives, and justifications for requesting permission of any prohibited uses. To allow for open dialogue and discussion among committee members, internal deliberations and determinations will remain confidential. Within one week following the meeting, the project proponent will be formally notified of the committee's decisions and justifications or if additional information is needed.

Wilderness Committee Standard Operating Procedures

In 2000, the Deputy Superintendent of Everglades National Park established an interdisciplinary team to comply with wilderness management policies identified in Director's Order #31 and Reference Manual #41. Currently, the committee's primary focus is to review all proposed actions, projects, and activities in designated, submerged, potential, and proposed Wilderness to consider and minimize possible impacts to these resources (Appendix C).

The overarching goals of the Wilderness Committee are to:

- Provide an interdisciplinary forum to improve interpretation and execution of the Wilderness Act to the fullest extent practicable.
- Guide valuable research and management objectives towards primitive and low-impact methods.
- Educate and challenge Wilderness users with Leave No Trace and other outdoor ethics.
- Increase internal and external awareness, understanding, and practice of wilderness stewardship.
- Facilitate preservation and protection of the wilderness resource within existing legislation.
- Encourage Marjory Stoneman Douglas Wilderness and its constituents to provide a leading example of wilderness stewardship to other areas within the National Wilderness Preservation System.

The Wilderness Committee is comprised of 10 to 20 employees, as necessary to represent all disciplines. Committee Members are designated by their Division Chief and the Deputy Superintendent. Members of the committee include district area experts from law enforcement and/or interpretation and at least one professional expert from each of the following disciplines: hydrology, botany, wildlife, exotic plant management, fire management, cultural resources, and maintenance. It is recommended that this collateral duty be identified in the employee's performance appraisal plan. The Wilderness Committee Chair is designated by the Deputy Superintendent.

Any changes in committee members will be made in writing by the appropriate Division Chief to the Wilderness Chair. If a member requests to be removed from the committee, the Chair will work with the Division Chief to find an appropriate replacement.

Members are required to have a basic understanding of the Wilderness Act and the Minimum Requirement Decision Process. As a minimum, members are required to complete these two free, on-line training courses as established by The Carhart National Wilderness Training Center: The Wilderness Act of 1964 and Minimum Requirements Analysis. Members are also encouraged to attend additional Wilderness Stewardship Training when available.

The committee shall meet on a monthly basis and review all proposed projects using the minimum requirement decision process. All decisions will be documented using the minimum requirement analysis worksheets and include signatures of all members backing the decision.

Wilderness Planning Needs

Designation Boundaries

A limitation of current management plans in Everglades National Park is the lack of attention to and awareness of varying designations and the management approaches they incur. The requirements of each designation are not always well distinguished, nor are their boundaries. The designating act, the National Parks and Recreation Act of 1987 (Public Law 95-625), was supplemented in May 1981 by a detailed description of boundaries that has not yet been converted into an accurate map. The current map is nearly accurate except that it assumes all waterbodies to be submerged Wilderness, which is not so. Most of Everglades National Park, if not designated Wilderness, is submerged, potential, or proposed Wilderness. While these designations are supposed to similarly be managed as Wilderness, park managers may accept higher levels of impacts in areas not yet fully designated as Wilderness. Moreover, some administrative and scientific activities may be suitable in non-Wilderness and relocated there. There are a number of possible changes to how Marjory Stoneman Douglas could be managed, but they are reliant on accurately understanding designation boundaries and requirements.

Motorized Access

Prohibited under section 4(c), the use of motorized vehicles persists throughout Marjory Stoneman Douglas Wilderness. Airboats are a common mode of access for Shark River and Taylor Sloughs. All-terrain vehicles are sometimes employed for fire management purposes. Motorboats are permitted in submerged Wilderness, but without more clearly defining the line between submerged and designated Wilderness, especially in the field, managing the prohibited use in designated Wilderness is impossible. Motorboats present a second issue as they have the potential to damage submerged Wilderness via boat groundings or propeller scarring despite being ubiquitously permitted in submerged Wilderness. These are not always easy infractions to enforce, assuming they are noticed and documented at all. At present, there is no comprehensive estimate of the amount of motorized use or associated impacts in Marjory Stoneman Douglas Wilderness. A relatively simple update to the dispatch recording system will provide the means for assessing current administrative use and measuring any change in use over time. This would be based on temporal use, though, and could not accurately account for the length of trails or cumulative accidental impacts. A rather intensive mapping project would be necessary and require regular analysis via high resolution aerial photography. While the latter option is superior, it is less likely to be economically feasible.

Aircraft Use

Aircraft use in Marjory Stoneman Douglas Wilderness has been steadily passing park targets. Everglades National Park's Government Performance and Results Act goal, helicopter landings, is consistently and significantly exceeded. This metric does not account for low elevation flying or other activities involving aircrafts use, such as spot spraying for invasive plants, which impacts Wilderness character equally if not more than landings. To get a handle on aircraft use, a more stringent approach to the minimum requirements decision may be necessary. Much aircraft use, though it may be unplanned or the most

temporally efficient mode of transportation, occurs proximal to Wilderness boundaries where other types of access are viable options. There are numerous, relatively simple options to reduce aircraft use in Marjory Stoneman Douglas Wilderness, but managers must be willing to deny extraneous aircraft access for the sake of Wilderness. Managers must also be willing to enforce that Wilderness users, particularly researchers, use alternative means of transportation to access the Wilderness. Often the minimum tool may be physically demanding or time intensive. This is not to say that aircraft use is not the minimum tool in some situations, rather, that managers must be more able to determine when aircraft use truly is the minimum tool and that Wilderness users must accept that primitive measures are often best to maintain Wilderness character.

Fire Management

Activities aimed at fire management often conflict with legislation and policy in Wildernesses nationwide. A long history of fire suppression has left managers with rough data regarding natural return intervals and intensity. As a result, the assumptions current fire management make may be flawed. At Everglades National Park, fires are typically ignited by lightning strikes and burn relatively small areas. Prescribed burns are still a regular practice though. They are used to either mimic naturally igniting fire near Wilderness boundaries (outside of which natural ignitions are suppressed), treat invasive species, or reduce hazardous fuel loads. The foremost is fairly straightforward, although some methodologies may be reconsidered to reduce the use of all terrain vehicles and helicopters. Invasive species treatments show promise, but are still not proven to be the best available treatment. Lastly, hazardous fuel reductions are likely necessary in some areas, to protect cultural resources or campsites for example, but the hazardous fuel loads maps were not created by park managers and may not reflect current conditions and needs accurately. An example of this can be found in the coastal prairies. While listed as requiring fuel reduction, the prairies are well isolated, surrounded by mostly inflammable mangrove ecosystems, and probably retain a relatively natural fire regime sans prescription burning. The fuel loads would only prove hazardous to camp sites or cultural resources in the area of during times of extreme drought. Fire management will always hold some level of uncertainty, but an active approach is not always the best.

Invasive Species Management

Though attempting to remove non-native species constitutes trammeling, management typically elects to accept temporary trammeling to facilitate natural conditions. The size of Marjory Stoneman Douglas Wilderness combined with the numerous vectors for non-native introductions threatens the natural quality. The treatment of invasive species, however, has the potential to negatively impact wilderness character. While some non-native species could possibly be extirpated, others are already substantially established and unlikely to respond to viable treatments. A seldom-explored option is to accept degradation to the natural quality when trammeling will ultimately be futile. Some invasive species treatments so severely degrade other wilderness qualities with no definitive results that managers should reconsider their tactics. For example, the treatment of melaluca throughout Marjory Stoneman

Douglas Wilderness requires extensive helicopter use to access the invaded areas, though in this case, the benefit to the natural quality likely outweighs the temporary impacts.

Inholdings

A number of inholdings persist along the Gulf Coast in the form of oil and gas rights. No efforts are being made to develop these inholdings, and consequently, few non-conforming uses are restricting these areas from becoming fully designated Wilderness. Originally designated potential Wilderness due to homesteads and mining potential, the Gulf Coast inholdings are in a current condition comparable to that of the designated Wilderness. There is one known fishing camp remaining, but transitioning the proposed to designated Wilderness would not affect the inholder's rights as access is presently by way of motorboat through submerged Wilderness. Managers could simply submit a notice to the Federal Register to complete designation. With the upcoming centennial of the National Park Service and 50th anniversary of the Wilderness Act, advancing the potential Wilderness into designated Wilderness can additionally serve as a unique celebratory and educational opportunity.

Recreation Management

The general management plan addresses typical forms of recreation throughout Everglades National Park in great details, but without mention of Wilderness in direct affiliation. Few visitors to Everglades National Park ever set foot in Marjory Stoneman Douglas Wilderness, nor do they realize it is an option. Educational material often mentions experiencing the backcountry by sloggng or on an Everglades skiff but offers no instructional advice. Discussions with park visitors quickly reveal that there is a widespread unawareness that visitors are allowed to leave established trails, by foot, canoe, or other primitive means. Undoubtedly, many visitors would willingly forego a true wilderness experience due to the intimidating environment Marjory Stoneman Douglas Wilderness encompasses, but there are untapped recreational opportunities for the true adventurer. Primitive recreation may be encouraged in a number ways, potentially to include establishing sloggng trails, permitting backcountry outfitters, or embracing virtual geocaching. Encouraging this type of recreation would incur certain impacts (which, when properly regulated, are already considered legal and permissible), but it could foster a new appreciation of the wilderness and draw visitors away from other, potential more impactful activities.

Recreation external to Marjory Stoneman Douglas Wilderness also has impacts. Nearby airports feed flight schools and recreational pilots into the airspace above the Wilderness. This has tragically resulted in numerous crashes. The crash locations are not readily available, nor are there any enduring efforts to remove the debris left by many of these incidents. Cleanup may not always be an option, regularly as a result of safety or financing, but managers can push for overflight activities to be conducted elsewhere. The adjacent water conservation areas and Big Cypress National Preserve allow for certain uses that may make them more suitable to more efficiently respond to similar issues should another misfortune arise.

Commercial Services

Few commercial services offered in Everglades National Park culminate a true wilderness experience, often employing uses prohibited under section 4(c) of the Wilderness Act. Occasional ranger-led canoe trips and private kayaking guides are met with enthusiasm, but guided backcountry opportunities are neither well-advertised nor available in sufficient quantities – commercial services could increase the availability of these types of guided activities. Numerous concessioners active in Everglades National Park work out of the Florida Keys and Everglades City, primarily offering guided fishing trips. These are perfectly legal in areas designated submerged Wilderness but still have the potential to adversely impact Wilderness. These external commercial services are subject to minimally supplemental park regulations beyond those applicable to all visitors. Actively endorsing concessioners through the park would give managers more direct opportunities to train and educate those making a living off of the environment on how best to preserve its values in perpetuity while simultaneously allowing local residents to voice their concerns and opinions within Everglades National Park. It would also demonstrate an investment in the economic growth of surrounding communities as ecotourism has proven highly influential elsewhere across the globe. The park houses multiple airboat concessioners along the Tamiami Trail boundary of the East Everglades Expansion Area. Though this area is not yet designated Wilderness, Everglades National Park’s developing general management plan discusses designation options. These commercial services will be grandfathered in regardless of designation status, but the park may elect to require more stringent airboat operator education and regulations if eventual Wilderness designation becomes the preferred alternative. While airboating might be an iconic Everglades pastime, it does not coincide with the preservation of wilderness character. For that reason, only minimally impactful, primitive commercial services should be encouraged in perpetuity. This could include guided tours fishing (by canoe, kayak, or land), canoeing, kayaking, slogging, or wildlife/vegetation viewing.

Education

The presence of wilderness-related education in Everglades National Park is not yet ubiquitous. A number of phenomenal educational programs exist, but they tend to focus on the park’s hydrologic history, cultural resources, or wildlife. As a result, many visitors, researchers, and even park staff remain unaware of the Wilderness designation and its significance. This has led to frustration, particularly among researchers and park staff, when seemingly arbitrary restrictions are placed on actions within designated Wilderness. Incorporating information about Wilderness into interpretation would be a step in the right direction, but because recreational visitor use comprises a very small percent of Wilderness use, outreach to other user classes is equally, if not more, imperative.

Research

Research in Marjory Stoneman Douglas presents a unique situation. The Comprehensive Everglades Restoration Plan, among other remediation projects, vastly affects ecosystems throughout Everglades National Park, and research is necessary to determine the successes and shortcomings of these ventures. The amount of research currently ongoing, however, is not necessary, and the cumulative impacts are relatively unknown. Many of the aforementioned managerial issues, such as motorized

access and installations, have become issues as a result of inconsistencies in the permitting process. There are no standards for where helicopter and airboat use is acceptable, sometimes resulting in such activities within a few meters of Wilderness boundaries and their nearby roads. Additionally, the Wilderness Committee has a difficult time discerning what projects are actually necessary to administer the Wilderness. Separate stakeholders prefer to use their own data, and the political atmosphere of South Florida will likely prevent data sharing from becoming a viable option. Moreover, park managers seldom receive results from these studies, either because the researchers failed to report his or her findings or because they are not communicated efficiently within the park. Yet, no impactful research is necessary that cannot be used to better the administration of the Wilderness. This system clearly requires improvement. The penalties for noncompliance with research permits tend to be minimal in Everglades National Park, whereas other permitting agencies go as far as forbidding future access by permit violators. The lack of penalization is not the only hitch in streamlining research in Marjory Stoneman Douglas Wilderness. Projects already funded by the park or certain other sources may be determined unnecessary or inappropriate by the Wilderness Committee, but the status of people interested in the project results in their approval regardless. Cumulatively, these impacts are unacceptable and will degrade wilderness character irreversibly if corrective actions are not taken. An environmental impact assessment should be conducted as soon as is practicable to determine how much research is necessary and the level of acceptable impacts.

Enforcement

Everglades National Park and its inner Marjory Stoneman Douglas Wilderness is home to many unavoidable impacts to wilderness character. Though many are necessary for the administration of the area, there are a number of unauthorized impacts that go uninhibited. Not all members of law enforcement are familiar with the permitting process, nor are all park employees permitted for every action in Wilderness, as they should be. This exacerbates issues discussed under the *Research* subheading. Law enforcement rangers, like the visitors they patrol, seldom enter the Wilderness, so Wilderness violations are enforced infrequently. Propeller scarring and boat groundings are the most commonly caught infringement, an unfortunately common occurrence in the submerged Wilderness. In designated Wilderness, however, legal violations are barely documented and therefore difficult to analyze and fix. Obvious deviation from airboat trails exists and research developments persist beyond their permitted existence. Airboat concessioners receive little attention or monitoring despite being accused of feeding alligators and leaving trails. A tree near a frequented airboat ramp has become overridden with decorative debris. These are just a few known breaches that have not been reacted to appropriately. Patrolling designated Wilderness is an option that requires extensive consideration. The environmentally damaging effects of a regular law enforcement patrol can be predicted, but currently there is no way to determine the unauthorized impacts that could be alleviated.

Appendix A – Minimum Requirements Decision Guide

[NAME (Last, First)]

[DATE]

Everglades National Park
MARJORY STONEMAN DOUGLAS WILDERNESS



MINIMUM REQUIREMENTS DECISION GUIDE

PROJECT PROPOSAL WORKSHEETS

"... except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act..."

– the Wilderness Act, 1964

These worksheets serve as a guide during the planning process to projects within Wilderness. They will expedite the review process if properly completed and provide insight into how the Wilderness Committee at Everglades National Park approaches each individual proposal. It is to be completed and submitted at least one week prior to meeting with the Wilderness Committee along with certificates of completion from the Arthur Carhart Wilderness Training Center online courses, "The Wilderness Act of 1964" and "Minimum Requirements Analysis." The primary component must take both courses, and all persons who will be working in Marjory Stoneman Douglas Wilderness must complete "The Wilderness Act of 1964." Completing the online courses prior to completing these worksheets is required.

Step 1: Summarize the research proposal.

Description: Briefly describe the proposed action, goals, anticipated results, and potential benefits. Also note all proposed actions that may be prohibited under Section 4(c) of the Wilderness Act of 1964 (including use of motor vehicles, motorized equipment or motorboats, land of aircraft, mechanical transport, or construction of any structure or installation).

To help determine if the proposal and its containing prohibited uses can be legally defensible, please answer the questions listed in A - F on the following pages.

Appendix B – Research Permitting Guidance



National Park Service Research Permit and Reporting System (RPRS)

Instructions for Researchers *(Using the Internet to apply for permission to conduct a study in a park)*

That National Park Service (NPS) welcomes your interest in considering national parks for your research site. The NPS is responsible for protecting in perpetuity and regulating use of our National Park areas (parks, monuments, battlefields, seashores, recreation areas, etc.). Preserving park resources unimpaired and providing appropriate visitor uses of parks requires a full understanding of park natural resource components, their interrelationships and processes, and visitor interests that can be obtained only by the long term accumulation and analysis of information produced by science. The NPS has a research mandate to provide management with that understanding, using the highest quality science and information. Park managers increasingly recognize that timely and reliable scientific information is essential for sound decisions and interpretive programming. NPS welcomes proposals for scientific studies designed to increase understanding of the human and ecological processes and resources in parks and proposals that seek to use the unique values of parks to develop scientific understanding for public benefit.

A Scientific Research and Collecting Permit is required for most scientific activities pertaining to natural resources or social science studies in National Park System areas that involve fieldwork, specimen collection, and/or have the potential to disturb resources or visitors. When permits are required for scientific activities pertaining solely to cultural resources, including archeology, ethnography, history, cultural museum objects, cultural landscapes, and historic and prehistoric structures, other permit procedures apply. The park's Research and Collecting Permit Office or Headquarters can provide copies of NPS research-related permit applications and information regarding other permits.

If you will be using the Internet, the National Park Service managed, Internet-based, information system called the Research Permit and Reporting System (RPRS) will provide you the following services if you are interested in obtaining permission to conduct a natural resource or social science study in a unit of the National Park System:

- Ability to review NPS scientific permit requirements and application procedures
- Ability to review permit conditions before beginning the permit application process
- Ability to review accomplishments of previous research conducted in a park before planning a new study
- Ability to review the types of research specific parks are especially interested in attracting
- Ability to complete and submit an application for a scientific research and collecting permit

The Internet address you should use to access the NPS Research Permit and Reporting System and learn more about the NPS scientific permit application process is:

<http://science.nature.nps.gov/research>

For technical support if you encounter problems reaching the RPRS on the Internet, contact Bill Commins via email at Bill_Commins@nps.gov or by phone at 202-208-4631 (Eastern Time Zone).

If you will not be using the Internet, you should contact the Research and Collecting Permit Office or Headquarters of the park in which you are interested in conducting a study to request the scientific research and collecting permit application materials.

APPLICATION PROCEDURES AND REQUIREMENTS FOR SCIENTIFIC RESEARCH AND COLLECTING PERMITS



United States Department of the Interior
National Park Service

POLICY AND GENERAL REQUIREMENTS

The National Park Service (NPS) welcomes your interest in considering national parks for your research site. The NPS is responsible for protecting in perpetuity and regulating use of our National Park areas (parks, monuments, battlefields, seashores, recreation areas, etc.). Preserving park resources unimpaired and providing appropriate visitor uses of parks require a full understanding of park natural resource components, their interrelationships and processes, and visitor interests that can be obtained only by the long term accumulation and analysis of information produced by science. The NPS has a research mandate to provide management with that understanding, using the highest quality science and information. Superintendents increasingly recognize that timely and reliable scientific information is essential for sound decisions and interpretive programming. NPS welcomes proposals for scientific studies designed to increase understanding of the human and ecological processes and resources in parks and proposals that seek to use the unique values of parks to develop scientific understanding for public benefit.

When is a permit required?

A Scientific Research and Collecting Permit is required for most scientific activities pertaining to natural resources or social science studies in National Park System areas that involve fieldwork, specimen collection, and/or have the potential to disturb resources or visitors. When permits are required for scientific activities pertaining solely to cultural resources, including archeology, ethnography, history, cultural museum objects, cultural landscapes, and historic and prehistoric structures, other permit procedures apply. The park's Research and Collecting Permit Office or Headquarters can provide copies of NPS research-related permit applications and information regarding other permits. Federally funded collection of information from the public, such as when formal surveys are used, may require approval from the Office of Management and Budget.

NPS superintendents may authorize their staff to carry out official duties without requiring an NPS research and collecting permit. NPS staff must comply appropriately with professional standards and with all conditions normally associated with scientific research and collecting permits issued by the park. All other natural and social science research and data collection in a park requires a Scientific Research and Collecting Permit and will be allowed only pursuant to the terms and conditions of the permit.

Additional required permits, approvals, and agreements

In some cases, other federal or state agency permits or approvals may be required before NPS

Appendix C – Wilderness Committee Standard Operating Procedures

EVERGLADES NATIONAL PARK WILDERNESS MANAGEMENT STANDARD OPERATING PROCEDURES (INCLUDING MINIMUM REQUIREMENT DECISION PROCESS AND WILDERNESS COMMITTEE CHARTER)

"...except as necessary to meet the minimum requirements for the administration of the area for the purpose of this Act."

Wilderness Act, 1964

This Standard Operating Procedure (SOP) is established to give Everglades National Park (ENP) staff guidelines for wilderness management by designating an interdisciplinary Wilderness Committee. The purpose of the Committee is to oversee all proposed actions that have potential to impact resources within The Marjory Stoneman Douglas (MSD) Wilderness and East Everglades Expansion Area (EEEA). This overview will include a review of each action using the Minimum Requirement Concept as required by Director's Order (DO) and Resource Manual (RM) #41, *Wilderness Preservation and Management*. This SOP also describes the minimum requirement decision process and procedures. This process and associated worksheets are in compliance with DO and RM #41.

The Marjory Stoneman Douglas Wilderness and East Everglades Expansion Area

In 1978, Congress passed the National Parks and Recreation Act (Public Law 95-625) designating 1,296,500 acres of Everglades National Park as Wilderness. In 1997, Congress officially renamed the area "The Marjory Stoneman Douglas Wilderness." Within this area are over 500,000 acres of submerged marine lands in Florida Bay and the Gulf of Mexico, and over 81,000 acres is further designated as "potential" wilderness. Approximately 109,600 acres were added to Everglades National Park in 1989 as part of the Everglades National Park Expansion Act (16 USC 4104-5). Through the General Management Plan process, ENP is conducting a wilderness study to evaluate these lands for wilderness designation. (Appendix A - Map of MSD Wilderness and ESEA)

ENP Wilderness Committee

In 2000, the Deputy Superintendent of ENP established an interdisciplinary team to comply with wilderness management policies identified in DO/RM 41. Currently, the committee's primary focus is to review all proposed actions, projects, and activities in designated or potential wilderness to consider and minimize possible impacts to these resources.

Committee Goals

The overarching goals of the Wilderness Committee (WC) are to:

- Provide an interdisciplinary forum to improve interpretation and execution of the Wilderness Act to the fullest extent practicable.
- Guide valuable research and management objectives towards primitive and low-impact methods.
- Educate and challenge Wilderness users with Leave No Trace and other outdoor ethics.
- Increase internal and external awareness, understanding, and practice of Wilderness stewardship.
- Facilitate preservation and protection of Wilderness resources within existing legislation.

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